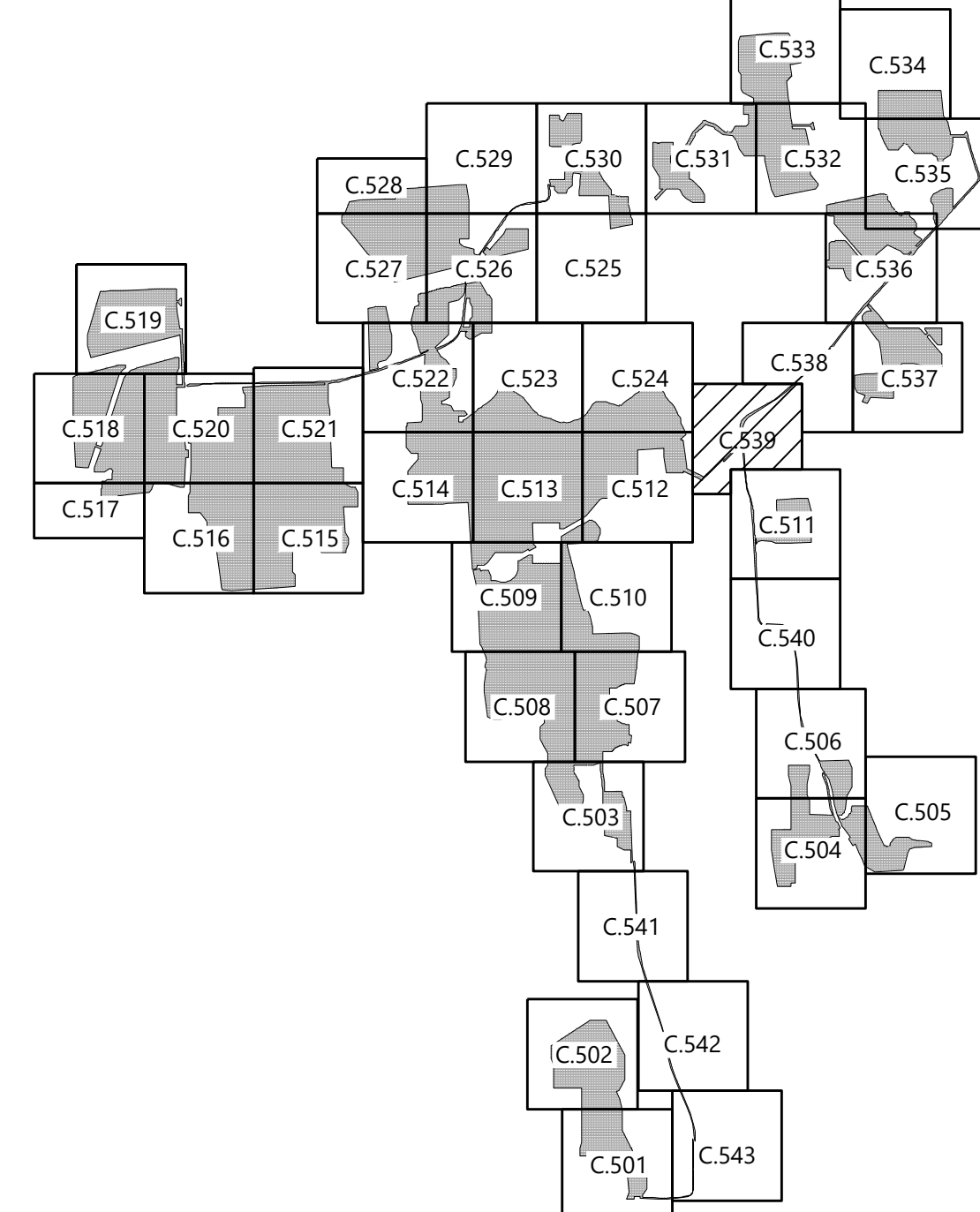


- LEGEND:**
- PROPERTY LINE
 - PARCEL LINE
 - EX. NYSDEC/USACE WETLAND
 - EX. USACE WETLAND
 - EX. NONJURISDICTIONAL WETLAND
 - EX. DEC MAPPED WETLAND
 - EX. STREAM
 - EX. EDGE OF WATER
 - EX. DRAINAGE DITCH
 - 100' DEC WETLAND ADJACENT AREA
 - EX. PAVED ROAD
 - EX. POWER POLE
 - EX. OVERHEAD POWER
 - EX. GAS LINE
 - EX. FENCE
 - EX. STRUCTURE
 - EX. CULVERT
 - EX. INDEX CONTOUR
 - EX. INTERVAL CONTOUR
 - PROPOSED INDEX CONTOUR
 - PROPOSED INTERVAL CONTOUR
 - PROPOSED SOLAR ARRAY
 - PROPOSED SETBACKS
 - PROPOSED INVERTER
 - PROPOSED BATTERY STORAGE
 - PROPOSED ACCESS ROAD
 - PROPOSED TEMPORARY ACCESS ROAD
 - PROPOSED SECURITY FENCE
 - PROPOSED LAYDOWN YARD
 - LIMIT OF DISTURBANCE
 - PROPOSED GRADING LIMITS
 - PROPOSED SILT FENCE
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 - PROPOSED SEDIMENT DIKE
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 - PROPOSED RIP-RAP
 - PROPOSED BASIN
 - PROPOSED UNDERGROUND COLLECTION
 - PROPOSED HORIZONTAL DIRECTIONAL DRILLING
 - PROPOSED HDD BORE PIT
 - PROPOSED ROCK CONSTRUCTION ENTRANCE
 - PROPOSED DRY SWALE
 - PROPOSED LEVEL SPREADER
 - PROPOSED BUFFER FILTER STRIP
 - PROPOSED SWALE
 - PROPOSED DRAIN TILE
 - PROPOSED STORMWATER DITCH

- BMP NOTES:**
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KEYMAP:

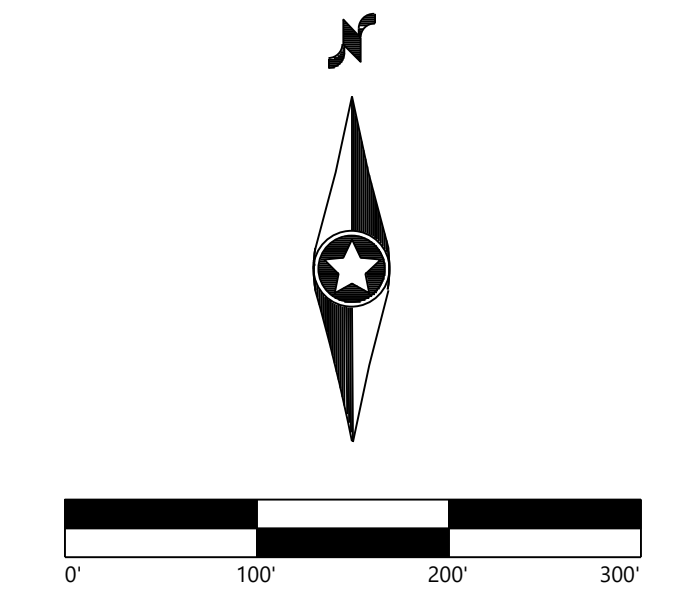


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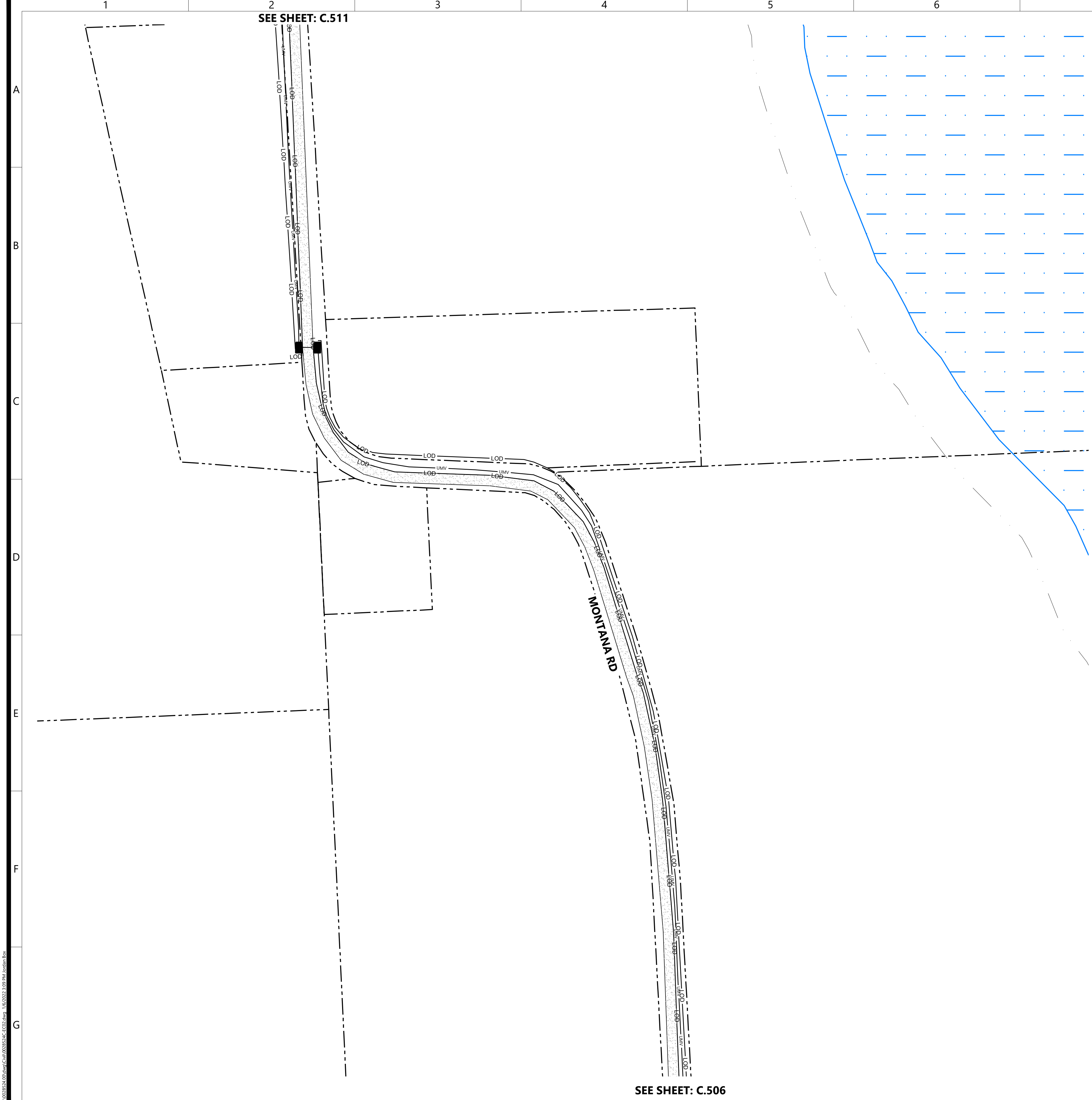
Cayuga County, New York

Erosion Control Plan - 39

PRELIMINARY
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DATE: 01/06/2022

SHEET: C.539

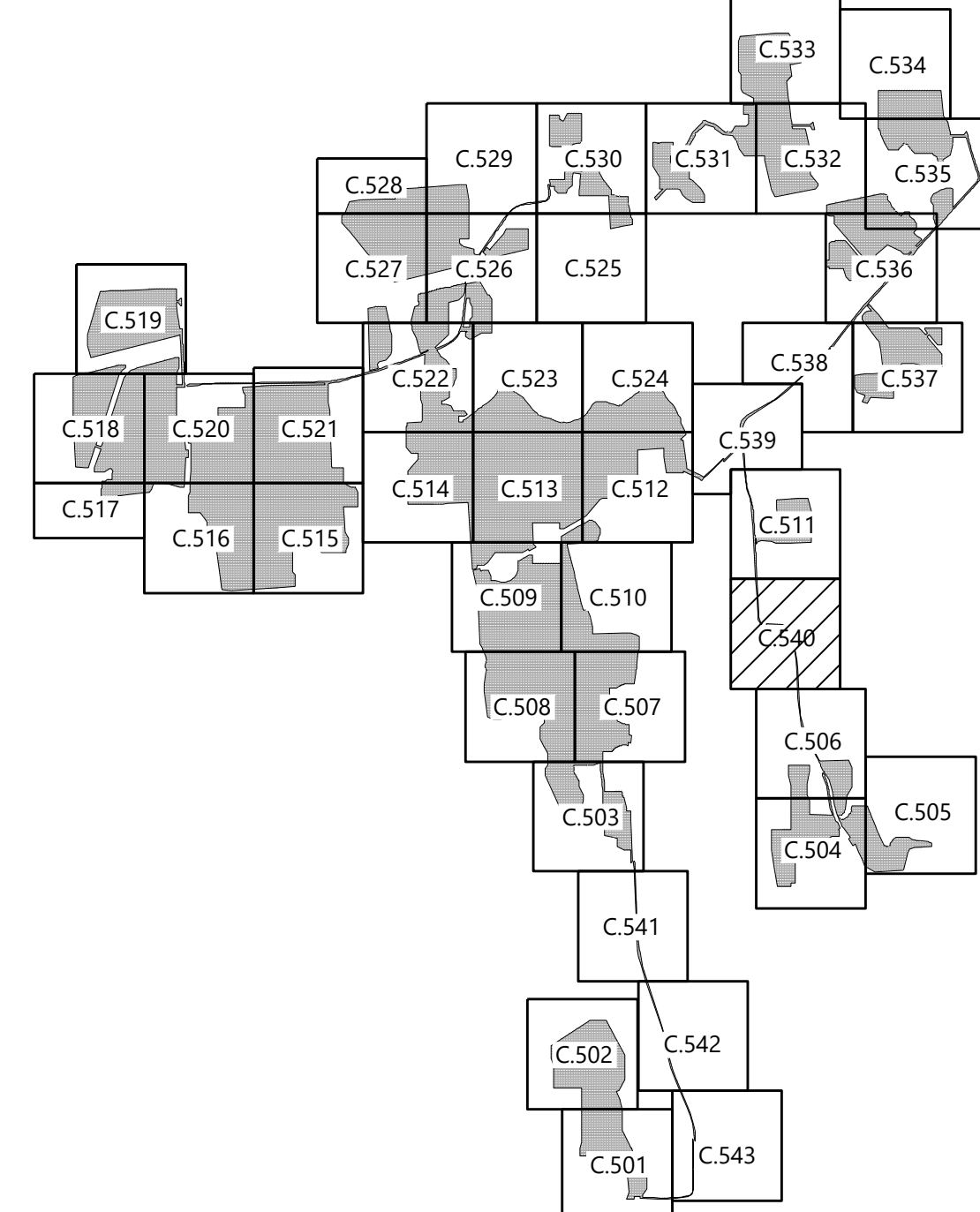


LEGEND:

- PROPERTY LINE
- PARCEL LINE
- EX. NYSDDEC/USACE WETLAND
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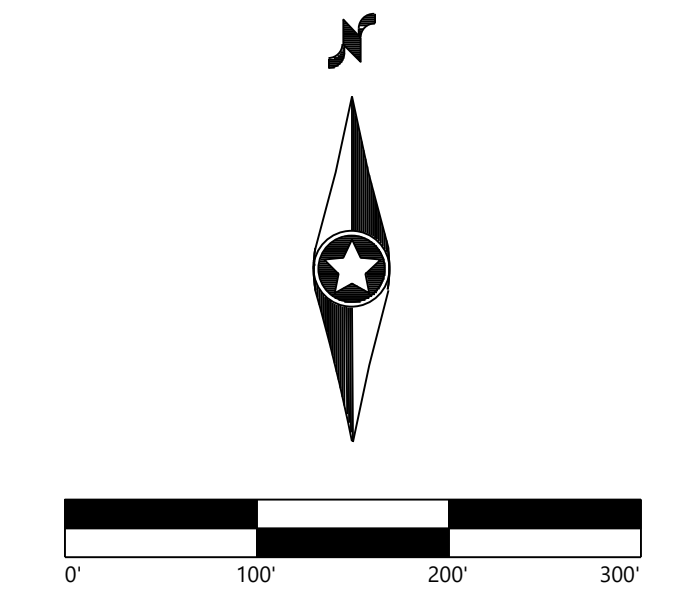
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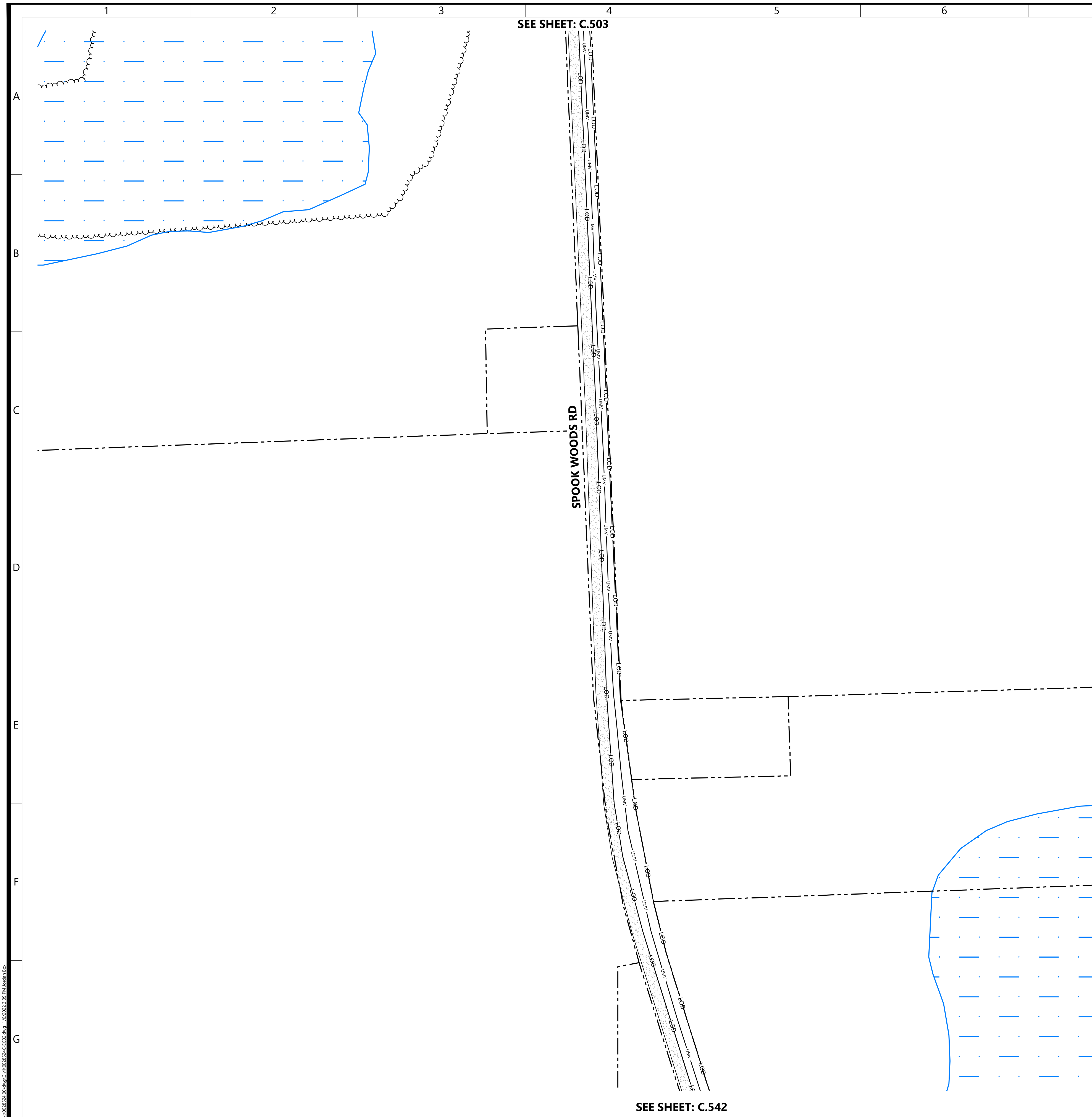
Cayuga County, New York

Erosion Control Plan -
40

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 01/06/2022

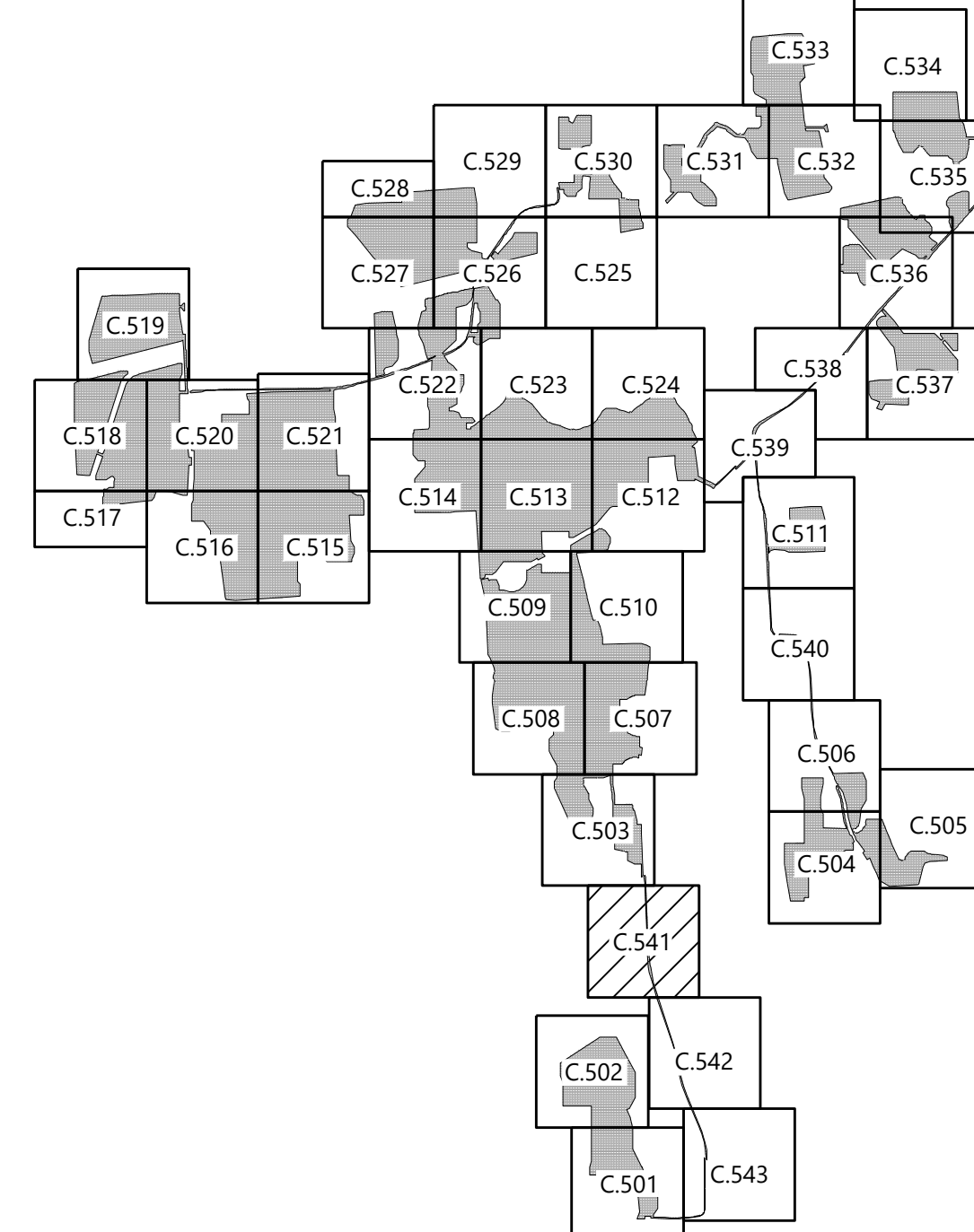
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LEGEND:

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| | PROPERTY LINE |
| | PARCEL LINE |
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| | EX. USACE WETLAND |
| | EX. NONJURISDICTIONAL WETLAND |
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| | PROPOSED BUFFER FILTER STRIP |
| | PROPOSED SWALE |
| | PROPOSED DRAIN TILE |
| | PROPOSED STORMWATER DITCH |

KEYMAP:



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Surveying & Engineering

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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 ww-pc.com

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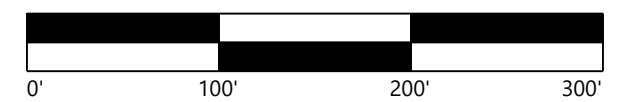
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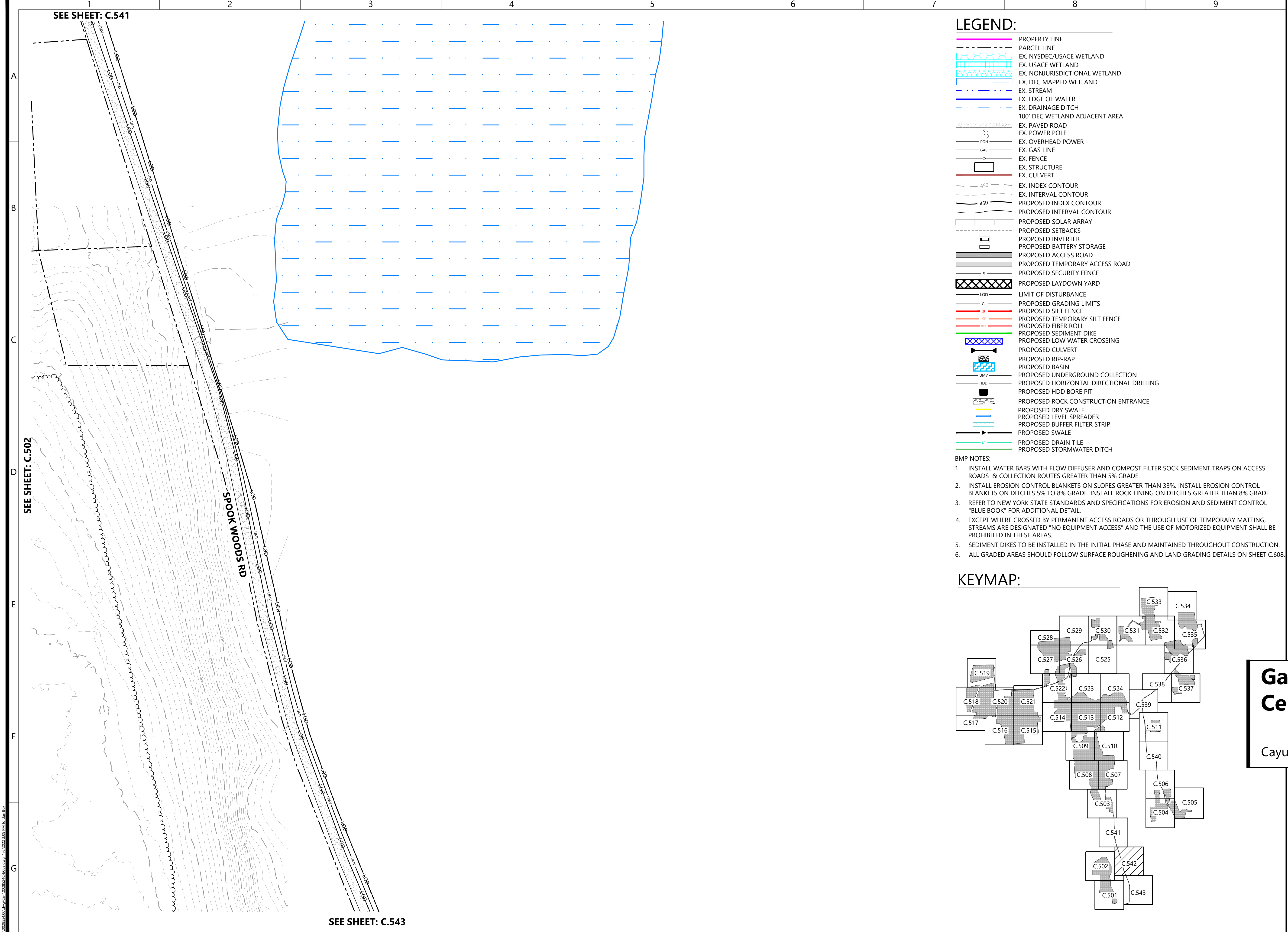
Cayuga County, New York

