

CELA REUSE SPOIL DISPOSAL AREA

FORMER SINCLAIR REFINERY SITE

WELLSVILLE, NEW YORK

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2	REVISED DESIGN	1/09	JDM

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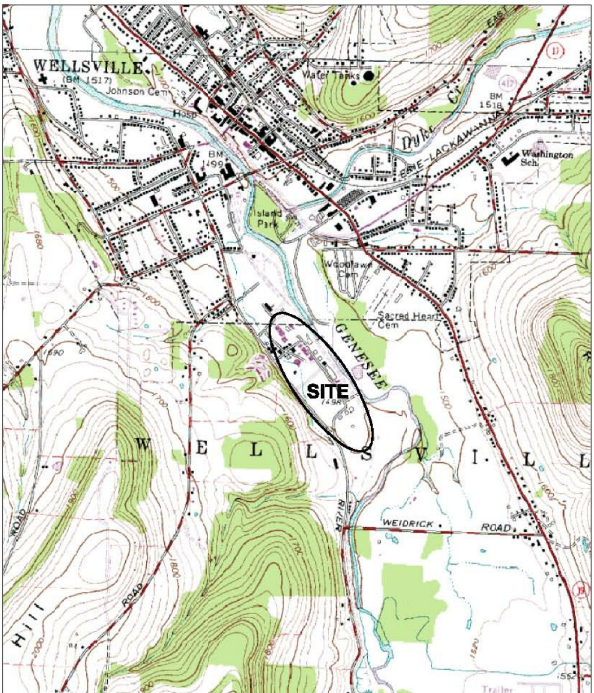
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FORMER SINCLAIR REFINERY
WELLSVILLE, NY
CELA REUSE SPOIL
DISPOSAL AREA

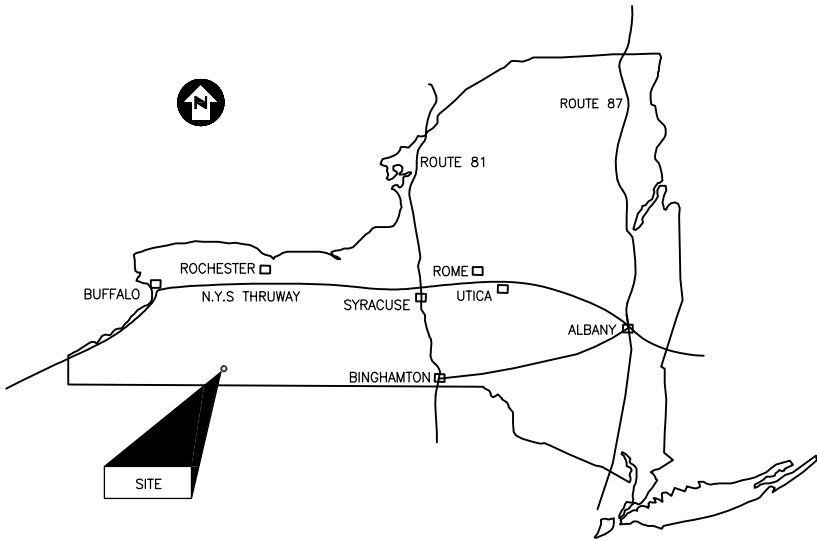
TITLE SHEET

URS
G-03



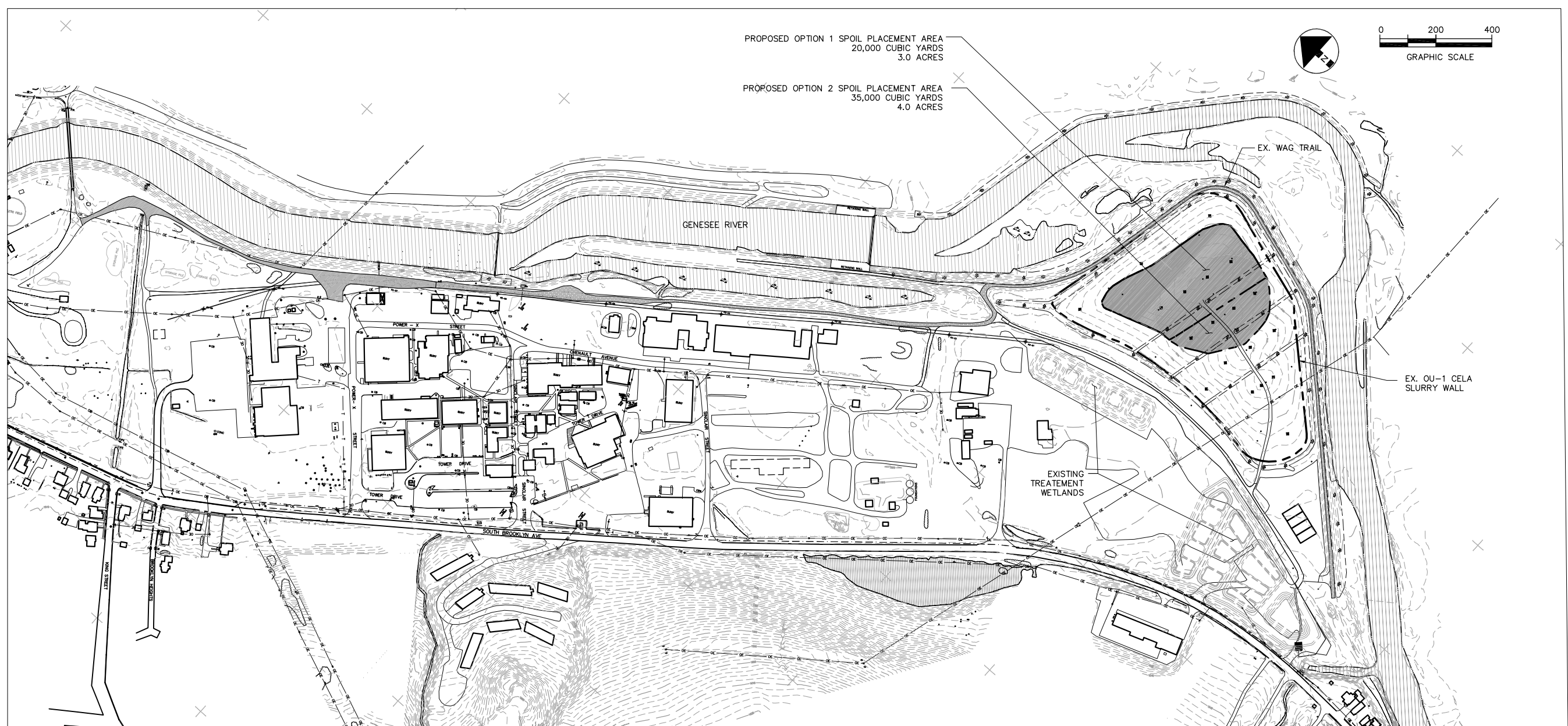
LOCATION MAP
SCALE: 1"=1500'

- G-03 TITLE SHEET
- C-16 SITE PLAN AND PROPOSED FILL AREA
- C-17 OPTION 1 EXCAVATION ELEVATIONS AND WATER COLLECTION SYSTEM
- C-18 OPTION 1 SPOIL PLACEMENT ELEVATIONS
- C-19 OPTION 1 CAP SYSTEM ELEVATIONS
- C-20 OPTION 1 FINAL GRADING AND CROSS-SECTION PLAN
- C-21 OPTION 1 CROSS-SECTIONS
- C-22 OPTION 2 EXCAVATION ELEVATIONS AND WATER COLLECTION SYSTEM
- C-23 OPTION 2 SPOIL PLACEMENT ELEVATIONS
- C-24 OPTION 2 CAP SYSTEM ELEVATIONS
- C-25 OPTION 2 FINAL GRADING AND CROSS-SECTIONS
- C-26 OPTION 2 CROSS-SECTIONS
- C-27 DETAILS I
- C-28 DETAILS II



N.Y. STATE MAP
NOT TO SCALE

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OPTION 1 SEQUENCE OF CONSTRUCTION
20,000 CUBIC YARDS TOTAL PLACED OVER 3.0 ACRES

- INSTALL EROSION AND SEDIMENT CONTROLS AROUND CELA SPOIL PLACEMENT AREA.
- REMOVE EXISTING RIP RAP FROM FINGER DRAINS AND STOCKPILE FOR USE IN RIVER REMEDIATION ACTIVITIES.
- STRIP EXISTING 6" TOPSOIL LAYER WITHIN OPTION 1 SPOIL PLACEMENT AREA AND STOCKPILE FOR RE-USE. STRIP ADDITIONAL 6" EXISTING COMMON SOIL WITHIN OPTION 1 SPOIL PLACEMENT AREA AND STOCKPILE FOR RE-USE. REFER TO SHEET C-17.
- EXCAVATE TO EXPOSE 5 FOOT WIDE STRIP OF EXISTING CAP SYSTEM GEOSYNTHETICS AROUND PERIMETER OF SPOIL DISPOSAL AREA. CREATE TEMPORARY BERM ALONG OUTSIDE OF SPOIL PLACEMENT AREA USING EXCAVATED SOIL.
- CUT EXISTING GEOCOMPOSITE TO EXPOSE EXISTING GEOMEMBRANE. EXTRUSION WELD GEOMEMBRANE FLAP TO EXISTING GEOMEMBRANE. GEOMEMBRANE FLAP SHALL EXTEND BEYOND LIMIT OF SPOIL PLACEMENT AS SHOWN ON DETAIL 7, SHEET C-28.
- INSTALL OPTION 1 WATER DRAINS AND WATER COLLECTION PIPING AS SHOWN ON SHEET C-17.
- PLACE OPTION 1 SPOIL MATERIAL TO GRADES SHOWN ON SHEET C-18 (APPROX. 20,000 CUBIC YARDS).
- FOLD BACK 40 MIL LLDPE MEMBRANE FLAP AND REMOVE TEMPORARY BERM.
- EXCAVATE ANCHOR TRENCH BEYOND LIMIT OF SPOIL PLACEMENT FOR TERMINATION OF CAP SYSTEM GEOSYNTHETICS. EXCAVATE ANCHOR TRENCH TO EXISTING LINER SYSTEM GEOSYNTHETICS (TOP OF EXISTING GEOCOMPOSITE DRAINAGE LAYER).
- PLACE 40 MIL LLDPE MEMBRANE FLAP IN TRENCH.
- INSTALL PROPOSED CAP SYSTEM GEOSYNTHETICS, TERMINATING GEOSYNTHETICS IN ANCHOR TRENCH.
- BACKFILL ANCHOR TRENCH WITH AGGREGATE MATERIAL.
- PLACE CAP SYSTEM COVER SOIL TO GRADES SHOWN ON C-19.
- UPON COMPLETION OF THE CAP SYSTEM CONSTRUCTION THE CELA AREA SHALL BE SEEDED AND RESTORED IN ACCORDANCE WITH THE RESTORATION PLAN.

