LAND DEVELOPMENT PLAN

FOR

KIM S. PHIPPS ADMISSIONS AND WELCOME CENTER

1 College Avenue, Mechanicsburg, PA 17055
UPPER ALLEN TWP, CUMBERLAND COUNTY, PENNSYLVANIA

OVERALL SITE PLAN

SITE DATA:

SCALE: 1" = 100'

PARKING DATA:

TOTAL PARKING SPACES ON CAMPUS CURRENTLY = 2,618 PARKING SPACES ON CAMPUS = 75 PARKING SPACES ABOVE REQUIRED

PARKING SPACES LOST WITH STUDENT ENHANCEMENT PROJECT = 30 PARKING SPACES ABOVE REQUIRED

GENERAL NOTES:

1. THERE ARE NO STREAMS, WETLANDS, ROCK OUTCROPS, SOIL SUBSIDENCES, FLOODPLAINS OR CONTAMINATED SOILS IN THE PROJECT AREA.

2. CONTRACTOR SHALL REVIEW SURVEY INFORMATION AS FURNISHED AND CONFIRM PRESENCE OR ABSENCE OF EXISTING FEATURES AS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

3. NO PART OF THIS PLAN IS DEDICATED FOR PUBLIC USE.

4. CONTRACTOR SHALL CLARIFY WHETHER OR NOT EXISTING CONDITIONS OR UTILITIES REQUIRE DEDICATION OR MODIFICATION.

5. ALL EXISTING CLEANOUTS, VAULTS, VALVES, AND MANHOLE COVERS ARE TO BE ADJUSTED PER FINISHED GRADE.

6. CONTRACTOR SHALL CLOSELY COORDINATE SEQUENCE & SCHEDULE OF WORK WITH THE COLLEGE'S CONSTRUCTION MANAGER.

7. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY MEASURES AS DETERMINED NECESSARY BY THE OWNER DURING CONSTRUCTION.

8. CONTRACTOR TO VERIFY ACCURACY AND LOCATION OF EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.

9. ALL STORMWATER MANAGEMENT FACILITIES WILL BE OWNED AND MAINTAINED BY MESSIAH COLLEGE.

10. THE OWNER SHALL COMPLY WITH ALL UPPER ALLEN TOWNSHIP ORDINANCES IN EFFECT AT THE TIME OF SUBMISSION.

11. THERE ARE NO REQUIRED BUFFERS OR VEGETATED BUFFERS NEEDED TO COMPLY WITH TOWNSHIP ORDINANCES.

12. AS-BUILT MYLAR PLANS AND ELECTRONIC DATA FILES, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR LAND SURVEYOR, SHALL BE PROVIDED TO UPPER ALLEN TOWNSHIP.

13. ALL SANITARY SEWER CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST STANDARDS OF UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA, AND SHALL BE SUBJECT TO APPROVAL BY THE APPROPRIATE TOWNSHIP OFFICIAL OR TOWNSHIP ENGINEER.
STAGE UPON COMPLETION OF MODULE INSTALLATION (PRIOR TO WRAPPING WITH GEOTEXTILE)

College Campus compacted in proposed infiltration areas will be over-excavated and scarified. Construction staging will be limited to the minimum area necessary and will be in areas of existing or proposed impervious when feasible.

TYPES, DEPTH, SLOPE, LOCATIONS AND LIMITATIONS OF THE SOILS

Shallow depth to saturated zone and/or seasonal high waste Street Sweeping management will be disposed in accordance with source of topsoil may exist on a site, they should be carefully preserved and stored for future use. Soil testing is recommended to determine the proper application of soil amendments to promote the growth of the desired vegetation.

Solid runoff management may be necessary to protect downstream areas. Roof runoff rates may reduce 2-year 25-year SCS equivalent values. The reason for permit termination will be documented in the operations manual. The contractor should install additional inlet protection on existing inlets that are affected by construction activities, as applicable.

INFILTRATION BED (UNDERGROUND DETENTION BED (MODULAR SYSTEM))

All Underground Infiltration Bed is constructed prior to the upslope drainage area being stabilized, erosion control measures such as, but not limited to, compost filter sock must be installed to ensure no sediment-laden runoff enters the Underground Infiltration Bed. After site stabilization has been achieved, the Contractor shall remove any temporary ESC measures from Phase 2 that conflict with the Phase 3 work or are no longer needed.

As Amended Soils is constructed prior to the upslope drainage area being stabilized, erosion control measures such as, but not limited to, compost filter sock must be installed to ensure no sediment-laden runoff enters the Area of Amended Soils. The modules need to be assembled and installed in accordance with the manufacturer’s guidelines. The Contractor shall remove any temporary ESC measures from Phase 2 that conflict with the Phase 3 work or are no longer needed.