Erosion Control Plan -
41

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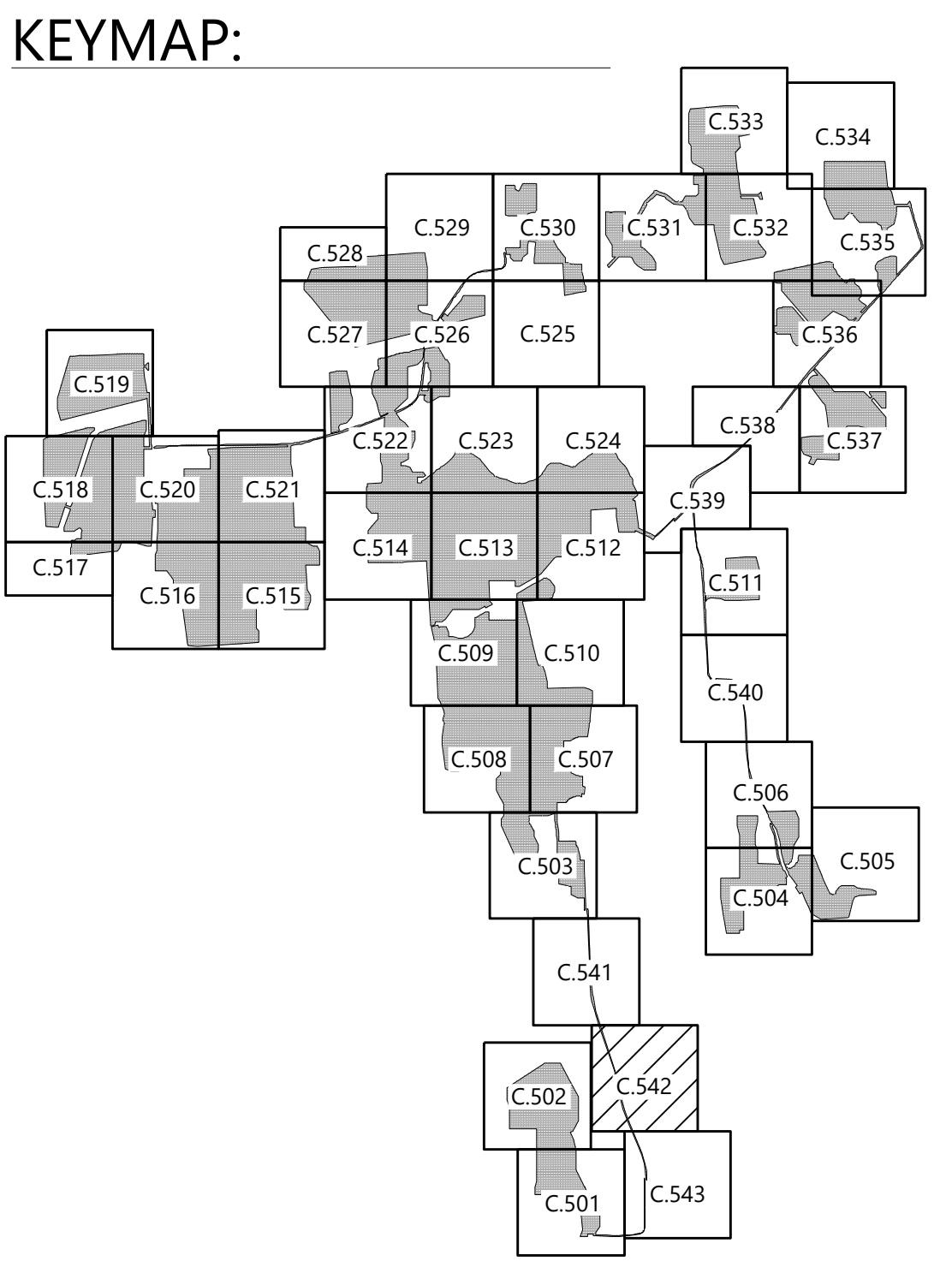
DATE: 01/06/2022

SHEET: C.541



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 - EX. USACE WETLAND
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Toll Free (888) 937-5150 ww-pc.com
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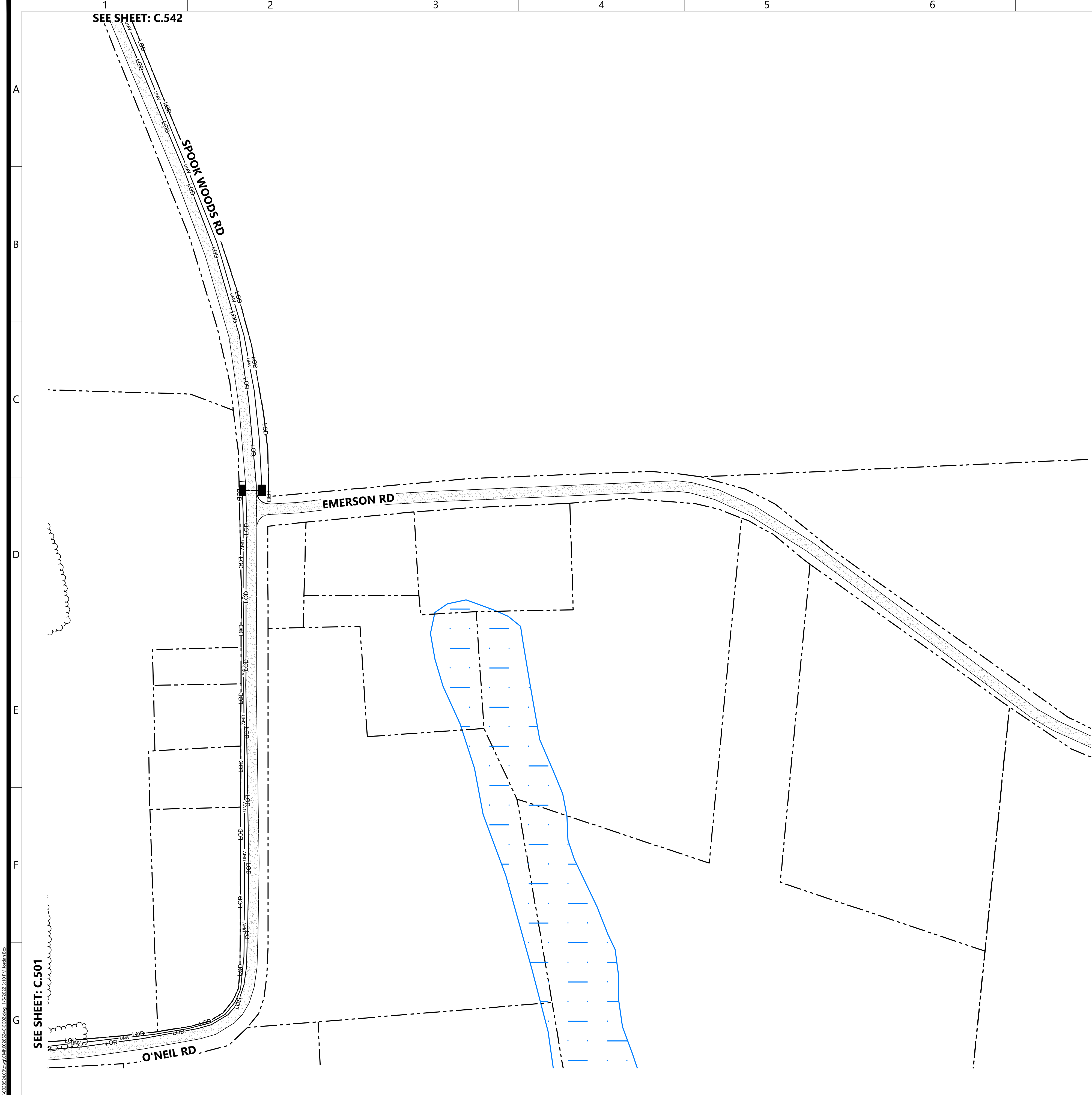
Erosion Control Plan - 42

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 01/06/2022

SHEET: C.542

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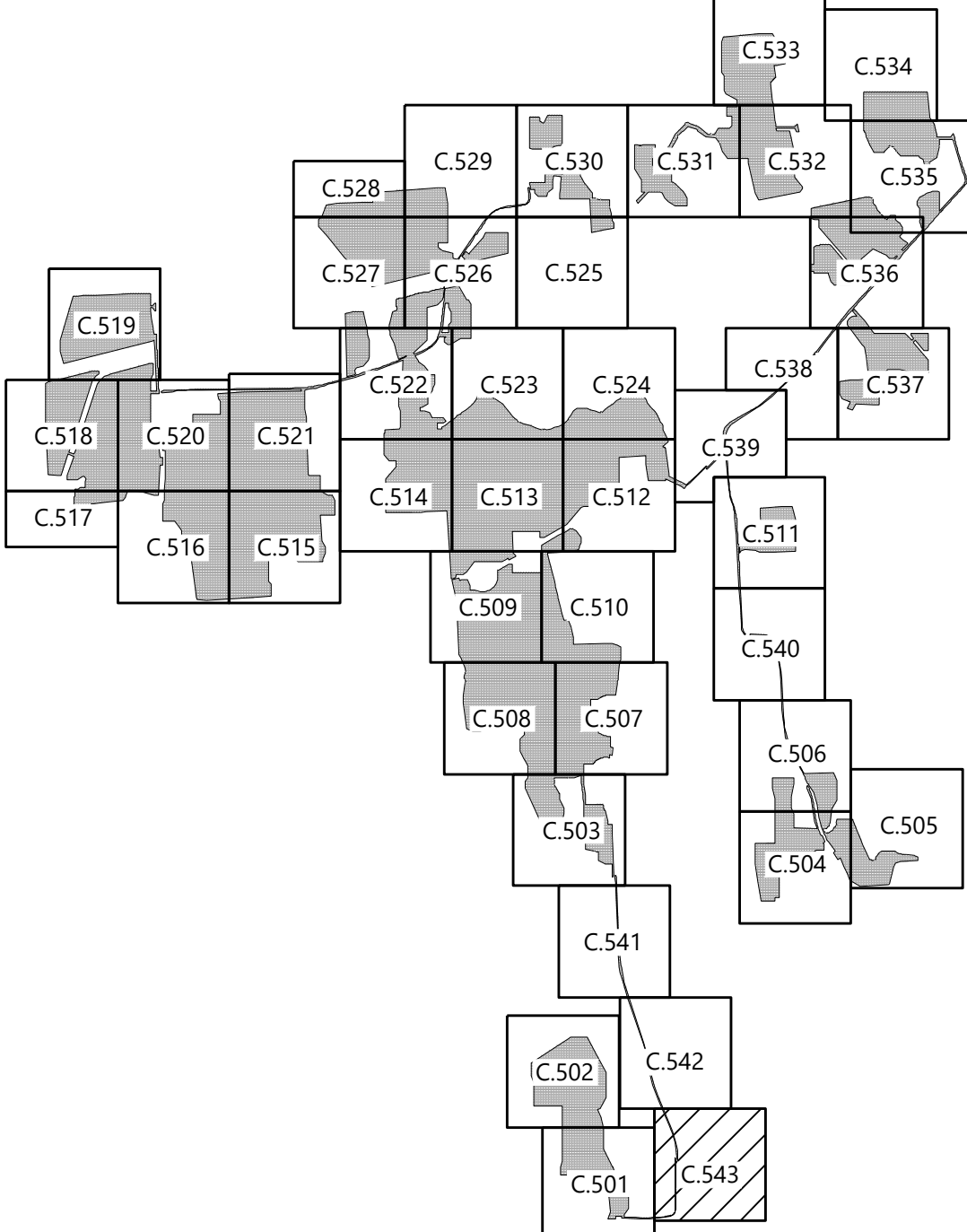


LEGEND:

- PROPERTY LINE
- PARCEL LINE
- EX. NYSDEC/USACE WETLAND
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KEYMAP:



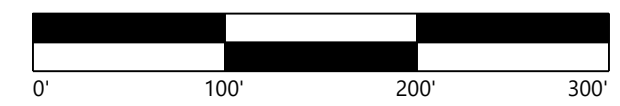
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Juno Beach, FL 33408

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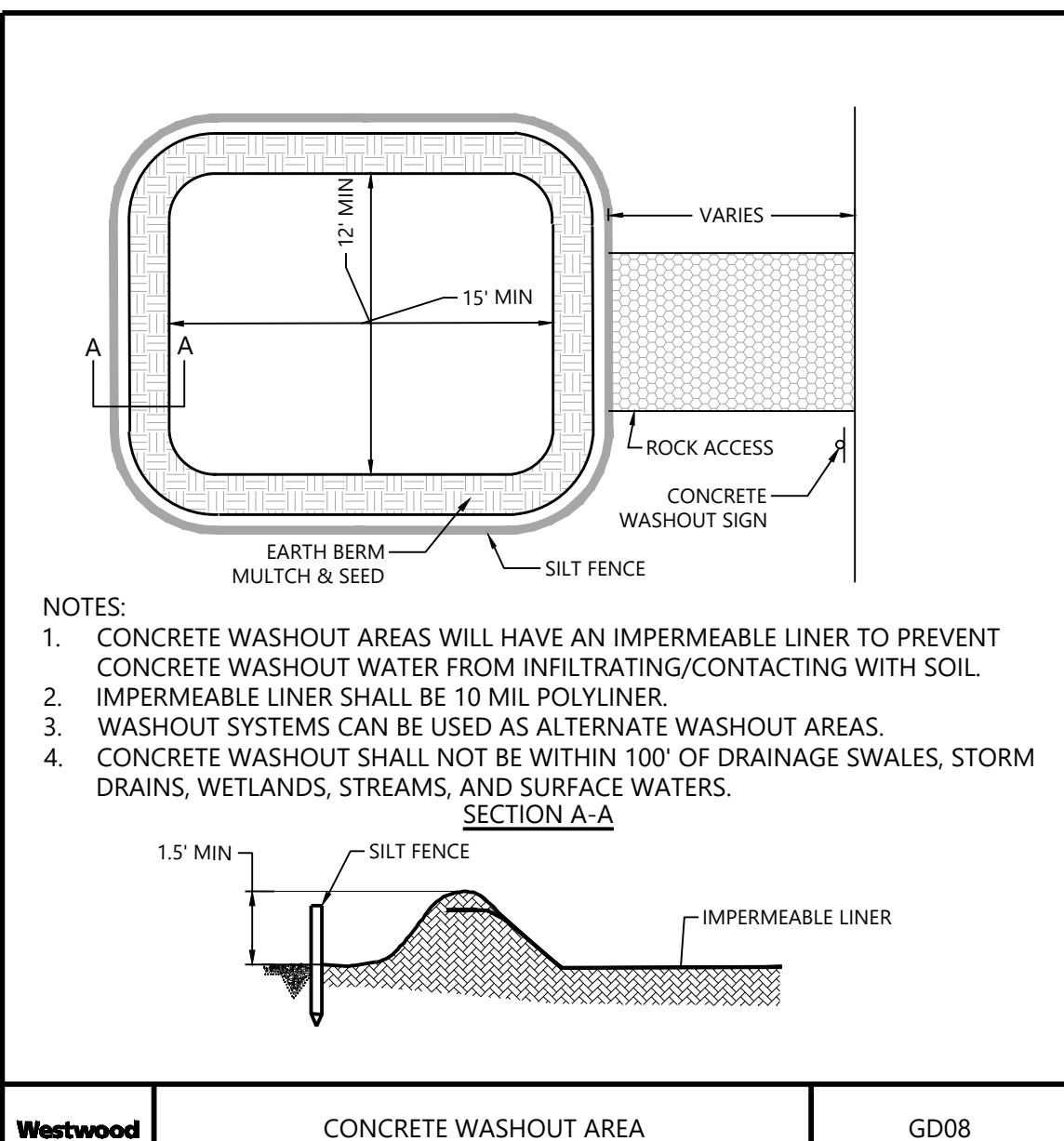
Erosion Control Plan -
43

