

VOLUSIA COUNTY DEPARTMENT OF PUBLIC WORKS SOLID WASTE DIVISION

TOMOKA FARMS ROAD LANDFILL

CLASS III CELL OPERATION PERMIT RENEWAL

VOLUSIA COUNTY, FLORIDA

JUNE 2009

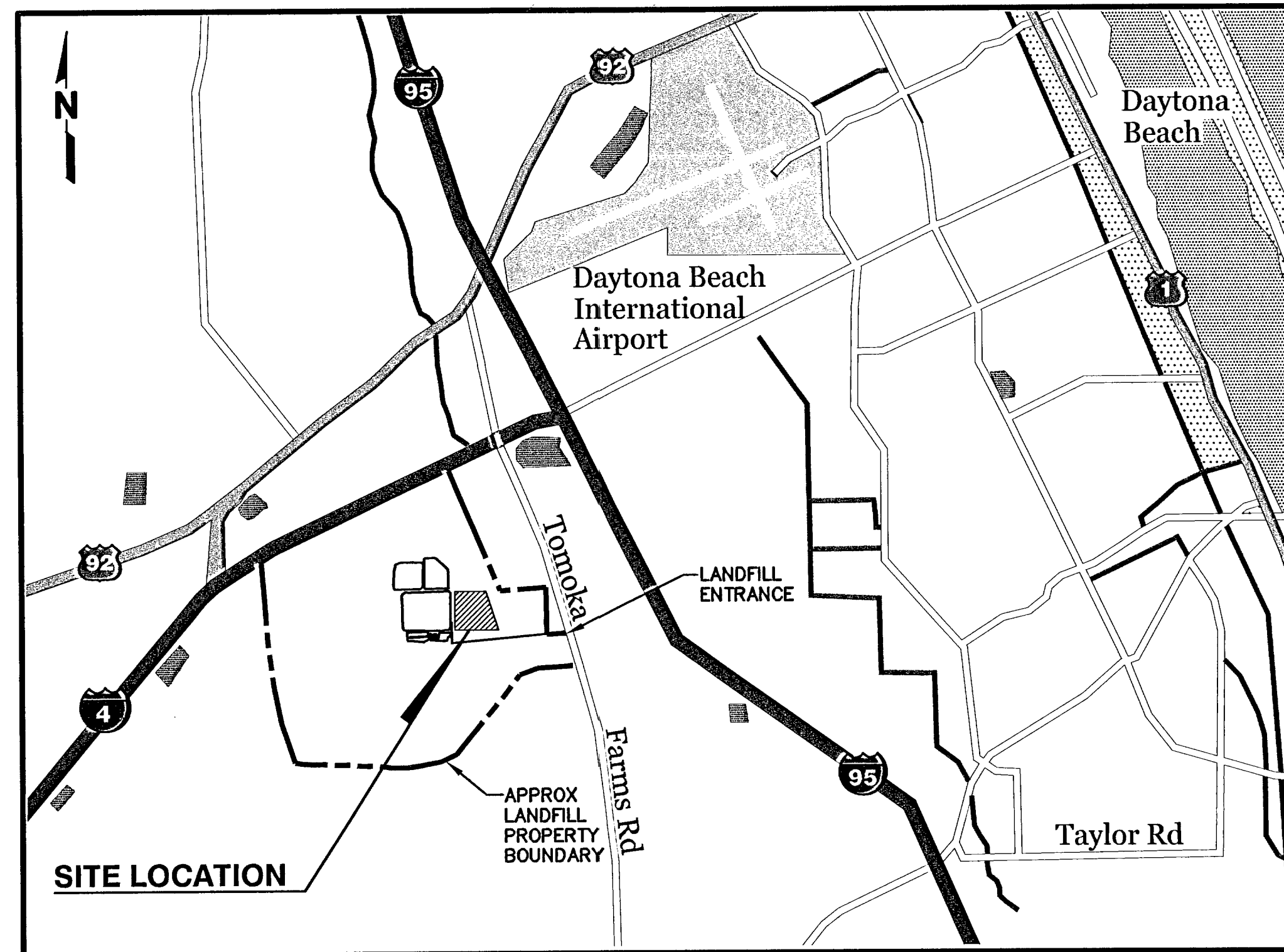
RECEIVED
JUN 23 2009
DEPT. OF PUBLIC WORKS

498913 #70



Volusia County Council Members

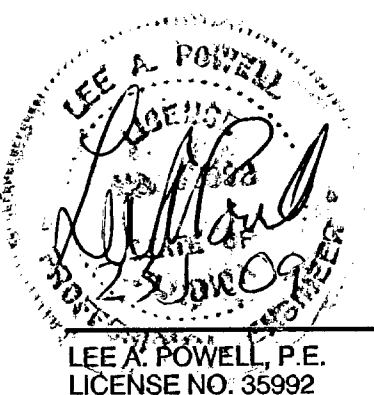
- Frank Bruno Jr., County Chair
- Joie Alexander, At-Large, Vice Chair
- Andy Kelly, District 1
- Josh Wagner, District 2
- Jack Hayman, District 3
- Carl G. Persis, District 4
- Pat Northey, District 5



0 1 MILE 2 MILES
APPROX SCALE
LOCATION MAP

| DRAWING INDEX | |
|----------------------|-------------------------------|
| DRAWING NO. | DRAWING TITLE |
| 1 | COVER SHEET |
| 2 | AERIAL PHOTOGRAPH SITE PLAN |
| 3 | EXISTING TOPOGRAPHY SITE PLAN |
| 4 | FINAL CLOSURE SITE PLAN |
| 5 | SECTIONS |
| 6 | DETAILS - 1 |
| 7 | DETAILS - 2 |
| 8 | PASSIVE VENT SYSTEM SITE PLAN |

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
4041 PARK OAKS BLVD, SUITE 100
TAMPA, FLORIDA 33610
PH (813) 621-0080 FAX NO. (813) 623-6757
Florida Certificate of Authorization No. 00004892
WWW.SCSENGINEERS.COM
SCS PROJECT NO. 09208007.07





AERIAL PHOTO DATE: APRIL 7, 2009

BY: *Lee A. Powell*
 DATE: 2/23/09
 PROJECT: LEE A. POWELL, P.E.
 LICENSE NO. 59922

| REV | DATE | DESCRIPTION |
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DRAWING TITLE: AERIAL PHOTOGRAPH
 SITE PLAN
 PROJECT TITLE: TOMOKA FARMS ROAD LANDFILL
 CLASS III CELL
 OPERATION PERMIT RENEWAL

CLIENT: VOLUSIA COUNTY
 DEPARTMENT OF WASTE RECYCLING WORKS
 SOLID WASTE DIVISION
 DELAND, FLORIDA

SCS ENGINEERS
 2000 W. UNIVERSITY BLVD
 SUITE 200
 DELAND, FL 32701
 TEL: 386-321-2677
 FAX: 386-321-2678
 E-MAIL: info@scs-engineers.com
 LICENSE NO. 2677
 EXPIRES: 12/31/09
 CIRC: 10/01/09
 L.A.P.

CADD FILE: 080707AERIAL
 DATE: JUNE 2009
 SCALE: AS SHOWN
 DRAWING NO.

- LEGEND**
- B-37 SURFICIAL AQUIFER MONITOR WELL
 - SW-1 SURFACE WATER SAMPLING LOCATION
 - FA-20 FLORIDIAN AQUIFER MONITOR WELL

