## 10. CONSIDERATION OF PRELIMINARY SITE PLAN AMAC LEASING, LLC

As you may recall, on October 22, 2012 the Board rezoned approximately 20.86 acres and issued a conditional use permit for AMAC Leasing, LLC, to develop a manufacturing facility west of the Town of Ivor for the processing and production of asphalt, concrete, and cement treated aggregate.

While a preliminary site plan accompanied their CUP application, the applicants' plans have now been further refined and updated to facilitate earth-moving and construction activities. An official ground-breaking event is expected in late March.

The attached plan was reviewed by the Planning Commission at their regular meeting on February 14 for compliance with our zoning ordinance, and Mrs. Lewis indicates that they unanimously recommend approval.

| | |
|---|---|
| **MOTION REQUIRED:** | **A motion is required to approve the attached site plan.** |

**From:** Beth Lewis [blewis@southamptoncounty.org]
**Sent:** Friday, February 15, 2013 9:01 AM
**To:** Mike Johnson
**Subject:** asphalt plant

At their regular February 14, 2013 meeting, the Planning Commission unanimously recommended approval of the preliminary site plan for the AMAC asphalt plant on US 460 in Ivor.

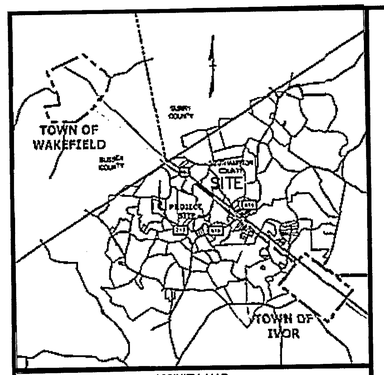
Thanks,
Beth

**From:** Beth Lewis [blewis@southamptoncounty.org]
**Sent:** Monday, February 04, 2013 1:42 PM
**To:** Mike Johnson
**Subject:** FW: Asphalt plan

Mike,
Here is the preliminary site plan for the asphalt plant. It will go to the PC Feb 14 and it would be great if it could go to the BOS Feb 25. It was approved through the Conditional Use Permit process, so it needs review and approval of the preliminary plan. The plan meets the requirements of the zoning ordinance.

This is the first of four emails with attachments.

Thanks,
Beth



VICINITY MAP

# SITE PLAN OF AMAC LEASING, LLC

**BERLIN-IVOR MAGISTERIAL DISTRICT**
**SOUTHAMPTON COUNTY VIRGINIA**

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## STATISTICAL INFORMATION

| | |
|---|---|
| ZONE | M-2 (GENERAL INDUSTRIAL DISTRICT) |
| TAX PARCEL NO. | 6-20C |
| PROPOSED USE | MANUFACTURING MATERIALS PLANT |
| STRUCTURE HEIGHT | 65'± |
| WATER | PRIVATE WELL SYSTEM |
| SEWER | PRIVATE SEPTIC SYSTEM |
| EXISTING SITE AREA | 20.86 AC. |
| DISTURBED AREA | 18.8± AC. |
| PROPOSED GRAVEL AREA | 10.43 AC. |
| PROPOSED PAVED AREA | 3.30 AC. |
| PROPOSED BUILDING AREA | 2,400 SF/0.06 AC. |
| TOTAL IMPERVIOUS AREA | 13.79 AC. |
| GREEN AREA | 7.07 AC. |
| PARKING SPACES | |
| REQUIRED: | 5 (1 SPACE PER 2 EMPLOYEES) |
| PROVIDED: | 12 |
| H/C REQUIRED: | 1 |
| H/C PROVIDED: | 1 |
| ITE CODE | 140 (35,020 SF MANUFACTURING) |
| PEAK AM HOUR TRIP GENERATION | 28 |
| PEAK PM HOUR TRIP GENERATION | 27 |
| PEAK DAY TRIP GENERATION | 53 |

| M-2 (GENERAL INDUSTRIAL DISTRICT) | |
|---|---|
| MAXIMUM BUILDING HEIGHT: | 100' |
| FRONT BSBL: | 75' |
| SIDE BSBL: | 10' |
| REAR BSBL: | 50' |

NOTES:
1) PER ROTH ENVIRONMENTAL, LLC WETLAND DELINEATION DATED 1/2/13 THE SITE CONTAINS WETLANDS ONSITE.
2) PER FEMA COMMUNITY PANEL NUMBER 51175C0050C DATED 9/4/02 THE SITE APPEARS TO BE LOCATED IN FLOOD ZONE "X".
3) TOPOGRAPHIC SURVEY SHOWN HEREON IS BASED ON AN AERIAL SURVEY PROVIDED TO LANDTECH RESOURCES, INC. BY CURTIS CONTRACTING ON 12/14/12 AND HAS NOT BEEN FIELD VERIFIED.
4) BOUNDARY SURVEY SHOWN HEREON IS BASED ON A SURVEY PROVIDED TO LANDTECH RESOURCES, INC BY CURTIS CONTRACTING ON 12/14/12 AND HAS NOT BEEN FIELD VERIFIED.
5) THE EXISTENCE AND LOCATION (HORIZONTAL AND VERTICAL) OF EXISTING UTILITIES ARE NOT GUARANTEED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
6) THE PROFESSIONAL ENGINEER WHOSE SEAL IS AFFIXED HEREON SHALL ACT AS THE "RESPONSIBLE LAND DISTURBER" FOR THE PLAN REVIEW PHASE OF THIS PROJECT. ONCE THE PLANS ARE APPROVED BY THE COUNTY THE OWNER/DEVELOPER SHALL PROVIDE THE COUNTY WITH THE NAME OF THE "RESPONSIBLE LAND DISTURBER" FOR THE CONSTRUCTION PHASE OF THE PROJECT.
7) THE OWNER WILL BE REQUIRED TO OBTAIN A VSMP PERMIT FROM THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION FOR DISTURBANCES OVER ONE ACRE. THIS PERMIT WILL REQUIRE A STOPRMWATER POLLUTION PREVENTION PLAN.
8) VDOT IS NOT RESPONSIBLE FOR THE MAINTENANCE OF THE RETENTION BASIN OR ITS OUTFLOW STRUCTURES, AND SHALL BE SAVED HARMLESS FROM ANY DAMAGES.
9) RAILROAD TRACK LOCATIONS SHOWN ON THIS PLAN ARE FOR CONCEPTUAL PURPOSES ONLY TO AID IN THE LAYOUT OF THE REST OF THE SITE. THE TRACK LOCATIONS SHOWN ARE PER PLANS PREPARED BY NORFOLK SOUTHERN DATED 1-3-13, DRAWING NO. IDD-13-004. FINAL RAILROAD TRACK DESIGN, LOCATION AND SPECIFICATIONS WILL BE DESIGNED BY OTHERS UNDER A SEPARATE COVER.
10 LANDSCAPE PLAN PLANTINGS AND LOCATIONS CAN BE ADJUSTED AS NEEDED TO MATCH FIELD CONDITIONS AND BERM CONSTRAINTS.

## OWNER/DEVELOPER


AMAC LEASING, LLC
PO BOX 769
WEST POINT, VA. 23181
CONTACT: STEPHEN ORDUNG
(804) 843-4633
FAX: (804) 843-2545


| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |


LandTech Resources, Inc.
Surveying • Engineering • GPS
205 Bulifants Blvd., Ste E, Williamsburg, VA 23188
Phone: (757) 565-1677 Fax: (757) 565-0782
web: landtechresources.com

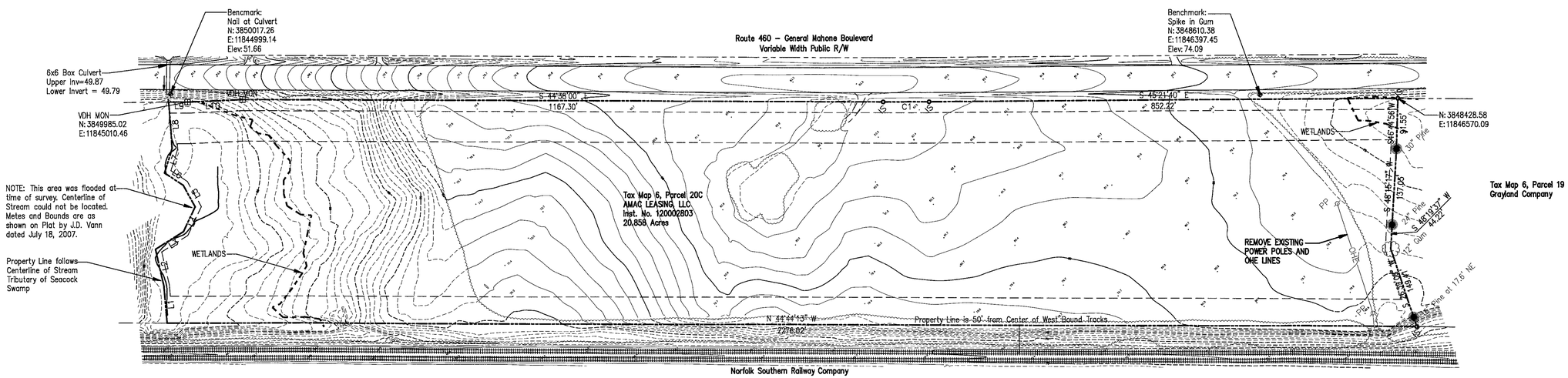

PRELIMINARY Not For Construction

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 022872
PROFESSIONAL ENGINEER

JOB: 12-426
DWG NO: 12-426CS
DATE: 1/4/13
DRAWN BY: KMJ
SHEET: C1 OF 24

| LINE | BEARING | DIST |
|---|---|---|
| L1 | N 40°23'07" E | 69.39' |
| L2 | N 32°18'20" E | 68.65' |
| L3 | S 76°57'01" E | 59.89' |
| L4 | N 70°51'10" E | 49.69' |
| L5 | N 16°00'55" E | 44.38' |
| L6 | N 11°29'38" W | 40.81' |
| L7 | N 62°32'16" E | 46.46' |
| L8 | N 41°09'34" E | 83.80' |
| L9 | S 44°38'00" E | 34.04' |
| L10 | S 47°29'45" E | 100.10' |

| CURVE | RADIUS | ARC | CHORD | CHORD BEARING | DELTA ANGLE |
|---|---|---|---|---|---|
| C1 | 6605.75' | 83.91' | 83.91' | S 44°59'48" E | 0°43'40" |




BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 1 - 800 - 552 - 7001

100 0 100 200 300
Scale: 1" = 100'

# SITE PLAN OF
# AMAC LEASING, LLC
BERLIN–IVOR MAGISTERIAL DISTRICT
EXISTING CONDITIONS/DEMOLITION PLAN

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

PRELIMINARY

COMMONWEALTH OF VIRGINIA
K.W. JENKINS II
Lic. No. 022872
7/19/13
PROFESSIONAL ENGINEER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Phone: (757) 565-1677 Fax: (757) 565-0782
web: landtechrssources.com


SCALE: 1" = 100'
DATE: 12/17/12
JOB: 12–426
DRAWN BY: KMJ
SHEET: C2 OF 24

SEE SHEET C4 FOR CONTINUATION

Benchmark:
Nail at Culvert
N: 3850017.26
E: 11844999.14
Elev. 51.66

VDH MON
N: 3849985.02
E: 11845010.46

VDH MON

WHITE MINI-SKIP LINE

SOLID WHITE LINE

200' TAPER

200' TURN LANE

SIGHT DISTANCE 650'+

SIGHT DISTANCE 650'+

"ENTER ONLY-DO NOT EXIT" SIGN

CG-13 ENTRANCE

CG-2 (TYP)

20' LANDSCAPE BUFFER

75' BSBL

50' BSBL

10' BSBL

123.5'

82'

75'

159.5'

210.3'

220.3'

81'

28.5'

27'

12'

35'R

25'R

5'R

60'

20'R

ASPHALT

CONCRETE BUMPER BLOCK (TYP)

TRUNCATED DOMES

10'R

16'R

40'

18'

2400 SF OFFICE

VAN ACCESS H/C SIGN

5' SIDEWALK

11 SPACES @ 9' EACH
1 H/C SPACE @ 9' & 1 VAN ACCESS @ 9'

2 TRUCK PARKING SPACES

EDGE OF GRAVEL

RETENTION BASIN III
W/ AQUATIC BENCH
TOP 70.00
NWL 61.00
BTM 51.00

Wetlands Flagging A1 – A26

Property Line follows Centerline of Stream Tributary of Seacock Swamp

NOTE: This area was flooded at time of survey. Centerline of Stream could not be located. Metes and Bounds are as shown on Plat by J.D. Vann dated July 18, 2007.

Tax Map 6, Parcel 21
Shirley Martin
DB 429-821

PROPOSED RAILROAD TRACKS (DESIGN BY OTHERS)

PC-2A DITCH

Do=10"

30'

EL = 70.0'

PROP. P.S. NO. 0440

PVI = 1+60
EL = 68.0'

PROP. PERIMETER PIPE

PROP. P.S. NO.

| LINE | BEARING | DIST |
|---|---|---|
| L1 | N 40°23'07" E | 69.39' |
| L2 | N 32°18'20" E | 68.65' |
| L3 | S 76°57'01" E | 59.89' |
| L4 | N 70°51'10" E | 49.69' |
| L5 | N 16°00'55" E | 44.38' |
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| CURVE | RADIUS | ARC | CHORD | CHORD BEARING | DELTA ANGLE |
|---|---|---|---|---|---|
| C1 | 6605.75' | 83.91' | 83.91' | S 44°59'48" E | 0°43'40" |

30 0 30 60 90
Scale: 1" = 30'

**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
LAYOUT PLAN

Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
K.L. JENKINS III
Lic. No. 022872
1/08/13
PROFESSIONAL ENGINEER

PRELIMINARY


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Phone: (757) 565-1677 Fax: (757) 565-0782
web: landtechresources.com


SCALE: 1" = 30'
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C3 OF 24

SEE SHEET C3 FOR CONTINUATION

SEE SHEET C5 FOR CONTINUATION

SIGHT DISTANCE 650'+

SIGHT DISTANCE 650'+

"ENTER ONLY–DO NOT EXIT"

48' TAPER

12'

CG-13 ENTRANCE

CG-2 (TYP)

25'R

5'R

60'

S 44°38'00" E
1167.30'

20' LANDSCAPE BUFFER

C1

STATE ROAD 460

PROPERTY LINE

75' BSBL

ASPHALT

25'

12.5'

14.5'

12.5'

11.5'

ASPHALT

ASPHALT

10'R

25'R

16'R

25'R

2 TRUCK PARKING SPACES

25'R

FUTURE CTA PLANT

24" WIDE WHITE STOP BAR

76'

76'

75'-0" BSBL

FUTURE SCALE/BLDG. (SECOND SINGWAY)

CONCRETE

GENCOR UD300 SKIDDED ULTRAPLANT

FUTURE CULVERT

FUTURE

FUTURE

FUEL TANK BY OTHERS (VARIOUS)

CONCRETE

GRAVEL

GRAVEL

FUTURE PROPANE TANK

GRAVEL

GRAVEL

GRAVEL

EDGE OF GRAVEL

94.6'

E.O.T. 7.652

PG-2A DITCH

PG-2A DITCH

PROPOSED RAILROAD TRACKS (DESIGN BY OTHERS)

N 44°44'13" W
2276.02'

CAPACITY = 25 - 63' CARS

50' BSBL

EDGE OF GRAVEL

30'

Property Line is 50' from Center of West Bound Tracks

50

PIT = 6.45
EL = 60.4'

Norfolk Southern Railway Company

BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001

30 0 30 60 90

Scale: 1" = 30'

# SITE PLAN OF AMAC LEASING, LLC

BERLIN–IVOR MAGISTERIAL DISTRICT

LAYOUT PLAN

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 022872
1/8/13
PROFESSIONAL ENGINEER


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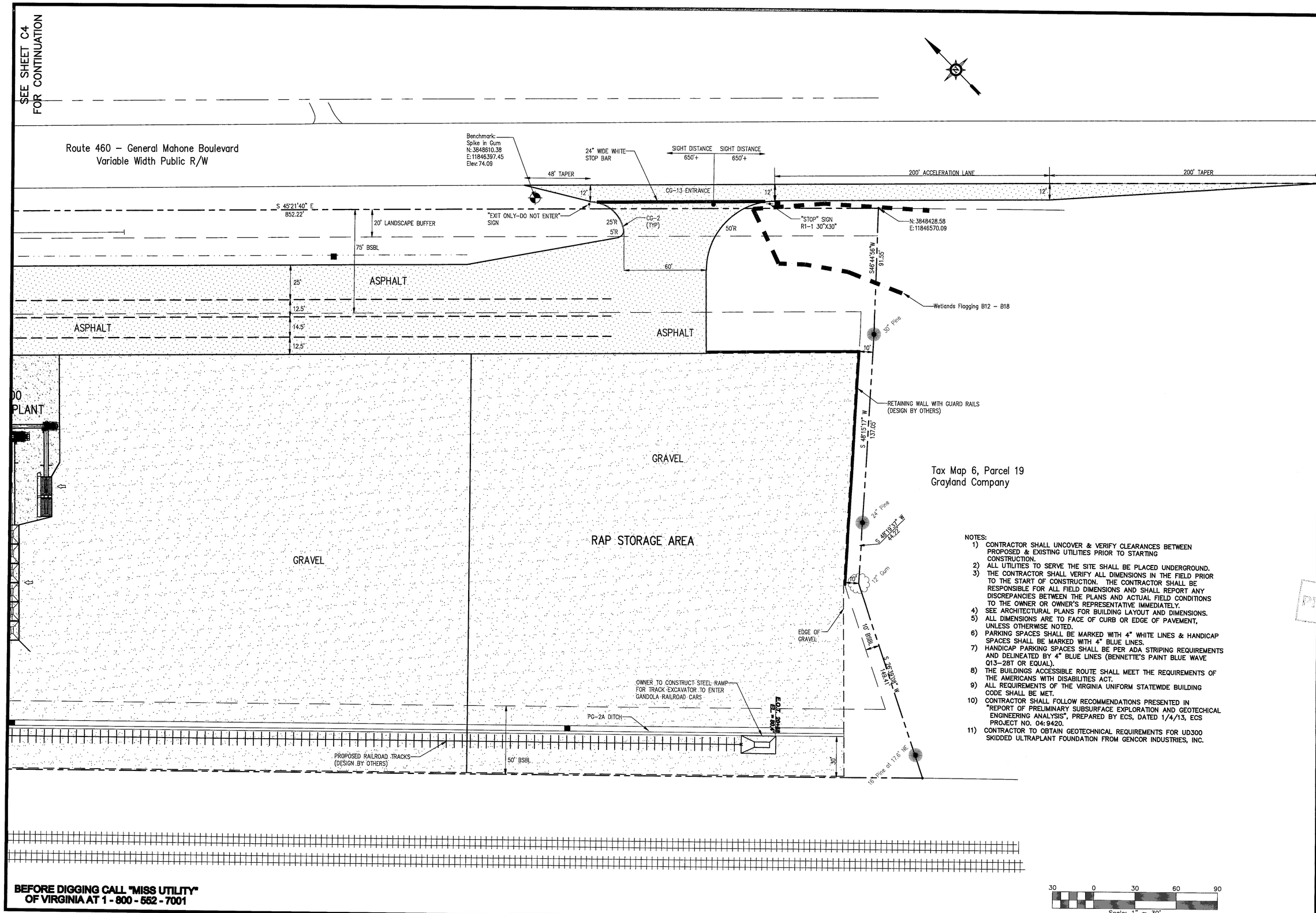
SCALE: 1" = 30'

DATE: 1/4/13

JOB: 12-426

DRAWN BY: KMJ

SHEET: C4 OF 24




NOTES:

1) CONTRACTOR SHALL UNCOVER & VERIFY CLEARANCES BETWEEN PROPOSED & EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.
2) ALL UTILITIES TO SERVE THE SITE SHALL BE PLACED UNDERGROUND.
3) THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS TO THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY.
4) SEE ARCHITECTURAL PLANS FOR BUILDING LAYOUT AND DIMENSIONS.
5) ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
6) PARKING SPACES SHALL BE MARKED WITH 4" WHITE LINES & HANDICAP SPACES SHALL BE MARKED WITH 4" BLUE LINES.
7) HANDICAP PARKING SPACES SHALL BE PER ADA STRIPING REQUIREMENTS AND DELINEATED BY 4" BLUE LINES (BENNETTE'S PAINT BLUE WAVE Q13-28T OR EQUAL).
8) THE BUILDINGS ACCESSIBLE ROUTE SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
9) ALL REQUIREMENTS OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE SHALL BE MET.
10) CONTRACTOR SHALL FOLLOW RECOMMENDATIONS PRESENTED IN "REPORT OF PRELIMINARY SUBSURFACE EXPLORATION AND GEOTECHICAL ENGINEERING ANALYSIS", PREPARED BY ECS, DATED 1/4/13, ECS PROJECT NO. 04:9420.
11) CONTRACTOR TO OBTAIN GEOTECHNICAL REQUIREMENTS FOR UD300 SKIDDED ULTRAPLANT FOUNDATION FROM GENCOR INDUSTRIES, INC.

