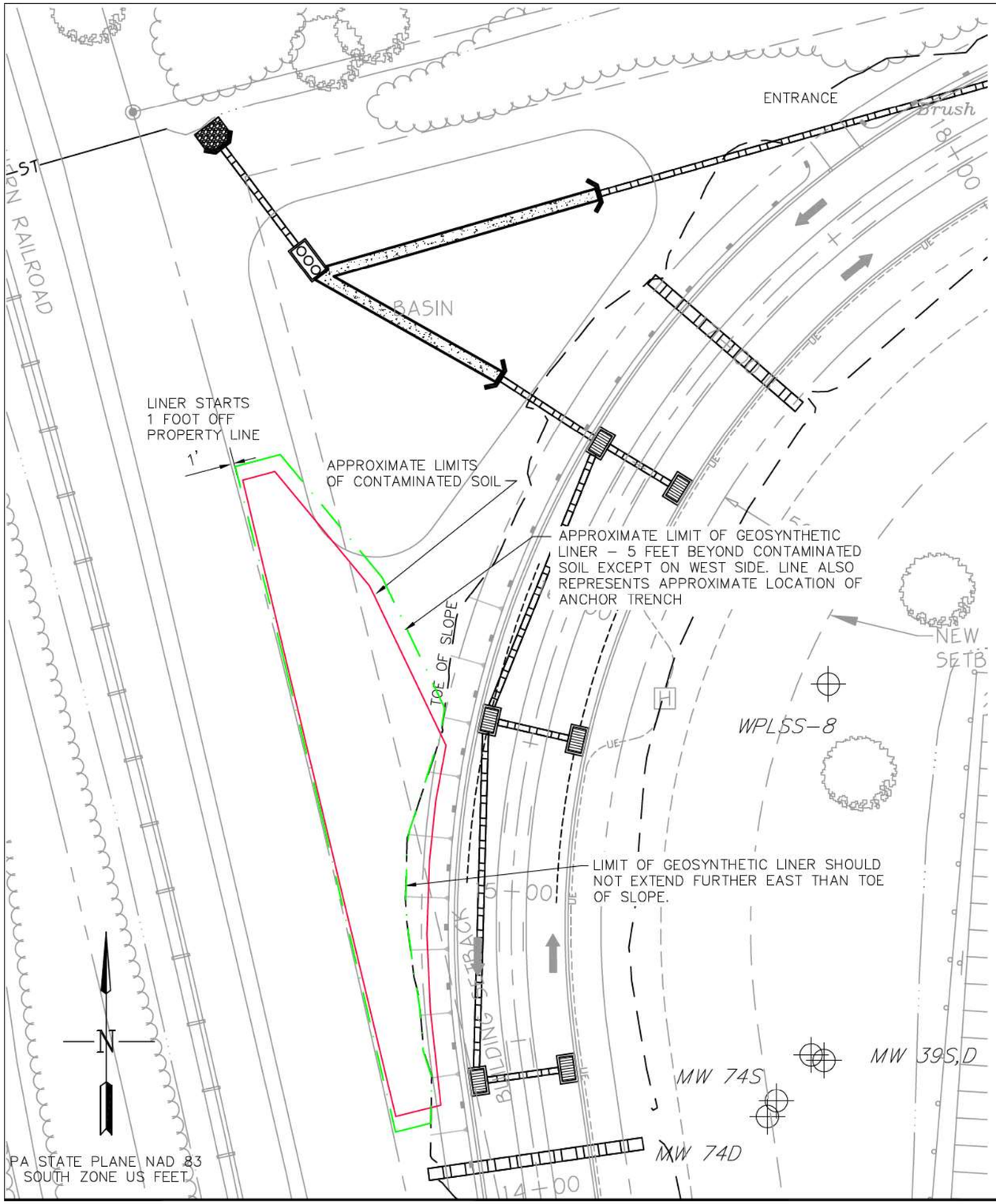
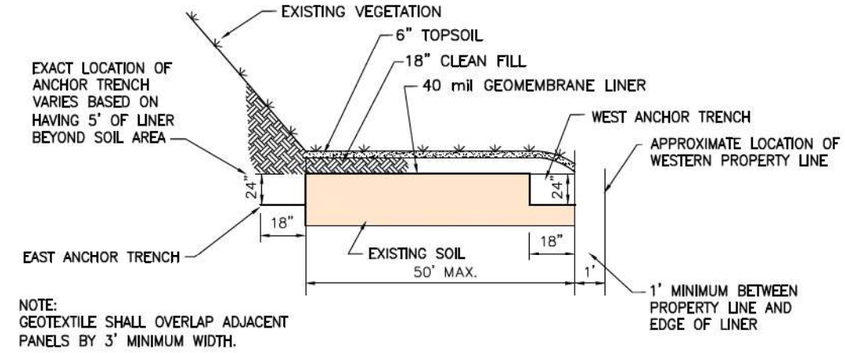




AREA B SOILS
GEOSYNTHETIC LINING DETAIL

NO SCALE

NOTES:

1. The geosynthetic product was selected to facilitate deployment throughout the entire contaminated soil area with the minimum number of seams.
   a. The geomembrane product specified provides standard roll widths of 12.5 feet. The required contamination soil coverage width of the geomembrane is a maximum 50 feet, accounting for corners, wrinkles, and anchor trenches. Therefore, up to 5 longitudinal seams will be required. Also, the geomembrane product specified provides standard roll lengths of 1,000 feet. The length of soil to be covered is approximately 230 feet. Therefore, no butt seams will be required.