PRELIMINARY
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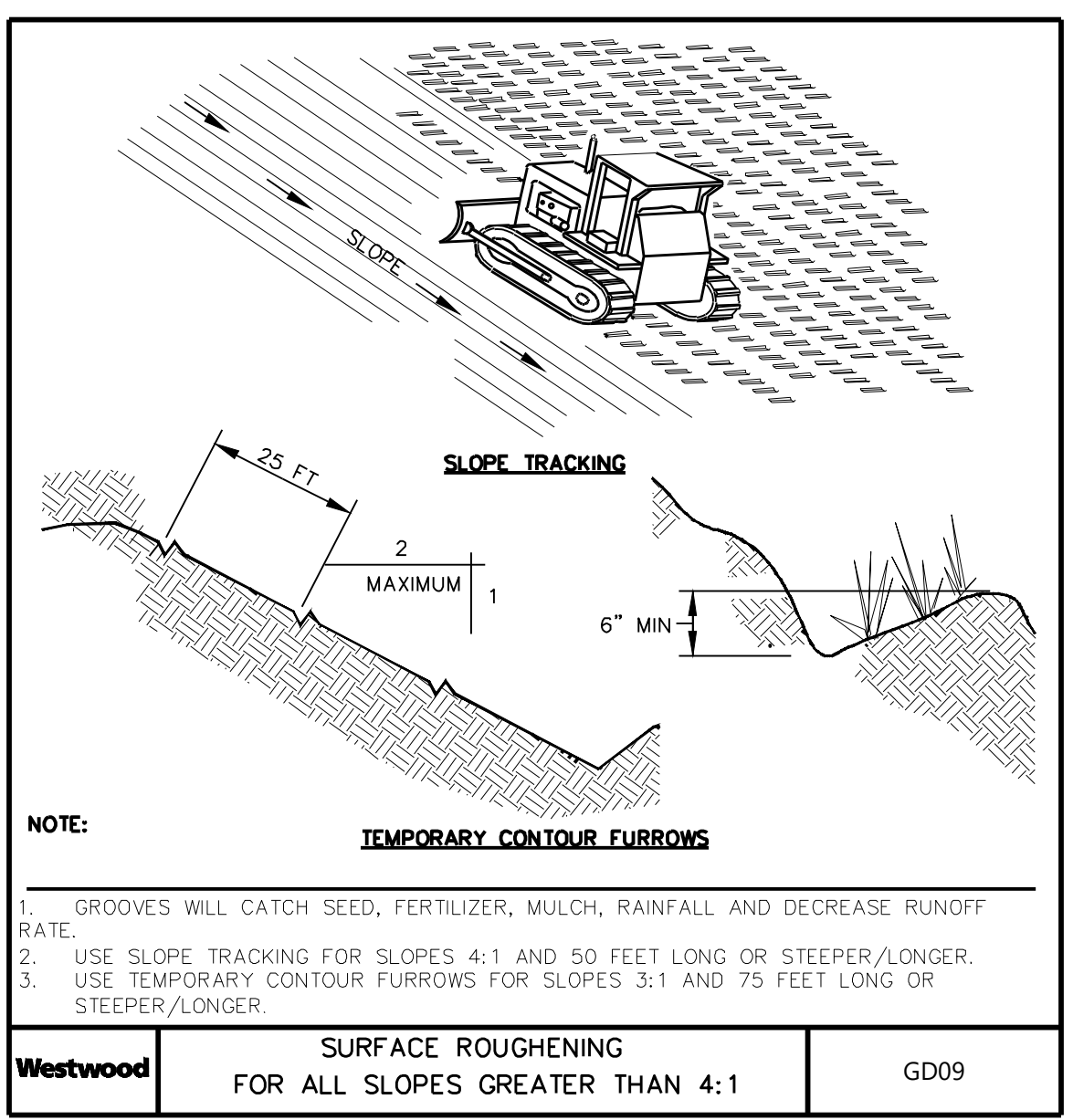
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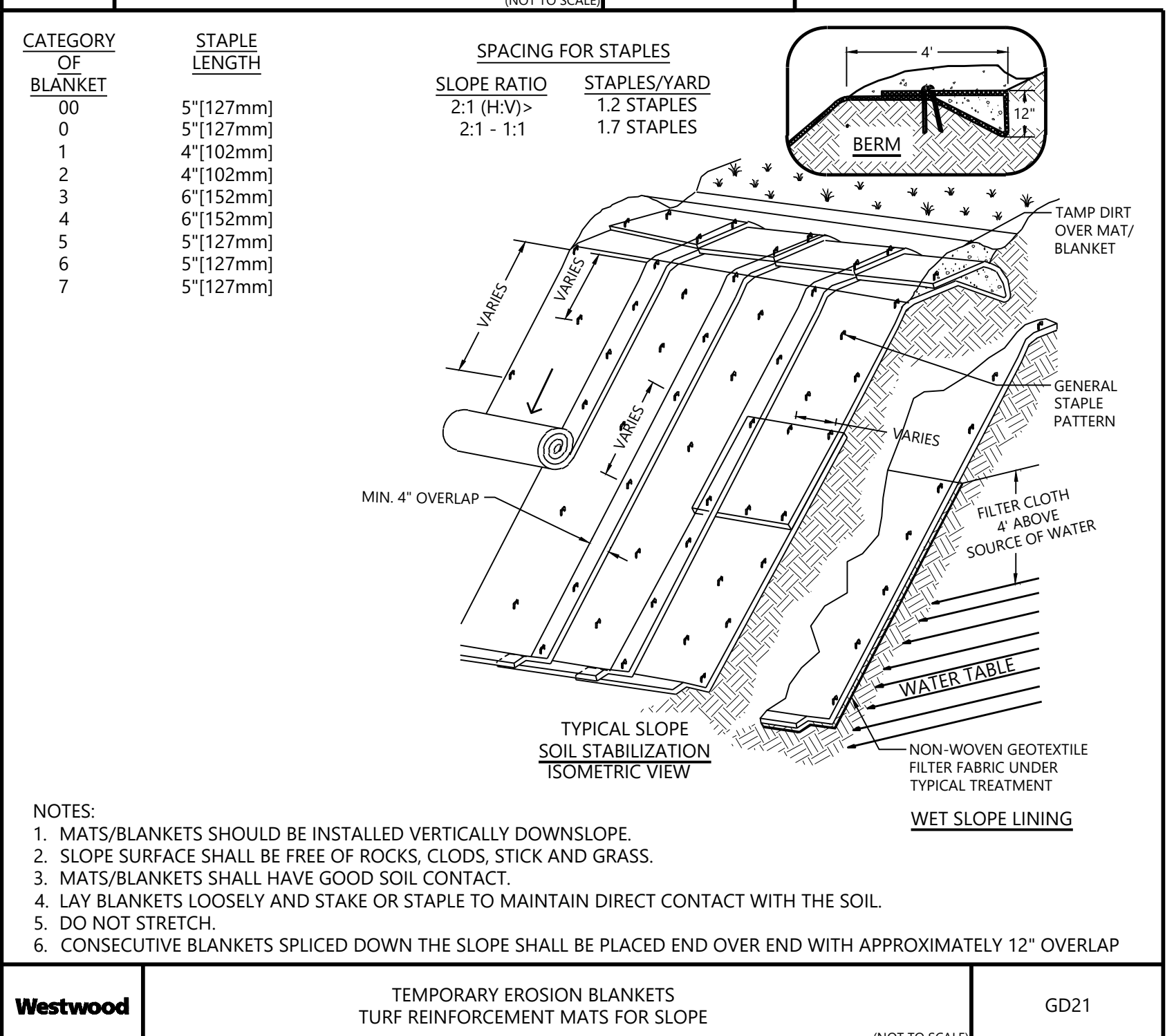
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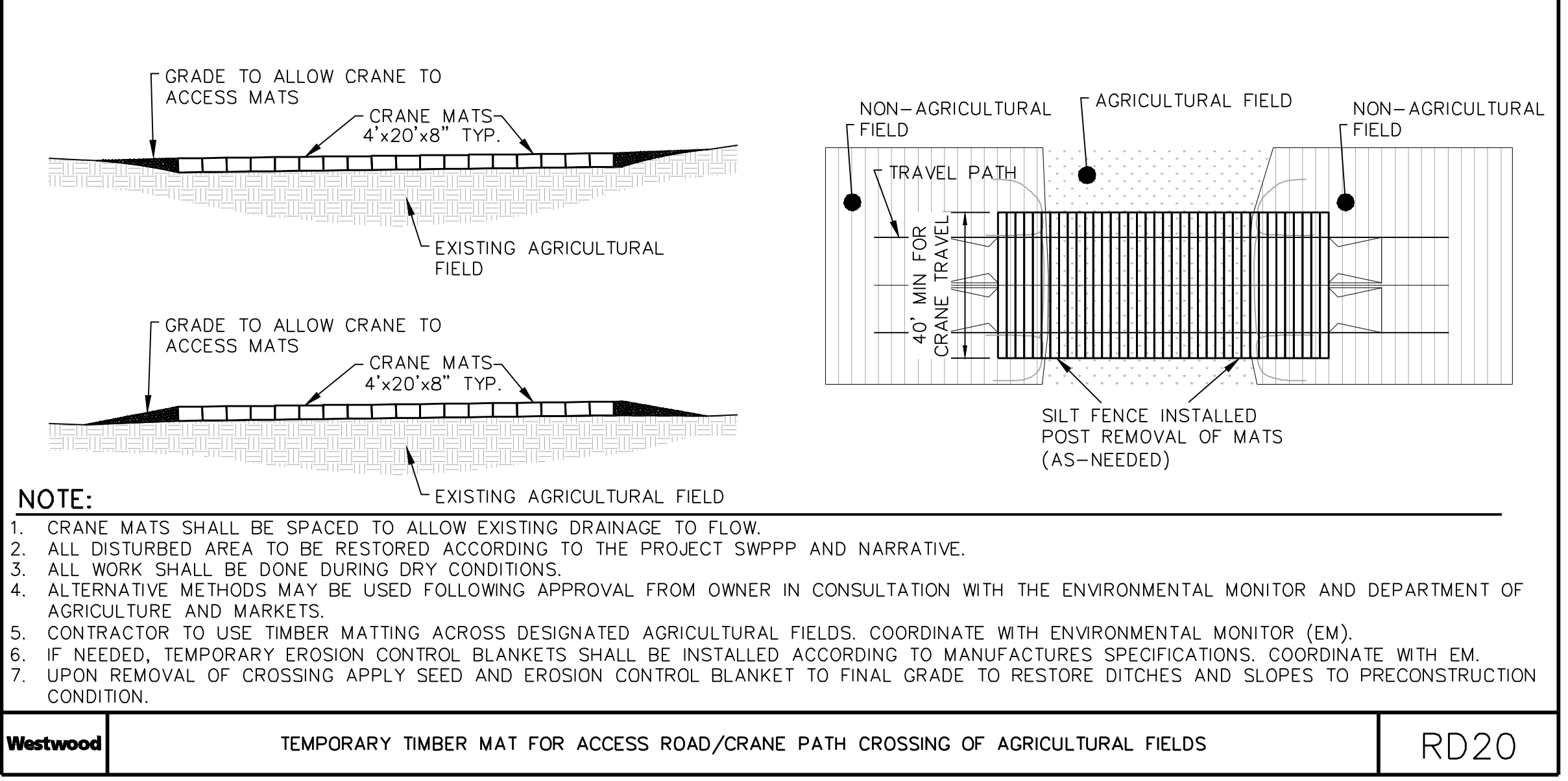
Westwood	CONCRETE WASHOUT AREA	GD08
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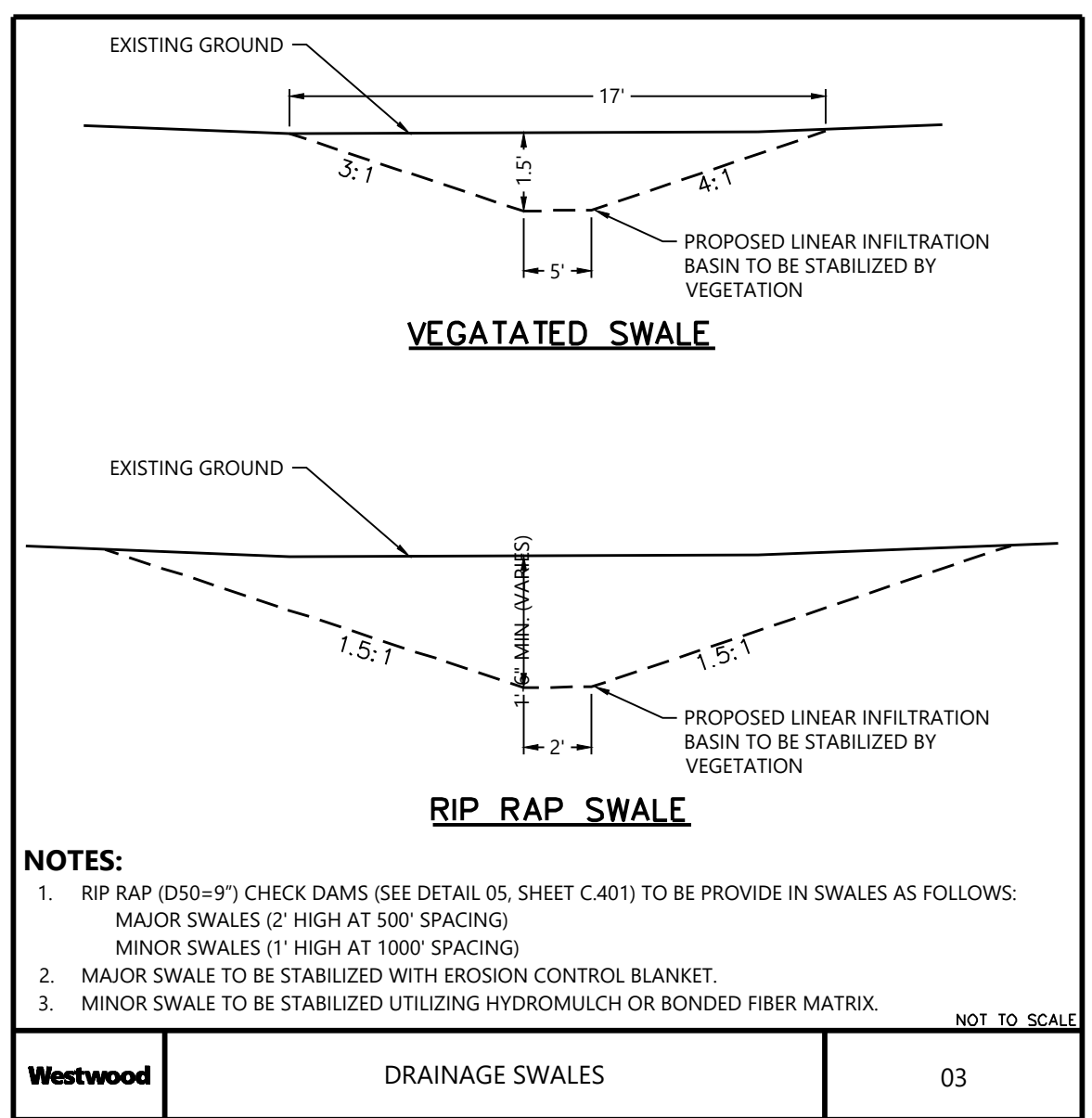
Westwood	SURFACE ROUGHENING FOR ALL SLOPES GREATER THAN 4:1	GD09
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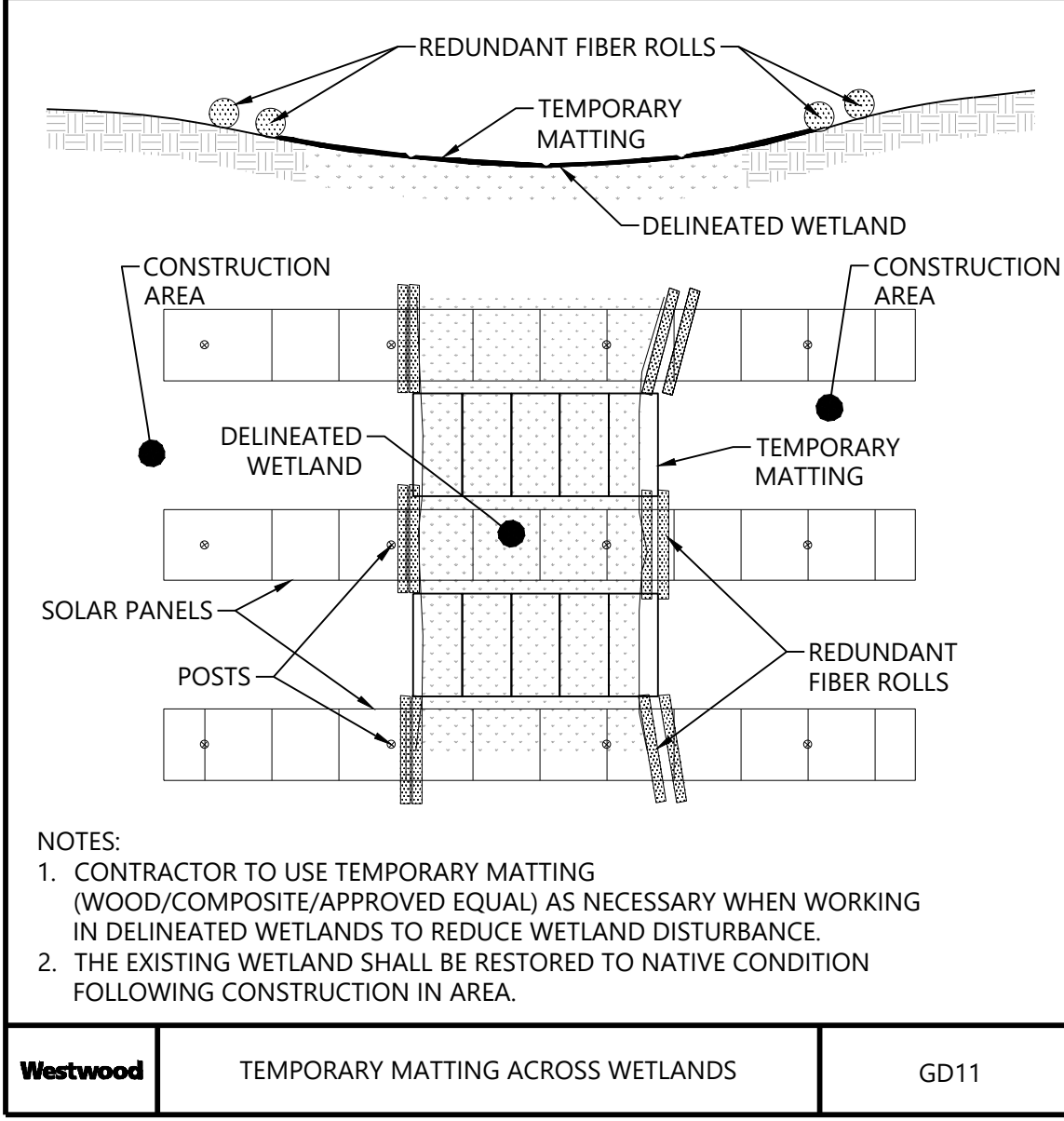
Westwood	TEMPORARY EROSION BLANKETS TURF REINFORCEMENT MATS FOR SLOPE	GD21
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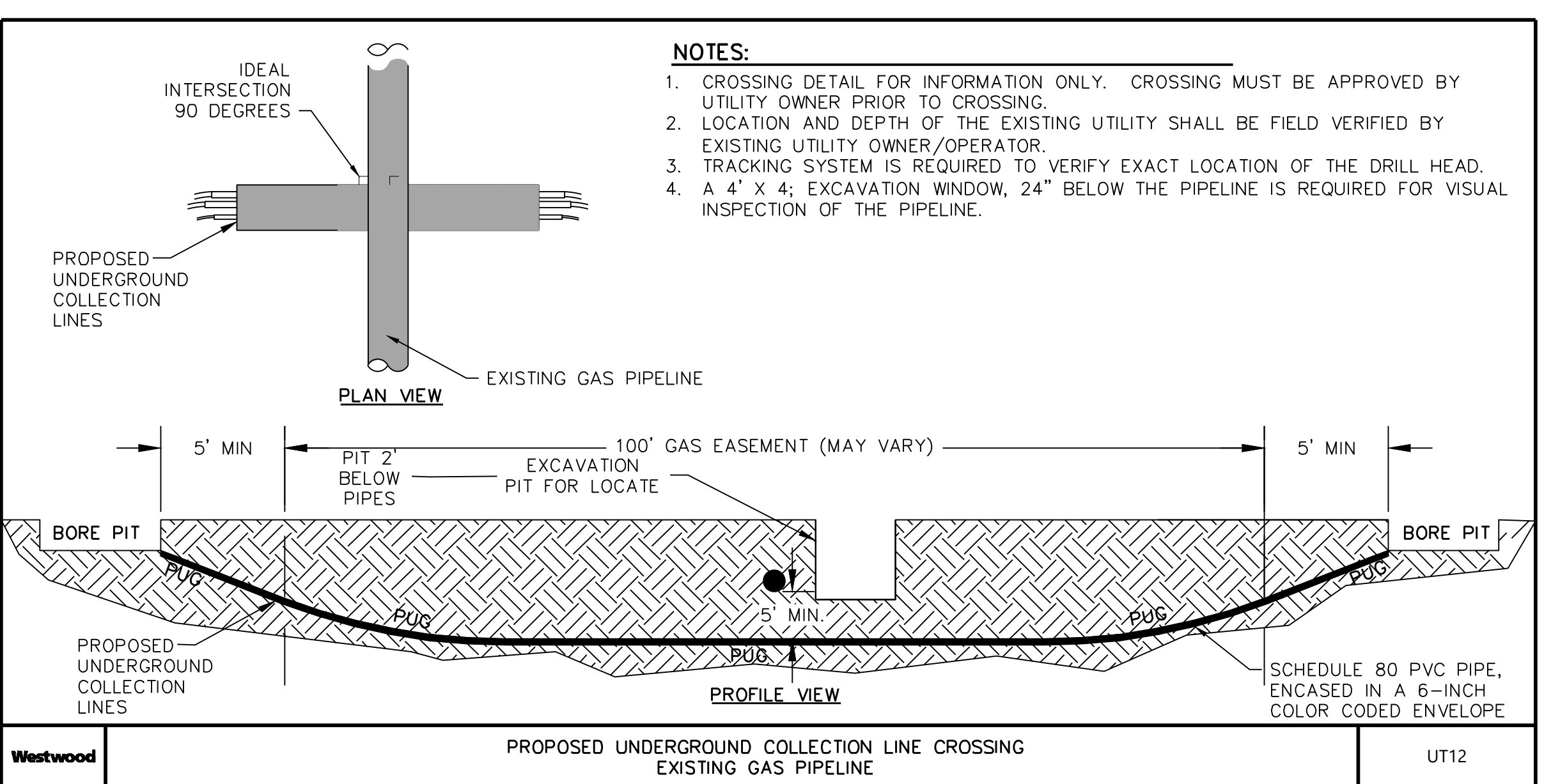
Westwood	TEMPORARY TIMBER MAT FOR ACCESS ROAD/CRANE PATH CROSSING OF AGRICULTURAL FIELDS	RD20
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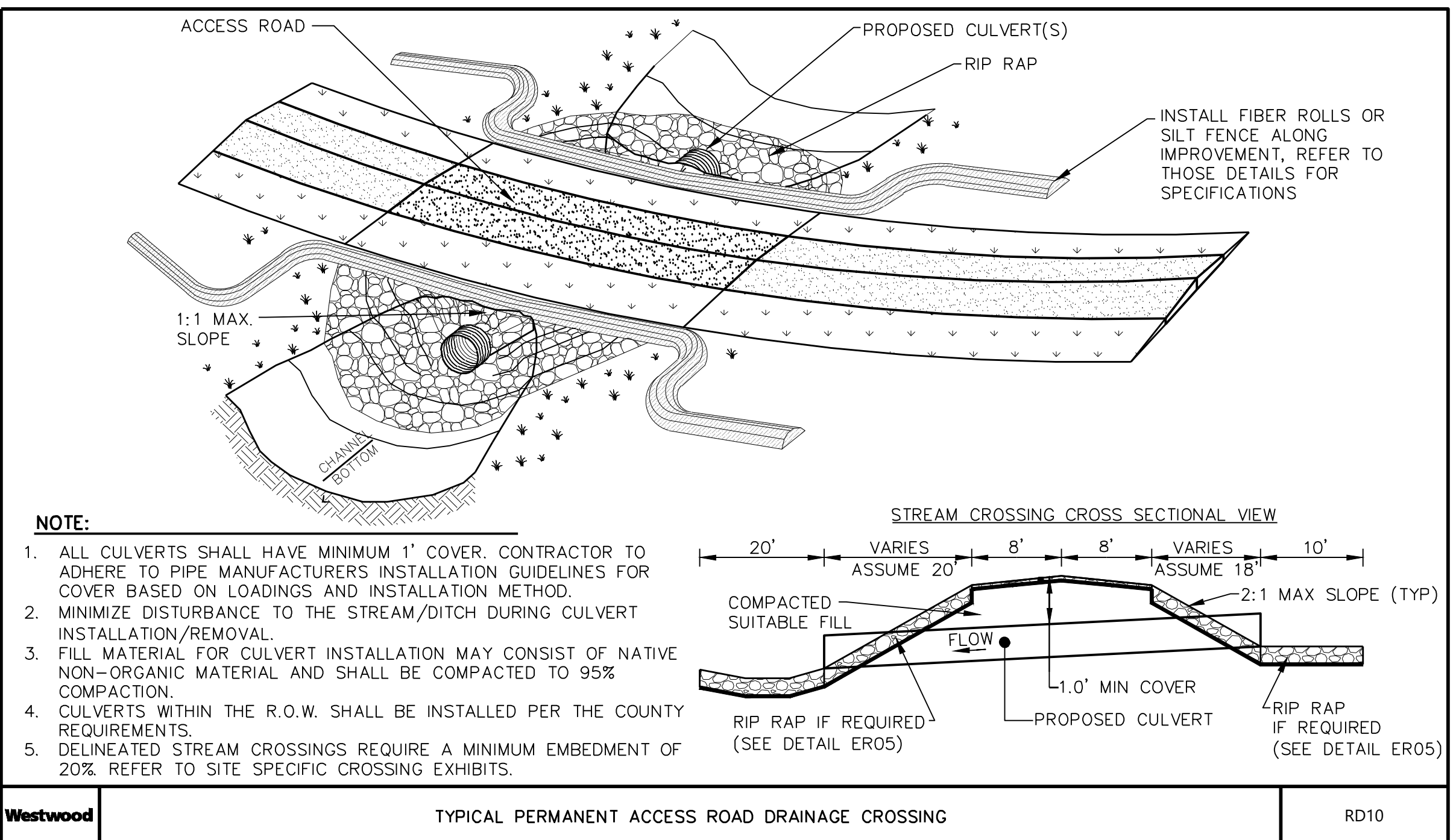
Westwood	DRAINAGE SWALES	03
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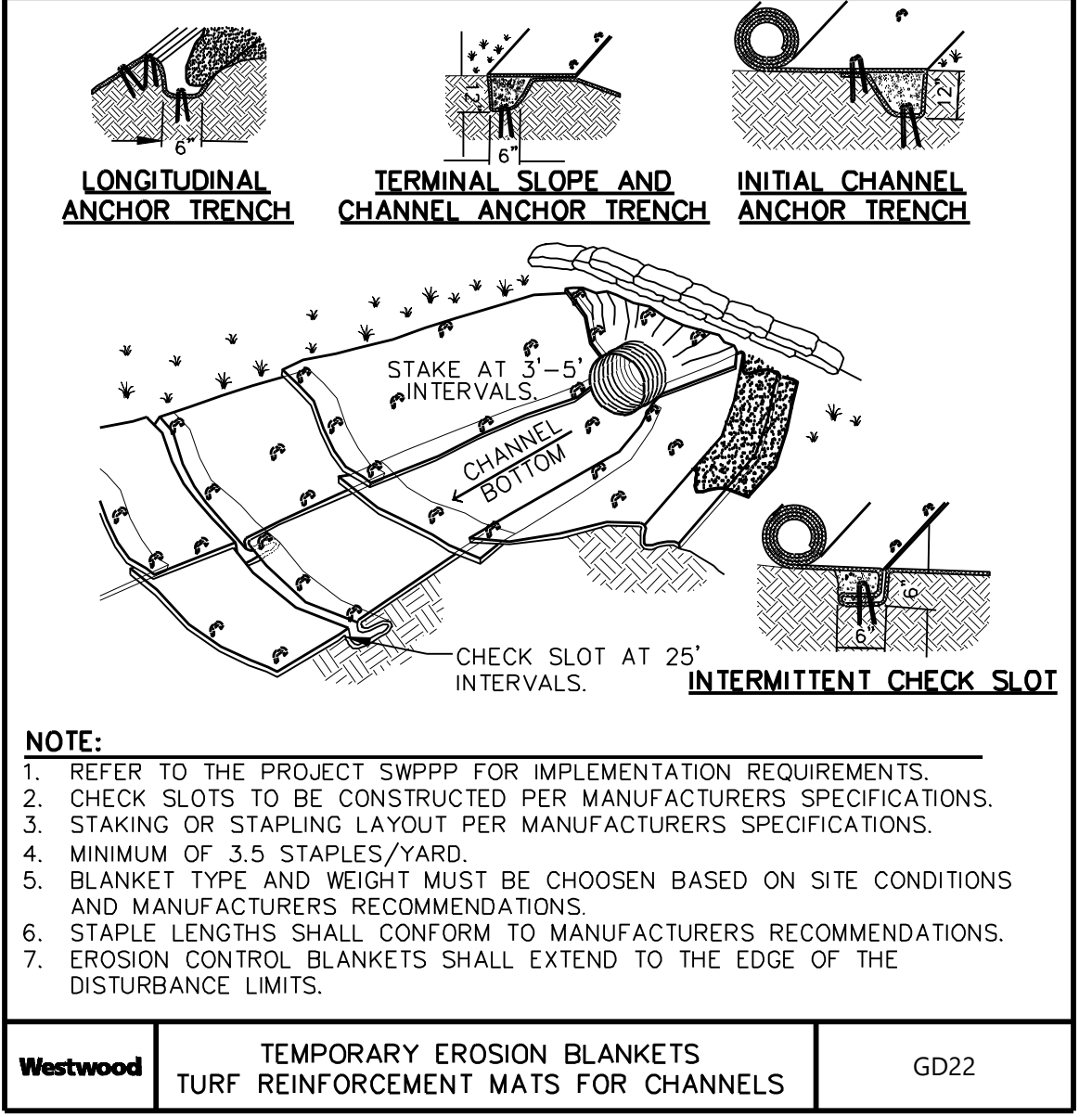
Westwood	TEMPORARY MATTING ACROSS WETLANDS	GD11
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Westwood	PROPOSED UNDERGROUND COLLECTION LINE CROSSING EXISTING GAS PIPELINE	UT12
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Westwood	TYPICAL PERMANENT ACCESS ROAD DRAINAGE CROSSING	RD10
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Westwood	TEMPORARY EROSION BLANKETS TURF REINFORCEMENT MATS FOR CHANNELS	GD22
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Construction Details

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SHEET: C.601

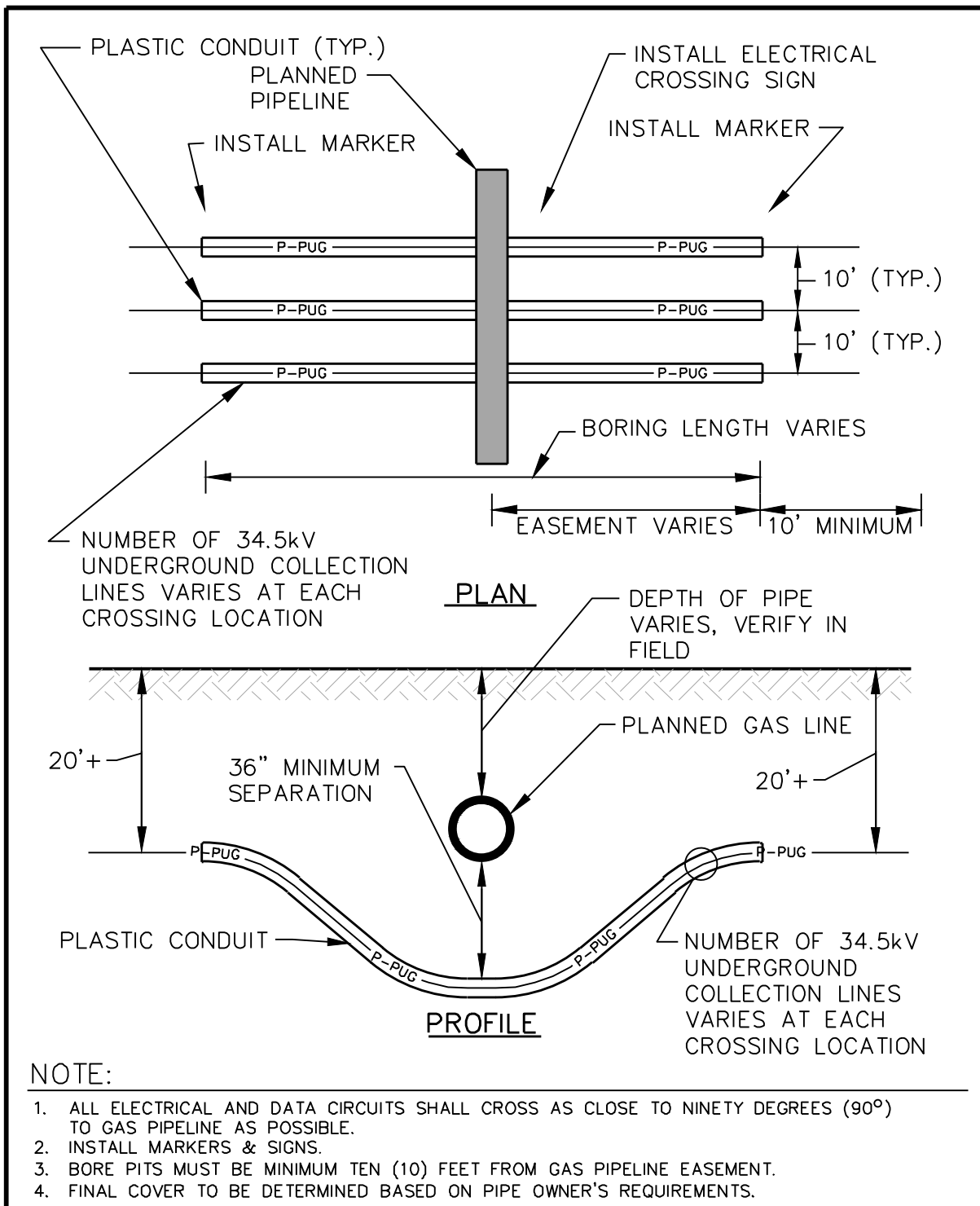
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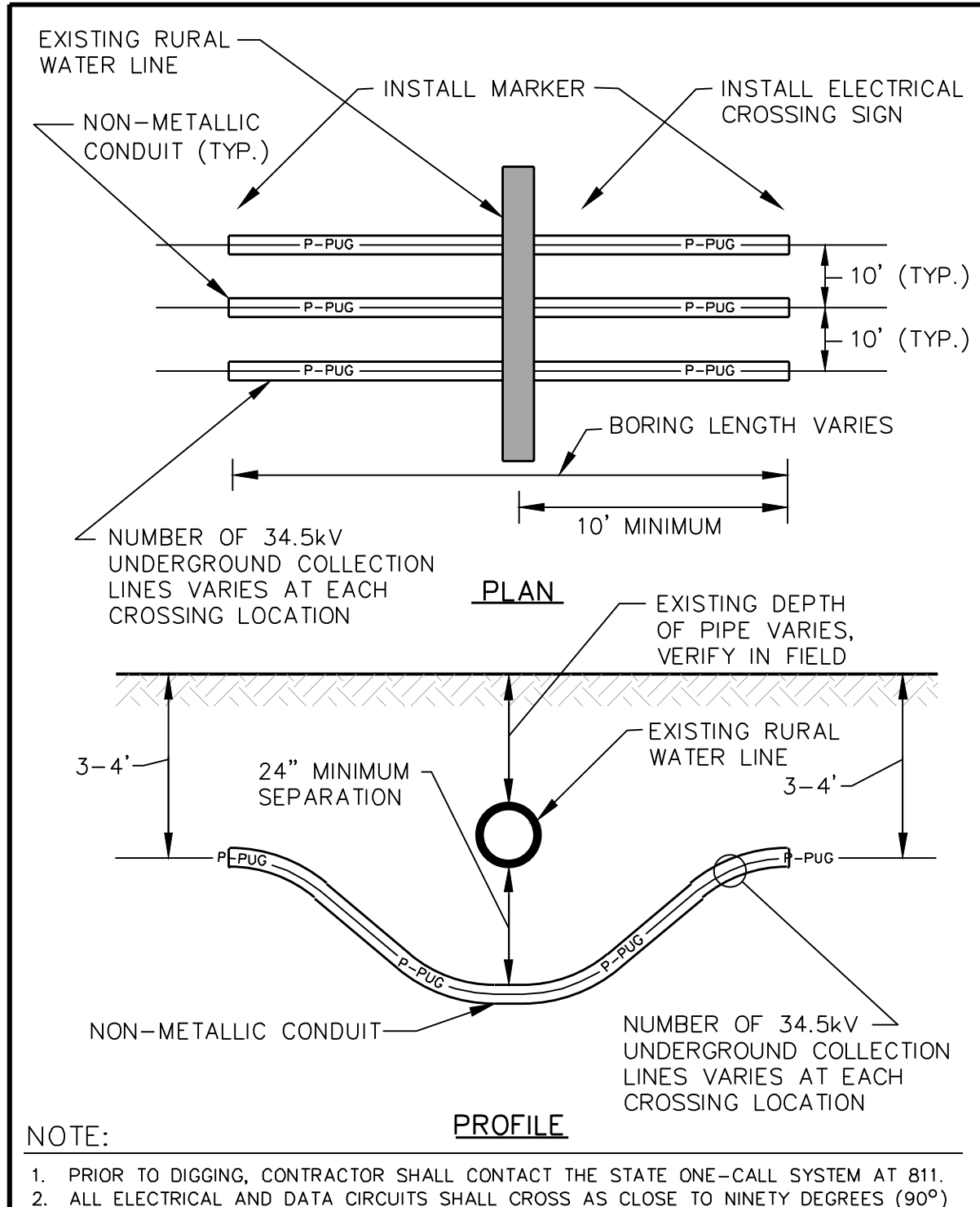
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Juno Beach, FL 33408