30 0 30 60 90
Scale: 1" = 30'

**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
LAYOUT PLAN

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
LIC. NO. 022872
1/18/13
PROFESSIONAL ENGINEER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Phone: (757) 565-1677 Fax: (757) 565-0782
web: landtechresources.com


SCALE: 1" = 30'
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C5 OF 24

**PERMANENT STABILIZATION**

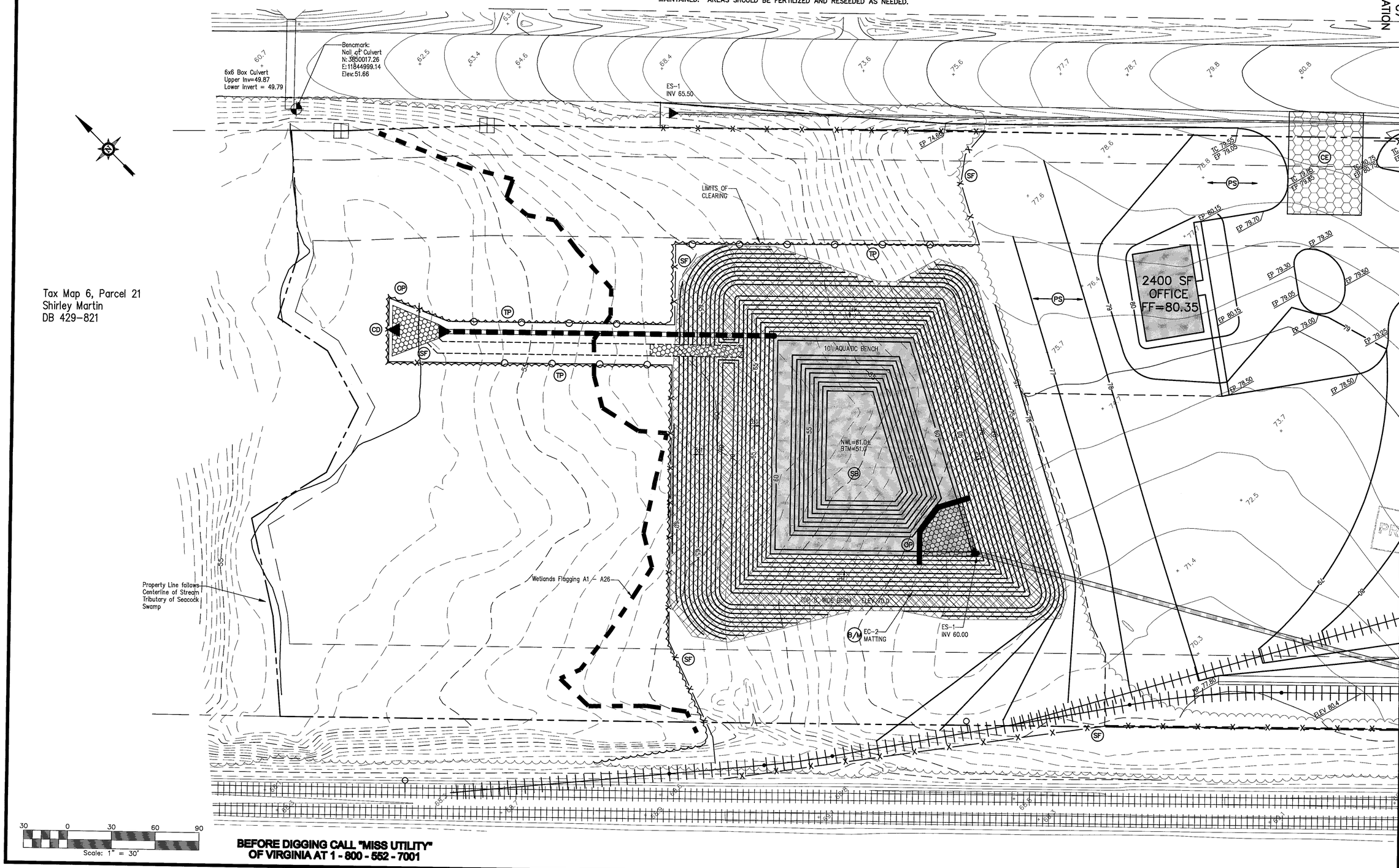
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. & SPEC. 3.32, "PERMANENT SEEDING", OF THE VESCH. EROSION BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION TO ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER, AND LIME WILL BE APPLIED PRIOR TO MULCHING. SOIL STABILIZATION MATTING TO BE VESCH TYPICAL TREATMENT-1 (JUTE MESH).

**MAINTENANCE**

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE SILT FENCE WILL BE CHECKED REGULARLY FOR SEDIMENT CLEANOUT.
2. THE GRAVEL INLET PROTECTION WILL BE CHECKED REGULARLY FOR A SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
3. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.

SEE SHEET C7 FOR CONTINUATION




**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT

GRADING PLAN

Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 022687
1/16/13
PROFESSIONAL ENGINEER

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Surveying • GPS • Engineering
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web: landtechresources.com

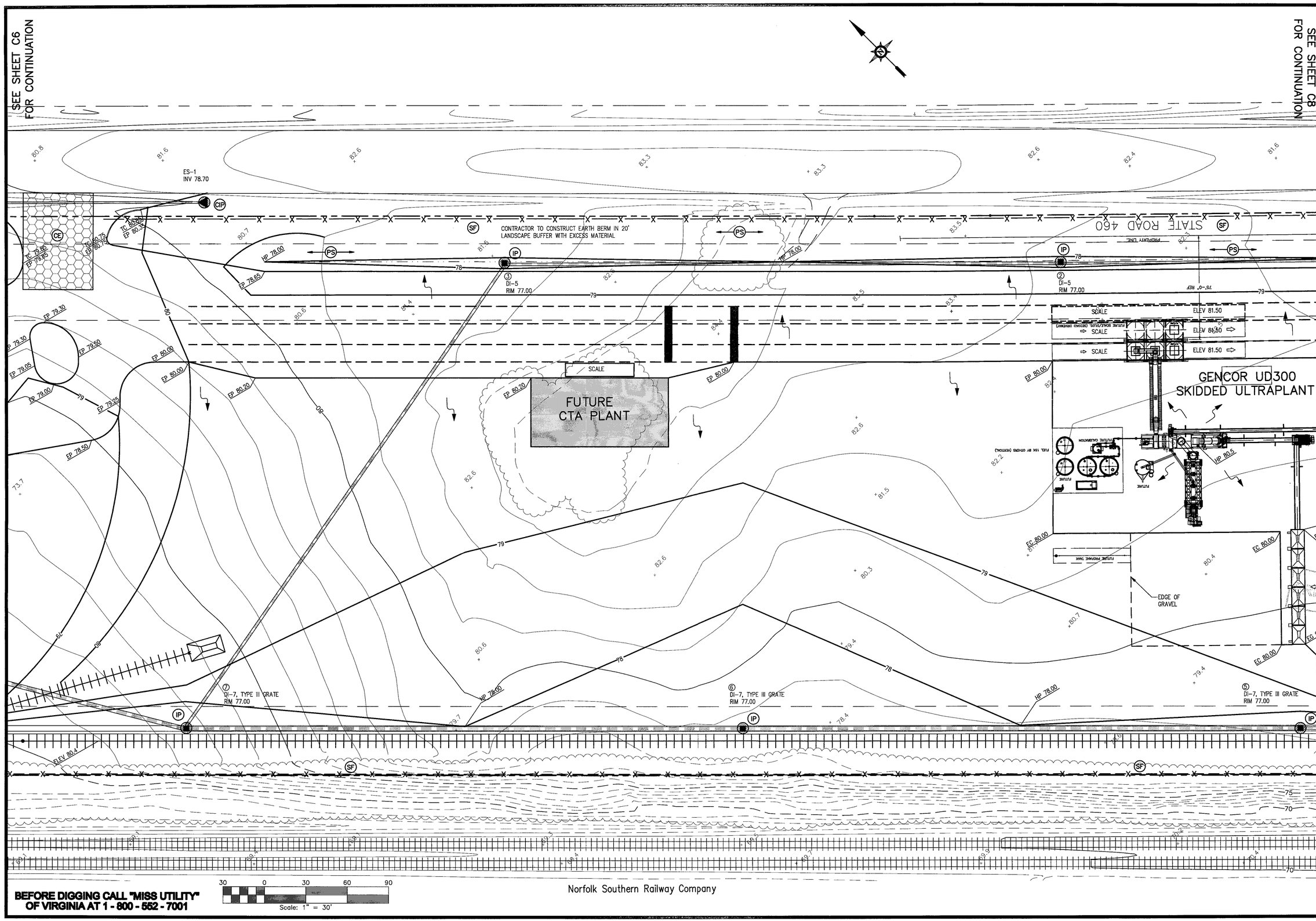
SCALE: 1" = 30'

DATE: 1/4/13

JOB: 12-426

DRAWN BY: KMJ

SHEET: C6 OF 24




**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

30 0 30 60 90
Scale: 1" = 30'

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
GRADING PLAN

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 022872
1/4/13
PROFESSIONAL ENGINEER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DRAWN BY: KMJ
SHEET: C7 OF 24

SEE SHEET C7 FOR CONTINUATION

Route 460 – General Mahone Boulevard
Variable Width Public R/W

Benchmark:
Spike in Gum
N:3848610.38
E:11846397.45
Elev: 74.09

ES-1
INV 76.60

MH-1
RIM 77.70

ES-1
INV 72.50

CONTRACTOR TO CONSTRUCT EARTH BERM IN 20' LANDSCAPE BUFFER WITH EXCESS MATERIAL

DI-3A
RIM 78.10

ES-1
INV 74.64

DI-5
RIM 77.00

DI-7, TYPE III GRATE
RIM 77.00

Wetlands Flagging B12 – B18

Tax Map 6, Parcel 19
Grayland Company

RETAINING WALL WITH GUARD RAILS/BARRIER WALL
(DESIGN BY OTHERS)

30" Pine

24" Pine

12" Gum

18" Cone at 74.6' NE

ELEV 90.80

ELEV 79.00

ELEV 80.4

## LEGEND

| TITLE | SYMBOL | KEY | NO. |
|---|---|---|---|
| CONSTRUCTION ENTRANCE | | CE | 3.02 |
| SILT FENCE | —X— | SF | 3.05 |
| INLET PROTECTION | | IP | 3.07 |
| CULVERT INLET PROTECTION | | CIP | 3.08 |
| DIVERSION DIKE | | DD | 3.09 |
| SEDIMENT BASIN | SB | SB | 3.14 |
| OUTLET PROTECTION | | OP | 3.18 |
| PERMANENT SEEDING | PS | PS | 3.32 |
| SOIL STABILIZATION BLANKETS & MATTING | | B/M | 3.36 |
| TREE PRESERVATION AND PROTECTION | —O— | TP | 3.38 |

Scale: 1" = 30'

**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
GRADING PLAN

Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
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| | | |

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 022872
1/16/13
PROFESSIONAL ENGINEER


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web: landtechresources.com


SCALE: 1" = 30'
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C8 OF 24

**BMP AQUATIC BENCH PLANT SCHEDULE**

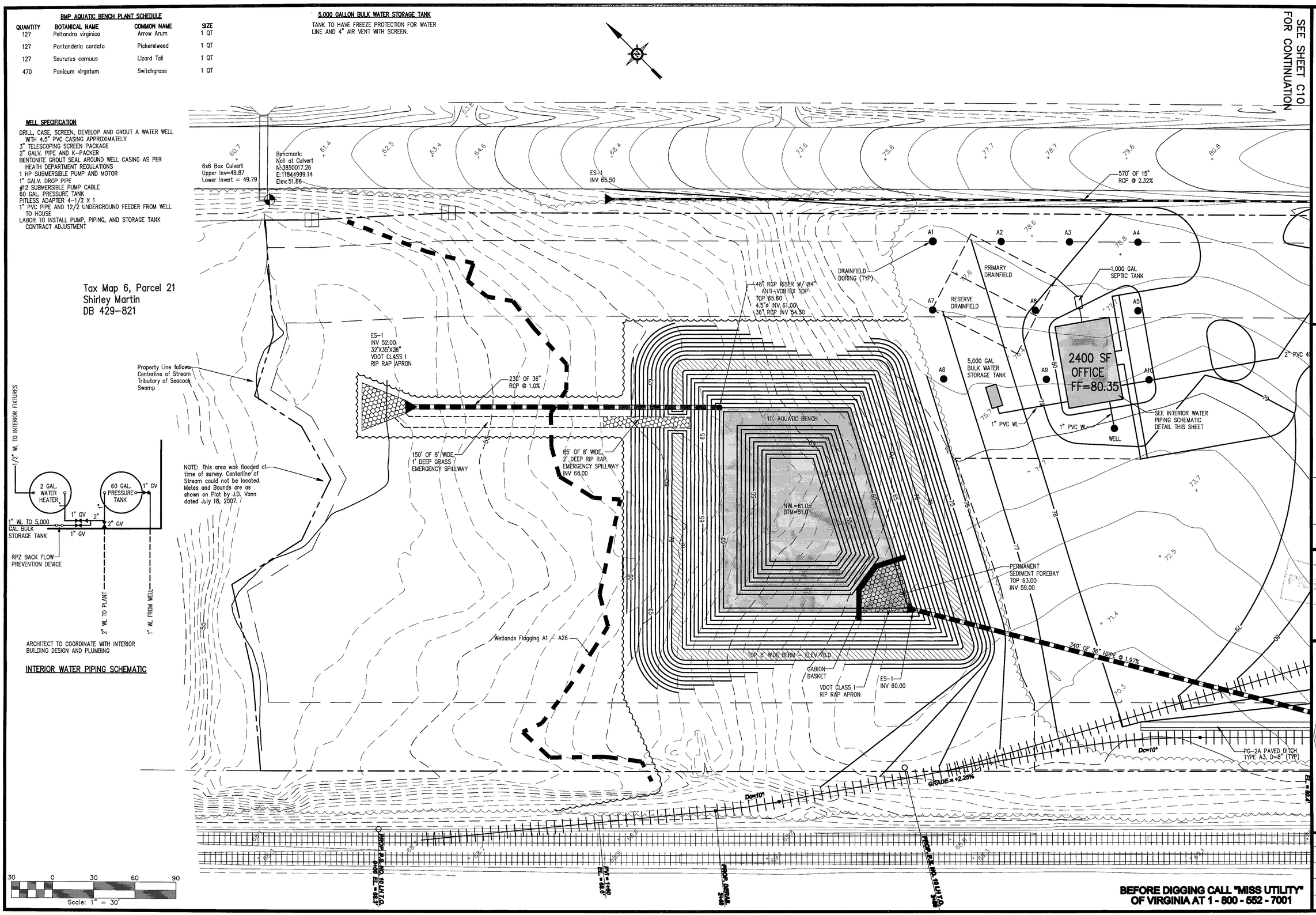
| QUANTITY | BOTANICAL NAME | COMMON NAME | SIZE |
|---|---|---|---|
| 127 | Peltandra virginica | Arrow Arum | 1 QT |
| 127 | Pontenderia cordata | Pickerelweed | 1 QT |
| 127 | Saururus cernuus | Lizard Tail | 1 QT |
| 470 | Panicum virgatum | Switchgrass | 1 QT |

**5,000 GALLON BULK WATER STORAGE TANK**

TANK TO HAVE FREEZE PROTECTION FOR WATER LINE AND 4" AIR VENT WITH SCREEN.

**WELL SPECIFICATION**

DRILL, CASE, SCREEN, DEVELOP AND GROUT A WATER WELL WITH 4.5" PVC CASING APPROXIMATELY
3" TELESCOPING SCREEN PACKAGE
2" GALV. PIPE AND K-PACKER
BENTONITE GROUT SEAL AROUND WELL CASING AS PER HEATH DEPARTMENT REGULATIONS
1 HP SUBMERSIBLE PUMP AND MOTOR
1" GALV. DROP PIPE
#12 SUBMERSIBLE PUMP CABLE
60 GAL. PRESSURE TANK
PITLESS ADAPTER 4-1/2 X 1
1" PVC PIPE AND 12/2 UNDERGROUND FEEDER FROM WELL TO HOUSE
LABOR TO INSTALL PUMP, PIPING, AND STORAGE TANK CONTRACT ADJUSTMENT




**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
UTILITY PLAN

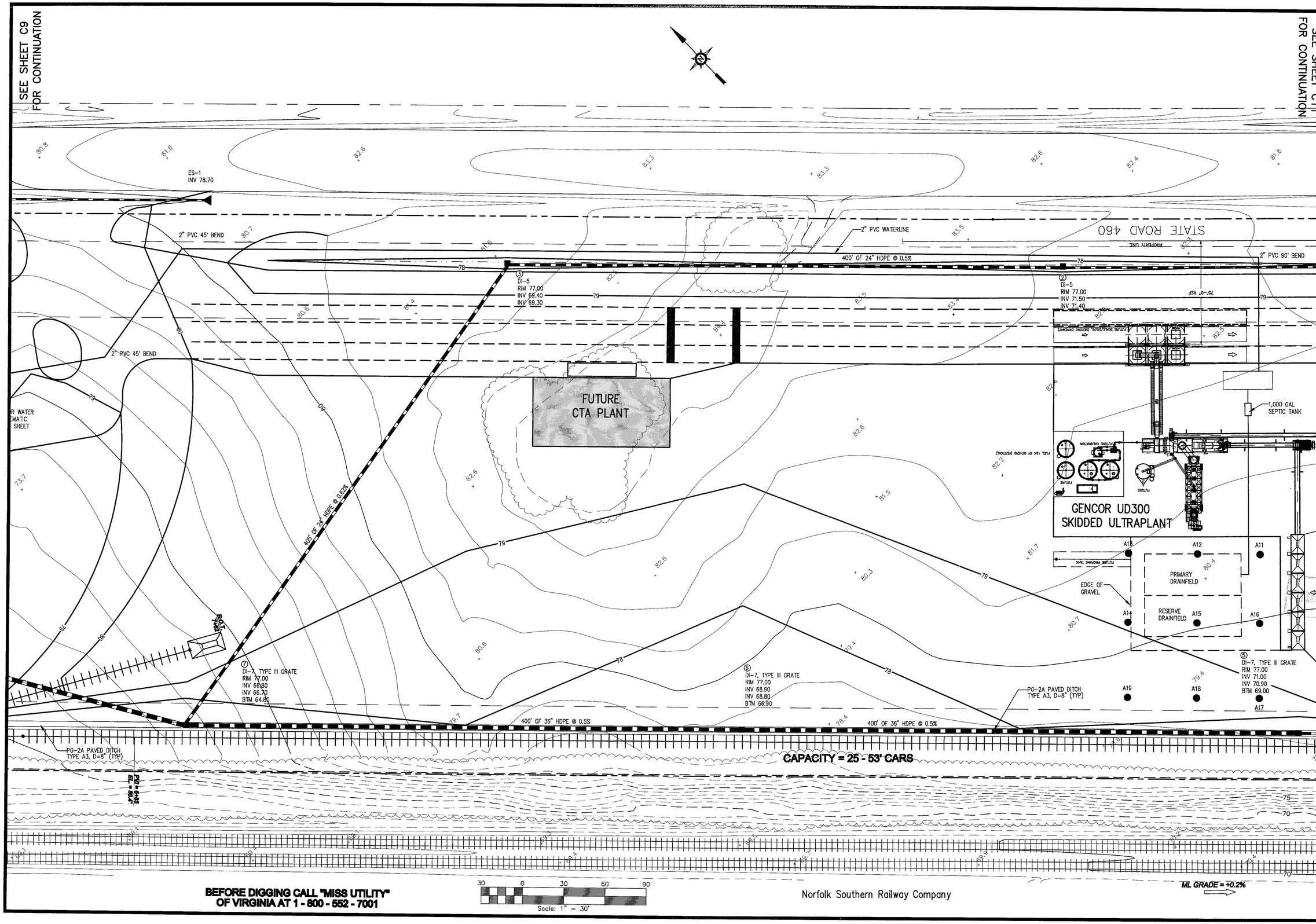
Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 022872
1/8/13
PROFESSIONAL ENGINEER


LandTech Resources, Inc.
Surveying • GPS • Engineering
205 Bulifants Blvd., Ste. E, Williamsburg, VA 23188
Phone: (757) 565-1677 Fax: (757) 565-0782
web: landtechresources.com


SCALE: 1" = 30'
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C9 OF 24

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# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
UTILITY PLAN

Southampton County, Virginia

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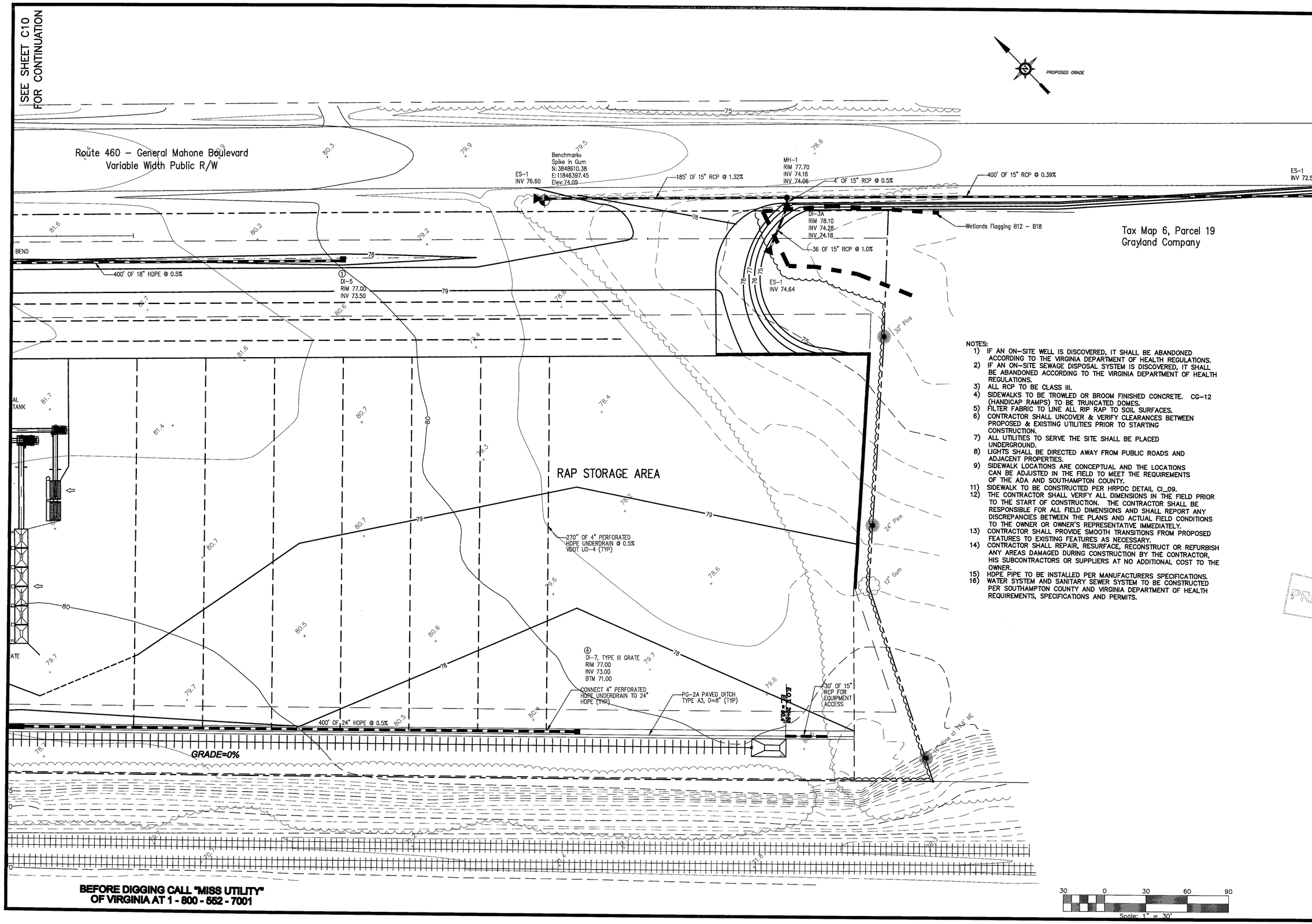


NOTES:

1) IF AN ON-SITE WELL IS DISCOVERED, IT SHALL BE ABANDONED ACCORDING TO THE VIRGINIA DEPARTMENT OF HEALTH REGULATIONS.
2) IF AN ON-SITE SEWAGE DISPOSAL SYSTEM IS DISCOVERED, IT SHALL BE ABANDONED ACCORDING TO THE VIRGINIA DEPARTMENT OF HEALTH REGULATIONS.
3) ALL RCP TO BE CLASS III.
4) SIDEWALKS TO BE TROWLED OR BROOM FINISHED CONCRETE. CG-12 (HANDICAP RAMPS) TO BE TRUNCATED DOMES.
5) FILTER FABRIC TO LINE ALL RIP RAP TO SOIL SURFACES.
6) CONTRACTOR SHALL UNCOVER & VERIFY CLEARANCES BETWEEN PROPOSED & EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.
7) ALL UTILITIES TO SERVE THE SITE SHALL BE PLACED UNDERGROUND.
8) LIGHTS SHALL BE DIRECTED AWAY FROM PUBLIC ROADS AND ADJACENT PROPERTIES.
9) SIDEWALK LOCATIONS ARE CONCEPTUAL AND THE LOCATIONS CAN BE ADJUSTED IN THE FIELD TO MEET THE REQUIREMENTS OF THE ADA AND SOUTHAMPTON COUNTY.
11) SIDEWALK TO BE CONSTRUCTED PER HRPDC DETAIL CI_09.
12) THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS TO THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY.
13) CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
14) CONTRACTOR SHALL REPAIR, RESURFACE, RECONSTRUCT OR REFURBISH ANY AREAS DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, HIS SUBCONTRACTORS OR SUPPLIERS AT NO ADDITIONAL COST TO THE OWNER.
15) HDPE PIPE TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
16) WATER SYSTEM AND SANITARY SEWER SYSTEM TO BE CONSTRUCTED PER SOUTHAMPTON COUNTY AND VIRGINIA DEPARTMENT OF HEALTH REQUIREMENTS, SPECIFICATIONS AND PERMITS.