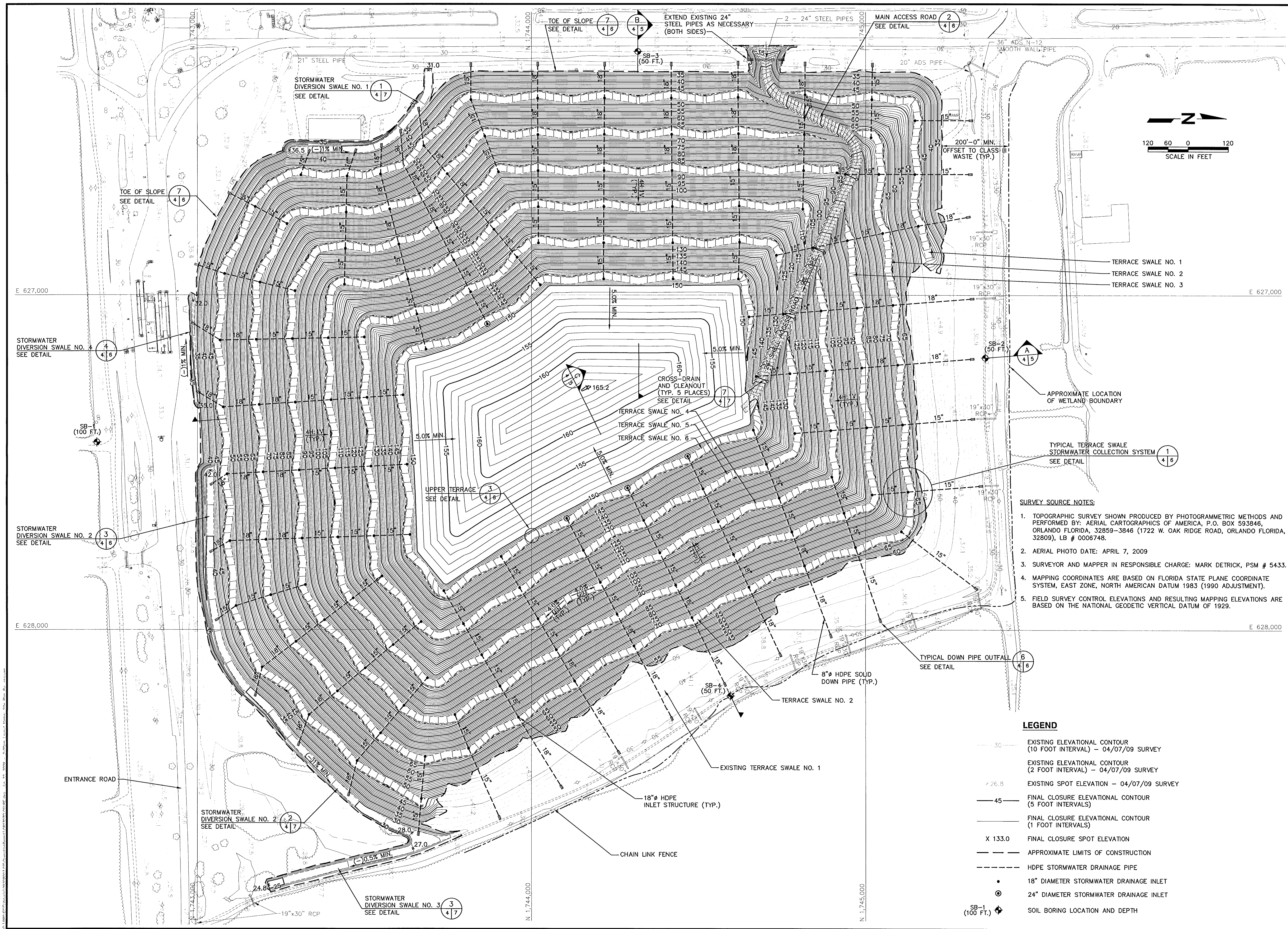
SURVEY SOURCE NOTES:

1. TOPOGRAPHIC SURVEY SHOWN PRODUCED BY PHOTOGRAMMETRIC METHODS AND PERFORMED BY: AERIAL CARTOGRAPHICS OF AMERICA, P.O. BOX 593546, ORLANDO FLORIDA, 32859-3546 (1722 W. OAK RIDGE ROAD, ORLANDO FLORIDA, 32809), LA # 05097436.
2. AERIAL PHOTO DATE: APRIL 7, 2009
3. SURVEYOR AND MAPPER IN RESPONSIBLE CHARGE: MARK DETRICK, PSM # 5433.
4. MAPPING COORDINATES ARE BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983 (1980 ADJUSTMENT).
5. FIELD SURVEY CONTROL ELEVATIONS AND RESULTING MAPPING ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.



- LEGEND**
- — — — — EXISTING ELEVATIONAL CONTOUR (5 FOOT INTERVAL) - 04/07/09 SURVEY
 - — — — — EXISTING ELEVATIONAL CONTOUR (1 FOOT INTERVAL) - 04/07/09 SURVEY
 - • • • • EXISTING SPOT ELEVATION - 04/07/09 SURVEY
 - --- --- LIMITS OF PERMITTED CLASS III
 - ▨ ▨ ▨ ▨ ▨ EXPANSION AREA
 - - - - - APPROXIMATE LIMIT OF CLASS I WASTE

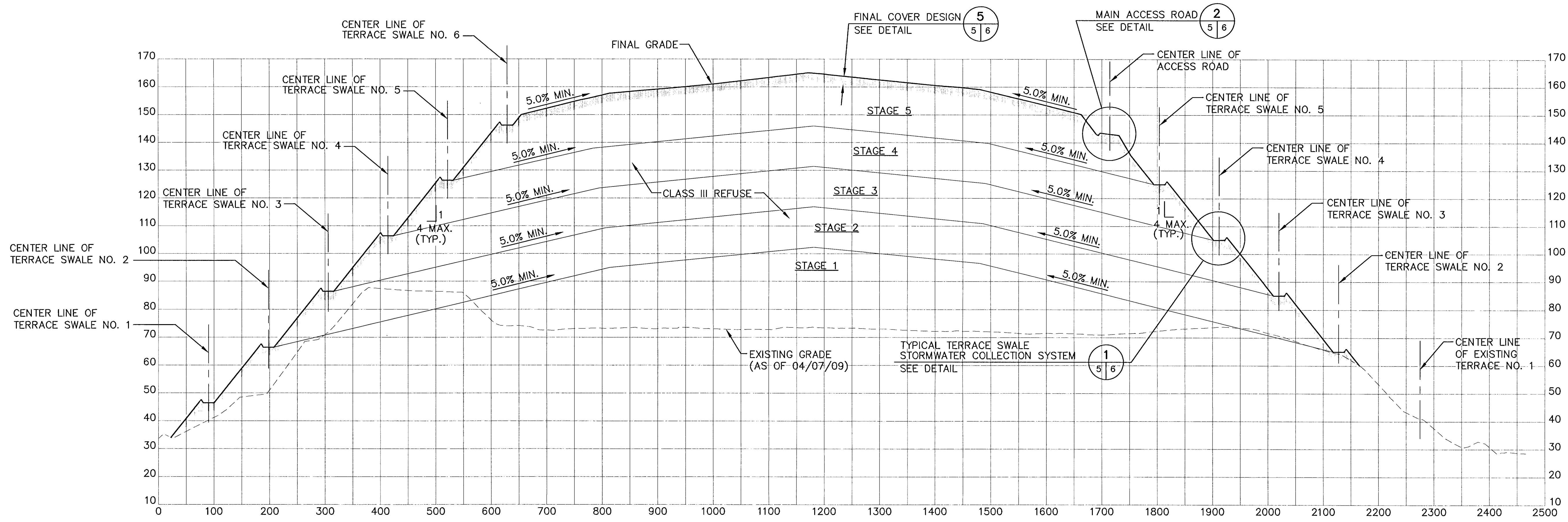
| | | | |
|--|--|---|--|
| <p>SCS ENGINEERS STEPHEN CORNOLD AND SCHMIDT 4000 HAWK CREEK BLVD. SUITE 100, MIAMI, FL 33149 FLORIDA CERTIFICATE OF PROFESSIONAL ENGINEERING #00000007, 07 P.E. # 32823 P.L.P.</p> | CLIENT | <p>VOLUSIA COUNTY DEPARTMENT OF PUBLIC WORKS SOLID WASTE DIVISION DELAND, FLORIDA</p> | <p>BY: <i>[Signature]</i> J.E. A. POWELL, P.E. LICENSE NO. 38899</p> |
| | DRAWING TITLE | <p>EXISTING TOPOGRAPHY SITE PLAN</p> | |
| PROJECT TITLE | <p>TOMOKA FARMS ROAD LANDFILL CLASS III CELL OPERATION PERMIT RENEWAL</p> | | |
| DATE | REV | DATE | DESCRIPTION |
| JUNE 2009 | ▲ | ▲ | ▲ |
| SCALE: | AS SHOWN | | |
| DRAWING NO. | 3 of 8 | | |
| CADD FILE: | 080707AERIAL | | |