OPTION 2 SEQUENCE OF CONSTRUCTION
35,000 CUBIC YARDS TOTAL PLACED OVER 4.0 ACRES

- INSTALL EROSION AND SEDIMENT CONTROLS AROUND CELA SPOIL PLACEMENT AREA.
- REMOVE EXISTING RIP RAP FROM FINGER DRAINS AND STOCKPILE FOR USE IN RIVER REMEDIATION ACTIVITIES.
- STRIP EXISTING 6" TOPSOIL LAYER WITHIN OPTION 2 SPOIL PLACEMENT AREA AND STOCKPILE FOR RE-USE. STRIP ADDITIONAL 6" EXISTING COMMON SOIL WITHIN OPTION 2 SPOIL PLACEMENT AREA AND STOCKPILE FOR RE-USE. REFER TO SHEET C-22.
- EXCAVATE TO EXPOSE 5 FOOT WIDE STRIP OF EXISTING CAP SYSTEM GEOSYNTHETICS AROUND PERIMETER OF SPOIL DISPOSAL AREA. CREATE TEMPORARY BERM ALONG OUTSIDE OF SPOIL PLACEMENT AREA USING EXCAVATED SOIL.
- CUT EXISTING GEOCOMPOSITE TO EXPOSE EXISTING GEOMEMBRANE, EXTRUSION WELD GEOMEMBRANE FLAP TO EXISTING GEOMEMBRANE. GEOMEMBRANE FLAP SHALL EXTEND BEYOND LIMIT OF SPOIL PLACEMENT AS SHOWN ON DETAIL 7, SHEET C-28.
- INSTALL OPTION 2 WATER DRAINS AND WATER COLLECTION PIPING AS SHOWN ON SHEET C-22.
- PLACE OPTION 2 SPOIL MATERIAL TO GRADES SHOWN ON SHEET C-23 (APPROX. 35,000 CUBIC YARDS).
- FOLD BACK 40 MIL LLDPE MEMBRANE FLAP AND REMOVE TEMPORARY BERM.
- EXCAVATE ANCHOR TRENCH BEYOND LIMIT OF SPOIL PLACEMENT FOR TERMINATION OF CAP SYSTEM GEOSYNTHETICS. EXCAVATE ANCHOR TRENCH TO EXISTING LINER SYSTEM GEOSYNTHETICS (TOP OF EXISTING GEOCOMPOSITE DRAINAGE LAYER).
- PLACE 40 MIL LLDPE MEMBRANE FLAP IN TRENCH.
- INSTALL PROPOSED CAP SYSTEM GEOSYNTHETICS, TERMINATING GEOSYNTHETICS IN ANCHOR TRENCH.
- BACKFILL ANCHOR TRENCH WITH AGGREGATE MATERIAL.
- PLACE CAP SYSTEM COVER SOIL TO GRADES SHOWN ON C-24.
- UPON COMPLETION OF THE CAP SYSTEM CONSTRUCTION THE CELA AREA SHALL BE SEEDED AND RESTORED IN ACCORDANCE WITH THE RESTORATION PLAN.

SURVEY INFORMATION

BENCHMARK #1
PSM2 - BRASS DISK IN CONCRETE
NORTHING - 768045.92 (NAD 27)
EASTING - 675839.57
ELEVATION - 1507.15 (NGVD 29)

BENCHMARK #2
PSM3 - BRASS DISK IN CONCRETE
NORTHING - 768452.57 (NAD 27)
EASTING - 675005.19
ELEVATION - 1506.39 (NGVD 29)

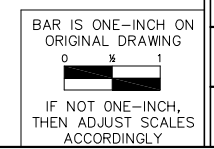
CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND CONTROL POINTS PRIOR TO USE.

TOPOGRAPHIC INFORMATION GENERATED USING AERIAL PHOTOGRAPHY (1999) WITH A VERTICAL ACCURACY OF 0.5 TO 0.75 FEET AND GROUND CONTROL TIED TO THE STATE PLANE, NAD 27. NEW YORK WEST-3103, U.S. SURVEY FEET (HORIZONTAL) AND NGVD 29, U.S. SURVEY FEET (VERTICAL).

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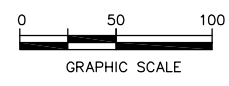
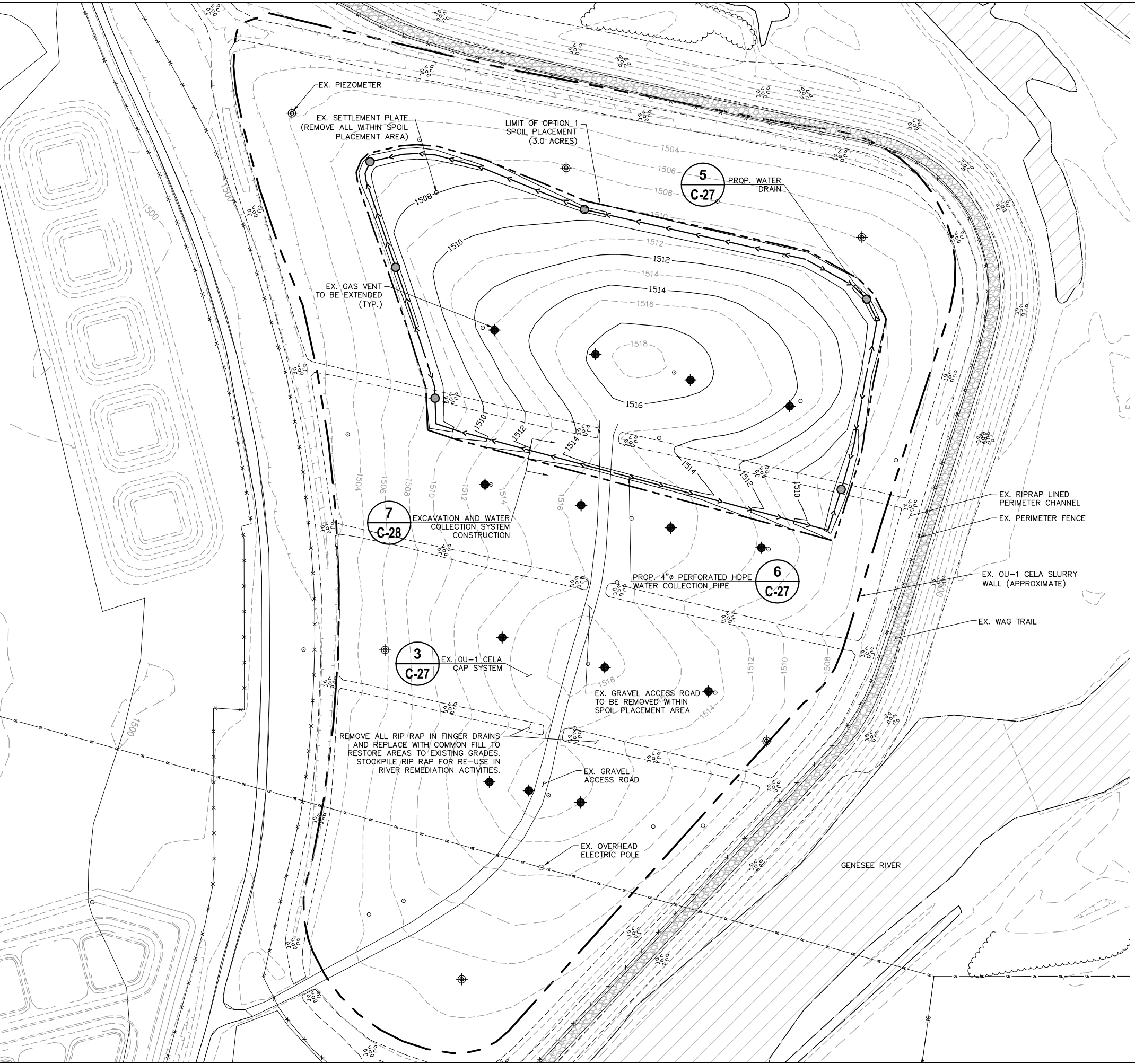
FORMER SINCLAIR REFINERY
WELLSVILLE, NY
**CELA REUSE SPOIL
DISPOSAL AREA**

**SITE PLAN AND
PROPOSED FILL AREA**



URS
C-16

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LEGEND

- PROP. LIMIT OF SPOIL PLACEMENT
- > PROP. WATER COLLECTION PIPE
- PROP. WATER DRAIN
- 1510— PROP. EXCAVATION CONTOUR
- - -1510- - - EX. CONTOUR
- - - - - EX. CELA SLURRY WALL
- ⊕ EX. PEIZOMETER
- ◆ EX. GAS VENT
- EX. SETTLEMENT PLATE

NOTES:

1. OPTION 1 IS DESIGNED TO ACCOMMODATE APPROXIMATELY 20,000 CUBIC YARDS OF MATERIAL. THIS CORRESPONDS TO THE ESTIMATED SPOIL LOCATED IN EXISTING ONSITE SPOIL STOCKPILES AS WELL AS ALL SPOIL GENERATED DURING RIVER AND SWALE REMEDIATION ACTIVITIES, NOT INCLUDING SPOILS FROM OU-2 SOIL BARRIER WALL CONSTRUCTION.
2. GRADES SHOWN ON THIS PLAN REPRESENT EXCAVATION OF THE TOP 12-INCHES OF THE EXISTING SOIL COVER (CONSISTING OF 6-INCHES OF TOPSOIL AND 6-INCHES OF COMMON FILL) WITHIN THE OPTION 1 LIMIT OF SPOIL PLACEMENT. EXCAVATED MATERIAL SHALL BE STRIPPED AND STOCKPILED FOR REUSE. 12-INCHES OF EXISTING COMMON FILL SHALL REMAIN UNDER ENTIRE PROPOSED SPOIL PLACEMENT AREA EXCEPT IN THE PERIMETER WATER COLLECTION SYSTEM AREA. EXCAVATION SHALL BE PERFORMED USING LOW GROUND PRESSURE EQUIPMENT.
3. ENTIRE 24-INCHES OF EXISTING SOIL COVER TO BE REMOVED ONLY IN PERIMETER WATER COLLECTION SYSTEM AREA. EXCAVATION SHALL BE CONDUCTED WITH EXTREME CAUTION TO EXPOSE EXISTING CAP SYSTEM. INSTALLATION OF WATER COLLECTION PIPING AND WATER DRAINS TO BE CONDUCTED PER DETAILS ON SHEET C-28.
4. STOCKPILED TOPSOIL AND COMMON FILL TO BE REUSED IN PROPOSED CAPPING SYSTEM.
5. PROTECT EXISTING PIEZOMETERS. REPLACE IF DAMAGED DURING CONSTRUCTION.

