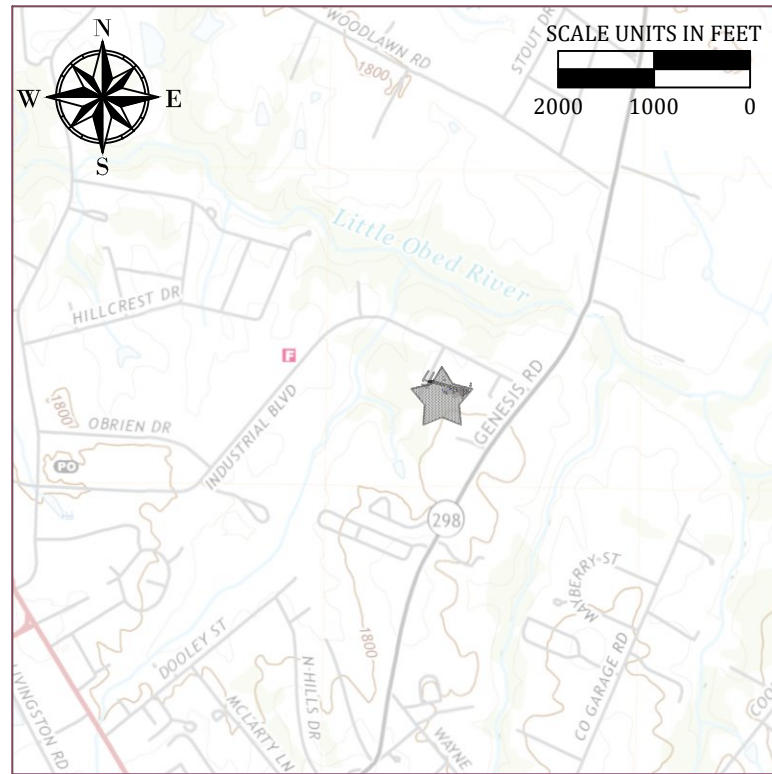


ENGINEERING & CONSTRUCTION PLANS

AVIAGEN LAB ADDITION

79 DUER COURT

CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE



PROJECT SITE

TOTAL PROPERTY - 3.67± ACRES
 TOTAL DISTURBANCE AREA - 0.23± ACRES
 LAT: N 35.968894°
 LONG: W -85.021082°
 COUNTY: CUMBERLAND, MAP 100B,
 GROUP C, PARCEL 001.23
 79 DUER COURT
 CROSSVILLE, TENNESSEE 38555

FOR: **HIGHLAND CONSTRUCTION INC.**

470 US 70

CROSSVILLE, CUMBERLAND CO., TN

931.787.1926

PROJECT LOCATION MAP

ECE SERVICES PROJECT # 23535

INDEX OF DRAWING SHEETS

| SHEET TITLE | SHEET # |
|-------------------------------|----------------|
| TITLE | G-001 |
| EXISTING SITE PLAN | C-101 |
| PROPOSED SITE PLAN | C-201 |
| PROPOSED EROSION CONTROL PLAN | C-202 |
| EROSION CONTROL DETAILS | C-501 TO C-502 |

SCOPE:

BUILDING ADDITION AT THE AVIAGEN LAB LOCATED ON DUER COURT IN CROSSVILLE, TENNESSEE. WORK BEING PERFORMED OF GRADING SITE FOR AN ACCESS ROAD, PARKING AND BUILDING PAD AREA WITH ASSOCIATED UTILITIES.

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SHEET REFERENCE
 NUMBER:

G-001

SHEET 1 OF 6

| | | | |
|--|--------------------------------|--|------------------------------|
| | EXISTING PROPERTY LINE | | EXISTING BUILDING |
| | ADJOINING PROPERTY LINE | | EXISTING ROAD ASPHALT, LIGHT |
| | EXISTING PROPERTY SETBACK LINE | | |
| | EXISTING TOPOGRAPHIC SURFACE | | |
| | STORM WATER FLOW | | |

SITE PLAN NOTES:

1. CONTOURS SHOWN WERE GENERATED UTILIZING SOKKIA SRX5 TOTAL STATION WITH CONTROL POINTS ESTABLISHED WITH SOKKIA GRX3 GPS WITH GPS BASE REFERENCE OF TDOT GNSS BASE STATION LOCATED AT DISTRICT 27 BUILDING.
2. EXISTING SITE ITEMS WERE SUPPLIED BY SURVEYOR.
3. PROPERTY INFORMATION WAS TAKEN FROM TITLESEARCHER.COM AND/OR CUMBERLAND COUNTY PROPERTY ASSESSORS OFFICE.

