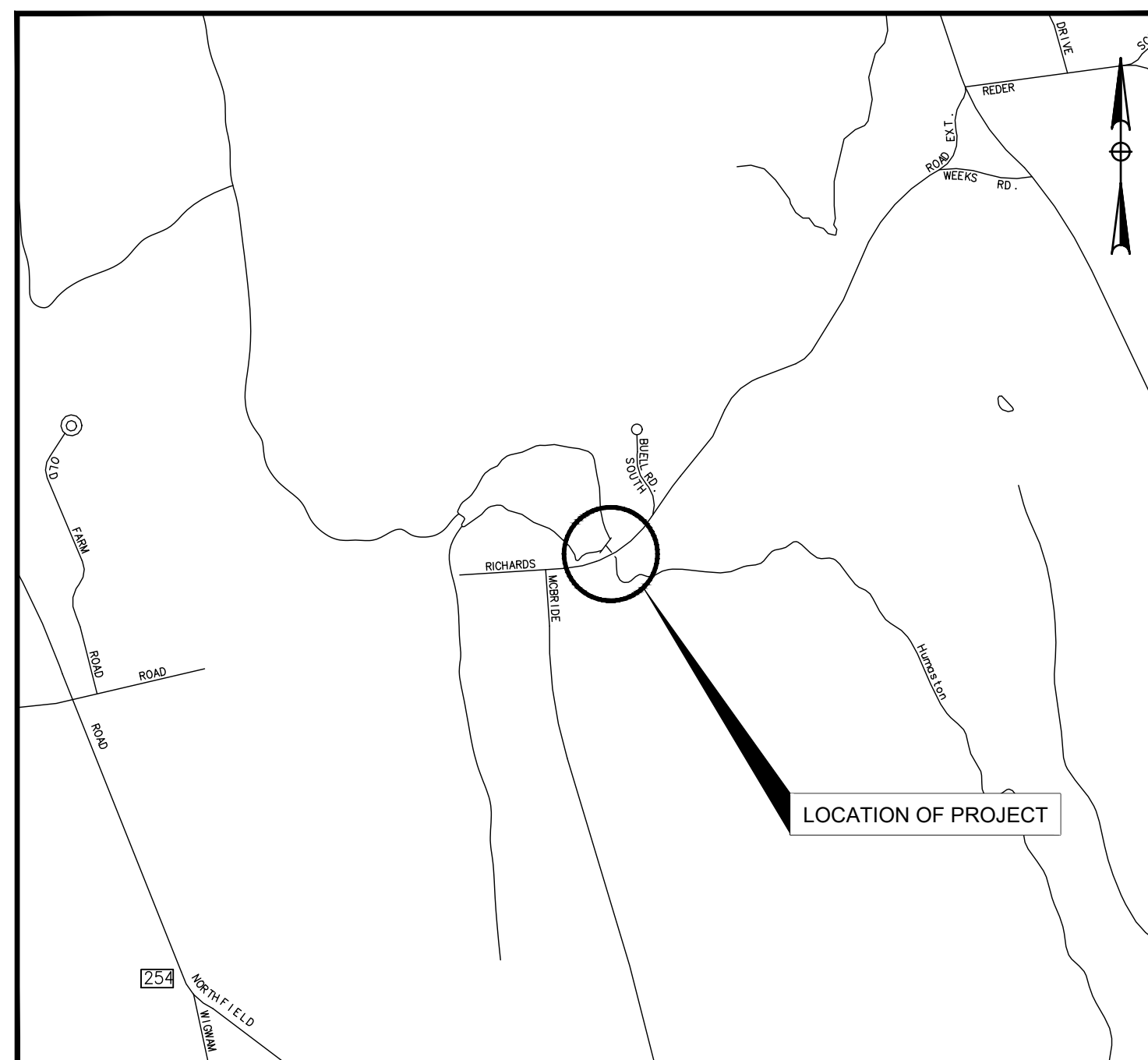
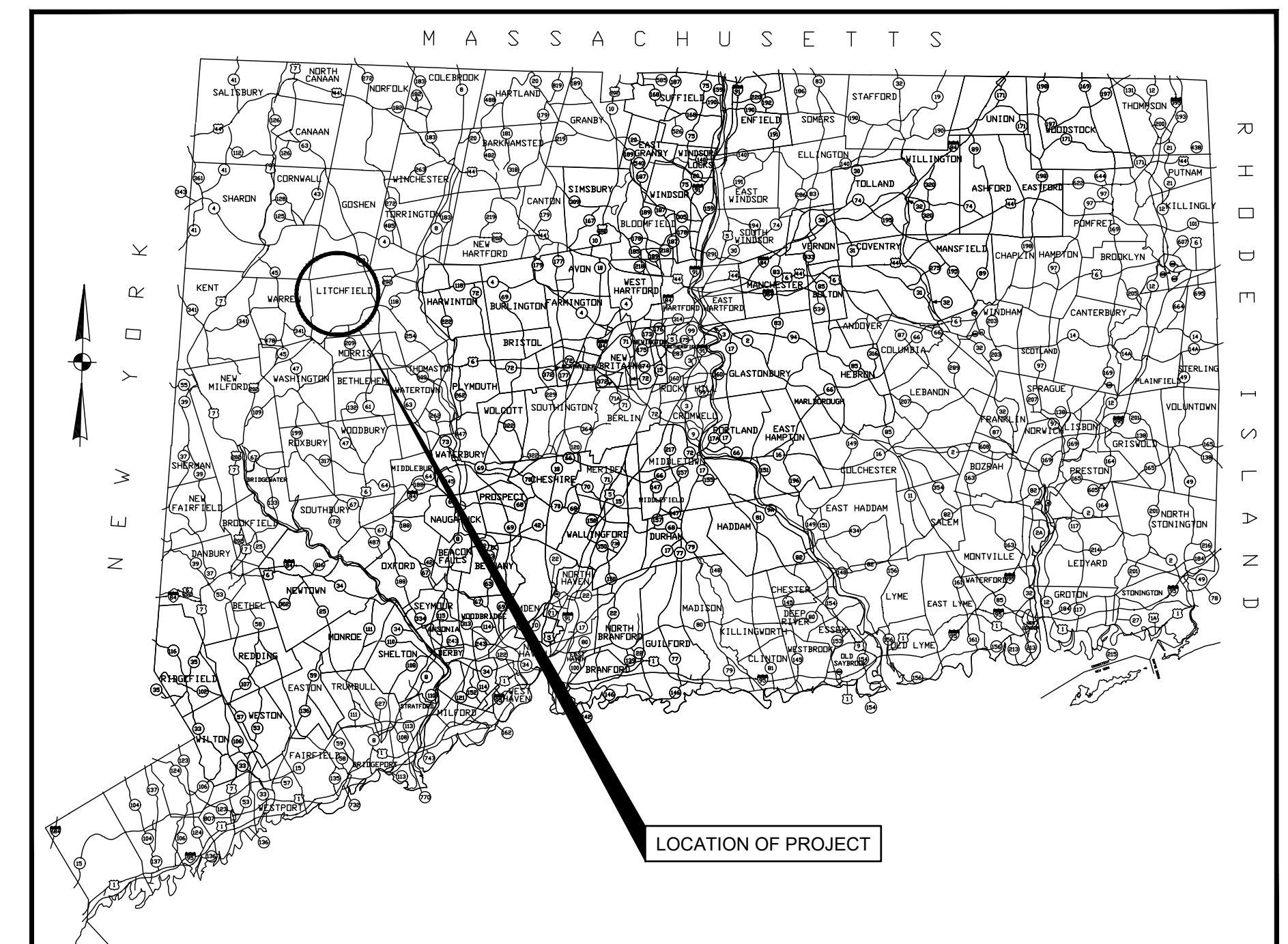


TOWN OF LITCHFIELD  
PLAN  
FOR THE  
REHABILITATION OF  
RICHARDS ROAD EXTENSION CULVERT  
OVER HUMASTON BROOK



PROJECT LOCATION PLAN  
NOT TO SCALE



PROJECT VICINITY MAP  
NOT TO SCALE

SCALES: AS NOTED  
TO BE MAINTAINED BY THE TOWN OF LITCHFIELD

# FIRST SELECTMAN

# Denise Raap

DIRECTOR OF PUBLIC WORKS

Raz Alexe, P.E.

