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|                              |     |       |          |
| 1 EXHIBIT 5: DESIGN DRAWINGS | MDF | TMP   | 21.05.21 |
| Issued                       | By  | Appd. | YY.MM.DD |

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| TJC  | TMP   | MDF   | 20.12.04 |
| Dwn. | Chkd. | Dsgn. | YY.MM.DD |

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| 1      | EXHIBIT 5: DESIGN DRAWINGS | MDF | TMP   | 21.05.21 |
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GENERAL NOTES:

1.

UNLESS SPECIFICALLY STATED HEREIN, THESE PLANS ARE NOT SUITABLE FOR MACHINE GUIDANCE USE OR PURPOSES DURING CONSTRUCTION. NO GUARANTEE IS MADE THAT THE ELECTRONIC DATA SYSTEMS OR FILE STRUCTURE USED BY STANTEC WILL BE COMPATIBLE WITH THE ELECTRONIC SYSTEMS USED BY THE CONTRACTOR. INFORMATION SHOWN ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THE ELECTRONIC FILES DATA.
2.

THE CONTRACTOR SHALL VERIFY SITE CONDITIONS, COORDINATE DIMENSIONS, ELEVATIONS AND DETAILS SHOWN ON CONTRACT DRAWINGS, NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO PREPARATION OF SHOP DRAWINGS AND THE COMMENCEMENT OF CONSTRUCTION.
3.

ALL IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE MOST RECENT STANDARDS, SPECIFICATIONS AND REQUIREMENTS OF THE TOWNS OF OAKFIELD AND ELBA AND/OR THE APPROPRIATE SEWER, DRAINAGE, AND/OR WATER DISTRICTS, AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION UNLESS OTHERWISE NOTED.
4.

THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY ALL FEES ASSOCIATED WITH ALL PERMITS AND PROVIDE ALL BONDS REQUIRED FOR THIS WORK INCLUDING BUT NOT LIMITED TO, OFF-SITE HIGHWAY IMPROVEMENTS, UTILITY CONNECTIONS, AND BUILDING & SITE CONSTRUCTION.
5.

THE CONTRACTOR SHALL BE RESPONSIBLE THAT ALL NECESSARY PERMITS, CERTIFICATIONS, AND/OR INSPECTIONS, REQUIRED BY CODES AND/OR UTILITY SERVICE PROVIDERS, ARE OBTAINED PRIOR TO ANNOUNCED BUILDING / SITE POSSESSION AND/OR THE FINAL CONNECTION OF SERVICES.
6.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
7.

THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD AND PRESERVE ALL SURVEY CONTROL MONUMENTS AND R.O.W. MONUMENTS IN THE AREAS OF CONSTRUCTION. FOR DESCRIPTIVE AND SURVEY DATA ON THE CONTROL MONUMENTS, CALL THE WYOMING COUNTY GEODETIC SURVEY OFFICE.
8.

CAUTION - NOTICE TO CONTRACTOR:  
THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND/OR DIG SAFE SERVICE AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT LOCATION OF UTILITIES. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
9.

MAINTENANCE AND PROTECTION OF TRAFFIC ALONG WITH SECURING THE WORK AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE TEMPORARY BARRICADES AND/OR OTHER APPROPRIATE EQUIPMENT AS REQUIRED TO DIRECT VEHICLE TRAFFIC AND PEDESTRIANS AWAY FROM WORK AREAS.
10.

ALL DEBRIS AND SOILS DERIVED FROM THE CONTRACTOR'S OPERATIONS FOUND IN THE PUBLIC RIGHT-OF-WAY OR CAUSING NUISANCE TO OPERATIONS SHALL BE CLEANED AND REMOVED ON A DAILY BASIS OR WHEN NOTIFIED BY THE OWNER'S REPRESENTATIVE.
11.

THE DRAWINGS ARE INTENDED TO REQUIRE AND TO INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT PROPER FOR THE WORK.
12.

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND SAFETY PROCEDURES. THE OWNER/ENGINEER/ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR OR THEIR AGENTS, EMPLOYEES OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK.
13.

OBSERVE ALL OSHA AND OTHER APPLICABLE SAFETY REQUIREMENTS INCLUDING THE USE OF SAFETY GLASSES, HARD HATS AND PROTECTION OF THE AREA AT ALL TIMES. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR CONSTRUCTION SAFETY AT ALL TIMES.
14.

SAFETY: THE CONTRACTOR IS RESPONSIBLE FOR OVERSEEING THE SAFE OPERATION OF ALL EQUIPMENT IN HIS USE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL OF THE EQUIPMENT IN HIS USE IN A SAFE CONDITION. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC., AS REQUIRED FOR SAFETY.
15.

STORAGE OF EQUIPMENT AND SUPPLIES: STORAGE OF EQUIPMENT AND SUPPLIES FOR THE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SCHEDULED FOR DELIVERY TO THE SITE AS THE EQUIPMENT OR SUPPLIES ARE REQUIRED. DAMAGE TO THE EQUIPMENT DELIVERED TO THE SITE OR IN TRANSPORT TO THE JOB SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
16.

DAMAGE RESPONSIBILITY: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LOSS OR DAMAGE CAUSED BY HIM OR HIS WORKMEN TO THE EXISTING FACILITY OR FEATURES DURING THE COURSE OF CONSTRUCTION AND SHALL BE FULLY RESPONSIBLE FOR REPAIRING OR REPLACING IN KIND, AS REQUIRED, TO ENSURE RESTORATION TO THE ORIGINAL CONDITION AND AT NO COST TO OWNER.
17.

PROFESSIONALISM AND APPEARANCE OF WORK: WORKMANSHIP OF ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH ACCEPTED PRACTICES OF THIS TRADE. INSTALLATION METHODS SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE PROJECT WITH QUALIFIED JOURNEYMEN AND EMPLOYEES IN THIS TRADE FOR THE DURATION OF THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMMUNICATE WITH AND KEEP THE OWNER APPRISED OF CHANGES OR CLARIFICATIONS.
18.

UTILITY COORDINATION: CONTRACTOR SHALL CONTACT ALL UTILITIES AND VERIFY ALL UTILITY REQUIREMENTS PRIOR TO COMMENCING OR ORDERING ANY MATERIALS WHATSOEVER. CONFLICTS BETWEEN UTILITY REQUIREMENTS AND THE PLANS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER PRIOR TO COMMENCING CONSTRUCTION OR ORDERING ANY MATERIALS WHATSOEVER.
19.

DIAGRAMMATIC PLANS: DRAWINGS ARE DIAGRAMMATIC IN NATURE. THE EXACT LOCATIONS AND ARRANGEMENT OF ALL PARTS SHALL BE CONFIRMED WITH THE OWNER BEFORE WORK PROGRESSES. CONTRACTOR SHALL VERIFY COORDINATES WITH PLAN LOCATIONS PRIOR TO CONSTRUCTION STAKEOUT. NOTIFY OWNER OF ANY DISCREPANCIES PRIOR TO STAKEOUT.

20.

INCIDENTAL ITEMS: INCIDENTAL ITEMS NOT INDICATED ON DRAWINGS, NOT MENTIONED IN THE SPECIFICATIONS THAT CAN BE LEGITIMATELY AND REASONABLY INFERRED TO BELONG TO THE WORK DESCRIBED OR NECESSARY IN GOOD PRACTICE TO PROVIDE A COMPLETE SYSTEM, SHALL BE FURNISHED AND INSTALLED AS THOUGH ITEMIZED HERE IN EVERY DETAIL.
21.

STANTEC CONDUCTED WETLAND AND WATERCOURSE DELINEATIONS WITHIN THE STUDY AREA ON NOVEMBER 24, NOVEMBER 25, AND DECEMBER 9 2020, AND JANUARY 14 AND 15, 2021.

SURVEY NOTES

1.

THE HORIZONTAL DATUM (NAD 1983 - 2011 ADJ.) TO THE N.Y.S. PLANE COORDINATE SYSTEM, WESTERN ZONE, TRANSVERSE MERCATOR SYSTEM, BEARINGS SHOWN HEREON ARE REFERENCED TO GRID.DISTANCE SHOWN ARE GROUND. SURVEY WORK FOR THIS MAP WAS COMPLETED TO AN ACCURACY OF 1 PART IN 10,000 (1:10,000) OR BETTER.
2.

FIELD WORK WAS PROVIDED BY MJ ENGINEERING AND LAND SURVEYING P.C. AND COMPLETED DECEMBER 2020.

GRADING & EROSION CONTROL NOTES:

1.

ALL SITE WORK SHALL CONFORM TO THE CLEARING, STRIPPING AND EROSION CONTROL REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC), THE PROJECT SWPPP, THE TOWNS OF OAKFIELD AND ELBA AND ALL STORMWATER PERMITS .
2.