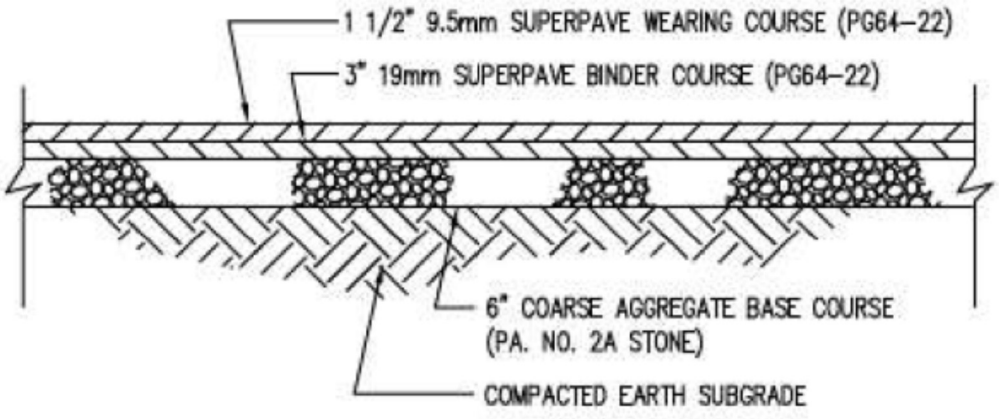
40' 0 40'
SCALE IN FEET

HARLEY-DAVIDSON MOTOR COMPANY OPERATIONS, INC.
YORK VEHICLE OPERATIONS
1425 EDEN ROAD, YORK, PA 17402

AREA B GEOSYNTHETIC LINER LAYOUT

drawn RAM		approved	figure no. 2
date 08/23/05		date	
job no. 01-1633-00-6220-007		file no. 6220-001.dwg	

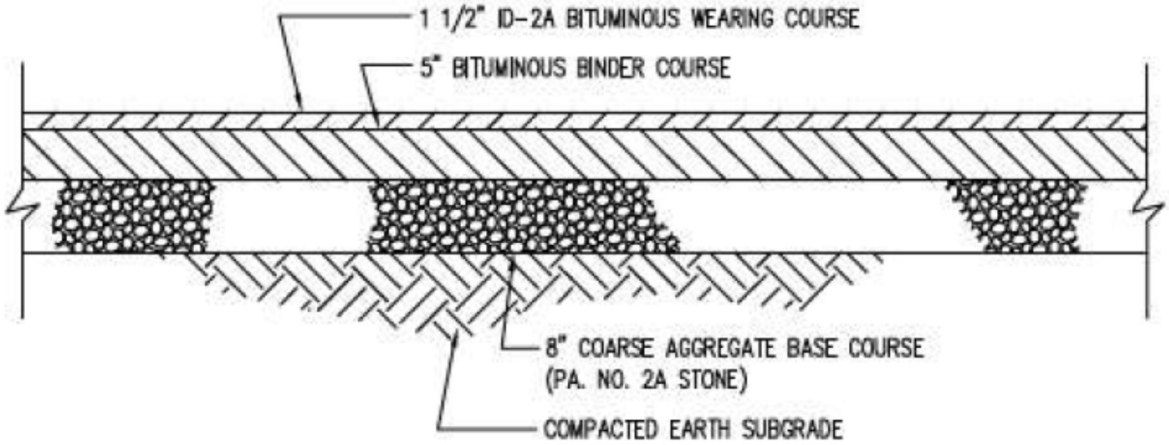
SAIC Science Applications International Corporation
From Science to Solutions™



NOTE: IF SATURATED SUBGRADE CONDITIONS ARE ENCOUNTERED, CONTRACTOR SHOULD NOTIFY ENGINEER IMMEDIATELY.

NORMAL DUTY
BITUMINOUS PAVING SECTION

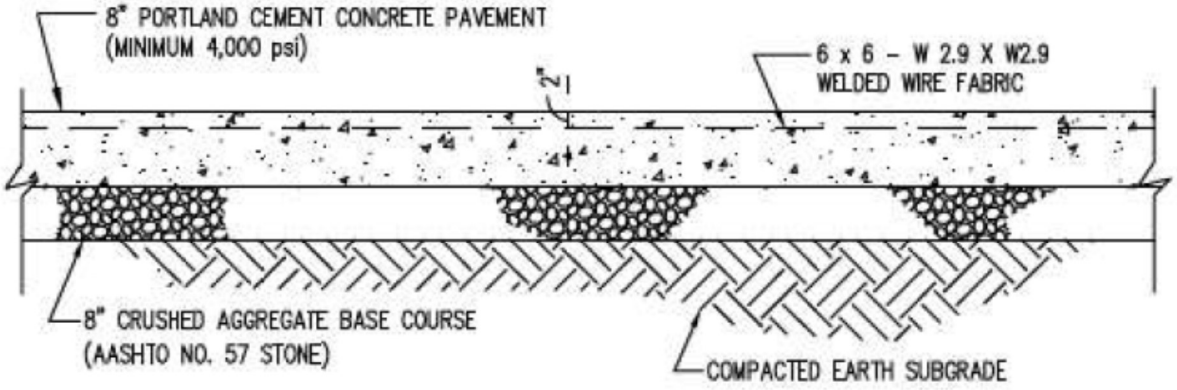
NO SCALE



NOTE: IF SATURATED SUBGRADE CONDITIONS ARE ENCOUNTERED, CONTRACTOR SHOULD NOTIFY ENGINEER IMMEDIATELY.

HEAVY DUTY
BITUMINOUS PAVING SECTION

NO SCALE



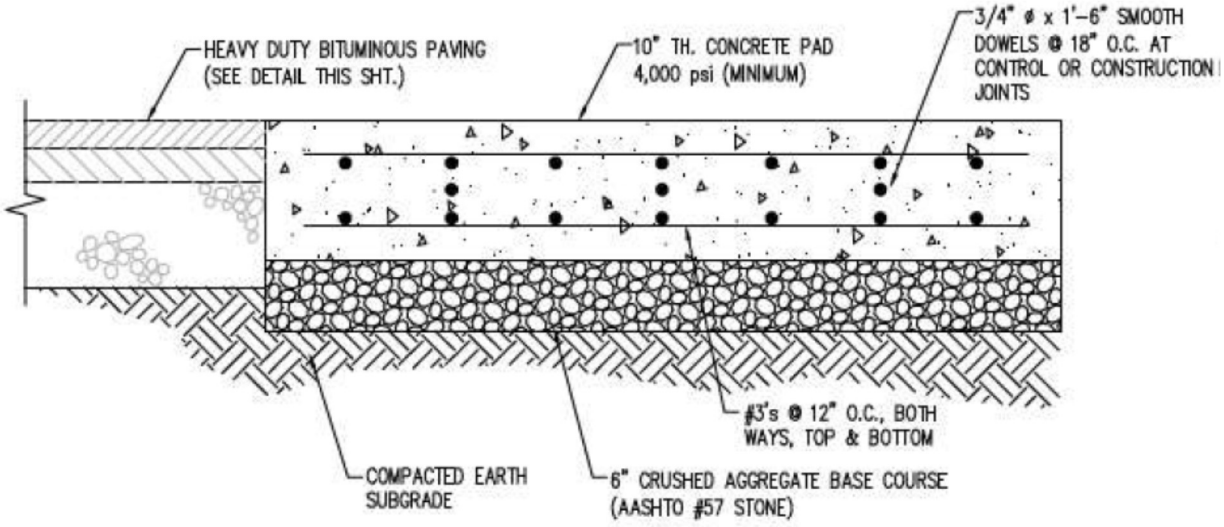
NOTE: IF SATURATED SUBGRADE CONDITIONS ARE ENCOUNTERED, CONTRACTOR SHOULD NOTIFY ENGINEER IMMEDIATELY.