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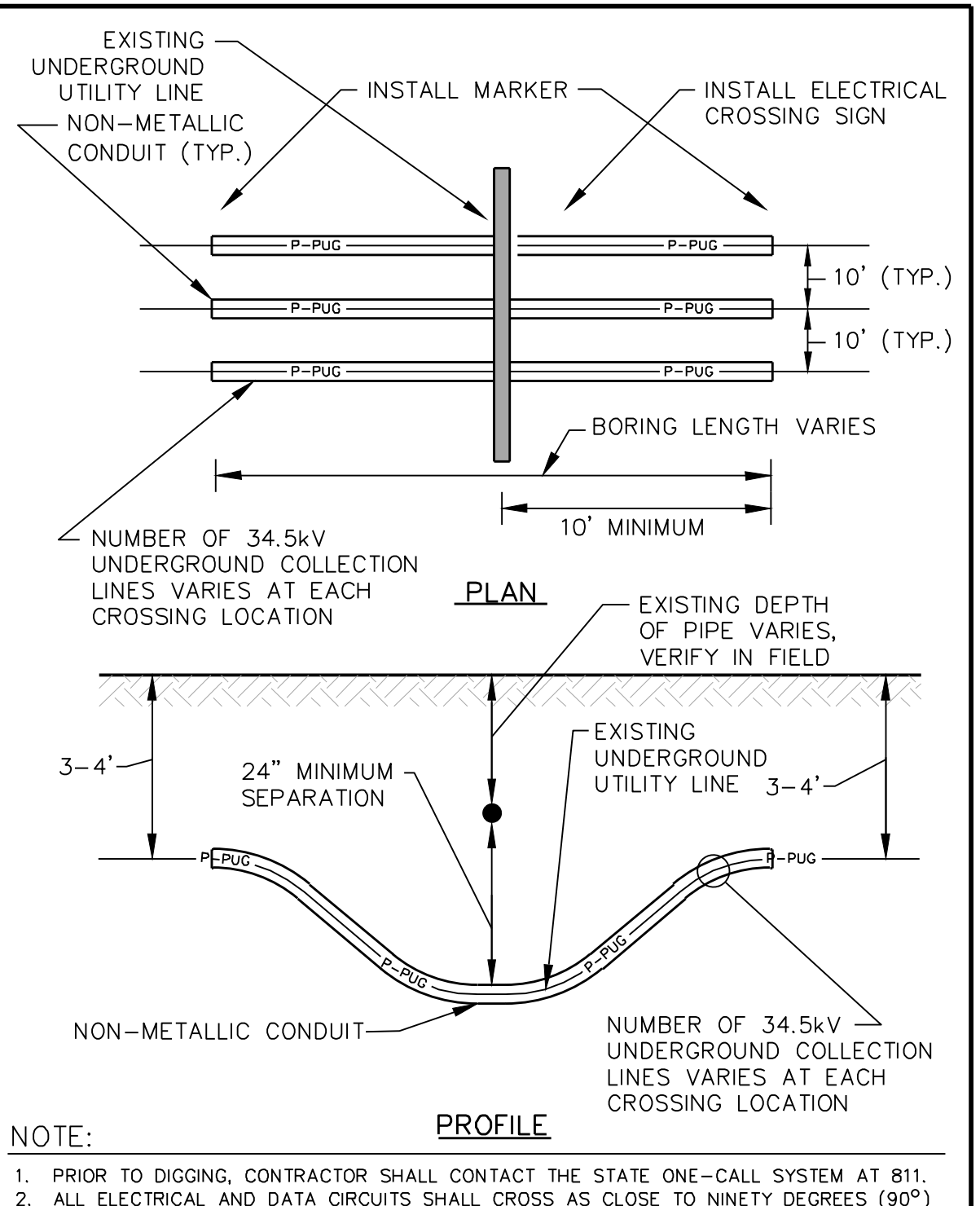
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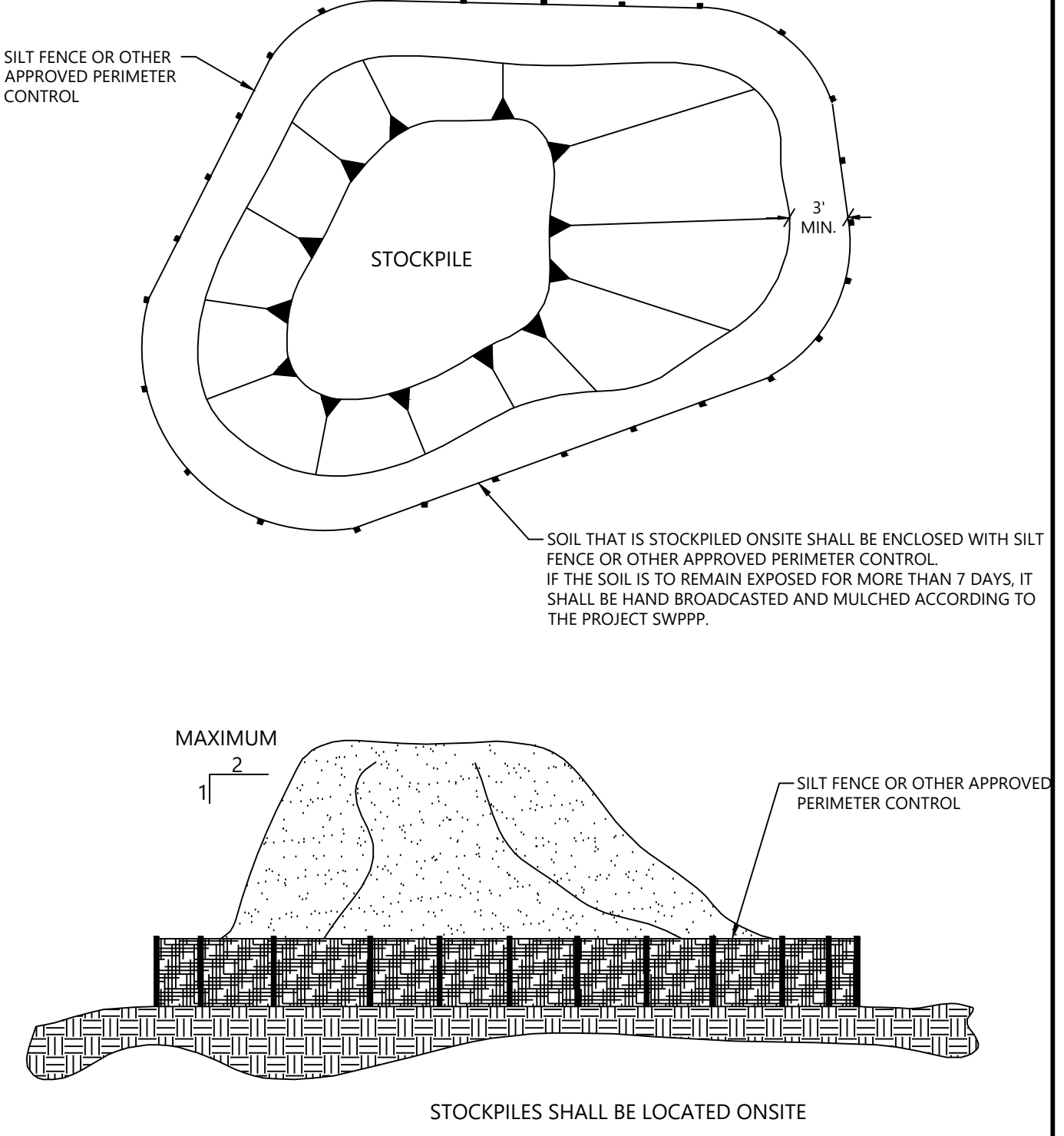
Westwood GAS PIPELINE-ELECTRICAL CROSSING UT02



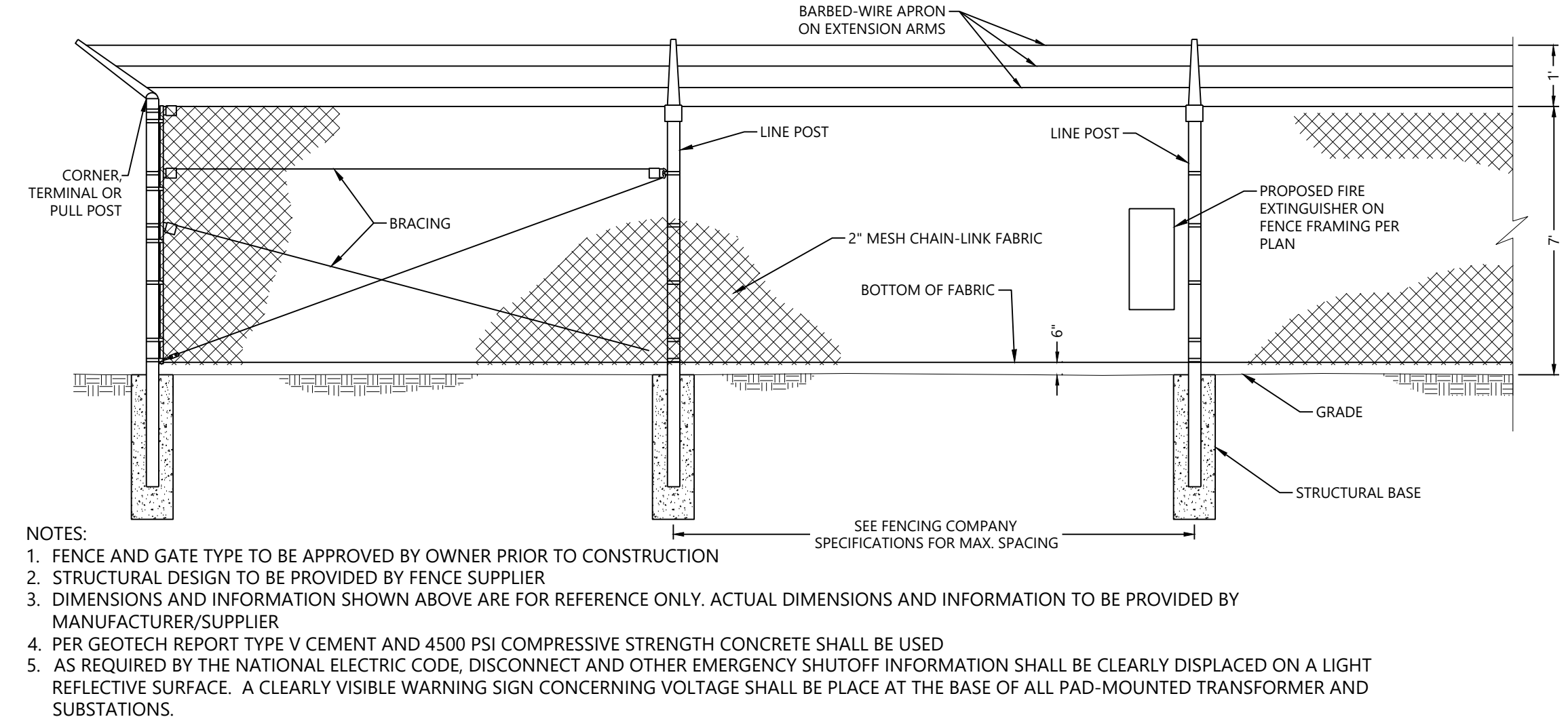
Westwood WATER LINE-ELECTRICAL CROSSING UT04



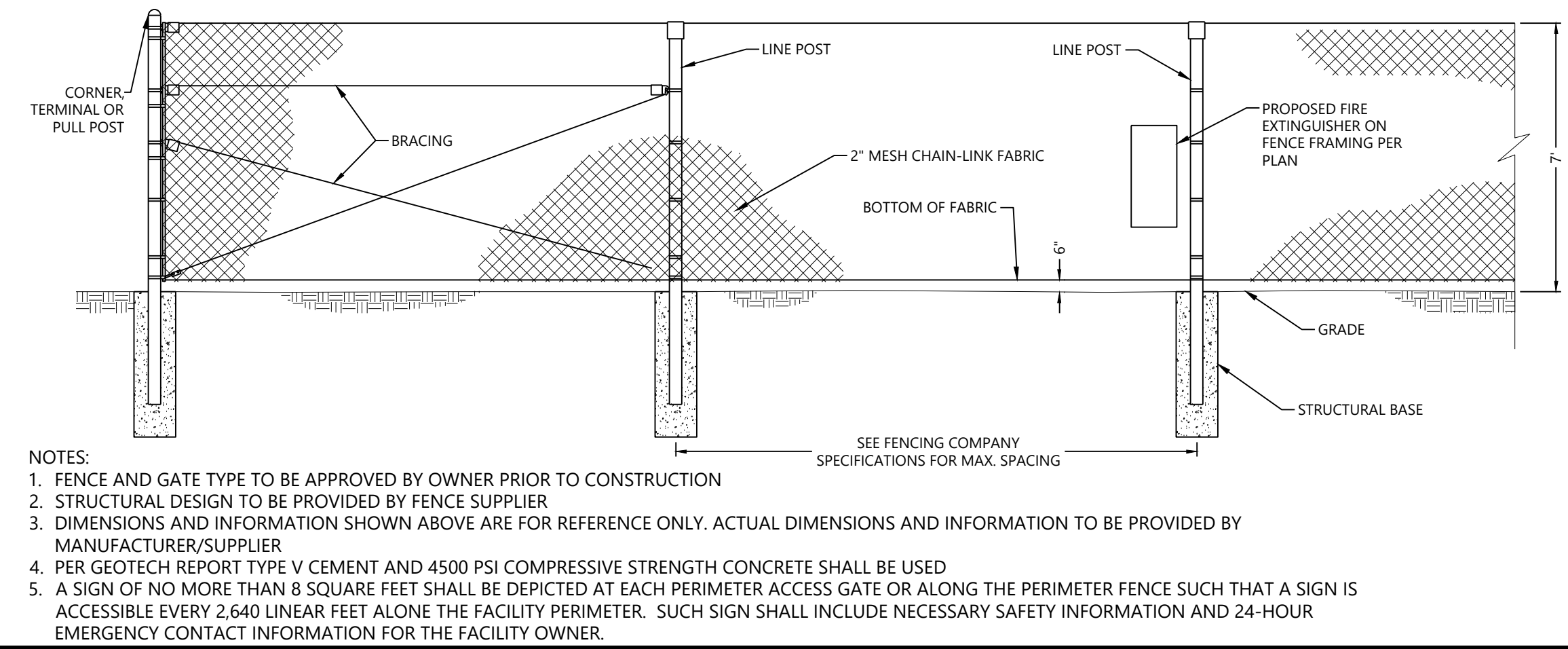
Westwood UNDERGROUND UTILITY-ELECTRICAL CROSSING UT06



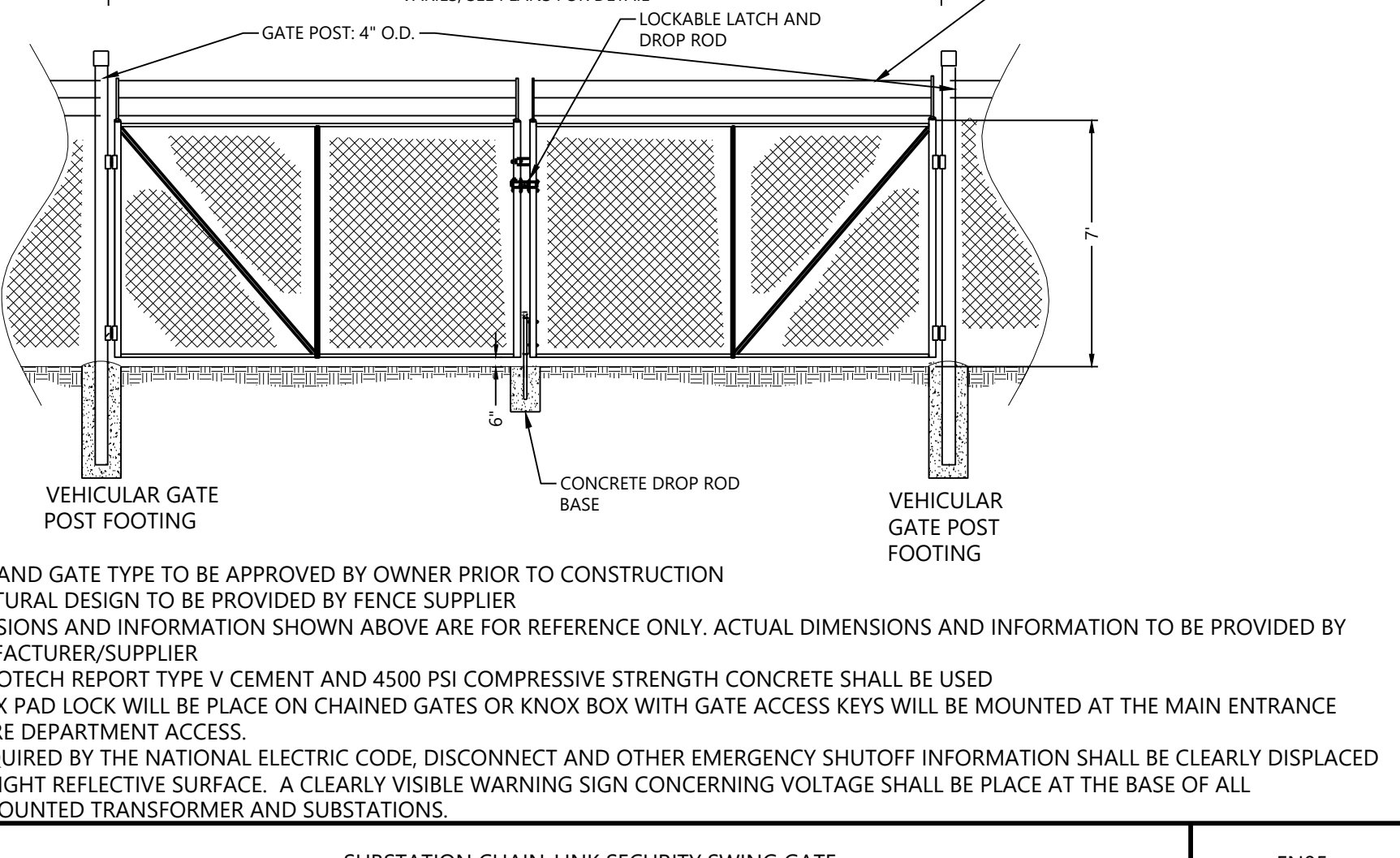
Westwood TYPICAL SOIL STOCKPILE PROTECTION (NOT TO SCALE) SS01



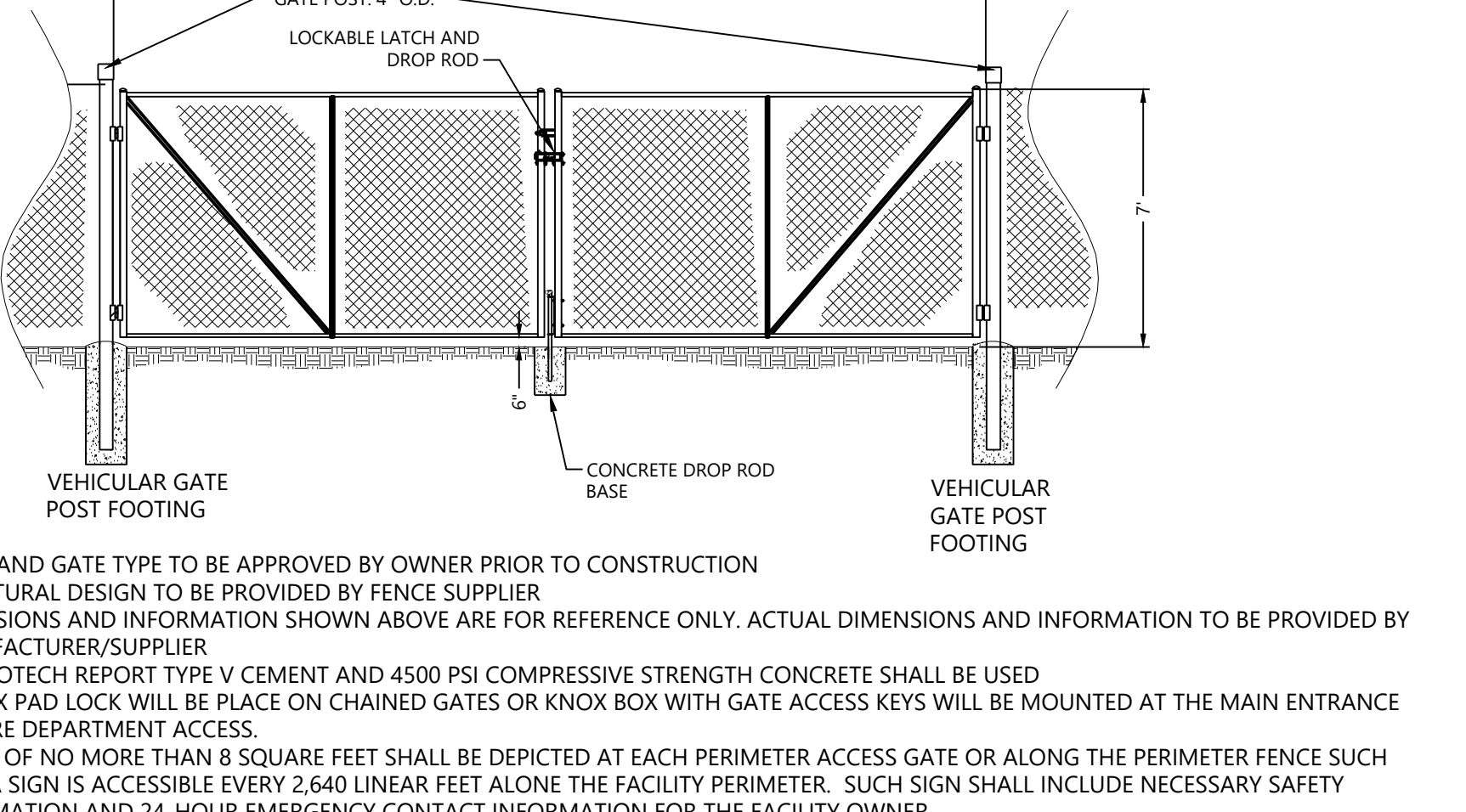
Westwood SUBSTATION CHAIN-LINK SECURITY FENCE DETAIL (NOT TO SCALE) FN01-A