THE CONTRACTOR SHALL NOTIFY THE TOWNS OF THEIR TIME SCHEDULE IN REGARD TO CLEARING, STRIPPING, MASS GRADING, AND EROSION CONTROL TO PROVIDE FOR PROPER TOWN INSPECTION.
3.

ALL PROPOSED ELEVATIONS SHOWN HEREON ARE FINISHED GRADE ELEVATIONS.
4.

EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCING EARTHWORK. EROSION CONTROL DEVICES SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL PROPER GROUNDCOVER HAS BEEN ESTABLISHED IN ALL DISTURBED AREAS OF THE SITE AND REMOVAL IS APPROVED BY THE TOWNS AND SWPPP INSPECTOR.
5.

INSTALL A STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON PLANS OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
6.

CLEAR AND GRUB SITE (IF NECESSARY). EXISTING VEGETATION SHALL BE CLEARED FROM THE GRUBBING AREA BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
7.

ANY TREES REMOVED FROM BEYOND THE DESIGNATED CLEARING LIMITS SHALL BE REPLACED AT A 2 TO 1 RATIO. TREE REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8.

STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN ON PLANS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. THE STOCKPILE(S) SHALL BE SEEDED IN ACCORDANCE WITH EROSION CONTROL NOTES AND PROTECTED IN CONFORMANCE WITH NYSDEC REQUIREMENTS.
9.

DISTURBED AREAS SHALL BE AS SMALL AS PRACTICAL, AND SHALL BE RESTORED, IMPROVED OR TEMPORARILY STABILIZED AS SOON AS POSSIBLE OR WITHIN SEVEN (7) DAYS AFTER DISTURBANCE HAS CEASED.
10.

SEQUENCE OF CONSTRUCTION

A.

CLEARLY IDENTIFY PROJECT WORK LIMITS IDENTIFYING ALL AREAS WHERE CONSTRUCTION DISTURBANCE SHALL NOT BE PERMITTED INCLUDING, BUT NOT LIMITED TO BUFFER AREAS, WETLANDS, SELECT TREES AND ADJOINING PROPERTIES.

B.

INSTALL STABILIZED CONSTRUCTION ENTRANCE.

C.

INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS.

D.

PROVIDE TEMPORARY DIVERSION SWALE IF NECESSARY TO DIVERT UPSTREAM RUNOFF FROM ENTERING CONSTRUCTION AREA.

E.

ONCE SEDIMENT CONTROLS ARE INSTALLED, CONSTRUCTION ACTIVITIES CAN BEGIN.

F.

CONDUCT TREE CUTTING OPERATIONS.

G.

INSTALL ANY ADDITIONAL EROSION AND SEDIMENT CONTROLS, AS NEEDED AND/OR IN ACCORDANCE WITH THE PLANS.

H.

INSTALL SOLAR FACILITY FEATURES.

I.

RESTORE (USING SOIL RESTORATION TECHNIQUES WHERE APPROPRIATE) AND TEMPORARILY STABILIZE DISTURBED AREAS THROUGHOUT THE SITE WITHIN 7 DAYS OF THE LAST CONSTRUCTION ACTIVITY IN EACH AREA. (ALSO REFER TO THE TEMPORARY STABILIZATION REQUIREMENTS WITHIN SECTION 4.2 OF THE SWPPP.)

J.

PROVIDE PERMANENT VEGETATIVE STABILIZATION FOR ALL AREAS OF DISTURBANCE.

K.

ONCE SOILS ARE PERMANENTLY STABILIZED, THEN ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED AS DIRECTED BY THE QUALIFIED INSPECTOR.

11.

CONTRACTOR TO MAINTAIN ALL CONSTRUCTION RECORDS & CERTIFIED REPORTS AS NECESSARY FOR THE NYSDEC SPDES, PHASE II GENERAL PERMIT REQUIREMENTS FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY. COPIES OF THE RECORDS AND REPORTS MUST BE MAINTAINED BY THE CONTRACTOR ON SITE UNTIL THE NOTICE OF TERMINATION HAS BEEN ACCEPTED BY THE NYSDEC.

12.

EROSION CONTROL DEVICES, INCLUDING SEDIMENT BARRIERS (SILT FENCE, STONE FILTERS OR APPROVED EQUAL) TO BE ESTABLISHED PRIOR TO COMMENCING GRUBBING OPERATIONS. ALL EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE WORK AND UNTIL UPSTREAM GROUNDCOVER HAS BEEN ESTABLISHED AND REMOVAL IS APPROVED BY THE OWNER AND/OR MUNICIPALITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL FEATURES AND ALL STORMWATER MANAGEMENT FACILITIES THROUGHOUT THE DURATION OF CONSTRUCTION.

A.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED BY THE CONTRACTOR'S NYSDEC QUALIFIED PROFESSIONAL AT LEAST EVERY 7 CALENDAR DAYS TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. DURING PERIODS WHEN GREATER THAN 5-ACRES ARE DISTURBED, INSPECTIONS SHALL OCCUR TWICE EVERY 7 CALENDAR DAYS WITH A MINIMUM OF 2 DAYS IN BETWEEN. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR WITHIN 24 HOURS OF THE WEEKLY INSPECTION.
- B.

ALL SEDIMENT TRAPPING DEVICES, INLET PROTECTION DEVICES AND STORMWATER MANAGEMENT FACILITIES SHALL BE CLEANED OF ACCUMULATED SILT WHEN STORAGE CAPACITY HAS BEEN REDUCED BY APPROXIMATELY 50% OF THEIR DESIGN CAPACITY OR AS INDICATED ON THE EROSION CONTROL PLANS OR AS DIRECTED BY THE SWPPP INSPECTOR.

C.

ALL SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO A MAXIMUM HEIGHT OF 6" DEEP AT THE FENCE OR AS OTHERWISE DIRECTED.

D.

SEDIMENT COLLECTED BY EROSION CONTROL MEASURES SHALL BE DISPOSED OF BY SPREADING ON-SITE OR HAULED OFF-SITE IF DETERMINED TO BE UNSUITABLE FOR FILL.

13.

DISTURBED AREAS SHALL BE AS SMALL AS PRACTICAL, AND SHALL BE RESTORED, IMPROVED OR TEMPORARILY STABILIZED AS SOON AS POSSIBLE.

14.

THE CONTRACTOR SHALL TAKE THE NECESSARY MEASURES, INCLUDING WATER SPRINKLING, TO PROVIDE DUST CONTROL DURING CONSTRUCTION TO THE SATISFACTION OF THE OWNER. THE CONTRACTOR SHALL NOT DISCHARGE DUST INTO THE ATMOSPHERE OF SUCH QUANTITIES, CHARACTER OR DURATION THAT IT UNREASONABLY INTERFERES WITH THE COMFORTABLE ENJOYMENT OF LIFE AND PROPERTIES OR IS HARMFUL TO PLANTS AND ANIMALS. NO SEDIMENT FROM THE SITE SHALL BE PERMITTED TO WASH ONTO ADJACENT PROPERTIES, WETLANDS OR ROADS.

15.

THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF SEDIMENT ENTERING UTILITIES. ALL MANHOLES, CURB INLETS, FIELD INLETS, END SECTIONS OR OTHER SIMILAR DRAINAGE INLET STRUCTURES SHALL BE PROTECTED FROM SILTATION BY INSTALLING FILTER FABRIC, CRUSHED STONE CHECK DAMS, EXCAVATED INLET PROTECTION AND/OR OTHER OWNER-APPROVED EROSION CONTROL MEASURES. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL A NOTICE OF TERMINATION HAS BEEN ACCEPTED BY NYSDEC.

16.

ALL DISTURBED AREAS THAT WILL NOT BE WORKED WITHIN 14 DAYS MUST BE SEEDED WITHIN 7 DAYS.

17.

ALL DISTURBED AND CONSTRUCTED SLOPE AREAS SHALL BE SEEDED IMMEDIATELY AFTER CONSTRUCTION HAS BEEN COMPLETED.

18.

THE CONTRACTOR SHALL SWEEP STREETS AS REQUIRED TO KEEP STREETS FREE OF DEBRIS AND SEDIMENT.

19.

CONTRACTOR TO CLEAN/FLUSH STORM SEWER (SEE SWPPP FOR FLUSHING PROCEDURE) BEFORE ACCEPTANCE BY THE OWNER'S Q.C. REPRESENTATIVE OR AS REQUIRED.

20.

THE DESIGN PLANS HAVE BEEN PREPARED AS THE MINIMUM REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL, BASED ON FIELD CONDITIONS. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES ON A SITE- SPECIFIC BASIS.

21.

ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE MEASURES MAY HAVE TO BE ALTERED DUE TO EVER-CHANGING SITE CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION AND SEDIMENT CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES OF CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION CONTROL DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE OWNER IMMEDIATELY.

22.

ANY FAILURE OF EROSION CONTROL DEVICES FOR ANY REASON SHALL BE REPORTED TO THE OWNER IMMEDIATELY.