**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
UTILITY PLAN

Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 022872
1/16/13
PROFESSIONAL ENGINEER

PRELIMINARY

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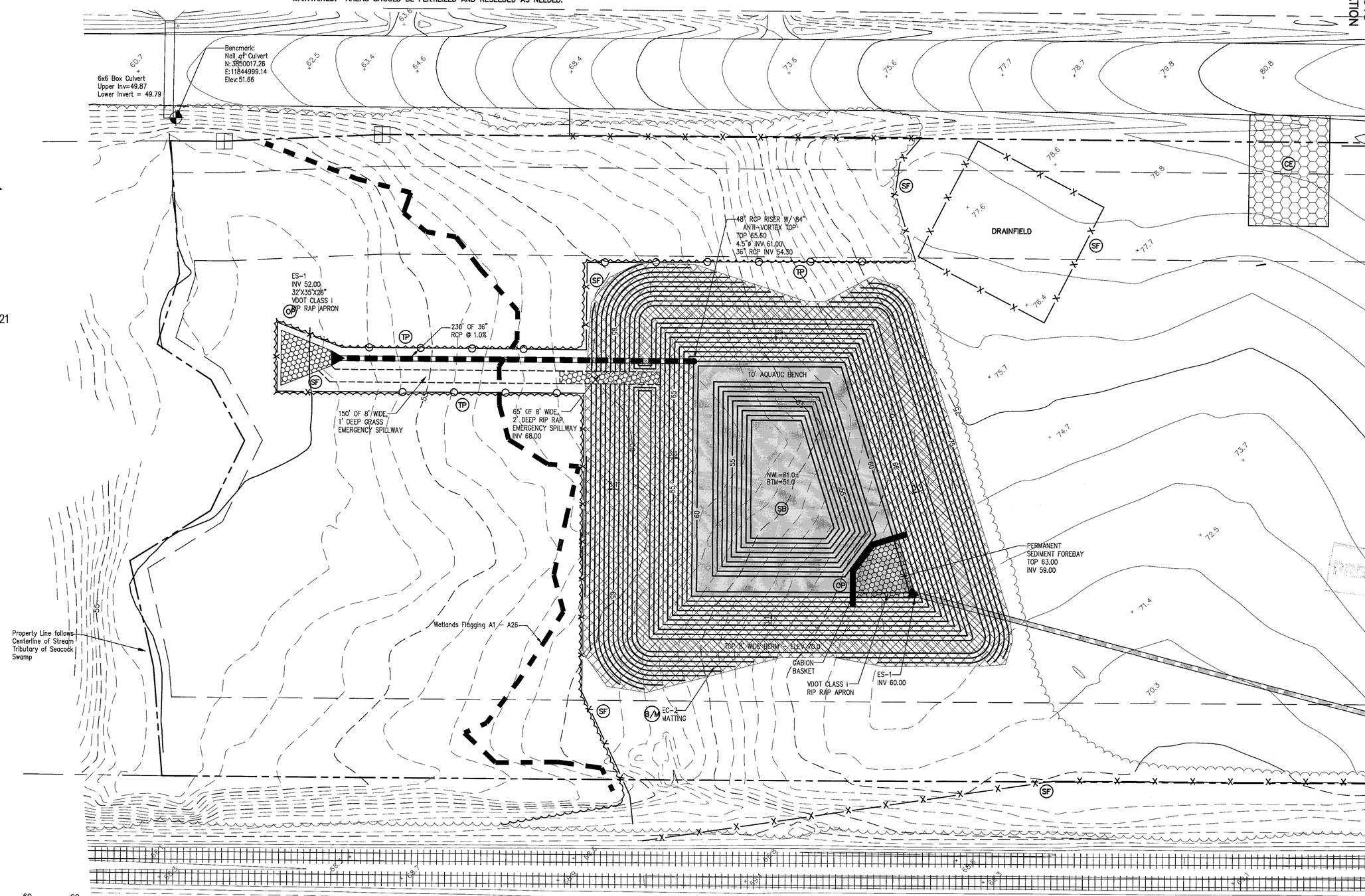
DRAWN BY: KMJ
SHEET: C11 OF 24

**PERMANENT STABILIZATION**
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. & SPEC. 3.32, "PERMANENT SEEDING", OF THE VESCH. EROSION BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION TO ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER, AND LIME WILL BE APPLIED PRIOR TO MULCHING. SOIL STABILIZATION MATTING TO BE VESCH TYPICAL TREATMENT–1 (JUTE MESH).

**MAINTENANCE**
IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE SILT FENCE WILL BE CHECKED REGULARLY FOR SEDIMENT CLEANOUT.
2. THE GRAVEL INLET PROTECTION WILL BE CHECKED REGULARLY FOR A SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
3. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.

SEE SHEET C13 FOR CONTINUATION




**BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF AMAC LEASING, LLC

BERLIN–IVOR MAGISTERIAL DISTRICT
PHASE I E & S CONTROL PLAN

Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
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| | | |

COMMONWEALTH OF VIRGINIA
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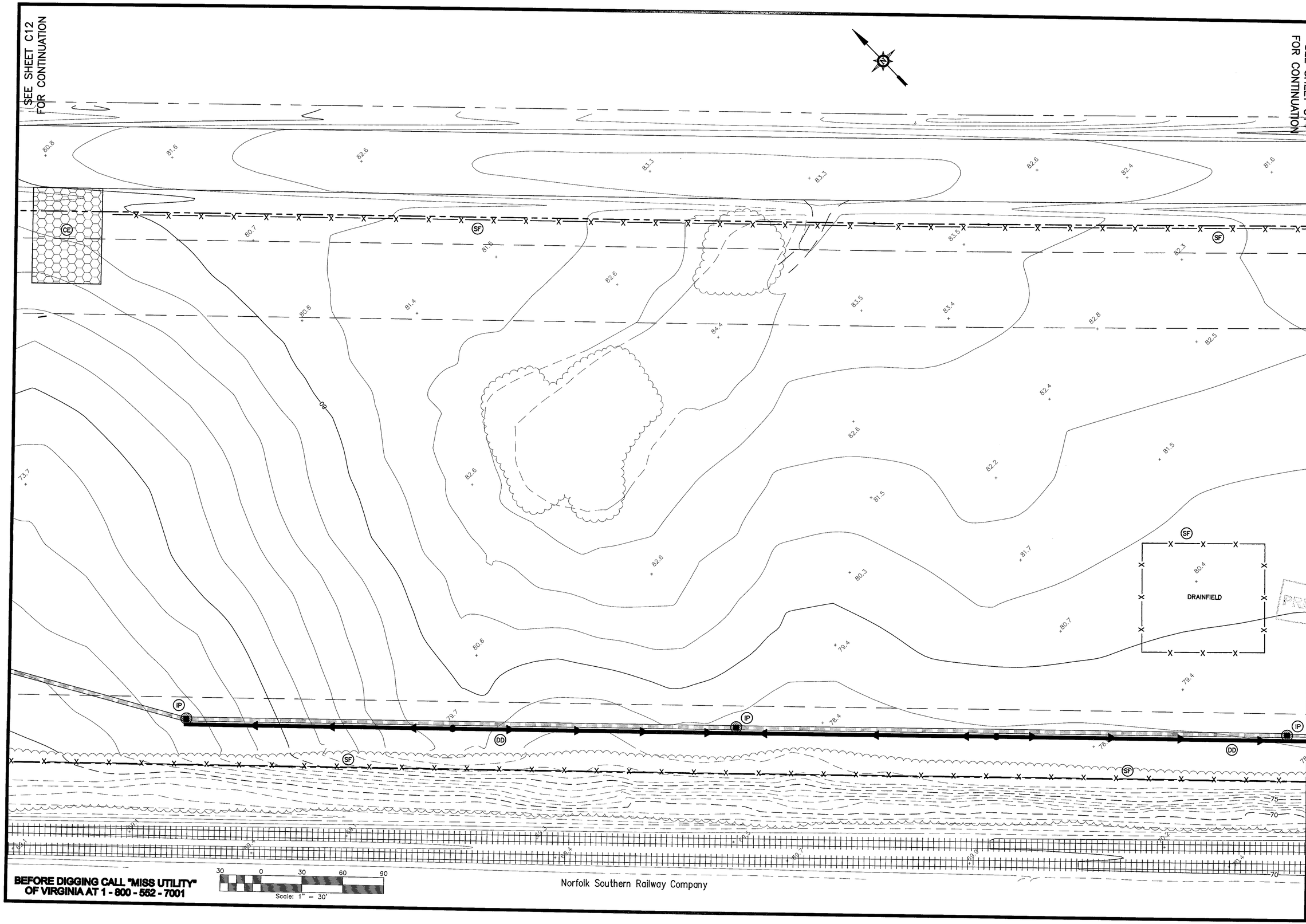
JOB: 12-426
DRAWN BY: KMJ
SHEET: C12 OF 24




# SITE PLAN OF
# AMAC LEASING, LLC

BERLIN–IVOR MAGISTERIAL DISTRICT
PHASE I E & S CONTROL PLAN

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
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COMMONWEALTH OF VIRGINIA
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1/18/13
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SHEET: C13 OF 24

SEE SHEET C13
FOR CONTINUATION

Route 460 – General Mahone Boulevard
Variable Width Public R/W

Benchmark:
Spike in Gum
N: 3848610.38
E: 11846397.45
Elev: 74.09

Wetlands Flagging B12 – B18

Tax Map 6, Parcel 19
Grayland Company

30" Pine

24" Pine

12" Gum

Centerline of 14.5' NE

AINFIELD

## LEGEND

| TITLE | SYMBOL | KEY | NO. |
|---|---|---|---|
| CONSTRUCTION ENTRANCE | | CE | 3.02 |
| SILT FENCE | —X— | SF | 3.05 |
| INLET PROTECTION | | IP | 3.07 |
| CULVERT INLET PROTECTION | | CIP | 3.08 |
| DIVERSION DIKE | | DD | 3.09 |
| SEDIMENT BASIN | SB | SB | 3.14 |
| OUTLET PROTECTION | | OP | 3.18 |
| PERMANENT SEEDING | —PS— | PS | 3.32 |
| SOIL STABILIZATION BLANKETS & MATTING | | B/M | 3.36 |
| TREE PRESERVATION AND PROTECTION | —O— | TP | 3.38 |

30 0 30 60 90
Scale: 1" = 30'

**BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 1 - 800 - 552 - 7001**

# SITE PLAN OF
# AMAC LEASING, LLC
BERLIN–IVOR MAGISTERIAL DISTRICT
PHASE I E & S CONTROL PLAN

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
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| | | |

COMMONWEALTH OF VIRGINIA
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1/08/13
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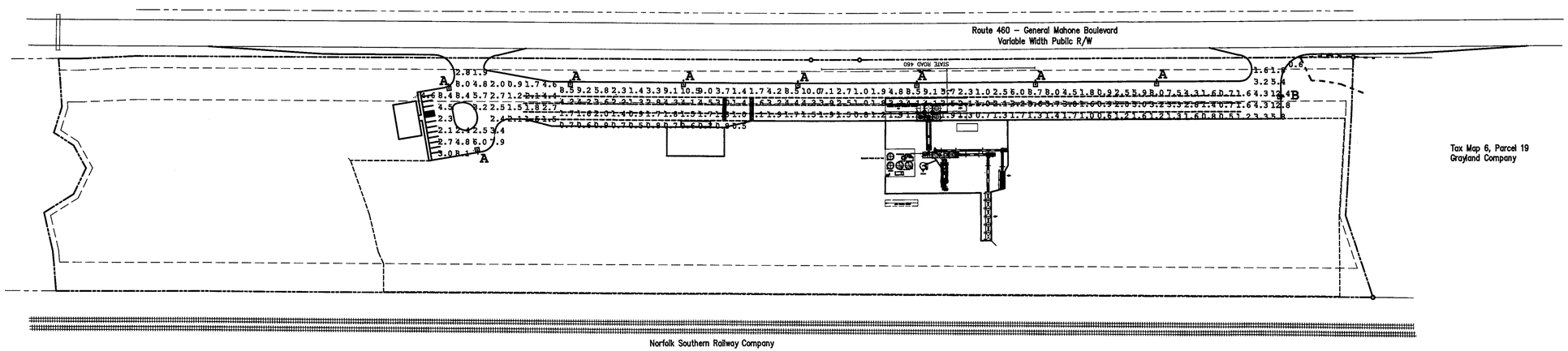
SCALE: 1" = 30'
DATE: 1/4/13
JOB: 12–426
DRAWN BY: KMJ
SHEET: C14 OF 24




| Luminaire Schedule | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Symbol | Qty | Label | Arrangement | Total Lamp Lumens | LLF | Description | Mfr. | Mtg. Ht. | Wattage | Source | Tilt |
| | 8 | A | SINGLE | 130000 | 0.800 | ECA231-3H-1000HPS-HS-XHS-PTF2 | Emco | 35' * | 1000w | High Pressure Sodium | 0 Deg |
| | 1 | B | SINGLE | 130000 | 0.800 | ECA231-FH-1000HPS-PTF2 | Emco | 35' * | 1000w | High Pressure Sodium | 0 Deg |

* Valmont # DS210-730A350-P2

| Calculation Summary | | | | | | | |
|---|---|---|---|---|---|---|---|
| Label | CalcType | Units | Avg | Max | Min | Avg/Min | Max/Min |
| CalcPts | Illuminance | Fc | 3.16 | 17.8 | 0.5 | 6.32 | 35.60 |
| Property Line | Illuminance | Fc | 0.15 | 0.5 | 0.0 | N.A. | N.A. |

BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 1 - 800 - 552 - 7001

100 0 100 200 300
Scale: 1" = 100'

# SITE PLAN OF
# AMAC LEASING, LLC
BERLIN-IVOR MAGISTERIAL DISTRICT
LIGHTING PLAN

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
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COMMONWEALTH OF VIRGINIA
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1/18/13
PROFESSIONAL ENGINEER

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web: landtechresources.com

SCALE: 1" = 100'
DATE: 12/17/12
JOB: 12-426
DRAWN BY: KMJ
SHEET: C15 OF 24

## GENERAL
## EROSION AND SEDIMENT CONTROL NOTES

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT COUNTY OF SOUTHAMPTON EROSION AND SEDIMENT CONTROL ORDINANCE, THE 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATION VR-625-02-00, EROSION AND SEDIMENT CONTROL REGULATIONS. THE PERMITEE OR HIS AGENT AND/OR CONTRACTOR SHALL SECURE A COPY OF EACH PUBLICATION AND THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL APPLICABLE PRACTICES CONTAINED THEREIN WHICH MAY BE PERTINENT TO THIS PROJECT.

THE PURPOSE OF SUCH PRACTICES INCLUDING, BUT NOT LIMITED TO, THOSE SHOWN ON THESE PLAN SHEETS SHALL BE WITH THE TO PRECLUDE THE TRANSPORT OF ALL WATERBORNE OR AIRBORNE SEDIMENTS RESULTING FROM CONSTRUCTION ACTIVITIES FROM ENTERING ONTO ADJACENT PROPERTIES OR INTO STATE WATERS. ALL SEDIMENTS MUST BE CONFINED TO THE PROJECT SITE AT THE LOCATION(S) SHOWN ON THE PLANS. PROTECTION OF EXISTING NATURAL VEGETATION FROM NEEDLESS DISTURBANCE IS ESSENTIAL. ALL CONSTRUCTION PERSONNEL SHALL BE CAUTIONED TO AVOID DAMAGE TO EXISTING TREES AND VEGETATION DURING CONSTRUCTION ACTIVITIES.

THE FOLLOWING SHALL BE INCLUDED IN THE SEQUENCE OF CONSTRUCTION OR NARRATIVE TO ADDRESS EROSION CONTROL PRACTICES.

1. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. THE BASIN(S) ARE TO BE KEPT CLEAR OF DEBRIS AND SEDIMENTS SHALL BE CLEARED OUT PERIODICALLY DURING AND AFTER CONSTRUCTION ACTIVITIES.

2. ALL TEMPORARY OR PERMANENT EROSION ANS SEDIMENT CONTROL PRACTICES NECESSARY FOR RETAINING SEDIMENTS ON THE CONSTRUCTION SITE SHALL BE INSTALLED AND TREE PROTECTION FENCING SHALL BE ERECTED AT THE LOCATIONS AS SPECIFIED ON THE APPROVED PLANS PRIOR TO ANY LAND CLEARING, GRUBBING, GRADING OR EARTH MOVING ACTIVITIES.

3. CONSTRUCTION ENTRANCE(S) (CE) SHALL BE INSTALLED CONCURRENTLY WITH THE INITIATION OF CLEARING AND GRUBBING ACTIVITIES.

4. CLEARING AND GRUBBING DEBRIS SHALL BE PROPERLY DISPOSED OF.

5. THE INSTALLATION OF DRAINAGE FACILITIES SHALL TAKE PRECEDENCE OVER ALL OTHER CONSTRUCTION ACTIVITIES. SITE DRAINAGE FACILITIES SHALL BE SCHEDULED TO BE COMPLETED WITHIN 30 DAYS FOLLOWING COMPLETION OF THE FOLLOWING ROUGH GRADING OPERATIONS AT ANY POINT ON THE PROJECT.

6. OUTFALL DITCHES SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO THE INITIATION OF ANY UTILITY CONSTRUCTION OR BUILDING CONSTRUCTION ACTIVITY. OUTLET PROTECTION (OP) SHALL ALSO BE INSTALLED WHERE CALLED FOR IMMEDIATELY AFTER CONSTRUCTION OF THE OUTFALL DITCH(ES).

7. ALL TEMPORARY OR PERMANENT EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS SHALL BE STABILIZED (SEEDED) IMMEDIATELY AFTER THEIR CONSTRUCTION. STONE OUTLET(S) SHALL BE PROVIDED WHERE SHOWN ON THE PLANS.

8. TOPSOIL STOCKPILES SHALL BE PLACED IN THE LOCATION(S) SHOWN ON THESE PLANS. SILT FENCE OR STRAW BALE BARRIERS SHALL BE ERECTED AT THE TOE OF THE STOCKPILE(S). SILT FENCE OR STRAW BALE BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. STOCKPILES SHALL BE SEEDED AND STABILIZED WITH A FIRM STAND OF GRASS.

9. CONSTRUCTION ROAD STABILIZATION SHALL BE APPLIED TO ACCESS ROADS, PARKING AREAS AND/OR OTHER VEHICLE TRANSPORTATION ROUTES IMMEDIATELY AFTER GRADING.

10. ALL AREAS DESIGNATED FOR UNDERGROUND UTILITIES SHALL BE STABILIZED AS SOON AS PRACTICAL BUT NOT EXCEEDING 15 DAYS FOLLOWING THEIR INSTALLATION AND BACKFILLING. TRENCH LENGTH TO BE OPENED AT ANY TIME IS AT THE REQUIREMENT OF THE UTILITY. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCHES. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

11. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. TEMPORARY VEGETATIVE COVER MAY BE ELIMINATED IN FAVOR OF THE PERMANENT VEGETATIVE COVER IF SITE CONDITIONS PERMIT AND THE OWNER AND/OR ENGINEER SO DIRECTS. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. PERMANENT VEGETATIVE COVER (STABILIZATION) SHALL CONSIST OF TOPSOILING, LIMING, FERTILIZING, SEEDING AND MULCHING TO ASSURE A FIRM STAND OF GRASS.

12. SEDIMENT TRAPS, BASINS AND OTHER TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED ONLY WHEN STABILIZATION HAS BEEN ESTABILSHED.

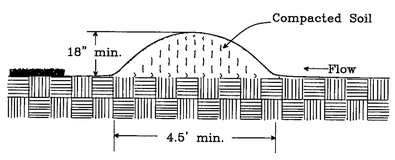
13. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONAS PERTAINING TO THIS PROJECT SHALL BE MET.

14. THE PERMITTEE SHALL BE HELD RESPONSIBLE FOR THE ACTIONS AND PERFORMANCE OF ANY OTHER PARTIES PERFORMING WORK ON THIS SITE.

15. MAINTENANCES OF ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE SCHEDULED ON A WEELKLY BASIS AND AFTER EACH RAIN PRODUCING RAINFALL EVENT PER THE VESCH. ANY SEDIMENT THAT HAS BEEN TRANSPORTED BEYOND THE PROJECT LIMITS SHALL BE REMOVED.