Westwood PERIMETER CHAIN-LINK SECURITY FENCE DETAIL (NOT TO SCALE) FN01-B



Westwood SUBSTATION CHAIN-LINK SECURITY SWING GATE FN05



Westwood PERIMETER SECURITY SWING GATE FN05

Garnet Energy Center

Cayuga County, New York

Construction Details

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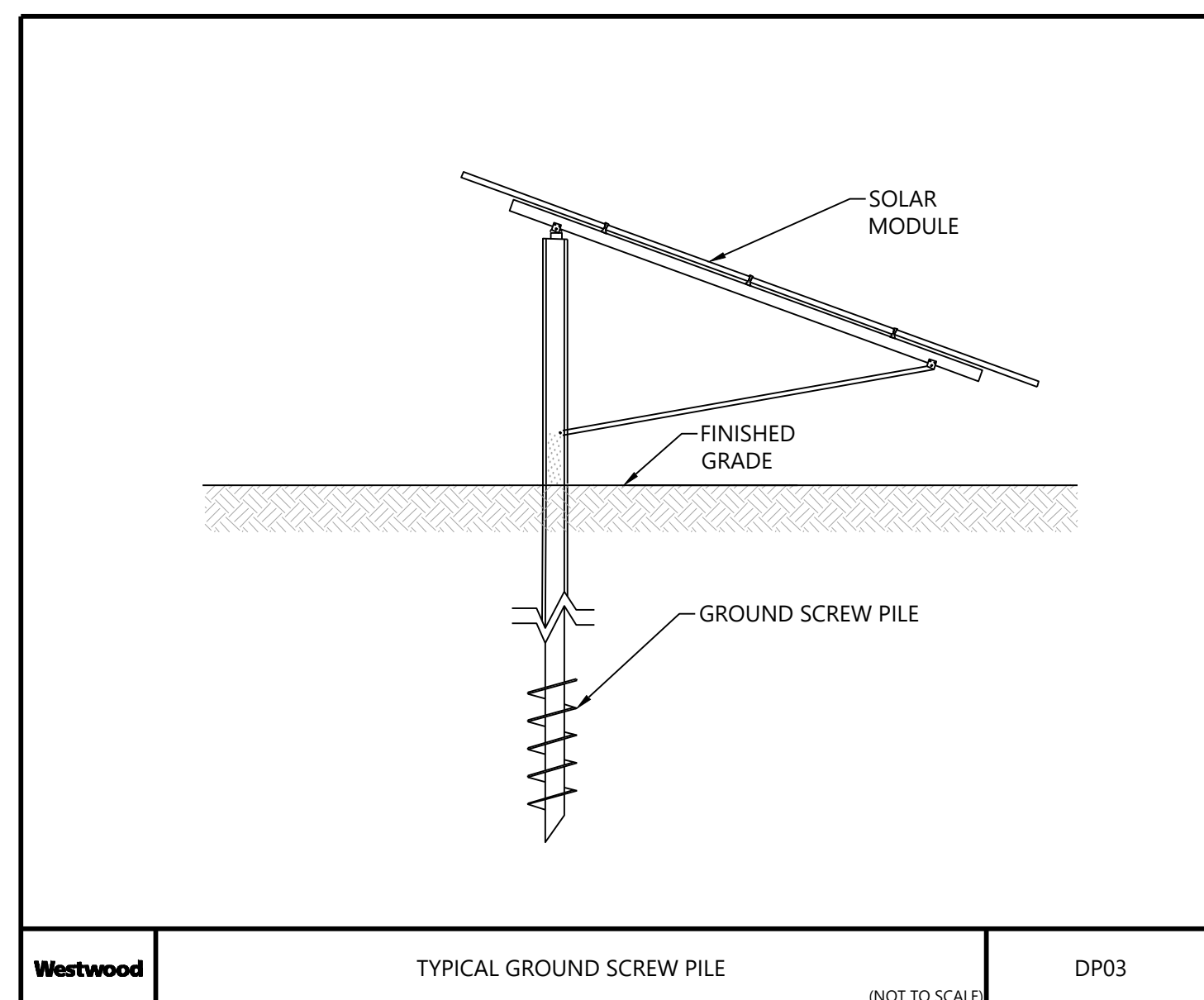
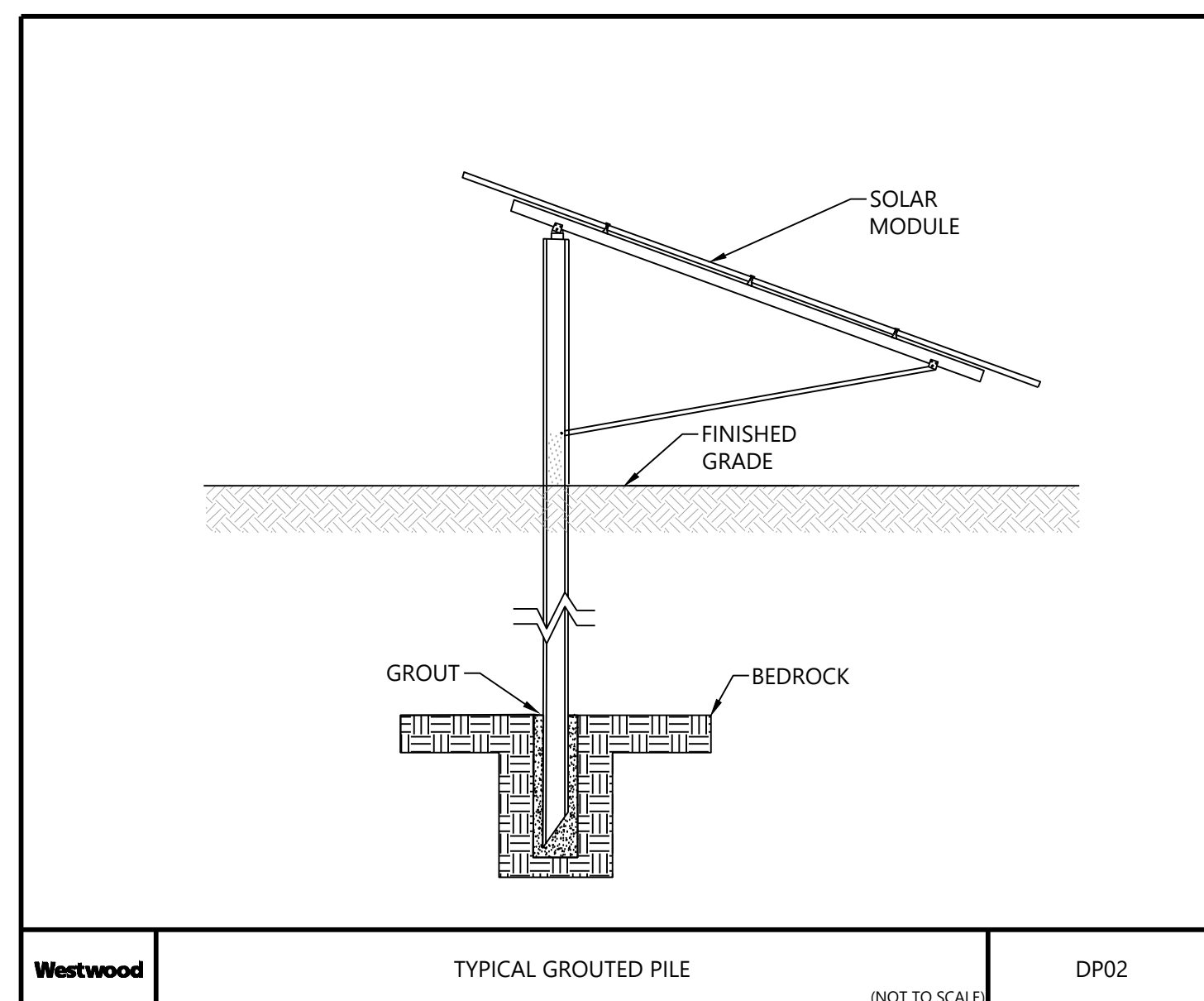
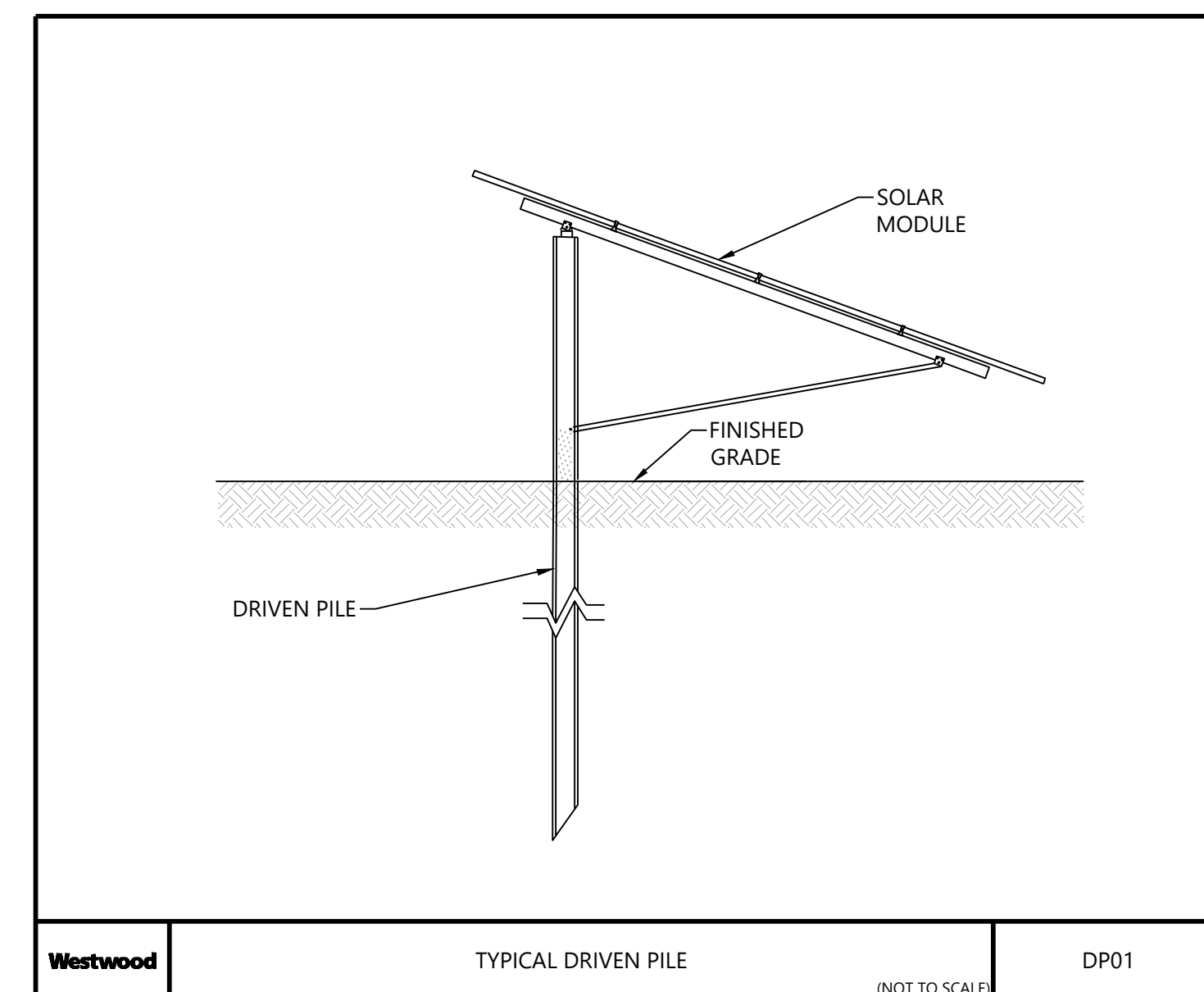
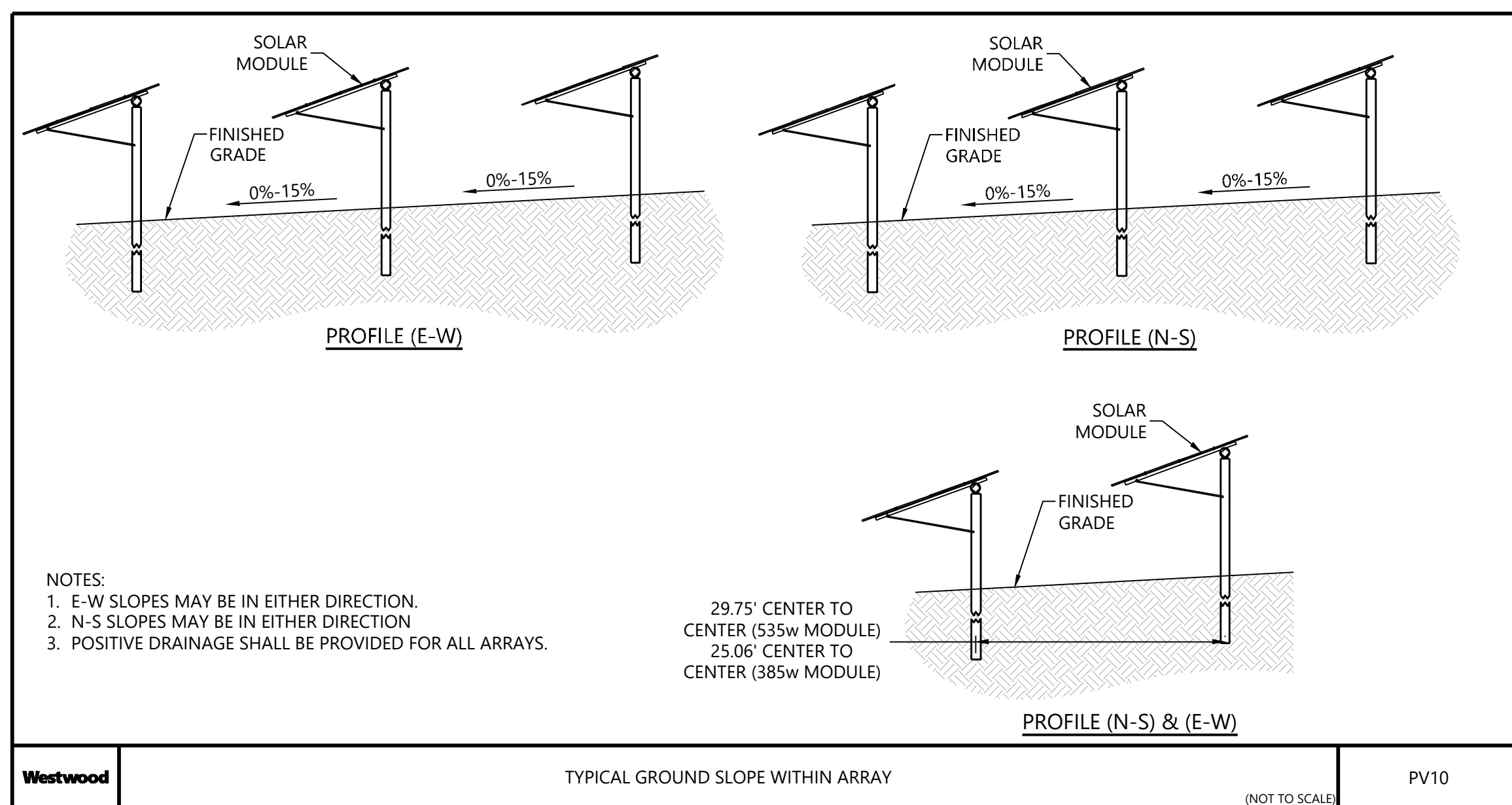
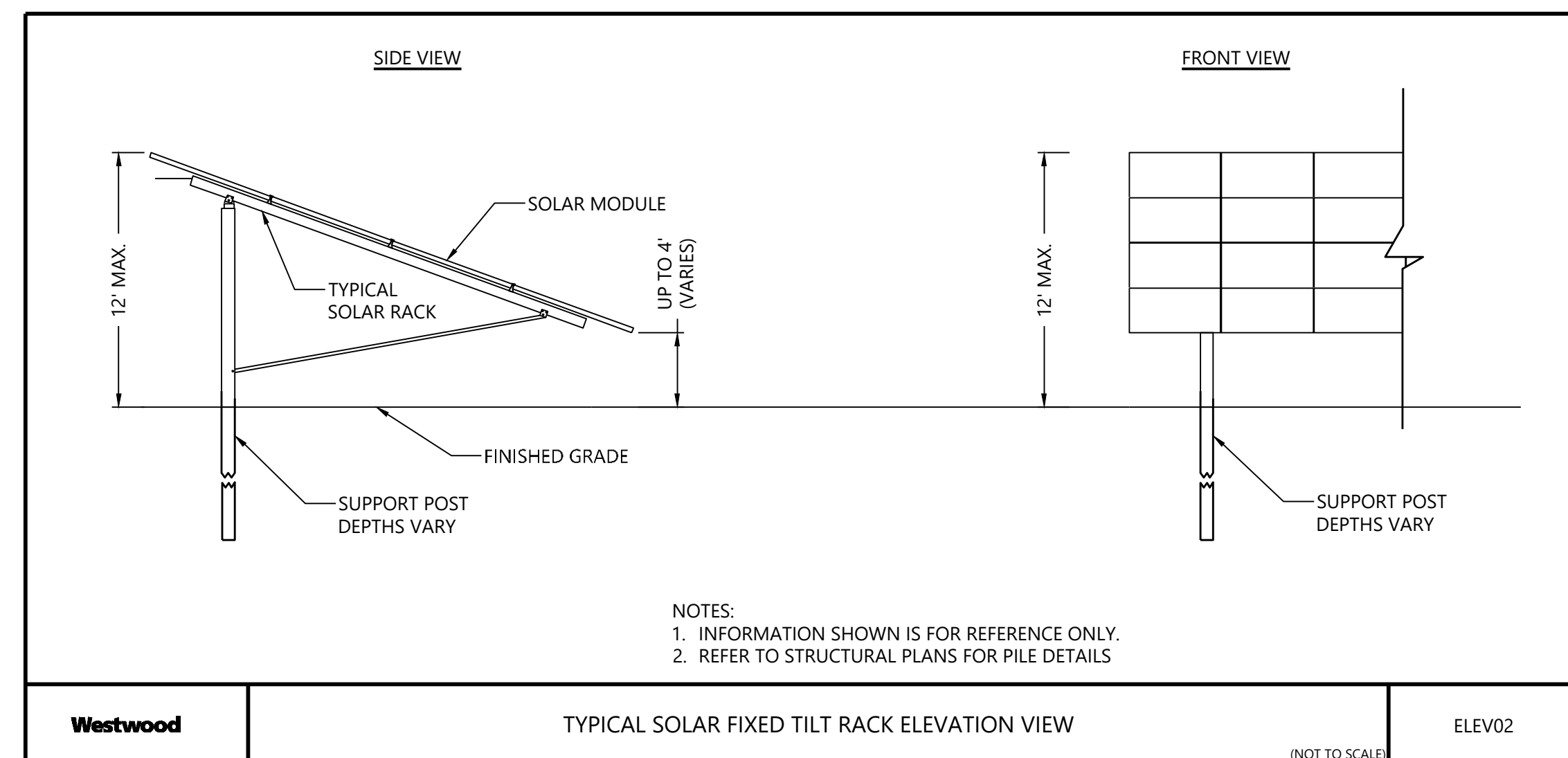
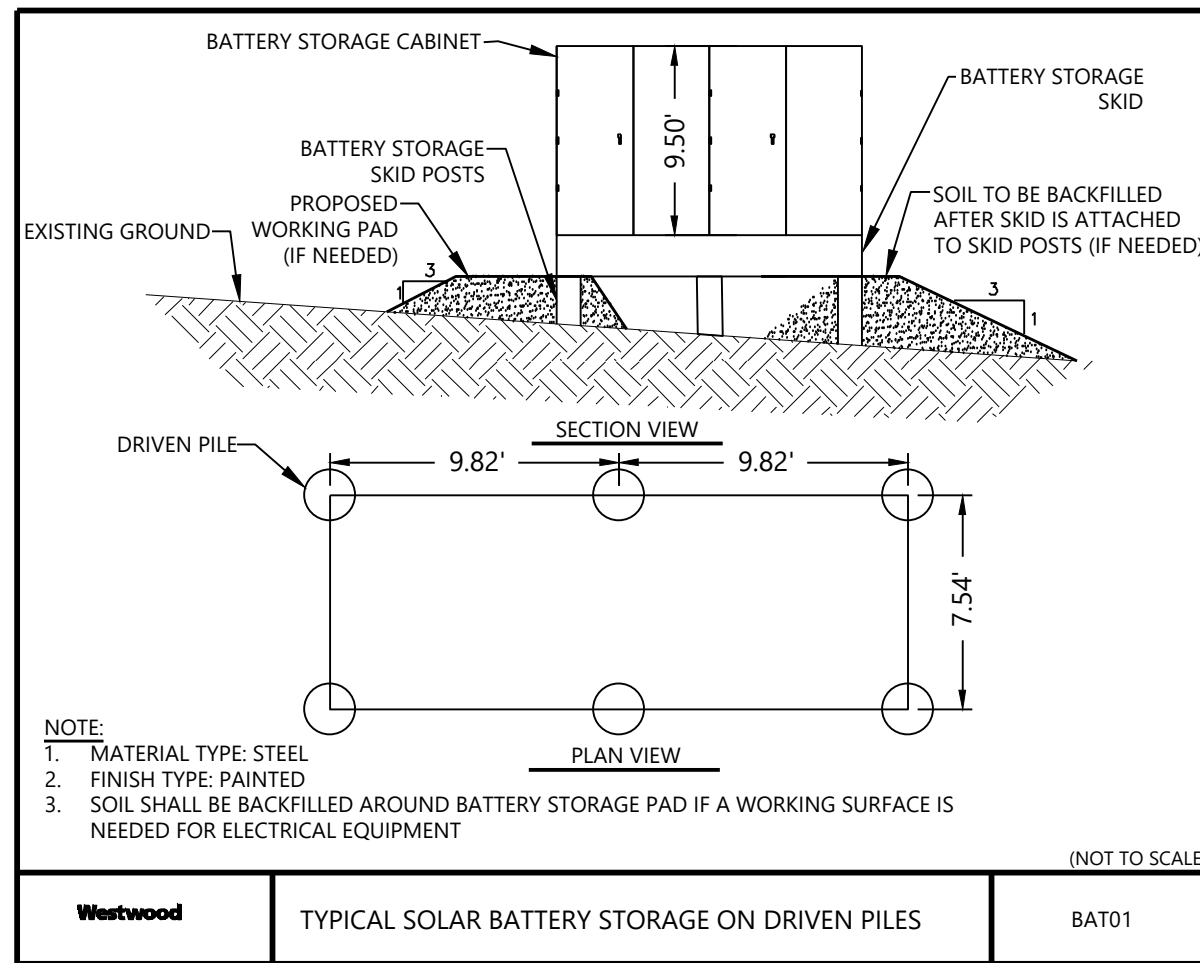
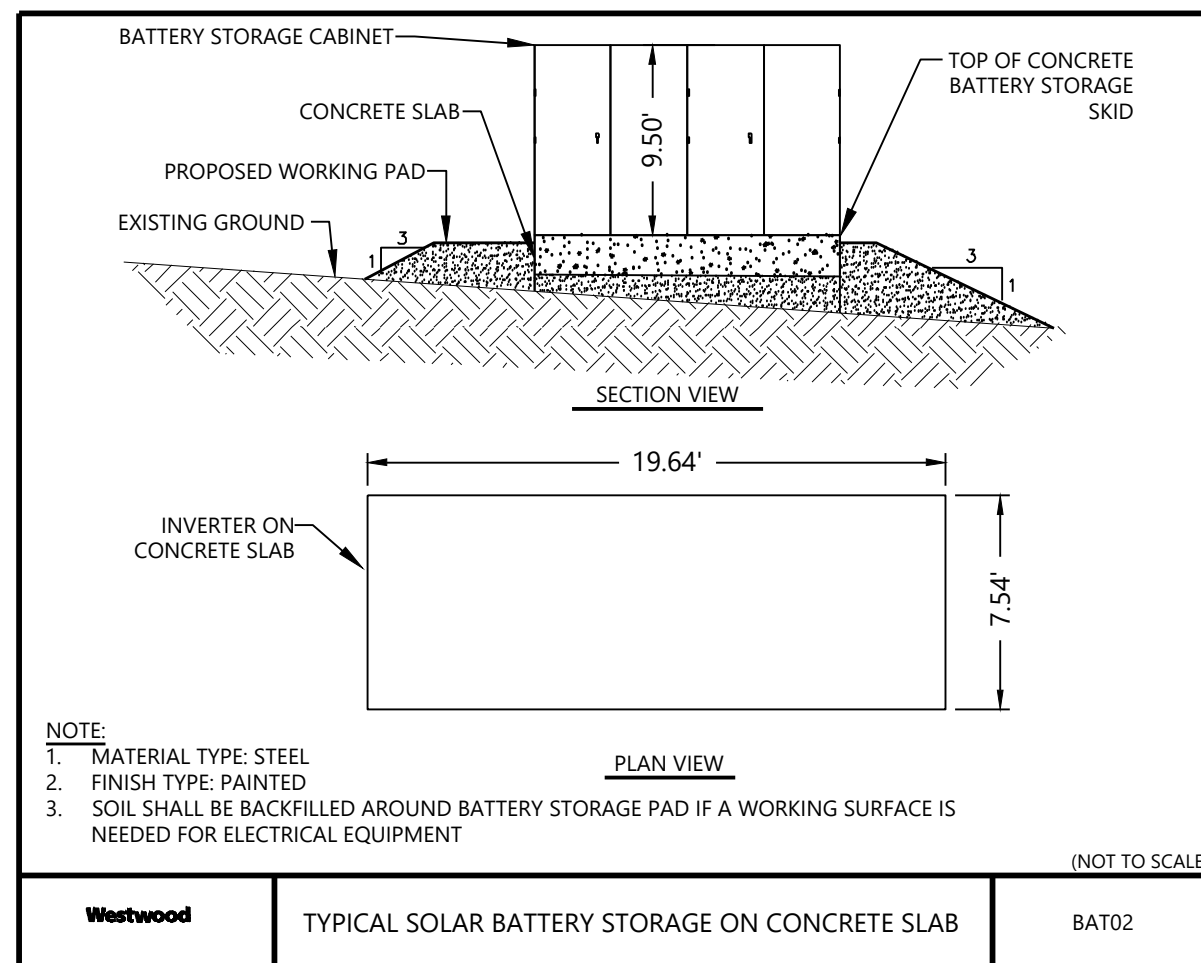
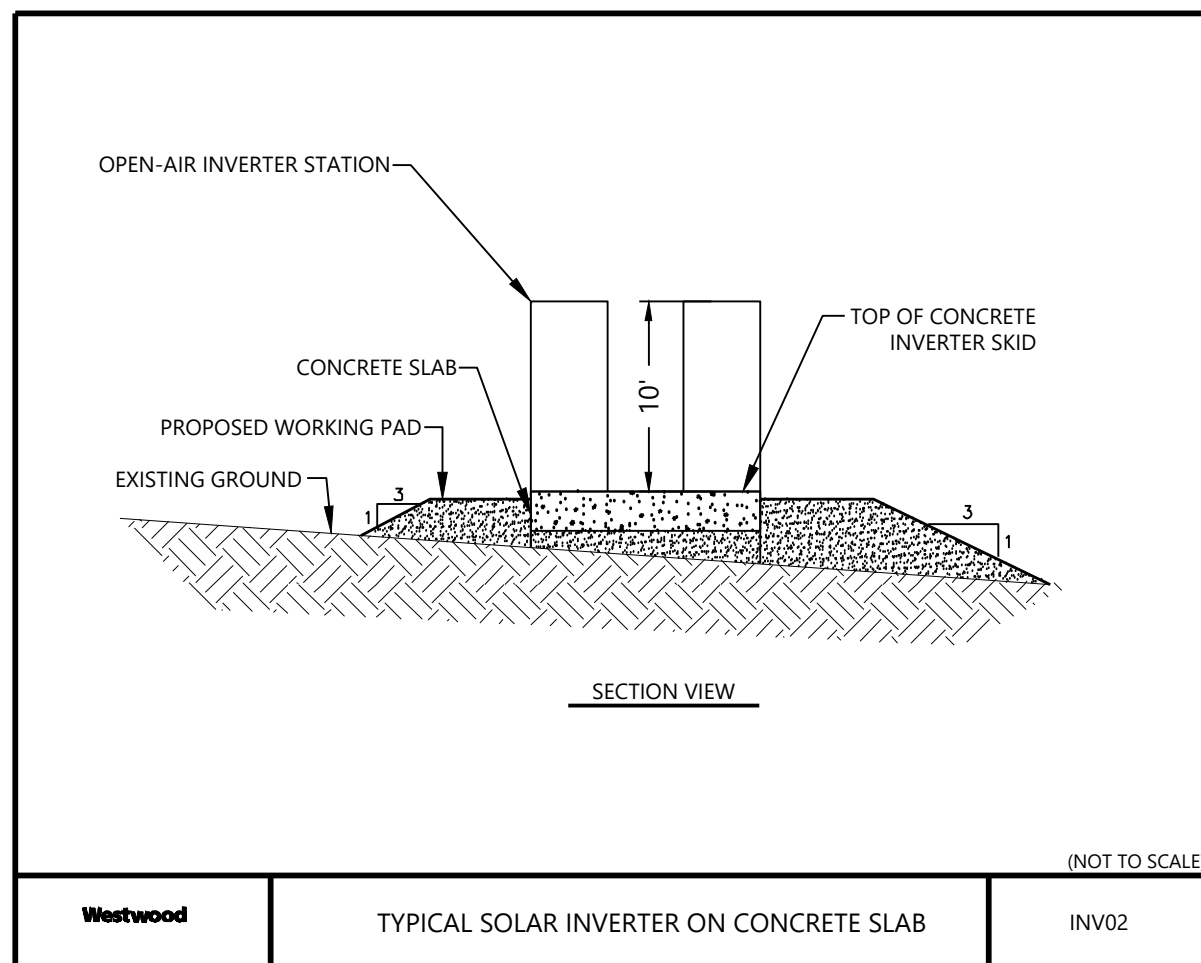
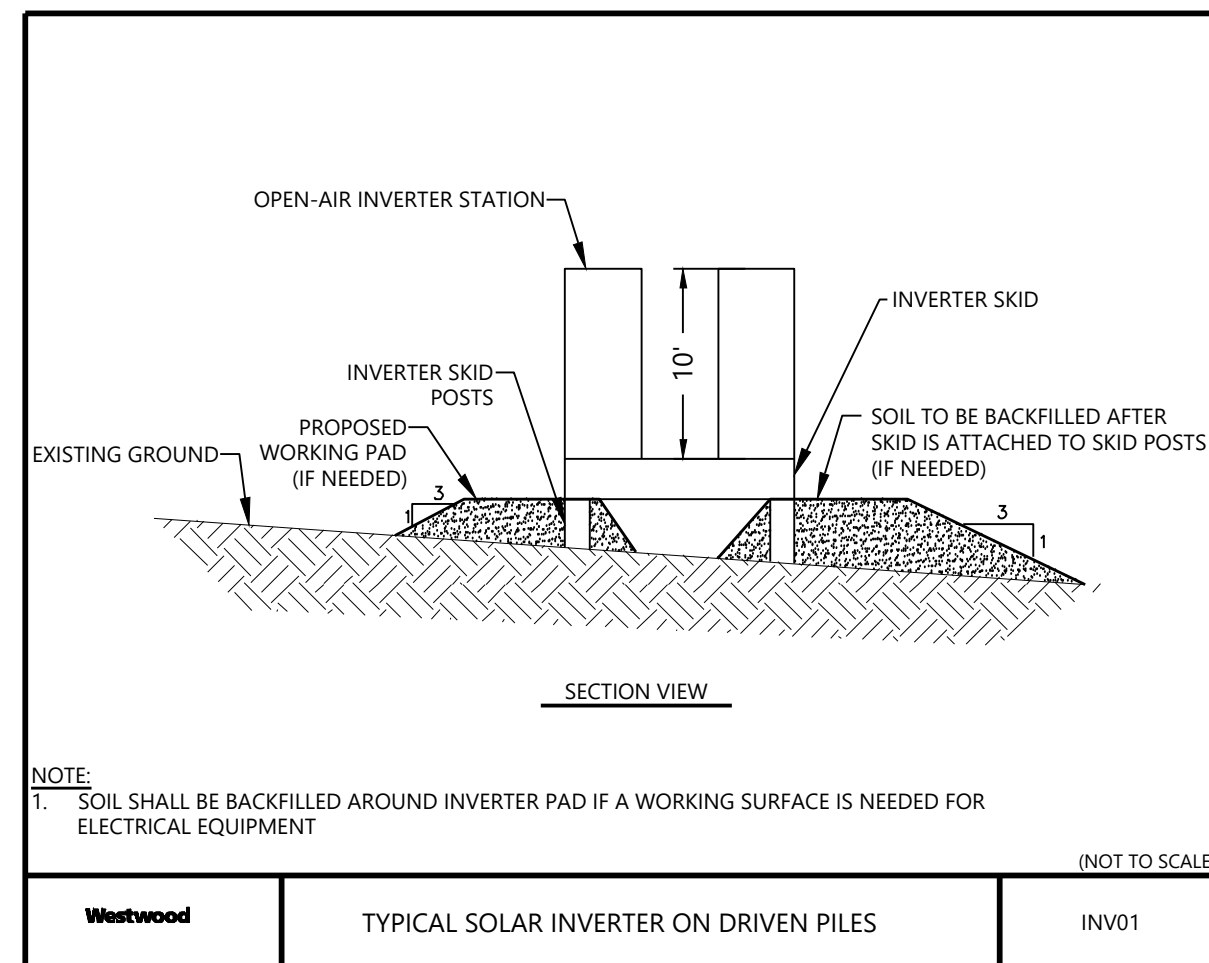
DATE: 01/06/2022