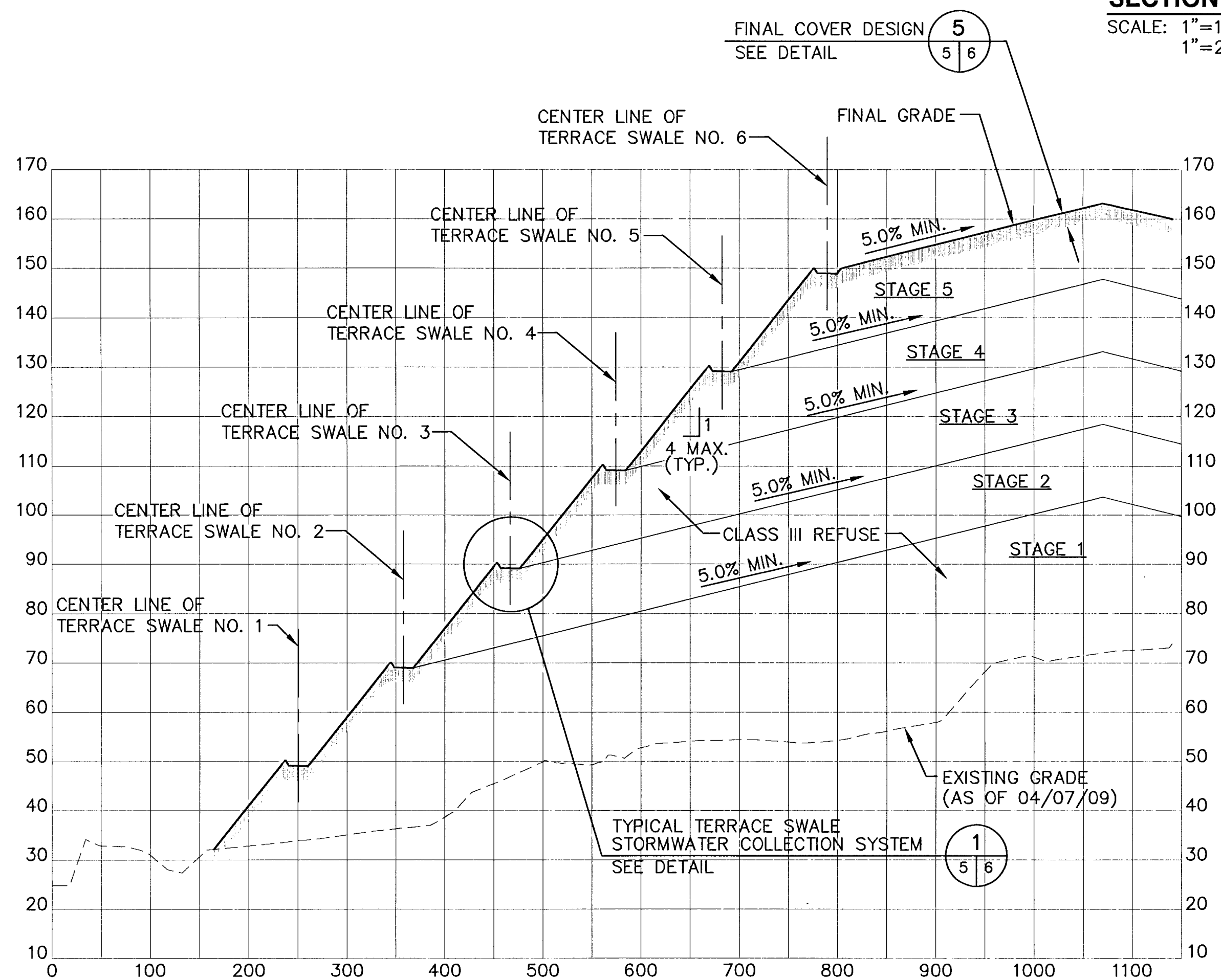
- SURVEY SOURCE NOTES:**
1. TOPOGRAPHIC SURVEY SHOWN PRODUCED BY PHOTOGRAMMETRIC METHODS AND PERFORMED BY: AERIAL CARTOGRAPHICS OF AMERICA, P.O. BOX 593846, ORLANDO FLORIDA, 32859-3846 (1722 W. OAK RIDGE ROAD, ORLANDO FLORIDA, 32809), LB # 0006748.
 2. AERIAL PHOTO DATE: APRIL 7, 2009
 3. SURVEYOR AND MAPPER IN RESPONSIBLE CHARGE: MARK DETRICK, PSM # 5433.
 4. MAPPING COORDINATES ARE BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983 (1990 ADJUSTMENT).
 5. FIELD SURVEY CONTROL ELEVATIONS AND RESULTING MAPPING ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.

- LEGEND**
- 30 --- EXISTING ELEVATIONAL CONTOUR (10 FOOT INTERVAL) - 04/07/09 SURVEY
 - 26.8 --- EXISTING ELEVATIONAL CONTOUR (2 FOOT INTERVAL) - 04/07/09 SURVEY
 - 26.8 EXISTING SPOT ELEVATION - 04/07/09 SURVEY
 - 45 --- FINAL CLOSURE ELEVATIONAL CONTOUR (5 FOOT INTERVALS)
 - 133.0 --- FINAL CLOSURE ELEVATIONAL CONTOUR (1 FOOT INTERVALS)
 - X 133.0 FINAL CLOSURE SPOT ELEVATION
 - --- APPROXIMATE LIMITS OF CONSTRUCTION
 - --- HDPE STORMWATER DRAINAGE PIPE
 - 18" DIAMETER STORMWATER DRAINAGE INLET
 - ⊙ 24" DIAMETER STORMWATER DRAINAGE INLET
 - SB-1 (100 FT.) SOIL BORING LOCATION AND DEPTH

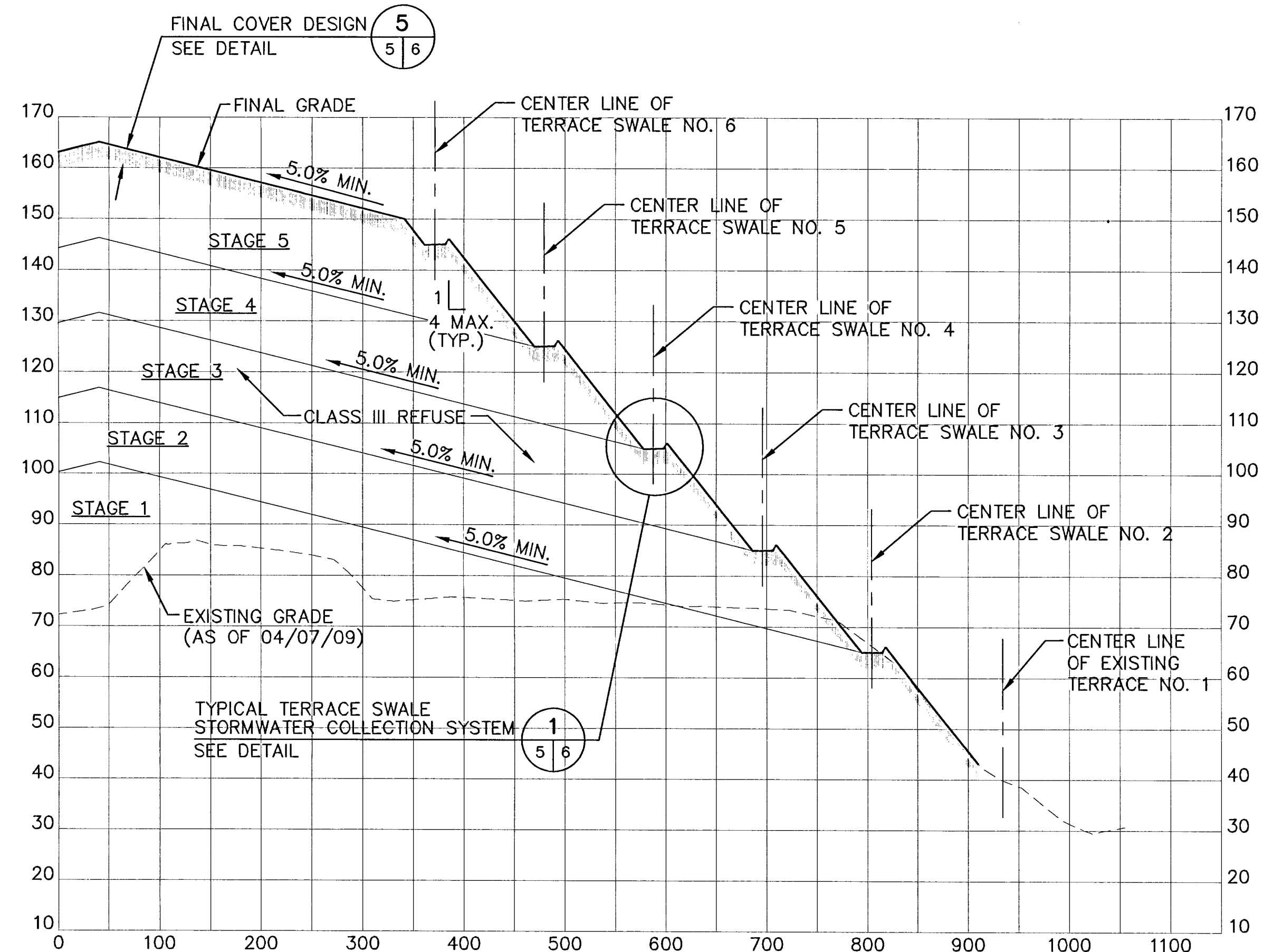
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| DRAWING TITLE | | PROJECT TITLE | |
| FINAL CLOSURE SITE PLAN | | TOMOKA FARMS ROAD LANDFILL CLASS III CELL OPERATION PERMIT RENEWAL | |
| CLIENT | | VOLUSIA COUNTY DEPARTMENT OF PUBLIC WORKS SOLID WASTE DIVISION DELAND, FLORIDA | |
| SCS ENGINEERS | | STEARNIS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 4641 PARK GARDEN BLVD., SUITE 100, TAMPA, FL 33610 813 821 0080 FAX 813 823 6757 FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004882 | |
| CADD FILE: | | 080707CLOSURE | |
| DATE: | | JUNE 2009 | |
| SCALE: | | AS SHOWN | |
| DRAWING NO. | | 4 of 8 | |



SECTION A
SCALE: 1"=100' HORIZ.
1"=20' VERT.