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SCALE UNITS IN FEET

TN STATE PLANE; NAD83

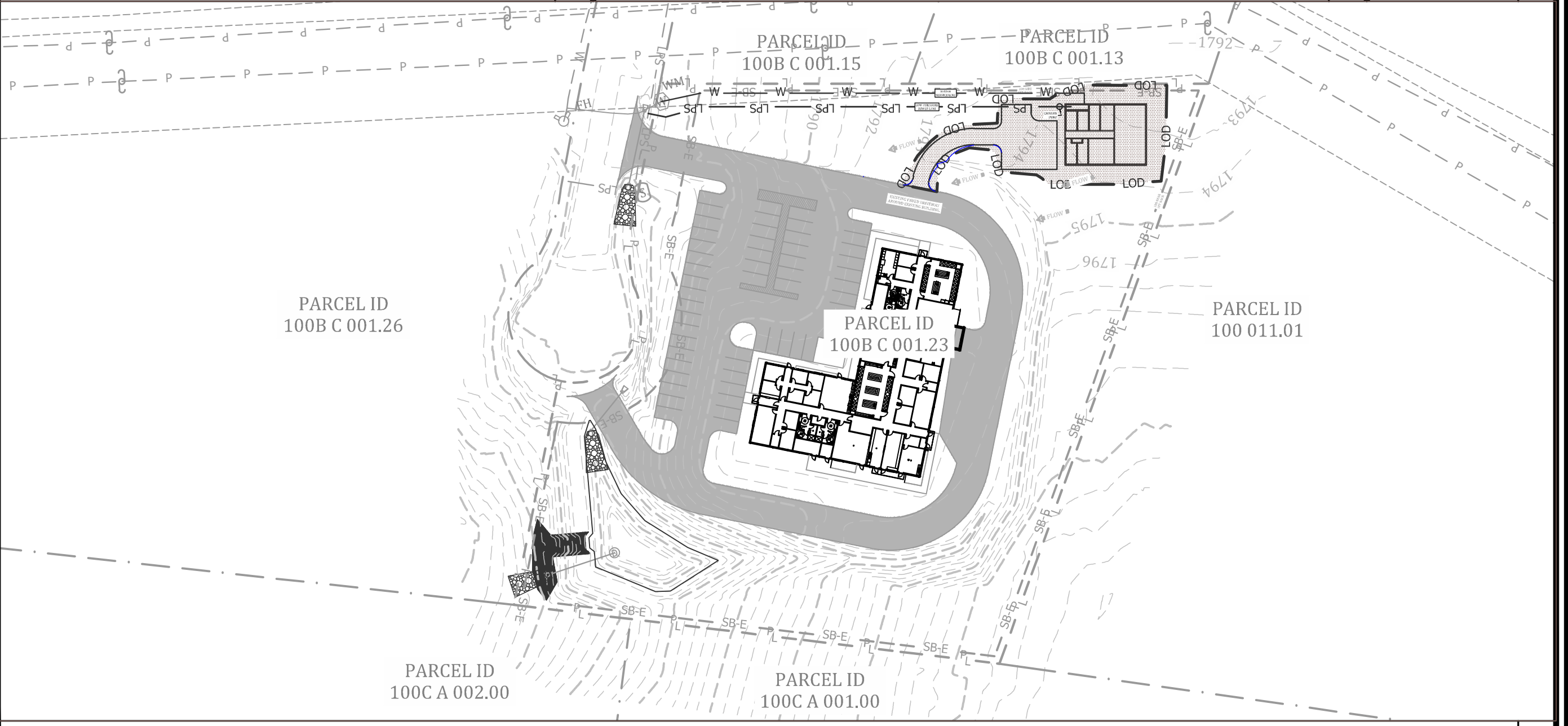
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SHEET SYMBOL LEGEND 1

SITE NOTES 2

SCALE 3



| REVISIONS | | CHK |
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| CHECKED BY: | J.P.B. |
| DESIGN BY: | C.F.B. |
| DRAWN BY: | L.D.B. |
| ORIGINAL DATE: | AUG. 10, 2023 |
| PROJECT NO.: | 23535 |
| SCALE: | 1in = 80ft |

EXISTING SITE PLAN

AVIAGEN LAB ADDITION
 HIGHLAND CONSTRUCTION INC.
 470 US 70
 CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE

SHEET REFERENCE NUMBER:
C-201
 SHEET 2 OF 6

| | | | |
|--|--------------------------------|--|------------------------------|
| | EXISTING PROPERTY LINE | | EXISTING BUILDING |
| | ADJOINING PROPERTY LINE | | EXISTING ROAD ASPHALT, LIGHT |
| | EXISTING PROPERTY SETBACK LINE | | PROPOSED BUILDING |
| | EXISTING TOPOGRAPHIC SURFACE | | |
| | PROPOSED LIMIT OF DISTURBANCE | | |
| | PROPOSED TOPOGRAPHIC SURFACE | | |

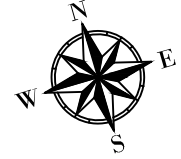
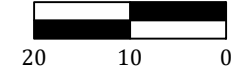
SITE PLAN NOTES:

1. CONTOURS SHOWN WERE GENERATED UTILIZING SOKKIA SRX5 TOTAL STATION WITH CONTROL POINTS ESTABLISHED WITH SOKKIA GRX3 GPS WITH GPS BASE REFERENCE OF TDOT GNSS BASE STATION LOCATED AT DISTRICT 27 BUILDING.
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 79 DUER COURT
 CROSSVILLE, TENNESSEE 38555