SHEET: C.603

PREPARED FOR



700 Universe Boulevard
Juno Beach, FL 33408

[illegible]

Garnet Energy Center

Cayuga County, New York

Construction Details

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 01/06/2022

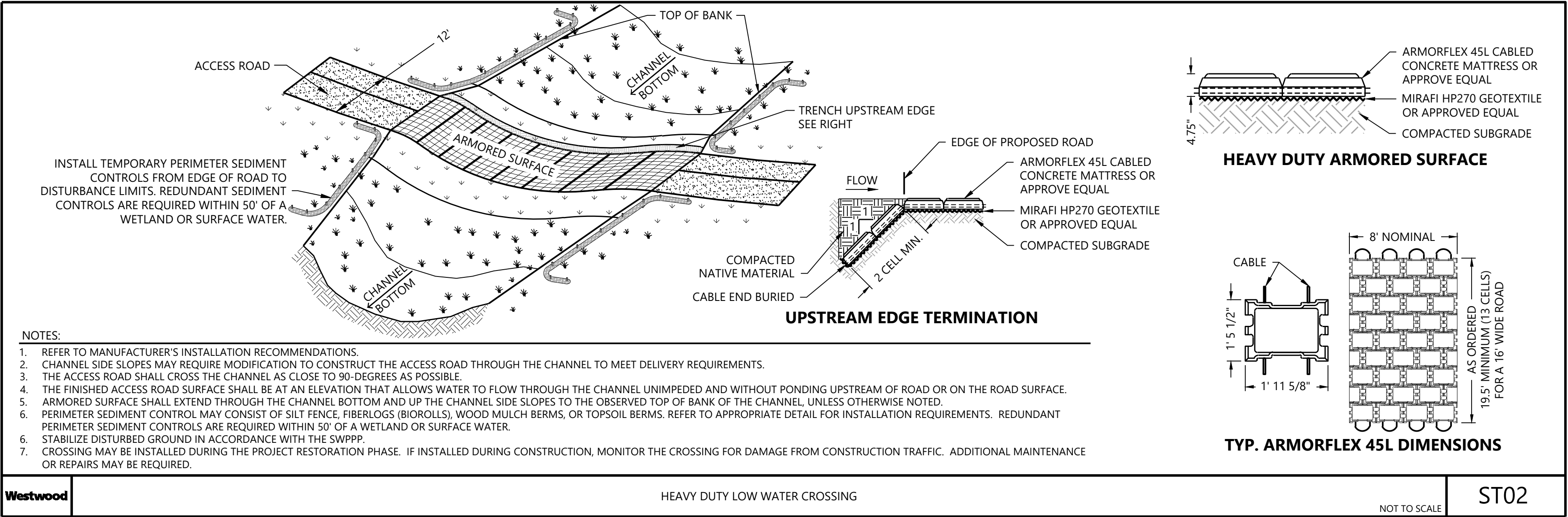
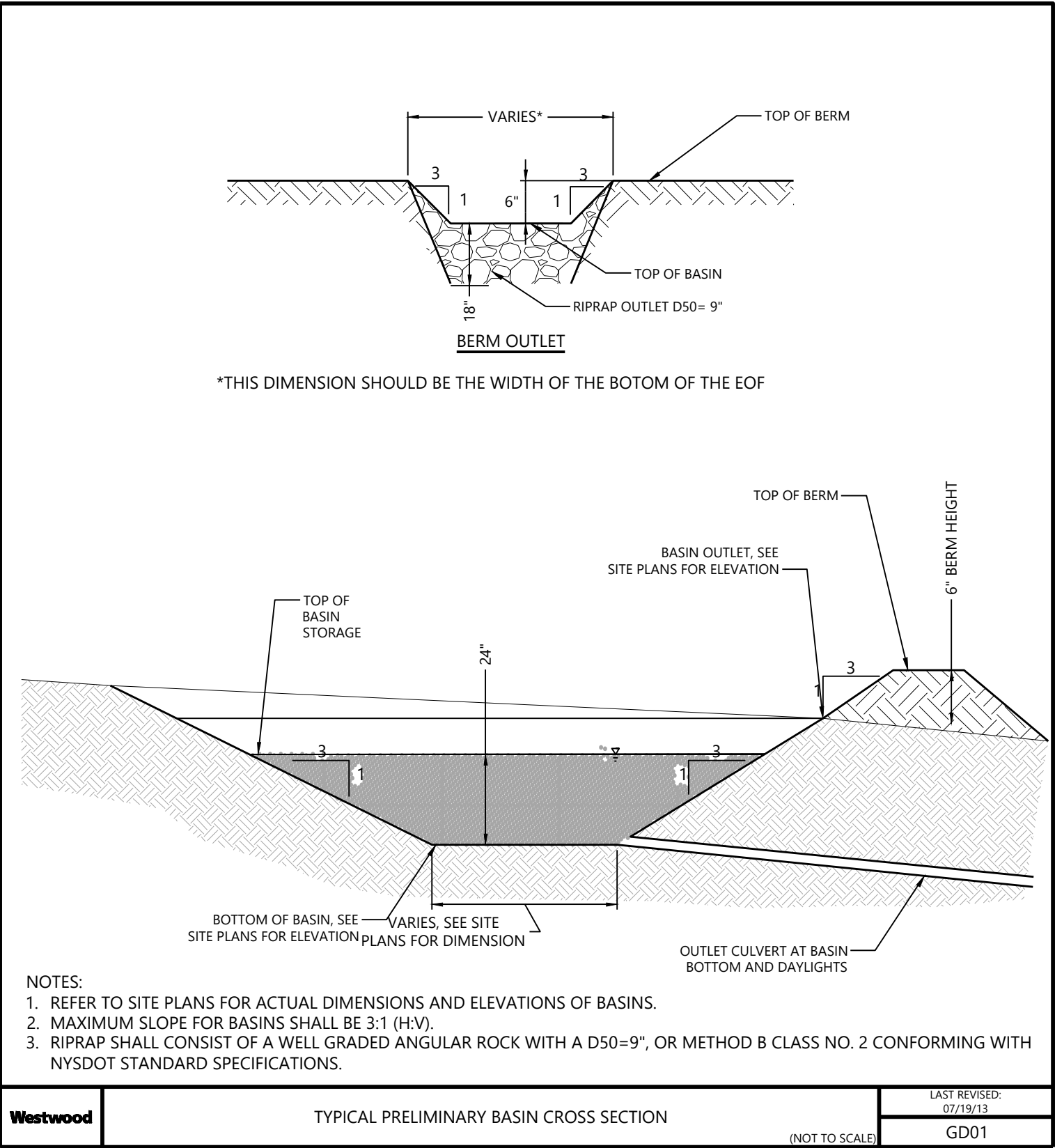
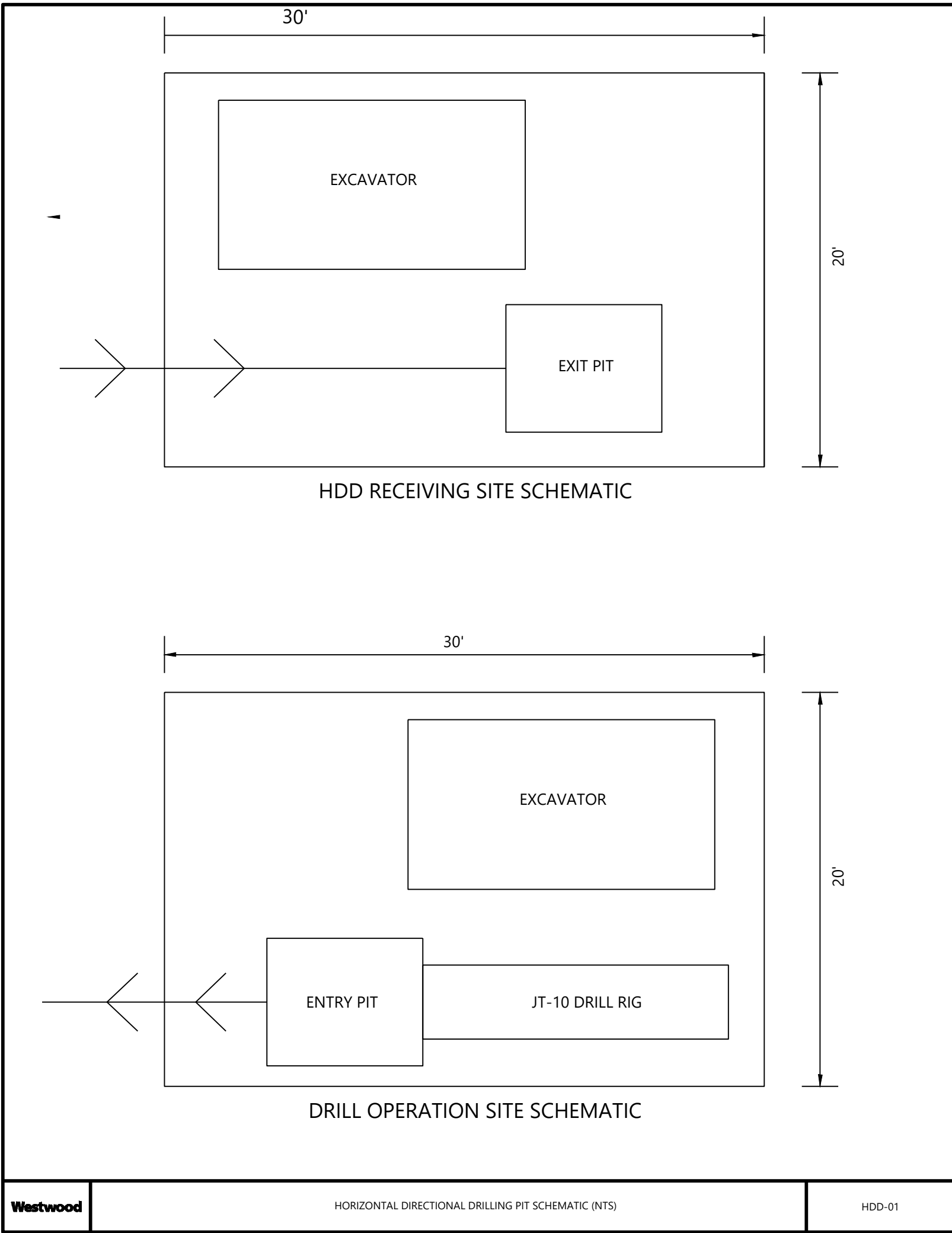
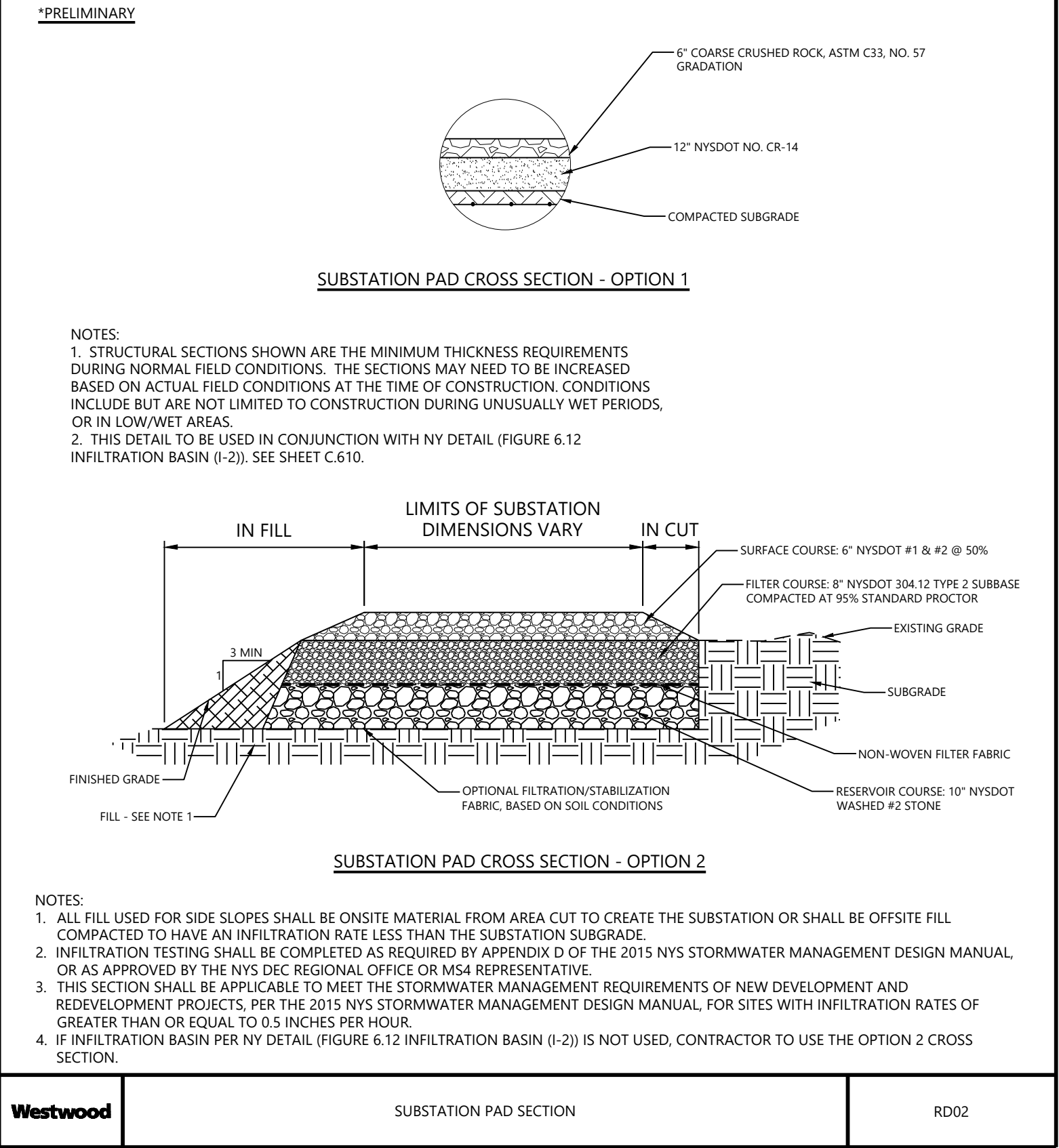
SHEET: C.604

PREPARED FOR:



700 Universe Boulevard
Juno Beach, FL 33408

REVISIONS:		
#	DATE	COMMENT
A	01/06/2022	ISSUED FOR PERMIT



Garnet Energy Center

Cayuga County, New York

Construction Details

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 01/06/2022

SHEET: C.605

5. USE OF THIS DETAIL/CRITERION IS LIMITED TO ACCESS ROADS USED ON AN OCCASIONAL BASIS ONLY (I.E. PROVIDE ACCESS FOR MOWING, EQUIPMENT REPAIR OR MAINTENANCE, ETC.).
6. LIMITED USE PERVIOUS ACCESS ROAD IS LIMITED TO LOW IMPACT IRREGULAR MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
7. REMOVE STUMPS, ROCKS AND DEBRIS AS NECESSARY. FILL VOIDS TO MATCH EXISTING NATIVE SOILS AND COMPACTION LEVEL.
8. REMOVED TOPSOIL MAY BE SPREAD IN ADJACENT AREAS AS DIRECTED BY THE PROJECT ENGINEER. COMPACT TO THE DEGREE OF THE NATIVE INSITU SOIL. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
9. GRADE ROADWAY, WHERE NECESSARY, TO NATIVE SOIL AND DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE CUT AND FILL MAY BE REQUIRED.
10. REMOVE REFUSE SOILS AS DIRECTED BY THE PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
11. ROADWAY WIDTH TO BE DETERMINED BY CLIENT.
12. THE LIMITED USE PERVIOUS ACCESS ROAD CROSS SLOPE SHALL BE 2% IN MOST CASES AND SHALL NOT EXCEED 6%. THE LONGITUDINAL SLOPE OF THE ACCESS DRIVE SHOULD NOT EXCEED 15%.
13. LIMITED USE PERVIOUS ACCESS ROAD IS NOT INTENDED TO BE UTILIZED FOR CONSTRUCTION WHICH MAY SUBJECT THE ACCESS TO SEDIMENT TRACKING. THIS SPECIFICATION IS TO BE DEVELOPED FOR POST-CONSTRUCTION USE. SOIL RESTORATION PRACTICES MAY BE APPLICABLE TO RESTORE CONSTRUCTION RELATED COMPACTION TO PRE-EXISTING CONDITIONS AND SHOULD BE VERIFIED BY SOIL PENETROMETER READINGS. THE PENETROMETER READINGS SHALL BE COMPARED TO THE RESPECTIVE RECORDER READINGS TAKEN PRIOR TO CONSTRUCTION, EVERY 100 LINEAR FEET ALONG THE PROPOSED ROADWAY.
14. TO ENSURE THAT SOIL IS NOT TRACKED ONTO THE LIMITED USE PERVIOUS ACCESS ROAD, IT SHALL NOT BE USED BY CONSTRUCTION VEHICLES TRANSPORTING SOIL, FILL MATERIAL, ETC. IF THE LIMITED USE PERVIOUS ACCESS IS COMPLETED DURING THE INITIAL PHASES OF CONSTRUCTION, THE CONSTRUCTION OF NEW OR STATE STABILIZED CONSTRUCTION ACCESS SHALL BE CONSTRUCTED AND UTILIZED TO REMOVE SEDIMENT FROM CONSTRUCTION VEHICLES AND EQUIPMENT PRIOR TO ENTERING THE LIMITED USE PERVIOUS ACCESS ROAD FROM ANY LOCATION ON, OR OFF SITE. MAINTENANCE OF THE PERVIOUS ACCESS ROAD WILL BE REQUIRED IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
15. THE LIMITED USE PERVIOUS ACCESS ROAD SHALL NOT BE CONSTRUCTED OR USED UNTIL ALL AREAS SUBJECT TO RUNOFF ONTO THE PERVIOUS ACCESS HAVE ACHIEVED FINAL STABILIZATION
16. PROJECTS SHOULD AVOID INSTALLATION OF THE LIMITED USE PERVIOUS ACCESS ROAD IN POORLY DRAINED AREAS, HOWEVER IF NO ALTERNATIVE LOCATION IS AVAILABLE, THE PROJECT SHALL UTILIZE WOVEN GEOTEXTILE MATERIAL AS DETAILED IN FOLLOWING NOTES.
17. THE DRAINAGE DITCH IS OFFERED IN THE DETAIL FOR CIRCUMSTANCES WHEN CONCENTRATED FLOW COULD NOT BE AVOIDED. THE INTENTION OF THIS DESIGN IS TO MINIMIZE ALTERATIONS TO HYDROLOGY, HOWEVER WHEN DEALING WITH 5%-15% GRADES NOT PARALLEL TO THE CONTOUR, A ROADSIDE DITCH MAY BE REQUIRED. THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION CONTROL, SEDIMENTATION AND WATERWAYS, AND THE OUTLET REQUIREMENTS ARE APPLICABLE FOR SIZING AND STABILIZATION. DIMENSIONS FOR THE GRASSED WATERWAY SPECIFICATION WOULD BE DESIGNED FOR PROJECT SPECIFIC HYDROLOGIC RUNOFF CALCULATIONS AND A SEPARATE DETAIL FOR THE SPECIFIC GRASSED WATERWAY WOULD BE INCLUDED IN THIS PROJECT. RUNOFF DETENTION PRACTICES WILL BE SUBJECT TO THE OUTLET REQUIREMENTS OF THE REFERENCED STANDARD. INCREASED POST-DEVELOPMENT RUNOFF FROM THE ASSOCIATED ROADSIDE DITCH MAY REQUIRE ADDITIONAL PRACTICES TO ATTENUATE RUNOFF TO PRE-DEVELOPMENT CONDITIONS.
18. IF A ROADSIDE DITCH IS NOT UTILIZED TO CAPTURE RUNOFF FROM THE ACCESS ROAD, THE PERVIOUS ACCESS ROAD WILL HAVE A WELL-ESTABLISHED PERENNIAL VEGETATIVE COVER, WHICH SHALL CONSIST OF UNIFORM VEGETATION (I.E. BUFFER), 20 FEET WIDE AND PARALLEL TO THE DOWN GRADIENT SIDE OF THE ACCESS ROAD. POST-CONSTRUCTION OPERATION AND MAINTENANCE PRACTICES WILL MAINTAIN THIS VEGETATIVE COVER TO ENSURE FINAL STABILIZATION FOR THE LIFE OF THE ACCESS ROAD.
19. THE DESIGN PROFESSIONAL/PROJECT ATTORNEY FOR THE LIMITED USE PERVIOUS ACCESS ROAD IN THE SITE SPECIFICATION/HYDROLOGIC ANALYSIS OF THE HYDROLOGY ANALYSIS SHOWS THAT THE HYDROLOGY HAS BEEN ALTERED FROM PRE- TO POST-DEVELOPMENT CONDITIONS (SEE APPENDIX A OF GP-0-15-002 FOR THE DEFINITION OF "ALTER THE HYDROLOGY..."). THE DESIGN MUST INCLUDE THE NECESSARY DETENTION/RETENTION PRACTICES TO ATTENUATE THE RATES (10 AND 100 YEAR EVENTS) TO PRE-DEVELOPMENT CONDITIONS.

1. THE GEGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE FOR ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.

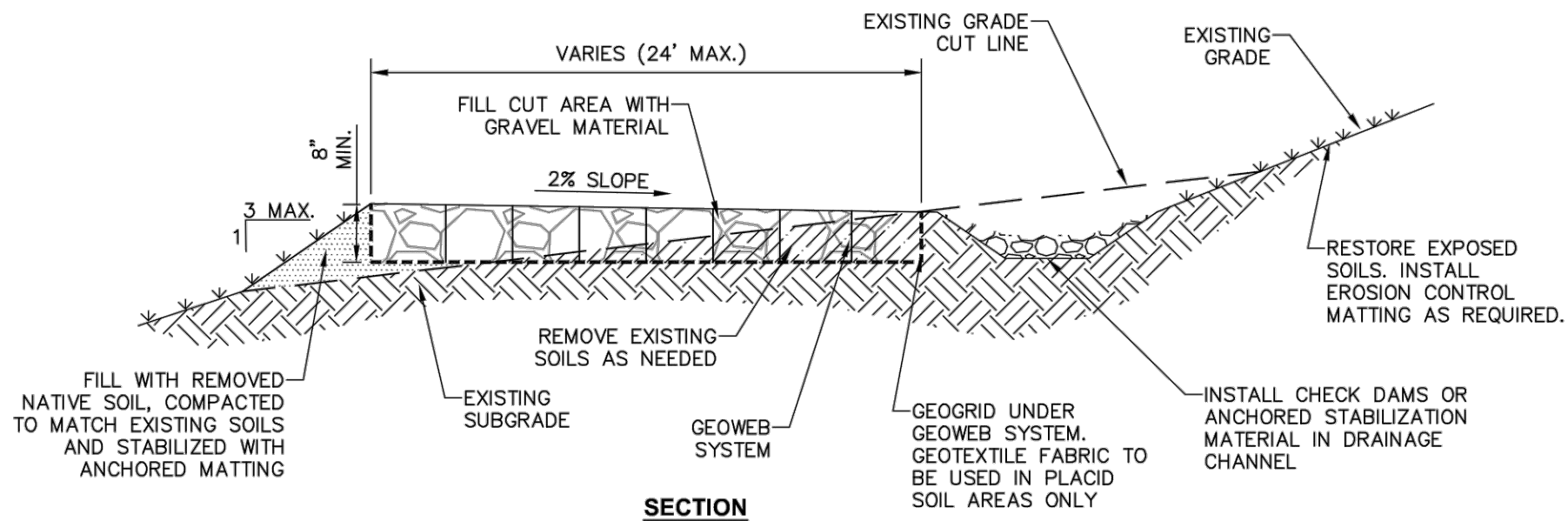
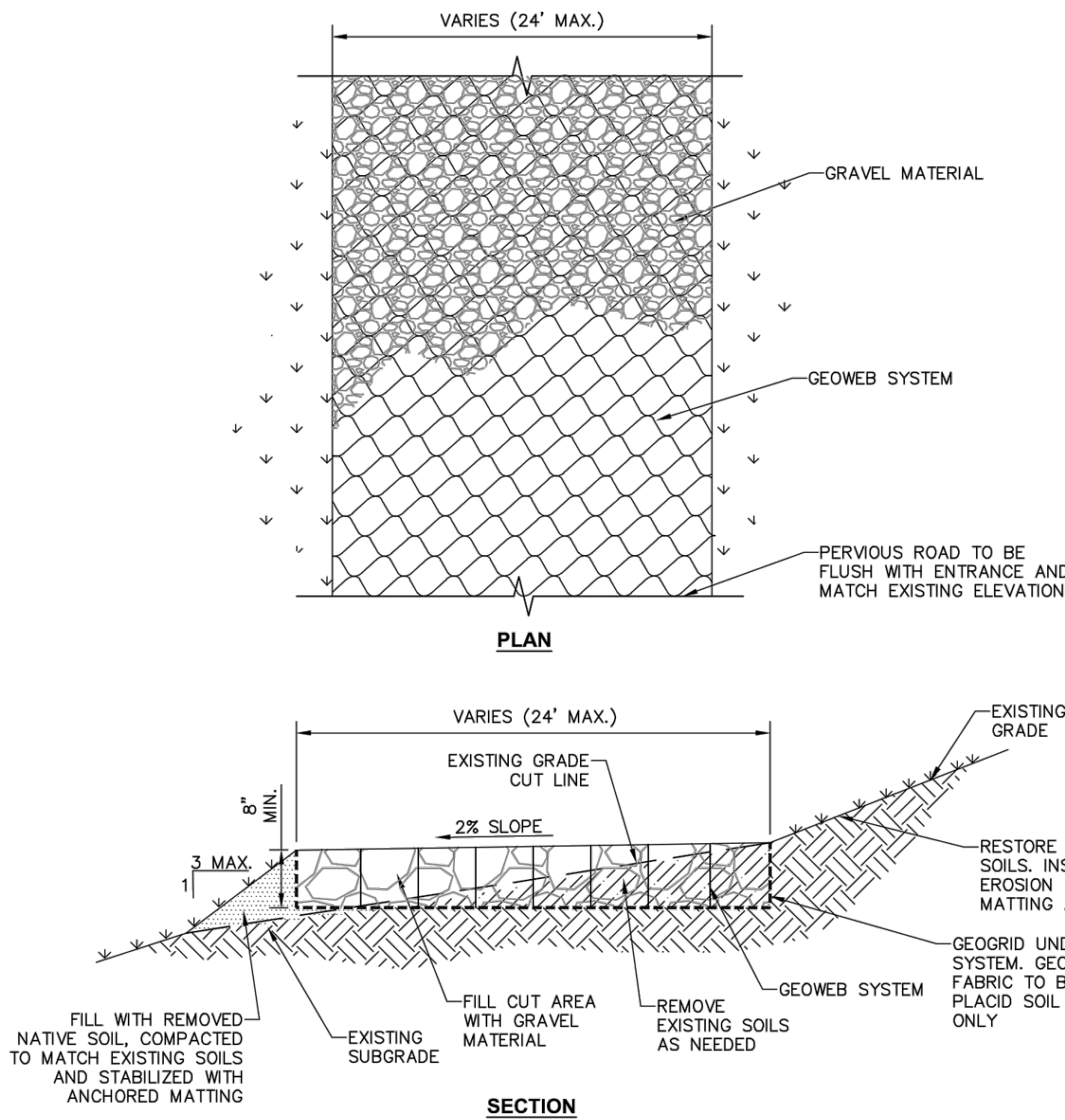
1. THE GEOWEB, OR COMPARABLE PRODUCT, IS SUGGESTED FOR USE ON ROAD PROFILES EXCEEDING 10%. THE GEOWEB PRODUCT IS INTENDED TO LIMIT SHIFTING STONE MATERIAL DURING USE.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. WHERE REQUIRED, A NATIVE SOIL WEDGE SHALL BE PLACED TO ACCOMMODATE ROAD CROSS SLOPE OF 2% NATIVE SOIL SHALL BE COMPACTED TO MATCH EXISTING SOIL CONDITIONS.
4. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
5. GEOWEB SYSTEM SHALL BE PRESTO GEOSYSTEM GEOWEB OR APPROVED EQUAL. GEOWEB SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
6. LIMITED USE PVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE, SIZE 3A, MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.