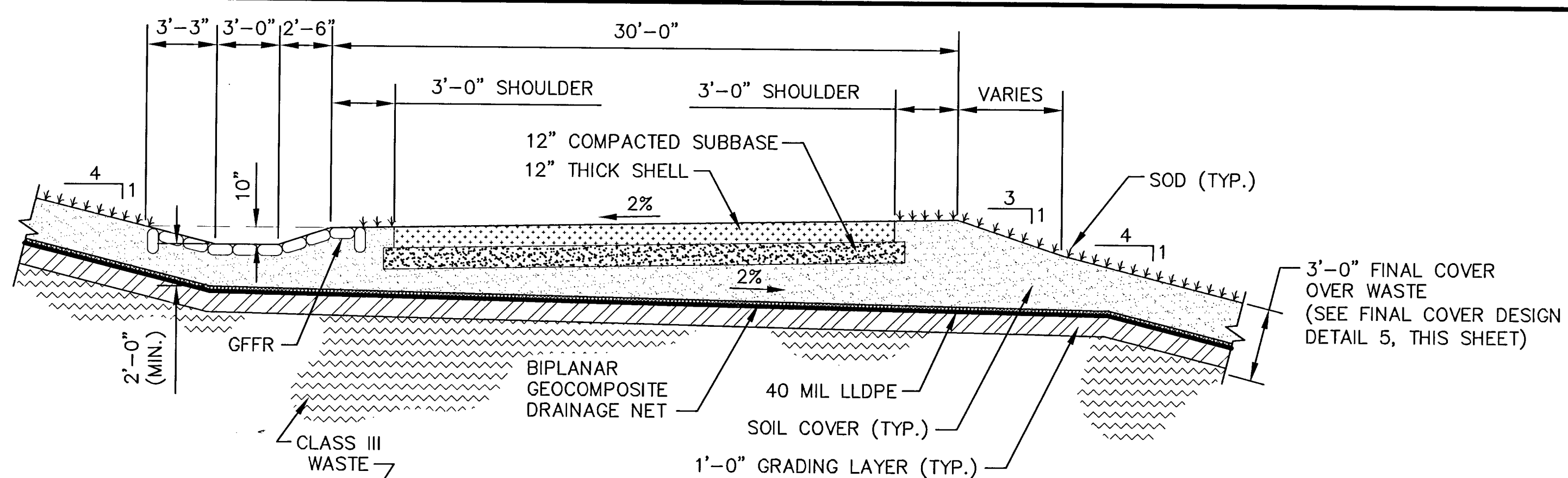


SECTION B
SCALE: 1"=100' HORIZ.
1"=20' VERT.

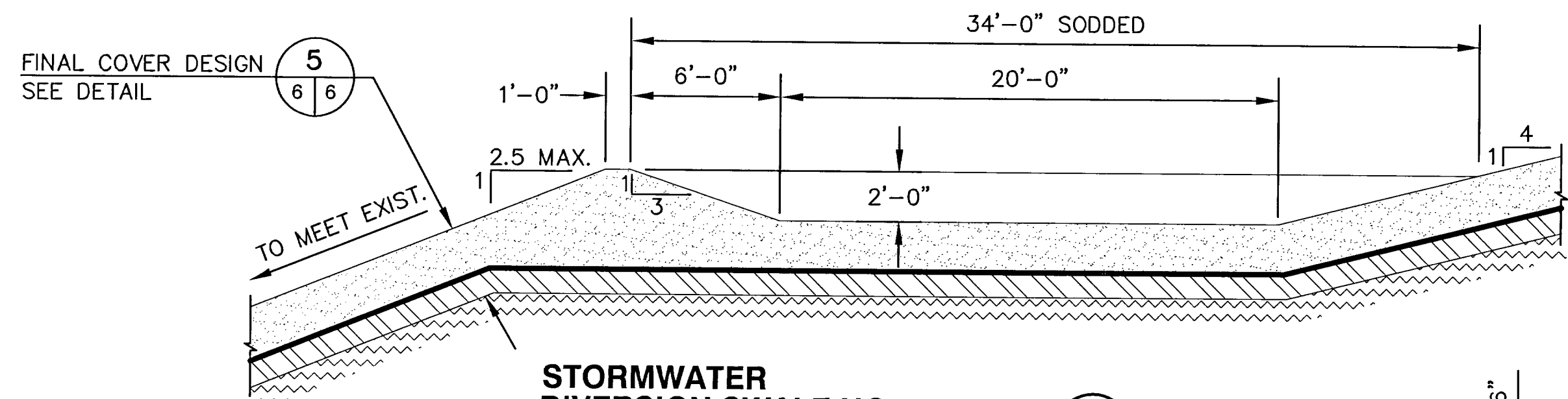


SECTION C
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1"=20' VERT.

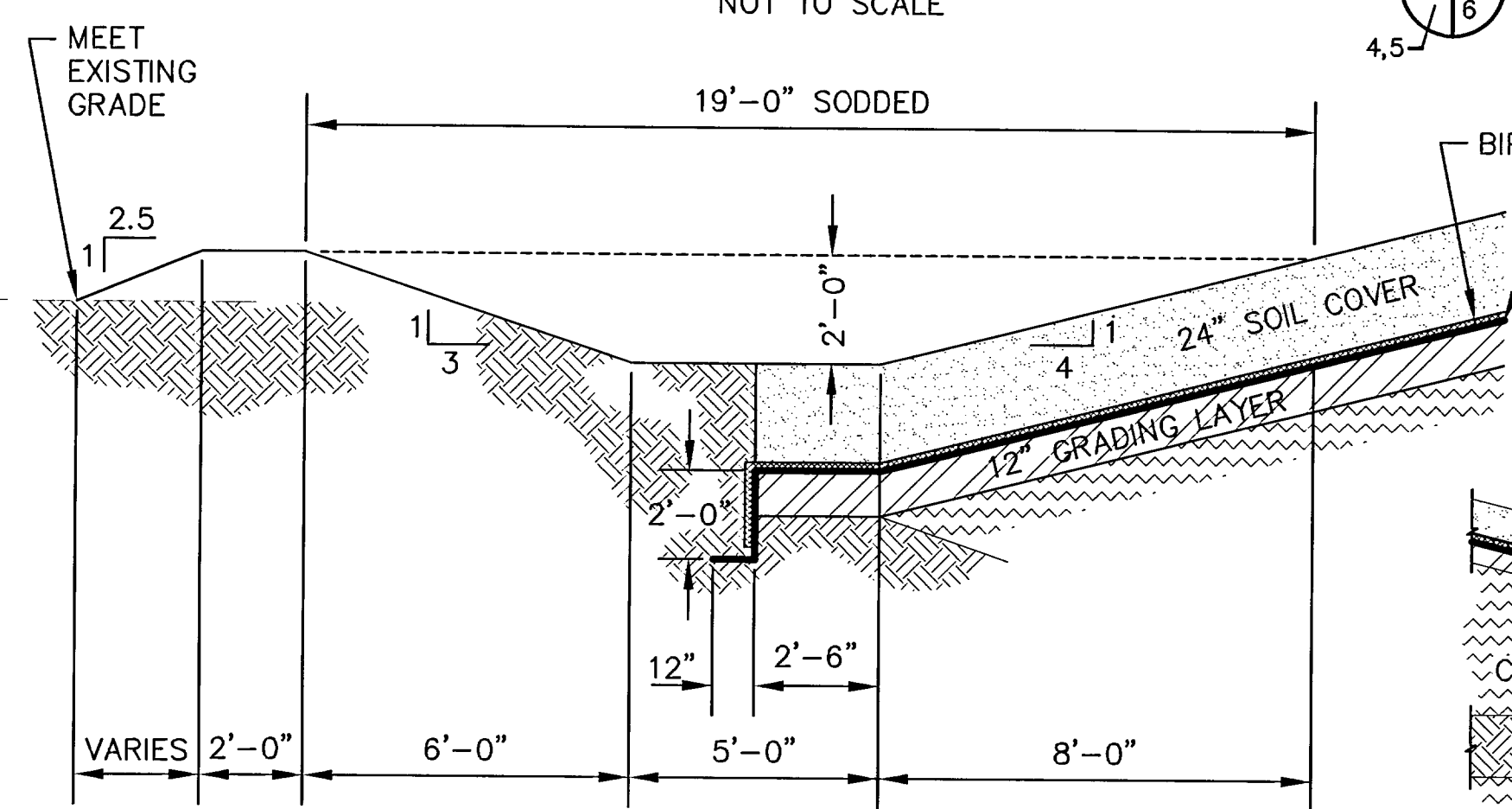
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| 23 JUN 09 LEE A. POWELL, P.E. LICENSE NO. 36992 | | | | | | | | | | | | | |
| BY | | | | | | | | | | | | | |
| DESCRIPTION | | | | | | | | | | | | | |
| DATE | | | | | | | | | | | | | |
| REV | <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | |
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| DRAWING TITLE | SECTIONS | | | | | | | | | | | | |
| PROJECT TITLE | TOMOKA FARMS ROAD LANDFILL CLASS III CELL OPERATION PERMIT RENEWAL | | | | | | | | | | | | |
| CLIENT | VOLUSIA COUNTY DEPARTMENT OF PUBLIC WORKS SOLID WASTE DIVISION DELAND, FLORIDA | | | | | | | | | | | | |
| SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 4401 PARK OAKS BLVD., SUITE 100, TAMPA, FL 33610 813 821-0080 FAX 813 823-8757 FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004882 PROJ. NO. 09208007.07 DWG. BY: SDA CHK. BY: LAP O/A RVR BY: CEH APP. BY: RJD | CADD FILE: 080707SECTIONS DATE: JUNE 2009 SCALE: AS SHOWN DRAWING NO. | | | | | | | | | | | | |
| 5 of 8 | | | | | | | | | | | | | |