SCALE UNITS IN FEET



TN STATE PLANE; NAD83

Cut/Fill Summary

| Name | Cut Factor | Fill Factor | 2d Area | Cut | Fill | Net |
|-------------------|------------|-------------|-----------------|---------------|----------------|----------------------|
| PR SURFACE VOLUME | 1.000 | 1.000 | 7864.56 Sq. Ft. | 12.20 Cu. Yd. | 182.21 Cu. Yd. | 170.01 Cu. Yd.<Fill> |
| Totals | | | 7864.56 Sq. Ft. | 12.20 Cu. Yd. | 182.21 Cu. Yd. | 170.01 Cu. Yd.<Fill> |

SHEET SYMBOL LEGEND

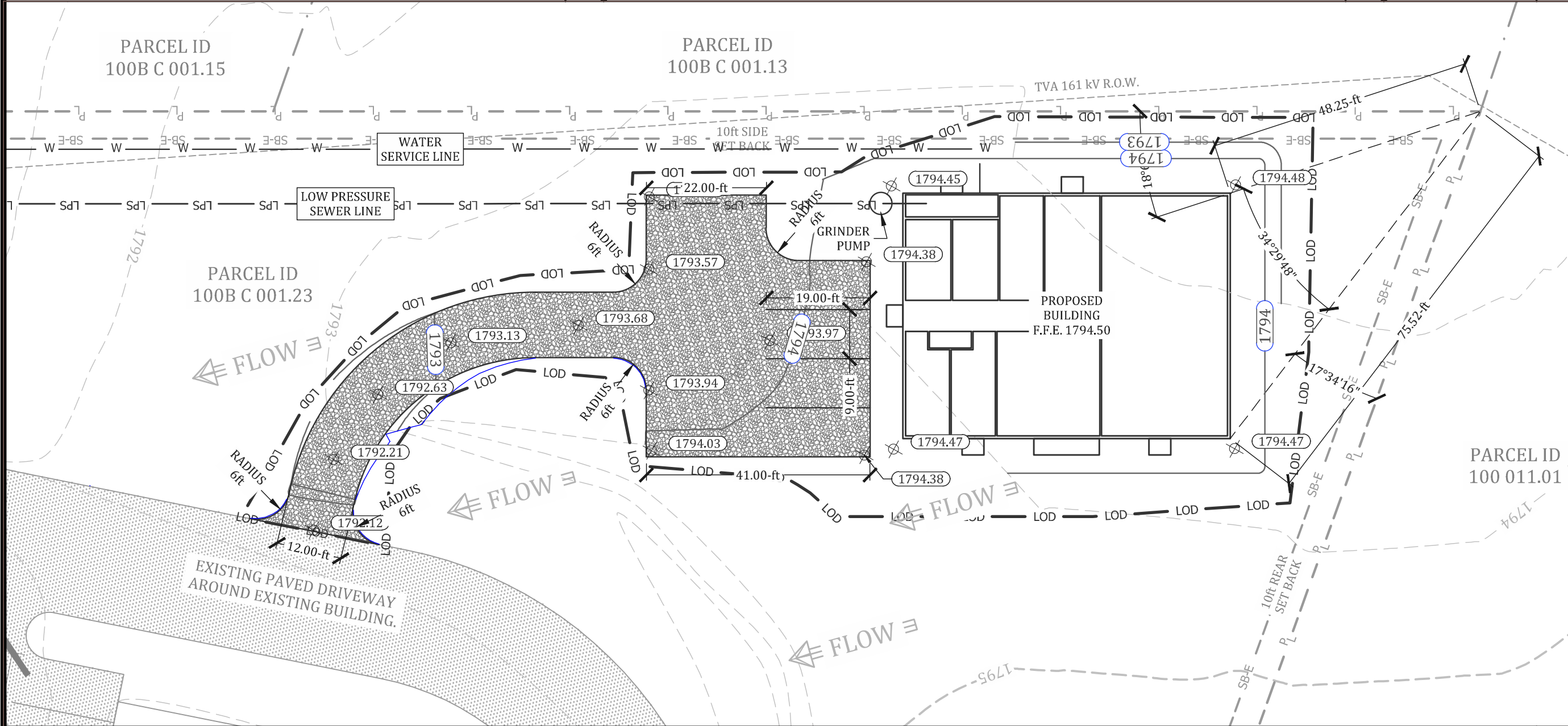
1

SITE NOTES

2

SCALE

3



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| | | | C.F.B. |
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| SCALE: | 1in = 20ft |

PROPOSED SITE PLAN

AVIAGEN LAB ADDITION
 HIGHLAND CONSTRUCTION INC.
 470 US 70
 CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE

SHEET REFERENCE NUMBER:
C-201
 SHEET 3 OF 6

PROPOSED SITE PLAN

1in = 20ft

4

| | | | | | |
|--|--|--|------------------------------|----|----------------------------|
| | EXISTING PROPERTY LINE | | EXISTING BUILDING | | CONSTRUCTION EXIT [8.1] |
| | ADJOINING PROPERTY LINE | | EXISTING ROAD ASPHALT, LIGHT | or | |
| | 10-ft SIDE SB-E EXISTING PROPERTY SETBACK LINE | | PROPOSED BUILDING | | TEMPORARY VEGETATION [9.6] |
| | 1000 EXISTING TOPOGRAPHIC SURFACE | | OUTLET PROTECTION [7.4] | or | |
| | LOD PROPOSED LIMIT OF DISTURBANCE | | FILTER RING [8.17] | | PERMANENT VEGETATION [9.7] |
| | (1000) PROPOSED TOPOGRAPHIC SURFACE | | | | |
| | SF SF PROPOSED SILT FENCE | | | | |