1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RETAINING PLACID SOILS. TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF 1 OR D, OR SPECIFIED FROM AN ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST, OR GEOTECHNICAL DATA.
2. THE CONCERN FOR POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DUE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PEROUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

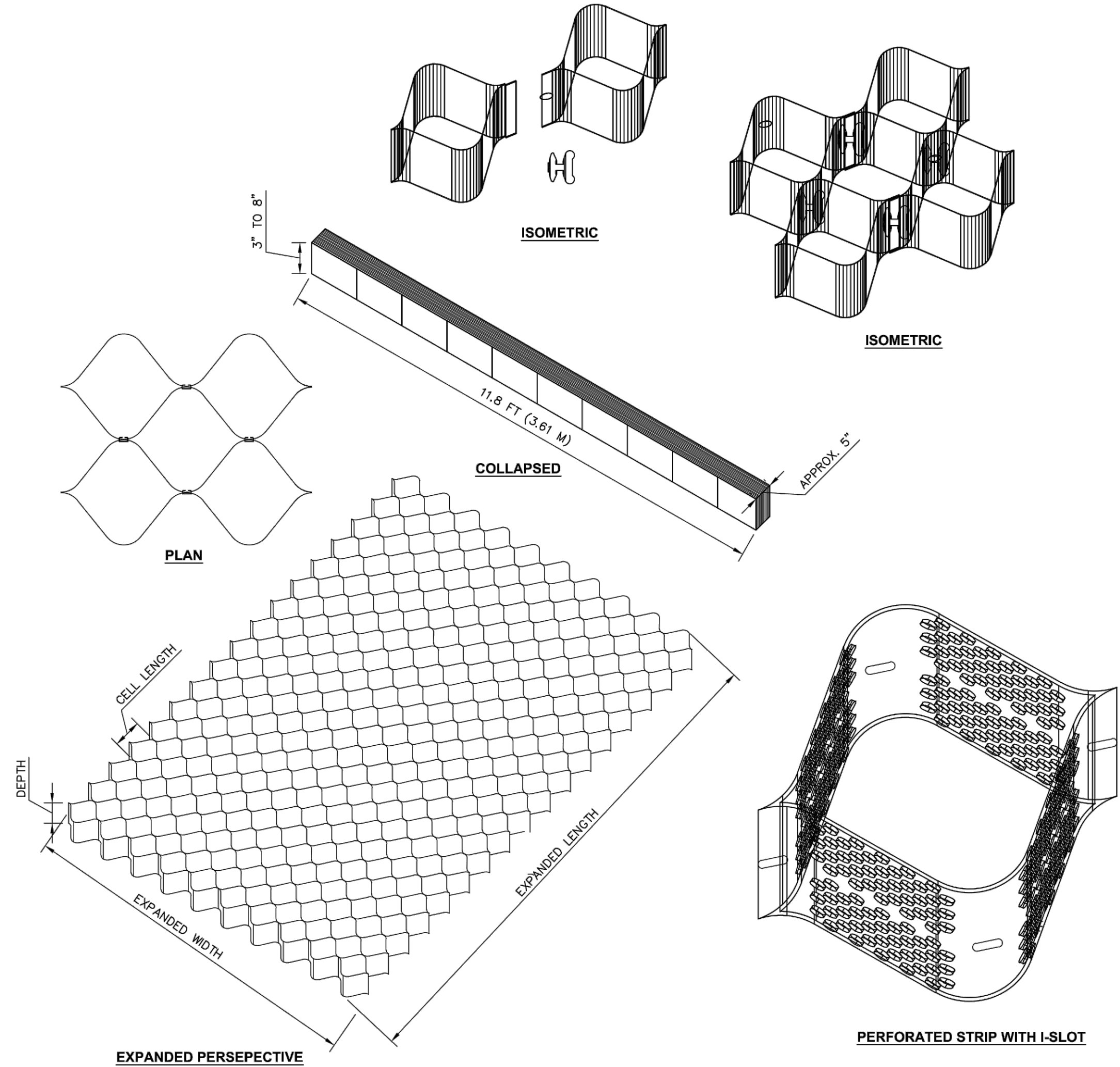
The drawing consists of two parts: a plan view (top) and a cross-section view (bottom).

Plan View: Shows a rectangular area with a width labeled "VARIES (24' MAX.)". The area is filled with a grid pattern representing geogrid material. Arrows point to the "GRAVEL MATERIAL" and "GEOGRID MATERIAL". A note indicates "LIMITED USE ACCESS ROAD TO BE FLUSH WITH ENTRANCE AND MATCH EXISTING ELEVATION".

Cross-Section View: Shows the vertical profile of the cut. The top surface is labeled "EXISTING GRADE". The bottom surface is labeled "EXISTING SUBGRADE". The cut area is filled with "GRAVEL MATERIAL" and stabilized with "GEOGRID MATERIAL". The depth of the cut is labeled "8\" MIN.". The width of the cut area is labeled "VARIES (24' MAX.)". A dashed line indicates the "EXISTING GRADE CUT LINE".



1. THE ROADSIDE DITCH SHALL BE DESIGNED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS FOR GRASSED AND VEGETATED WATERWAYS. ADDITIONAL DETAILS WILL BE PROVIDED SPECIFIC TO THE SITE DESIGN.



SHEET: C.606

SYMBOL

PROFILE

EXISTING GROUND

50' MIN

6' MIN

3' S1

EXISTING PAVEMENT

MOUNTABLE BERM (OPTIONAL)

PLAN VIEW

EXISTING GROUND

50' MIN

12' MIN

12' MIN

EXISTING PAVEMENT

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BEHIND THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH S1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ACCESS

[illegible]

SYMBOL




Diagram illustrating the components of a temporary access culvert structure:

- Aggregate Fill:** The material filling the culvert structure.
- Filter Cloth:** The material separating the aggregate fill from the surrounding soil.

Diagram illustrating the structure of a temporary access culvert under different flow conditions:

- High Flow Area:** The culvert structure is shown with aggregate fill and filter cloth, designed to handle high flow.
- Steep Banks:** The culvert structure is shown with aggregate fill and filter cloth, designed to handle steep banks.
- Flat Banks:** The culvert structure is shown with aggregate fill and filter cloth, designed to handle flat banks.

OR

Diagram illustrating the structure of a temporary access culvert under different flow conditions:

- High Flow Area:** The culvert structure is shown with aggregate fill and filter cloth, designed to handle high flow.
- Steep Banks:** The culvert structure is shown with aggregate fill and filter cloth, designed to handle steep banks.
- Flat Banks:** The culvert structure is shown with aggregate fill and filter cloth, designed to handle flat banks.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

TEMPORARY ACCESS
CULVERT

[illegible]

SYMBOL

EXISTING GROUND

PROFILE

70'

6' MIN

3' 8'

EXISTING PAVEMENT

EXISTING GROUND

PLAN VIEW

70' EX. CULVERT (SEE NOTE 10)

25'

24'

12' MIN

EXISTING PAVEMENT

25'

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - WILL BE PLACED OVER 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 70 FEET
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY FOUR (24) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTECHNICAL - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PLACED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 9:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED INTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
10. INSTALLATION OF CULVERT SHALL BE PROTECTED WITH STEEL PLATES PRIOR TO INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	TEMPORARY LAYDOWN STABILIZED CONSTRUCTION ACCESS
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Trench Breaker (also known as trench plugs) Spacing
(Adapted from the Pennsylvania State Standards)

Slope (%)	Spacing (feet)
0-5	Not Required except at stream or water body crossings
5 - 15	300
>15 - 30	200
>30	100

Notes:

1. Trench breakers are required upslope of all stream, river, or water-body crossings regardless of trench slope.
2. Depending on the specific conditions of slopes exceeding 40%, the spacing between trench breakers may continue diminishing as illustrated, or may cease once a spacing of 33 feet has been reached.
3. Trench breakers shall be sand bags or earth filled sacks (not topsoil), which are durable yet flexible and will conform to gradual shifting of pipeline and backfill, while serving their function, to impede the flow of subsurface water along the trench. Alternatively, cement filled bags or mortared stone may be used.
4. In agricultural lands, the top of trench breaker will not be closer than two feet from the restored surface.

Figure 12 Trench breakers (also known as trench plugs) should be placed in the trench before crossing water bodies and spaced in the trench based on the percent slope. These reduce trench erosion and trench water at the bottom of the slope. Illustration from New York Department of Agricultural Pipeline Standards.

Cayuga County, New York

PRELIMINARY
NOT FOR CONSTRUCTION

SHEET: C.607

[illegible]

The drawing illustrates a riprap outlet protection system with three main views:

- PLAN VIEW:** Shows a rectangular riprap area with a length L_a and width $W/2$ on both sides. It is adjacent to a "RIVER WALL" and a "RISER". A "DISCH. PIPE" with diameter $d/2$ is shown. A "SYMBOL" for riprap is provided in the top right.
- PROFILE VIEW:** Shows the side elevation of the riprap area. It indicates a "NO OVERFALL" condition, a "GRADED AGGREGATE FILTER OR FILTER CLOTH" at the base, and a "3' MIN." depth. The existing "STABILIZED CHANNEL" is shown to the right. Dimensions include a "6' MIN." height and a "1.0'" base width.
- CROSS SECTION A-A:** Shows a trapezoidal cross-section of the riprap area. It includes dimensions for the top width ($W/2$), bottom width ($1.0'$), and height ($6'$). It also shows the "GRADED AGGREGATE FILTER OR FILTER CLOTH" and the "VARIES" slope.

NOTE:
 SEE RIPRAP STANDARDS AND SPECIFICATIONS
 MINIMUM TAILWATER CONDITIONS

**ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
 NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
 NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE**

**RIPRAP OUTLET
 PROTECTION
 EXAMPLE**

SYMBOL

NO OVERFALL
TOE KEY SAME AS FLARED OUTLET

NOTE: DISCHARGE TO CONFINED CHANNEL SECTION

SLOPE = 0%

APRON LENGTH

PLAN VIEW

TOP OF RIPRAP

TOP OF CHANNEL

6" MIN.

DOWNSTREAM CHANNEL INVERT

3' MIN.

1' MIN.

GRADED AGGREGATE FILTER OR FILTER CLOTH

PROFILE VIEW

MINIMUM DEPTH OF RIPRAP = MAXIMUM DEPTH OF FLOW DOWNSTREAM NORMAL DEPTH OR DISCHARGE DEPTH, WHICHEVER IS GREATER).

4" MIN.

FILTER CLOTH OR GRADED AGGREGATE FILTER

WIDTH OF BOTTOM TO VARY FROM 1/2 PIPE DIAMETER AT PIPE OUTLET TO EXISTING CHANNEL BOTTOM AT END OF APRON.

CROSS SECTION A-A

SLOPE TO VARY FROM 2:1 AT PIPE OUTLET TO EXISTING CHANNEL SLOPE AT END OF APRON.

[VARIES]

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NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

RIPRAP OUTLET PROTECTION EXAMPLE

SYMBOL

DISCHARGE TO SEMI-CONFINED SECTION (MAXIMUM TAILWATER CONDITION)

PLAN VIEW

PROFILE VIEW

SECTION A-A (AT END OF CULVERT)

SECTION B-B (AT END OF APRON)

NOTE:
SEE RIPRAP STANDARDS AND SPECIFICATIONS
MAXIMUM TAILWATER CONDITIONS

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

RIPRAP OUTLET PROTECTION EXAMPLE

Slope (%)	Spacing (ft.)
<5	125
5 TO 10	100
10 TO 20	75
20 TO 35	50
>35	25

CONSTRUCTION SPECIFICATIONS

1. INSTALL THE WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRADED.
2. DISK OR STRIP THE SOD FROM THE BASE FOR THE CONSTRUCTED RIDGE BEFORE PLACING FILL.
3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
4. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL AREAS ARE NOT ADEQUATE.
5. VEHICLE CROSSING SHALL BE STABILIZED WITH GRAVEL. EXPOSED AREAS SHALL BE SEEDED AND MULCHED WITHIN 2 DAYS.
6. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

WATER BARS

VEGETATIVE PLANTINGS OR OTHER
EROSION CONTROL TECHNIQUES

WILLOW BRUSH LAYER
1/2" TO 2" IN DIAMETER

EROSION
CONTROL
PRODUCT, IF
SPECIFIED

EXCAVATE SHALLOW TRENCH
HERBACEOUS PLUGS AS SPECIFIED
9 GAUGE GALVANIZED WIRE
BASEFLOW

FIBER ROLL

HARDWOOD POSTS
2" X 2" X 3'

CROSS SECTION
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. EXCAVATE A SHALLOW TRENCH SLIGHTLY BELOW BASEFLOW OR A 4" TRENCH ON SLOPE CONTOURS.
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2" X 2" POSTS PLACED ON BOTH SIDES OF THE ROLL, AND SPACED Laterally ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IF NECESSARY.
3. NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH 9 GAUGE GALVANIZED WIRE OR 1/8" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP PLANT WITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT ADDENDUMS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
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NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE.

FIBER ROLL

Cayuga County, New York

PRELIMINARY
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SHEET: C.608

Figure 4.1
Angles of Repose of Riprap Stones (FHWA)

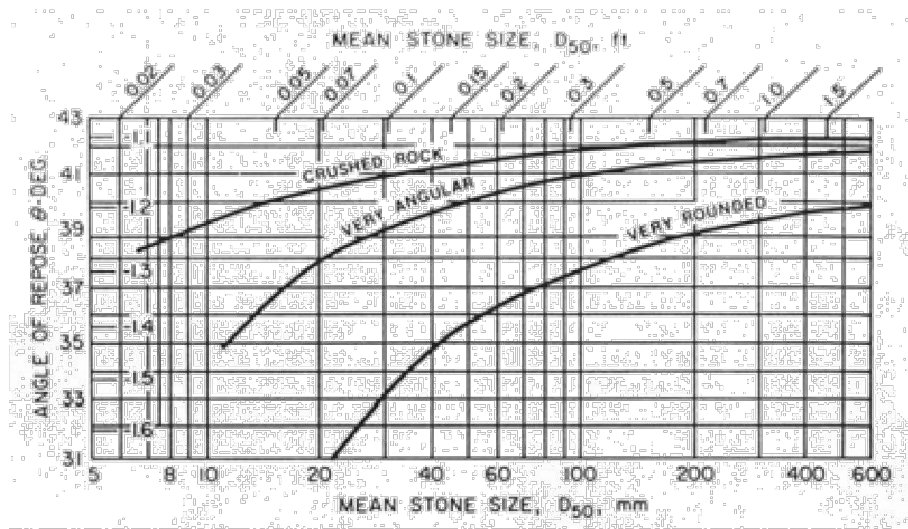
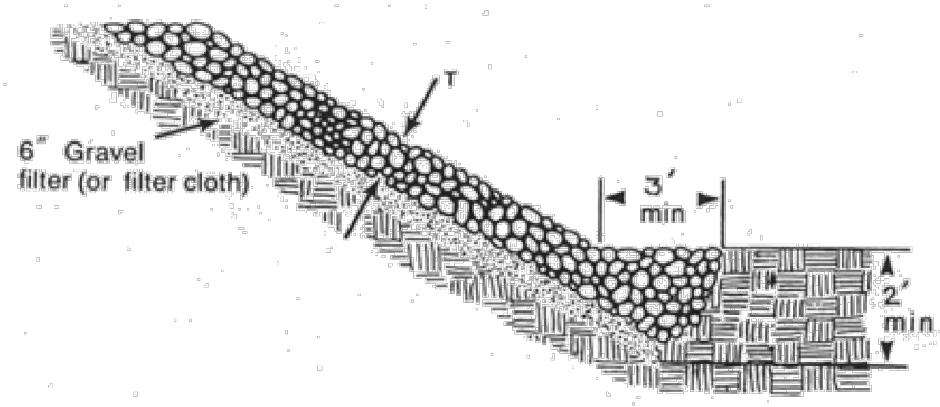


Figure 4.2
Typical Riprap Slope Protection Detail



New York State Standards and Specifications
For Erosion and Sediment Control

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FIGURE 4.3
RIPRAP CHANNEL STABILIZATION

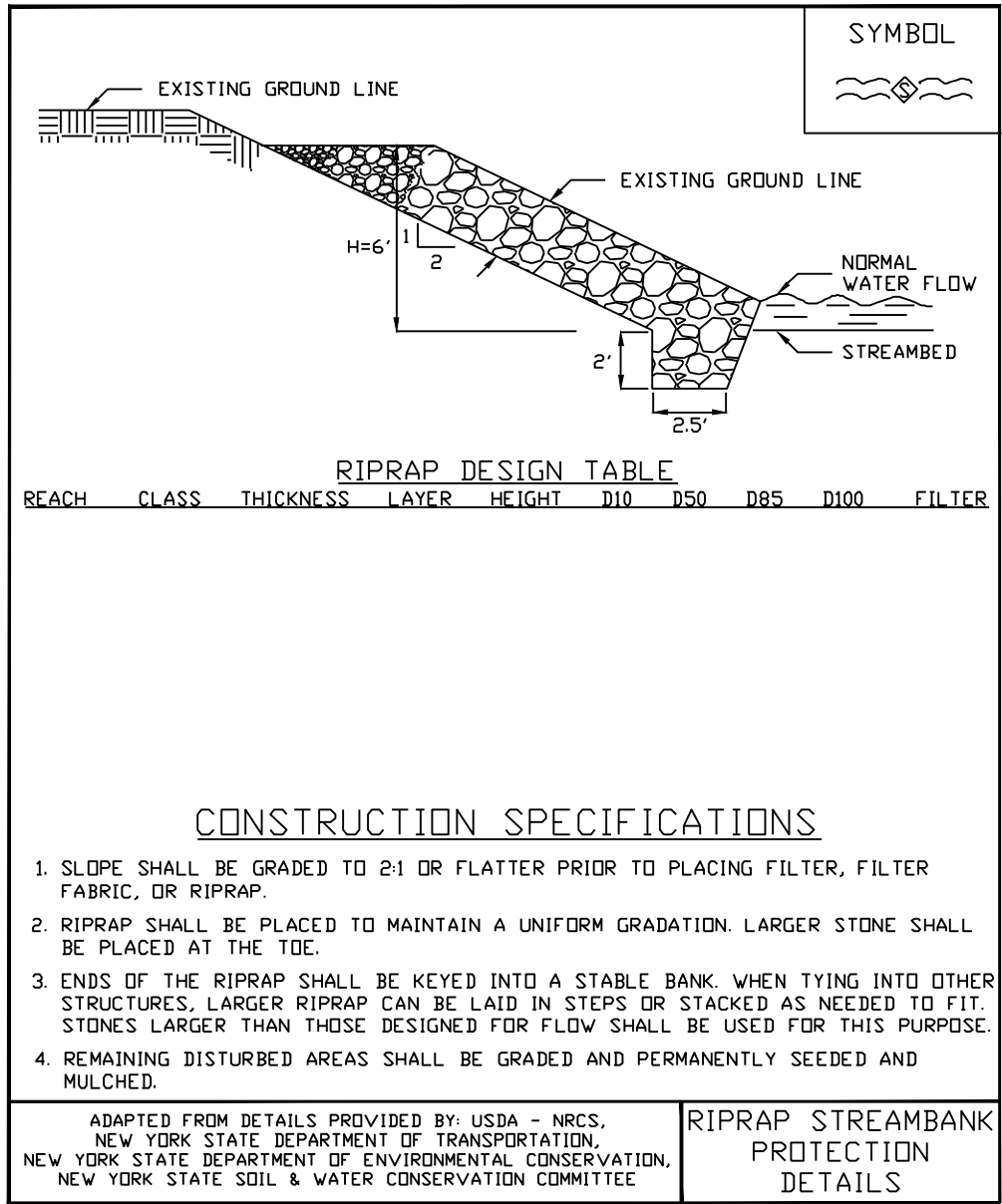


FIGURE 4.4
CHANNEL STABILIZATION METHODS

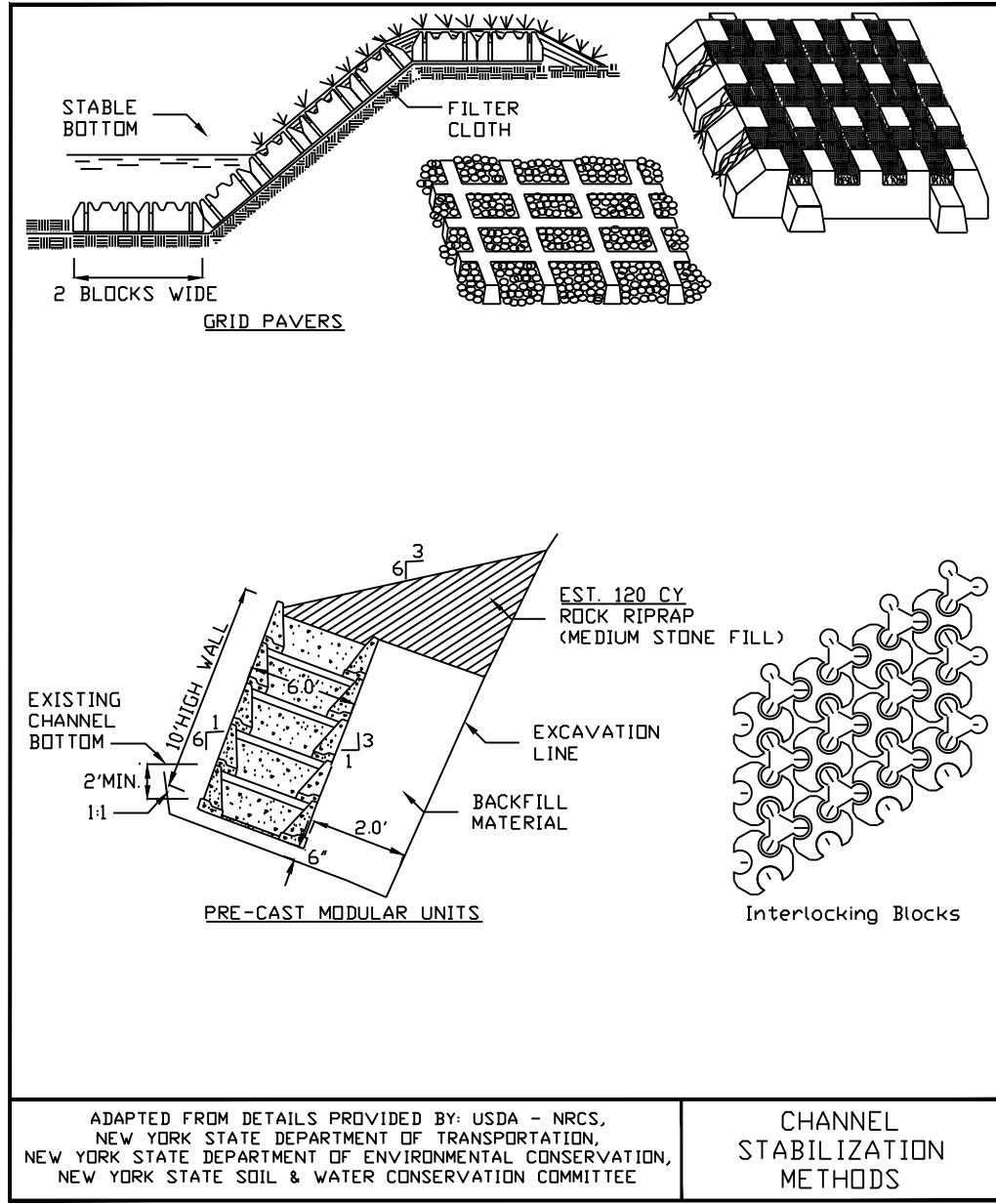
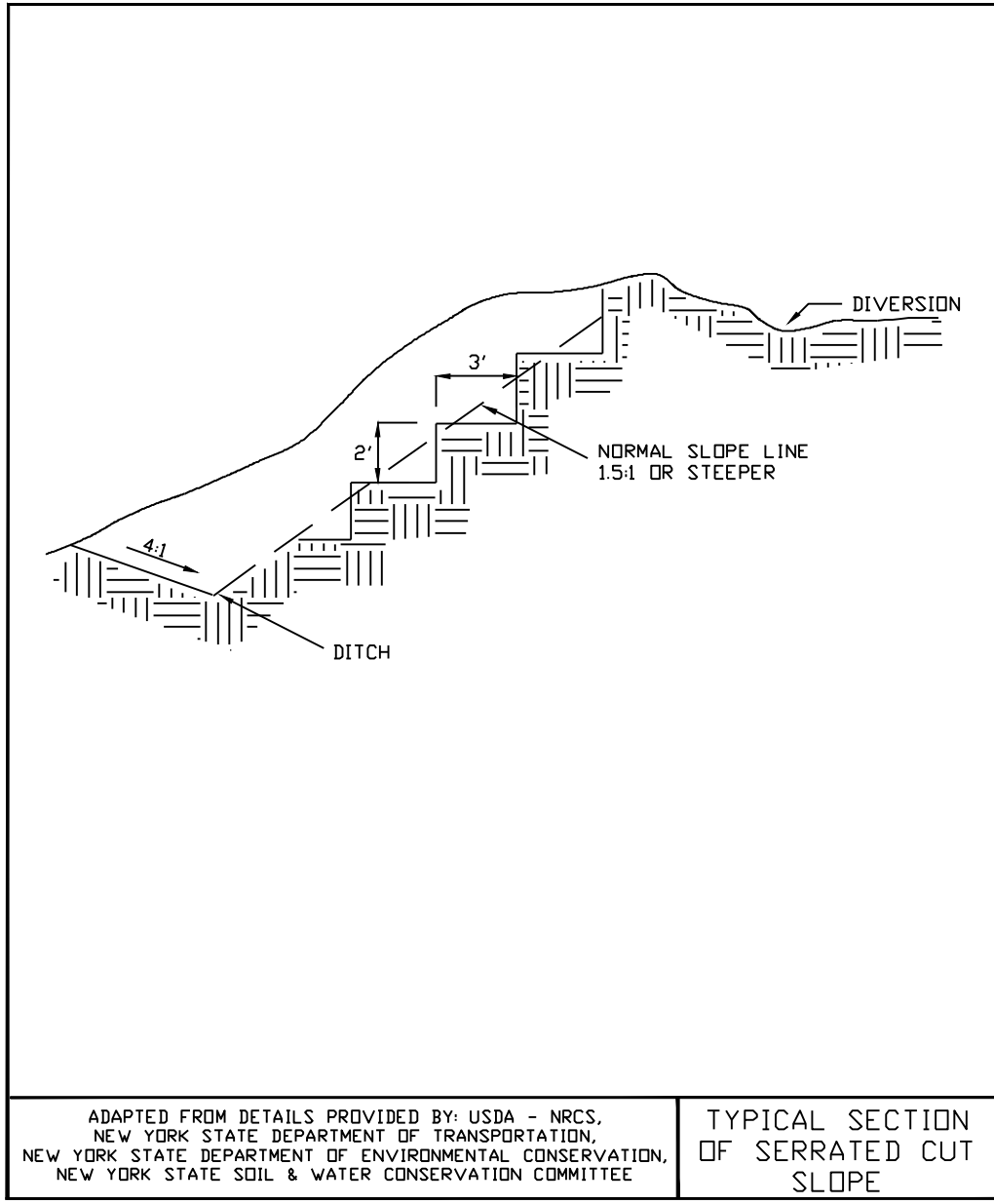