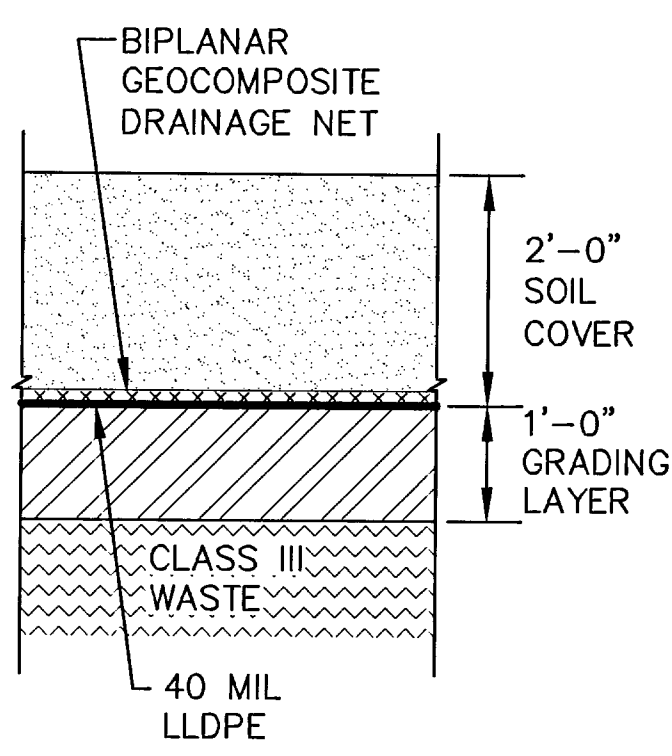
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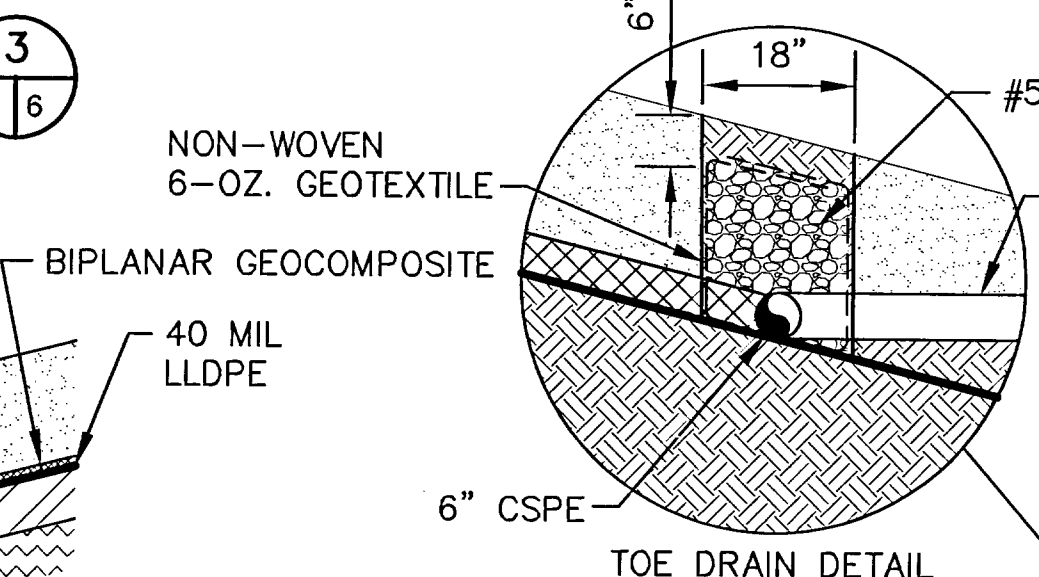
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NOT TO SCALE