SITE PLAN NOTES:

- INSTALL 395 L.F. OF SILT FENCE AT THE PERIMETER OF THE GRADE WORK. SILT FENCE SHALL BE LAID ON CONTOUR.
- TEMPORARY SEED MULCH AND COVER WORK AREAS WHEN NO GRADING IS PERFORMED FOR 14 DAYS.
- INSTALLATION OF FINAL SURFACE FOR ACCESS ROAD WHEN GRADE WORK IS COMPLETED.
- FINAL SEED AND MULCH THE DISTURBED AREA WHEN ALL WORK HAS FINISHED.
- REMOVE EROSION MEASURES AFTER WORK AREA IS COMPLETELY STABILIZED.

PROJECT SITE
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SCALE UNITS IN FEET

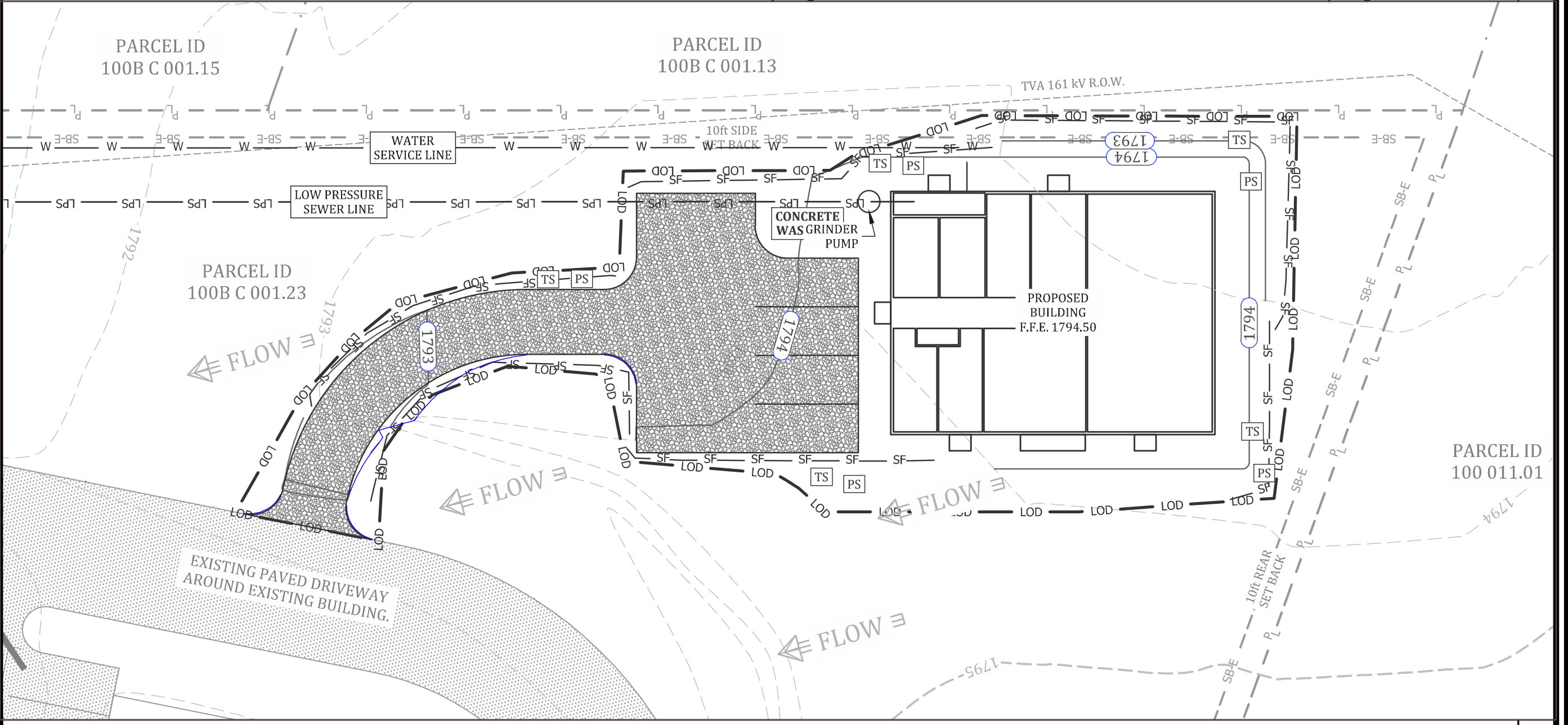
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TN STATE PLANE; NAD83