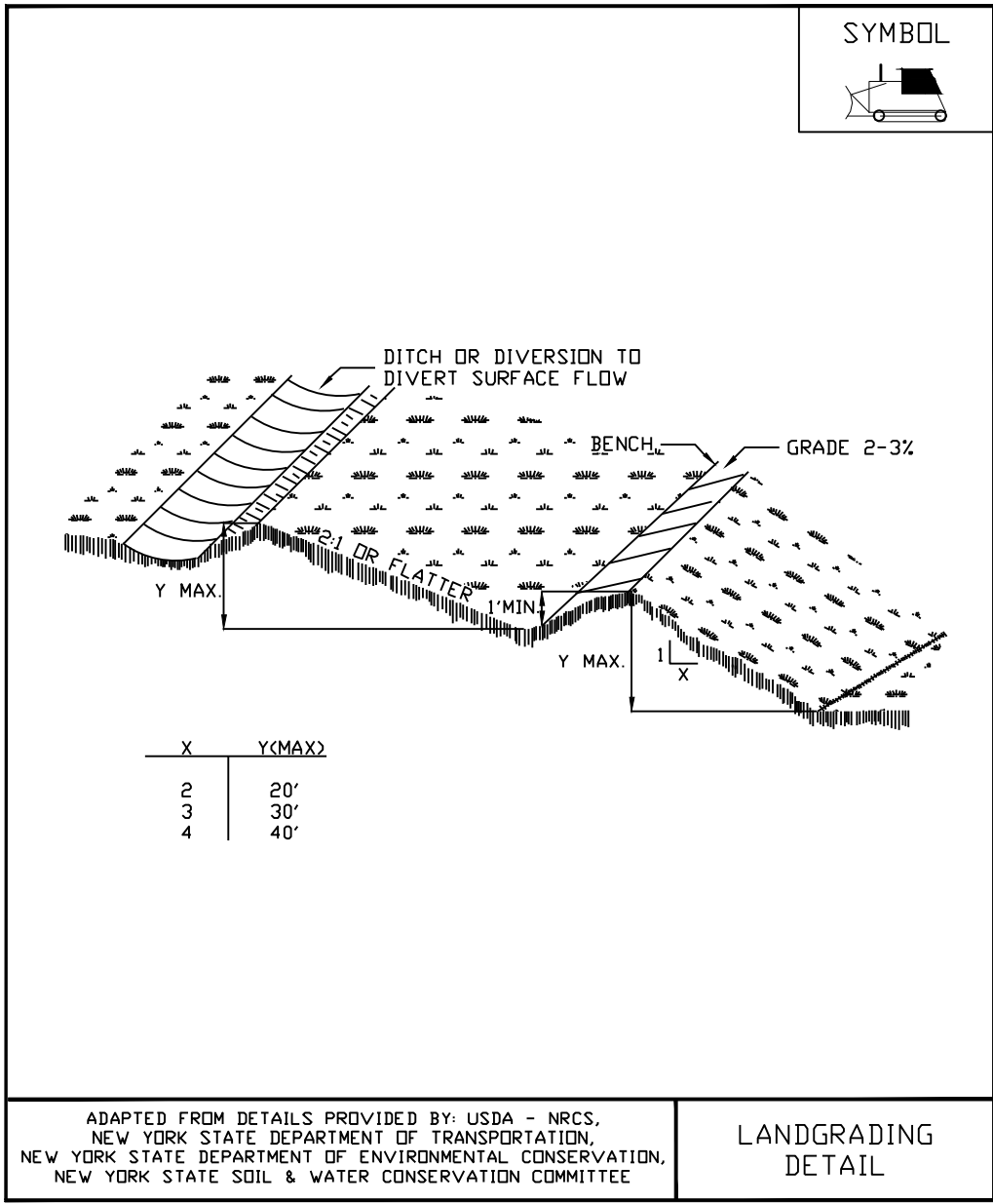
FIGURE 4.9
TYPICAL SECTION OF SERRATED CUT SLOPE



ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

TYPICAL SECTION
OF SERRATED CUT
SLOPE

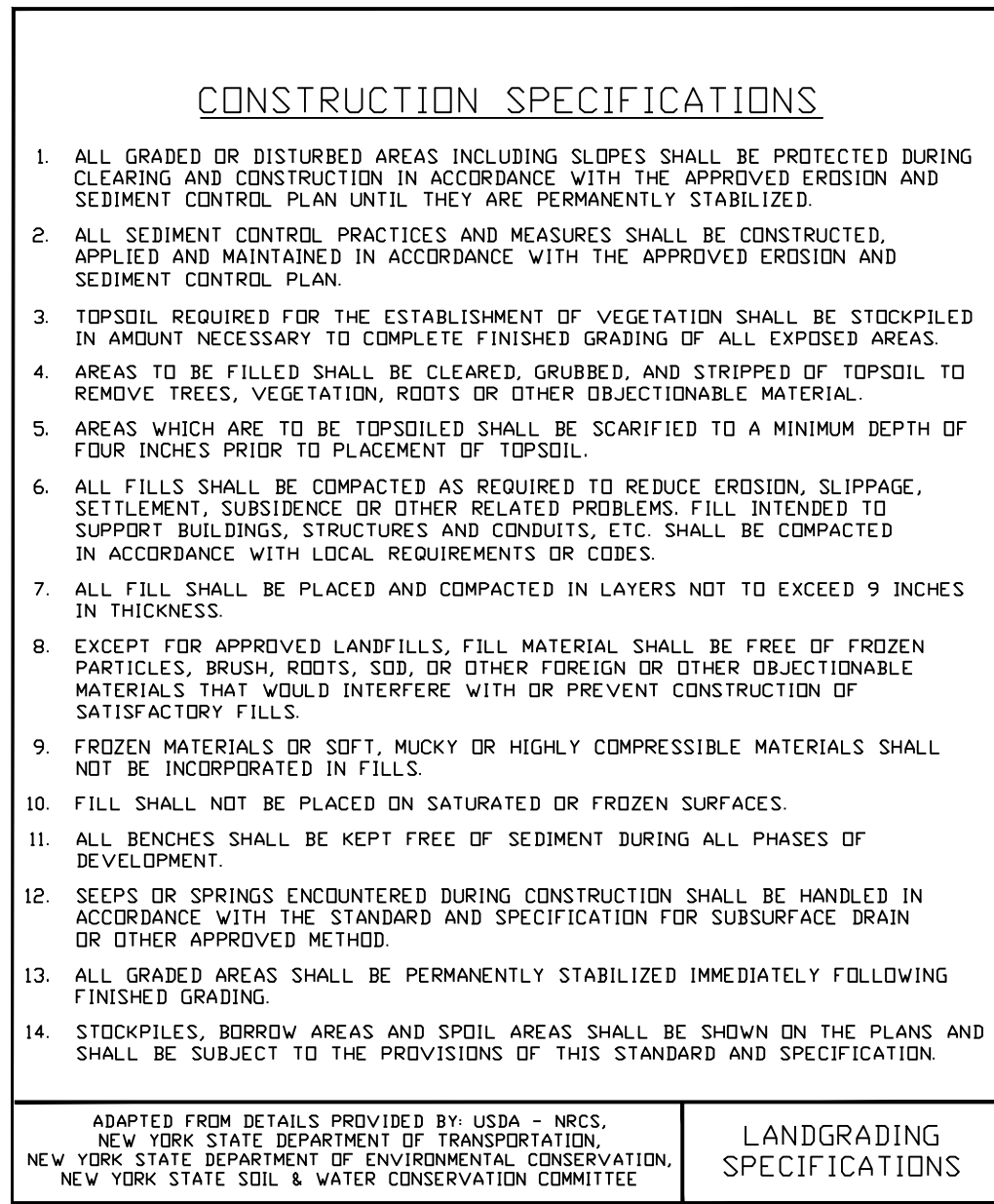
FIGURE 4.10
LANDGRADING



ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

LANDGRADING
DETAIL

FIGURE 4.11
LANDGRADING - CONSTRUCTION SPECIFICATIONS



ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

LANDGRADING
SPECIFICATIONS

PREPARED FOR:



700 Universe Boulevard
Juno Beach, FL 33408

REVISIONS:		
#	DATE	COMMENT
A	01/06/2022	ISSUED FOR PERMIT

Garnet Energy
Center

Cayuga County, New York

New York Erosion
Control Details

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 01/06/2022

SHEET: C.609

PREPARED FOR:



700 Universe Boulevard
Juno Beach, FL 33408

REVISIONS:		
#	DATE	COMMENT
A	01/06/2022	ISSUED FOR PERMIT

FIGURE 5.7
ROCK DAM

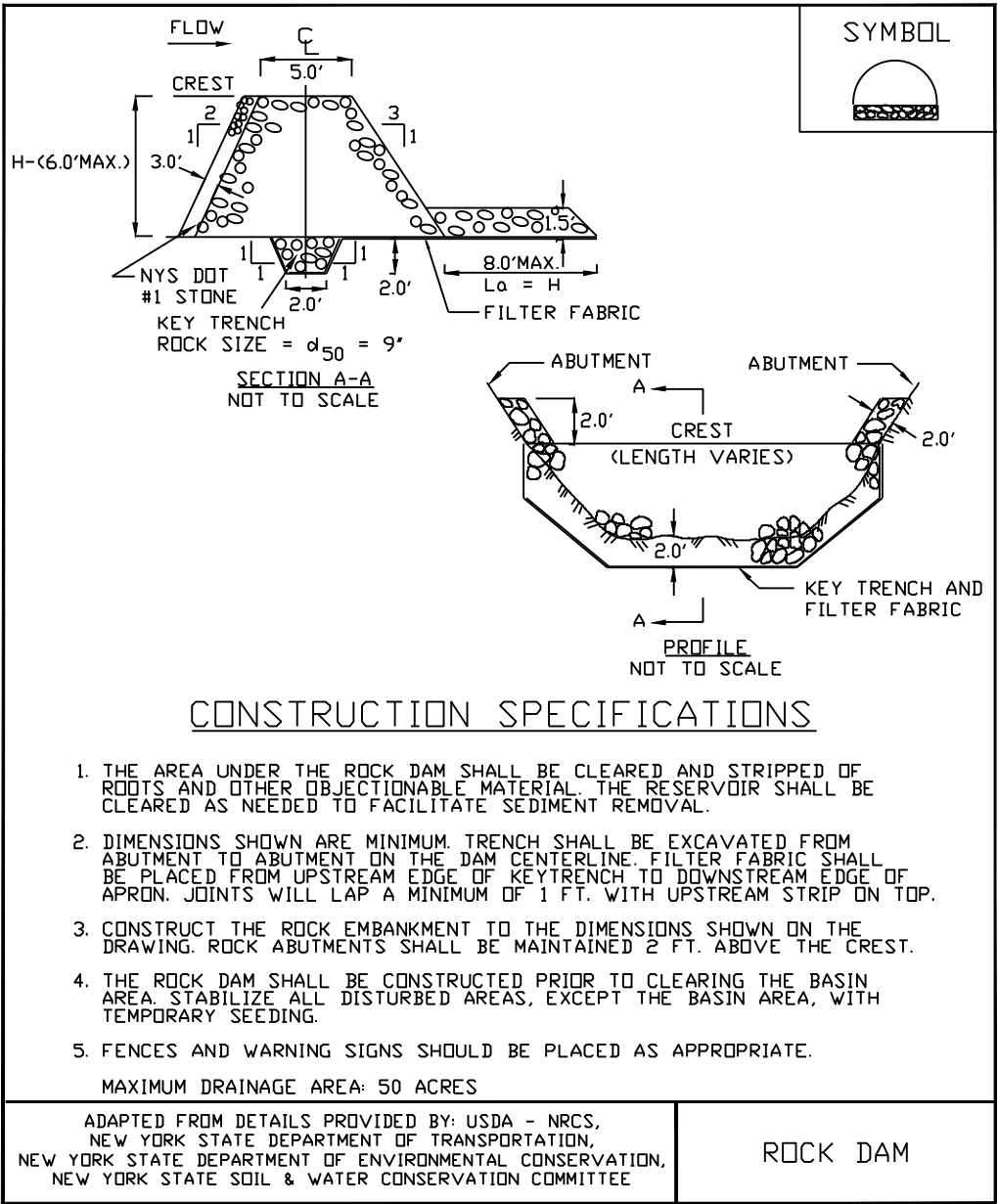


FIGURE 5.2
COMPOST FILTER SOCK

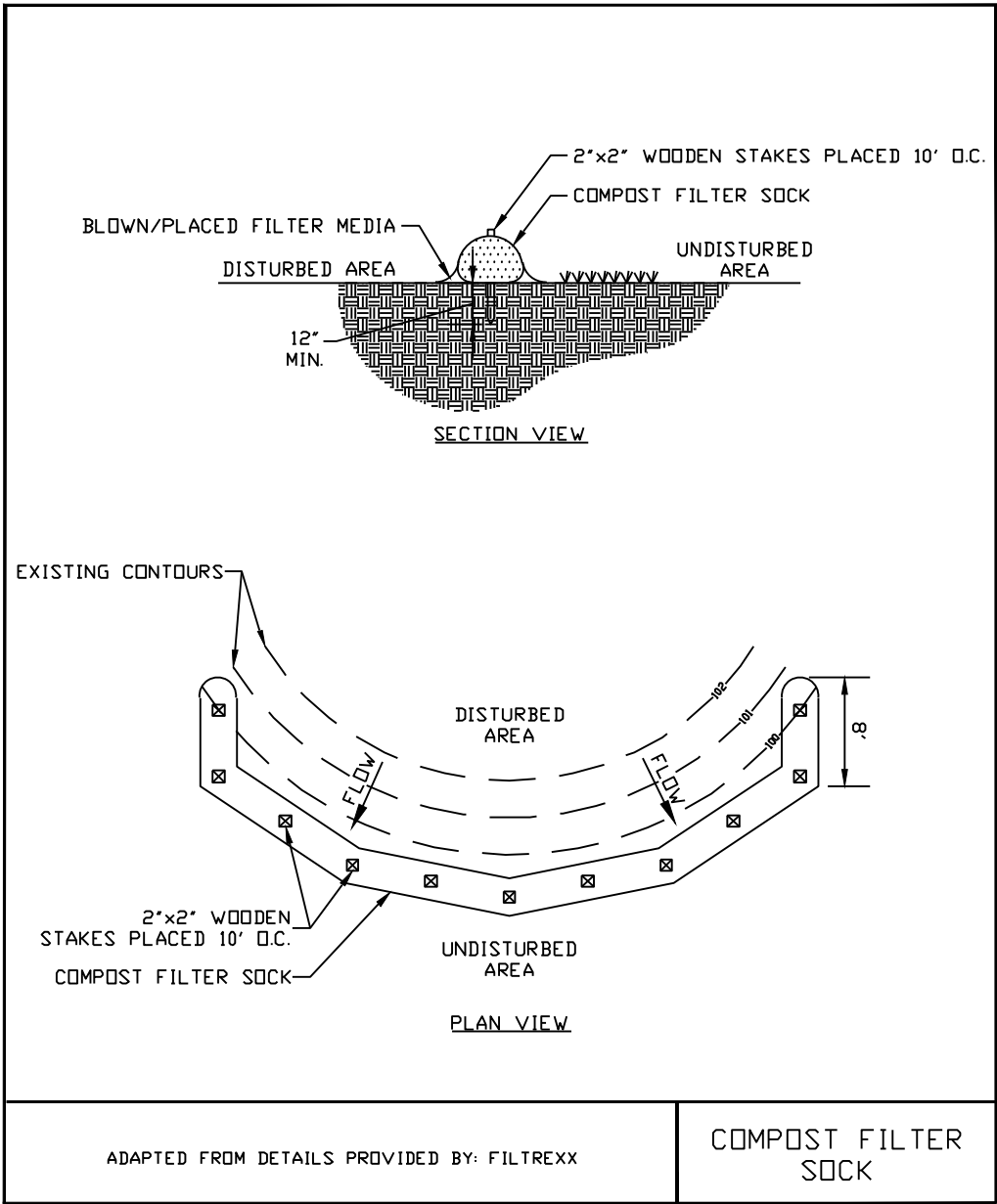


FIGURE 5.30
REINFORCED SILT FENCE

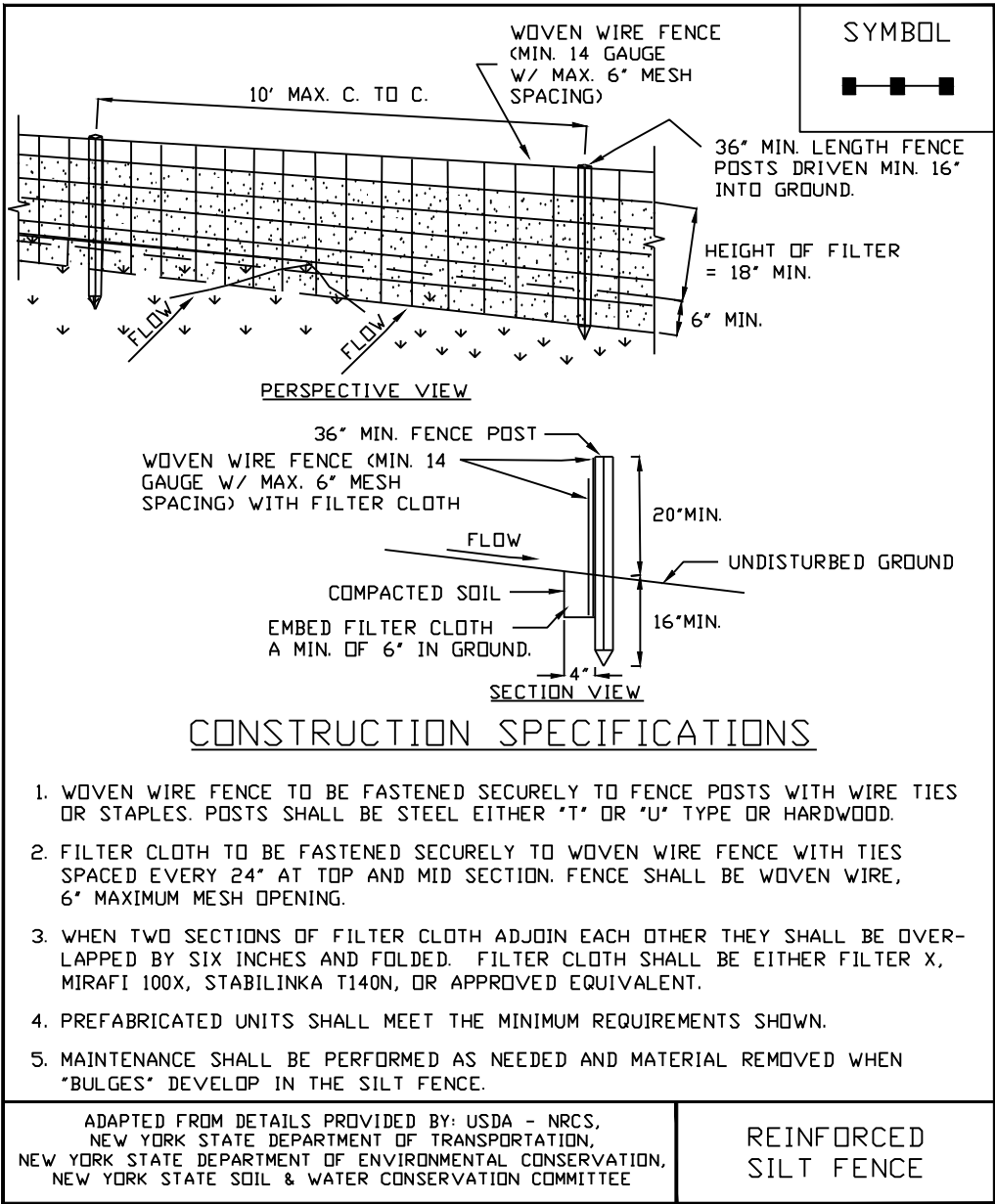
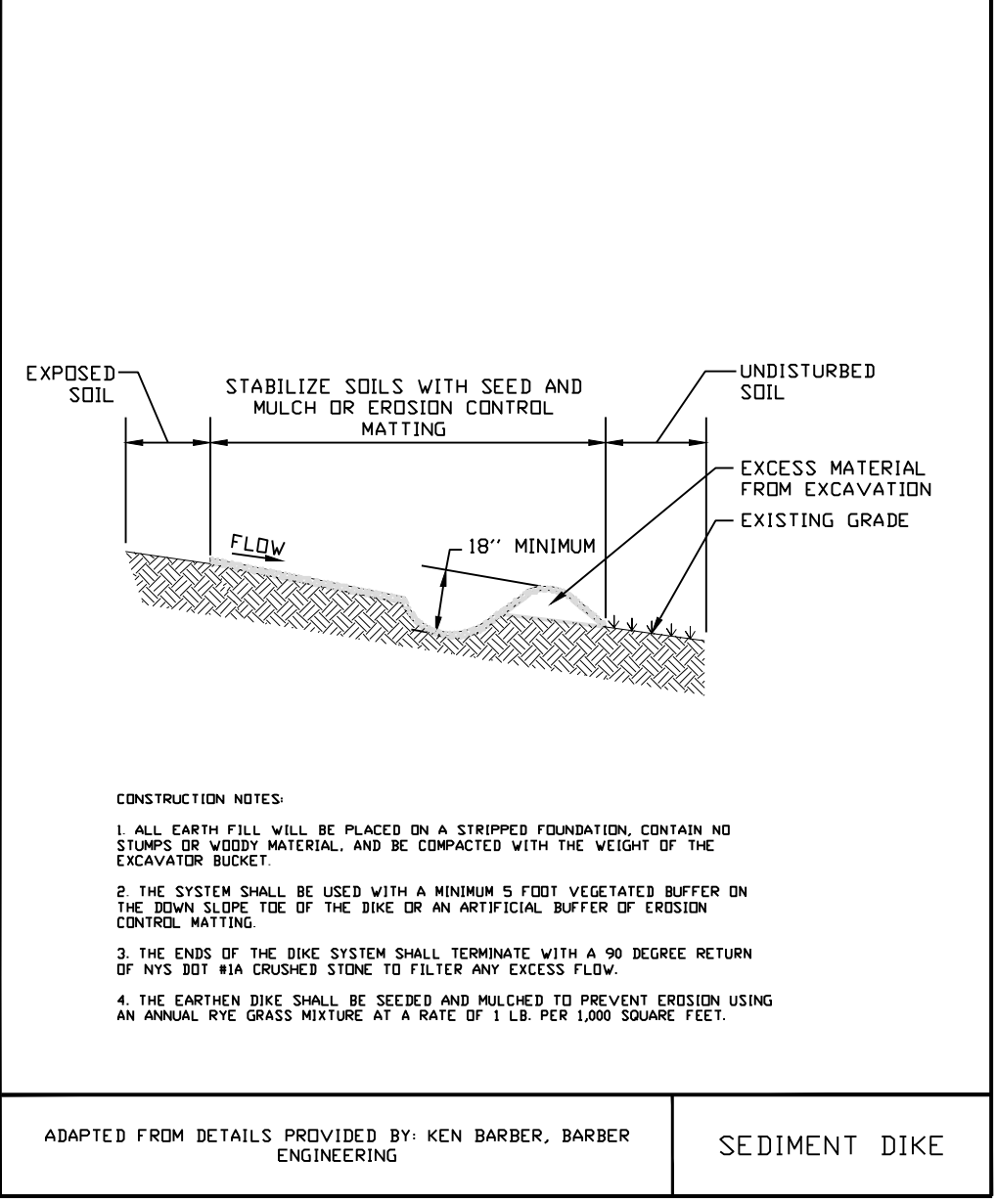


FIGURE 5.23
SEDIMENT DIKE



Garnet Energy Center

Cayuga County, New York

New York Erosion Control Details

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 01/06/2022

SHEET: C.610

CUT SLOPE

ROAD

ROADSIDE DITCH

FILL

EDGE OF CONSTRUCTION DISTURBANCE

FILTER STRIP

WIDTH

STREAM

ADAPTED FROM DETAILS PROVIDED BY: PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUFFER FILTER STRIP

1. THE VEGETATION SHOULD BE A WELL ESTABLISHED PERENNIAL GRASS. WOODED AND BRUSHY AREAS ARE NOT ACCEPTABLE FOR PURPOSES OF SEDIMENT REMOVAL.
2. THE MINIMUM BUFFER FILTER STRIP WIDTH FOR STREAM PROTECTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE:

LAND SLOPE (%)	MINIMUM FILTER STRIP WIDTH (FT.)
≤ 10	50
20	60
30	85
40	105
50	125
60	145
70	165

- IF AT ANY TIME THE WIDTH OF THE BUFFER FILTER STRIP HAS BEEN REDUCED BY SEDIMENT DEPOSITION TO HALF ITS ORIGINAL WIDTH OR CONCENTRATED FLOW HAS DEVELOPED, SUITABLE ADDITIONAL PRACTICES SHOULD BE INSTALLED.

PLAN VIEW

Labels in Plan View:

- INFLOW
- FOREBAY
- MAINTENANCE ACCESS ROAD
- MAXIMUM ED LIMIT
- MAXIMUM SAFETY STORM LIMIT
- POND BUFFER (25 FEET MINIMUM)
- PERMANENT POOL 6 to 8 FEET DEEP
- AQUATIC BENCH
- SAFETY BENCH
- EMERGENCY SPILLWAY
- PRESERVE RIPARIAN CANOPY
- OUTFALL
- RISER / BARREL
- RISER IN EMBANKMENT

PROFILE

Labels in Profile:

- INFLOW
- FOREBAY
- OVERFLOW SPILLWAY
- EXTREME FLOOD CONTROL
- OVERBANK FLOOD CONTROL
- CHANNEL PROTECTION
- WATER QUALITY
- AQUATIC BENCH
- WET POOL
- POND DRAIN
- REVERSE PIPE
- ANTI-SEEP COLLAR or FILTER DIAPHRAGM
- BARREL
- EMBANKMENT
- SAFETY RISER
- EMERGENCY SPILLWAY
- STABLE OUTFALL

[illegible]