**DESIGN DATA**  
FUNCTIONAL CLASSIFICATION: RURAL LOCAL ROAD  
DESIGN SPEED: N/A  
ADT (EST.): 100

CONSTRUCTION SPECIFICATIONS: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION FORM 818 (2020), SUPPLEMENTAL SPECIFICATIONS DATED 1/2022 AND SPECIAL PROVISIONS,

# PERMIT REVIEW PLANS

## AUGUST, 2022



JOSEPH A. CERMOLA III, P.E., LICENSE NO. 12757

## LIST OF DRAWINGS

[illegible]

### LIST OF DRAWING REVISIONS

[illegible]

TITLE

**CARDINAL**  
ENGINEERING ASSOCIATES

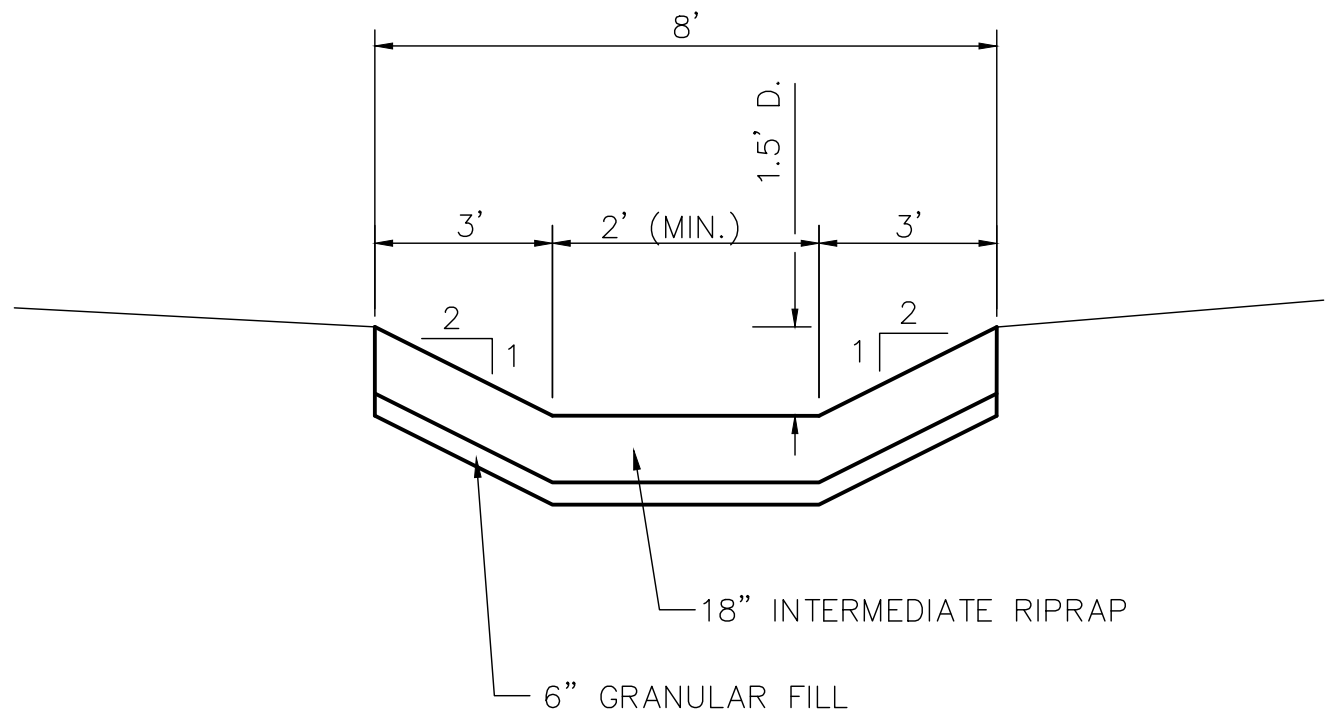
180 RESEARCH PKWY | MERIDEN, CT 06450 | 203-238-1969  
457 BANTAM RD | LITCHFIELD, CT 06759 | 860-597-9106