PHASE 2 (see Phase 2 Demolition, Construction, and ESC Plans)

Lastly, the Contractor shall remove any temporary ESC measures from Phase 2 that conflict with the Phase 3 work or are no longer needed. After site stabilization has been achieved, the Contractor shall remove any temporary ESC measures from Phase 2 that conflict with the Phase 3 work or are no longer needed.

The Contractor shall remove any temporary ESC measures from Phase 2 that conflict with the Phase 3 work or are no longer needed. After site stabilization has been achieved, the Contractor shall remove any temporary ESC measures from Phase 2 that conflict with the Phase 3 work or are no longer needed.

As Amended Soils is constructed prior to the upslope drainage area being stabilized, erosion control measures such as, but not limited to, compost filter sock must be installed to ensure no sediment-laden runoff enters the Area of Amended Soils. The modules need to be assembled and installed in accordance with the manufacturer’s guidelines.
TP-1

TP-2

TP-3

0'

30'

30'

60'

SCALE: 1"=1'

KNOW WHAT'S BELOW.

CALL BEFORE YOU DIG.

®

811 OR 1-800-242-1776

LAND DEVELOPMENT PLAN
KIM S. PHIPPS ADMISSIONS
MESSIAH COLLEGE
1 COLLEGE AVENUE, MECHANICSBURG, PA 17055

UPPER ALLEN TWP, CUMBERLAND COUNTY, PENNSYLVANIA

AND WELCOME CENTER

EXISTING CONDITIONS PLAN

C-101

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LAYOUT PLAN LEGEND

SIGN LEGEND

KEY

MUTCD #
DESCRIPTION
SIZE
QTY.

A
R7-8
RESERVED PARKING (WITHOUT ARROWS)
12" x 18"
6
B
R7-8P
VAN ACCESSIBLE PLAQUE
12" x 6"
3

C-103
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STORMWATER PROFILE
CB-410 TO MH-400

STORMWATER PROFILE
MH-105 TO MH-100

STORMWATER PROFILE
CI-240 TO EX INLET

STORMWATER PROFILE
CI-270 TO EW

STORMWATER PROFILE
DB-160 TO EX MH-2

STORMWATER PROFILE
MH-105 TO MH-100

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NOT FOR CONSTRUCTION
DETAILS
C-503
UTILITY STRUCTURE DETAIL NOTE:
HEADWALLS/ENDWALLS (HW/EW), MANHOLES (MH), INLET TOPS (TYPE M(CB), TYPE C (CI)), GRATES, AND FRAMES, AND INLET BOXES, AS APPLICABLE (UNLESS OTHERWISE DETAILED) ARE TO BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION.

A. HEADWALLS/ENDWALLS - RC-31M

CLARIFICATIONS/EXCEPTIONS:
1. PROVIDE CAST IN PLACE APRON.
2. CAST IN PLACE APRON TO BE SLOPED TO PIPE ON HEADWALL AND AWAY FROM PIPE ON ENDWALL.
3. THE ANNULAR SPACE AROUND THE PIPE IS TO BE GROUTED IN THE FIELD.

B. MANHOLES - RC-39M

CLARIFICATIONS/EXCEPTIONS:
1. MANHOLE COVER TEXT AS REQUIRED BY MUNICIPALITY OR AUTHORITY HAVING JURISDICTION.

C. INLET TOPS, GRATES, AND FRAME - RC-45M

CLARIFICATIONS/EXCEPTIONS:
1. PROVIDE BICYCLE SAFE GRATE.

D. INLET BOXES - RC-46M

CLARIFICATIONS/EXCEPTIONS:
1. VERIFY THAT ALL STORM STRUCTURES ARE ADEQUATELY SIZED TO PROPERLY RECEIVE PIPES PRIOR TO SHOP DRAWING SUBMITTALS.
2. CORNER INTERSECTIONS ARE PROHIBITED.
3. PIPING TO BE FLUSH WITH INSIDE WALL AND SEALED WITH MORTAR.
4. PROVIDE 2" DIAMETER WEEP HOLES IN THE "SHORT" WALLS, SET AT SUBGRADE ELEVATION.

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PHASE 1 CONSTRUCTION SEQUENCE PLAN
C-702.1
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LAND DEVELOPMENT PLAN
KIM S. PHIPPS ADMISSIONS
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INLET PROTECTION CHART

INLET # | DRAINAGE AREA (ACRES) | INLET PROTECTION DETAIL #
---------|------------------------|------------------------
CB-220   | 0.03                   | 05                     
EX. YD 2 | < 0.50                 | 05                     

CI-240   | 0.08                   | 02                     
CI-250   | 0.70                   | 06                     
CI-260   | 0.60                   | 06                     
CI-270   | 0.13                   | 02                     
CI-305   | 0.27                   | 02                     