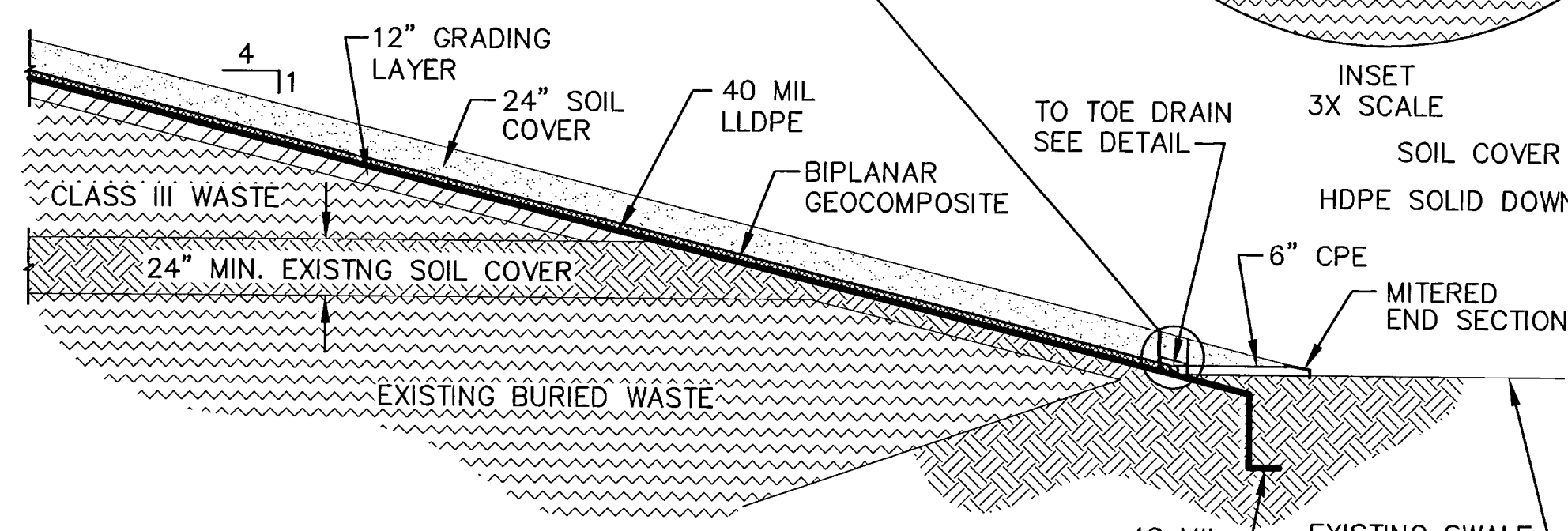
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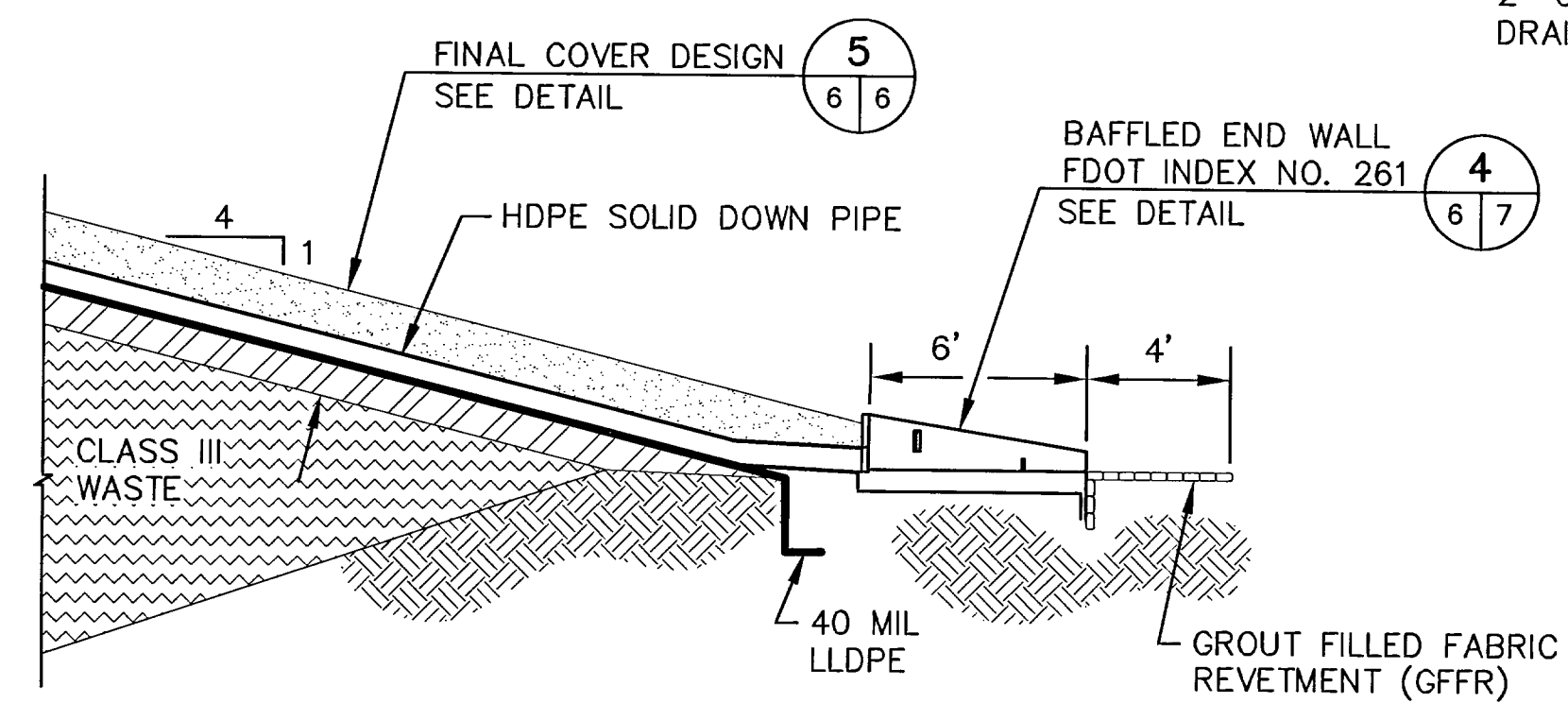
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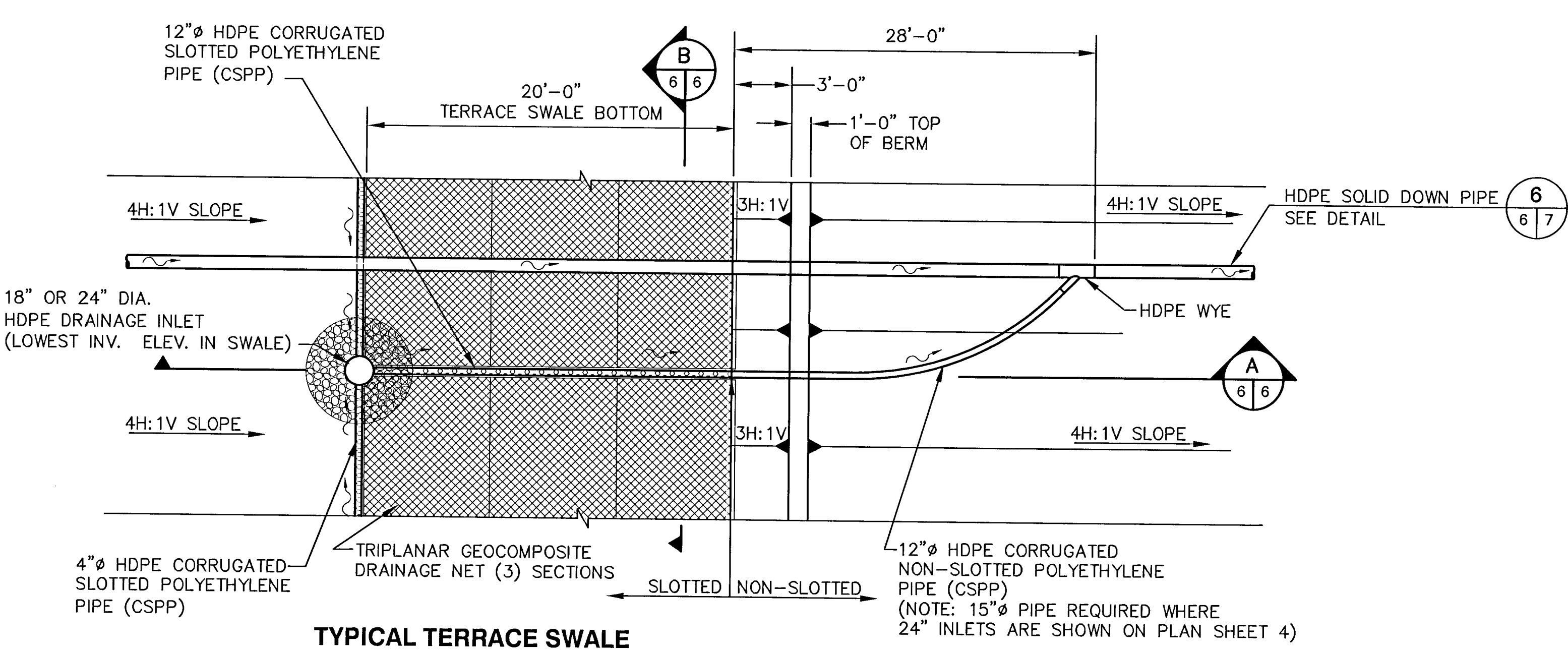
TOE DRAIN DETAIL
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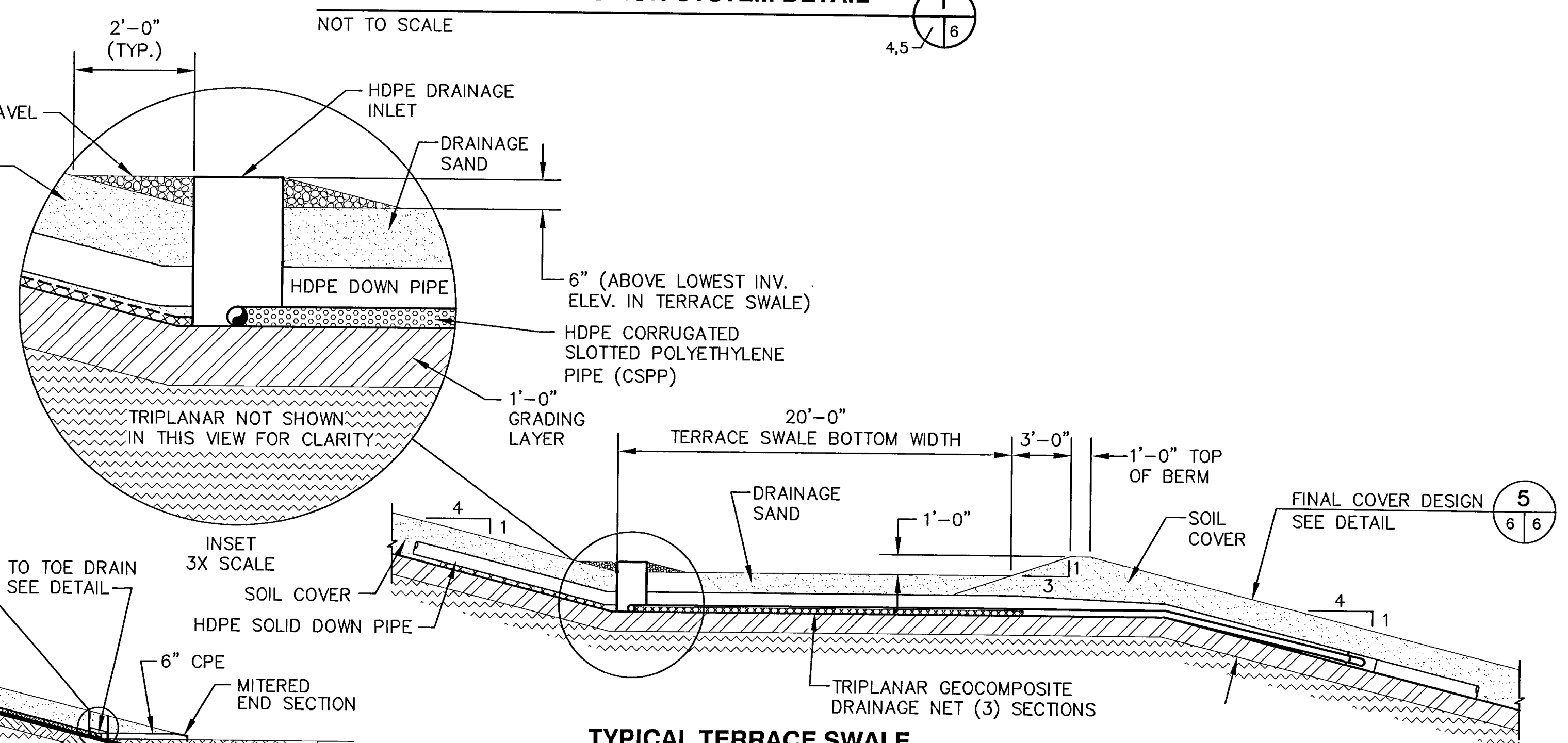
WEST TOE OF SLOPE DETAIL
NOT TO SCALE