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GENERAL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818 (2020), SUPPLEMENTAL SPECIFICATIONS DATED 1/2022 AND SPECIAL PROVISIONS.
2. THE PROJECT SITE SHALL CONSIST OF THE AREA WITHIN THE MUNICIPALLY-OWNED RIGHT OF WAY BETWEEN THE DESIGNATED BEGINNING AND END STATIONS FOR THE PROJECT AS SHOWN ON THE PLANS. IT SHALL ALSO INCLUDE ANY EASEMENTS TO PERFORM WORK ON PRIVATELY-OWNED PROPERTY AS DEPICTED ON THE PLANS. THE CONTRACTOR SHALL LIMIT HIS CONSTRUCTION ACTIVITIES TO THE AREA WITHIN THE PROJECT SITE.
3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF LITCHFIELD REGULATIONS, THE CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION, FORM 818, WITH LATEST REVISIONS, 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, DEP BULLETIN 34, UNLESS OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS.
4. ALL DIMENSIONS ARE FEET UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL WALK THE PROJECT PRIOR TO CONSTRUCTION WITH A REPRESENTATIVE FROM THE TOWN AND THE ENGINEER. TREES TO BE REMOVED SHALL BE MARKED IN THE FIELD. NO TREES 3" IN DIAMETER OR GREATER SHALL BE CUT DOWN FROM APRIL 15 TO AUGUST 31. EXTREME CARE SHALL BE EXERCISED TO PROTECT ALL TREES NOT DESIGNATED FOR REMOVAL. NO TREES SHALL BE REMOVED UNTIL AUTHORIZATION IS GIVEN BY THE TOWN. COST IS INCLUDED IN THE ITEM "CLEARING AND GRUBBING".
6. ANY PHYSICAL FEATURES DISTURBED BY THE CONTRACTOR SHALL BE REPLACED OR RECONSTRUCTED AS DIRECTED BY THE ENGINEER TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO CONSTRUCTION AT THE CONTRACTORS EXPENSE.
7. ALL DIMENSIONS AND ELEVATIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF MANUFACTURING AND CONSTRUCTION, AND NECESSARY ADJUSTMENTS MADE AS ORDERED BY THE ENGINEER.
8. WORKING HOURS SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 A.M. AND 5:00 P.M., MONDAY THRU FRIDAY. NO WORK WILL BE PERFORMED ON WEEKENDS, HOLIDAYS, OR SPECIAL DAYS AS DIRECTED BY THE ENGINEER. THE ONLY EXCEPTIONS TO THESE LIMITATIONS WILL BE AS DIRECTED BY THE ENGINEER TO CORRECT OR HANDLE EMERGENCY CONDITIONS, OR IF APPROVED BY THE ENGINEER IN WRITING.
9. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION. COORDINATE ACCESS WITH STAGING OPERATIONS.
10. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION. COORDINATE ACCESS WITH STAGING OPERATIONS.
11. ALL DISTURBED AREAS THAT WILL NOT BE PAVED SHALL RECEIVE 4" OF TOPSOIL AND TURF ESTABLISHMENT UNLESS OTHERWISE NOTED.
12. ALL SWALES AND DITCHES WILL HAVE TEMPORARY "U" SHAPED STONE DIKES PLACED PERPENDICULAR TO FLOW AT 30' SPACING DURING CONSTRUCTION TO PREVENT EROSION .
13. ALL REQUIRED UTILITY RELOCATIONS SHALL BE PERFORMED BY THE RESPECTIVE UTILITY COMPANY UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES PRIOR TO ANY WORK AND COORDINATE HIS WORK WITH THE UTILITY COMPANY WORK. THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANY FOR THE UTILITY COMPANY TO HOLD ANY POLES THAT NEED TO BE SUPPORTED DURING THE CONTRACTOR'S TRENCHING OPERATIONS. THE COST TO COORDINATE THIS WORK WITH THE UTILITY COMPANIES SHALL BE INCIDENTAL TO THE PROJECT UNLESS A SPECIFIC PAY ITEM IS INCLUDED.
14. IF THE CONTRACTOR WILL BE REQUIRED TO WORK IN PROXIMITY OF AND BENEATH OVERHEAD POWER LINES AS WELL AS TELEPHONE, CABLE TV AND TELECOMMUNICATION LINES. THE OVERHEAD LINES ARE NOT ANTICIPATED TO BE DE-ENERGIZED DURING THE PROSECUTION OF THIS WORK. THE CONTRACTOR SHALL SPECIFICALLY COMPLY WITH THE REQUIREMENTS DETAILED IN OSHA REGULATIONS (STANDARDS 29 CFR) CRANES AND DERRICKS - 1926.550 AS WELL AS OTHER APPLICABLE OSHA STANDARDS. THE CONTRACTOR SHALL MAINTAIN A SAFE DISTANCE FROM ALL UTILITY POLES DURING CONSTRUCTION ACTIVITIES.
15. THE INFORMATION SHOWN ON THESE PLANS IS BASED ON LIMITED INVESTIGATIONS AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OF WORK REQUIRED. LOCATIONS OF EXISTING UTILITIES AND UNDERGROUND STRUCTURES HAVE BEEN COMPILED FROM THE BEST AVAILABLE INFORMATION. THIS INFORMATION WAS COMPILED

- UTILIZING UTILITY COMPANY & TOWN RECORD MAPS AND FIELD SURVEY AND THEREFORE, IS CONSIDERED TO BE APPROXIMATE. ALL UTILITIES AND UNDERGROUND STRUCTURES MAY NOT BE SHOWN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATION OF ALL UTILITIES AND TO NOTIFY UTILITY COMPANIES OF NECESSARY RELOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THAT OF THE UTILITY COMPANIES. UTILITY LINES DAMAGED BY THE CONTRACTOR SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE UTILITY COMPANY AND THE COST OF REPAIR WORK SHALL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT CALL BEFORE-DIG AT 1-800-922-4455 FOR MARKING OF EXISTING UTILITIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF EXCAVATION (MONDAY THROUGH FRIDAY, EXCLUDING HOLIDAYS).
16. CONTRACTOR TO SUPPLY UTILITY COMPANIES WITH SUFFICIENT VERTICAL AND HORIZONTAL STAKEOUT OF PROPOSED STORM DRAINAGE, PROPOSED ROADWAY, AND OTHER PROPOSED IMPROVEMENTS TO PERFORM UTILITY RELOCATIONS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE ITEM "CONSTRUCTION STAKING."
17. EXISTING PAVEMENT SHALL BE REMOVED IN FILL AREAS PRIOR TO PLACING FILL. EXISTING PAVEMENT OUTSIDE OF THE CUT AND FILL LIMITS THAT WILL NOT BE USED IN THE PROPOSED CONDITIONS SHALL BE REMOVED. PAYMENT SHALL BE MADE UNDER THE ITEM "EARTH EXCAVATION."
18. ALL EXISTING DRAINAGE PIPES AND CULVERTS WITHIN THE PROJECT SLOPE LIMITS THAT ARE DESIGNATED TO BE REMOVED SHALL BE REMOVED AND BACKFILLED AS SPECIFIED IN SECTION 2.05 "TRENCH EXCAVATION" UNLESS OTHERWISE SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. COORDINATE THIS WORK WITH THE RECONNECTION OF ANY EXISTING FOUNDATION AND OTHER DRAINS TO THE PROPOSED DRAINAGE SYSTEM.
19. THE CONTRACTOR SHALL MAINTAIN ALL ROAD NAME SIGNS AS INDICATED ON THE PLANS AND SHALL MAINTAIN ALL TRAFFIC CONTROL SIGNS AS NEEDED DURING CONSTRUCTION AND AS DIRECTED BY THE ENGINEER. COST IS INCLUDED IN THE ITEM "MAINTENANCE AND PROTECTION OF TRAFFIC".
20. PLANIMETRIC AND TOPOGRAPHIC FEATURES ARE BASED ON FIELD SURVEY PERFORMED BY CARDINAL ENGINEERING ASSOCIATES, IN MARCH 2019. SURVEY BASELINE CONFORMS TO CLASS A-2 HORIZONTAL ACCURACY. STREETLINE AND PROPERTY LINE INFORMATION (IF SHOWN) ARE APPROXIMATE AND BASED ON LIMITED FIELD SURVEY. ALL ELEVATIONS ARE BASED ON NAVD 88. HORIZONTAL COORDINATES ARE BASED ON CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD 83). VERTICAL ACCURACY IS CLASS T-2.
21. ALL TYPE 'C' CATCH BASIN TOP OF FRAME ELEVATIONS SHALL BE MEASURED IN THE CENTER OF THE GRATE AT THE GUTTER LINE AND REFLECT THE ELEVATION WITH THE STANDARD DEPRESSION AS SHOWN ON "DETAILS OF DEPRESSED GUTTER STRIP FOR TYPE 'C' CATCH BASIN" (SEE CTDOT STANDARD DETAIL SHEET NO. HW-507.01). ALL TYPE 'C-L' CATCH BASIN TOP OF FRAME ELEVATIONS SHALL BE MEASURED IN THE CENTER OF THE GRATE.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE UTILITY COMPANIES TO RESET ALL UTILITY BOXES TO FINISHED GRADE. THERE WILL BE NO SEPARATE PAYMENT TO COORDINATE THIS WORK OR CLAIM FOR TIME EXTENSION.
23. THE CONTRACTOR SHALL RESET ALL WATER AND GAS CURB STOPS BOXES AND WATER AND GAS GATE VALVE BOXES TO FINISHED GRADE. THERE SHALL BE NO SEPARATE MEASUREMENT OR PAYMENT FOR THIS WORK AS IT IS INCIDENTAL TO CONSTRUCTION.
24. ALL UNCONFINED INSTREAM WORK SHALL BE PERFORMED BETWEEN JUNE 1 AND SEPTEMBER 30.



