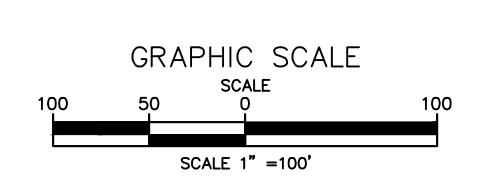


- ### GENERAL BASEMAP NOTES
- EXISTING TOPOGRAPHY AND FEATURES SHOWN HEREON WERE OBTAINED FROM AERIAL PHOTOGRAMMETRY PREPARED BY: CDI INFRASTRUCTURE, LLC, DBA L.R. KIMBALL & ASSOC., EBENSBERG, PA, FROM AN AERIAL PHOTOGRAPH DATED 01/14/17. WITH THE EXCEPTION OF THE UNLINED PORTIONS OF PADS 107 AND 108, GRADING IN ACTIVE, UNCAPPED DISPOSAL AREAS AS OF THE DATE OF THIS APPLICATION ARE ASSUMED TO BE AT PERMITTED FINAL GRADES EXCEPT FOR UNBUILT PORTIONS OF PADS 107-108 BASED. MODIFICATIONS HAVE BEEN MADE WHERE PROPOSED GRADES MEETING EXISTING CAPPED AREAS TO INDICATE ANTICIPATED FINAL GRADING CONDITIONS AT THE TIME OF COMPLETION OF DISPOSAL ACTIVITIES AND INSTALLATION OF THE CAP SYSTEM UNDER THE CURRENT PERMIT.
 - DISPOSAL AREA INFORMATION WAS OBTAINED FROM "SHENKEL ROAD EXPANSION FINAL GRADING PLAN (GAS MANAGEMENT PLAN)," DELAWARE COUNTY SOLID WASTE AUTHORITY, COLEBROOKDALE MUNICIPAL LANDFILL, SHEET LF 11, DWG. 115-LF-11R4_08, FILE NO. 115, DATED APRIL 1996, LAST REVISED APRIL 2008.
 - WHERE PERMIT BOUNDARY IS SHOWN ADJACENT TO PROPERTY BOUNDARY, BOUNDARIES ARE EQUAL. PERMIT BOUNDARY IS SHOWN AS OFFSET TO PROPERTY BOUNDARY FOR CLARITY.
 - 100-YEAR STORM FLOOD DATA, BASED ON INFORMATION DEVELOPED FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD DATA, OBTAINED FROM PASDA (PENNSYLVANIA SPATIAL DATA ACCESS).
 - WETLANDS AND STREAMS / CHANNELS AS INDICATED IN VICINITY OF PERMIT BOUNDARY DELINEATED BY WHM CONSULTING INC. IN MAY 2016. SEE WETLAND DELINEATION REPORT INCLUDED IN FORM D OF EXPANSION APPLICATION FOR MORE SPECIFIC INFORMATION.

- ### GENERAL BASEMAP LEGEND
- PROPERTY BOUNDARY
 - ADJOINER PROPERTY LINE
 - EXISTING PERMIT BOUNDARY
 - PROPOSED PERMIT BOUNDARY
 - EXISTING DISPOSAL LIMIT
 - EXISTING PAD DIVISION LINE
 - EXISTING GRADE CONTOURS (C.I.=2'/10')
 - WATER COURSE (IN BASEMAPING)
 - 100-YEAR FLOODPLAIN (SEE GENERAL BASEMAP NOTE 4)
 - WETLAND BOUNDARY BY WHM (SEE GENERAL BASEMAP NOTE 5)
 - PERENNIAL STREAM BY WHM (SEE GENERAL BASEMAP NOTE 5)