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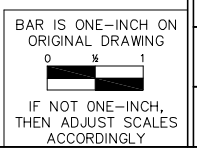
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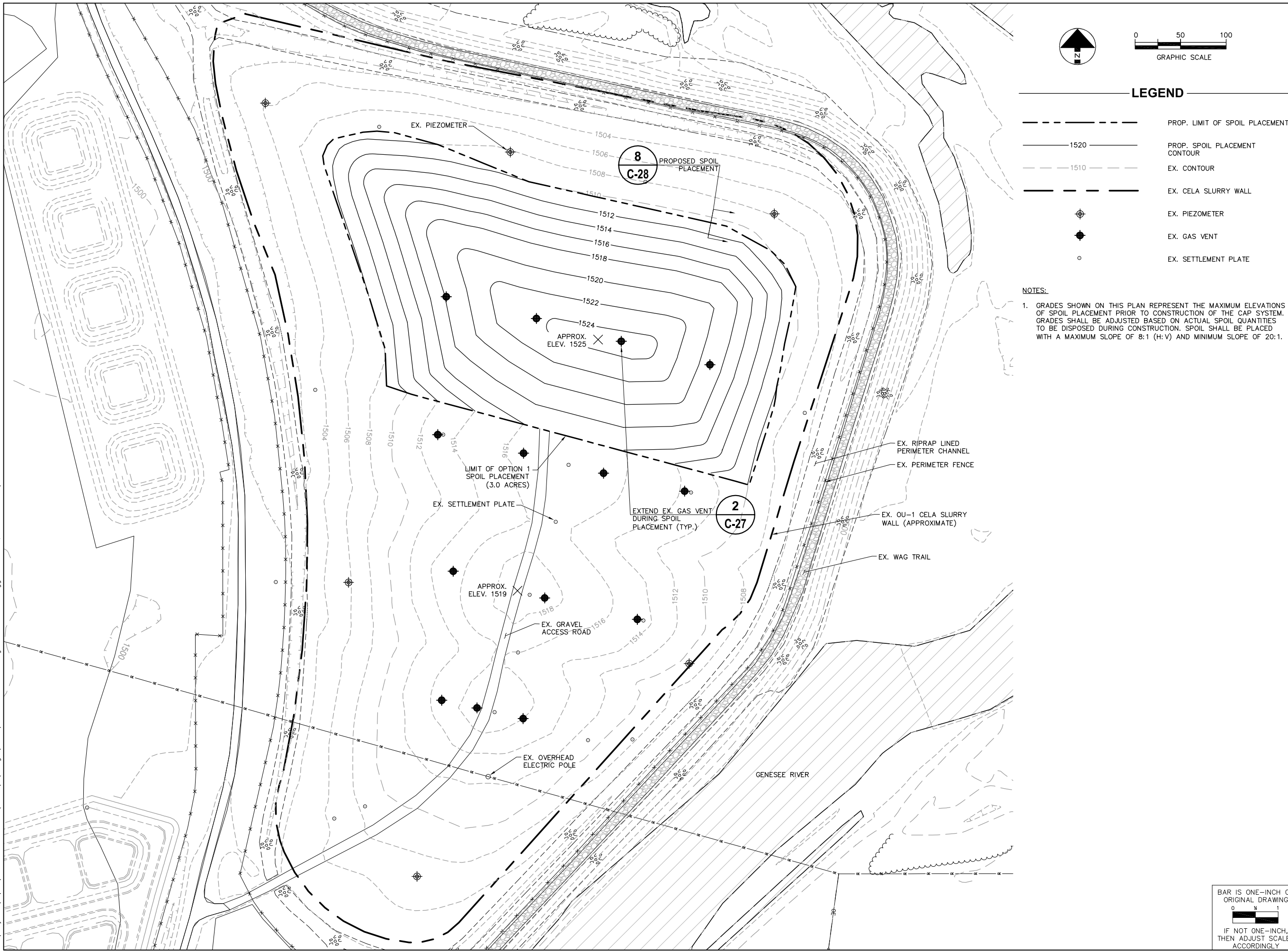
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**CELA REUSE SPOIL
DISPOSAL AREA**

**OPTION 1 EXCAVATION
ELEVATIONS AND WATER
COLLECTION SYSTEM**



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LEGEND

	PROP. LIMIT OF SPOIL PLACEMENT
	PROP. SPOIL PLACEMENT CONTOUR
	EX. CONTOUR
	EX. CELLA SLURRY WALL
	EX. PIEZOMETER
	EX. GAS VENT
	EX. SETTLEMENT PLATE

NOTES:

- GRADES SHOWN ON THIS PLAN REPRESENT THE MAXIMUM ELEVATIONS OF SPOIL PLACEMENT PRIOR TO CONSTRUCTION OF THE CAP SYSTEM. GRADES SHALL BE ADJUSTED BASED ON ACTUAL SPOIL QUANTITIES TO BE DISPOSED DURING CONSTRUCTION. SPOIL SHALL BE PLACED WITH A MAXIMUM SLOPE OF 8:1 (H:V) AND MINIMUM SLOPE OF 20:1.

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**CELLA REUSE SPOIL
DISPOSAL AREA**

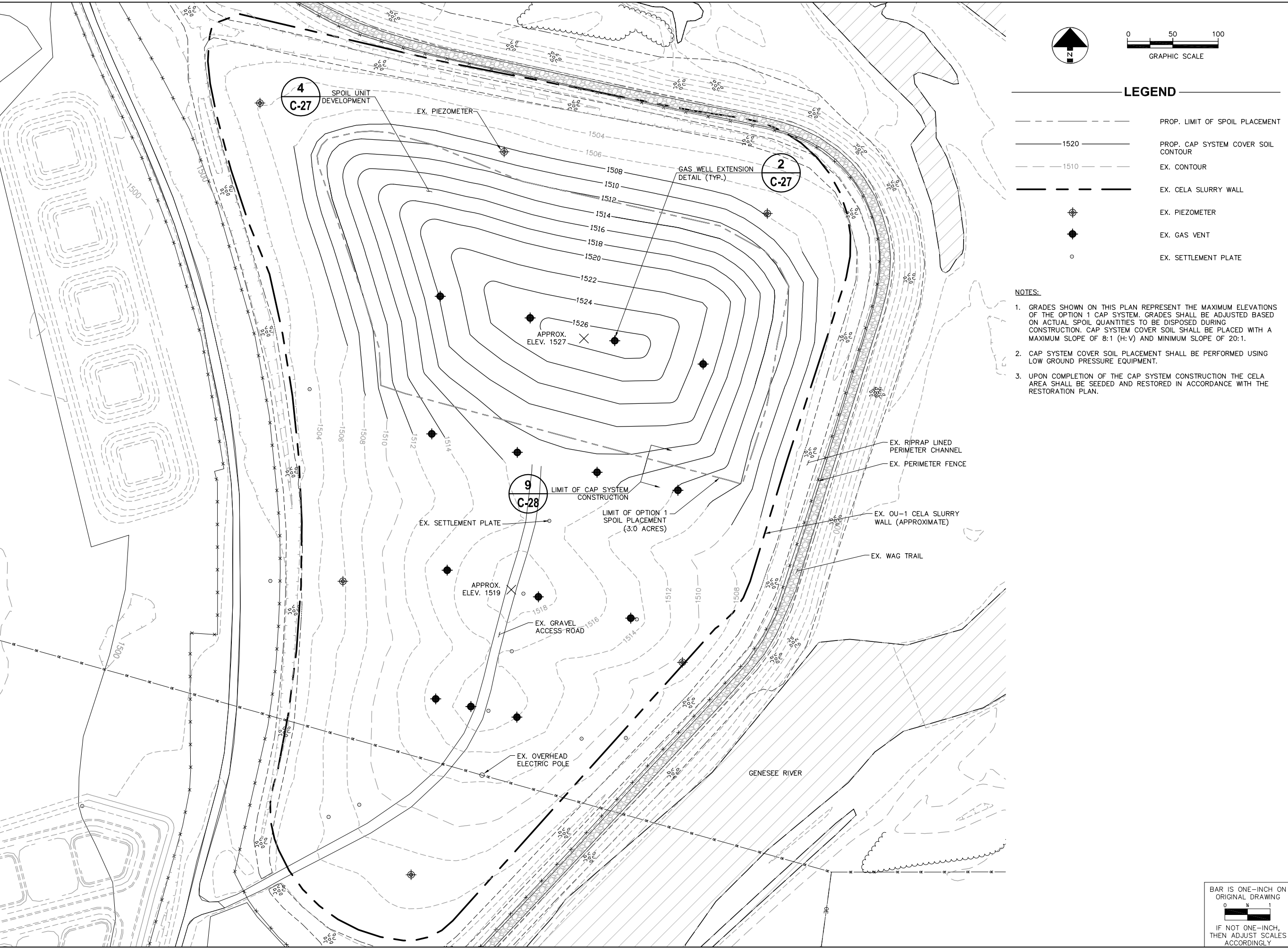
**OPTION 1 SPOIL
PLACEMENT ELEVATIONS**

BAR IS ONE-INCH ON ORIGINAL DRAWING

IF NOT ONE-INCH, THEN ADJUST SCALES ACCORDINGLY

URS
C-18

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LEGEND

	PROP. LIMIT OF SPOIL PLACEMENT
	PROP. CAP SYSTEM COVER SOIL CONTOUR
	EX. CONTOUR
	EX. CELA SLURRY WALL
	EX. PIEZOMETER
	EX. GAS VENT
	EX. SETTLEMENT PLATE

- NOTES:**
- GRADES SHOWN ON THIS PLAN REPRESENT THE MAXIMUM ELEVATIONS OF THE OPTION 1 CAP SYSTEM. GRADES SHALL BE ADJUSTED BASED ON ACTUAL SPOIL QUANTITIES TO BE DISPOSED DURING CONSTRUCTION. CAP SYSTEM COVER SOIL SHALL BE PLACED WITH A MAXIMUM SLOPE OF 8:1 (H:V) AND MINIMUM SLOPE OF 20:1.
 - CAP SYSTEM COVER SOIL PLACEMENT SHALL BE PERFORMED USING LOW GROUND PRESSURE EQUIPMENT.
 - UPON COMPLETION OF THE CAP SYSTEM CONSTRUCTION THE CELA AREA SHALL BE SEEDED AND RESTORED IN ACCORDANCE WITH THE RESTORATION PLAN.