STONE SIZE	PERCENTAGE OF THE MASS
18" OR OVER	0
10" TO 18"	30-50
6" TO 10"	30-50
4" TO 6"	20-30
2" TO 4"	10-20
LESS THAN 2"	0-10

RIPRAP CHANNEL/DITCH

N.T.S.

LIST OF ABBREVIATIONS

AGGR	AGGREGATE	NOM	NOMINAL
AH	AHEAD	NO	NUMBER
A	ALGEBRAIC DIFFERENCE IN GRADES	PERF	PERFORATED
APPROX	APPROXIMATE	POB	POINT OF BEGINNING
ASPH	ASPHALT	PCC	POINT OF COMPOUND CURVATURE
BK	BACK	PC	POINT OF CURVATURE
BL	BASELINE	POE	POINT OF ENDING
BM	BENCHMARK	PGA	POINT OF GRADE APPLICATION
BIT	BITUMINOUS	PI	POINT OF INTERSECTION
BCLC	BITUMINOUS CONCRETE LIP CURBING	PRC	POINT OF REVERSE CURVE
CGR	CABLE GUIDERAIL	PT	POINT OF TANGENCY
CI / CIP	CAST IRON PIPE	PVC	POINT OF VERTICAL CURVATURE
CB	CATCH BASIN	PVCC	POINT OF VERTICAL COMPOUND CURVATURE
CL	CENTERLINE	PVI	POINT OF INTERSECTION
CC	CONCRETE CURBING	PVRC	POINT OF VERTICAL REVERSE CURVE
CL	CLASS	PVT	POINT OF VERTICAL TANGENCY
CONC	CONCRETE	POC	POINT ON CURVATURE
CP	CONTROL POINT	POT	POINT ON TANGENT
COR	CORNER	PVC	POLYVINYL CHLORIDE PIPE
CMP	CORRUGATED METAL PIPE	RL	PROPERTY LINE
CPFE	CORRUGATED POLYETHYLENE FLARED END	R	RADIUS
CPP	CORRUGATED POLYETHYLENE PIPE	RR	RAILROAD
CY	CUBIC YARD	K	RATE OF VERTICAL CURVATURE
DIA	DIAMETER	REINF	REINFORCED
DBL	DOUBLE	RCCE	REINFORCED CONCRETE CULVERT END
DRIVE	DRIVEWAY	RCP	REINFORCED CONCRETE PIPE
DI / DIP	DUCTILE IRON PIPE	REQD	REQUIRED
EA	EACH	RT	RIGHT
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
EL / ELEV	ELEVATION	RSC	RIGID STEEL CONDUIT
EX / EXIST	EXISTING	RD	ROAD
FG	FINISHED GRADE	SAN	SANITARY
FP	FLAGPOLE	SS	SANITARY SEWER
FE	FLARED END	SED	SEDIMENTATION
FL	FLOW LINE	SCB	SEDIMENT CONTROL BALES
FT	FOOT	SCS	SEDIMENT CONTROL SYSTEM
FND	FOUND	SHLD	SHOULDER
FOUND	FOUNDATION	SF	SQUARE FOOT
G	GAS	SY	SQUARE YARD
GV	GAS VALVE	STD	STANDARD
GSC / GC	GRANITE STONE CURBING	STA	STATION
HP	HIGH POINT	SSD	STOPPING SIGHT DISTANCE
HORIZ	HORIZONTAL	ST	STREET
HRS	HOURS	§	STREET LINE
HYD	HYDRANT	TBD	TO BE DETERMINED
INV	INVERT	TF	TOP OF FRAME
IE	INVERT ELEVATION	TYP	TYPICAL
IP	IRON PIN	UD	UNDERDRAIN
LT	LEFT	VERT	VERTICAL
L	LENGTH	VC	VERTICAL CURVE
LVC	LENGTH OF VERTICAL CURVE	VF	VERTICAL FEET
LTP	LIGHT POLE	VCP	VITRIFIED CLAY PIPE
LF	LINEAR FEET	W	WATER
LP	LOW POINT	WV	WATER VALVE
LS	LUMP SUM		
MB	MAILBOX		
MH	MANHOLE		
MAX	MAXIMUM		
MBR	METAL BEAM RAIL		
MCE	METAL CULVERT END		
MIN	MINIMUM		
MON	MONUMENT		
NTS	NOT TO SCALE		

STANDARD CONVENTIONS

EXISTING		PROPOSED
	APPROXIMATE LIMIT OF CUT SLOPE	
	APPROXIMATE LIMIT OF FILL SLOPE	
-----	APPROXIMATE PROPERTY LINE	
--- -- -- --	APPROXIMATE STREET LINE	
	BASELINE STATION	0+00
	BITUMINOUS CONCRETE DRIVEWAY	
	BORING NUMBER B10 (SEE BORING LOG SHEET)	B10
	CATCH BASIN	
	CONTROL POINT	
	CONCRETE DRIVEWAY/ CONCRETE DRIVEWAY RAMP	
	CULVERT END	
	DRAINAGE DITCH	
	DRAINAGE PIPE	
-----	EASEMENT LINE (PERMANENT)	-----
-----	EASEMENT LINE (TEMPORARY)	-----
----- E -----	ELECTRIC LINE (OVERHEAD OR UNDERGROUND)	
----- G -----	GAS LINE	
	GAS TEST PIT	TP G1
	GAS VALVE or WATER VALVE	
	HIGH VOLTAGE OVERHEAD LINE	
	HOUSE/ STRUCTURE	
	HYDRANT	
	INLAND WETLAND LIMITS	
	MAILBOX	
	MANHOLE (STORM)	
	MANHOLE (SANITARY)	
	MONUMENT	
	NORTH ARROW	
	ORDINARY HIGH WATER	----- OHW -----
	RIPRAP APRON	
	SANITARY SERVICE CONNECTION	
	SANITARY SEWER	
	SEDIMENTATION CONTROL SYSTEM	
	SIGN	
x 33.2	SPOT ELEVATION	x 33.2
	STONE WALL	
	TELEPHONE LINE (OVERHEAD OR UNDERGROUND)	
	TEST HOLE NUMBER 5 (SEE CONTRACT DOCUMENTS)	TH-5
	TREE	
	TREE LINE	
	UNDERDRAIN	
	"U" SHAPED STONE DIKE	
	UTILITY POLE	
----- W -----	WATER COURSE	
----- W -----	WATER LINE	----- W -----
	WATER TEST PIT	TP W1

REHABILITATION OF RICHARDS ROAD EXTENSION  
CULVERT OVER HUMASTON BROOK  
LITCHFIELD, CONNECTICUT  
GENERAL NOTES

CARDINAL  
ENGINEERING ASSOCIATES  
180 RESEARCH PARKWAY/MEYDEN CT 06460/203-298-1869  
437 BARTLAND RD / LITCHFIELD CT 06751/860-397-9106