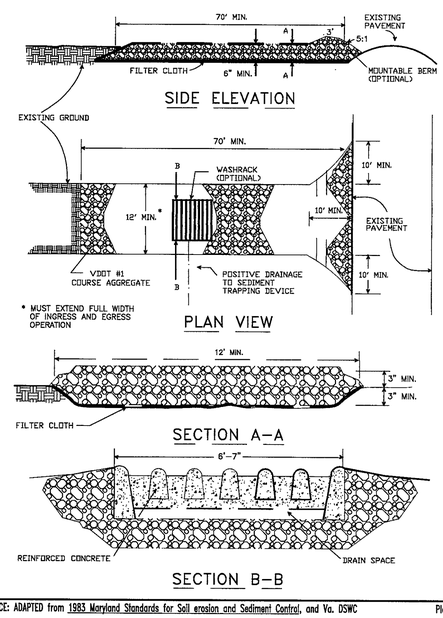
16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE DIRECTED BY THE COUNTY. TRAPPED SEDIMENTS AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

### TEMPORARY DIVERSION DIKE



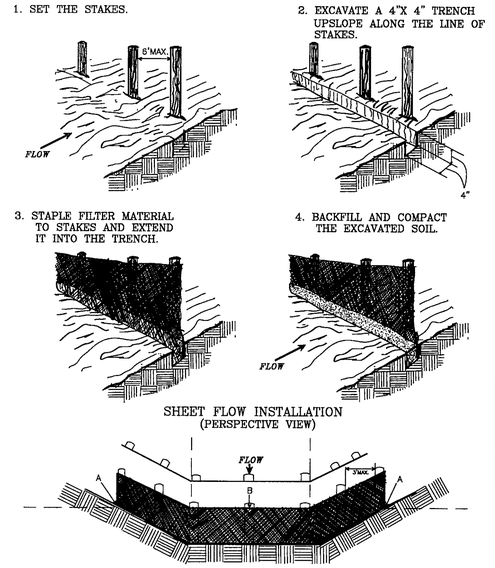

SOURCE: VA. DSWC PLATE 3.09-1

### STONE CONSTRUCTION ENTRANCE



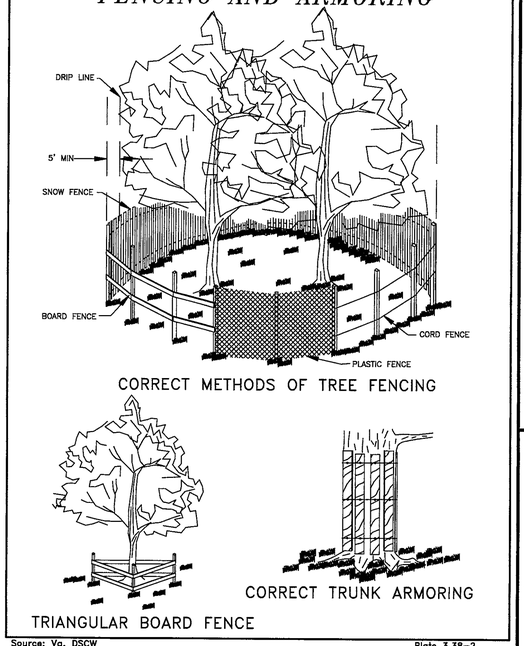

SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC Plate 3.02-1

### CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



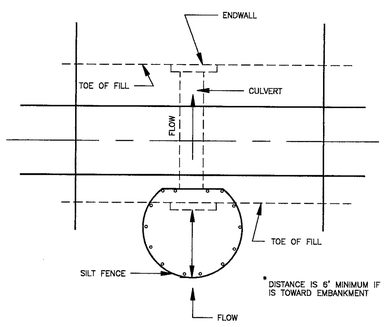

SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control,VA. DSWC Sherwood and Wyant PLATE. 3.05-2

### FENCING AND ARMORING

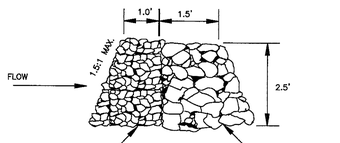



Source: Va. DSCW Plate 3.38-2

### SILT FENCE CULVERT INLET PROTECTION

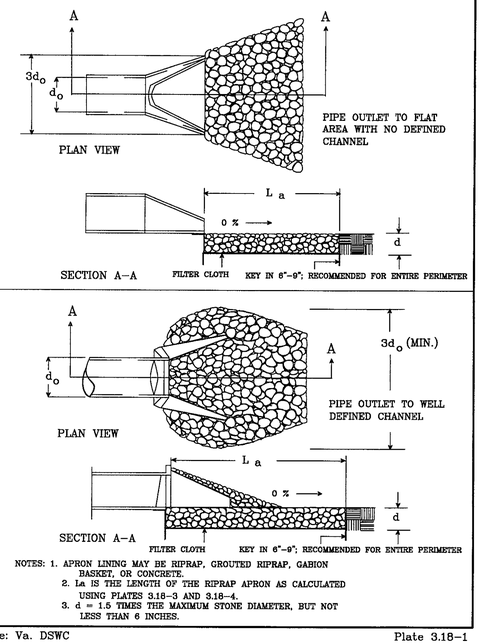



### *OPTIONAL STONE COMBINATION




SOURCE: ADAPTED from VDOT Standard Sheets and Va. DSWC PLATE. 3.08-1

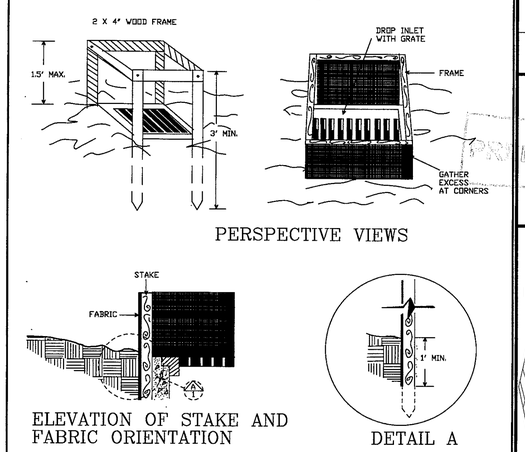
### PIPE OUTLET CONDITIONS




NOTES: 1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, GABION BASKET, OR CONCRETE.
2. La IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.18-3 AND 3.18-4.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6 INCHES.

Source: Va. DSWC Plate 3.18-1

### SILT FENCE DROP INLET PROTECTION




SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

SOURCE: N.C. Erosion and Sediment Control Planning and Design Manual, 1988 PLATE 3.07-1

**SITE PLAN OF**
**AMAC LEASING, LLC**
BERLIN-IVOR MAGISTERIAL DISTRICT
DETAIL SHEET
Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
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COMMONWEALTH OF VIRGINIA
K.M. JENKINS III
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1/16/13
PROFESSIONAL ENGINEER


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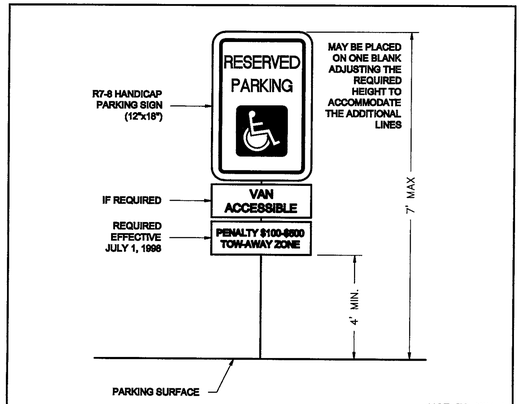
SCALE: NTS
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C16 OF 24

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## TYP. HC PARKING SIGN

TABLE 3.32-D

SITE SPECIFIC SEDDING MIXTURES FOR COASTAL PLAIN AREA

| | TOTAL LBS. PER ACRE |
|---|---|
| MINIMUM CARE LAWN | |
| – COMMERCIAL OR RESIDENTIAL | |
| – KENTUCKY 31 OR TURF-TYPE TALL FESCUE | 125-200 LBS. |
| OR | |
| – COMMON BERMUDAGRASS ** | 75 LBS. |
| HIGH-MAINTENANCE LAWN | |
| – KENTUCKY 31 OR TURF-TYPE TALL FESCUE | |
| OR | |
| – HYBRID BERMUDAGRASS (SEED) ** | 40 LBS. (UNHULLED) 30 LBS. (HULLED) |
| OR | |
| – HYBRID BERMUDAGRASS ( BY OTHER VEGETATIVE ESTABLISHMENT METHOD, SEE STD. & SPEC. 3.34) | |
| GENERAL SLOPE (3:1 OR LESS) | |
| – KENTUCKY 31 FESCUE | 128 LBS. |
| – RED TOP GRASS | 2 LBS. |
| – SEASONAL NURSE CROP * | 20 LBS. |
| | 150 LBS. |
| LOW MAINTENANCE SLOPE (STEEPER THAN 3:1) | |
| – KENTUCKY 31 TALL FESCUE | 93-108 LBS. |
| – COMMON BERMUDAGRASS ** | 0-15 LBS. |
| – RED TOP GRASS | 2 LBS. |
| – SEASONAL NURSE CROP * | 20 LBS. |
| – SERICEA LESPEDEZA ** | 20 LBS. |
| | 150 LBS. |

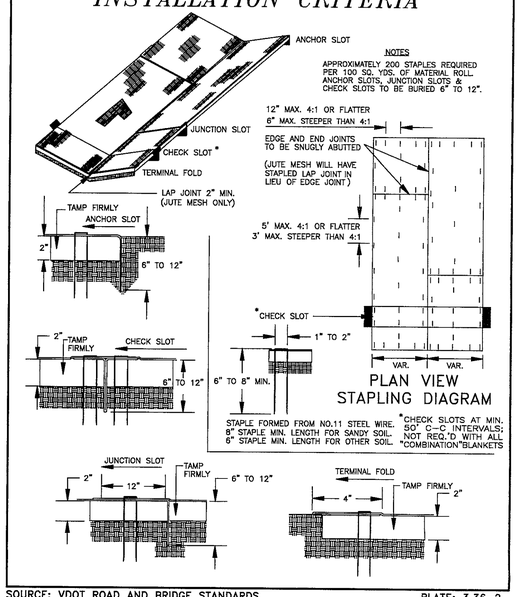
* USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:
FEBRUARY, MARCH THROUGH APRIL ..... ANNUAL RYE
MAY 1ST THROUGH AUGUST ..... FOXTAIL MILLET
SEPTEMBER, OCTOBER THROUGH NOVEMBER 15TH ..... ANNUAL RYE
NOVEMBER 16TH THROUGH JANUARY ..... WINTER RYE

** MAY THROUGH OCTOBER, USE HULLED SEED. ALL OTHER SEEDING PERIODS, USE UNHULLED SEED. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW-MAINTENANCE MIX DURING WARM SEEDING PERIODS; ADD 10-20 LBS./ACRE IN MIXES.

## GENERAL NOTES

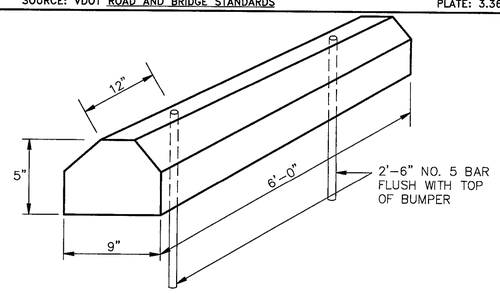
1. ALL CONSTRUCTION SHALL CONFORM TO CURRENT COUNTY AND/OR VDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL SECURE THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND COMPLY WITH ALL COUNTY REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL.
3. ALL CUTS, VEGETATION AND DELETERIOUS MATERIAL ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF OFF SITE.
4. SELECT MATERIAL IS REQUIRED FOR FILL AND BACKFILL UNDER PARKING LOT, FOOTINGS, AND STRUCTURES. IT SHALL BE PLACED IN LAYERS NOT TO EXCEED EIGHT INCHES (8") IN THICKNESS AND COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-698.
5. ALL CONCRETE SHALL BE CLASS A-3 AIR ENTRAINED (3000 PSI) OR GREATER.
6. ALL GREEN AREA, WITHIN LIMITS OF CONSTRUCTION, TO BE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED.
7. CONTRACTOR SHALL OBTAIN AT HIS OWN EXPENSE, ANY PERMIT OR BOND IF REQUIRED BY ANY GOVERNMENT AGENCY.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RESOLVING ANY CONFLICTS WITH EXISTING UTILITIES AND SHALL REPAIR, AT HIS OWN EXPENSE, ALL UTILITIES TO BE RELOCATED OR DAMAGED BY CONSTRUCTION.
9. ANY ERRORS OR DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT/ENGINEER OR THE SURVEYOR BEFORE PROCEEDING WITH THE WORK.
10. DEWATERING OR EXCAVATION, IF NEEDED, IS PART OF THIS CONTRACT.
11. BEFORE DIGGING CALL "MISS UTILITY" OF VIRGINIA 1-800-552-7001.
12. CONTRACTOR SHALL OBTAIN PERMITS FROM THE STATE HIGHWAY DEPARTMENT PRIOR TO ANY WORK IN THE STATE'S RIGHT-OF-WAY. THE CONTRACTOR SHALL RESTORE AND CLEAN UP THE SITE TO THE SATISFACTION OF THE HIGHWAY DEPARTMENT.
13. CONTRACTOR MUST OBTAIN ALL NECESSARY BUILDING PERMITS PRIOR TO CONSTRUCTION.

## *TYPICAL TREATMENT – 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA*



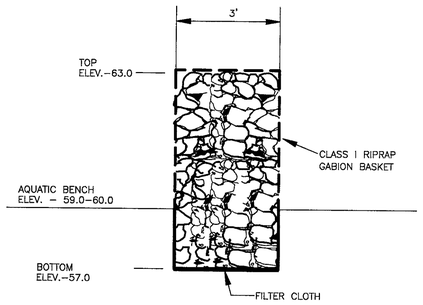

SOURCE: VDOT ROAD AND BRIDGE STANDARDS

PLATE: 3.36-2




## CONCRETE BUMPER BLOCK
STEEL REINFORCED

## *PERMANENT GABION BASKET*




NOTES:
BASKET TO BE EMBEDDED 24" BELOW BOTTOM OF AQUATIC BENCH AND 24" INTO SIDE OF THE BMP

## CROSS SECTION OF BASKET

VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARD NOTES
HAMPTON ROADS DISTRICT
October 2011

**1.0 GENERAL INFORMATION**

1.1 These plans were prepared in accordance with the requirements of (select one):
____VDOT Subdivision Street Requirements (SSR)
____VDOT Subdivision Street Acceptance Requirements (SSAR)
_X_N/A

1.2 VDOT Acceptance Exceptions (select one):
____Access Management Date of Approval_____
____SSAR Date of Approval_____
____Other:_____ Date of Approval_____
____N/A

1.3 Trip Generation Data:
Use: Manufacturing
ITE Code: 140
Total Daily Trips: 53 vpd
AM Peak Hour Trips 28 vph
PM Peak Hour Trips 27 vph

1.4 A Land Use Permit must be obtained from VDOT before any construction is started within State maintained right of way limits. Contact VDOT District Office at (757) 925-2500 for the permit fee and bond amount. All Land Use Permit applications must have one (1) set of approved plans, a copy of the plan approval letter, a check for the processing fee made payable to Treasurer of Virginia, and surety or bond in the required amount.

1.5 The VDOT District Office is to receive written notification 48 hours prior to the start of any work within State maintained right of way. A pre-construction meeting should be held at least one week prior to any land disturbance or when construction activities will affect traffic operations of any arterial corridor.

1.6 All construction methods and materials within State maintained right of way shall comply with the current standards and specifications of the Virginia Department of Transportation.

1.7 The contractor shall have available a copy of the Land Use Permit(s), final approved plans, any approved revisions, and a copy of the approval letter on site.

1.8 Any errors, conflicts, or discrepancies found on the approved plans shall be reported to the developer's engineer. The VDOT District Office should be notified for resolution before proceeding further with the work if the State maintained right of way is affected.

1.9 The developer is responsible for any damage to existing roads, utilities, and any other installations already in place which occur as a result of project construction within or contiguous to State right of way limits.

1.10 The Commonwealth Transportation Board members of the Board, the Commonwealth and all Commonwealth employees, agents, and offices, shall be absolved from all responsibilities, damages and liabilities as a result of work arising from the exercise of the privileges granted by plan and/or permit approval.

**2.0 DRAINAGE & EROSION CONTROL**

2.1 VDOT shall not be responsible for the maintenance of any stormwater management facility or outfall structure located outside of State maintained right of way limits and shall be absolved from all responsibilities, damages and liabilities as a result of such.

2.2 All erosion and sediment control measures shall be the responsibility of the contractor in accordance with the Erosion & Sediment Control Handbook and Virginia Stormwater Management Program. An individual certified by the Virginia Department of Conservation and Recreation, holding a Responsible Land Disturber Certification, is to be in charge of the land disturbing activity and on the work site at all times.

2.3 Temporary drainage measures shall be installed during construction to prevent ponding and divert sediment laden water.

2.4 All necessary precautions shall be taken to ensure against siltation of adjacent properties, ditches, streams, etc. Additional ditch linings or siltation and erosion control measures shall be provided as determined necessary by VDOT and/or the county/town during field review. All costs shall be assumed by the developer.

2.5 All disturbed areas shall be stabilized immediately upon the end of each day's work and reseeded in accordance with VDOT Road and Bridge Specifications.

**3.0 MATERIALS**

3.1 When unsuitable materials are encountered during construction such materials shall be undercut and backfilled with VDOT Type II Select Material Minimum CBR 20 according to VDOT specifications.

3.2 Pavement design shall be provided in accordance with the Pavement Design Guide for Subdivision and Secondary Roads in Virginia. For primary roads and interstate highways where truck traffic exceeds 5%, pavement design shall be provided in accordance with AASHTO guidelines. Typical pavement sections shall depict the top 6" of the subgrade immediately under the pavement structure compacted to 100% of the theoretical maximum dry density.

3.3 Asphalt pavement widening shall conform to VDOT Standard WP-2.

3.4 Installation of pipe culverts and storm sewers shall conform to VDOT Standard PB-1.

3.5 The Department usually prohibits the open-cutting of hard-surfaced roads except in extenuating circumstances. Therefore, all underground utilities within State maintained right of ways, as determined necessary by good engineering practice to serve the complete development of adjacent properties, shall be installed during the streets initial construction and prior to the application of its final pavement surface course. This shall include extensions of all necessary cross-street connections or service lines to an appropriate location beyond the pavement and preferably the right of way line. In the event it is necessary to open the street pavement to work on utilities after the surface has been placed, additional compaction tests and paving as necessary to restore the integrity and appearance of the roadway may be required.

**4.0 RIGHT OF WAY & UTILITIES**

4.1 All fixed objects such as utility cabinets, pedestals, and streetlights shall be located in accordance with clear zone requirements, as noted in the Road Design Manual or AASHTO Roadside Design Guide. There shall be not be any cabinets, pedestals, or fire hydrants located on the shoulder.

4.2 Flowers, shrubs, and trees shall not be placed within State Maintained right of way limits without an approved set of plans and an approved planting agreement. No irrigation (sprinkler) systems, brick columns, endwalls, and/or brick mailboxes will be constructed or installed within State maintained right of way limits without a permit. Any of the above items found in the right of way without a permit will be removed, and all costs of the removal will be borne by the owner and/or developer.

4.3 The contractor shall be responsible for locating and protecting all underground and overhead utilities, whether or not they are shown on the plans, prior to construction. The contractor will be responsible for repairs at his own expense of any utilities damaged by his construction methods. MISS UTILITY must be contacted at 811 at least 72 hours prior to the commencement of construction.

4.4 Authorized underground utility installations shall maintain a minimum of 36 inches of cover.

4.5 Overhead utility installations within limited access and non limited access right of way shall be installed in accordance with VDOT Land Use Permit Regulations.

4.6 All roadway lighting shall be designed in accordance with IESNA lighting criteria and installed in accordance with VDOT Road and Bridge Specifications. All roadway lighting shall adhere to the Virginia Lighting Law.

**5.0 TRAFFIC**

5.1 Contact Traffic Engineering Operations at (757) 925-1659 or (757) 925-1653 a minimum of 48 hours in advance whenever excavation is within 500 feet of a traffic signal, so the lines can be marked. Failure to do so could be a costly repair for the developer.

5.2 Contact Roadway Lighting Operations at (757) 484-9015 or (757) 484-8940 a minimum of 48 hours in advance whenever planned construction activities are located within Limited Access Highways. Failure to do so could be a costly repair for the developer.

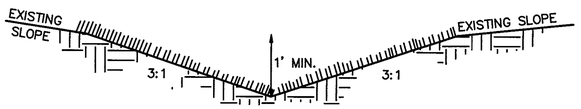
5.3 Contact Traffic Operations Center Maintenance Manager at (757) 424-9903 a minimum of 48 hours in advance of all construction activities located within Limited Access Highways. Failure to do so could be a costly repair for the developer.

5.4 Sight distances at entrances and intersections shall be maintained at all times during and after construction. Any object or landscaping that obstructs driver view shall be relocated at the developer's expense or the entrance may be closed at VDOT's discretion.

5.5 During construction, the maintenance of traffic shall conform to the requirements in the most recent version of the Virginia Work Area Protection Manual and the MUTCD.

**6.0 ENVIRONMENTAL**

6.1 The permittee is responsible for pursuing and obtaining any and all environmental clearances and/or permits, including, but not limited to, water quality, threatened and endangered species, hazardous materials, and cultural resources, required to pursue the proposed activity before any construction is started within State maintained right of way limits. Documents related to these activities shall be submitted with the LandUse Permit application.




## GRASS DITCH DETAIL

**SITE PLAN OF AMAC LEASING, LLC**
BERLIN-IVOR MAGISTERIAL DISTRICT
DETAIL SHEET
Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|

COMMONWEALTH OF VIRGINIA
K.M. JENKINS II
Lic. No. 0202072
1/18/13
PROFESSIONAL ENGINEER

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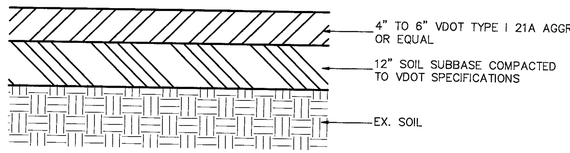


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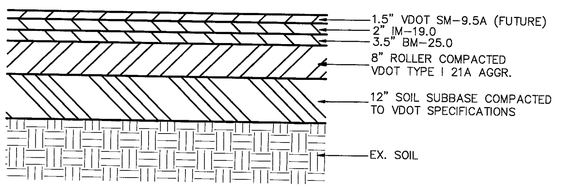
## ONSITE GRAVEL SECTION

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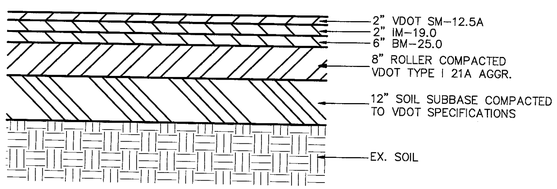
## ONSITE PAVEMENT SECTION

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## RT 460 & ENTRANCE PAVEMENT SECTION

## WET EXTENED DETENTION POND MAINTENANCE AND INSPECTION PROGRAM

A MAINTENANCE PROGRAM IS REQUIRED TO ENSURE THE STORMWATER MANAGEMENT (SWM)/BEST MANAGEMENT PRACTICE (BMP) FACILITY FUNCTIONS AS DESIGNED AND TO PROVIDE FOR REASONABLE AESTHETIC CONDITIONS. PROPER MAINTENANCE IS ENCOURAGED TO PREVENT THE INTRODUCTION OF DEBRIS AND SEDIMENT AT INFLOW LOCATIONS, PRETREATMENT AREAS, THE BMP ITSELF, ITS PRINCIPAL CONTROL STRUCTURES AND DOWNSTREAM WATERWAYS. FOLLOWING INSTALLATION AND ESTABLISHMENT OF VEGETATION IN DISTURBED SITE AREAS, INSPECTIONS FOR SEDIMENT BUILDUPS WILL BE PERFORMED AT LEAST QUARTERLY. IT IS ANTICIPATED THAT UNDER NORMAL CONDITIONS, SEDIMENT REMOVAL WILL BE REQUIRED ONCE EVERY 5 TO 10 YEARS. IF OTHER CONSTRUCTION OR RELATED LAND-DISTURBING ACTIVITIES ARE PERFORMED UPSLOPE OF THE BMP, ADEQUATE PROTECTION MEASURES SHOULD BE IMPLEMENTED WITH INSPECTIONS PERFORMED AT LEAST ONCE WEEKLY.