23.

ALL SLOPES 3:1 OR GREATER SHALL RECEIVE EROSION CONTROL BLANKET MATTING AS OUTLINED IN THE SWPPP.

24.

THE STOCKPILED TOPSOIL SHALL BE SPREAD TO A 4" THICKNESS TO BRING THE SITE TO FINISHED GRADE ELEVATIONS IN ALL AREAS TO BE SEEDED IN THE FINAL SITE CONDITION.

25.

SITE DISTURBANCE SHALL NOT EXCEED 5-ACRES UNLESS A WAIVER HAS BEEN GRANTED BY THE NYSDEC. THE REQUIREMENT OF A WAIVER IS ANTICIPATED FOR THIS PROJECT.

26.

CONSTRUCTION AND MAINTENANCE VEHICLES WILL BE LIMITED TO SMALL SIZE EQUIPMENT OR TRACKING VEHICLES THAT CAN TRAVERSE THE SITE'S STEEP SLOPES WHILE CAUSING MINIMAL DISTURBANCE.
- SITE DATA:
1.

SETBACK REQUIREMENTS:
- |                     | REQUIRED<br>100' | PROVIDED (TO PANELS)<br>> 100' |
|---------------------|------------------|--------------------------------|
| STATE ROADS:        |                  |                                |
| COUNTY/LOCAL ROADS: | 70'              | > 70'                          |
- 
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The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.
- UTILITY NOTES:
- A. GENERAL UTILITY NOTES
1.

THE CONTRACTOR SHALL SEE THAT ALL NECESSARY PERMITS, CERTIFICATIONS, AND/OR INSPECTIONS, REQUIRED BY CODES AND/OR UTILITY SERVICE PROVIDERS, SHALL BE PERFORMED PRIOR TO ANNOUNCED SITE POSSESSION AND THE FINAL CONNECTION OF SERVICES.

2.

THE CONTRACTOR SHALL DETERMINE EXACT LOCATION AND ELEVATION OF UNDERGROUND UTILITIES BEFORE COMMENCING CONSTRUCTION. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS.

3.

THE REQUIREMENTS OF THE HIGHWAY OWNER SHALL BE ADHERED TO FOR ITEMS ABOVE THE PIPE BEDDING, INCLUDING, BUT NOT LIMITED TO, MAINTENANCE AND PROTECTION OF TRAFFIC, BACKFILL MATERIAL, AND SURFACE RESTORATION.

4.

THE PROPOSED DESIGN WILL COMPLY WITH ALL NEC REQUIREMENTS, AS WELL AS ALL NYS AND FEDERAL LAWS.
- A. STORM SEWER UTILITY NOTES:
1.

STORM SEWERS, BUILDING LATERALS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO THE MOST RECENT SPECIFICATIONS OF THE TOWNS OF OAKFIELD AND ELBA.

2.

THE STORM SEWER MAINS SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE, ASTM F2648 WITH A MINIMUM SLOPE OF 0.50% UNLESS OTHERWISE NOTED ON THE PLANS.

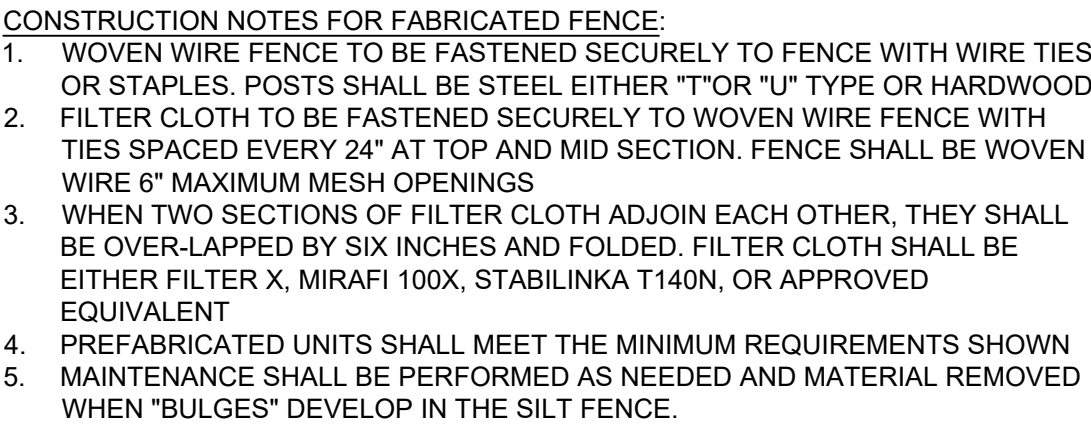
3.

EXFILTRATION AND/OR INFILTRATION FOR THE STORM SEWERS SHALL BE LIMITED TO 250 GALLONS PER DAY, PER MILE OF PIPE, PER INCH OF DIAMETER AND SHALL BE PERFORMED IN ACCORDANCE WITH DISTRICT PROCEDURES. AIR TESTS, INCLUDING VACUUM TESTS, SHALL **NOT** BE ALLOWED ON ANY MANHOLES

4.

DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER ALL FINAL BACKFILL HAS BEEN IN PLACE AT LEAST THIRTY (30) DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF FIVE PERCENT (5%). IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A MINIMUM DIAMETER EQUAL TO NINETY-FIVE PERCENT (95%) OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES AFTER GRAVITY STORM MAINS HAVE BEEN IN PLACE AND FINAL BACKFILLED AND COMPACTED FOR A MINIMUM OF 30 DAYS, EACH SECTION BETWEEN MANHOLES SHALL BE LAMPED TO CHECK FOR ALIGNMENT, CLEANLINESS, AND DEFECTS.
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2017/05/21 2:50 PM gary.farnham,add
- ORIGINAL SHEET - AN9 D





SPACING VARIES DEPENDING ON CHANNEL SLOPE

CUTOFF TRENCH  
18" WIDE  
6" DEEP

TOE

SAME ELEVATION

PROFILE  
N.T.S.

CREST

24" MAX.  
@ CENTER

9" MIN.

B

1.5' MIN.

FILTER FABRIC

SECTION A-A  
N.T.S.

CUTOFF TRENCH  
DESIGN  
BOTTOM

2

1

1

1

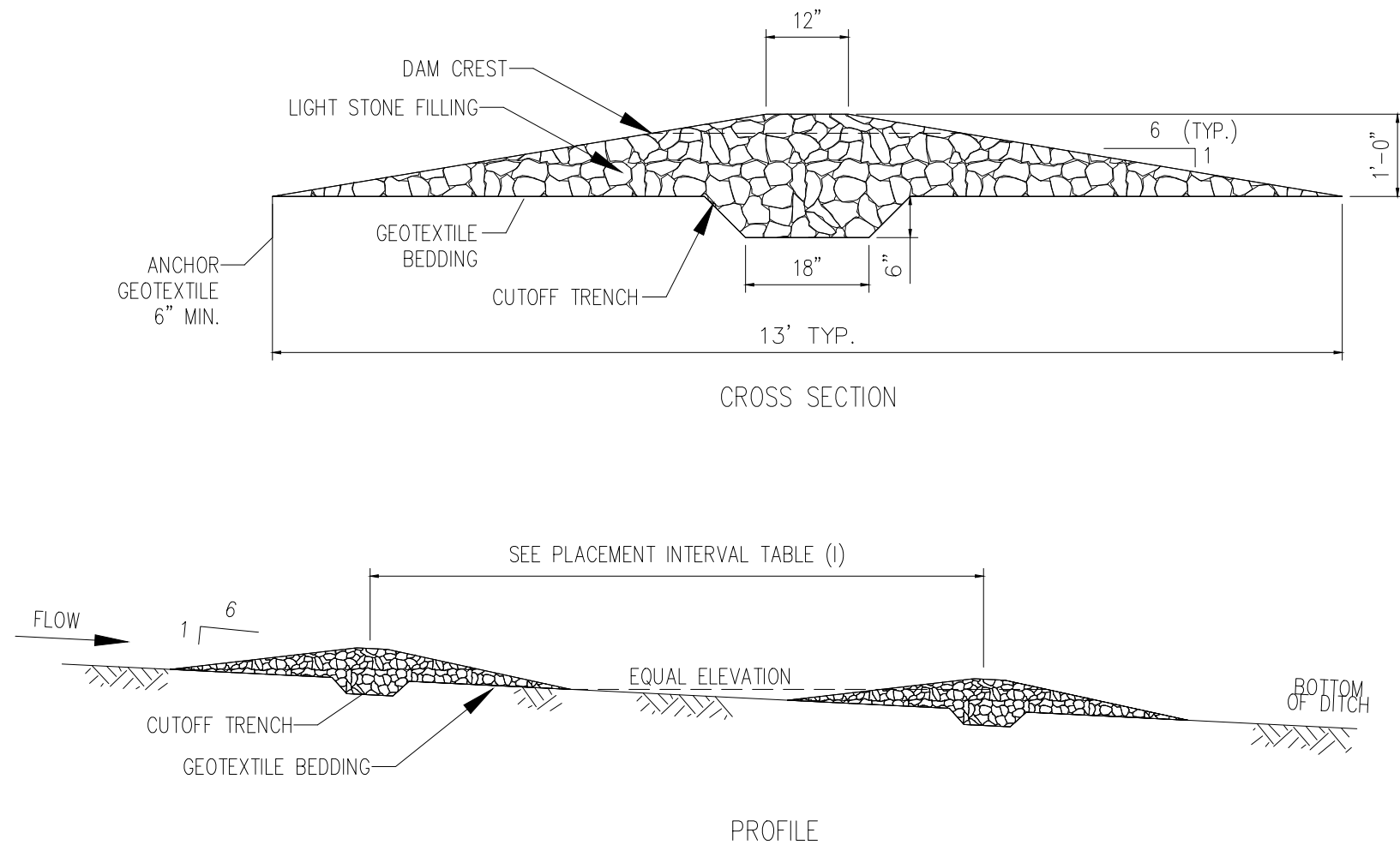
18" MAX  
@ CENTER

FILTER FABRIC

SECTION B-B  
N.T.S.