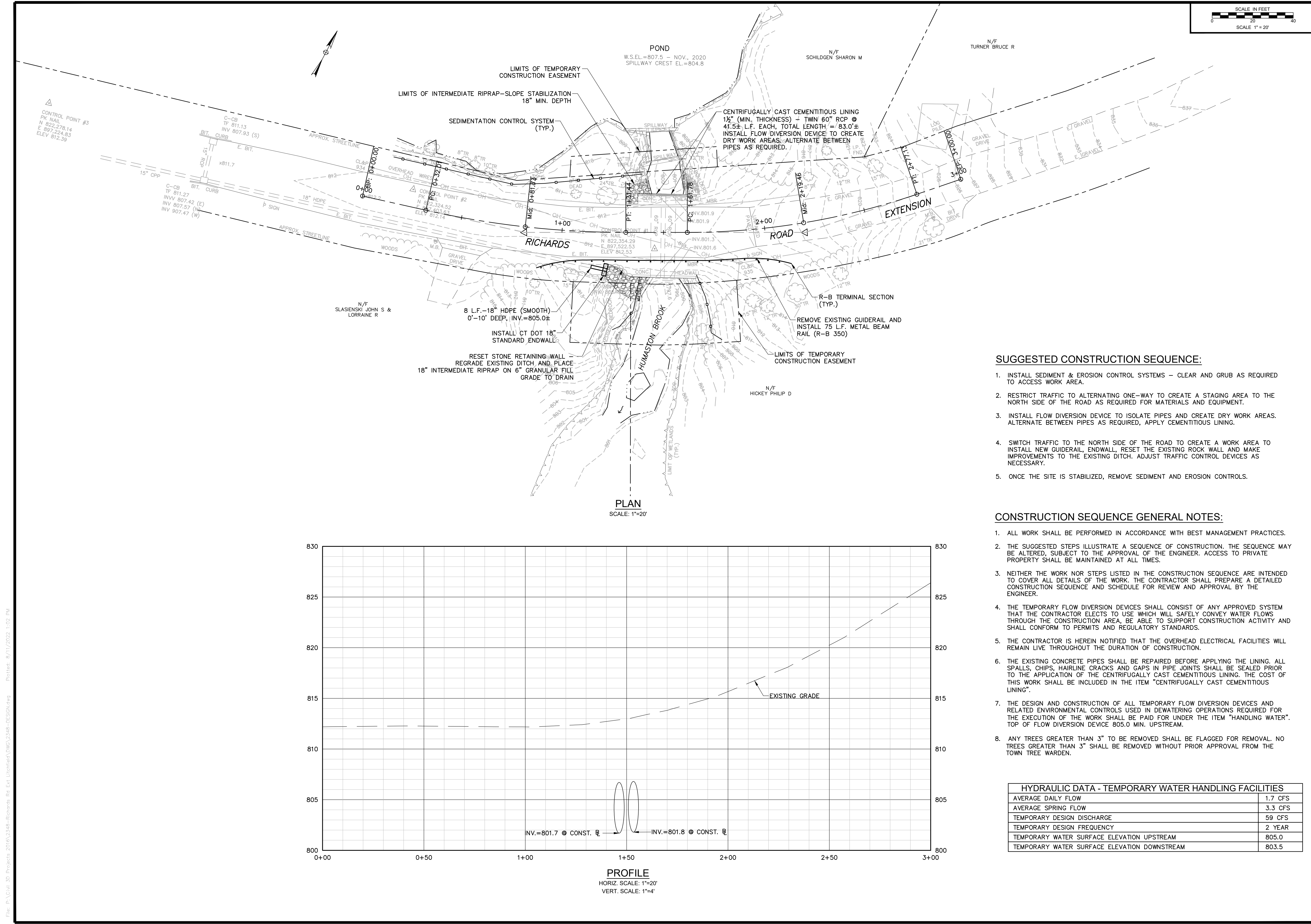
DATE: August 2022  
SCALE: AS NOTED  
DESIGNED BY:  
DRAWN BY:  
CHECKED BY:  
APPROVED BY: JAC

					BY
					DATE
					REVISION
					NO.

GEN-01



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**SUGGESTED CONSTRUCTION SEQUENCE:**

1. INSTALL SEDIMENT & EROSION CONTROL SYSTEMS – CLEAR AND GRUB AS REQUIRED TO ACCESS WORK AREA.
2. RESTRICT TRAFFIC TO ALTERNATING ONE-WAY TO CREATE A STAGING AREA TO THE NORTH SIDE OF THE ROAD AS REQUIRED FOR MATERIALS AND EQUIPMENT.
3. INSTALL FLOW DIVERSION DEVICE TO ISOLATE PIPES AND CREATE DRY WORK AREAS. ALTERNATE BETWEEN PIPES AS REQUIRED, APPLY CEMENTITIOUS LINING.
4. SWITCH TRAFFIC TO THE NORTH SIDE OF THE ROAD TO CREATE A WORK AREA TO INSTALL NEW GUIDERAIL, ENDWALL, RESET THE EXISTING ROCK WALL AND MAKE IMPROVEMENTS TO THE EXISTING DITCH. ADJUST TRAFFIC CONTROL DEVICES AS NECESSARY.
5. ONCE THE SITE IS STABILIZED, REMOVE SEDIMENT AND EROSION CONTROLS.

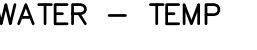
**CONSTRUCTION SEQUENCE GENERAL NOTES:**

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
2. THE SUGGESTED STEPS ILLUSTRATE A SEQUENCE OF CONSTRUCTION. THE SEQUENCE MAY BE ALTERED, SUBJECT TO THE APPROVAL OF THE ENGINEER. ACCESS TO PRIVATE PROPERTY SHALL BE MAINTAINED AT ALL TIMES.
3. NEITHER THE WORK NOR STEPS LISTED IN THE CONSTRUCTION SEQUENCE ARE INTENDED TO COVER ALL DETAILS OF THE WORK. THE CONTRACTOR SHALL PREPARE A DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE FOR REVIEW AND APPROVAL BY THE ENGINEER.
4. THE TEMPORARY FLOW DIVERSION DEVICES SHALL CONSIST OF ANY APPROVED SYSTEM THAT THE CONTRACTOR ELECTS TO USE WHICH WILL SAFELY CONVEY WATER FLOWS THROUGH THE CONSTRUCTION AREA, BE ABLE TO SUPPORT CONSTRUCTION ACTIVITY AND SHALL CONFORM TO PERMITS AND REGULATORY STANDARDS.
5. THE CONTRACTOR IS HEREIN NOTIFIED THAT THE OVERHEAD ELECTRICAL FACILITIES WILL REMAIN LIVE THROUGHOUT THE DURATION OF CONSTRUCTION.
6. THE EXISTING CONCRETE PIPES SHALL BE REPAIRED BEFORE APPLYING THE LINING. ALL SPALLS, CHIPS, HAIRLINE CRACKS AND GAPS IN PIPE JOINTS SHALL BE SEALED PRIOR TO THE APPLICATION OF THE CENTRIFUGALLY CAST CEMENTITIOUS LINING. THE COST OF THIS WORK SHALL BE INCLUDED IN THE ITEM "CENTRIFUGALLY CAST CEMENTITIOUS LINING".
7. THE DESIGN AND CONSTRUCTION OF ALL TEMPORARY FLOW DIVERSION DEVICES AND RELATED ENVIRONMENTAL CONTROLS USED IN DEWATERING OPERATIONS REQUIRED FOR THE EXECUTION OF THE WORK SHALL BE PAID FOR UNDER THE ITEM "HANDLING WATER". TOP OF FLOW DIVERSION DEVICE 805.0 MIN. UPSTREAM.
8. ANY TREES GREATER THAN 3" TO BE REMOVED SHALL BE FLAGGED FOR REMOVAL. NO TREES GREATER THAN 3" SHALL BE REMOVED WITHOUT PRIOR APPROVAL FROM THE TOWN TREE WARDEN.