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 DISPOSAL AREA**

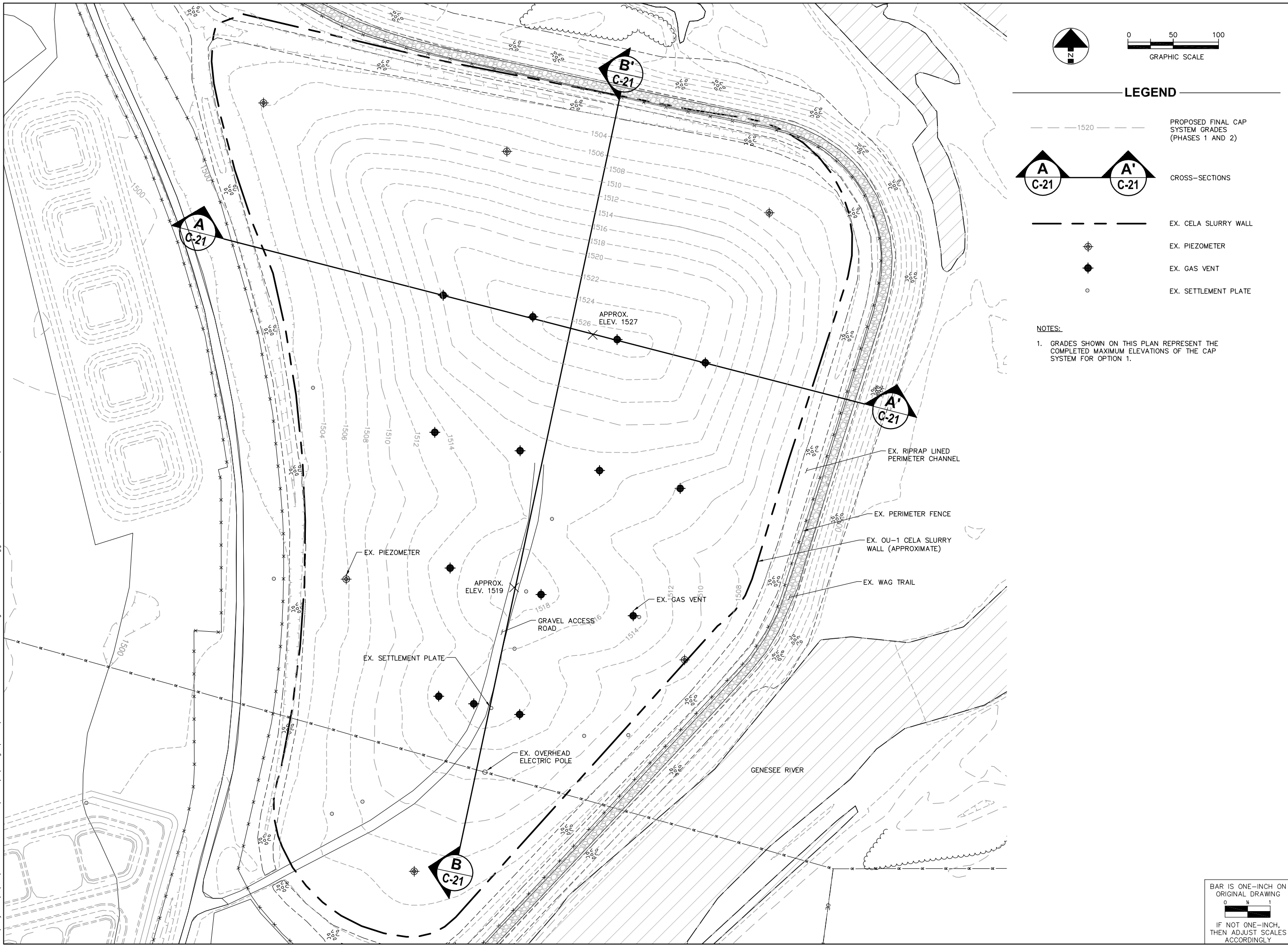
**OPTION 1 CAP SYSTEM
 ELEVATIONS**

BAR IS ONE-INCH ON ORIGINAL DRAWING

 IF NOT ONE-INCH, THEN ADJUST SCALES ACCORDINGLY

URS
C-19

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LEGEND

----- 1520 ----- PROPOSED FINAL CAP SYSTEM GRADES (PHASES 1 AND 2)

A **A'**
C-21 C-21 CROSS-SECTIONS

----- EX. CELA SLURRY WALL

⊕ EX. PIEZOMETER

◆ EX. GAS VENT

○ EX. SETTLEMENT PLATE

NOTES:

1. GRADES SHOWN ON THIS PLAN REPRESENT THE COMPLETED MAXIMUM ELEVATIONS OF THE CAP SYSTEM FOR OPTION 1.

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**CELA REUSE SPOIL
DISPOSAL AREA**

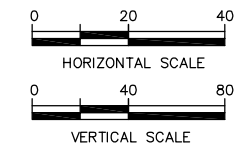
**OPTION 1 FINAL GRADING
AND CROSS-SECTION
PLAN**

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C-20

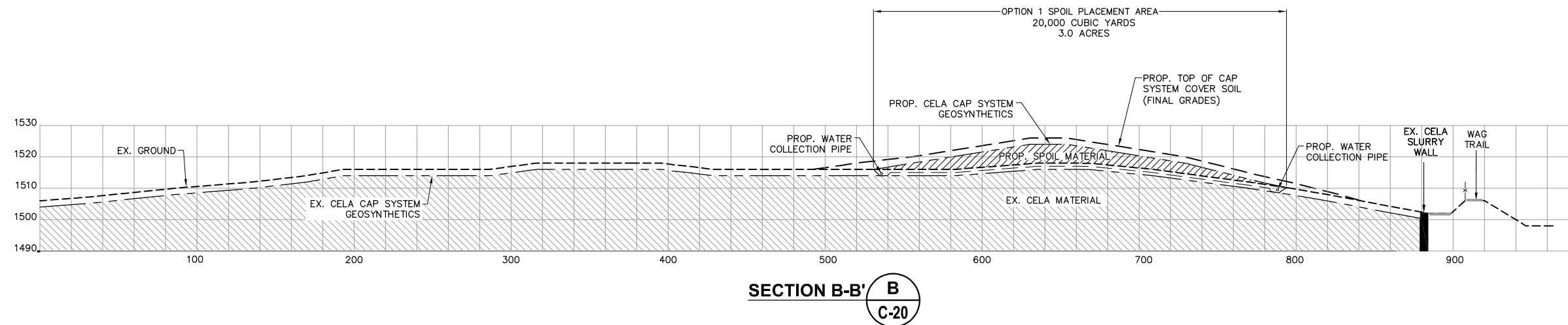
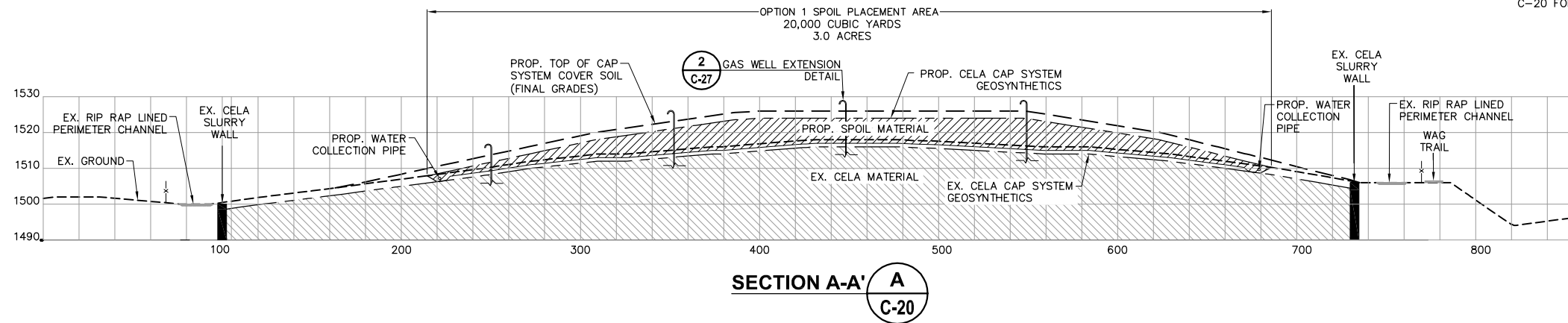
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NOTES:
1. CROSS-SECTIONS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO SHEET C-20 FOR CROSS-SECTION PLAN.



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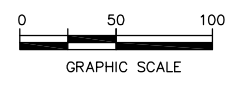
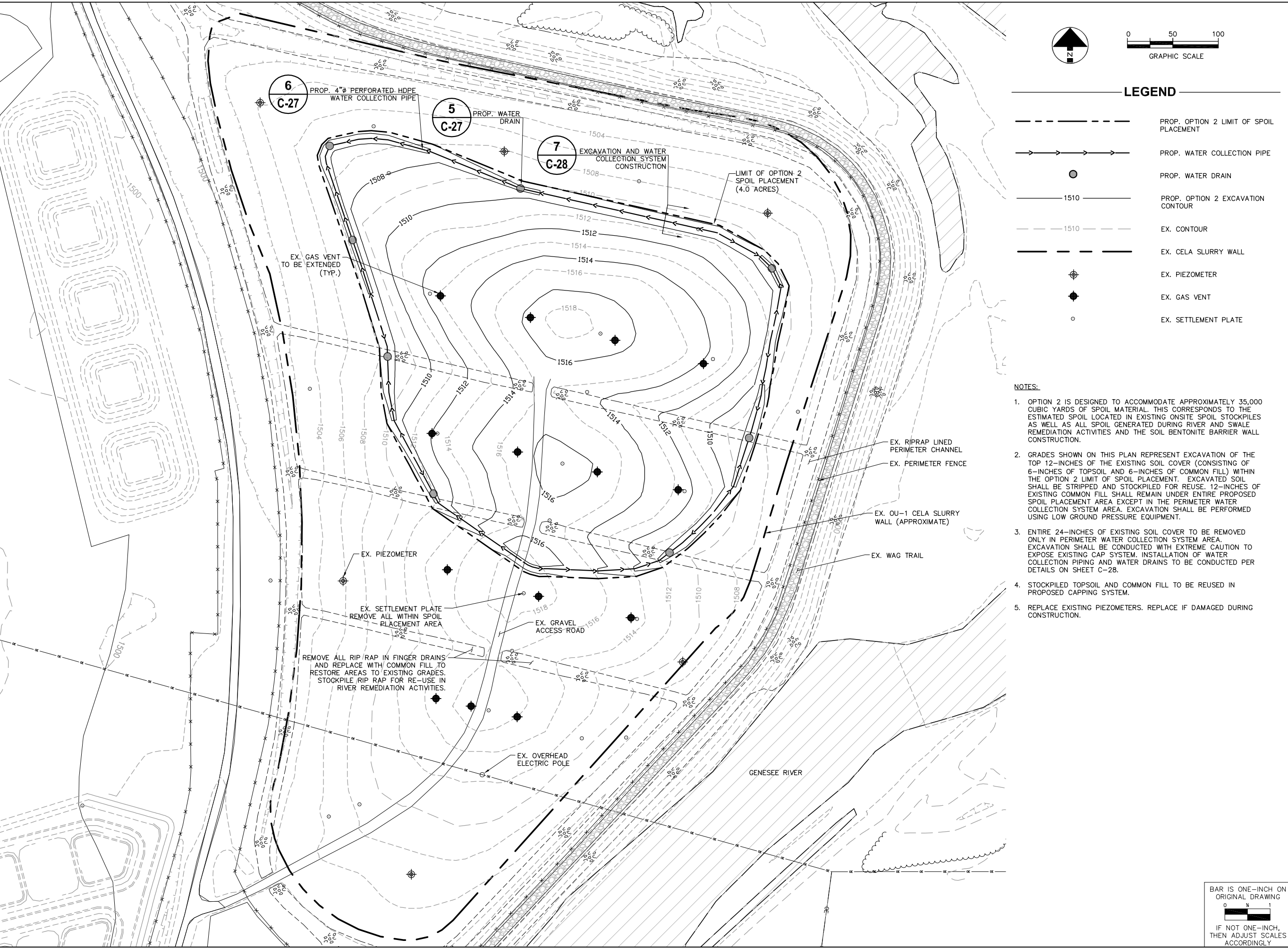
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CELA REUSE SPOIL
DISPOSAL AREA