NOTES:

- NOTES:
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
  2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
  3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
  4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
  5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
- MAXIMUM DRAINAGE AREA 2 ACRES - INSTALL CHECK DAM AT EVERY 1.5' DROP IN ELEVATION.



- APPLICATION NOTES:
- A. THE PRIMARY PURPOSE OF A CHECK DAM IS TO REDUCE EROSION IN A CHANNEL BY REDUCING FLOW VELOCITY IN THE CHANNEL.
  - B. CHECK DAMS WILL CAPTURE SEDIMENT THAT FALLS OUT OF SUSPENSION BEHIND THE UPSTREAM SIDE OF THE CHECK DAM DUE TO DECREASED VELOCITY.
  - C. CHECK DAMS ARE NOT INTENDED TO, AND WILL NOT, FILTER SEDIMENT FROM TURBID WATER.
  - D. SLOPES EXCEEDING 10% SHALL INCLUDE A CHANNEL PROTECTIVE LINING.
  - E. AVOID PLACEMENT OF STONE CHECK DAMS WITHIN ROADWAY CLEAR ZONES, INSTEAD CONSIDER SEDIMENT FILTER LOG CHECK DAMS OR PREFABRICATED CHECK DAMS.
  - F. CHECK DAMS SHALL BE ANCHORED IN THE CHANNEL BY A CUT OFF TRENCH 1.5 FEET WIDE AND 0.5 FEET DEEP AND LINED WITH FILTER FABRIC TO PREVENT SOIL MIGRATION.
  - G. THE UPSTREAM DAM TOE SHALL BE AT EQUAL ELEVATION TO THE DOWN STREAM DAM CREST.

- GENERAL NOTES:
1. MAXIMUM DRAINAGE AREA CONTRIBUTING TO TEMPORARY STONE CHECK DAM SHALL BE 2 ACRES. MAXIMUM DRAINAGE AREA CONTRIBUTING TO STONE CHECK DAM - PERMANENT SHALL BE 1 ACRE.
  2. MEASURES SHALL BE INSPECTED EVERY (7) CALENDAR DAYS AND SHOULD BE INSPECTED AFTER EACH RUNOFF EVENT. MEASURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
  3. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
  4. COARSE AGGREGATE FACING MATERIAL FOR THE STONE CHECK DAM SHALL MEET THE GRADATION REQUIREMENTS OF SIZE DESIGNATION #1 OR #2 OF TABLE 703-4. STONE FILLING CORE MATERIAL FOR THE STONE CHECK DAM SHALL MEET THE GRADATION REQUIREMENTS OF LIGHT STONE FILLING.
  5. THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM SHALL BE PROTECTED FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
  6. DURING INSPECTIONS ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