- NOTES:

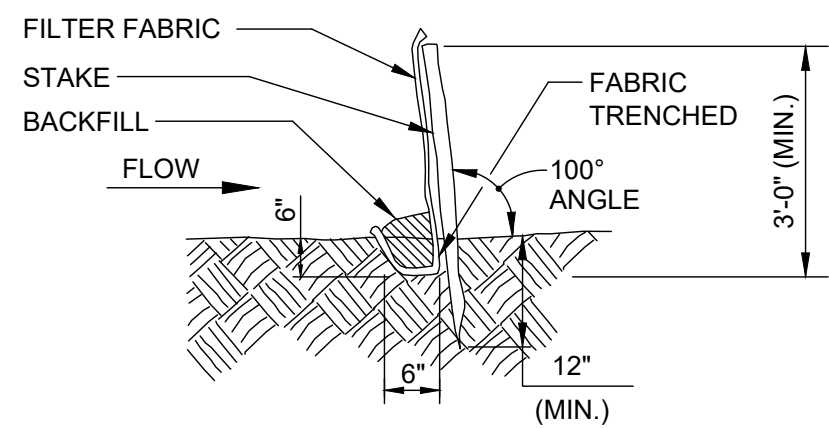
## WETLAND IMPACT TABLE

HYDRAULIC DATA - TEMPORARY WATER HANDLING FACILITIES



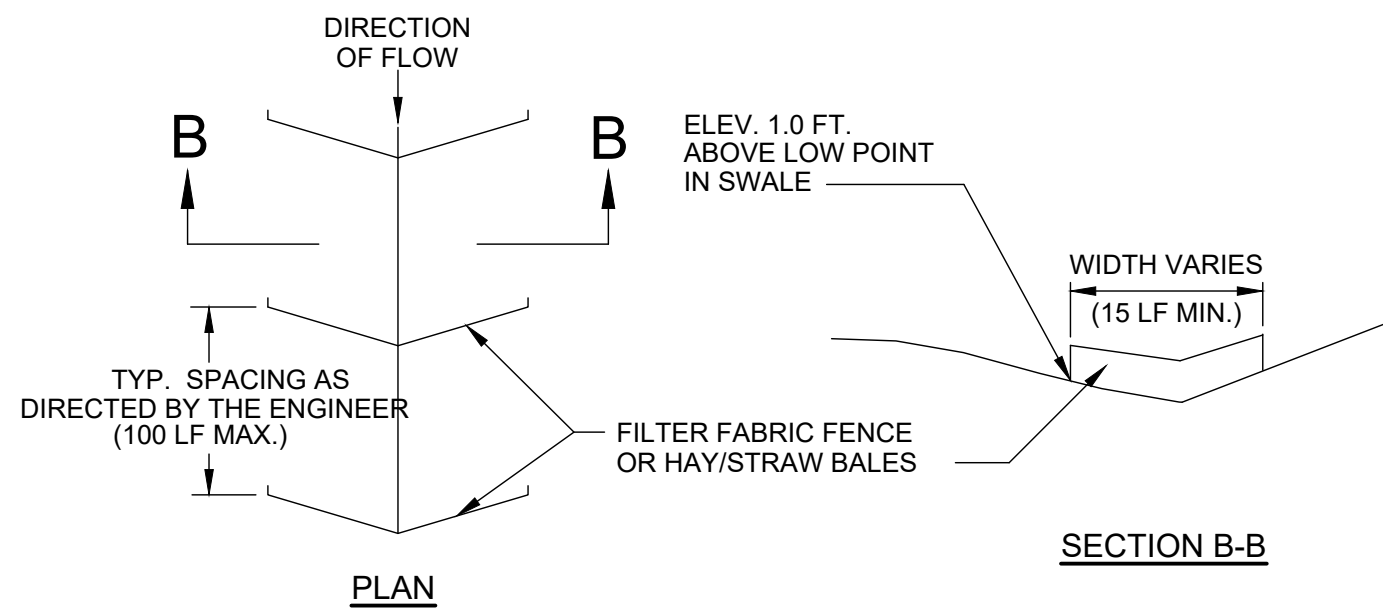


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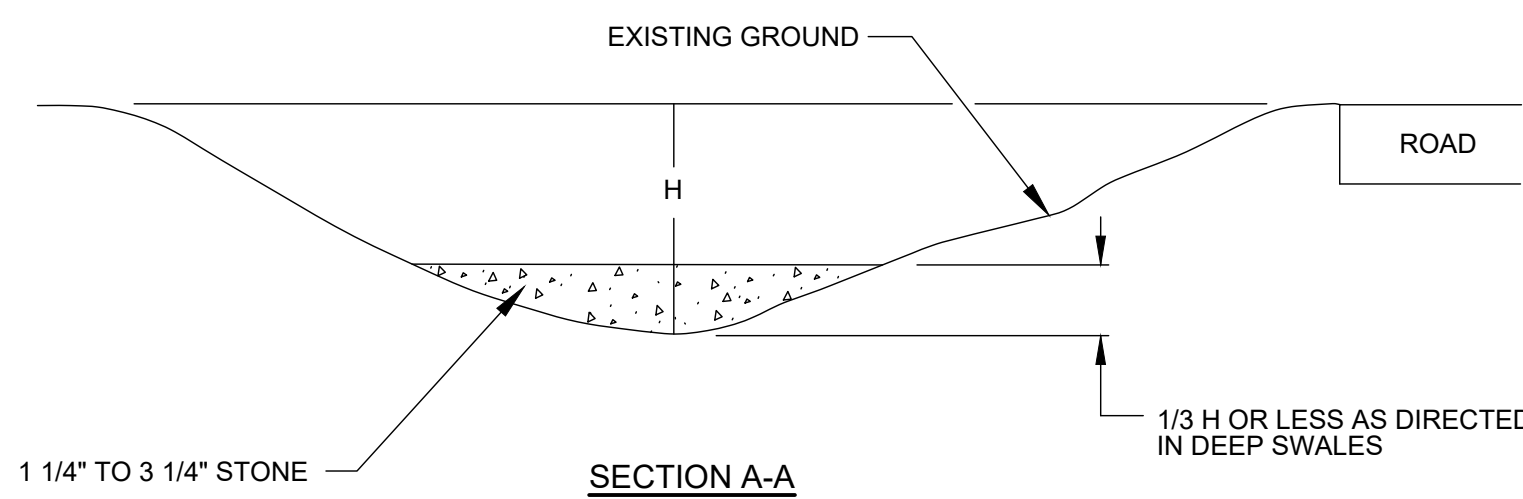