SHEET SYMBOL LEGEND 1

SITE NOTES 2

SCALE 3



PROPOSED EROSION CONTROL PLAN 1in = 20ft 4

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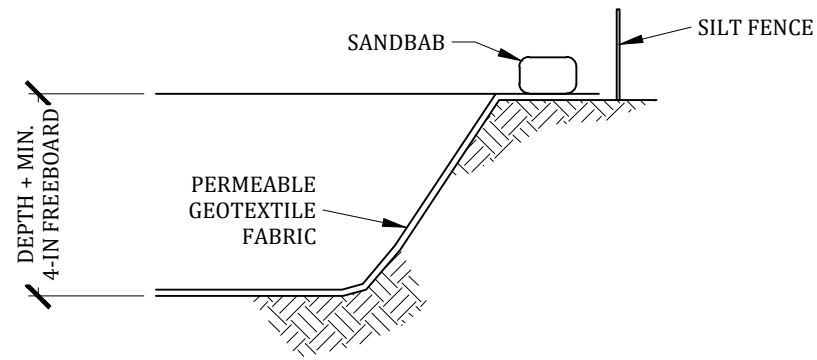
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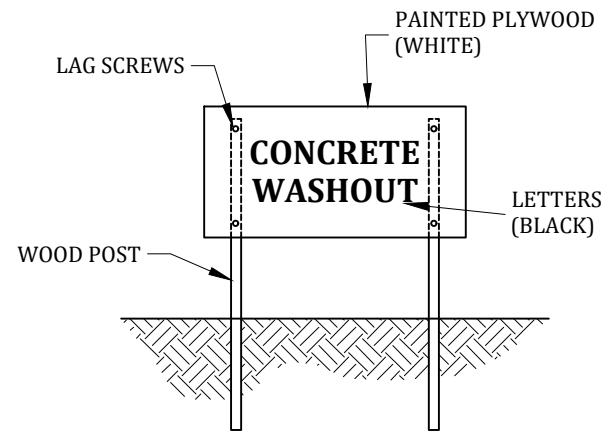
PROPOSED EROSION CONTROL PLAN

AVIAGEN LAB ADDITION
 HIGHLAND CONSTRUCTION INC.
 470 US 70
 CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE

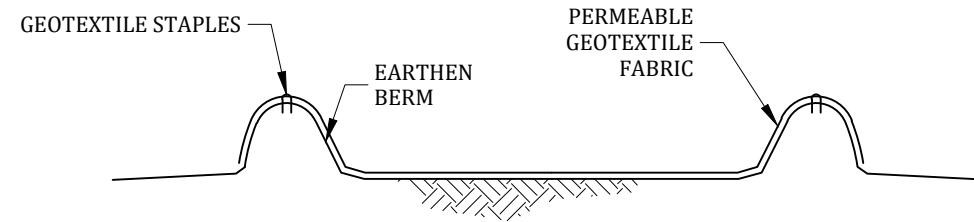
SHEET REFERENCE NUMBER:
C-202
 SHEET 4 OF 6



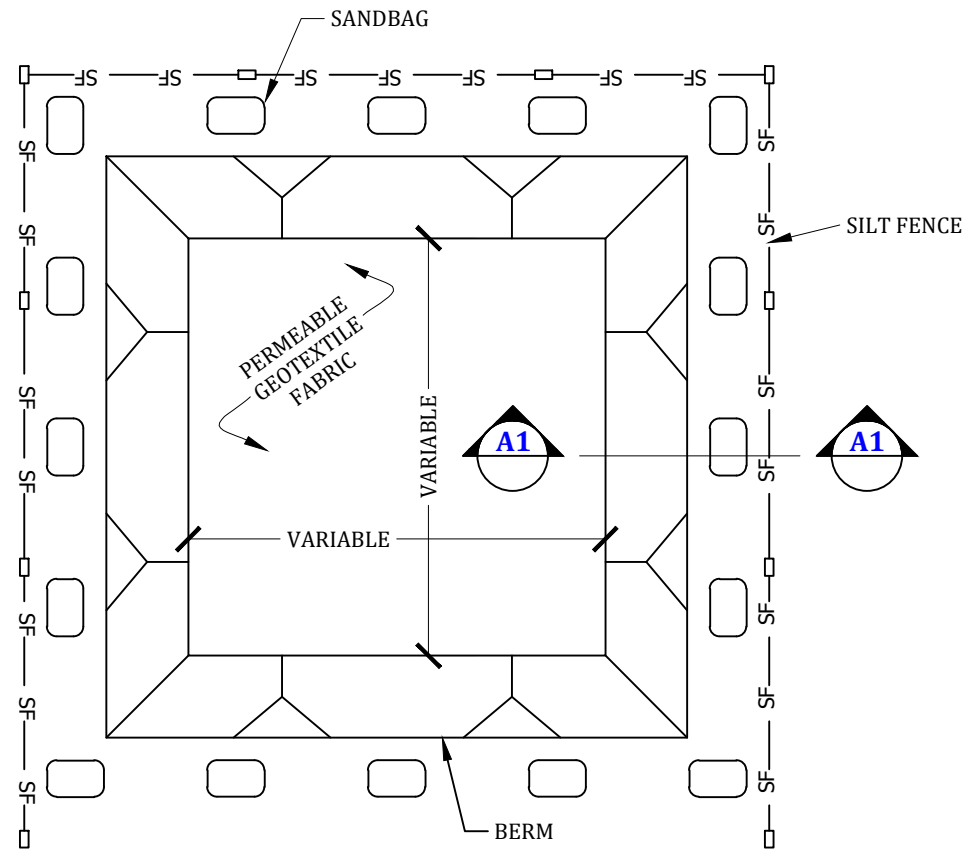
A1 SECTION A
NOT TO SCALE
TYPE "BELOW GRADE"