ALL REINFORCED CONCRETE IS TO MEET LATEST EDITION ACI 318 CONSTRUCTION STANDARDS.

INSTALL CONTROL JOINTS AND EXPANSION JOINTS AS PER SPECIFICATIONS.

HEAVY DUTY CONCRETE PAD

NO SCALE



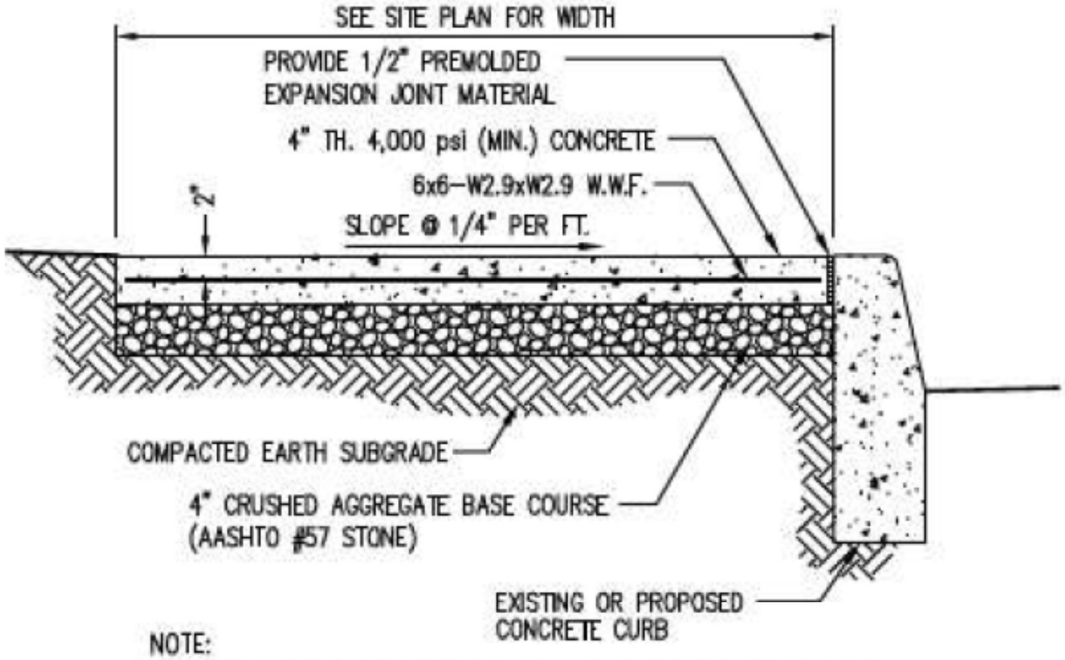
NOTE: IF SATURATED SUBGRADE CONDITIONS ARE ENCOUNTERED, NOTIFY ENGINEER IMMEDIATELY.

ALL REINFORCED CONCRETE IS TO MEET LATEST EDITION ACI 318 CONSTRUCTION STANDARDS.

INSTALL CONTROL JOINTS AND EXPANSION JOINTS AS PER SPECIFICATIONS.

HEAVY DUTY CONCRETE PAD

NO SCALE

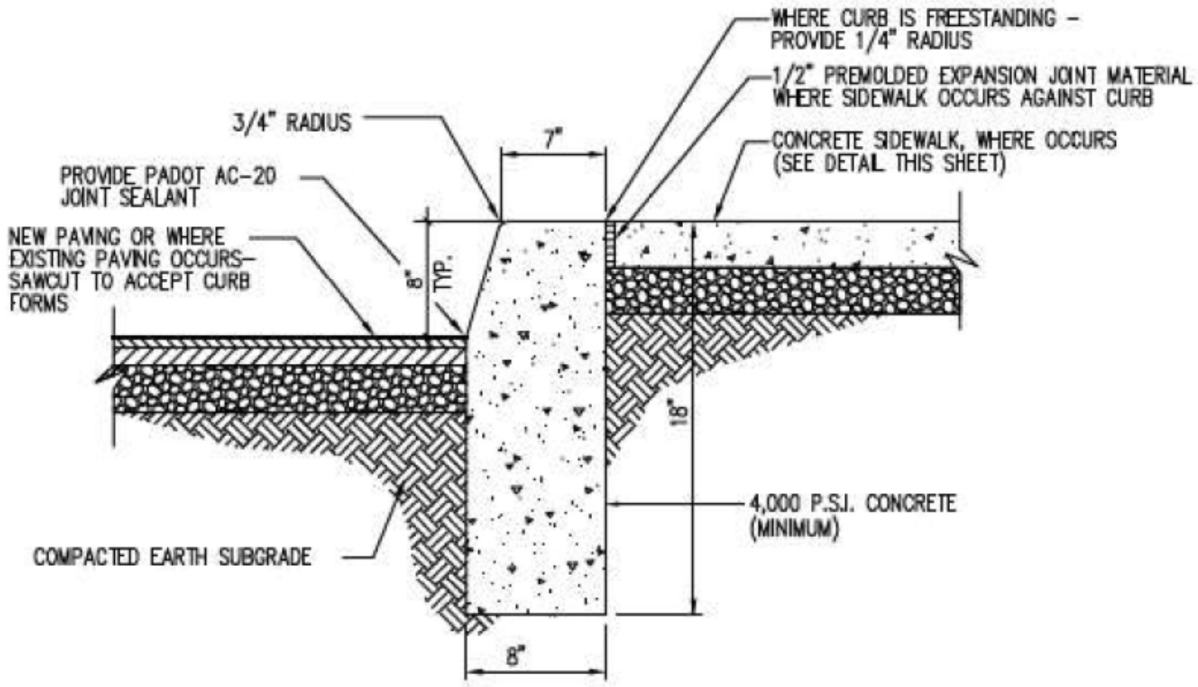


NOTE:

1. CONCRETE IS TO MEET ACI–318 CONSTRUCTION STANDARDS.
2. PROVIDE EXPANSION JOINTS @ 20'–0" O.C. (SEE DETAIL)
3. PROVIDE SCORED CONTROL JOINTS @ 5'–0" O.C. (SEE DETAIL)

TYPICAL SIDEWALK DETAIL

NO SCALE

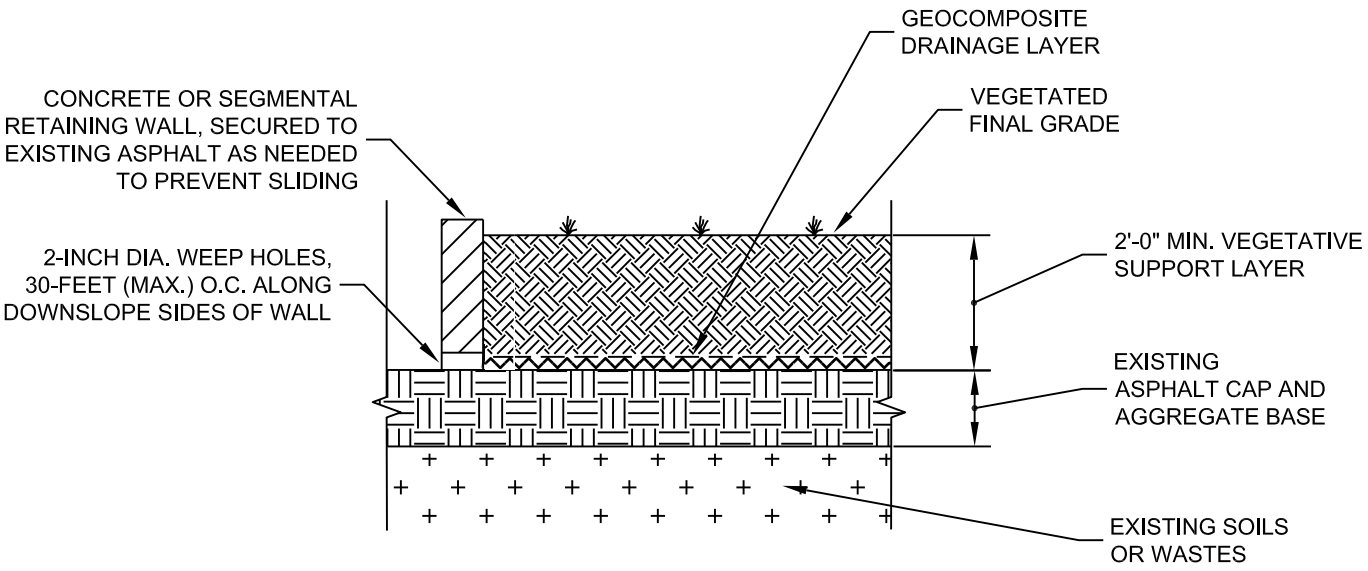


NOTES:

1. THIS CURB IS APPLICABLE FOR PRIVATE ON-SITE INSTALLATIONS ONLY. FOR INSTALLATIONS WITHIN PUBLIC RIGHTS-OF-WAY REFER TO PENNDOT AND/OR MUNICIPAL CONSTRUCTION STANDARDS.
2. ALL REINFORCED CONCRETE IS TO MEET LATEST EDITION-318 CONSTRUCTION STANDARDS.
3. WHERE NEW CURB IS TO BE INSTALLED WITHIN EXISTING PAVING, PROVIDE NEW BASE AND PAVING TO MATCH EXISTING.
4. PROVIDE CONTROL JOINTS IN UNIFORM LENGTHS OR SECTIONS (20'-0" MAXIMUM TO 4'-0" MINIMUM).
5. PLACE 1/2" THICK PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.

TYPICAL CONCRETE CURB

NO SCALE



1 / - DETAIL
TYPICAL VEGETATED COVER SECTION
NOT TO SCALE

NOTES:

1. GEOCOMPOSITE DRAINAGE LAYER SHALL CONSIST OF A NON-WOVEN GEOTEXTILE BONDED TO A GEONET DRAINAGE LAYER. 6-INCHES OF SAND OVERLAIN BY A NON-WOVEN GEOTEXTILE FILTER COULD ALTERNATELY BE USED WITH APPROVAL OF THE ENGINEER.
2. ALL GEOSYNTHETIC MATERIALS SHALL BE APPROVED BY THE ENGINEER PRIOR TO DELIVERY TO THE SITE, AND SHALL BE HANDLED, INSTALLED, AND PROTECTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. ANY EXISTING WELLS WITHIN THE FOOTPRINT OF THE VEGETATED COVER AREA SHALL BE PROTECTED AS NECESSARY DURING CONSTRUCTION, AND MODIFIED AS NECESSARY TO HAVE A SECURE AND ACCESSIBLE WELL COVER THAT IS SUITABLE FOR THE COMPLETED, SURROUNDING GRADE.
4. THE RETAINING WALL SHALL BE APPROXIMATELY 2.5 FEET HIGH UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER. THE RETAINING WALLS SHALL BE SECURED TO THE EXISTING ASPHALT CAP USING ADEQUATE ADHESIVES, BONDING AGENTS, STEEL DOWELS AND/OR ANCHORS APPROVED BY ENGINEER.