THE OWNER OR ITS DESIGNATED REPRESENTATIVE WILL INSPECT THE SWM/BMP STRUCTURE AFTER EACH SIGNIFICANT RAINFALL EVENT OR THE FOLLOWING WORKING DAY IF A WEEKEND OR HOLIDAY OCCURS. A SIGNIFICANT RAINFALL FOR THIS STRUCTURE IS DEFINED AS ONE (1) INCH OR MORE OF GAUGED RAINFALL WITHIN A 24 HOUR PERIOD. ONCE PER YEAR (MORE OR LESS) A REPRESENTATIVE OF THE COUNTY MAY JOINTLY INSPECT THE STRUCTURE. APPRPRIATE ACTION, PERFORMED AT THE COST OF THE OWNER WILL BE TAKEN TO ENSURE APPROPRIATE MAINTENANCE. KETS TO LOCKED ACCESS POINTS OR STRUCTURES SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST.

BMP : THE BMP SERVES A DRAINAGE AREA OF 20.86 ACRES ASSOCIATED WITH THE CURTIS CONTRACTING, INC. SITE. THE FACILITY IS A RETENTION POND III WITH AQUATIC BENCH. A WET RETENTION POND PERMANENTLY STORES A POOL OF WATER AND TEMPORARILY STORES STORMWATER RUNOFF. PRINCIPAL STRUCTURES ASSOCIATED WITH THE BMP CONSIST OF A 36" RCP INFLOW PIPE, 48" RCP VERTICAL RISER, 36" RCP OUTLET BARREL AND 8' WIDE RIP-RAP LINED EMERGENCY SPILLWAY. THERE IS ONE OPENING IN THE RISER TO PROVIDE FOR WATER QUALITY DRAWDOWN AND CONTROL FOR 1- AND 10- YEAR DESIGN STORM EVENTS. DURING THE 100-YEAR STORM, THE MAXIMUM WATER LEVEL SHOULD RISE TO ABOUT 3 FEET ABOVE THE TOP OF THE RISER AND WITHIN 1.5 FEET BELOW THE TOP OF THE DAM. DURING THIS TYPE OF LARGER STORM EVENT, THE EMERGENCY SPILLWAY WILL DISCHARGE FLOW. IF FUNCTIONING PROPERLY, NORMAL STORM EVENTS SHOULD REACH AN ELEVATION JUST BELOW THE TOP OF THE RISER AND THE POND SHOULD DRAWDOWN IN ABOUT 24 TO 36 HOURS.

INSPECTION AND MAINTENANCE OF THE BMP WILL CONSIST OF THE FOLLOWING ADDITIONAL MEASURES:

1) INSPECT FOR SEDIMENT BUILDUP BY VISUAL OBSERVATION AND A PHYSICAL DETERMINATION OF SEDIMENT DEPTH WITHIN THE POND STORAGE AREAS. IF THE DEPTH OF SEDIMENT REACES THE DEPTH OF 2'-0" ABOVE THE BOTTOM OF THE FOREBAY (OR CLEANOUT ELEVATION OF 61.0), REMOVAL IS REQUIRED. AT THE SAME TIME, OR AT LEAST ONCE PER YEAR, CLEAN THE RISER BOTTOM AND OUTLET PIPES OF ACCUMULATED SEDIMENTS. DISPOSE OF SEDIMENTS REMOVED FROM THE FACILITY AT AN ACCEPTABLE DISPOSAL AREA

2) PERFORM MAINTENANCE MOWING OF POND GRASSES AT LEAST TWICE EACH YEAR. GRASSES SUCH AS TALL FESCUE SHOULD BE MOWED IN EARLY SUMMER AFTER EMERGENCE OF THE HEADS ON COOL SEASON GRASSES AND IN LATE FALL TO PREVENT SEEDS OF ANNUAL WEEDS FROM MATURING. MOWING OF LEGUMES CAN BE LESS FREQUENT. TREES, SHRUBS AND WOODY VEGETATION ARE NOT TO BE PERMITTED TO GROW ALONG OR ON ANY PART OF THE EMBANKMENT THAT WAS CONSTRUCTED USING ENGINEERED (COMPACTED) FILLS.

3) PERFORM SOIL SAMPLING ON STABILIZED POND SOIL AREAS AT LEAST ONCE EVERY 4 YEARS. SOIL SAMPLING AND TESTING SHOULD BE PERFORMED BY QUALIFIED INDEPENDENT SOIL TESTING LABORATORY SUCH AS VPI&SU. APPLY ADDITIONAL LIME AND FERTILIZER IN ACCORDANCE WITH TEST RECOMMENDATIONS.

4) IN STABILIZED PONDAREAS, IF VEGETATION COVERS LESS THAN 40% OF THE SOIL SURFACES, LIME, FERTILIZE AND SEED IN ACCORDANCE WITH RECOMMENDATIONS FOR NEW SEEDLINGS. IF VEGETATION COVERS MORE THAN 40% BUT LESS THAN 70% OF SOIL SURFACES, LIME FERTILIZE AND OVER SEED IN ACCORDANCE WITH CURRENT RECOMMENDATIONS OR REQUIREMENTS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).

5) PERFORM QUARTERLY INSPECTIONS OF THE RISER SECTIONS AND CREST SPILLWAY FOR THE OBSERVANCE OF COLLECTED TRASH AND DEBRIS. IMMEDIATELY REMOVE ANY TRASH OR DEBRIS THAT PREVENTS THE MOVEMENT OR WATER. REMOVE ANY TRASH AND LITTER DOWNSTREAM AND AT STORM DRAIN OR CHANNEL INFLOW LOCATIONS TO MAINTAIN THE INTEGRITY OF THE STRUCTURE AND PROVIDE AN ATTRACTIVE APPEARANCE.

6) PERFORM YEARLY STRUCTURAL INSPECTIONS OF THE FACILITY FOR DAMAGE. STRUCTURAL INSPECTION SHALL BE PERFORMED ON THE CONCRETE RISER, ANTI-VORTEX DEVICE, TRASH RACK, ORIFICES/WEIRS, OUTLET BARREL AND POND EMBANKMENT. EXPOSED METAL SURFACES SHALL BE RE-PAINTED OR RE-GALVANIZED TO MINIMIZE RUST DAMAGE OR REPLACED IF RUST DAMAGE IS IRREVERSIBLE. IF DAMAGE IS EVIDENT, FURTHER INVESTIGATION BY A PROFESSIONAL ENGINEER MAY BE REQUIRED TO ASSESS THE INTEGRITY OF THE STRUCTURE.

7) PERFORM QUARTERLY INSPECTIONS OF THE GRADED SIDESLOPES OF THE FACILITY FOR SIGNS OF ANIMAL/RODENT BORROWS OR SLOPE EROSION. IMMEDIATELY PERFORM NECESSARY REPAIRS, REFILLING OR RESEEDING.

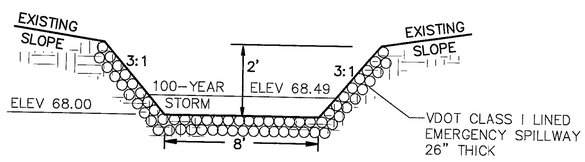
8) PERFORM YEARLY OBSERVATIONS OF PERIMETER AREAS SURROUNDING THE FACILITY TO ENSURE CHANGES IN LAND USE, TOPOGRAPHY OR ACCESS HAVE NOT OCCURED AND DO NOT AFFECT THE OPERATION, MAINTENANCE, ACCESS OR SAFETY FEATURES AS PROVIDED. APPROPRIATE ACTION IS REQUIRED TO ENSURE ADEQUACY AND TO PROVIDE A CLEAR, SAFE PASSAGE FOR MAINTENANCE VEHICLES TO THE ENGINEERED EMBANKMENT AND PRINCIPAL FLOW CONTROL STRUCTURES.

9) INSPECT AND EXERCISE POND DRAIN VALVES, IF PROVIDED, ON A REGULAR BASIS.

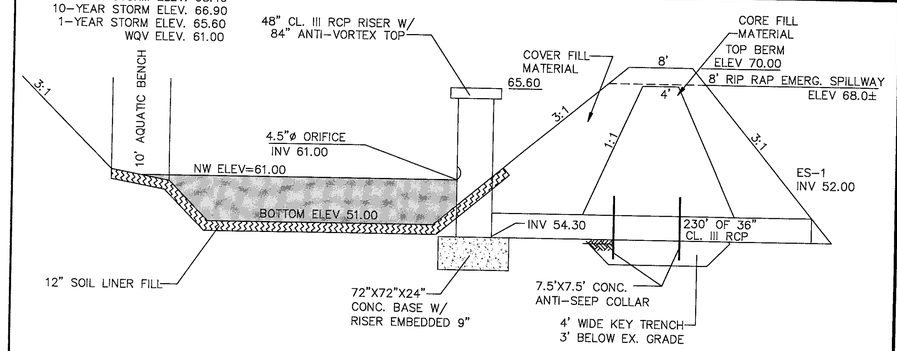
10) RECORD KEEPING. THE OWNER OR DESIGNATED REPRESENTATIVE SHALL KEEP REASONABLE, ACCURATE WRITTEN RECORDS OF INSPECTIONS PERFORMED FOR THE STRUCTURE. RECORDS SHALL DOCUMENT ROUTINE MAINTENANCE AND/OR REPAIRS PERFORMED. COPIES SHALL BE PROVIDED TO THE COUNTY UPON REQUEST.

11) THE FACILITY SHALL NOT ACCEPT ADDITIONAL DRAINAGE OR BE MODIFIED IN ANY WAY WITHOUT PRIOR CONSENT OR APPROVAL BY SOUTHAMPTON COUNTY.

12) ADVANCE NOTIFICATION SHALL BE GIVEN TO SOUTHAMPTON COUNTY AND ADJACENT PROPERTY OWNERS IN THE EVENT A BMP DRAWDOWN IS REQUIRED.




## RIP RAP LINED EMERGENCY SPILLWAY




1. THE CONTRACTOR SHALL PLACE FILL MATERIAL IN 6" TO 8" LIFTS AND COMPACT TO 95% MAXIMUM DRY DENSITY AT ±3% OPTIMUM MOISTURE CONTENT.
2. THE CONTRACTOR SHALL PROVIDE FILL MATERIAL FREE OF ORGANICS, STUMPS, ROOTS AND OTHER DELETERIOUS MATERIAL.
3. THE REMOVAL OF UNSUITABLE MATERIAL UNDER THE EMBANKMENT SHALL BE COMPLETED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER.
4. CONSTRUCTION OF THE EARTHEN EMBANKMENT SHALL BE COMPLETED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER DAM CORE FILL SHALL BE INORGANIC SOIL MATERIAL CLASSIFIED AS CL OR CH CONTAINING AT LEAST 65% FINES (SILT AND CLAY) AND HAVING A MAXIMUM LIQUID LIMIT OF 65. MAXIMUM ROCK SIZE SHOULD BE LIMITED TO 4 INCHES. DAM COVER FILL SHALL BE ORGANIC SOIL MATERIAL CLASSIFIED AS SM-SP, SM, SC, OR CL WITH A MAXIMUM LIQUID LIMIT OF 50. MAXIMUM ROCK SIZE SHOULD BE LIMITED TO 4 INCHES.
5. CONSTRUCTION OF THE KEY TRENCH SHALL BE COMPLETED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER.
6. RISER & BARELL TO BE WATERTIGHT CL. III RCP MEETING THE REQUIREMENTS OF ASTM C361 OR ASTM C76 WITH WATERTIGHT JOINTS.
7. ANTI-VORTEX TOP TO HAVE DI-1 FRAME & GRATE FOR ACCESS.
8. RISER TO HAVE VDOT ST-1 STEPS AS REQUIRED.
9. GEOTECHNICAL REPORT INDICATES THAT A POND LINER MAY BE REQUIRED TO MAINTAIN WET POOL ELEVATIONS. THE GEOTECHNICAL ENGINEER SHALL CONFIRM THE LINER REQUIREMENTS BASED ON SOIL CONDITIONS DURING CONSTRUCTION. SOIL LINER FILL SHALL BE INORGANIC SOIL MATERIAL CLASSIFIED AS CL, ML, MH, OR CH CONTAINING AT LEAST 60% FINES (SILTS AND CLAY). MAXIMUM ROCK SIZE SHOULD BE LIMITED TO 6 INCHES.

## SEDIMENT BASIN AND BMP DETAIL

## SEQUENCE OF CONSTRUCTION

1) INSTALL CONSTRUCTION ENTRANCE, SILT FENCE AND TREE PROTECTION.

2) CLEAR MINIMAL AREA TO CONSTRUCT SEDIMENT BASIN.

3) CLEAR REMAINING AREA AS DESIGNATED. RUNOFF FROM ALL DISTURBED AREAS IS TO BE DIRECTED TO THE BASINS TO THE GREATEST EXTENT REGARDLESS OF THE LOCATIONS OF UPSTREAM EROSION CONTROL MEASUES.

4) ONCE THE RECEIVING SEDIMENT BASIN IS COMPLETED BEGIN INSTALLING THE STORM SEWER SYSTEM AND DIVERSION DIKES.

5) ROUGH GRADE SITE.

6) INSTALL PRIVATE SEPTIC TANK/DRAINFIELD SYSTEM.

7) INSTALL PRIVATE WELL AND WATER SYSTEM.

8) INSTALL LIGHTS AND OTHER UNDERGROUND UTILITIES.

9) INSTALL CONCRETE PAD AND GENCOR UD300 SKIDDED ULTRAPLANT.

10) INSTALL SUBBASE AND BASE TO ASPHALT DRIVE AND PARKING LOT.

11) INSTALL GRAVEL TO STORAGE AREA.

12) INSTALL LANDSCAPING.

13) CONVERT SEDIMENT BASINS TO WET POND ONCE THE COUNTY INSPECTOR HAS GRANTED APPROVAL.

14) INSTALL TOP ASPHALT SURFACE TO DRIVE AND PARKING LOT.

15) ALL TEMPORARY E & S MEASURES WILL BE REMOVED 30 DAYS AFTER FINAL SITE STABILIZATION HAS BEEN APPLIED AND A SIGNIFICANT STAND OF VEGETATION HAS BEEN ACHIEVED AND AFTER APPROVAL TO DO SO BY THE COUNTY INSPECTOR.

SEQUENCE OF CONSTRUCTION NOTES:

1) ALL STORM SEWERS WILL BE INSTALLED BEGINNING AT THE LOWEST ELEVATION AND WORKING UPSLOPE. INLET PROTECTION PER VESCH STD. & SPEC. 3.07 WILL BE INSTALLED AS INLETS ARE COMPLETED.

2) ALL STORM SEWER INLETS INSTALLED DURING CONSTRUCTION SHALL BE PROTECTED, AS THEY ARE COMPLETED, SO THAT SEDIMENT-LADEN RUNOFF CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FILTERING OR TREATMENT IN ACCORDANCE WITH VESCH STD. & SPEC. 3.07.

BMP CONVERSION FROM SEDIMENT BASIN:

1) REMOVE 8" FLEXIBLE TUBING.

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
DETAIL SHEET

Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
K.U. JENKINS II
Lic. No. 022872
1/16/13
PROFESSIONAL ENGINEER

LandTech Resources, Inc.
Surveying • Engineering • GPS
205 Bulifants Blvd., Ste E, Williamsburg, VA 23188
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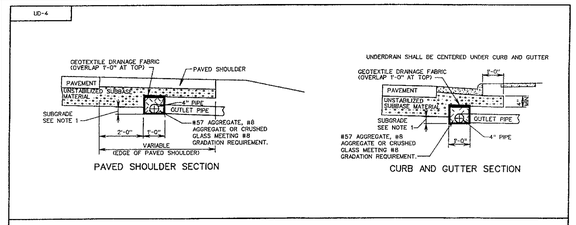
SCALE: NTS
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C18 OF 24



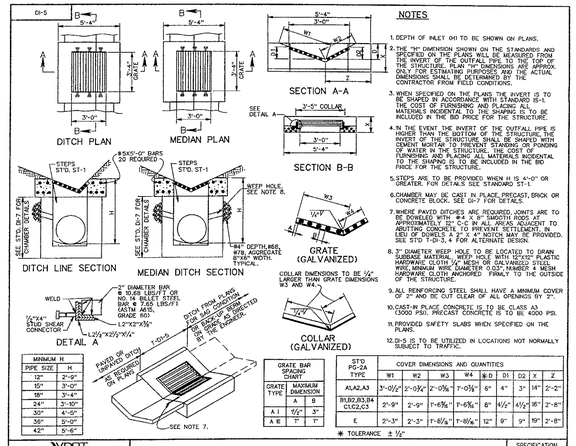

VDOT ROAD AND BRIDGE STANDARDS

| SHEET 1 OF 2 | REVISION DATE |
|---|---|
| 108.06 | |

## STANDARD PAVEMENT EDGEDRAIN

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 243, 258, 259, 501, 701




NOTES

1. DEPTH OF INLET DIMENSION TO BE SHOWN ON PLANS.
2. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROX. ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
3. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
4. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
5. STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
6. CHAMBER MAY BE CAST IN PLACE, PRECAST, BRICK OR CONCRETE BLOCK. SEE DI-7 FOR DETAILS.
7. WHERE PAVED DITCHES ARE REQUIRED JOINTS ARE TO BE DOWELED WITH #4 X 18" SMOOTH ROUND REINFORCING BARS @ 12" C-C EXTENDING EQUALLY TO ABUTTING CONCRETE TO PREVENT SETTLEMENT. IN LIEU OF DOWELS A 2" X 4" NOTCH MAY BE PROVIDED. SEE STD T-D-3, X FOR ALTERNATE DESIGN.
8. 3" DIAMETER WEEP HOLE TO BE LOCATED TO DRAIN SUBBASE MATERIAL. WEEP HOLE SHALL BE 12"x12" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03" NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
9. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" AND BE CUT CLEAR OF ALL OPENINGS BY 2".
10. CAST-IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
11. PROVIDED SAFETY SLABS WHEN SPECIFIED ON THE PLANS.
12. D-3 IS TO BE UTILIZED IN LOCATIONS NOT NORMALLY SUBJECT TO TRAFFIC.