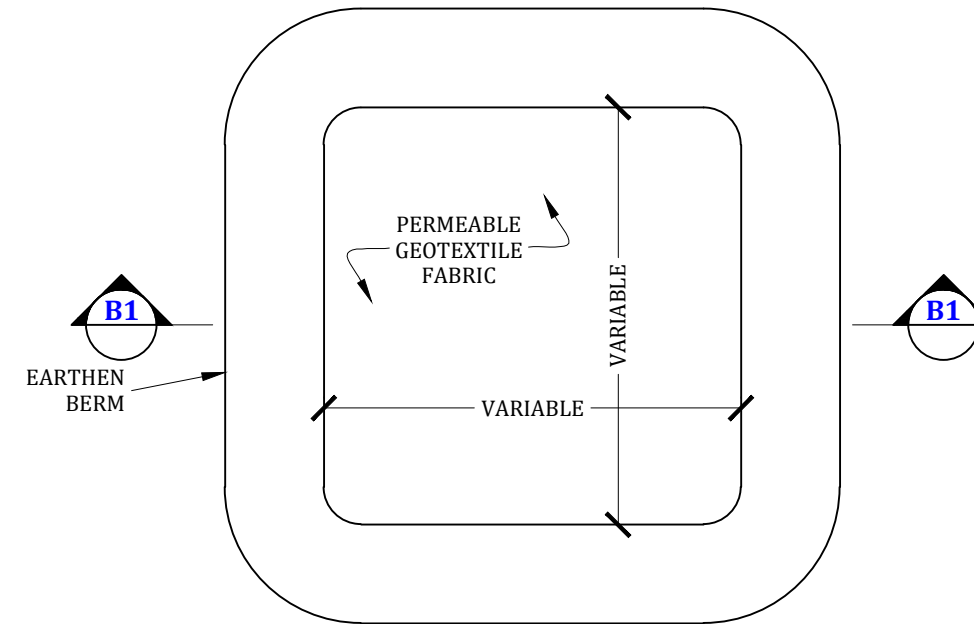
CONCRETE WASHOUT SIGN (OR EQUIVALENT)



B1 SECTION B
NOT TO SCALE
TYPE "ABOVE GRADE" WITH EARTHEN BERMS



PLAN VIEW
NOT TO SCALE
TYPE "BELOW GRADE"



PLAN VIEW
NOT TO SCALE
TYPE "ABOVE GRADE" WITH EARTHEN BERMS

- CONCRETE WASHOUT NOTES:**
1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
 2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5 FEET OF THE WASHOUT FACILITY.

CONCRETE WASHOUT

CONCRETE WASHOUT

N.T.S.