VEGETATED COVER CROSS-SECTION

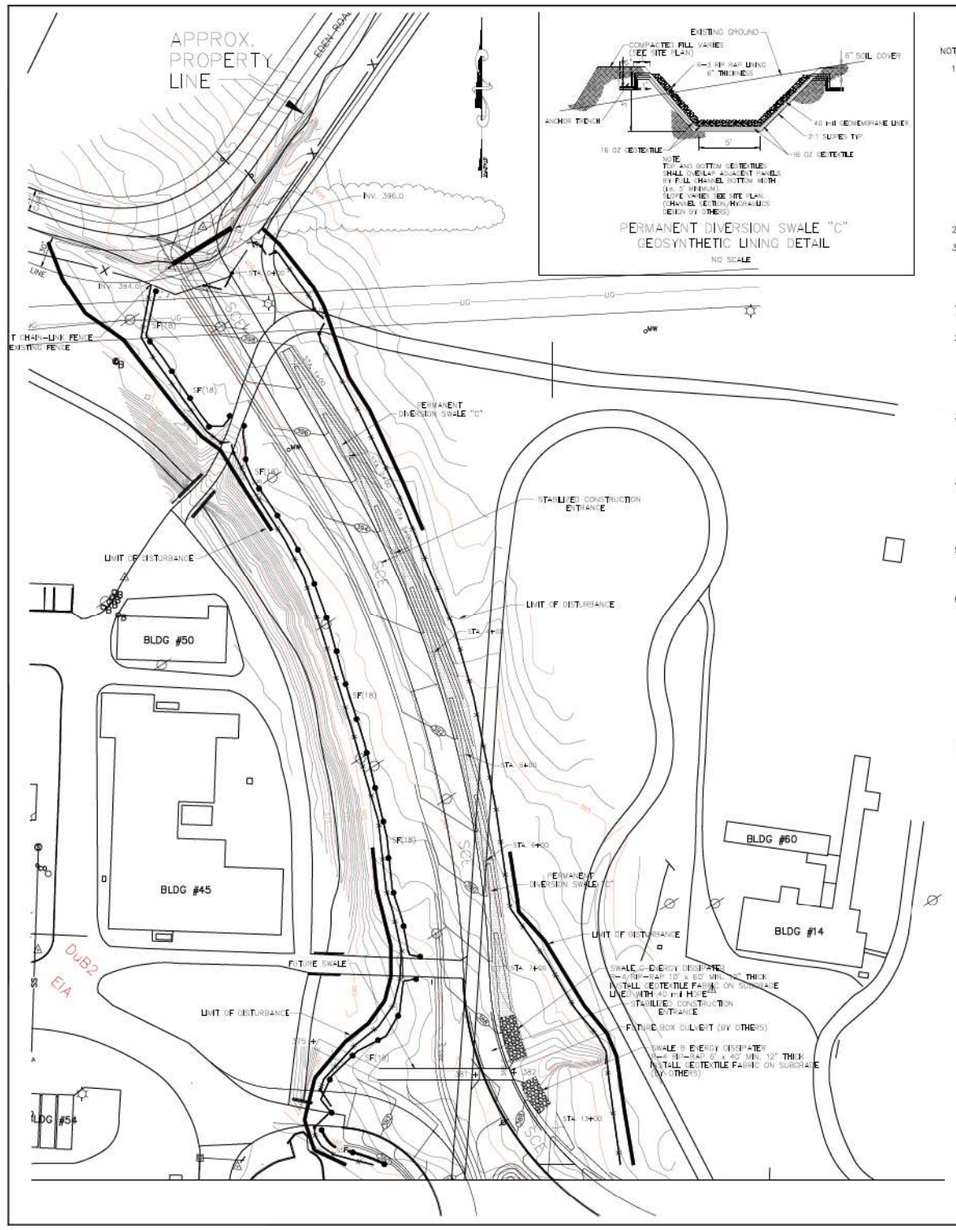
WEST CAMPUS PROPERTY
NORTHPOINT DEVELOPMENT

DECEMBER 2015	NOT TO SCALE	150274

ARM Group Inc.
Earth Resource Engineers
and Consultants
www.armgroup.net

Figure
1

P:\Northpoint\Cap Details\Elevated Cap Detail.dwg



PERMANENT DIVERSION SWALE "C"
GEOSYNTHETIC LINING DETAIL

NO SCALE

NOTES:

1. Geosynthetic product trade names were selected to facilitate deployment throughout the entire channel dimensions with the minimum number of seams.
   a. The three geotextile products specified provide standard roll widths of 12.5 to 15 feet. The required channel coverage width of the geotextile is approximately 22 feet, accounting for corners, wrinkles, and anchor trenches. Therefore, one longitudinal overlap along the bottom of the channel will be required. A full 5-foot overlap along the bottom of the channel is required (i.e., double thickness of the geotextile shall be achieved on the channel bottom for both the geotextile beneath the geomembrane and the geotextile on top of the geomembrane).
   b. The three geomembrane products specified provide standard roll widths of 22.5 to 23 feet. The required channel coverage width of the geomembrane is approximately 22 feet, accounting for corners, wrinkles, and anchor trenches. Therefore, no longitudinal seams will be required. Also, the three geomembrane products specified provide standard roll lengths of 720 to 980 feet. The length of channel to be lined is approximately 705 feet (station 0+85 to 7+90). Therefore, no butt seams will be required.
2. Refer to "Earthwork", "Engineering Fabric", and "Geomembrane" specifications for submittals, products, and execution.
3. If, as intended, no seaming is necessary to install the geomembrane liner, then the "Qualifications", "Submittals", and "Testing" related to "Seaming" and "Installer" are not applicable and need not be fulfilled.

EARTHWORK

1. Submit information on proposed equipment to be used to deploy geosynthetic materials and to place materials on top of geosynthetics.
2. WORK NEAR GEOSYNTHETICS
   A. When placing materials on geosynthetics, the Contractor shall use styrofoam stakes to monitor thickness. These stakes shall be placed on a suitable grid system for the purpose of monitoring the depth of material placement. Under NO CIRCUMSTANCES shall probing be used to measure thickness of materials over geosynthetics.
   B. No machinery shall be allowed on the geomembrane liner or geotextile fabric.
3. PREPARATION OF SUBGRADE
   A. Contractor shall remove loam, topsoil, loose vegetation, stumps, roots, debris, cobblestones, concrete, wood, metal parts, old fill and other unsatisfactory material from area upon which fill, material for grading, or embankments are to be placed. In no case shall unsatisfactory material remain in or under the fill area. Subgrade shall be shaped as indicated on the Drawings.
4. FINISHED EXCAVATION, FILLS, AND EMBANKMENTS
   All areas covered by the project, including sections and adjacent transition areas, shall be uniformly smooth-graded. The finished surface shall be smooth, compacted, and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from blade grader operations, except as otherwise specified. The liner subgrade shall be rolled with a smooth drum roller to ensure smooth and satisfactory bearing for the liner.
5. FINISHED SURFACE PROTECTION
   Newly graded areas shallbe protected from traffic and from erosion, and any settlement or washing away that may occur from any cause prior to acceptance. All areas affected by weather shall be repaired and grades reestablished to the required elevations and slopes.
6. GEOSYNTHETIC ANCHOR SYSTEM
   A. Anchor Trench Excavation (Liner System)
      The anchor trench shall be excavated to the lines and grades shown on the Drawings, prior to geosynthetic placement. If the anchor trench is excavated in clay or any material susceptible to desiccation, the length of open trench shall be limited to the distance necessary to accommodate the geosynthetic to be anchored in one (1) day. Slightly rounded corners shall be provided in the trench where the geosynthetic adjoins the trench so as to avoid sharp bends in the geosynthetics. No loose soil shall be allowed to underlie the geomembrane in the anchor trench.
   B. Backfilling of Anchor Trench
      At all times, the anchor trench shall be adequately drained to prevent ponding or otherwise softening of the adjacent soils while the trench is open. Care shall be taken when backfilling the trenches to prevent damage to the geosynthetics.
7. LINER SUBBASE SURFACE AND PREPARATION
   Liner subbase surfaces shall be rolled with small compacting rollers, such a lawn rollers, if necessary, to smooth out rough surfaces prior to geotextile placement, and all stones or other protrusions, in the Engineer's opinion, that have the potential to puncture the liner, shall be removed at no expense to the Owner.