MINIMUM H

| PIPE SIZE | H |
|---|---|
| 12" | 2'-9" |
| 15" | 3'-0" |
| 18" | 3'-4" |
| 24" | 3'-10" |
| 30" | 4'-5" |
| 36" | 5'-0" |
| 42" | 5'-6" |

GRATE BAR SPACING CHART

| GRATE TYPE | MAXIMUM DIMENSION A | B |
|---|---|---|
| A-1 | 5 1/2" | 3" |
| A-6 | 7" | 1" |

| STD. D-2A TYPE | COVER DIMENSIONS AND QUANTITIES W1 | W2 | W3 | W4 | ϕ D | D1 | D2 | X | Z |
|---|---|---|---|---|---|---|---|---|---|
| A1,A2,A3 | 3'-0 1/2" | 2'-0 3/4" | 2'-0 7/8" | 1'-0 3/4" | 6" | 4" | 3" | 14" | 2'-2" |
| B1,B2,B3,B4 C1,C2,C3 | 2'-9" | 2'-9" | 1'-6 7/8" | 1'-6 7/8" | 8" | 4 1/2" | 4 1/2" | 16" | 2'-8" |
| E | 2'-3" | 2'-3" | 1'-8 1/4" | 1'-8 1/4" | 12" | 9" | 9" | 19" | 2'-8" |

* TOLERANCE ± 1/2"

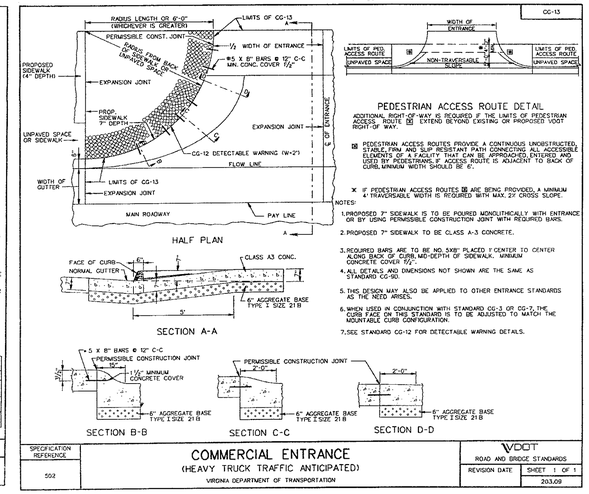
VDOT ROAD AND BRIDGE STANDARDS

| SHEET 1 OF 1 | REVISION DATE |
|---|---|
| 104.21 | |

## STANDARD DITCH DROP INLET

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 233, 302




SPECIFICATION REFERENCE: 592

## COMMERCIAL ENTRANCE
(HEAVY TRUCK TRAFFIC ANTICIPATED)

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS

| REVISION DATE | SHEET 1 OF 1 |
|---|---|
| | 203.09 |

### Typical Traffic Control
*Shoulder Operation with Minor Encroachment*
(Figure TTC-5.0)

NOTES

Standard

1. **On divided highways having a median wider than 8', right and left sign assemblies shall be required. See Note 1, TTC-4 for addition sign information.**

*Guidance*

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.*

Option:

4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:

5. **A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, oscillating, or strobe light shall be parked 80' - 120' in advance of the first work crew.**
6. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.**
7. **Taper length (L) and channelizing device spacing shall be at the following:**

| Taper Length (L) | | | | |
|---|---|---|---|---|
| Speed Limit (mph) | Lane Width (Feet) 9 | 10 | 11 | 12 |
| 25 | 95 | 105 | 115 | 125 |
| 30 | 135 | 150 | 165 | 180 |
| 35 | 185 | 205 | 225 | 245 |
| 40 | 240 | 270 | 295 | 320 |
| 45 | 405 | 450 | 495 | 540 |
| 50 | 450 | 500 | 550 | 600 |
| 55 | 495 | 550 | 605 | 660 |
| 60 | 540 | 600 | 660 | 720 |
| 65 | 585 | 650 | 715 | 780 |
| 70 | 630 | 700 | 770 | 840 |
| Minimum taper lengths for Limited Access highways shall be 1000 feet. | | | | |
| Shoulder Taper = ⅓ L Minimum | | | | |

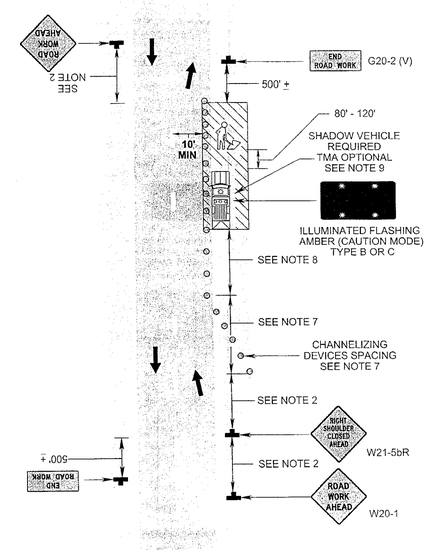
| Channelizing Device Spacing | | |
|---|---|---|
| Location | Speed Limit (mph) 0 - 35 | 36 + |
| Transition Spacing | 20' | 40' |
| Travelway Spacing | 40' | 80' |
| Construction Access* | 80' | 120' |

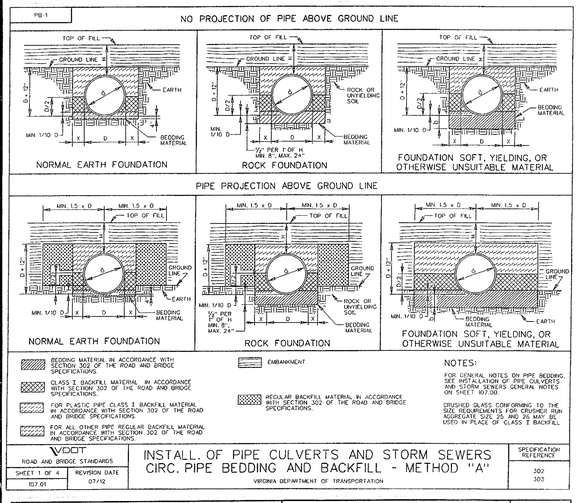
* Spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

**On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.**

8. **The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
9. **A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.**
10. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

### Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)




NOTES:
FOR GENERAL NOTES ON PIPE BEDDING, SEE INSTALLATION OF PIPE CULVERTS AND STORM SEWERS ON SHEET 107.00
CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26 MAY BE USED IN PLACE OF CLASS I BACKFILL

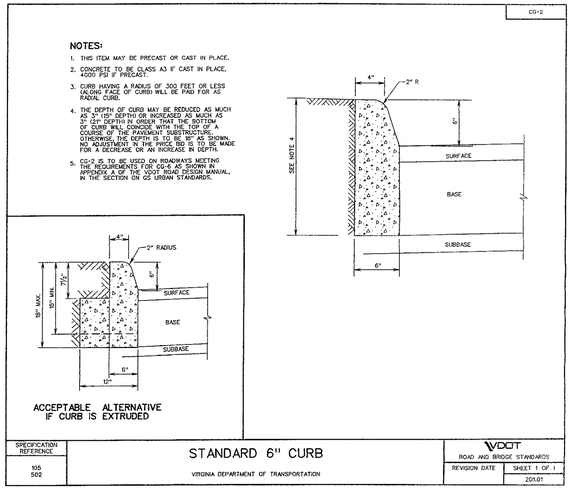
VDOT ROAD AND BRIDGE STANDARDS

| SHEET 1 OF 4 | REVISION DATE |
|---|---|
| 107.01 | 07/12 |

## INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL - METHOD "A"

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 302, 303



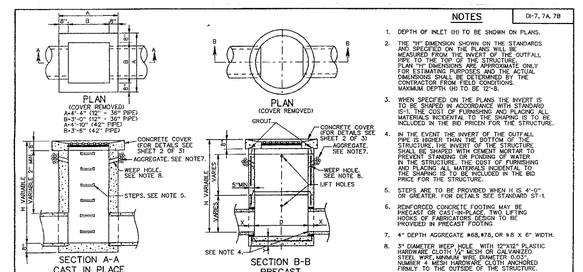

SPECIFICATION REFERENCE: 105, 502

## STANDARD 6" CURB

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS

| REVISION DATE | SHEET 1 OF 1 |
|---|---|
| | 201.01 |




NOTES

1. DEPTH OF INLET DIMENSION TO BE SHOWN ON PLANS.
2. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROX. ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS. MAXIMUM DEPTH DIMENSION TO BE 12'-8.
3. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
4. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
5. STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
6. REINFORCED CONCRETE FOOTING MAY BE PRECAST OR CAST-IN-PLACE. TWO LIFTING HOOKS OF FABRICATED DESIGN TO BE PROVIDED IN PRECAST FOOTING.
7. 4" DEPTH AGGREGATE #68,#78, OR #8 X 6" WIDTH.
8. 3" DIAMETER WEEP HOLE WITH 12"X12" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03" NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
9. THE TYPE OF INLET (PRECAST OR CAST IN PLACE), DETAILED HEREON, TO BE CONSTRUCTED, WILL BE AT THE OPTION OF THE CONTRACTOR.
10. FOR DETAILS OF CONCRETE COVER, COLLAR AND GRATE AND THE METHOD OF FINISHING APPROACH GUTTER SEE SHEET 2 OF 3.
11. CAST-IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
12. CONCRETE QUANTITIES SHOWN ARE FOR INDICATED DEPTH (H) WITHOUT PIPES THE AMOUNT SUBTRACTED FOR PIPES MUST BE CALCULATED TO OBTAIN TRUE QUANTITIES. FOR INLETS OF DIFFERENT DEPTHS ADD OR SUBTRACT THE APPROPRIATE CUBIC YARDS OF CONCRETE FOR EACH FOOT OF DEPTH.
13. PAVED DITCHES ARE TO BE TRANSITIONED TO MEET INLET GUTTER AS SHOWN IN STANDARD PG-2A.
14. PROVIDE SAFETY SLABS WHEN SPECIFIED ON THE PLANS.

NOTES (CONT.)

15. DI-7A------NO GUTTER
    DI-7A------SINGLE GUTTER WHEN DROP INLET IS ON A GRADE.
    DI-7B------DOUBLE GUTTER WHEN DROP INLET IS IN A SAG BETWEEN TWO GRADES.
16. FOR DETAILS OF PRECAST DI-7 NOT SHOWN HEREON SEE PRECAST UNIT ASSEMBLY DIAGRAM PAGE 103.01, FOR PRECAST GENERAL NOTES PAGE 103.02 AND FOR APPLICABLE PRECAST BASE, RISER AND TOP DETAILS, PAGES 103.07 THRU 103.12.
17. GRATE BARS TO BE PARALLEL TO DITCH FLOW.

RECOMMENDED MINIMUM HEIGHT CHART

| PIPE SIZE | H DIMENSION CONC. | CORR. METAL |
|---|---|---|
| 12" | 2'-6" | 2'-5" |
| 15" | 2'-9 1/2" | 2'-8" |
| 18" | 3'-0 1/2" | 2'-11" |
| 21" | 3'-3 3/4" | 3'-2" |
| 24" | 3'-7" | 3'-5" |
| 27" | 3'-10 1/4" | 3'-8" |
| 30" | 4'-1 1/2" | 3'-11" |
| 33" | 4'-4 3/4" | 4'-2" |
| 36" | 4'-8" | 4'-5" |
| 42" | 5'-2 1/2" | 4'-11" |

| PIPE SIZE | 12" | 15" | 18" | 24" | 30" | 36" | 42" |
|---|---|---|---|---|---|---|---|
| MINIMUM DEPTH H | 2'-0" | 2'-3 1/4" | 2'-4 1/2" | 3'-1" | 3'-7 1/2" | 4'-2" | 4'-8 1/2" |
| CONCRETE CUBIC YARDS | .947 | 1.045 | 1.143 | 1.339 | 1.535 | 1.731 | 1.927 |

INCREMENT PER FOOT OF ADDITIONAL DEPTH ON ⅓ = 0.162 CU. YDS. (12" - 36" PIPE) ⅓ = 0.435 CU. YDS. (42" PIPE)

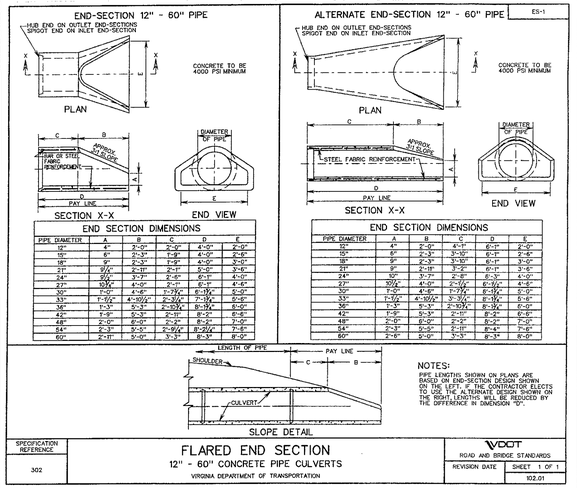
SPECIFICATION REFERENCE: 241, 503

## STANDARD MEDIAN DROP INLET
12" TO 42" PIPE

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS

| REVISION DATE | SHEET 1 OF 3 |
|---|---|
| | 104.22 |




| PIPE DIAMETER | A | B | C | D | E |
|---|---|---|---|---|---|
| 12" | 4" | 3'-0" | 2'-0" | 4'-0" | 2'-0" |
| 15" | 6" | 2'-3" | 1'-9" | 4'-0" | 2'-6" |
| 18" | 9" | 2'-3" | 1'-9" | 4'-0" | 3'-0" |
| 21" | 9 1/2" | 2'-11" | 2'-1" | 5'-0" | 3'-6" |
| 24" | 9 1/2" | 3'-7" | 2'-6" | 6'-1" | 4'-0" |
| 27" | 10 1/2" | 4'-0" | 2'-11" | 6'-1" | 4'-6" |
| 30" | 1'-0" | 4'-6" | 1'-7 1/2" | 6'-10 1/2" | 5'-0" |
| 33" | 1'-0 1/2" | 4'-10 1/2" | 2'-3 1/2" | 7'-10 1/2" | 5'-6" |
| 36" | 1'-3" | 5'-3" | 2'-10 1/2" | 8'-10 1/2" | 6'-0" |
| 42" | 1'-6" | 6'-0" | 3'-4" | 8'-2" | 6'-8" |
| 48" | 2'-0" | 6'-0" | 2'-2" | 8'-2" | 7'-0" |
| 54" | 2'-3" | 5'-5" | 2'-9 1/2" | 8'-8" | 7'-6" |
| 60" | 2'-11" | 5'-0" | 3'-3" | 8'-3" | 8'-0" |

NOTES:
PIPE LENGTHS SHOWN ON PLANS ARE BASED ON END-SECTION DESIGN SHOWN ON THE LEFT. IF THE CONTRACTOR ELECTS TO USE THE ALTERNATE END-SECTION ON THE RIGHT, LENGTHS WILL BE REDUCED BY THE DIFFERENCE IN DIMENSION "D".

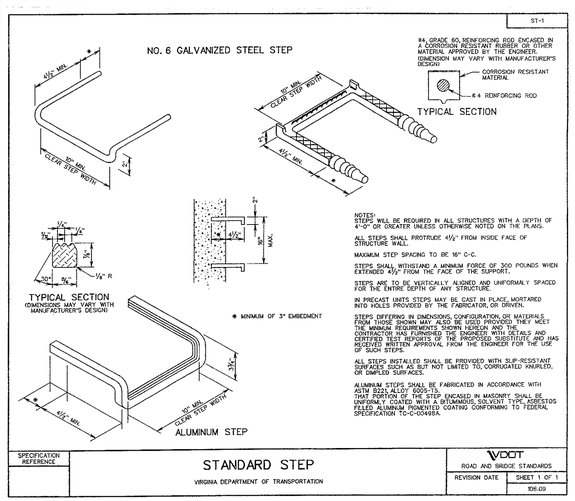
SPECIFICATION REFERENCE: 302

## FLARED END SECTION
12" - 60" CONCRETE PIPE CULVERTS

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS

| REVISION DATE | SHEET 1 OF 1 |
|---|---|
| | 102.01 |




NOTES:
STEPS WILL BE REQUIRED IN ALL STRUCTURES WITH A DEPTH OF 4'-0" OR GREATER UNLESS OTHERWISE NOTED ON THE PLANS.
ALL STEPS SHALL PROTRUDE 4 1/2" FROM INSIDE FACE OF STRUCTURE WALL.
MAXIMUM STEP SPACING TO BE 16" C-C.
STEPS SHALL WITHSTAND A MINIMUM FORCE OF 300 POUNDS WHEN EXTENDED 4 1/2" FROM THE FACE OF THE SUPPORT.
STEPS ARE TO BE VERTICALLY ALIGNED AND UNIFORMLY SPACED FOR THE ENTIRE DEPTH OF ANY STRUCTURE.
IN PRECAST UNITS STEPS MAY BE CAST IN PLACE, MORTARED INTO HOLES PROVIDED BY THE FABRICATOR, OR DRIVEN.
STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THEY MEET THE MINIMUM REQUIREMENTS SHOWN HEREON AND THE STANDARD PLACEMENT, PROJECTION, DETAILS AND CERTIFIED TEST REPORTS OF THE PROPOSED SUBSTITUTE, AND HAS RECEIVED WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SUCH STEPS.
ALL STEPS INSTALLED SHALL BE PROVIDED WITH SLIP-RESISTANT SURFACES SUCH AS BUT NOT LIMITED TO, CORRUGATED KNURLED, OR DIMPLED SURFACES.
ALUMINUM STEPS SHALL BE FABRICATED IN ACCORDANCE WITH ASTM B221, ALLOY 6061-T6.
STEPS WHICH ARE TO BE ENCASED IN MASONRY SHALL BE UNIFORMLY COATED WITH A BITUMINOUS SOLVENT TYPE ASBESTOS FILLED ALUMINUM POWDER COATING CONFORMING TO FEDERAL SPECIFICATION TT-C-00498A.

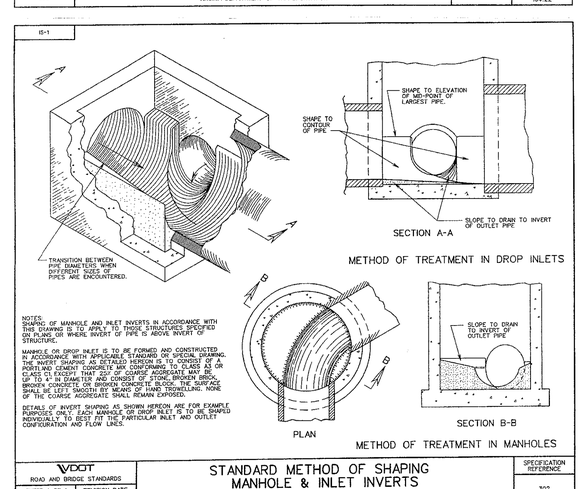
SPECIFICATION REFERENCE: 106

## STANDARD STEP

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS

| REVISION DATE | SHEET 1 OF 1 |
|---|---|
| | 106.09 |




NOTES:
SHAPING OF MANHOLE AND INLET INVERTS IN ACCORDANCE WITH STANDARD IS-1 IS TO APPLY TO THOSE STRUCTURES SPECIFIED ON PLANS OR WHERE INVERT OF PIPE IS ABOVE INVERT OF STRUCTURE.
MANHOLE OR DROP INLET IS TO BE FORMED AND CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STANDARD OR SPECIAL DRAWING. THE INVERT SHAPING AS DETAILED HEREON IS TO CONSIST OF A PORTLAND CEMENT CONCRETE MIX CONFORMING TO CLASS A3 OR CLASS C1 EXCEPT THAT 20% OF COARSE AGGREGATE MAY BE UP TO 4" IN DIAMETER. AFTER THE CONCRETE HAS ATTAINED INITIAL SET, THE SURFACE OF THE BRICK OR CONCRETE BLOCK, THE SURFACE SHALL BE LEFT SMOOTH BY MEANS OF HAND TROWELLING. NONE OF THE COARSE AGGREGATE SHALL REMAIN EXPOSED.
DETAILS OF INVERT SHAPING AS SHOWN HEREON ARE FOR EXAMPLE PURPOSES ONLY. EACH MANHOLE OR DROP INLET IS TO BE SHAPED INDIVIDUALLY TO BEST FIT THE PARTICULAR INLET AND OUTLET CONFIGURATION AND FLOW LINES.

VDOT ROAD AND BRIDGE STANDARDS

| SHEET 1 OF 1 | REVISION DATE |
|---|---|
| 105.08 | |

## STANDARD METHOD OF SHAPING MANHOLE & INLET INVERTS

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 302

# SITE PLAN OF AMAC LEASING, LLC
BERLIN–IVOR MAGISTERIAL DISTRICT
DETAIL SHEET

Southampton County, Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|

COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER — K.M. KINNING III, Lic. No. 026972, 1/18/13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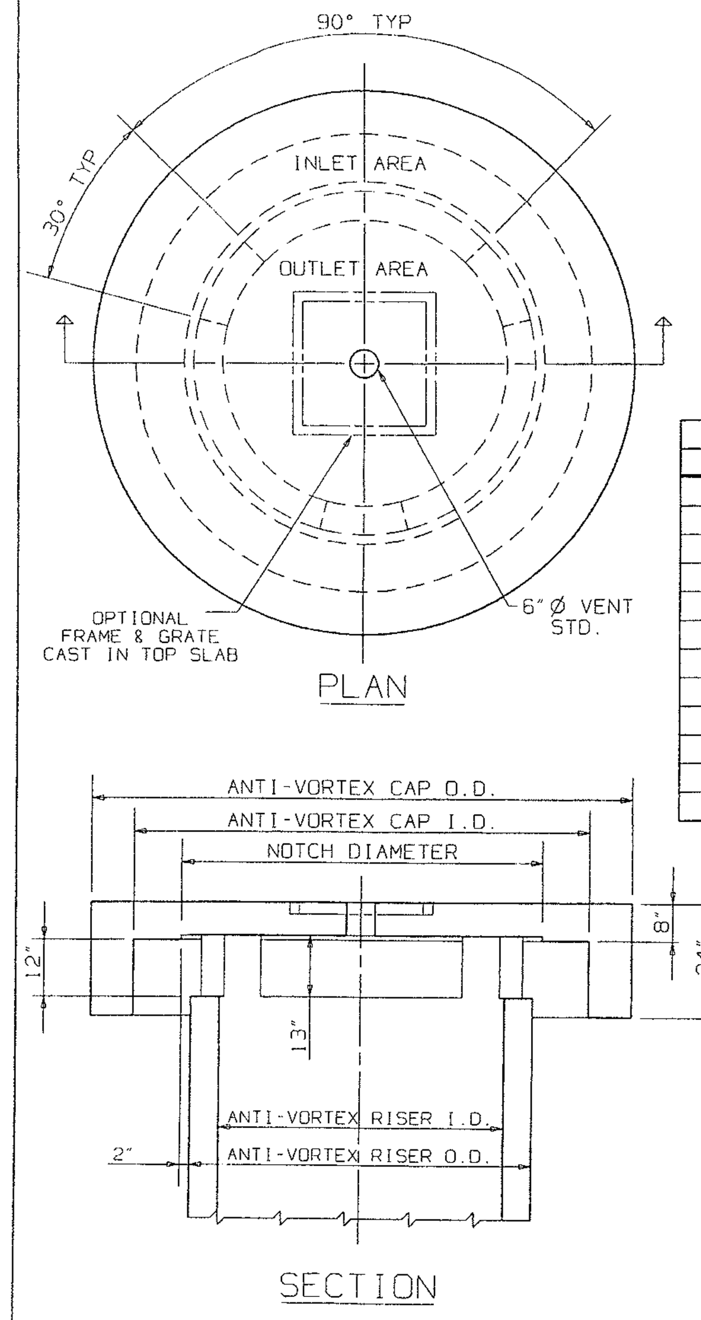
SCALE: NTS
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C19 OF 24

REF. CT-0523-GA




NOTE:

1. ANTI-VORTEX DEVICE (CAP AND RISER) MANUFACTURED IN ACCORDANCE WITH ASTM C478.
2. DIMENSIONS SUBJECT TO PERMISSIBLE VARIATIONS OF ASTM C478.
3. INLET AREA (AREA BETWEEN DEVICE I.D. AND RISER O.D.) IS GREATER THAN OUTLET AREA (AREA OF RISER I.D.)
4. SLAB REINFORCEMENT TO BE ASTM A615 #4 BARS @ 8" E.W. CIRCUMFERENTIAL REINFORCEMENT TO BE Asc = 1 @ 0.150 2x6 W2.5 x w2.5 WWF MINIMUM. MATERIAL PROPERTIES: fy = 60 ksi, fc = 4 ksi. CONCRETE COVER OVER REINFORCEMENT (CCOR) = 1", UNLESS NOTED
5. DI-1 FRAME & GRATE IS AVAILABLE FOR 48" I.D. RISERS AND LARGER.