6.2

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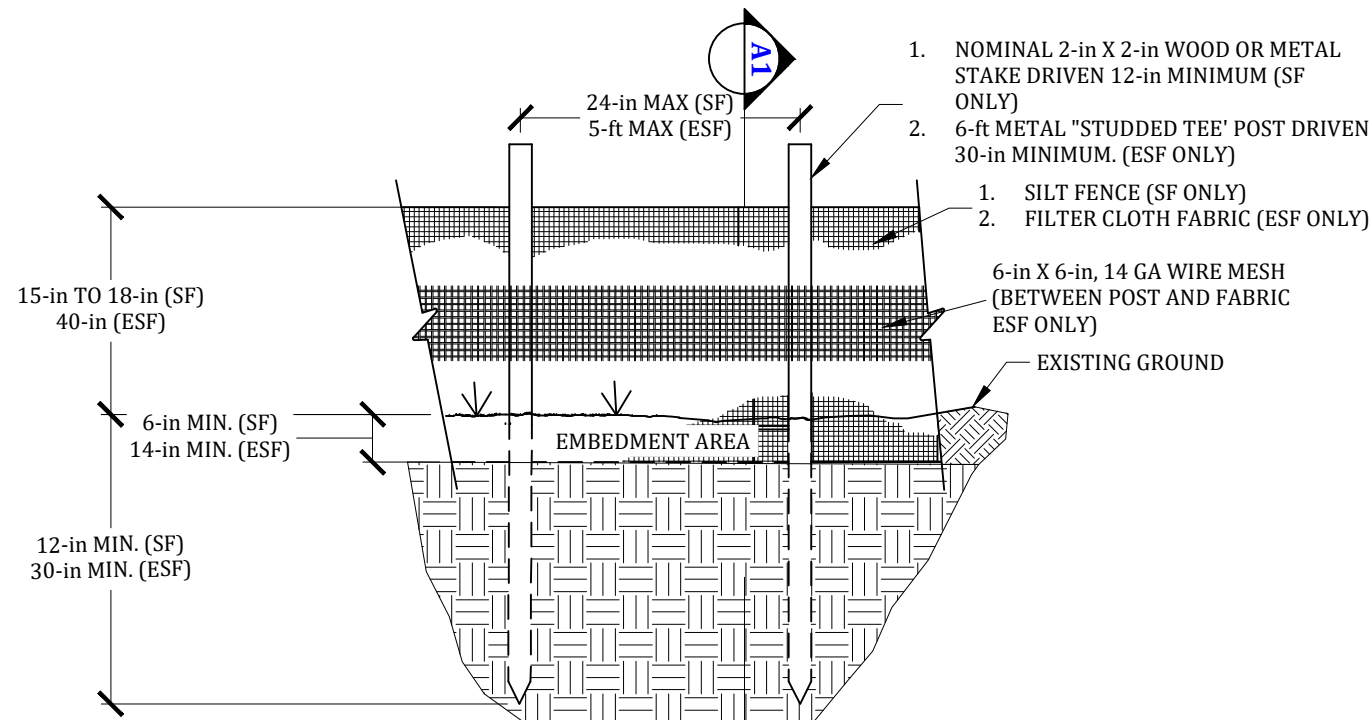
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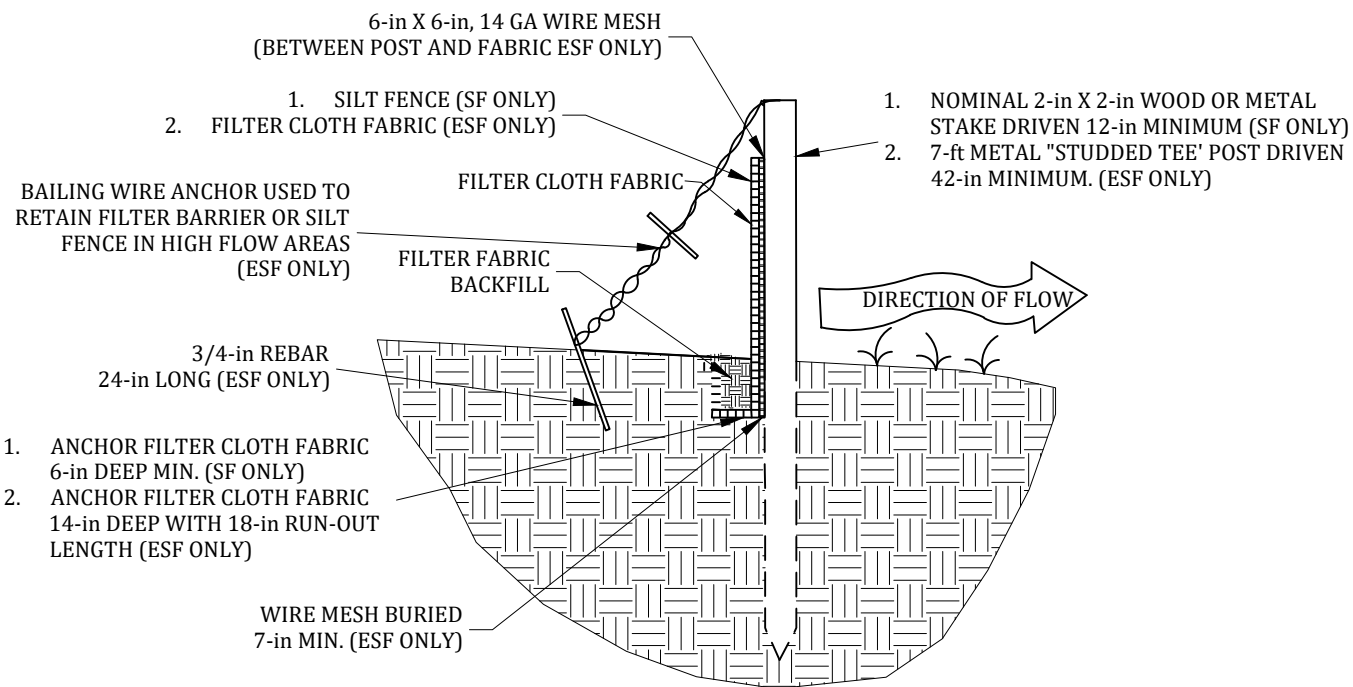
EROSION CONTROL DETAILS

AVIAGEN LAB ADDITION
HIGHLAND CONSTRUCTION INC.
 470 US 70
 CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE

SHEET REFERENCE NUMBER:
C-501
 SHEET 5 OF 6



SILT FENCE ELEVATION VIEW



SILT FENCE CROSS SECTION VIEW

1. NOMINAL 2-in X 2-in WOOD OR METAL STAKE DRIVEN 12-in MINIMUM (SF ONLY)
2. 6-ft METAL "STUDED TEE" POST DRIVEN 30-in MINIMUM. (ESF ONLY)
1. SILT FENCE (SF ONLY)
2. FILTER CLOTH FABRIC (ESF ONLY)

1. SILT FENCE (SF ONLY)
2. FILTER CLOTH FABRIC (ESF ONLY)

1. NOMINAL 2-in X 2-in WOOD OR METAL STAKE DRIVEN 12-in MINIMUM (SF ONLY)
2. 7-ft METAL "STUDED TEE" POST DRIVEN 42-in MINIMUM. (ESF ONLY)

1. ANCHOR FILTER CLOTH FABRIC 6-in DEEP MIN. (SF ONLY)
2. ANCHOR FILTER CLOTH FABRIC 14-in DEEP WITH 18-in RUN-OUT LENGTH (ESF ONLY)