GEOMEMBRANE

1. POLYETHYLENE (HDPE) LINERS
   Acceptable products are as follows:
   1. Serrot HD-400
   2. Poly Flex 40 mil HDPE
   3. Agru America A/A 40 mil HDPE
   All liner material used for the Work shall be supplied directly from the Manufacturer's plantand from the same resin and manufacturing process.
2. TRANSPORTATION AND HANDLING
   A. All personnel shall handle the material with care, shall use appropriate equipment, and shall take all precautions necessary to prevent damaging the geomembrane.
   B. Upondelivery at the site, the Contractor and the Engineer shall conduct a surface inspection of all rolls or factory panels for defects and for damage. This inspection shall be conducted without unrolling rolls or unfolding factory panels unless, in the Engineer's opinion, defects or damages are found or suspected.
   C. All flaws in the materials shall be brought to the attention of the Engineer. Rolls, factory panels, or portions thereof, which have severe flaws shall be rejected and shall be removed from the site.
   D. Rolls or factory panels which, in the opinion of the Engineer, have minor repairable flaws may be repaired with the Engineer's approval.
3. ANCHOR TRENCHES
   All anchor trenches shall be installed and backfilled in accordance with "Earthwork", and as shown on the Drawings.
4. FIELD PANEL PLACEMENT
   A. Weather Conditions
      Unless otherwise authorized by the Engineer, geomembrane placement shall not proceed during any precipitation, in the presence of excessive moisture (e.g., fog, dew, melting snow), in an area of ponded water, in the presence of excessive winds, or at an ambient temperature below 40°F
   B. Method of Placement
      The following shall be ensured during liner placement:
      1. Any equipment used does not damage the geomembrane by handling, trafficking, excessive heat, leakage of hydrocarbons or other means.

ENGINEERING FABRIC

1. The types of engineering fabric to be installed shall be as indicated on the Drawings and as specified herein. For the non-woven filter fabric, no equals or substitutions shall be allowed. The following products are acceptable:
   1. Evergreen Technologies TG1000
   2. Amoco 4516
   3. SI Geosolutions Geotex 1601
2. HANDLING AND PLACEMENT
   A. Protection of Fabrics
      1. Geotextiles shall not be exposed to precipitation prior to being installed. Wrappings protecting geotextile rolls shall be removed less than one (1) hour prior tounrolling the geotextile. Rolls shall not be stacked higher than recommended by the manufacturer to prevent damage to the cores.
      2. The Engineering fabric for the landfill shall be protected from sunlight deterioration during transportation to and storage at the site. The landfill fabric shall be exposed to ultraviolet radiation (sunlight) for no more than two (2) weeks total in the period of time following manufacture until the fabric is installed and covered with protective cover material. Failure to comply shall require replacement of the fabric by the Contractor at no cost to the Owner.
      3. All necessary precautions shall be taken to protect the filter fabric from damage. Damage to the filter fabric resulting from any cause whatsoever shall be either repaired to the Engineer's satisfaction or the damaged fabric replaced at no additional expense to the Engineer or Owner.
   B. For all geotextile fabrics, the following requirements shall apply.
      1. Fabric installation shall be in accordance with manufacturer's recommendations.
      2. The Contractor shall handle all geotextiles in such a manner as to ensure they are not damaged in any way. Geotextile shall be placed to lines and grades as shown on the Drawings.
      3. In the presence of wind, all landfill geotextiles shall be weighted with sandbags or the equivalent. Such sandbags shall be installed during placement and shall remain until replaced with earth cover materials.
      4. Geotextiles shall be cut using an approved geotextile cutter only. If in place, special care shall be taken to protect other materials from damage that could be caused by the cutting of the geotextiles.

LEGEND

- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. POST INDICATOR VALVE
- EX. WATER MANHOLE
- EX. SANITARY SEWER MANHOLE
- EX. STORM SEWER MANHOLE
- EX. ELECTRIC MANHOLE
- EX. STORM WATER INLET
- OE — EX. OVERHEAD ELECTRIC
- UE — EX. UNDERGROUND ELECTRIC
- OT — EX. OVERHEAD TELEPHONE
- UT — EX. UNDERGROUND TELEPHONE
- G — EX. UNDERGROUND NATURAL GAS
- W — EX. WATER
- FP — EX. FIRE PROTECTION
- SS — EX. SANITARY SEWER
- ST — EX. STORM SEWER
- EX. WOODS LINE
- EX. GUY WIRE
- EX. UTILITY POLE
- EX. LIGHT STANDARD
- EX. SIGN
- EX. BOLLARD
- EX. TREE
- EX. PINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE
- EX. CONTOUR LINE
- x 339.4 EX. SPOT ELEVATION
- TRAVERSE POINT PROPERTY CORNER
- NEW STORM SEWER
- INLET PROTECTION
- SILT FENCE
- RB ROCK BARRIER ENDWALL PROTECTION
- NEW CONTOUR LINE
- SOIL BOUNDARY LINE
- SOIL BOUNDARY LINE
- STABILIZED CONSTRUCTION ENTRANCE
- GEOMEMBRANE LINER

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

Paper Scale						
bar is one inch on original drawing						
0 1"						
If not one inch on this sheet, adjust scales accordingly						
no.	description	date	by	approved		
revisions						