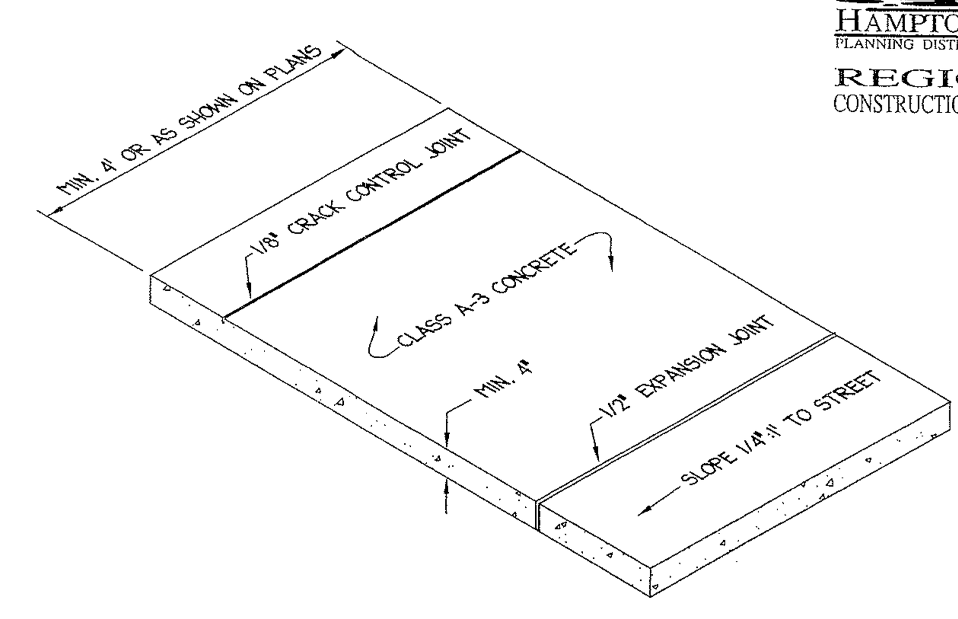
| RISER | | ANTI-VORTEX CAP | | NOTCH DIAMETER | APPROX. CAP WEIGHT |
|---|---|---|---|---|---|
| I.D. | O.D. | I.D. | O.D. | | |
| 24" | 30" | 48" | 58" | 34" | 1.49 T |
| 27" | 33½" | 60" | 72" | 37½" | 2.28 T |
| 30" | 37" | 60" | 72" | 41" | 2.26 T |
| 36" | 44" | 60" | 72" | 48" | 2.22 T |
| 42" | 51" | 72" | 86" | 55" | 3.16 T |
| 48" | 58" | 84" | 100" | 62" | 4.27 T |
| 54" | 66½" | 84" | 100" | 70½" | 4.20 T |
| 60" | 72" | 96" | 114" | 76" | 5.48 T |
| 66" | 80½" | 96" | 114" | 84½" | 5.39 T |
| 72" | 86" | 108" | 128" | 90" | 6.83 T |
| 78" | 94½" | 126" | 147" | 98½" | 8.97 T |
| 84" | 100" | 126" | 147" | 104" | 8.90 T |

PRECAST ANTI-VORTEX DEVICE (CAP AND RISER)

HANSON PIPE & PRODUCTS, INC. — DATE 01-07-03

2900 Terminal Ave. □ Richmond, Virginia 23234 □ 804-233-5471 — PAGE 14.1

HAMPTON ROADS PLANNING DISTRICT COMMISSION
REGIONAL CONSTRUCTION STANDARDS




NOTES:

1. CRACK CONTROL JOINTS TO BE PROVIDED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK BY SAWING, SCORING, "LEAVE-IN" INSERTS, OR CUTTER PLATES AND SHALL EXTEND INTO THE CONCRETE TO 1/4 OF THE DEPTH.

2. EXPANSION JOINTS TO BE INSTALLED AT INTERVALS NOT EXCEEDING 50', AND AT JUNCTION POINTS OF CURBS AND ENTRANCES, AND ON BOTH SIDES OF ALL SIDEWALK SECTIONS CONTAINING UTILITIES. PREMOLDED, 1/2" JOINT FILLER IS TO BE USED EXTENDING FROM BOTTOM OF SLAB TO 1/4" OF ITS TOP SURFACE.

3. AS SOON AS CONCRETE WILL NOT SLUMP, FACE FORMS ARE TO BE REMOVED, IRREGULARITIES REMOVED, A LIGHT BROOM FINISH GIVEN, AND A LIQUID MEMBRANE SEAL OR OTHER APPROVED CURING MEDIUM APPLIED.

4. SIDEWALKS ACROSS ENTRANCES SHALL HAVE A DEPTH OF SEVEN INCHES (7") WITH A MAXIMUM SLOPE OF 1":12".

5. THE CONTRACTOR SHALL PREVENT THE TEMPERATURE AT THE SURFACE OF THE CONCRETE FROM FALLING BELOW 40°F DURING THE FIRST 72 HOURS IMMEDIATELY FOLLOWING CONCRETE PLACEMENT. PROTECTIVE MATERIAL SHALL BE LEFT IN PLACE FOR AN ADDTIONAL 48 HOURS IF FREEZING AIR TEMPERATURES ARE EXPECTED TO CONTINUE.

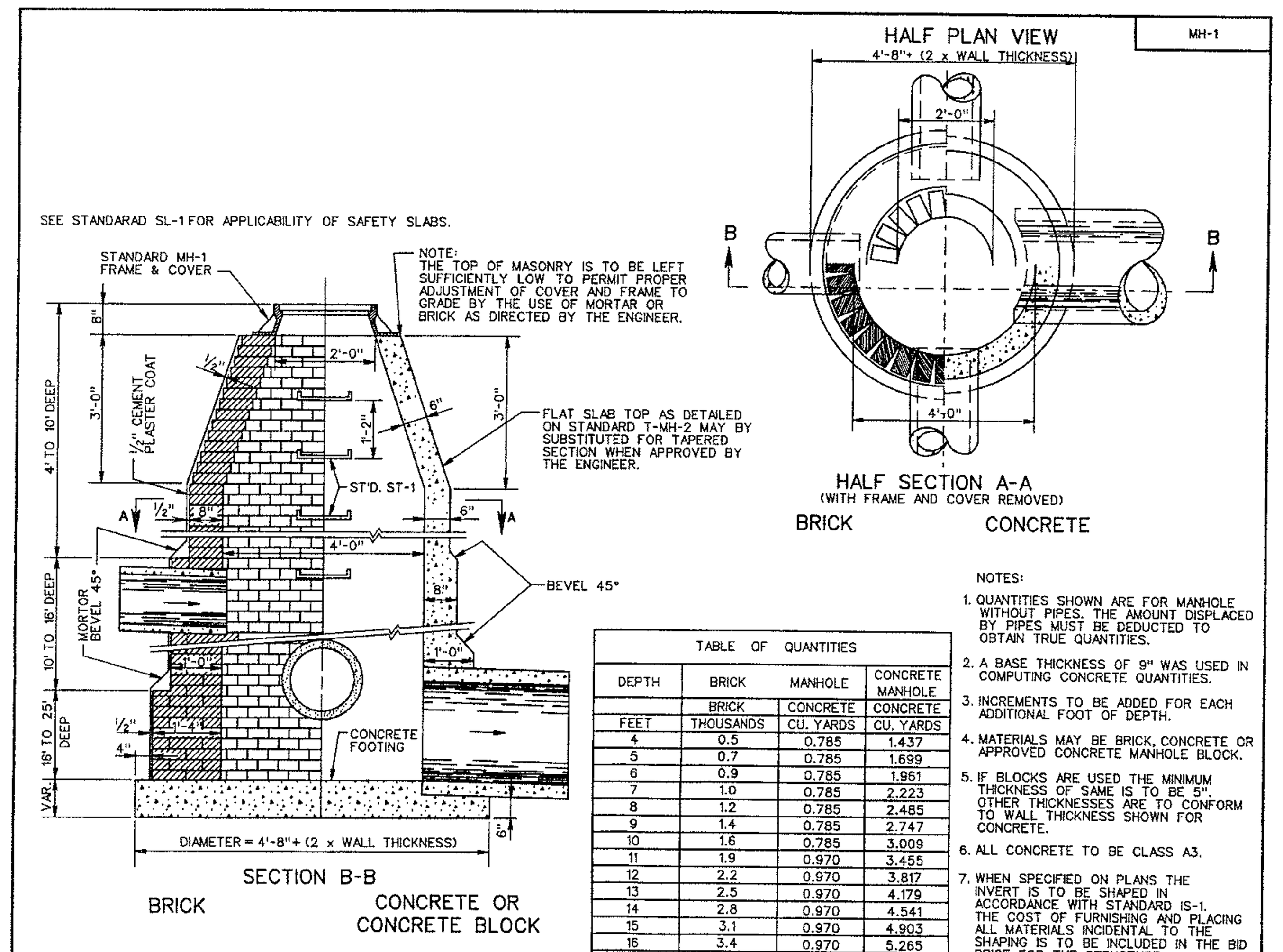
SIDEWALK DETAIL

NOT TO SCALE

| REFERENCE | CATEGORY | DATE | SHEET No. | DETAIL No. |
|---|---|---|---|---|
| 200,502 | CONCRETE ITEMS | 01/03 | 1 OF 1 | CI_09 |

MH-1

SEE STANDARAD SL-1 FOR APPLICABILITY OF SAFETY SLABS.




| TABLE OF QUANTITIES | | | |
|---|---|---|---|
| DEPTH | BRICK MANHOLE | | CONCRETE MANHOLE |
| | BRICK | CONCRETE | CONCRETE |
| FEET | THOUSANDS | CU. YARDS | CU. YARDS |
| 4 | 0.5 | 0.785 | 1.437 |
| 5 | 0.7 | 0.785 | 1.699 |
| 6 | 0.9 | 0.785 | 1.961 |
| 7 | 1.0 | 0.785 | 2.223 |
| 8 | 1.2 | 0.785 | 2.485 |
| 9 | 1.4 | 0.785 | 2.747 |
| 10 | 1.6 | 0.785 | 3.009 |
| 11 | 1.9 | 0.970 | 3.455 |
| 12 | 2.2 | 0.970 | 3.817 |
| 13 | 2.5 | 0.970 | 4.179 |
| 14 | 2.8 | 0.970 | 4.541 |
| 15 | 3.1 | 0.970 | 4.903 |
| 16 | 3.4 | 0.970 | 5.265 |
| 17 | 4.0 | 1.173 | 6.032 |
| INCREMENT | 0.45 | - | 0.582 |

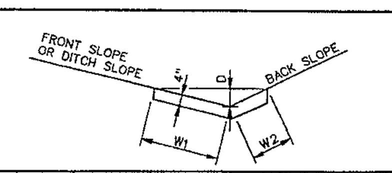
NOTES:

1. QUANTITIES SHOWN ARE FOR MANHOLE WITHOUT PIPES. THE AMOUNT DISPLACED BY PIPES MUST BE DEDUCTED TO OBTAIN TRUE QUANTITIES.
2. A BASE THICKNESS OF 9" WAS USED IN COMPUTING CONCRETE QUANTITIES.
3. INCREMENTS TO BE ADDED FOR EACH ADDITIONAL FOOT OF DEPTH.
4. MATERIALS MAY BE BRICK, CONCRETE OR APPROVED CONCRETE MANHOLE BLOCK.
5. IF BLOCKS ARE USED THE MINIMUM THICKNESS OF SAME IS TO BE 5". OTHER THICKNESSES ARE TO CONFORM TO WALL THICKNESS SHOWN FOR CONCRETE.
6. ALL CONCRETE TO BE CLASS A3.
7. WHEN SPECIFIED ON PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.

SPECIFICATION REFERENCE 302 — MANHOLE FOR 12" - 48" PIPE CULVERTS — VIRGINIA DEPARTMENT OF TRANSPORTATION — VDOT ROAD AND BRIDGE STANDARDS — REVISION DATE — SHEET 1 OF 5 — 106.01

PG-2A

OUTSIDE ROAD DITCHES




| TYPE | D | FRONT SLOPE | BACK SLOPE | W1 | W2 | K | SQ. YDS. SURFACE AREA/LIN. FT. |
|---|---|---|---|---|---|---|---|
| A1 | 6" | 6:1 | 4:1 | 3'-0" | 2'-1" | 48 | 0.565 |
| A1 | 8" | 6:1 | 4:1 | 4'-1" | 2'-9" | 104 | 0.759 |
| A2 | 6" | 6:1 | 3:1 | 3'-0" | 1'-7" | 42 | 0.509 |
| A2 | 8" | 6:1 | 3:1 | 4'-1" | 2'-1" | 92 | 0.685 |
| A3 | 6" | 6:1 | 2:1 | 3'-0" | 1'-2" | 38 | 0.463 |
| A3 | 8" | 6:1 | 2:1 | 4'-1" | 1'-6" | 82 | 0.620 |
| B1 | 6" | 4:1 | 4:1 | 2'-1" | 2'-1" | 38 | 0.463 |
| B1 | 8" | 4:1 | 4:1 | 2'-9" | 2'-9" | 82 | 0.611 |
| B2 | 8" | 4:1 | 3:1 | 2'-9" | 2'-1" | 72 | 0.537 |
| B2 | 10" | 4:1 | 3:1 | 3'-5" | 2'-8" | 130 | 0.676 |
| B3 | 8" | 4:1 | 2:1 | 2'-9" | 1'-6" | 60 | 0.472 |
| B3 | 10" | 4:1 | 2:1 | 3'-5" | 1'-10" | 111 | 0.583 |
| B4 | 8" | 4:1 | 1½:1 | 2'-9" | 1'-2" | 55 | 0.435 |
| B4 | 10" | 4:1 | 1½:1 | 3'-5" | 1'-6" | 101 | 0.546 |
| C1 | 8" | 3:1 | 2:1 | 2'-1" | 1'-6" | 50 | 0.398 |
| C1 | 10" | 3:1 | 2:1 | 2'-8" | 1'-10" | 92 | 0.500 |
| C2 | 10" | 3:1 | 1½:1 | 2'-8" | 1'-6" | 80 | 0.463 |
| C3 | 10" | 3:1 | 1:1 | 2'-8" | 1'-2" | 70 | 0.426 |

MEDIAN DITCH

TYPE D — K = 82

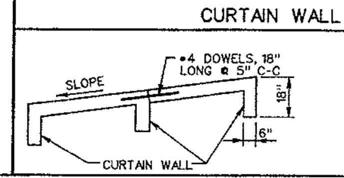
| D = DEPTH | W1 | W2 | SQ. YDS. SURFACE AREA PER LIN. FT. |
|---|---|---|---|
| 8" | 2'-9" | 2'-9" | 0.611 |

DITCH AT TOE OF FILL OR TOP OF CUT

TYPE E — K = 115

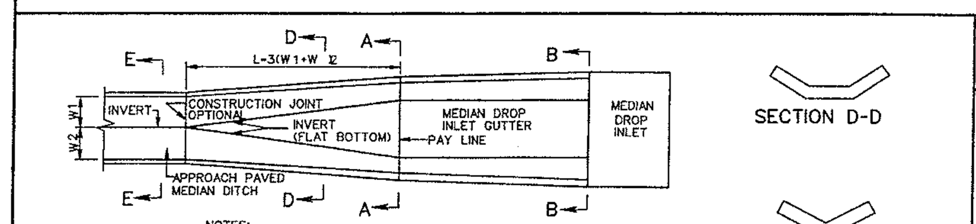
| | | | |
|---|---|---|---|
| 12" | 2'-3" | 2'-3" | 0.500 |

CURTAIN WALL DETAIL




CURTAIN WALL TO BE LOCATED AT BEGINNING AND END OF ALL CHANNELS AND ON THE LOWER END OF EACH EXPANSION JOINT.

PLAN FOR TRANSITION OF PAVED MEDIAN DITCH TO MEDIAN DROP INLET GUTTER



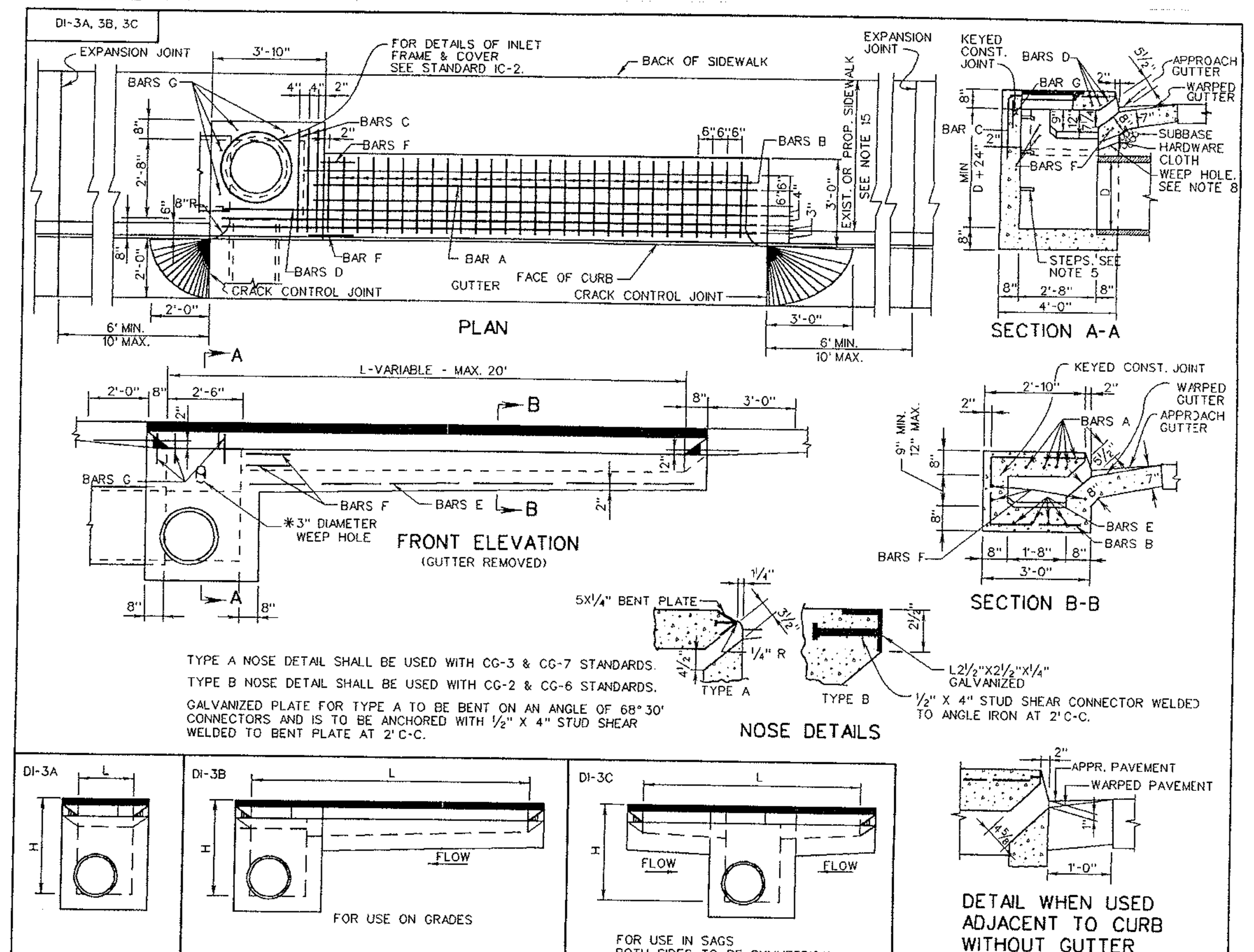

NOTES:
FOR SECTION A-A AND B-B SEE STANDARDS DI-7, 7A AND 7B. TRADITIONAL PORTION OF PAVED DITCH TO BE PAID FOR AT THE SAME PRICE BID PER SQ. YARD FOR APPROACH PAVED MEDIAN DITCH. STANDARD PG-2A DITCHES TO BE CLASS A3 CONCRETE.

ALTERNATE METHOD OF FORMING DITCHES

NOTE:
ALL DITCHES MAY BE CONSTRUCTED WITH VERTICAL SIDES AT THE OPTION OF THE CONTRACTOR.

SPECIFICATION REFERENCE 502 — STANDARD PAVED DITCHES — VIRGINIA DEPARTMENT OF TRANSPORTATION — VDOT ROAD AND BRIDGE STANDARDS — REVISION DATE — SHEET 1 OF 1 — 109.01

DI-3A, 3B, 3C




TYPE A NOSE DETAIL SHALL BE USED WITH CG-3 & CG-7 STANDARDS.
TYPE B NOSE DETAIL SHALL BE USED WITH CG-2 & CG-6 STANDARDS.
GALVANIZED PLATE FOR TYPE A TO BE BENT ON AN ANGLE OF 68° 30' CONNECTORS AND IS TO BE ANCHORED WITH ½" X 4" STUD SHEAR WELDED TO BENT PLATE AT 2' C-C.