BAILING WIRE ANCHOR USED TO RETAIN FILTER BARRIER OR SILT FENCE IN HIGH FLOW AREAS (ESF ONLY)

6-in X 6-in, 14 GA WIRE MESH (BETWEEN POST AND FABRIC ESF ONLY)

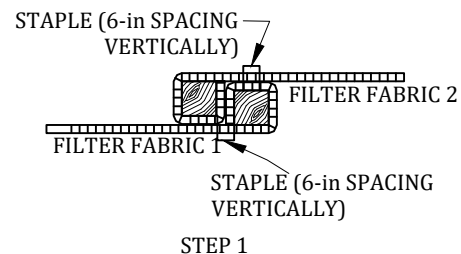
FILTER CLOTH FABRIC

FILTER FABRIC BACKFILL

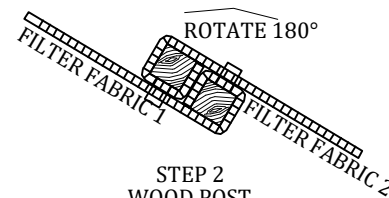
3/4-in REBAR 24-in LONG (ESF ONLY)

WIRE MESH BURIED 7-in MIN. (ESF ONLY)

WOOD POST CONNECTION



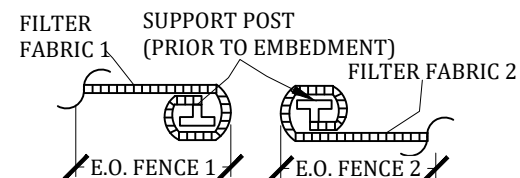
STEP 1



STEP 2
WOOD POST

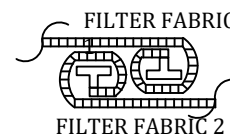
1. ROTATE BOTH POSTS WITH FABRIC CLOCKWISE AT LEAST 180°.
2. EMBED BOTH POST INTO GROUND PER APPLICABLE FILTER FENCE SPECIFICATIONS.

METAL POST CONNECTION



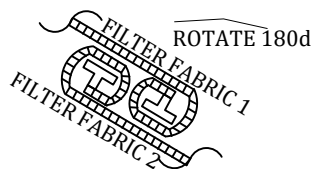
1. WRAP FABRIC AROUND END SUPPORTS AS SHOWN AND ANCHOR FABRIC TO POSTS.
2. POSITION POSTS/FABRIC AS SHOWN ABOVE.

STEP 1



1. POSITION THE FILTER FABRIC 2 POST INSIDE OF THE FILTER FABRIC 1 POST AS SHOWN ABOVE.

STEP 2



1. ROTATE BOTH POST WITH FABRIC CLOCKWISE AT LEAST 180°.
2. EMBED BOTH POST INTO GROUND PER APPLICABLE FILTER FENCE SPECIFICATIONS.

STEP 3

SILT FENCE NOTES:

1. ARE SEDIMENT CONTROL STRUCTURES COMPOSED OF STANDARD WEIGHT SYNTHETIC FILTER-FABRIC STAPLED TO WOODEN STAKES OR METAL T-POST. SILT FENCE SHALL HAVE AN EXPECTED USABLE LIFE OF 3 MONTHS. THEY ARE APPLICABLE IN DITCH LINES, AROUND DROP INLETS, AND AT TEMPORARY LOCATIONS WHERE CONTINUOUS CONSTRUCTION CHANGES THE EARTH CONTOUR AND RUNOFF CHARACTERISTICS AND WHERE LOW OR MODERATE FLOWS (NOT EXCEEDING 1 cfs) ARE EXPECTED. THE HEIGHT OF A SILT FENCE SHALL BE A MINIMUM OF 15-INCHES AND SHALL NOT EXCEED 18-INCHES.
2. STANDARD STRENGTH SYNTHETIC FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS (AND THUS IMPROVE THE STRENGTH AND EFFICIENCY OF THE BARRIER).
3. WOOD STAKES SHALL BE SPACED A MAXIMUM OF 5 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12-INCHES).
4. FOR TRENCH INSTALLATION A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP ALONG THE LINE OF STAKES AND UP-SLOPE FROM THE BARRIER. SLIT INSTALLATION IS ACCEPTABLE WITH PROPER EQUIPMENT.
5. THE FILTER MATERIAL SHALL BE STAPLED TO THE WOODEN STAKES, AND 6-8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST 1/2-INCH LONG SHALL BE USED. FILTER MATERIAL SHALL NOT BE STAPLED TO EXISTING TREES.
6. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.
7. SILT FENCE SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP-SLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
8. ENHANCED SILT FENCES ARE COMPOSED OF A WIRE SUPPORT FENCE, METAL T-POST AND AN ATTACHED SYNTHETIC FILTER FABRIC SLOW THE FLOW RATE SIGNIFICANTLY. THEIR EXPECTED USABLE LIFE IS 6 MONTHS.

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SHEET REFERENCE NUMBER:

C-502

SHEET 6 OF 6

— SF — SF — ESF — ESF

SILT FENCE AND ENHANCED SILT FENCE N.T.S. **8.10 & 8.11**