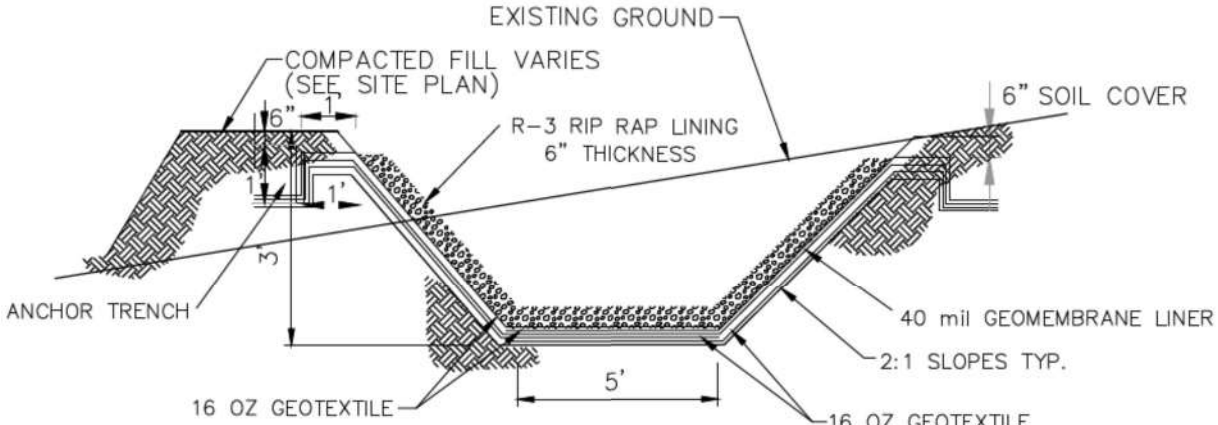
HARLEY-DAVIDSON INC.
YORK FACILITY

PERMANENT DIVERSION SWALE "C" GEOSYNTHETIC PLAN, DETAIL AND SPECIFICATION

Sheet no. 1

drawn: ALK	check:	file no.: 01952-01	
date: 10/17/97	scale: 1" = 50'	job no.: 01-1633-00-1952-307	

Science Applications International Corporation
an employee-owned company



NOTE:
TOP AND BOTTOM GEOTEXTILES SHALL OVERLAP ADJACENT PANELS BY FULL CHANNEL BOTTOM WIDTH (i.e. 5' MINIMUM).
SLOPE VARIES SEE SITE PLAN.
(CHANNEL SECTION/HYDRAULICS DESIGN BY OTHERS)

PERMANENT DIVERSION SWALE "C" GEOSYNTHETIC LINING DETAIL

NO SCALE

GEOMEMBRANE

1. POLYETHYLENE (HDPE) LINERS

Acceptable products are as follows:

1. Serrot HD−400
2. Poly Flex 40 mil HDPE
3. Agru America A/A 40 mil HDPE

All liner material used for the Work shall be supplied directly from the Manufacture plant,and from the same resin and manufacturing process.

2. TRANSPORTATION AND HANDLING

A. All personnel shall handle the material with care, shall use appropriate equipment, and shall take all precautions necessary to prevent damaging the geomembrane.

B. Upondelivery at the site, the Contractor and the Engineer shall conduct a surface inspection of all rolls or factory panels for defects and for damage. This inspection shall be conducted without unrolling rolls or unfolding factory panels unless, in the Engineer's opinion, defects or damages are found or suspected.

C. All flaws in the materials shall be brought to the attention of the Engineer. Rolls, factory panels, or portions thereof, which have severe flaws shall be rejected and shall be removed from the site.

D. Rolls or factory panels which, in the opinion of the Engineer, have minor repairable flaws may be repaired with the Engineer's approval.

3. ANCHOR TRENCHES

All anchor trenches shall be installed and backfilled in accordance with "Earthwork", and as shown on the Drawings.

4. FIELD PANEL PLACEMENT

A. Weather Conditions

Unless otherwise authorized by the Engineer, geomembrane placement shall not proceed during any precipitation, in the presence of excessive moisture (e.g., fog, dew, melting snow), in an area of ponded water, in the presence of excessive winds, or at an ambient temperature below 40°F

B. Method of Placement

The following shall be ensured during liner placement:

1. Any equipment used does not damage the geomembrane by handling, trafficking, excessive heat, leakage of hydrocarbons or other means.

ENGINEERING FABRIC

1. The types of engineering fabric to be installed shall be as indicated on the Drawings and as specified herein. For the non-woven filter fabric, no equals or substitutions shall be allowed. The following products are acceptable:
    1. Evergreen Technologies TG1000
    2. Amoco 4516
    3. SI Geosolutions Geotex 1601
2. HANDLING AND PLACEMENT
    A. Protection of Fabrics
        1. Geotextiles shall not be exposed to precipitation prior to being installed. Wrappings protecting geotextile rolls shall be removed less than one (1) hour prior to unrolling the geotextile. Rolls shall not be stacked higher than recommended by the manufacturer to prevent damage to the cores.
        2. The Engineering fabric for the landfill shall be protected from sunlight deterioration during transportation to and storage at the site. The landfill fabric shall be exposed to ultraviolet radiation (sunlight) for no more than two (2) weeks total in the period of time following manufacture until the fabric is installed and covered with protective cover material. Failure to comply shall require replacement of the fabric by the Contractor at no cost to the Owner.
        3. All necessary precautions shall be taken to protect the filter fabric from damage. Damage to the filter fabric resulting from any cause whatsoever shall be either repaired to the Engineer's satisfaction or the damaged fabric replaced at no additional expense to the Engineer or Owner.
    B. For all geotextile fabrics, the following requirements shall apply:
        1. Fabric installation shall be in accordance with manufacturer's recommendations.
        2. The Contractor shall handle all geotextiles in such a manner as to ensure they are not damaged in any way. Geotextile shall be placed to lines and grades as shown on the Drawings.
        3. In the presence of wind, all landfill geotextiles shall be weighted with sandbags or the equivalent. Such sandbags shall be installed during placement and shall remain until replaced with earth cover materials.
        4. Geotextiles shall be cut using an approved geotextile cutter only. If in place, special care shall be taken to protect other materials from damage that could be caused by the cutting of the geotextiles.