OPTION 1
CROSS-SECTIONS

BAR IS ONE-INCH ON ORIGINAL DRAWING
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URS
C-21

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LEGEND

- PROP. OPTION 2 LIMIT OF SPOIL PLACEMENT
- PROP. WATER COLLECTION PIPE
- PROP. WATER DRAIN
- PROP. OPTION 2 EXCAVATION CONTOUR
- EX. CONTOUR
- EX. CELA SLURRY WALL
- EX. PIEZOMETER
- EX. GAS VENT
- EX. SETTLEMENT PLATE

NOTES:

1. OPTION 2 IS DESIGNED TO ACCOMMODATE APPROXIMATELY 35,000 CUBIC YARDS OF SPOIL MATERIAL. THIS CORRESPONDS TO THE ESTIMATED SPOIL LOCATED IN EXISTING ONSITE SPOIL STOCKPILES AS WELL AS ALL SPOIL GENERATED DURING RIVER AND SWALE REMEDIATION ACTIVITIES AND THE SOIL BENTONITE BARRIER WALL CONSTRUCTION.
2. GRADES SHOWN ON THIS PLAN REPRESENT EXCAVATION OF THE TOP 12-INCHES OF THE EXISTING SOIL COVER (CONSISTING OF 6-INCHES OF TOPSOIL AND 6-INCHES OF COMMON FILL) WITHIN THE OPTION 2 LIMIT OF SPOIL PLACEMENT. EXCAVATED SOIL SHALL BE STRIPPED AND STOCKPILED FOR REUSE. 12-INCHES OF EXISTING COMMON FILL SHALL REMAIN UNDER ENTIRE PROPOSED SPOIL PLACEMENT AREA EXCEPT IN THE PERIMETER WATER COLLECTION SYSTEM AREA. EXCAVATION SHALL BE PERFORMED USING LOW GROUND PRESSURE EQUIPMENT.
3. ENTIRE 24-INCHES OF EXISTING SOIL COVER TO BE REMOVED ONLY IN PERIMETER WATER COLLECTION SYSTEM AREA. EXCAVATION SHALL BE CONDUCTED WITH EXTREME CAUTION TO EXPOSE EXISTING CAP SYSTEM. INSTALLATION OF WATER COLLECTION PIPING AND WATER DRAINS TO BE CONDUCTED PER DETAILS ON SHEET C-28.
4. STOCKPILED TOPSOIL AND COMMON FILL TO BE REUSED IN PROPOSED CAPPING SYSTEM.
5. REPLACE EXISTING PIEZOMETERS. REPLACE IF DAMAGED DURING CONSTRUCTION.

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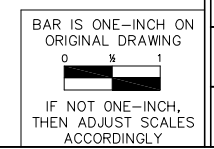
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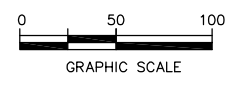
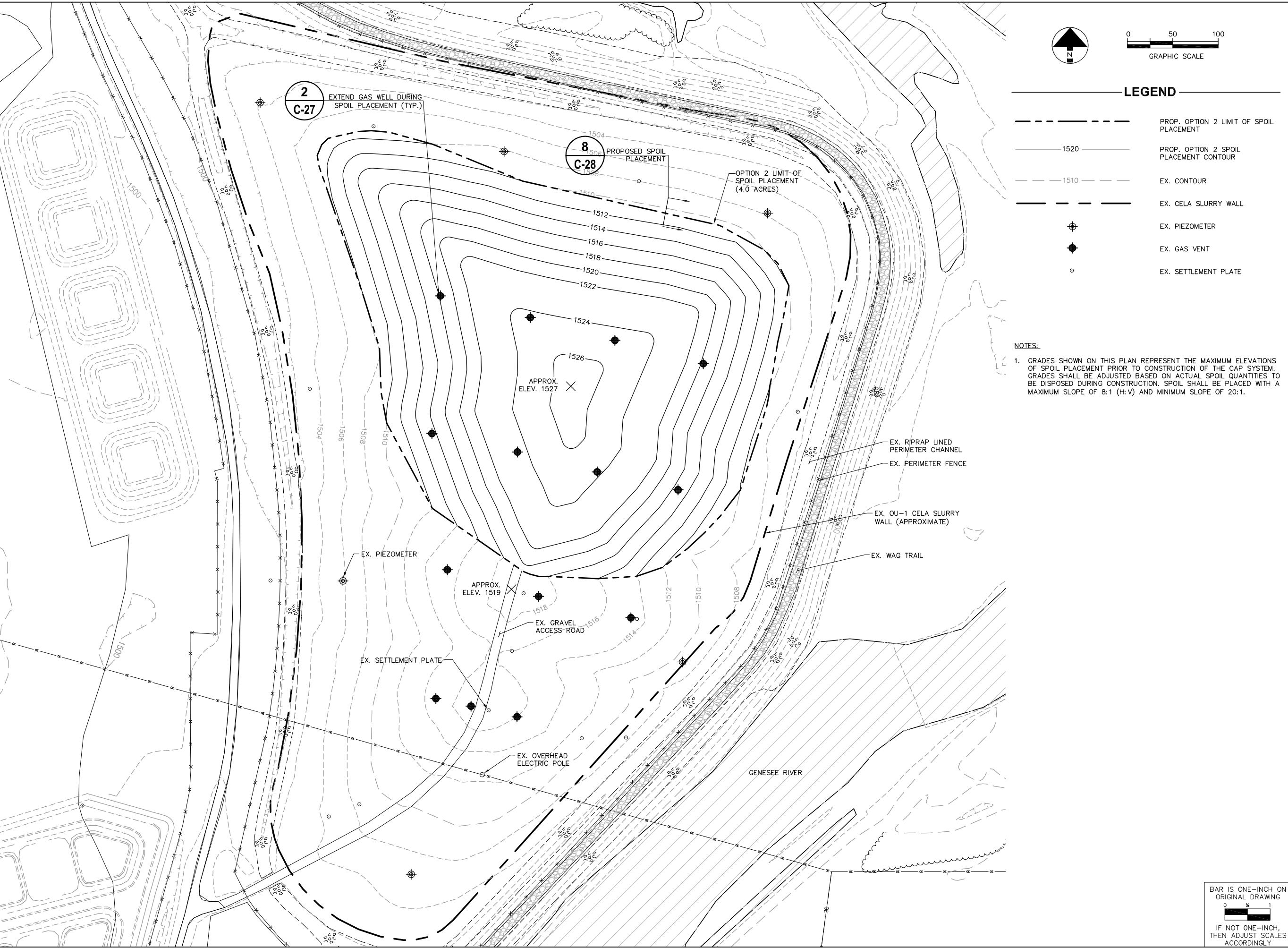
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**CELA REUSE SPOIL
DISPOSAL AREA**

**OPTION 2 EXCAVATION
ELEVATIONS AND WATER
COLLECTION SYSTEM**



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LEGEND

- PROP. OPTION 2 LIMIT OF SPOIL PLACEMENT
- 1520 PROP. OPTION 2 SPOIL PLACEMENT CONTOUR
- 1510 EX. CONTOUR
- EX. CELA SLURRY WALL
- EX. PIEZOMETER
- EX. GAS VENT
- EX. SETTLEMENT PLATE

NOTES:

1. GRADES SHOWN ON THIS PLAN REPRESENT THE MAXIMUM ELEVATIONS OF SPOIL PLACEMENT PRIOR TO CONSTRUCTION OF THE CAP SYSTEM. GRADES SHALL BE ADJUSTED BASED ON ACTUAL SPOIL QUANTITIES TO BE DISPOSED DURING CONSTRUCTION. SPOIL SHALL BE PLACED WITH A MAXIMUM SLOPE OF 8:1 (H:V) AND MINIMUM SLOPE OF 20:1.