#### SILT FENCE INSTALLATION

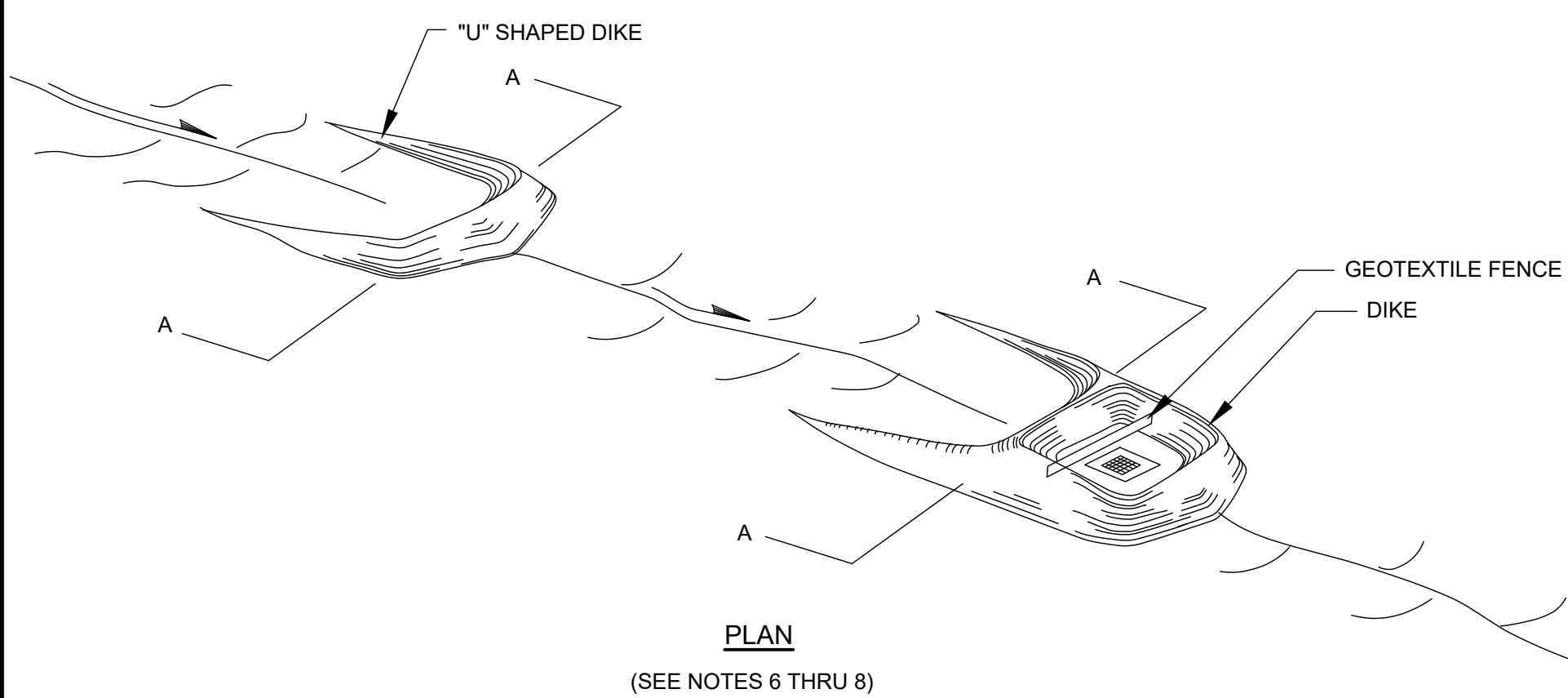
- MINIMUM LENGTH OF SILT FENCE IS 15 L.F.
- MAXIMUM POST SPACING IS 10 L.F.
- JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP, SECURELY SEALED.
- SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN THEY REACH 1/2 THE HEIGHT OF THE SILT FENCE.
- SILT FENCE SHALL NOT BE USED IN A WATER COURSE.
- UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS, AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.



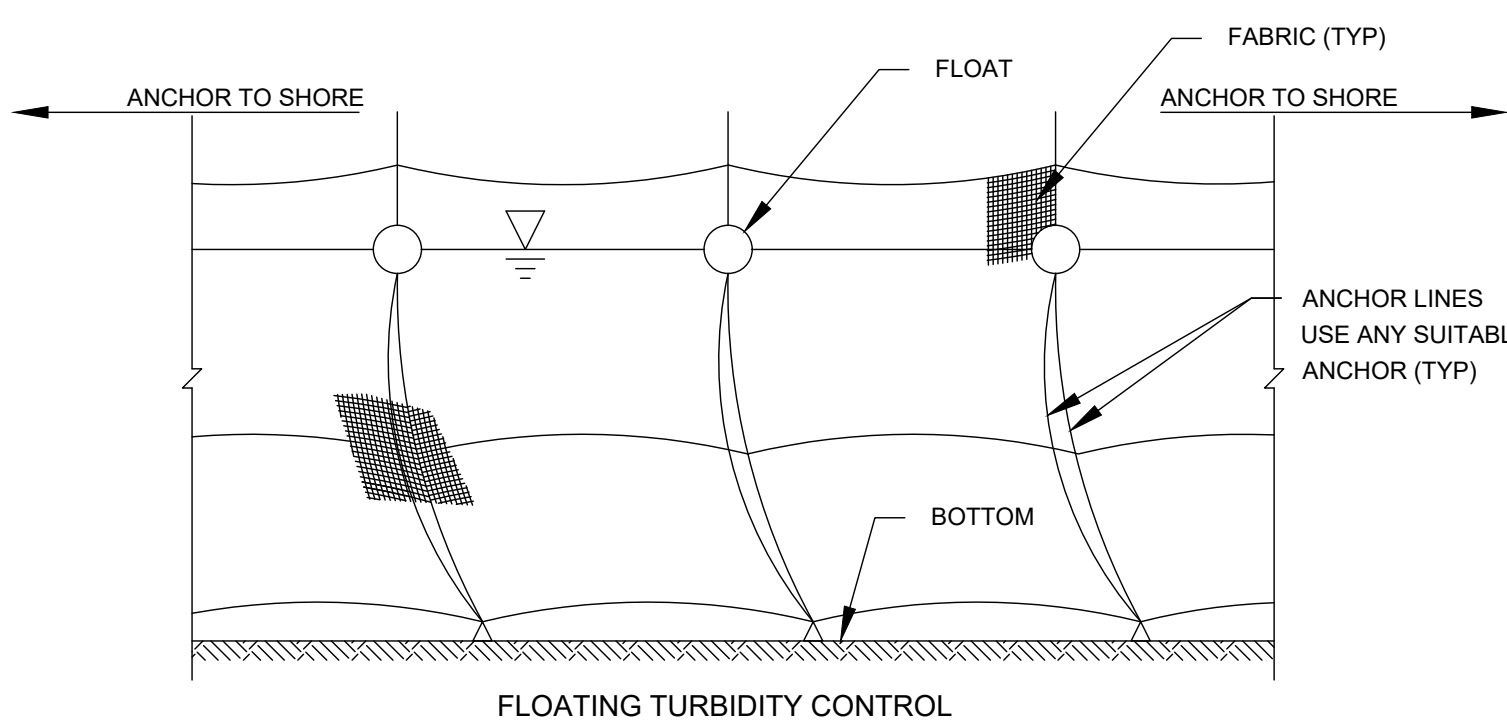
#### CHECK DAM FILTER FABRIC OR HAY/STRAW BALES