Stewart & Tate
A STEWART COMPANY
CONSTRUCTION

Sitework Division
950 Smile Way
York, PA 17404
P: (717) 854-9581
F: (717) 854-1641

Submittal 12-01 Cover Sheet

Project Name:	**Harley Davidson Denali Expansion**
Project No:	**18-2037**
Owner:	**Harley Davidson Motor Companies**
Construction Manager:	**Nutec Group**
Engineer:	**Nutec Design Associates**
Submittal Number:	**12-01**
Submittal Date:	**10/2/18**
Item:	**HDPE Liner and Non-woven Geo Textile**
Supplier/Manufacturer:	**Core & Main**
Specification Reference:	**N/A**
Submitted For:	**Approval**
Review Requested By:	**Stewart & Tate Construction Inc.- Sitework Div**
Submitted By:	**Jason Baile**

X Jason T. Baile

10/2/2018

Jason T. Baile / Project Engineer

SOLMAX

TECHNICAL DATA SHEET

Solmax International Inc., 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7
Tel.: (450) 929-1234 Fax: (450) 929-2550 www.solmax.com

PROPERTY	TEST METHOD	FREQUENCY[1]	UNIT Imperial	Solmax 140-7002
SPECIFICATIONS				
Thickness (Nominal ±10%) (11)	ASTM D-5199	Every roll	mils	40.0
Resin Density	ASTM D-1505	Certification	g/cc	< 0.926
Melt Index - 190/2.16 (max.)	ASTM D-1238	Certification	g/10 min	1.0
Sheet Density (8)	ASTM D-1505	1/Batch	g/cc	≤ 0.939
Carbon Black Content (9)	ASTM D-4218	Every 2 rolls	%	2.0 - 3.0
Carbon Black Dispersion	ASTM D-5596	Every 10 rolls	Category	Cat. 1 & Cat. 2
OIT - standard (avg.)	ASTM D-3895	1/Batch	min	100
Tensile Properties (min. avg) (2)	ASTM D-638	Every 5 rolls		
Strength at Break			ppi	180
Elongation at Break			%	1,000
2% Modulus (max.)	ASTM D-5323	Per formulation	ppi	2,400
Tear Resistance (min. avg.)	ASTM D-1004	Every 10 rolls	lbf	19
Puncture Resistance (min. avg.)	ASTM D-4833	Every 10 rolls	lbf	67
Dimensional Stability	ASTM D-1204	Certification	%	± 2
Multi-Axial Tensile (min. avg.)	ASTM D-5617	Per formulation	%	90
Oven Aging - % retained after 90 days	ASTM D-5721	Per formulation		
STD OIT (min. avg.)	ASTM D-3895		%	35
HP OIT (min. avg.)	ASTM D-5885		%	60
UV Resistance - % retained after 1600 hr	GRI-GM-11	Per formulation		
HP-OIT (min. avg.)	ASTM D-5885		%	35
Low Temperature Impact (pass)	ASTM D-1790	Per formulation	°F	-94
SUPPLY SPECIFICATIONS (Roll dimensions may vary ±1%)				
Roll Dimension - Width	-		ft	11.1
Roll Dimension - Length	-		ft	780
Area (Surface/Roll)	-		sf	8,658

NOTES

1. Testing frequency based on standard roll dimensions and one batch is approximately 180,000 lbs (or one railcar).
2. Elongation is measured with a gage length of 1.5".
8. Correlation table is available for ASTM D792 vs ASTM D1505. Both methods give the same results.
9. Correlation table is available for ASTM D1603 vs ASTM D4218. Both methods give the same results.
11. The minimum average thickness is ± 10% of the nominal value.

* All values are nominal test results, except when specified as minimum or maximum.
* The information contained herein is provided for reference purposes only and is not intended as a warranty of guarantee. Final determination of suitability for use contemplated is the sole responsability of the user. SOLMAX assumes no liability in connection with the use of this information.

HANES GEO COMPONENTS
A Leggett & Platt COMPANY

815 Buxton Street | Winston Salem, NC | 27101
PH: 888.239.4539 | FAX: 336.747.1652
www.HanesGeo.com

TerraTex® N16

TerraTex® N16 is a nonwoven geotextile made up of polypropylene fibers. These fibers are needled to form a stable and durable network such that the fibers retain their relative position. It is non-biodegradable and resistant to most soil chemicals, acids, and alkali with a pH range of 3 to 12. TerraTex® N16 is manufactured to meet or exceed the following minimum average roll values:

Unless noted otherwise, all values are minimum average roll values (MARV).

PROPERTY	TEST METHOD	ENGLISH	METRIC
Weight (Typical) [1]	ASTM D5261	**16.0** oz/yd^2	**542** g/m^2
Grab Tensile	ASTM D4632	**380** lbs	**1.690** kN
Grab Elongation	ASTM D4632	**50** %	**50** %
Trapezoid Tear	ASTM D4533	**145** lbs	**0.644** kN
CBR Puncture	ASTM D6241	**1,080** lbs	**4.82** kN
Permittivity [1]	ASTM D4491	**0.70** sec^{-1}	**0.70** sec^{-1}
Water Flow Rate [1]	ASTM D4491	**50** gpm/ft^2	**2,035** Lpm/m^2
AOS [1,2]	ASTM D4751	**100** US Std. Sleve	**0.150** mm
UV Resistance	ASTM D4355	**70** % @ 500 hrs	**70** % @ 500 hrs

1 At the time of manufacturing. Handling, storage, and shipping may change these properties.
2 Value represents maximum average roll value.

7/9/2015

PRESSURE SENSITIVE TAPE

GeoCHEM INCORPORATED

Pressure Sensitive Tape, available in clear, white or black, pressure sensitive tape and release paper.

PRODUCT INFORMATION • SPECIFICATION GUIDE

PHYSICAL PROPERTIES AND TYPICAL VALUES		
PROPERTY	U.S. VALUE	METRIC VALUE
Standard Weight 4" x 50' Roll	3.0 LBS	1.4 KG
Adhesive Thickness	20 MIL	0.51 MM
Peel Strength*	55 LBF	244.6 N
Room Temperature ~ 20 Hrs (180° Peel)	10.0 - 14.0 LBS/in	44.5 - 62.2 N
Room Temperature ~ Quick Set (180° Peel)	8.5 - 12.5 LBS/in	37.8 - 55.6 N
Softening Temperature (Ring and Ball)	245° - 270°F	-136° - 150°C
* Values obtained when using Polypropylene plates.		

INSTALLATION

The surface to be taped should be clean and dry. The tape will not adhere if the surfaces are not properly prepared. Dirty or wet surfaces should be completely cleaned with water, paper towels, dry rags or other materials which will prepare the surface for the tape. Accumulations of dust should also be removed to insure a secure seam.

The product obtains optimum adhesion when the surfaces to be bonded are warm. The surfaces should be above 50° - 60°F to insure an acceptable bond. In order to obtain a bond at lower temperatures, external heat may be required. The use of an industrial style hot air blower is one recommended method. Extra care should be taken when attempting to install tape at temperatures below 32°F.

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