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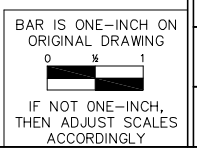
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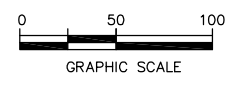
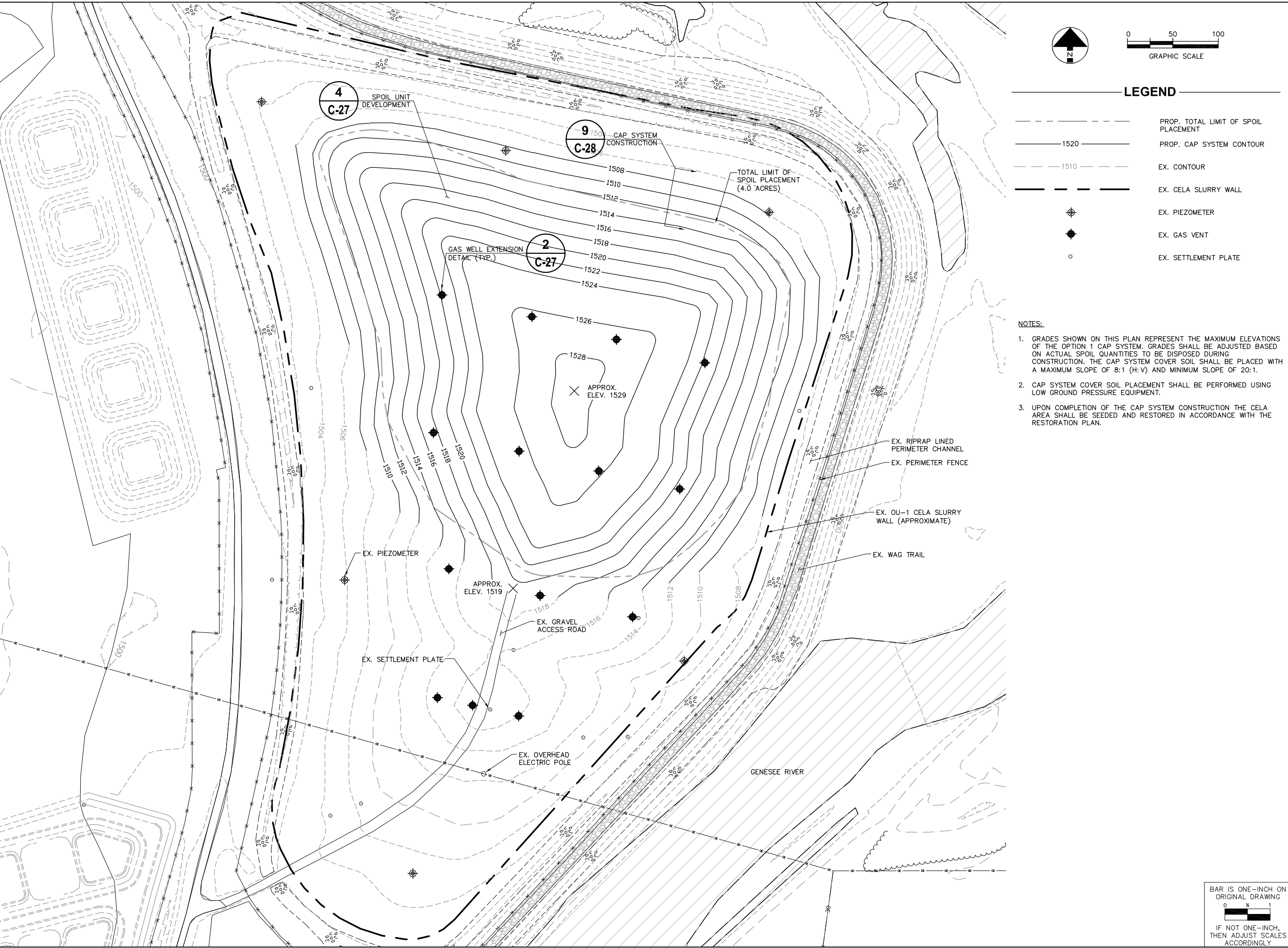
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**CELA REUSE SPOIL
 DISPOSAL AREA**

**OPTION 2 SPOIL
 PLACEMENT ELEVATIONS**



URS
C-23

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LEGEND

- PROP. TOTAL LIMIT OF SPOIL PLACEMENT
- 1520— PROP. CAP SYSTEM CONTOUR
- - - - - EX. CONTOUR
- — — — — EX. CELA SLURRY WALL
- ⊕ EX. PIEZOMETER
- ◆ EX. GAS VENT
- EX. SETTLEMENT PLATE

NOTES:

1. GRADES SHOWN ON THIS PLAN REPRESENT THE MAXIMUM ELEVATIONS OF THE OPTION 1 CAP SYSTEM. GRADES SHALL BE ADJUSTED BASED ON ACTUAL SPOIL QUANTITIES TO BE DISPOSED DURING CONSTRUCTION. THE CAP SYSTEM COVER SOIL SHALL BE PLACED WITH A MAXIMUM SLOPE OF 8:1 (H:V) AND MINIMUM SLOPE OF 20:1.
2. CAP SYSTEM COVER SOIL PLACEMENT SHALL BE PERFORMED USING LOW GROUND PRESSURE EQUIPMENT.
3. UPON COMPLETION OF THE CAP SYSTEM CONSTRUCTION THE CELA AREA SHALL BE SEEDED AND RESTORED IN ACCORDANCE WITH THE RESTORATION PLAN.

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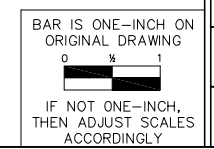
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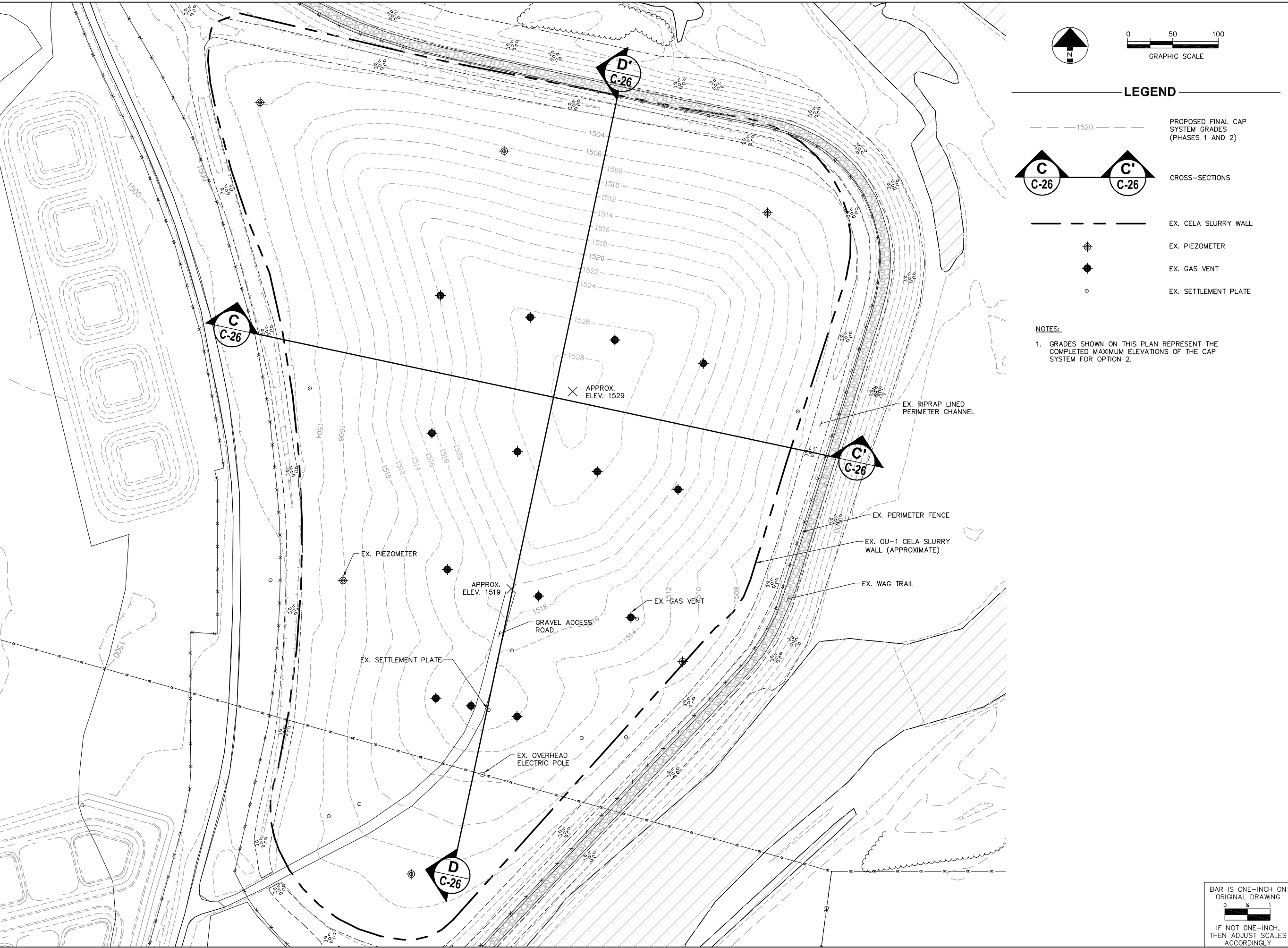
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**CELA REUSE SPOIL
DISPOSAL AREA**

**OPTION 2 CAP SYSTEM
ELEVATIONS**



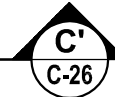
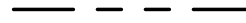





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C-24

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LEGEND

-  1520 PROPOSED FINAL CAP SYSTEM GRADES (PHASES 1 AND 2)
-   CROSS-SECTIONS
-  EX. CELA SLURRY WALL
-  EX. PIEZOMETER
-  EX. GAS VENT
-  EX. SETTLEMENT PLATE

NOTES:

1. GRADES SHOWN ON THIS PLAN REPRESENT THE COMPLETED MAXIMUM ELEVATIONS OF THE CAP SYSTEM FOR OPTION 2.

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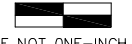
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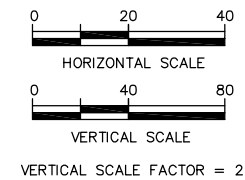
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DISPOSAL AREA**