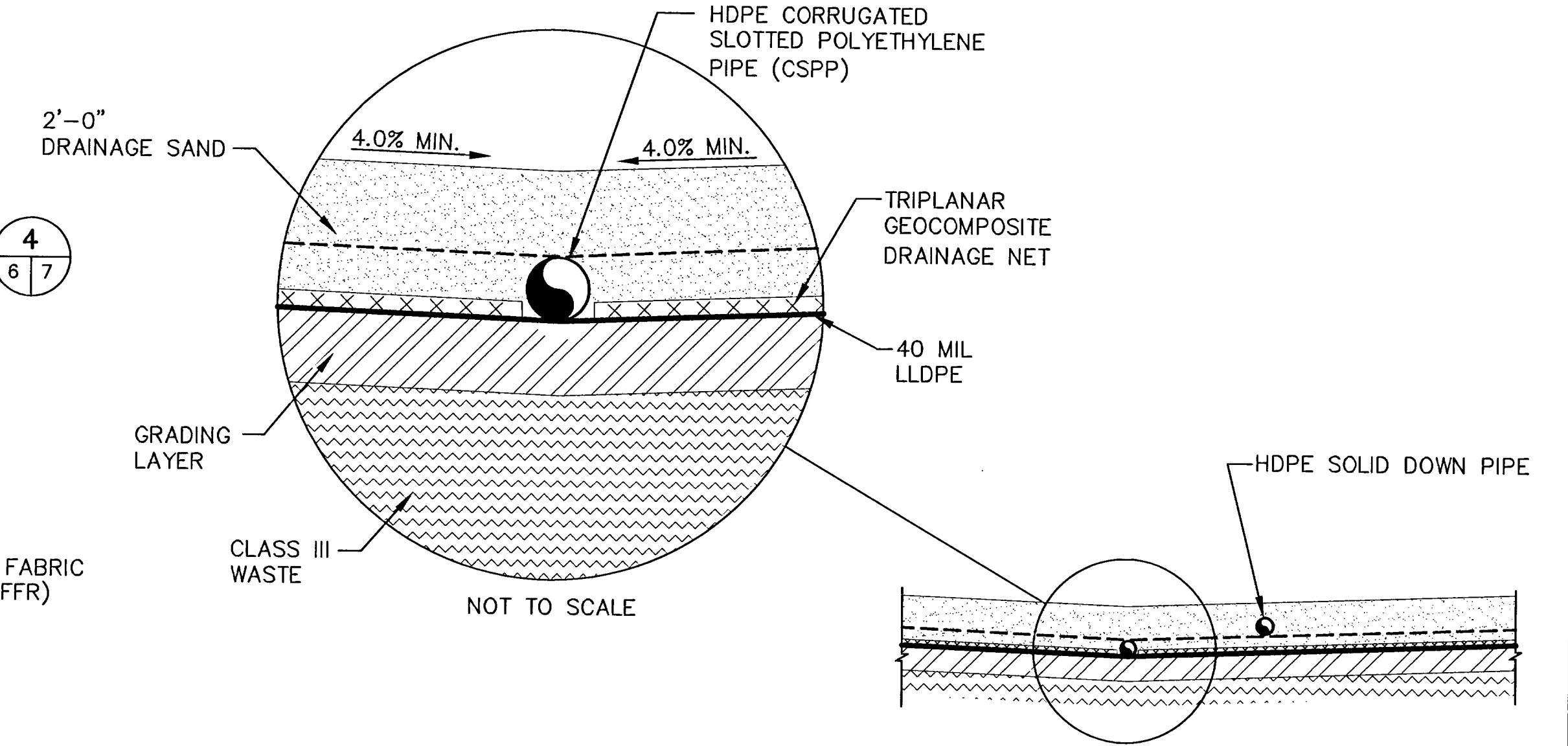
TYPICAL DOWN PIPE OUTFALL DETAIL
NOT TO SCALE