- ### PHASE 1 DEVELOPMENT NOTES
- THIS PLAN IS INTENDED SOLELY TO INDICATE PROPOSED PHASE 1 NEW / REVISED TOP OF SUBGRADE ELEVATIONS AND LEACHATE COLLECTION WITHIN THE PHASE 1 LANDFILL FOOTPRINT. SEE SHEET SET 6 FOR SITE DEVELOPMENT CONDITIONS OUTSIDE OF THE DISPOSAL FOOTPRINT AND FOR ENTIRE LANDFILL CROSS SECTION LINE LOCATIONS.
 - CONSTRUCTION SOILS AND AGGREGATES WILL BE DELIVERED TO THE WORK AREA AS NEEDED. TEMPORARY STOCKPILES MAY BE LOCATED WITHIN THE WORK AREA TO FACILITATE CONSTRUCTION. ALL STOCKPILES WILL BE LOCATED WITHIN AREAS CONTROLLED BY E&S BMP'S.
 - A TEMPORARY SUMP MAY BE REQUIRED FOR LEACHATE COLLECTION. THE SUMP WILL BE LOCATED AT THE LOW POINT OF THE CELL. PUMPS WILL BE SIZED FOR THE CELL BASED ON ANTICIPATED LEACHATE FLOWS.
 - ANGULAR AND SUBANGULAR AGGREGATE FOR PROTECTIVE COVER MAY NOT BE PLACED MORE THAN 40 VERTICAL FT. UP 3H:1V SIDES WITHOUT THE APPROVAL OF THE QUALITY ASSURANCE ENGINEER OR DESIGN ENGINEER. IF ROUNDED AND SUBROUNDED AGGREGATES ARE UTILIZED, PLEASE SEEK ADDITIONAL DIRECTION FROM THE QUALITY ASSURANCE ENGINEER OR DESIGN ENGINEER FOR ANY APPLICABLE PLACEMENT RESTRICTIONS.
 - CELLS MAY BE SUBDIVIDED USING TEMPORARY STORMWATER BERMS AS INDICATED IN DETAILS 1 THROUGH 4 ON SHEET 8C.
 - SEE TYPICAL LINER SYSTEM PROFILE, DETAILS 1 AND 2, SHEET 8A FOR CONFIGURATION OF PIPING WITHIN LINER SYSTEM.
 - SEE SHEET SET 8 FOR LINER, BERM, SUMP AND COLLECTION AND CONVEYANCE SYSTEM DETAILS.
 - SEE SHEET SET 10 FOR STORMWATER MANAGEMENT RELATED DETAILS AND DIMENSIONS.
 - LEACHATE COLLECTION PIPING NETWORK WILL BE CONSTRUCTED IN PHASES IN CONJUNCTION WITH DISPOSAL CELL DEVELOPMENT. UPON COMPLETION OF DISPOSAL CELL CONSTRUCTION IN ADJACENT CELLS, COLLECTION PIPING WILL BE CONSTRUCTED/EXTENDED INTO ADJACENT CELL.
 - CELL DIVISION LINES ARE SHOWN FOR PLANNING PURPOSES. THE ACTUAL CELL CONSTRUCTION LIMITS MAY DIFFER FROM INDICATED LOCATIONS. THE QUALITY ASSURANCE ENGINEER OR DESIGN ENGINEER SHALL VERIFY THAT ANY REVISIONS TO THE LAYOUT CONSIDER LEACHATE COLLECTION FACILITIES, STORMWATER/EROSION AND SEDIMENTATION CONTROLS, AND SLOPE/VENEER STABILITY CONCERNS.
 - LEACHATE COLLECTION PIPING, SUMPS, AND SUMP HOUSES MAY DIFFER SLIGHTLY FROM ACTUAL LOCATIONS DUE TO FIELD ENGINEERING AND ADJUSTMENTS. THESE ADJUSTMENTS MAY NOT ALTER THE INTENDED FUNCTION OR DESIGN OF THE COMPONENTS OF THE SYSTEM.
 - LEACHATE COLLECTION LINES TYING INTO SUMP AREAS MAY ALSO CONTAIN CLEANOUTS ADJACENT TO SIDESLOPE RISER PIPING NOT DEPICTED HEREON FOR CLARITY.
 - A ROAD GUIDE RAIL OR EQUIVALENT SHALL BE CONSTRUCTED ALONG PERIMETER BERM AND OTHER AREAS AT LOCATIONS REQUIRED BY APPLICABLE REGULATIONS.
 - CAP AREA D TO BE REMOVED UNDER THIS SYSTEM. AFTER REMOVAL OF CAP SYSTEM PLACE INTERMEDIATE COVER MATERIAL TO ACHIEVE AN EVEN SURFACE FOR SUBBASE PLACEMENT. SEE DETAIL 4 ON SHEET 8B.
 - A TEMPORARY BERM WILL BE REQUIRED ALONG PAD 107 IF PAD 107 IS NOT ENTIRELY CONSTRUCTED TO PHASE 1 DEPICTED HEREON.
 - ADJUST GRADING AND PLACEMENT OF LEACHATE COLLECTION PIPING TO ACHIEVE A MINIMUM 2% SLOPE IN THE TYPE 2 LINER SYSTEM AREAS.
 - SIZE OF TEMPORARY FORCEMAIN TO BE VERIFIED AT TIME OF CONSTRUCTION.
 - IN ORDER TO FACILITATE LEACHATE LOADOUT, IT WILL BE NECESSARY TO CONSTRUCT THE PROPOSED HAUL ROAD AT THE WESTERN LIMIT OF THE LANDFILL FACILITY PRIOR TO CONSTRUCTION OF THE PHASE 1 CELL.
 - THE SECONDARY LEACHATE LOADOUT POINT IS CONCEPTUAL. THE APPLICANT WILL SUBMIT ADDITIONAL INFORMATION TO THE DEPARTMENT REGARDING THE PROPOSED LOAD OUT LOCATION SHOULD IT BE NECESSARY TO UTILIZE THE LOCATION.

- ### PHASE 1 LEGEND
- EXTENT OF SOUTHERN EXPANSION LINER SYSTEM
 - PHASE LIMITS
 - PROPOSED SUBGRADE GRADE (C.I.=AS NOTED)
 - ANCHOR TRENCH
 - TOE CHANNEL WITH INLETS
 - LEACHATE COLLECTION/DETECTION PIPING
 - TYPE 1 LINER SYSTEM (SEE DETAIL 1 ON SHEET 8A)
 - TYPE 2 LINER SYSTEM (SEE DETAIL 2 ON SHEET 8A)



Balanced Environmental Solutions

REVISIONS	

DELAWARE COUNTY SOLID WASTE AUTHORITY
ROLLING HILLS LANDFILL
SOUTHERN AREA LANDFILL EXPANSION

EARL TOWNSHIP BERKS COUNTY PENNSYLVANIA

PROPOSED EXPANSION
PHASE 1 - DEVELOPMENT PLAN

State College Office Delaware Valley Office
 (814) 238-2060 (610) 495-5585

DATE: **09/25/17**

DRAWN BY: **SWH**

CHECKED: **KCC**

BAI DRAWING NO: **DCSWA-107D020A**

SHEET NO: **9A OF 11**