**OPTION 2 FINAL GRADING
AND CROSS-SECTION
PLAN**

BAR IS ONE-INCH ON ORIGINAL DRAWING

IF NOT ONE-INCH, THEN ADJUST SCALES ACCORDINGLY

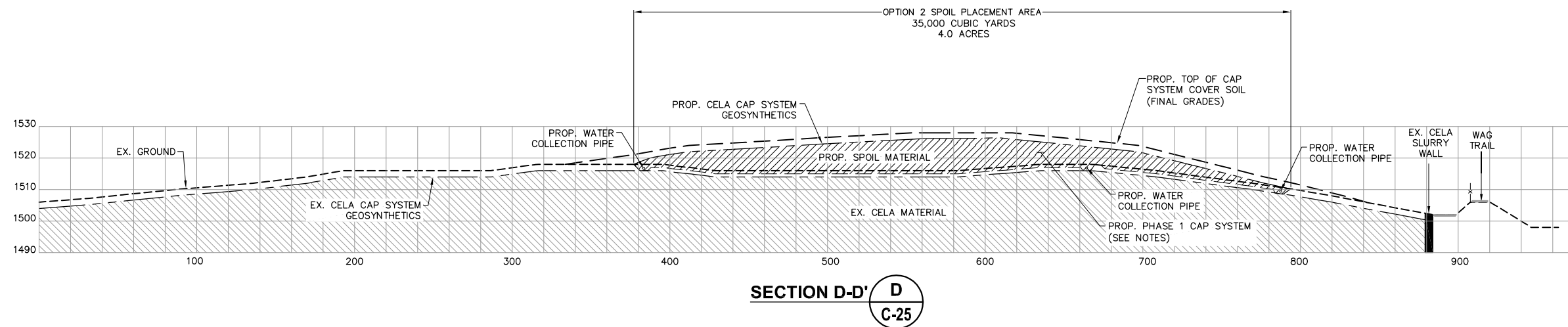
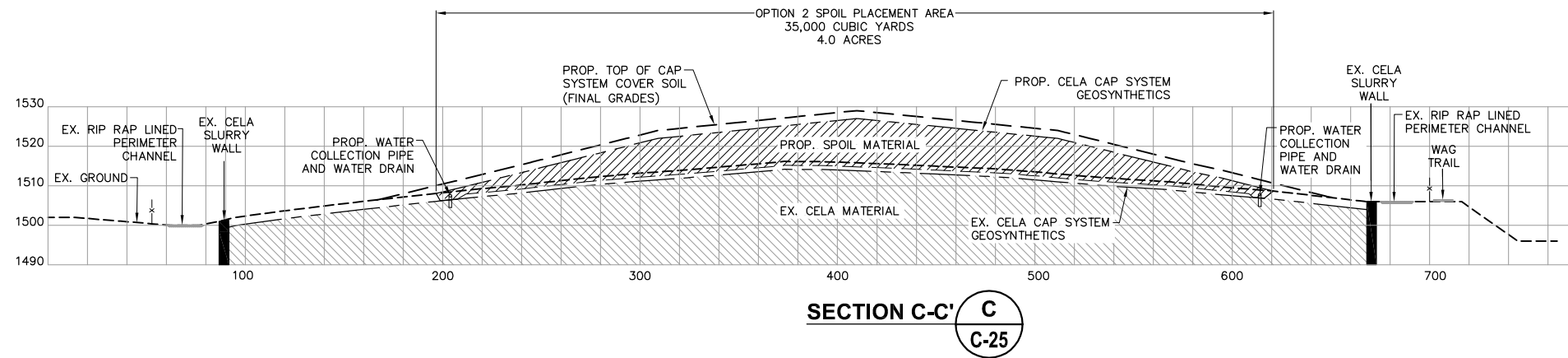
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C-25

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NOTES:

- CROSS-SECTIONS ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO SHEET C-25 FOR CROSS-SECTION PLAN.



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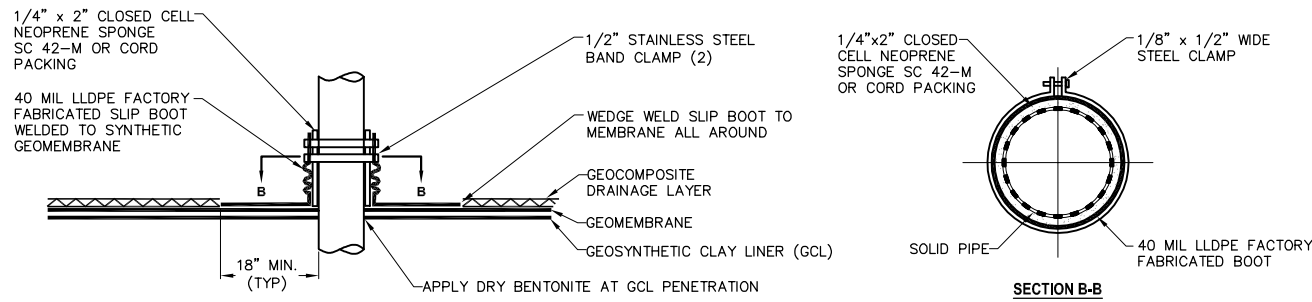
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DISPOSAL AREA

OPTION 2
CROSS-SECTIONS

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C-26



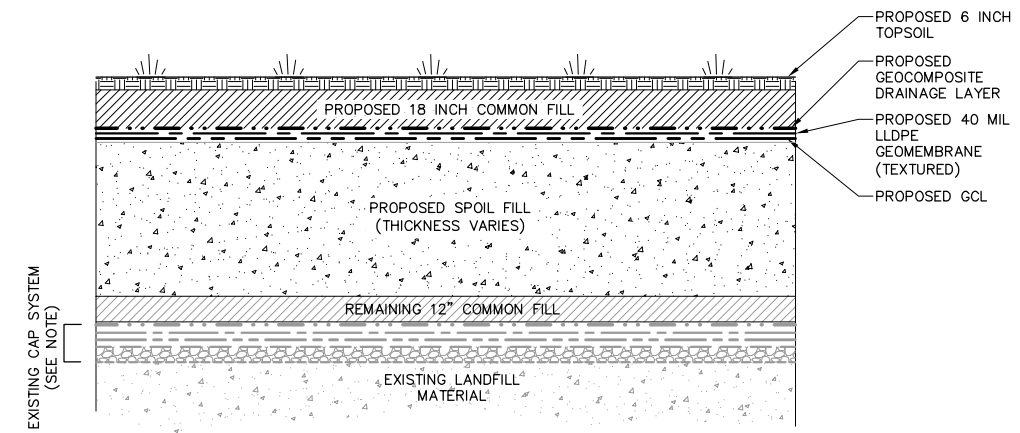
TYPICAL GEOMEMBRANE/PIPE PENETRATION

1
C-27

NOT TO SCALE

NOTES:

1. DETAIL TYPICAL FOR ALL PENETRATIONS OF CAP GEOMEMBRANE.
2. CONTRACTOR MAY SUBMIT ALTERNATE DETAILS AS RECOMMENDED BY THE GEOMEMBRANE MANUFACTURER FOR APPROVAL BY ENGINEER



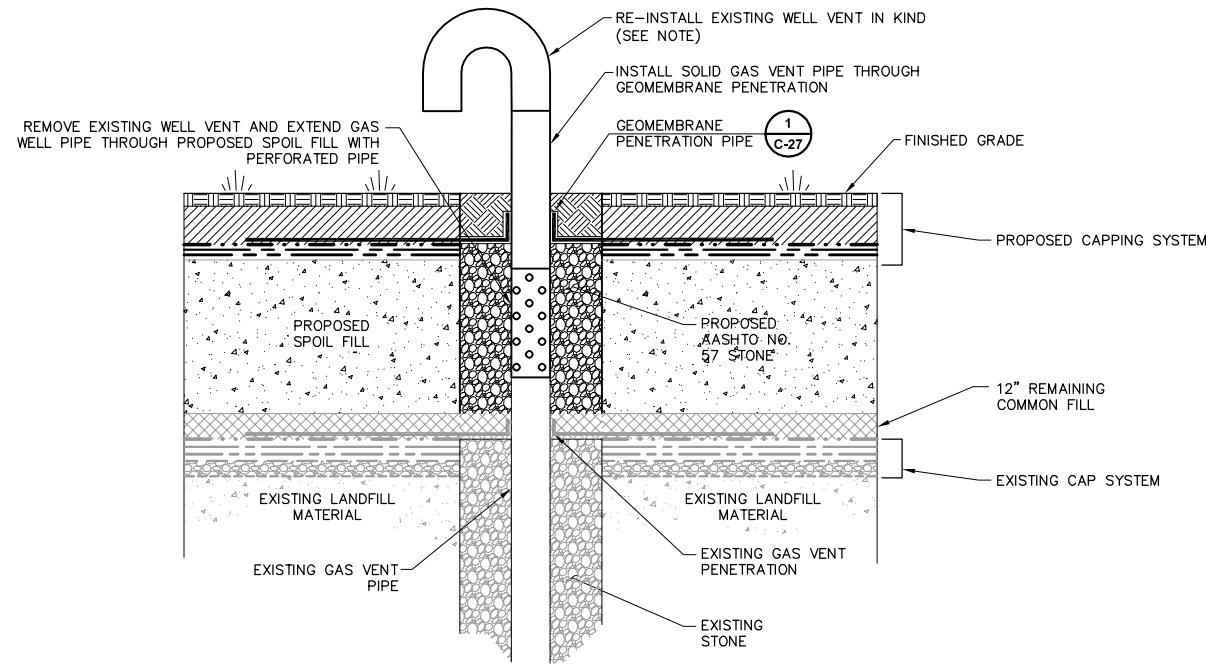
SPOIL UNIT DEVELOPMENT

4
C-19

NOT TO SCALE

NOTES:

1. THE TOP 12-INCHES OF THE EXISTING SOIL COVER (CONSISTING OF 6-INCHES OF TOPSOIL AND 6-INCHES OF COMMON FILL) SHALL BE STRIPPED AND STOCKPILED FOR REUSE. 12-INCHES OF EXISTING COMMON FILL SHALL REMAIN UNDER ENTIRE PROPOSED SPOIL PLACEMENT AREA EXCEPT IN THE PERIMETER WATER COLLECTION SYSTEM AREA.
2. ENTIRE 24-INCHES OF EXISTING SOIL COVER TO BE REMOVED ONLY IN PERIMETER WATER COLLECTION SYSTEM AREA. SEE DETAILS ON SHEET C-28.
3. STOCKPILED TOPSOIL AND COMMON FILL TO BE REUSED IN PROPOSED CAPPING SYSTEM.



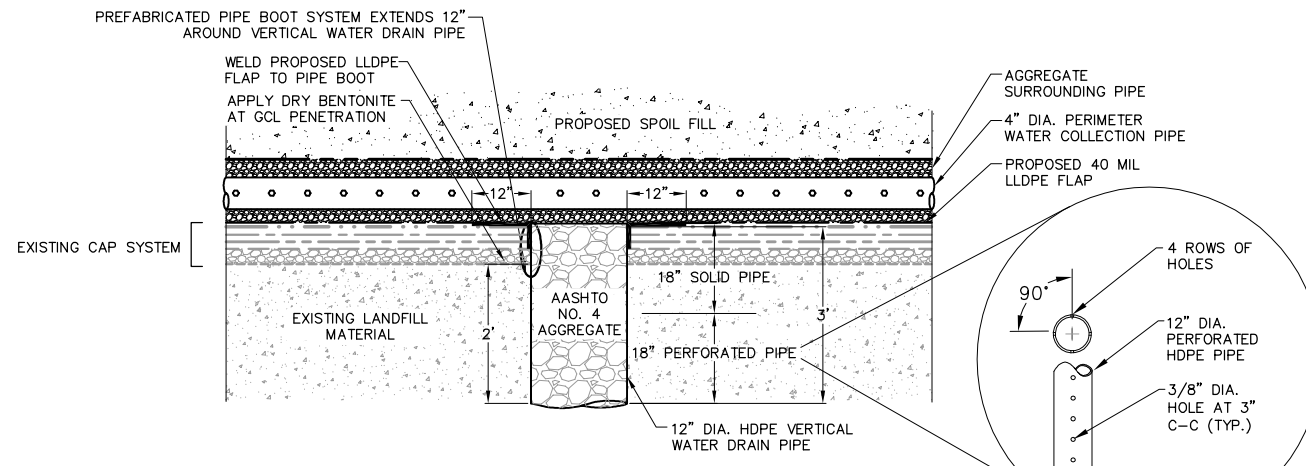
GAS WELL EXTENSION DETAIL

2
C-18

NOT TO SCALE

NOTE:

1. CONTRACTOR SHALL MEASURE THE HEIGHT AND DIMENSIONS OF EXISTING GAS WELL VENTS PRIOR TO REMOVAL AND EXTENSION OF GAS WELL. VENTS SHALL BE CONSTRUCTED TO MATCH EXISTING CONDITIONS.