TYPICAL TERRACE SWALE STORMWATER COLLECTION SYSTEM DETAIL
NOT TO SCALE

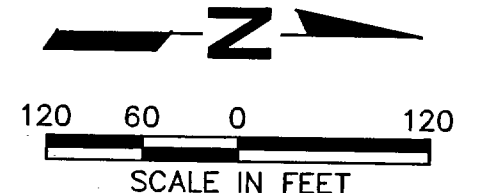


TYPICAL TERRACE SWALE STORMWATER COLLECTION SYSTEM SECTION
NOT TO SCALE



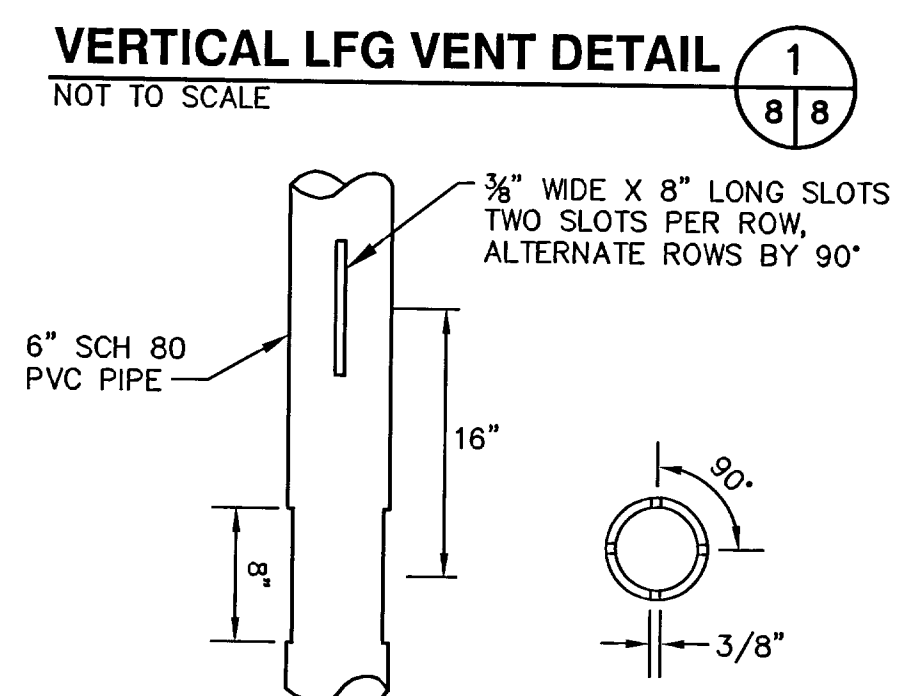
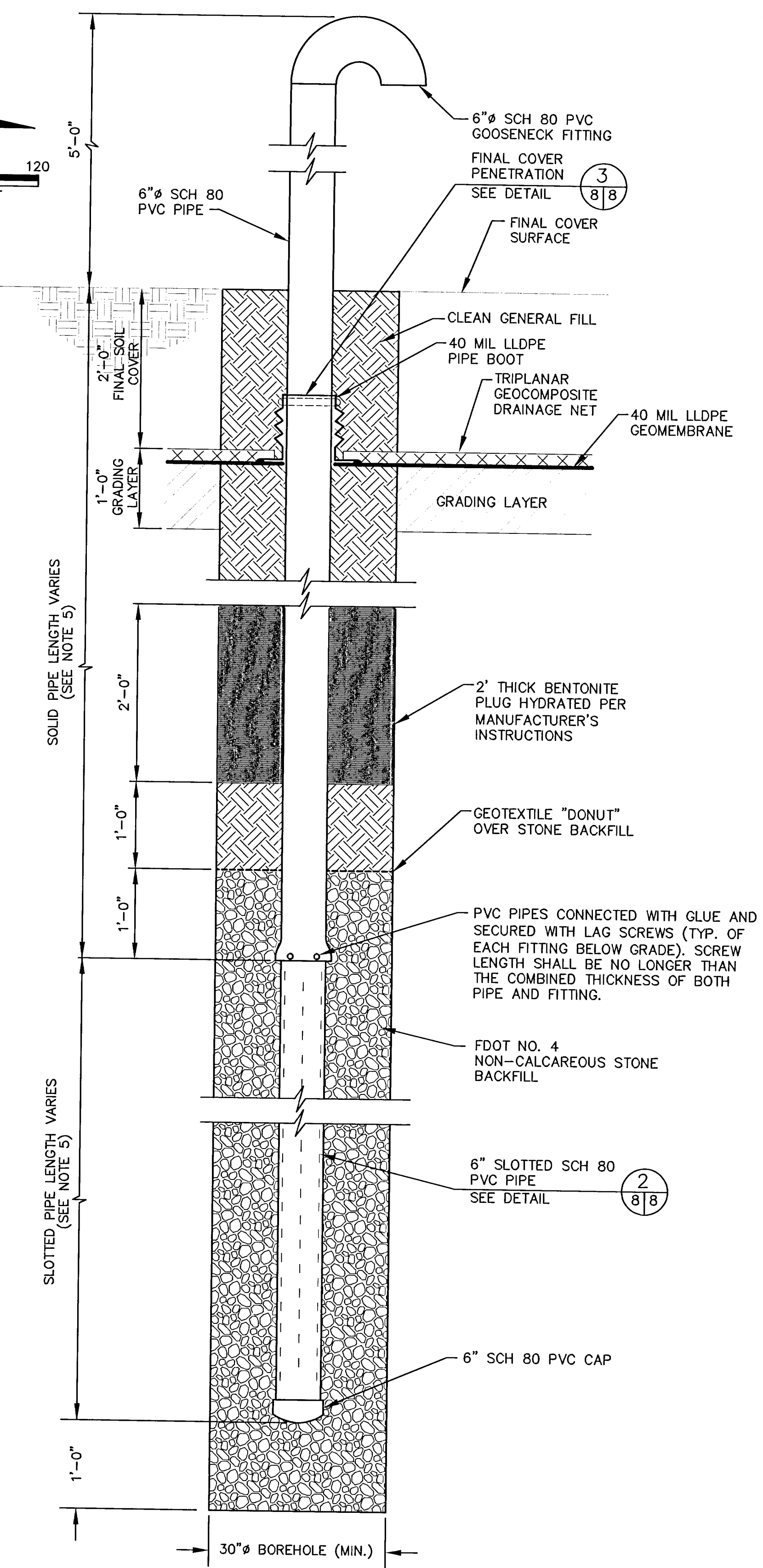
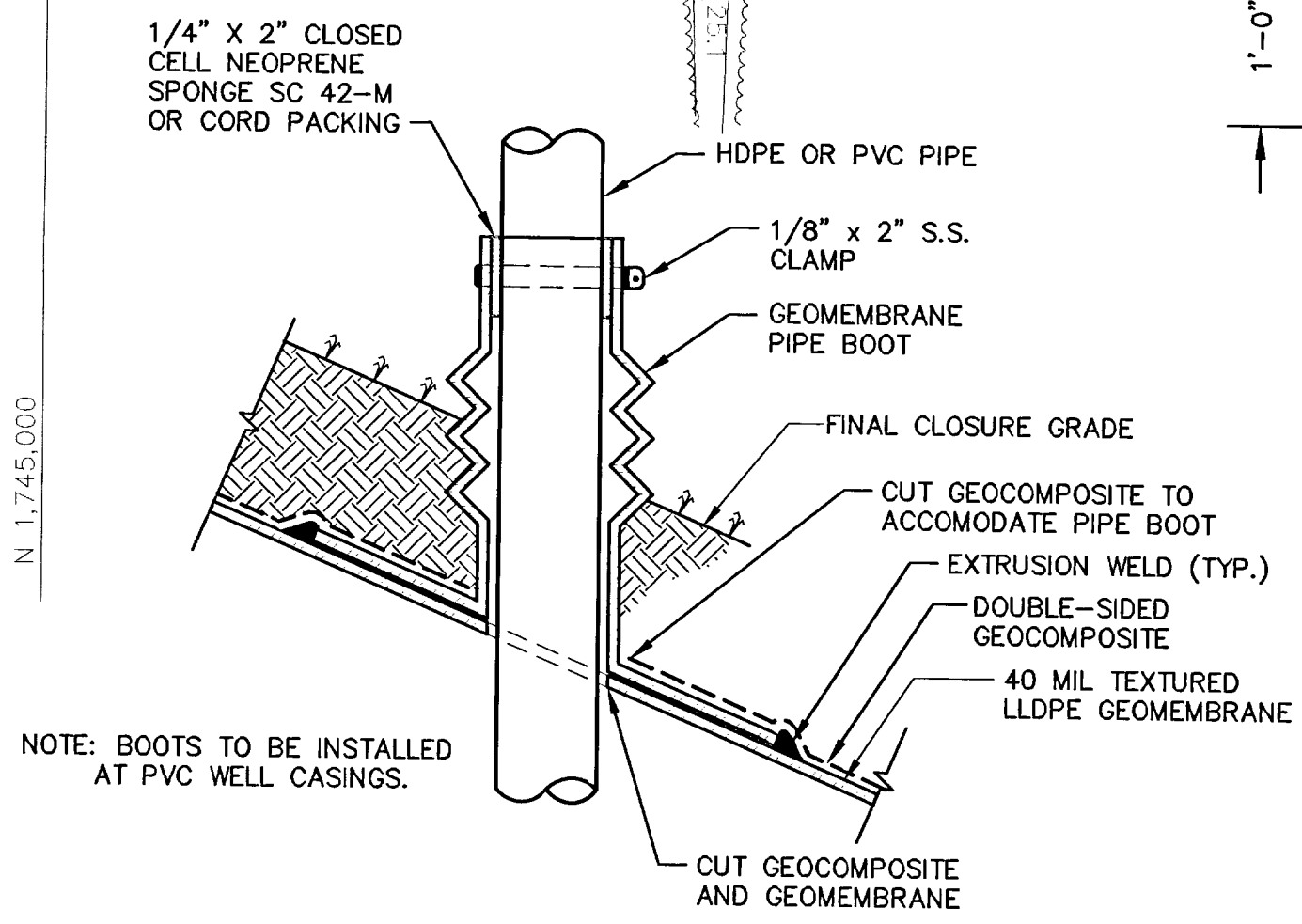
SECTION B
NOT TO SCALE

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| | | BY DESCRIPTION DATE REV |
| PROJECT TITLE TOMOKA FARMS ROAD LANDFILL CLASS III CELL | | OPERATIONAL PERMIT RENEWAL |
| CLIENT VOLUSIA COUNTY DEPARTMENT OF PUBLIC WORKS | | DRAWING TITLE DETAILS - 1 |
| SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 4041 PARK OAKS BLVD., SUITE 100, TAMPA, FL 33610 813 821-0080 FAX 813 823-9757 FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004882 | | PROJECT NO. 09208007.07 |
| CADD FILE: 080707DET1 | DATE: JUNE 2009 | SCALE: AS SHOWN |
| DRAWING NO. 6 of 8 | | APP. BY: RJD CHK. BY: LAP DWN. BY: SDA DES. BY: CEF |



- SURVEY SOURCE NOTES:**
- TOPOGRAPHIC SURVEY SHOWN PRODUCED BY PHOTOGRAMMETRIC METHODS AND PERFORMED BY: AERIAL CARTOGRAPHICS OF AMERICA, P.O. BOX 593846, ORLANDO FLORIDA, 32859-3846 (1722 W. OAK RIDGE ROAD, ORLANDO FLORIDA, 32809), LB # 0006748.
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- NOTES:**
- WELL BOREHOLES SHALL TERMINATE A MINIMUM OF 15 FEET ABOVE THE BOTTOM OF REFUSE.
 - DRILLER SHALL LOG REFUSE DESCRIPTION, TEMPERATURE, APPROX. MOISTURE CONTENT, PRESENCE OF LIQUID AND DEGREE OF DECOMPOSITION AT 10-FT. INTERVALS.
 - CONTRACTOR SHALL SURVEY AND STAKE THE PROPOSED VENT LOCATIONS AND PROVIDE THE GROUND SURFACE ELEVATION TO THE ENGINEER AND OWNER AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF WELL DRILLING.
 - DURING DRILLING OF WASTE, CONTRACTOR SHALL EMPLOY ALL HEALTH AND SAFETY STANDARDS FOR LFG DRILLING. CONTRACTOR SHALL PREPARE AND ADHERE TO A HEALTH AND SAFETY PLAN THAT MUST BE SUBMITTED TO THE ENGINEER AND OWNER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - VENT SCHEDULE TO BE ADDED AS PART OF LANDFILL CLOSURE CONSTRUCTION DOCUMENTS.



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|--|-------------|--|--|--|
| SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 401 PARK CHASE BLVD., SUITE 100, TAMPA, FL 33610 813 821-0888 FAX 813 824-2577 FLORIDA CERTIFICATE OF AUTHORIZATION NO. 0004882 PROJECT NO. 092030007.07 TOWN: JS/LEK DRAWN BY: JS/LEK CHECKED BY: LEK/DHP APPR. BY: RJD | | CLIENT VOLUSIA COUNTY DEPARTMENT OF PUBLIC WORKS SOLID WASTE DIVISION DELAND, FLORIDA | DRAWING TITLE PASSIVE VENT SYSTEM SITE PLAN | PROJECT TITLE TOMOKA FARMS ROAD LANDFILL CLASS III CELL OPERATION PERMIT RENEWAL |
| BY | DESCRIPTION | REV | DATE | |
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| CADD FILE: 080707LFGSITE | | DATE: JUNE 2009 | | |
| SCALE: AS SHOWN | | DRAWING NO. 8 of 8 | | |