DB-310   | 0.51                   | 05                     
DB-410   | 0.29                   | 05                     
DB-110   | 0.03                   | 05                     
DB-120   | 0.07                   | 05                     
DB-130   | 0.27                   | 05                     
DB-140   | 0.09                   | 05                     
DB-150   | 0.65                   | 07                     
DB-160   | 0.65                   | 07                     
EX. INLET #5 | < 0.50                | 02                     
EX. INLET #6 | < 0.50                | 02                     
DB-320   | 0.17                   | 05                     
DB-330   | 0.31                   | 05                     
DB-335   | 0.07                   | 05                     
DB-336   | 0.20                   | 05                     
DB-340   | 0.09                   | 05                     
DB-350   | 0.28                   | 05                     
DB-360   | 0.16                   | 05                     
DB-370   | < 0.50                 | 05                     
DB-380   | < 0.50                 | 05                     

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SCALE: 1"=30'
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NOT FOR CONSTRUCTION
PHASE 3 CONSTRUCTION SEQUENCE PLAN
C-704.1

0' 30' 30' 60' 30'
SCALE: 1"=
**INLET PROTECTION CHART**

<table>
<thead>
<tr>
<th>INLET #</th>
<th>DRAINAGE AREA (ACRES)</th>
<th>INLET PROTECTION DETAIL #</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI-260</td>
<td>0.60</td>
<td>06</td>
</tr>
<tr>
<td>CI-270</td>
<td>0.13</td>
<td>10</td>
</tr>
<tr>
<td>CI-285</td>
<td>0.07</td>
<td>02</td>
</tr>
<tr>
<td>CB-310</td>
<td>0.09</td>
<td>05</td>
</tr>
<tr>
<td>CI-305</td>
<td>0.27</td>
<td>02</td>
</tr>
<tr>
<td>DB-120</td>
<td>0.07</td>
<td>05</td>
</tr>
<tr>
<td>DB-130</td>
<td>0.07</td>
<td>05</td>
</tr>
<tr>
<td>DB-140</td>
<td>0.09</td>
<td>05</td>
</tr>
<tr>
<td>DB-150</td>
<td>0.65</td>
<td>07</td>
</tr>
<tr>
<td>DB-160</td>
<td>0.65</td>
<td>07</td>
</tr>
<tr>
<td>DB-310</td>
<td>0.51</td>
<td>05</td>
</tr>
<tr>
<td>DB-320</td>
<td>0.17</td>
<td>05</td>
</tr>
<tr>
<td>CB-410</td>
<td>0.29</td>
<td>05</td>
</tr>
<tr>
<td>DB-360</td>
<td>0.16</td>
<td>05</td>
</tr>
</tbody>
</table>

**SCALE: 1" = 30'**
**Table 4.1     Compost Sock Fabric Specifications**

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Characteristics</th>
<th>Sock Diameters</th>
<th>Mesh Opening</th>
<th>Tensile Strength</th>
<th>Ultraviolet Stability % (Original Strength - ASTM G-155)</th>
<th>Minimum Functional Longevity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 mil HDPE</td>
<td>Photo-degradable</td>
<td>12&quot;</td>
<td>3/8&quot;</td>
<td>-</td>
<td>-</td>
<td>6 months</td>
</tr>
<tr>
<td>5 mil HDPE</td>
<td>Photo-degradable</td>
<td>12&quot;</td>
<td>3/8&quot;</td>
<td>26 psi</td>
<td>23% at 1000 hrs.</td>
<td>9 months</td>
</tr>
<tr>
<td>Multi-Filament Polypropylene (MFPP)</td>
<td>Bio-degradable</td>
<td>12&quot;</td>
<td>3/8&quot;</td>
<td>44 psi</td>
<td>100% at 1000 hrs.</td>
<td>6 months</td>
</tr>
<tr>
<td>Heavy Duty Multi-Filament Polypropylene (HDMFPP)</td>
<td>Photo-degradable</td>
<td>12&quot;</td>
<td>3/8&quot;</td>
<td>202 psi</td>
<td>100% at 1000 hrs.</td>
<td>1 year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18&quot;</td>
<td>1/8&quot;</td>
<td></td>
<td></td>
<td>2 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24&quot;</td>
<td>3/8&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>32&quot;</td>
<td>3/8&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 4.2      Compost Standards**

<table>
<thead>
<tr>
<th>Organic Matter Content</th>
<th>25-100% (dry weight basis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Portion</td>
<td>Fibrous and Elongated</td>
</tr>
<tr>
<td>pH</td>
<td>5.5% - 8.5%</td>
</tr>
<tr>
<td>Moisture Content</td>
<td>30% - 60%</td>
</tr>
<tr>
<td>Particle Size</td>
<td>3% - 50% pass through 3/8&quot; sieve</td>
</tr>
<tr>
<td>Soluble Salt Concentration</td>
<td>50 dS/m (mmhos/cm) Maximum</td>
</tr>
</tbody>
</table>

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**EROSION CONTROL DETAILS**

C-705