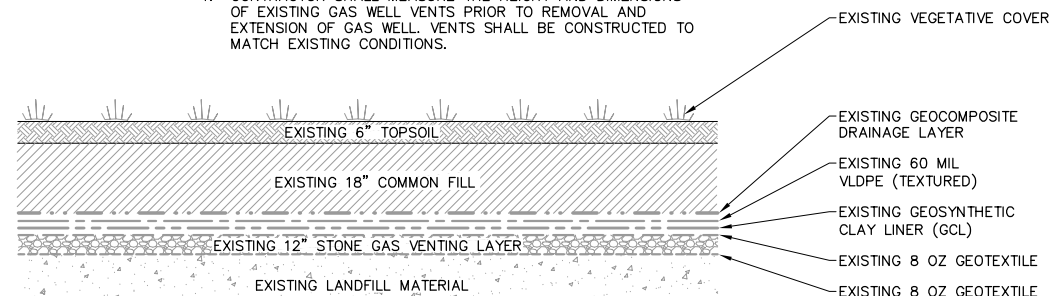
WATER DRAIN

5
C-17

NOT TO SCALE

NOTE:

1. WATER DRAINS TO BE INSTALLED ALONG PERIMETER WATER DRAIN PIPE AT LOW POINTS AS SHOWN ON PLANS.
2. DRY BENTONITE SHALL BE APPLIED AT ALL WATER DRAIN PENETRATIONS TO PROVIDE A SEAL TO EXISTING CAP SYSTEM GCL.



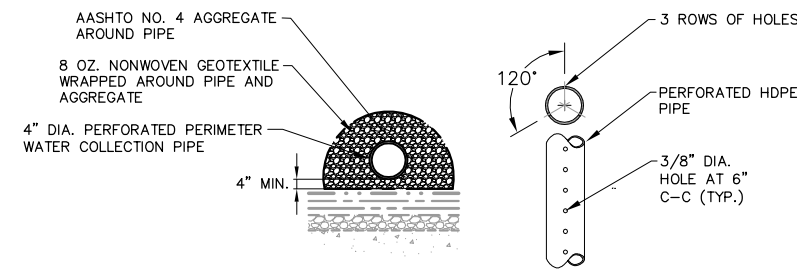
EXISTING CAP SYSTEM

3
C-17

NOT TO SCALE

NOTE:

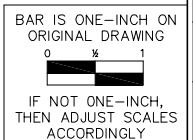
1. EXISTING CAP SYSTEM DETAIL BASED ON INFORMATION PROVIDED IN "REMEDIAL ACTION REPORT CENTRAL ELEVATED LANDFILL AREA", GEOSYNTEC CONSULTANTS, DECEMBER 1993.



WATER COLLECTION PIPE

6
C-17

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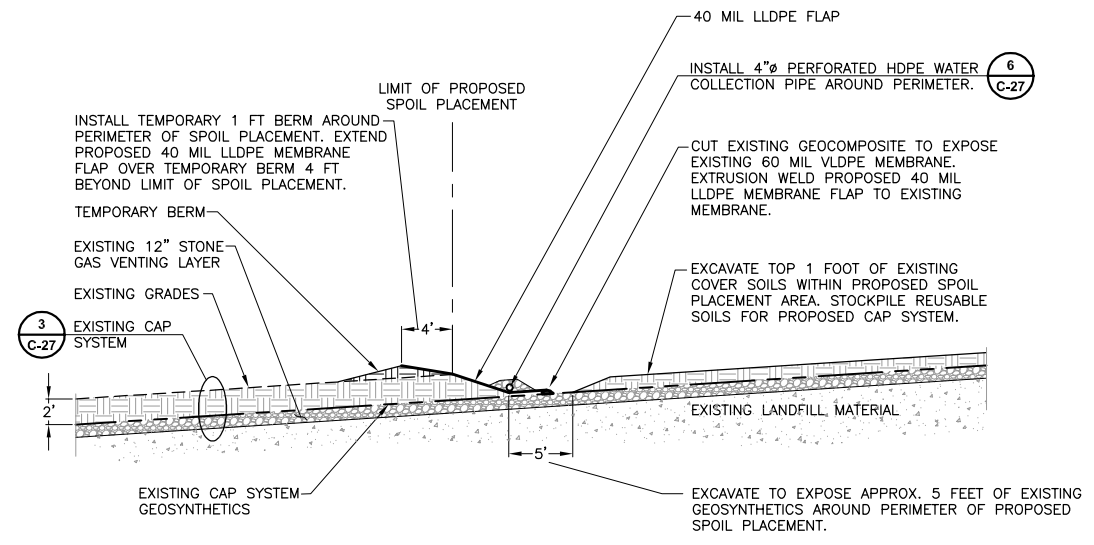
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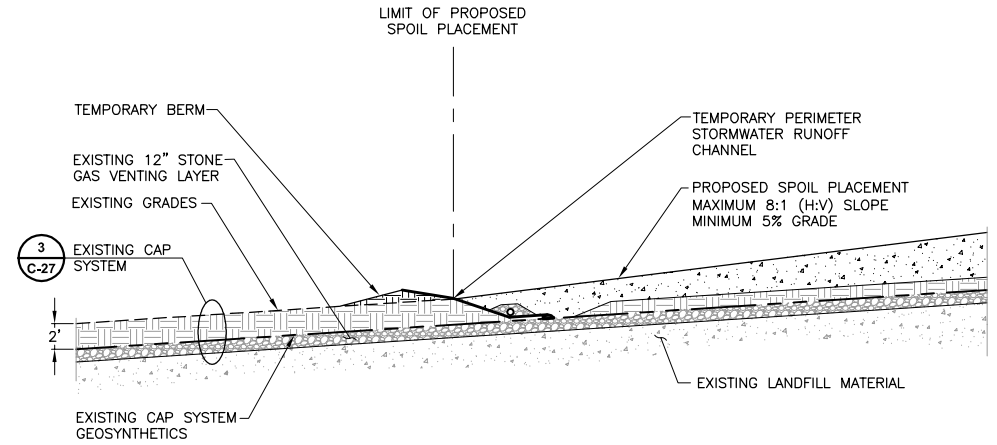
CONCEPTUAL DETAILS I

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C-27

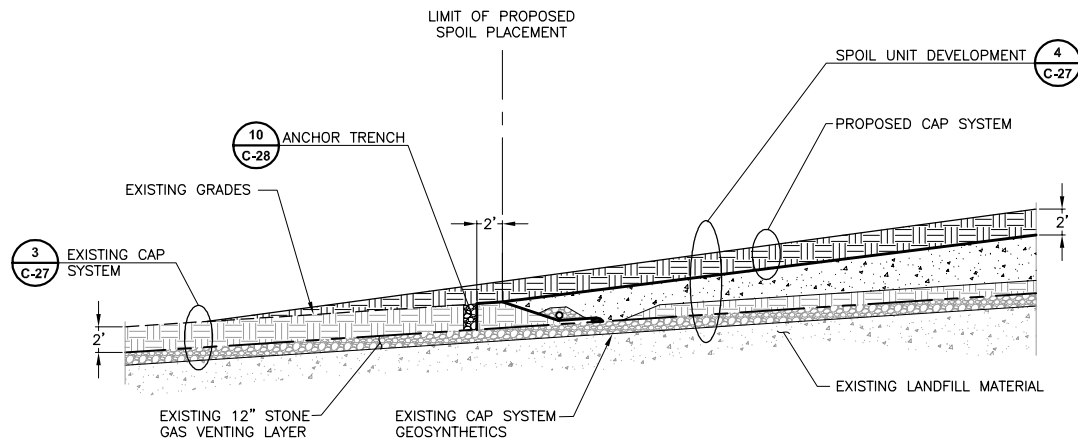


EXCAVATION AND WATER COLLECTION SYSTEM CONSTRUCTION 7
 NOT TO SCALE C-17

NOTE:
 1. ALL EXCAVATION ON THE EXISTING CELA CAP SYSTEM SHALL BE PERFORMED USING LOW GROUND PRESSURE EQUIPMENT OR BY HAND



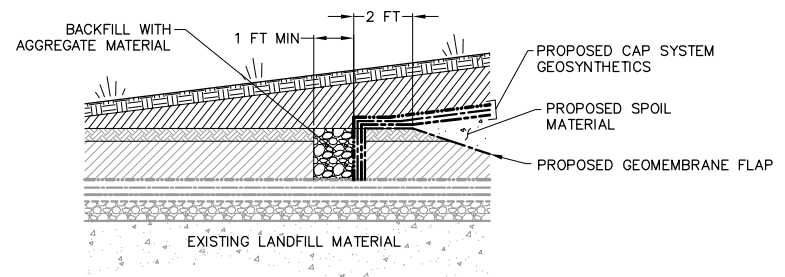
PROPOSED SPOIL PLACEMENT 8
 NOT TO SCALE C-18



LIMIT OF CAP SYSTEM CONSTRUCTION 9
 NOT TO SCALE C-19

NOTE:
 1. CAP SYSTEM COVER SOIL SHALL BE PLACED USING LOW GROUND PRESSURE EQUIPMENT.

- SEQUENCE OF CAP SYSTEM AND ANCHOR TRENCH CONSTRUCTION
1. FOLD BACK GEOMEMBRANE FLAP AND REMOVE TEMPORARY BERM.
 2. EXCAVATE ANCHOR TRENCH APPROXIMATELY 2 FEET BEYOND LIMIT OF SPOIL PLACEMENT. EXCAVATE ANCHOR TRENCH TO EXISTING LINER SYSTEM GEOSYNTHETICS (TOP OF EXISTING GEOCOMPOSITE DRAINAGE LAYER).
 3. PLACE 40 MIL LLDPE MEMBRANE FLAP IN TRENCH.
 4. INSTALL PROPOSED CAP SYSTEM GEOSYNTHETICS, TERMINATING GEOSYNTHETICS IN ANCHOR TRENCH.
 5. BACKFILL ANCHOR TRENCH WITH AGGREGATE MATERIAL.
 6. PLACE CAP SYSTEM COVER SOIL.



ANCHOR TRENCH DETAIL 10
 NOT TO SCALE C-28

NOTE:
 1. CAP SYSTEM COVER SOIL SHALL BE PLACED USING LOW GROUND PRESSURE EQUIPMENT.

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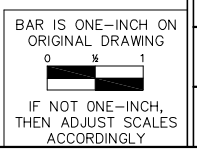
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CONCEPTUAL DETAILS II



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C-28

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