\*  $I = H / S$

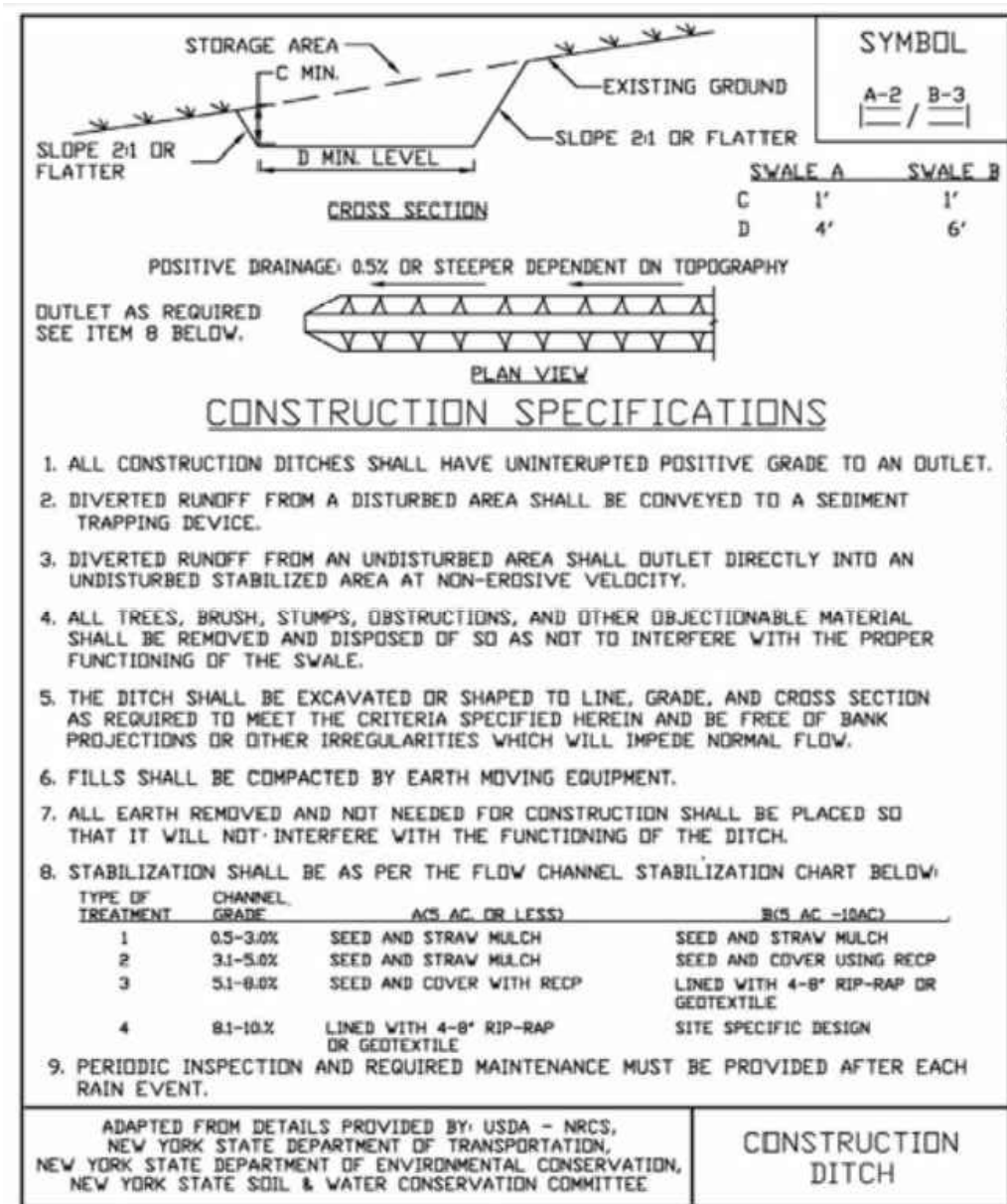
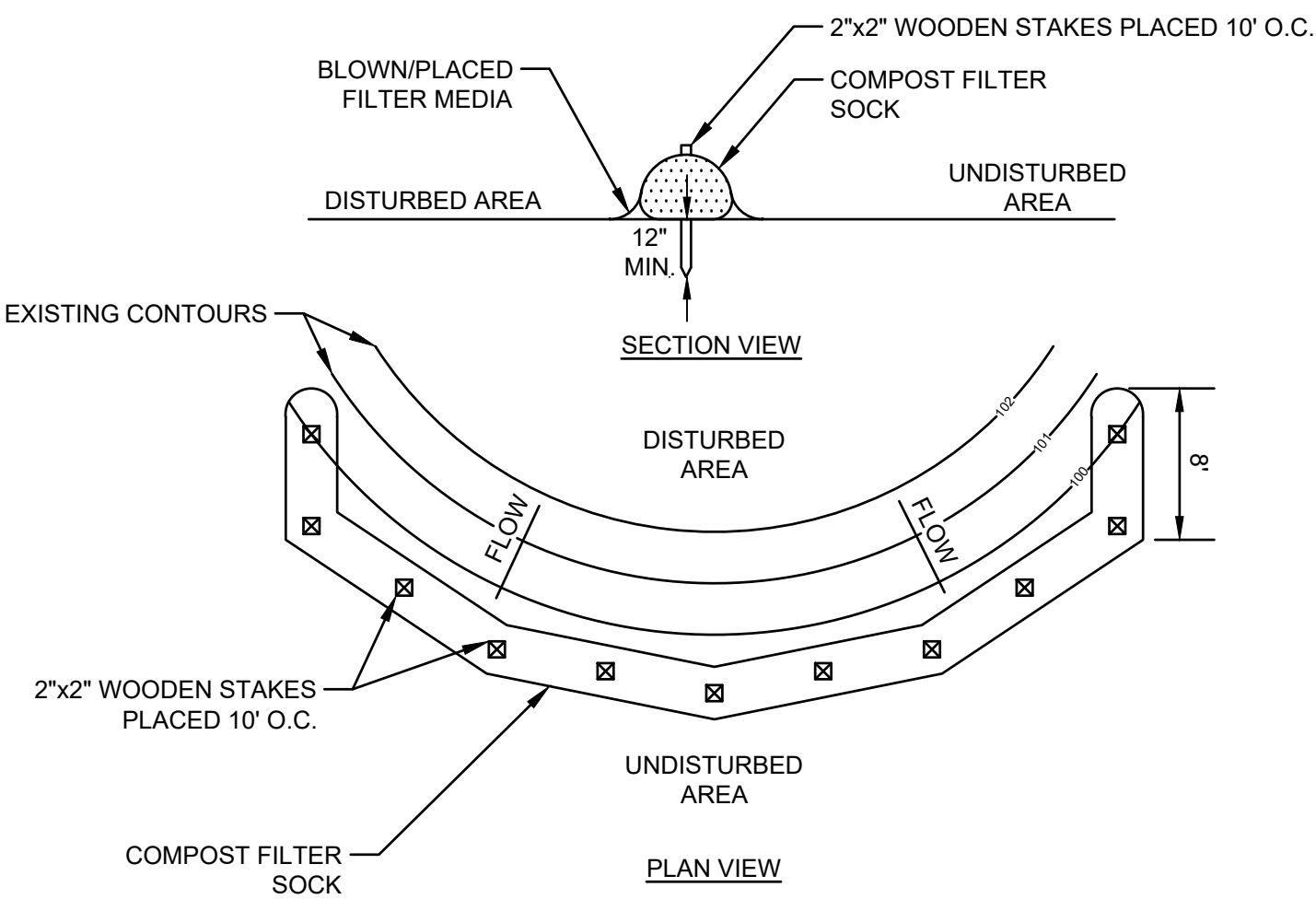
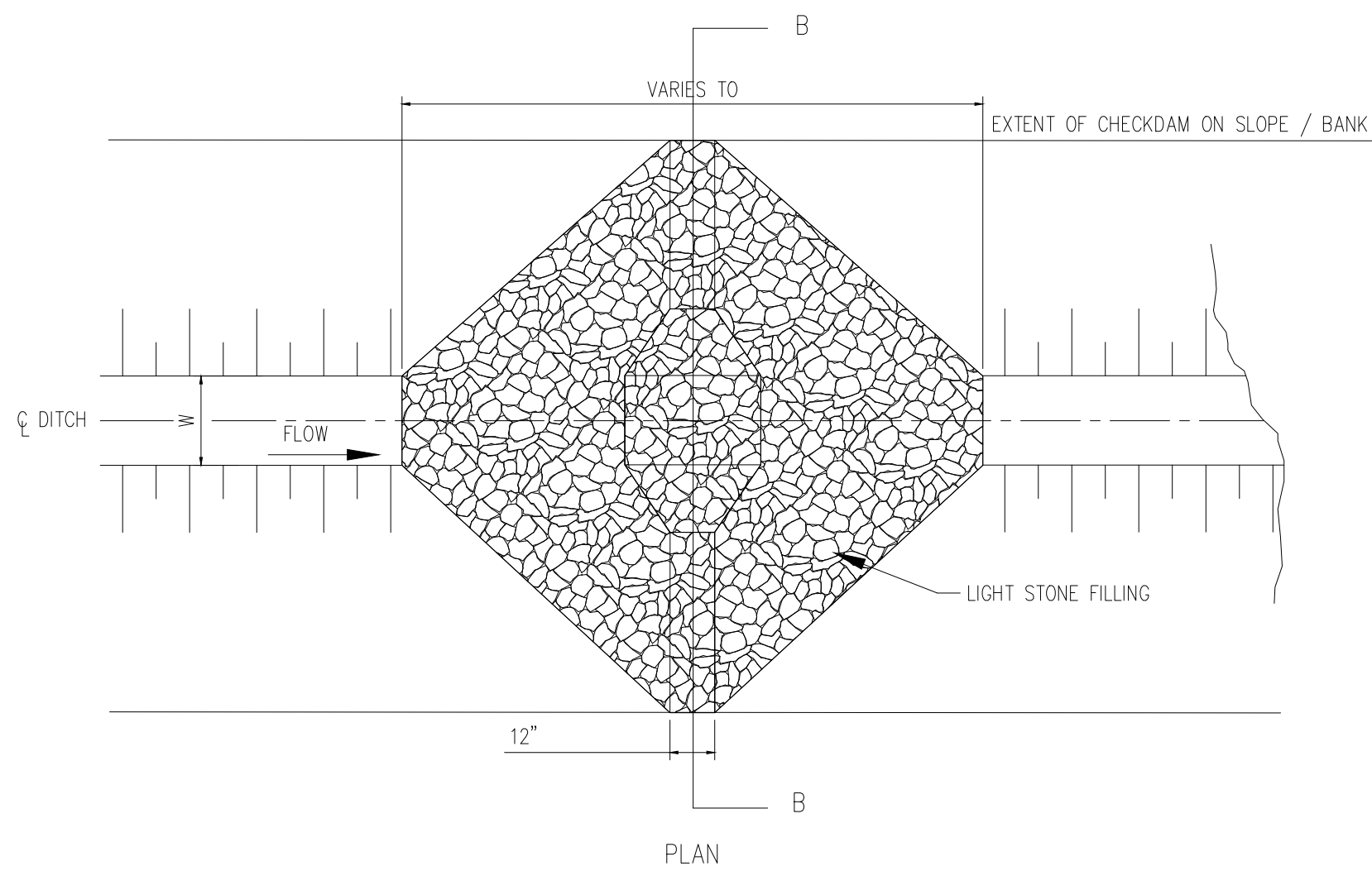
WHERE:

I = CHECK DAM  
SPACING INTERVAL

H = CHECK DAM HEIGHT

S = CHANNEL SLOPE

BASED ON V SHAPED DITCH SECTION  
FOR TRAPEZOIDAL DITCH, ADD  
1.61 CUBIC YARD / YARD OF DITCH WIDTH



**Stantec**

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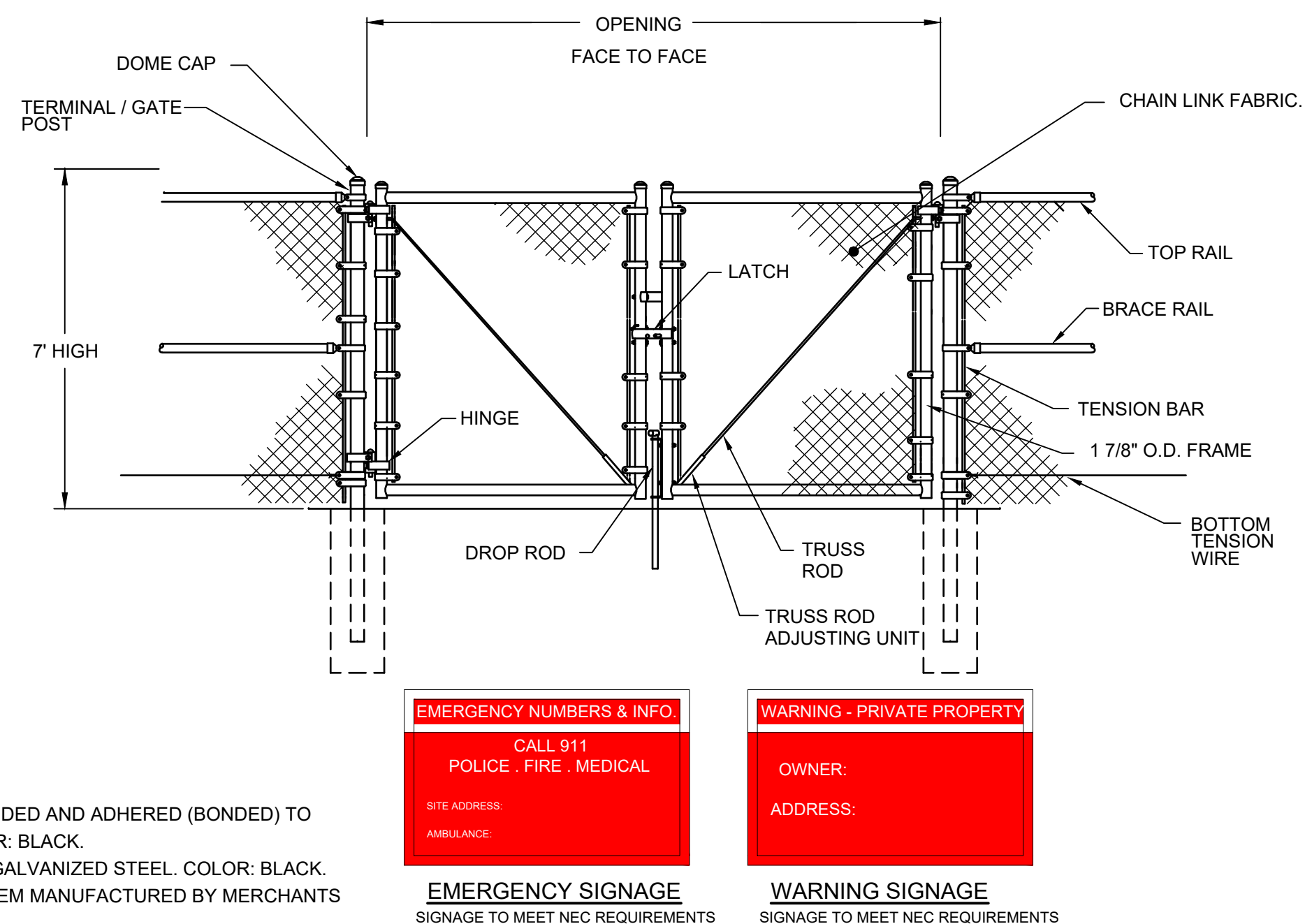
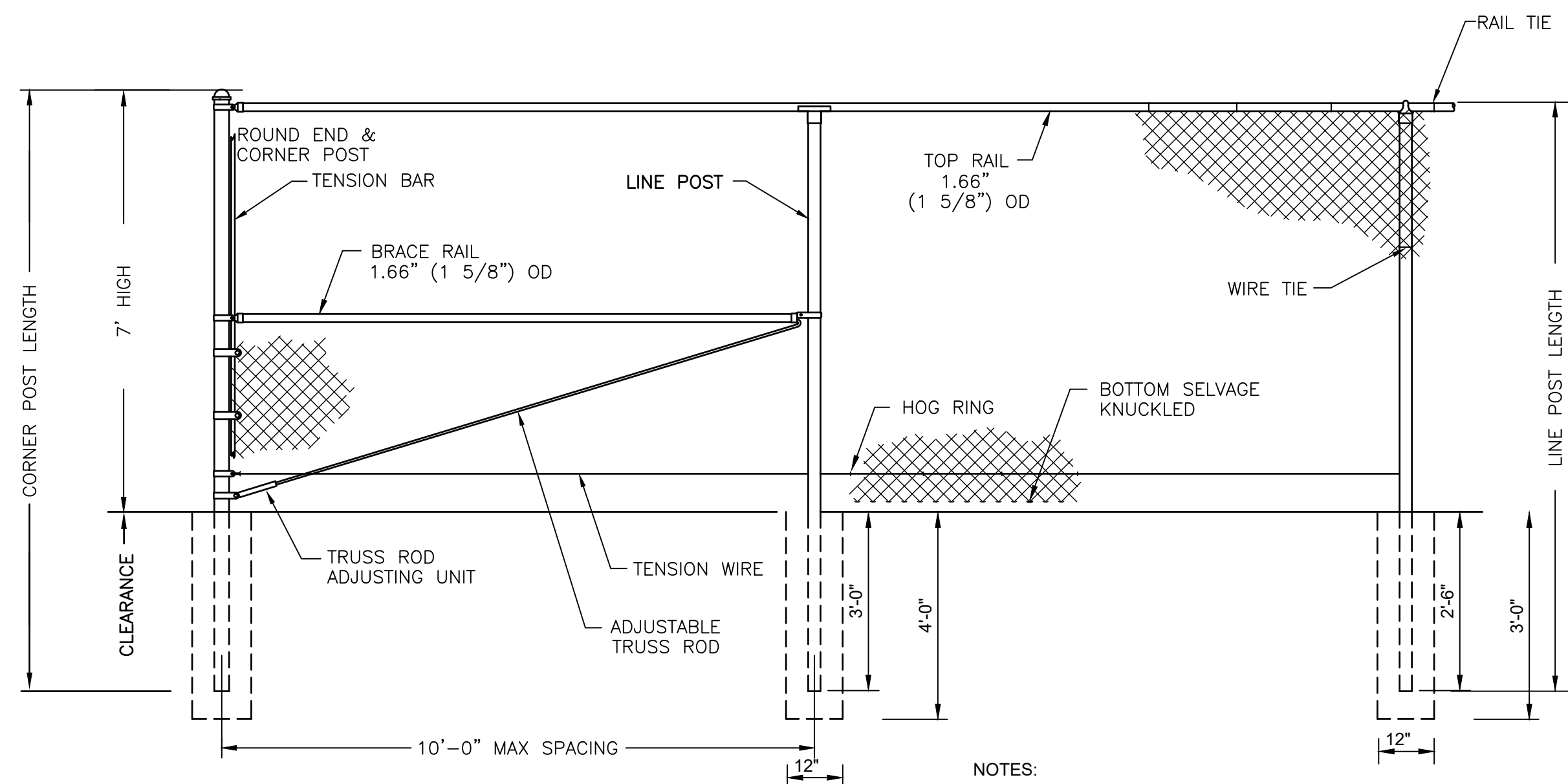
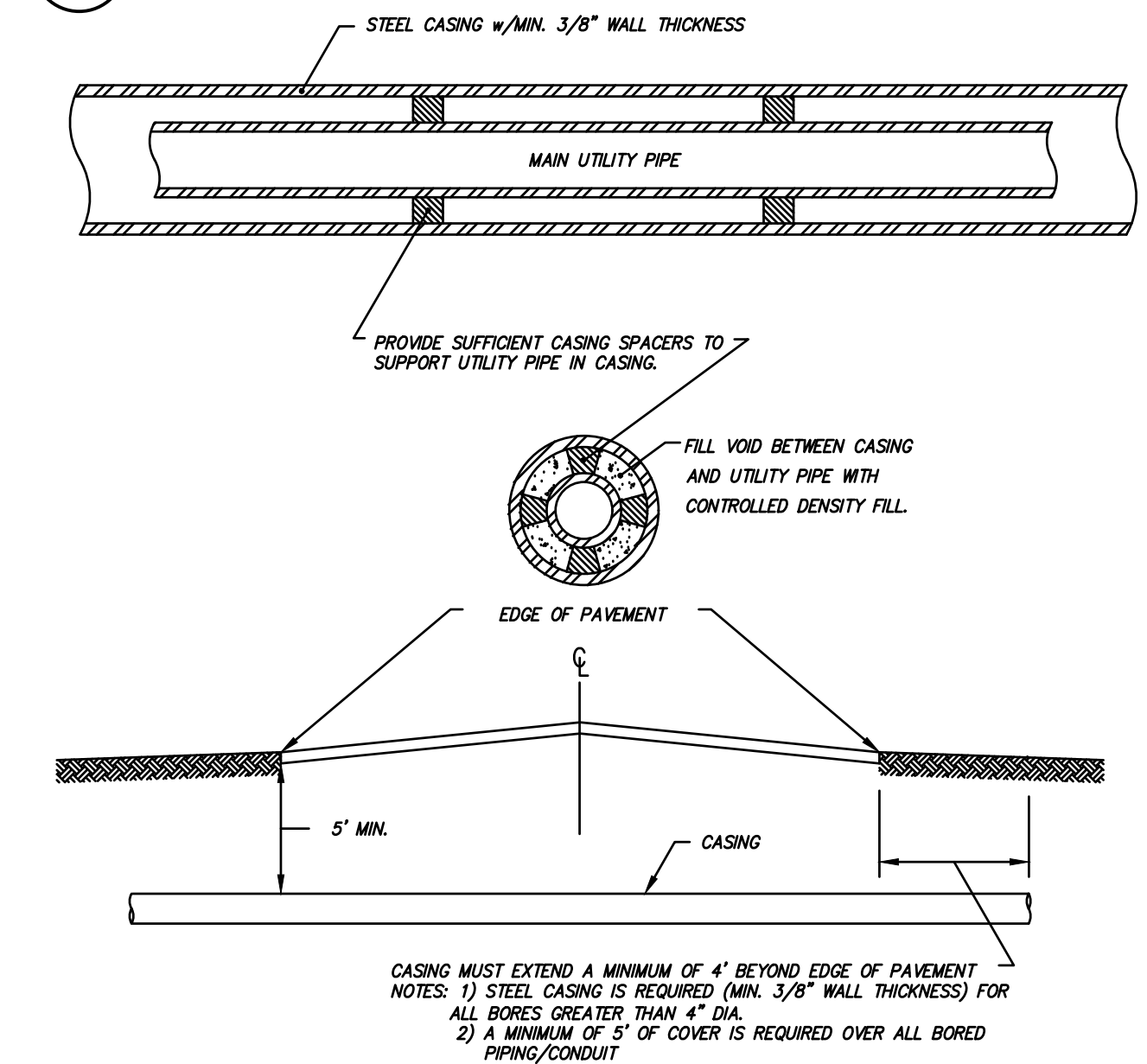
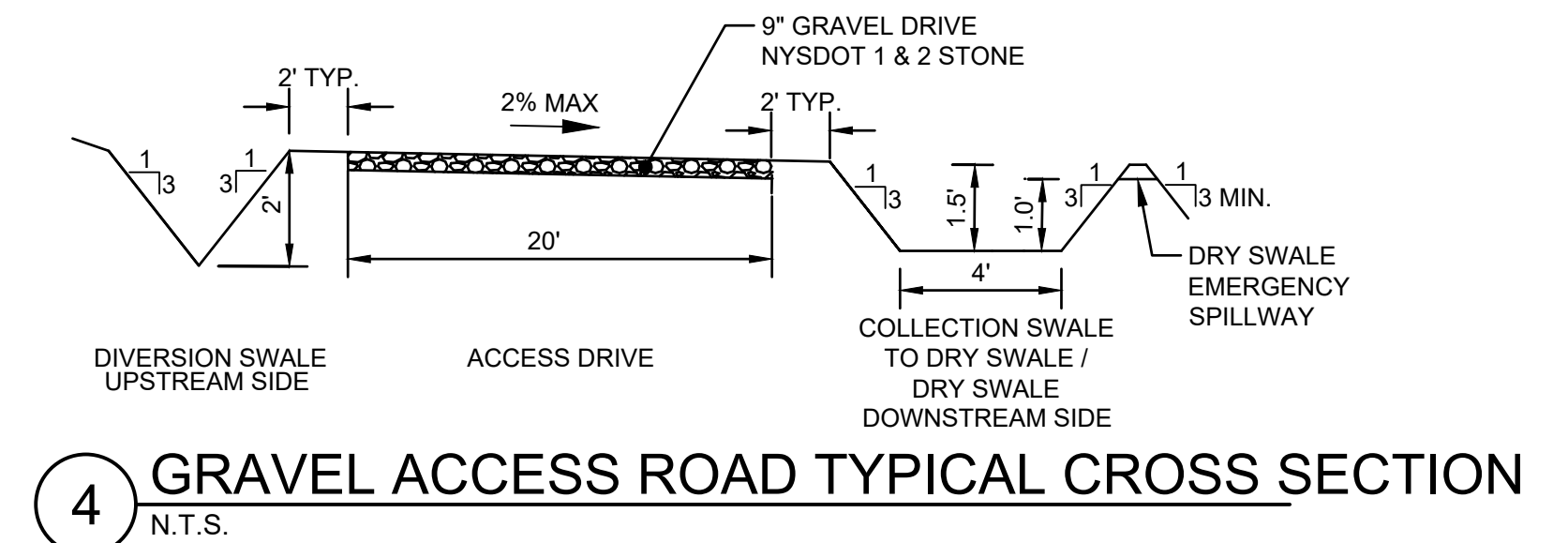
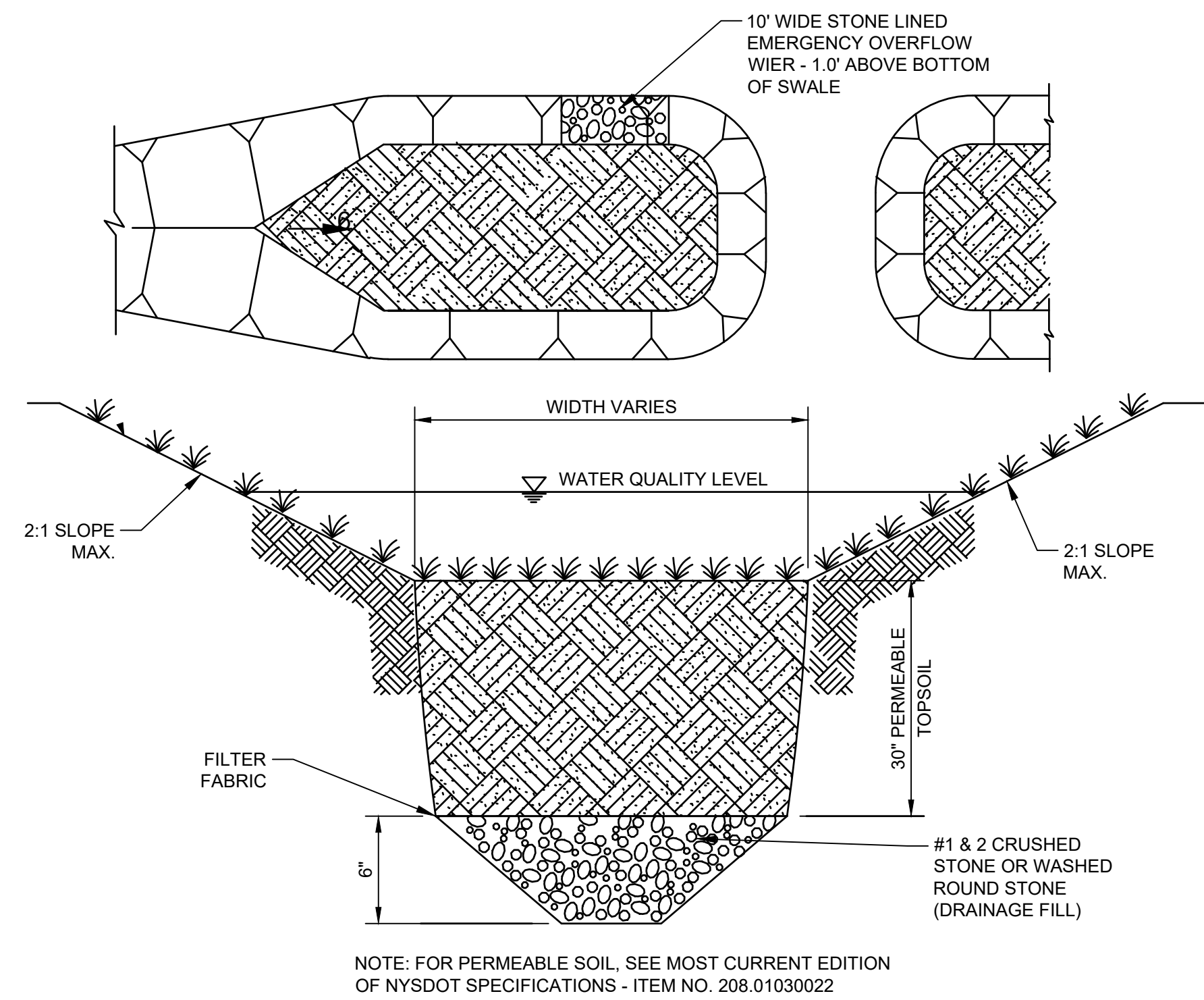
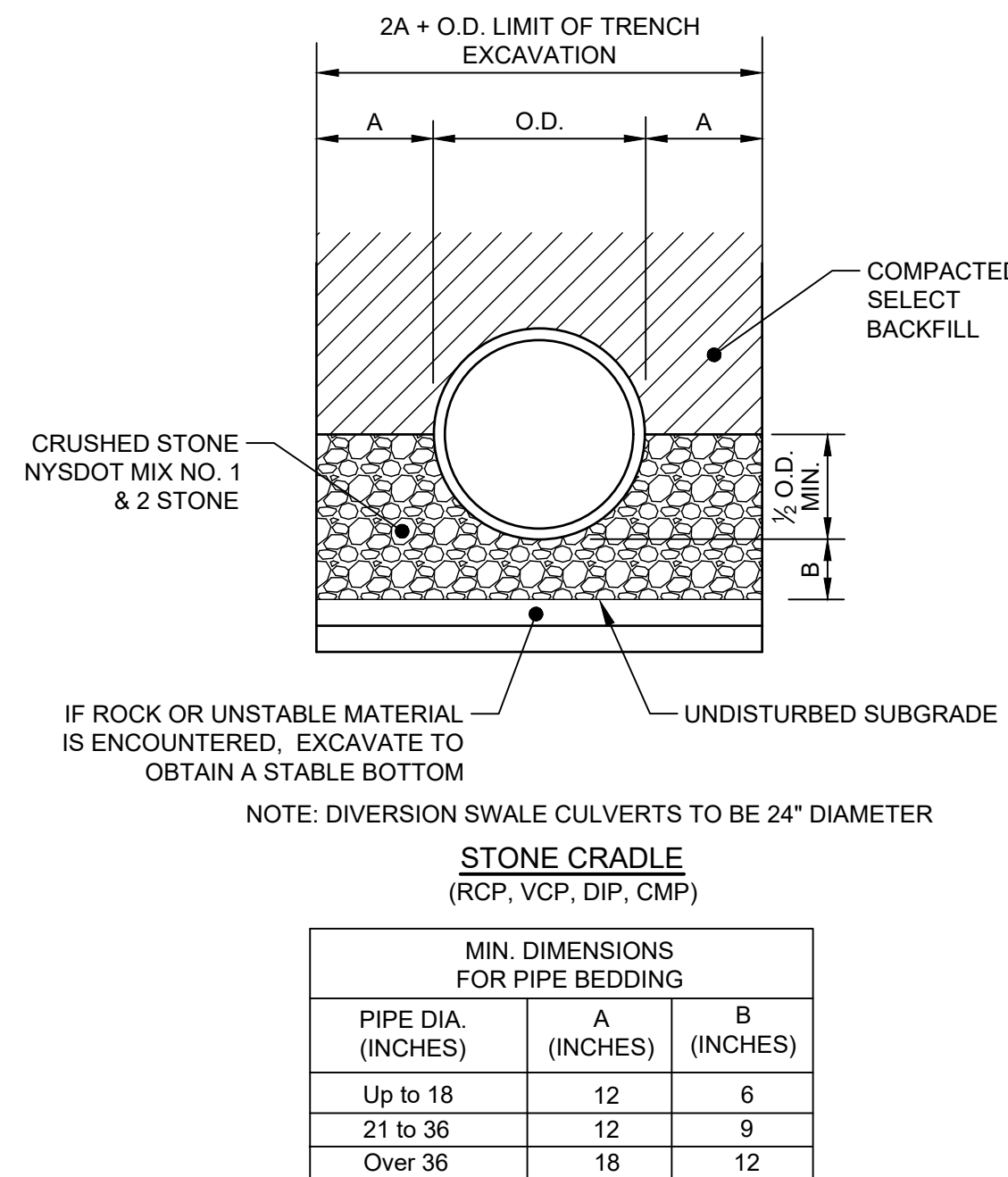
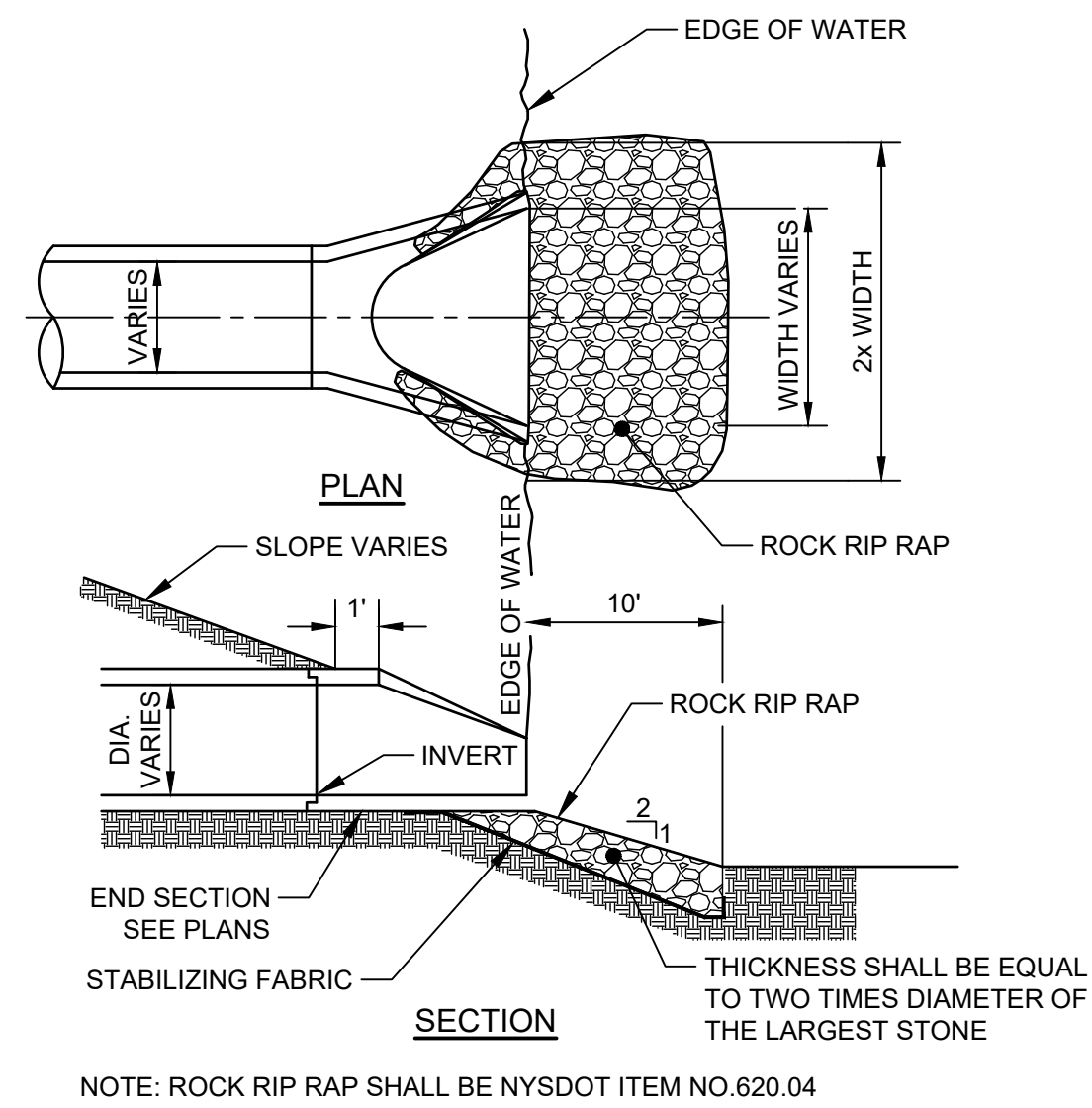
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| <div style="border-bottom: 1px solid black; margin-bottom: 10px;">Client/Project</div> <div style="text-align: center; font-weight: bold; margin-bottom: 20px;">             HECATE ENERGY CIDER SOLAR LLC<br/>             500MW AC CIDER SOLAR FARM           </div> <div style="text-align: center; margin-bottom: 20px;">             OAKFIELD &amp; ELBA, NY<br/>             GENESEE COUNTY, NY           </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="border-bottom: 1px solid black; width: 20%; text-align: center;">File Name: C501.dwg</div> <div style="border-bottom: 1px solid black; width: 10%; text-align: center;">TJC</div> <div style="border-bottom: 1px solid black; width: 10%; text-align: center;">TMP</div> <div style="border-bottom: 1px solid black; width: 10%; text-align: center;">MDF</div> <div style="border-bottom: 1px solid black; width: 20%; text-align: center;">20.12.04</div> </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <div>Dwn.</div> <div>Chkd.</div> <div>Dsgn.</div> <div>YY.MM.DD</div> </div> | <div style="border-bottom: 1px solid black; margin-bottom: 10px;">Title</div> <div style="text-align: center; font-weight: bold; margin-bottom: 20px;">CIVIL DETAILS</div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="border-bottom: 1px solid black; width: 45%;">Project No.</div> <div style="border-bottom: 1px solid black; width: 45%;">Scale</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%; text-align: center;">190502038</div> <div style="width: 45%; text-align: center;">N.T.S.</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="border-bottom: 1px solid black; width: 45%;">Drawing No.</div> <div style="border-bottom: 1px solid black; width: 30%;">Sheet</div> <div style="border-bottom: 1px solid black; width: 25%;">Revision</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%; text-align: center; font-size: 1.5em;">C 501</div> <div style="width: 30%; text-align: center;">61 of 63</div> <div style="width: 25%; text-align: center; font-size: 1.5em;">0</div> </div> |
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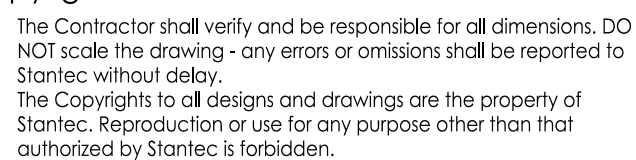
| Revision | By | Appd. | YY.MM.DD |
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| 1 | EXHIBIT 5: DESIGN DRAWINGS | MDF | TMP   | 21.05.21 |
|   | Issued                     | By  | Appd. | YY.MM.DD |





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Revision

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