VDOT ROAD AND BRIDGE STANDARDS — SHEET 1 OF 2 — REVISION DATE 08/10 — 104.09 — STANDARD CURB DROP INLET — 12" - 30" PIPE: MAXIMUM DEPTH (H) = 8' — VIRGINIA DEPARTMENT OF TRANSPORTATION — SPECIFICATION REFERENCE 233 302

# SITE PLAN OF AMAC LEASING, LLC
BERLIN-IVOR MAGISTERIAL DISTRICT
DETAIL SHEET

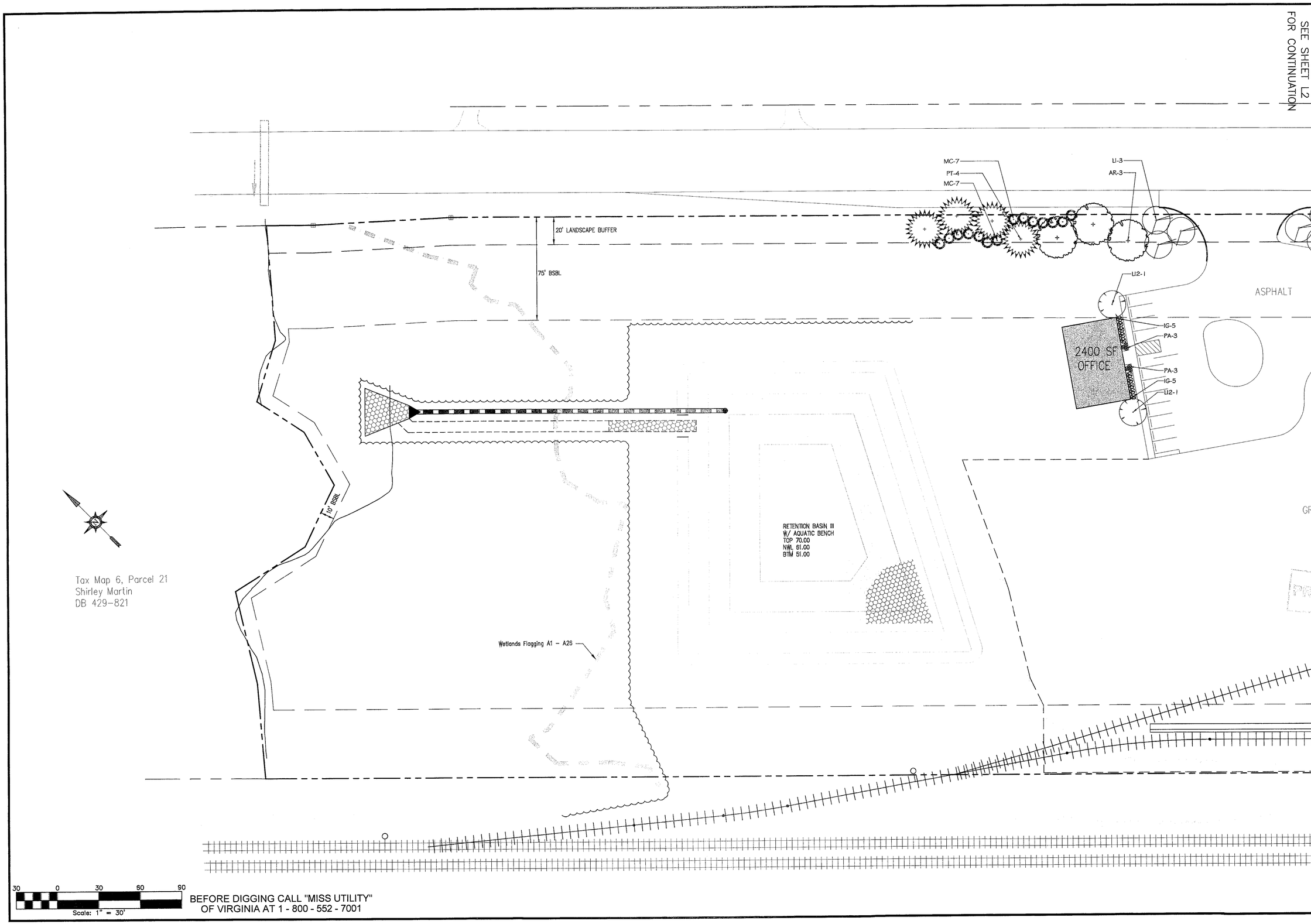
Southampton County — Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|

COMMONWEALTH OF VIRGINIA — K.M. JENKINS II — Lic. No. 022872 — 1/18/13 — PROFESSIONAL ENGINEER


LandTech Resources, Inc.
Surveying - Engineering - GPS
205 Bulifants Blvd., Ste E, Williamsburg, VA 23188
Phone: (757) 565-1677 Fax: (757) 565-0782
web: landtechresources.com


SCALE: NTS
DATE: 1/4/13
JOB: 12-426
DRAWN BY: KMJ
SHEET: C20 OF 24




BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 1 - 800 - 552 - 7001

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
LANDSCAPE PLAN

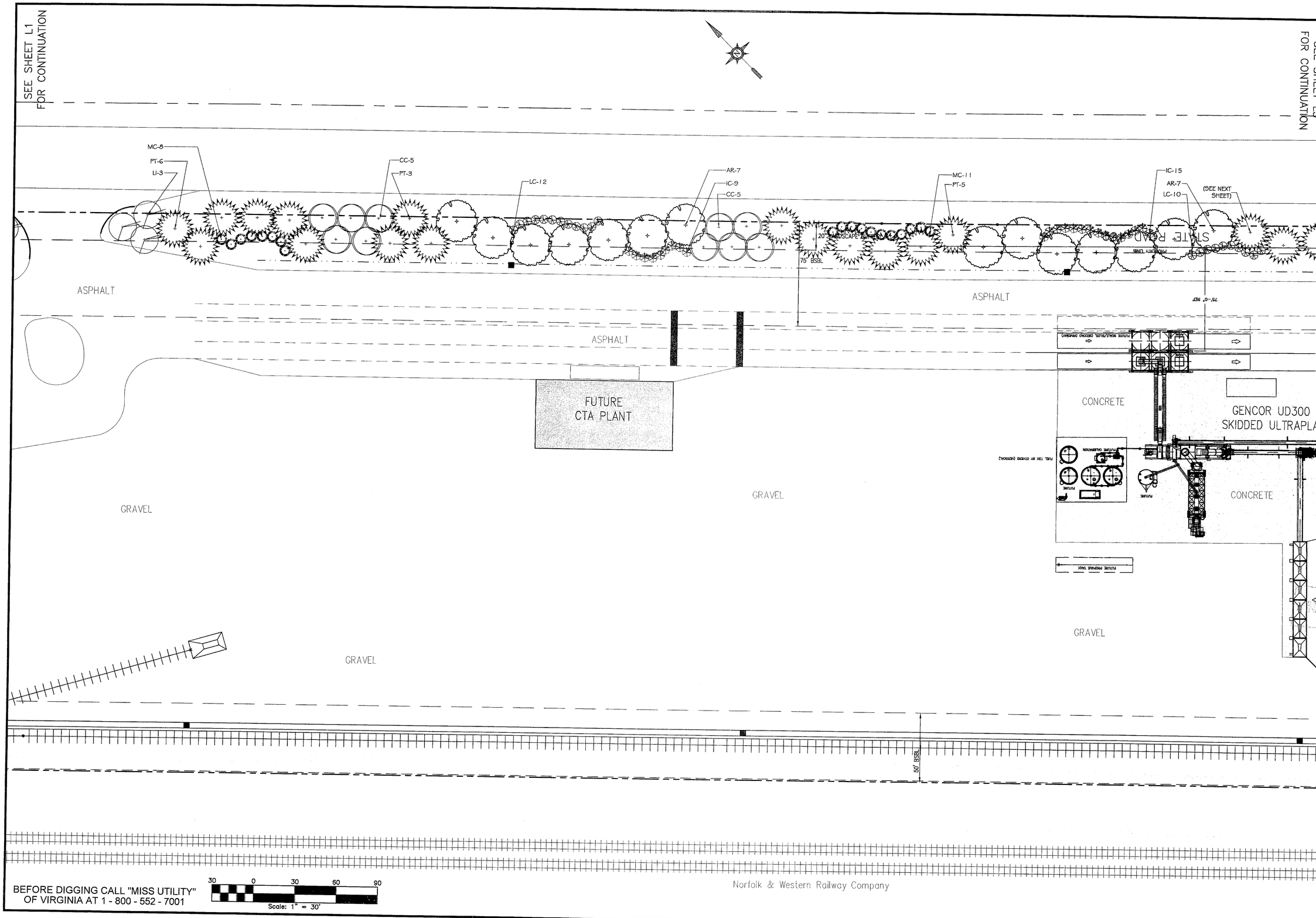
Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|
| | | |

COMMONWEALTH OF VIRGINIA
CHRISTOPHER M. BASIC
Lic. No. 1103
01/15/13
LANDSCAPE ARCHITECT

GREENSPRINGS
LANDSCAPE ARCHITECTURE
3240 Westover Ridge
Williamsburg, VA 23188
757.565.2306
www.greensprings LA.com

SCALE: 1" = 30'
DATE: 1/15/13
GLA JOB: 13-02
LT JOB: 12-426
DRAWN BY: CMB
SHEET: L1 OF 24

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30 0 30 60 90
Scale: 1" = 30'

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BERLIN-IVOR MAGISTERIAL DISTRICT
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DATE: 1/15/13
GLA JOB: 13-02
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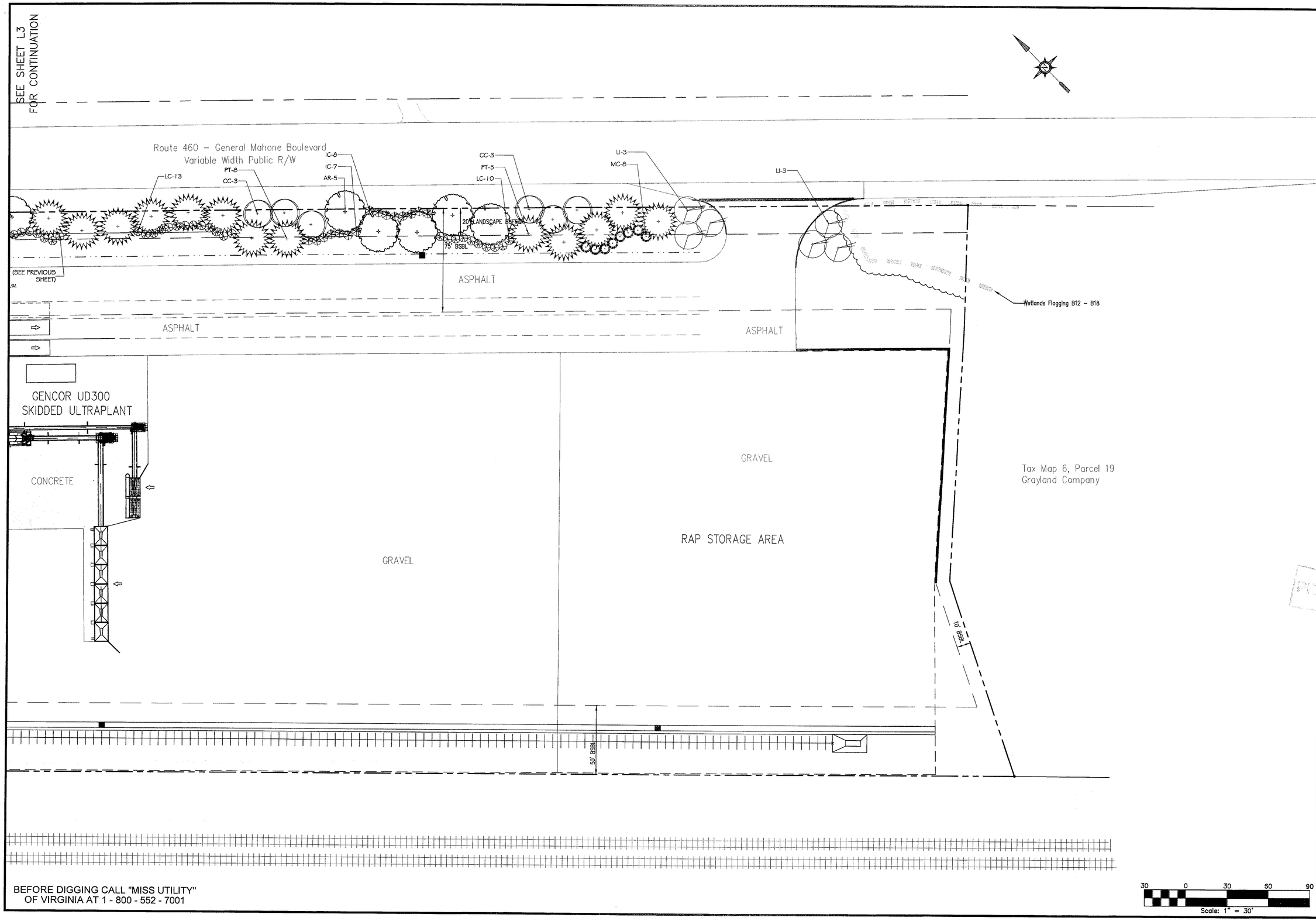
DRAWN BY: CMB
SHEET: L2 OF 24

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OF VIRGINIA AT 1 - 800 - 552 - 7001

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BERLIN-IVOR MAGISTERIAL DISTRICT
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Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
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DATE: 1/15/13
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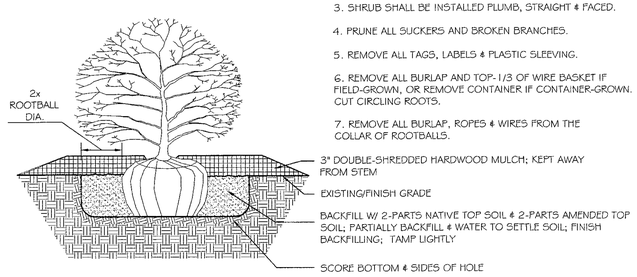
LT JOB: 12-426
DRAWN BY: CMB
SHEET: L3 OF 24

## PLANT SCHEDULE

| KEY | QTY. | BOTANICAL NAME | COMMON NAME | SIZE | ROOT | COMMENT |
|---|---|---|---|---|---|---|
| TREES: | | | | | | |
| AR | 22 | ACER RUBRUM 'JAMESTOWN' | 'JAMESTOWN' RED MAPLE | 1-1/2" CAL. | B & B | SINGLE STEM |
| PT | 32 | PINUS TAEDA | LOBLOLLY PINE | 6' HT. | B & B | 3 STEMS, MAX |
| ORNAMENTAL TREES: | | | | | | |
| CC | 16 | CERCIS CANADENSIS | EASTERN REDBUD | 6' HT. | B & B | SINGLE STEM |
| LI | 12 | LAGERSTROEMIA INDICA 'MUSKOGEE' | 'MUSKOGEE LAVENDER' CRAPEMYRTPLE | 6' HT. | B & B | 3 CANES MAX. |
| LI2 | 2 | LAGERSTROEMIA INDICA 'NATCHEZ' | 'NATCHEZ WHITE' CRAPEMYRTPLE | 6' HT. | B & B | 3 CANES MAX. |
| SHRUBS: | | | | | | |
| IC | 39 | ILEX CRENATA 'BENNETT'S COMPACTA' | 'BENNETT'S COMPACT' JAPANESE HOLLY | 18-24" HT./W | CONT. | DENSE, FULL |
| IG | 10 | ILEX GLABRA 'SHAMROCK' | 'SHAMROCK' INKBERRY HOLLY | 18-24" HT./W | CONT. | DENSE, FULL |
| LC | 45 | LOROPETALUM CHINENSIS 'ZHUZHOU' VAR. ATRO. | ZHUZHOU' LOROPETALUM | 18-24" HT./W | CONT. | DENSE, FULL |
| MC | 41 | MYRICA CERIFERA | SOUTHERN WAXMYRTLE | 18-24" HT./W | CONT. | DENSE, FULL |
| OTHER: | | | | | | |
| PA | 6 | PENNISETUM ALOPECUROIDES 'HAMELN' | 'HAMELN' DWF. FOUNTAIN GRASS | 18-24" HT./W | CONT. | DENSE, FULL |

NOTES:

1. SHRUBS SHALL BE PLANTED SO TOP OF ROOTBALL IS 2"-3" ABOVE FINISH GRADE.
2. DEPTH OF HOLE SHALL BE NO GREATER THAN ROOTBALL DEPTH.
3. SHRUB SHALL BE INSTALLED PLUMB, STRAIGHT & FACED.
4. PRUNE ALL SUCKERS AND BROKEN BRANCHES.
5. REMOVE ALL TAGS, LABELS & PLASTIC SLEEVING.
6. REMOVE ALL BURLAP AND TOP-1/3 OF WIRE BASKET IF FIELD-GROWN, OR REMOVE CONTAINER IF CONTAINER-GROWN. CUT CIRCLING ROOTS.
7. REMOVE ALL BURLAP, ROPES & WIRES FROM THE COLLAR OF ROOTBALLS.

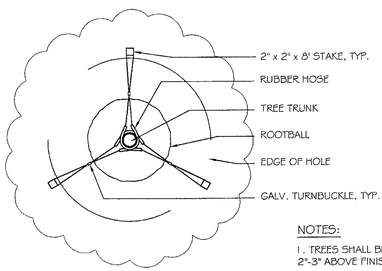



SECTION VIEW

## SHRUB PLANTING

NOT TO SCALE

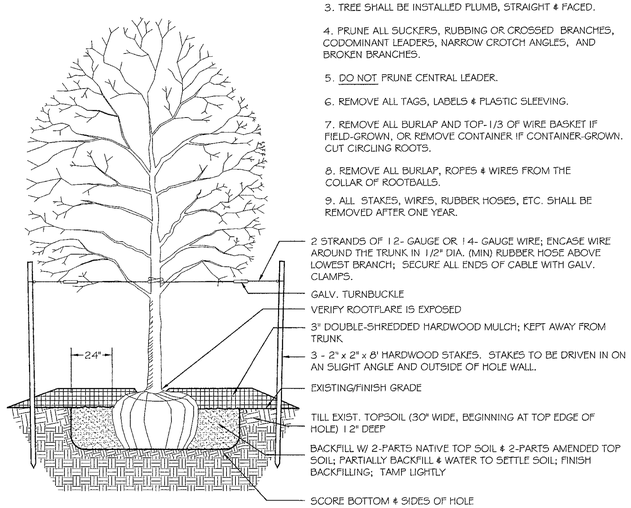
PROPOSED LANDSCAPE TABULATIONS:
1,673 LF (+/-) OF FRONTAGE on ROUTE 460 INCLUDES
82 TREES & 125 SHRUBS PROPOSED




PLAN VIEW FOR STAKING

NOTES:

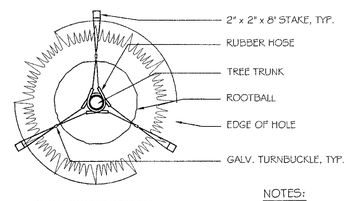
1. TREES SHALL BE PLANTED SO TOP OF ROOTBALL IS 2"-3" ABOVE FINISH GRADE.
2. DEPTH OF HOLE SHALL BE NO GREATER THAN ROOTBALL DEPTH.
3. TREE SHALL BE INSTALLED PLUMB, STRAIGHT & FACED.
4. PRUNE ALL SUCKERS, RUBBING OR CROSSED BRANCHES, CODOMINANT LEADERS, NARROW CROTCH ANGLES, AND BROKEN BRANCHES.
5. DO NOT PRUNE CENTRAL LEADER.
6. REMOVE ALL TAGS, LABELS & PLASTIC SLEEVING.
7. REMOVE ALL BURLAP AND TOP-1/3 OF WIRE BASKET IF FIELD-GROWN, OR REMOVE CONTAINER IF CONTAINER-GROWN. CUT CIRCLING ROOTS.
8. REMOVE ALL BURLAP, ROPES & WIRES FROM THE COLLAR OF ROOTBALLS.
9. ALL STAKES, WIRES, RUBBER HOSES, ETC. SHALL BE REMOVED AFTER ONE YEAR.




SECTION VIEW

## DECIDUOUS TREE PLANTING

NOT TO SCALE




PLAN VIEW FOR STAKING

NOTES:

1. TREES SHALL BE PLANTED SO TOP OF ROOTBALL IS 2"-3" ABOVE FINISH GRADE.
2. DEPTH OF HOLE SHALL BE NO GREATER THAN ROOTBALL DEPTH.
3. TREE SHALL BE INSTALLED PLUMB, STRAIGHT & FACED.
4. PRUNE ALL SUCKERS, RUBBING OR CROSSED BRANCHES, CODOMINANT LEADERS, NARROW CROTCH ANGLES, AND BROKEN BRANCHES.
5. DO NOT PRUNE CENTRAL LEADER.
6. REMOVE ALL TAGS, LABELS & PLASTIC SLEEVING.
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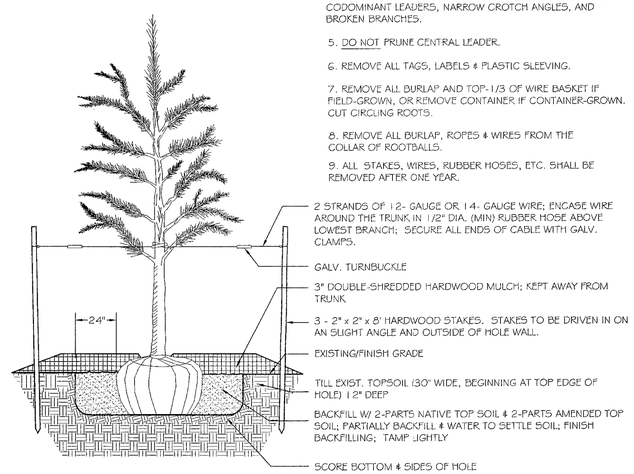


SECTION VIEW

## EVERGREEN TREE PLANTING

NOT TO SCALE

GENERAL NOTES:

1. ALL PLANT MATERIALS SHALL MEET THE MINIMUM STANDARDS & SPECIFICATIONS DESCRIBED IN THE "AMERICAN STANDARD FOR NURSERY STOCK," LATEST EDITION, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
2. ALL PLANT MATERIAL SHALL BE INSTALLED AS SPECIFIED IN THE "VNLA STANDARDIZED LANDSCAPE SPECIFICATIONS", LATEST EDITION.
3. THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTING SHOWN ON THE DRAWINGS. WHERE DISCREPANCIES EXIST BETWEEN THE PLANS & THE PLANT LIST, THE PLANS SHALL TAKE PRECEDENCE. IN THE EVENT WHERE A BASEMAP DISCREPANCY AFFECTS PLANT QUANTITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OR LANDSCAPE ARCHITECT PRIOR TO COMPLETING INSTALLATION.
4. AREAS DISTURBED BY CONSTRUCTION ARE TO BE SODDED OR SEEDED WITH A STATE CERTIFIED TURF-TYPE TALL FESCUE VARIETY SELECTED FROM THE FOLLOWING LIST:

   2ND MILLENNIUM, 3RD MILLENNIUM SRP, AVENGER, BINGO, BLACKWATCH, BRAVO, CONSTITUTION, COYOTE II, DAVINCI, DAYTONA, ENDEAVOR, FAITH, FALCON IV, FIDELITY, FIRECRACKER LS, FORTE, GRANDE, GRANDE II, GREENKEEPER WAP, GUARDIAN 21, HOUNDOG 5, HUNTER, INFERNO, JUSTICE, MAGELLAN, MASTERPIECE, MATADOR GT, MONET, PENN 1901, RAPTOR, RAPTOR II, REBEL IV, REBEL EXEDA, REGIMENT II, SPYDER LS, TAOS, TARHEEL II, TEMPEST, TITANIUM, TOMBSTONE, TURBO, WATCHDOG, WOLFPACK.
5. GROUPINGS OF PLANTS SHALL BE MULCHED IN CONTINUOUS BEDS.
6. ALL INSTALLED PLANT MATERIAL SHALL BE SUBJECT TO REGULAR MAINTENANCE, INCLUDING WATERING, MULCHING, FERTILIZING, PRUNING, INSECT & DISEASE CONTROL, AND WEED CONTROL.
7. CONTRACTORS ARE RESPONSIBLE FOR LOCATING & AVOIDING UTILITIES & UTILITY EASEMENTS DURING CONSTRUCTION & PLANTING OPERATIONS.

BEFORE DIGGING CALL "MISS UTILITY"
OF VIRGINIA AT 1 - 800 - 552 - 7001

# SITE PLAN OF AMAC LEASING, LLC

BERLIN-IVOR MAGISTERIAL DISTRICT
LANDSCAPE NOTES

Southampton County Virginia

| NO. | DATE | REVISION / COMMENT / NOTE |
|---|---|---|

COMMONWEALTH OF VIRGINIA
CHRISTOPHER M. BASIC
Lic. No. 1103
01/15/13
LANDSCAPE ARCHITECT


GREENSPRINGS
LANDSCAPE ARCHITECTURE
3240 Westover Ridge
Williamsburg, VA 23188
757.565.2306
www.greenspringsLA.com


SCALE: n/a
DATE: 1/15/13
GLA JOB: 13-02
LT JOB: 12-426
DRAWN BY: CMB
SHEET: L4 OF 24