#### SECTION A-A



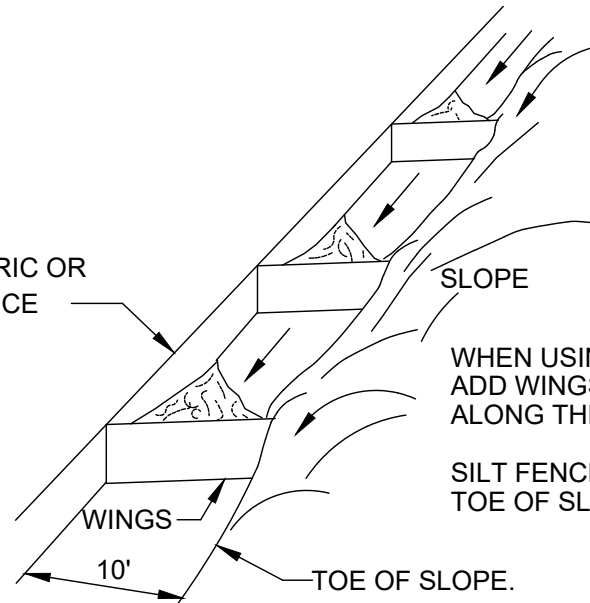
#### "U" SHAPED STONE DIKE



#### TURBIDITY CONTROL CURTAIN

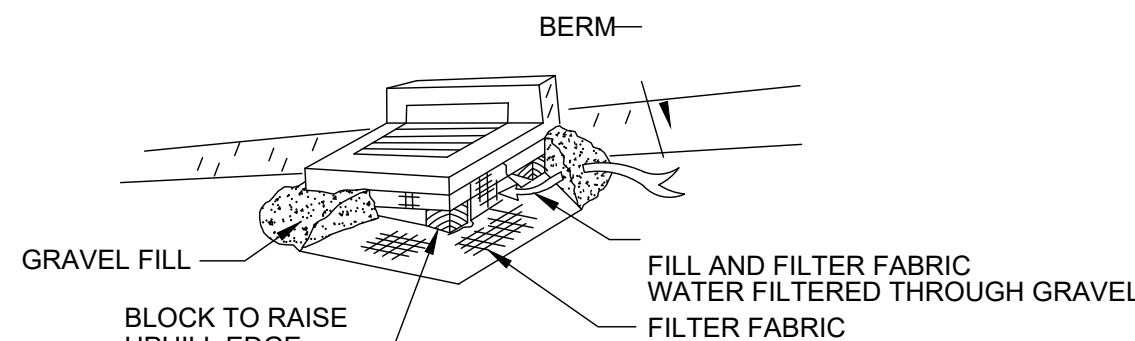
NOT TO SCALE

ENGINEERING FABRIC OR  
HAY BALE SILT FENCE



WHEN USING SILT FENCE ALONG TOE OF SLOPE,  
ADD WINGS TO PREVENT SEDIMENT FROM MOVING  
ALONG THE FENCE AND OFF THE SITE.  
SILT FENCE SHOULD BE LOCATED 10' FROM  
TOE OF SLOPE.

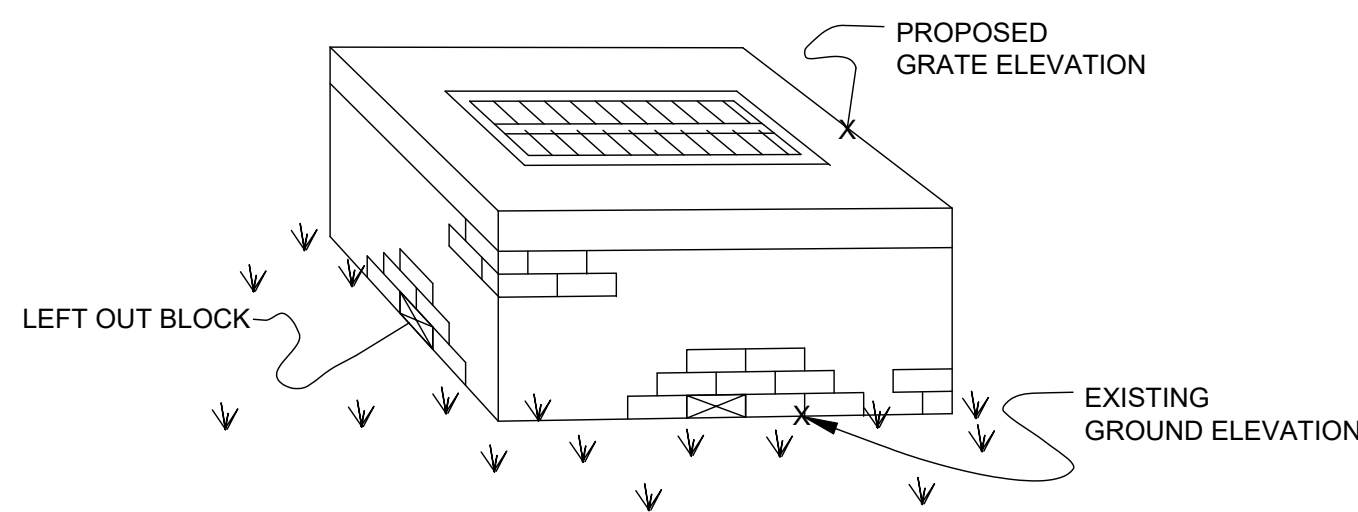
#### SEDIMENTATION CONTROL SYSTEM TOE OF SLOPE (WHERE DIRECTED BY ENGINEER)



WHERE DIRECTED BY ENGINEER, CONTRACTOR SHALL CONSTRUCT  
A STONE DIKE IN LIEU OF THE FILTER FABRIC CHECK DAM.

#### SEDIMENTATION CONTROL SYSTEM FOR CATCH BASINS

NOTE: RAISE AND PROTECT CATCH BASIN TOPS WITH CRUSHED  
STONE AS SOON AS POSSIBLE TO PERMIT DRAINAGE TO  
ENTER STORM SYSTEMS, WHEN ROADWAY IS BROUGHT  
UP TO SUBBASE BEFORE PAVING.



#### SHORT TERM ALTERNATE

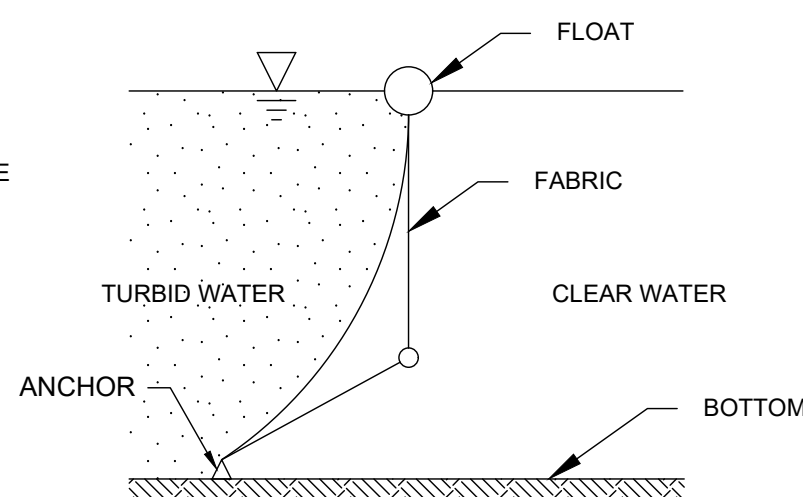
(SEE NOTES 2 THRU 5)

NOTES:

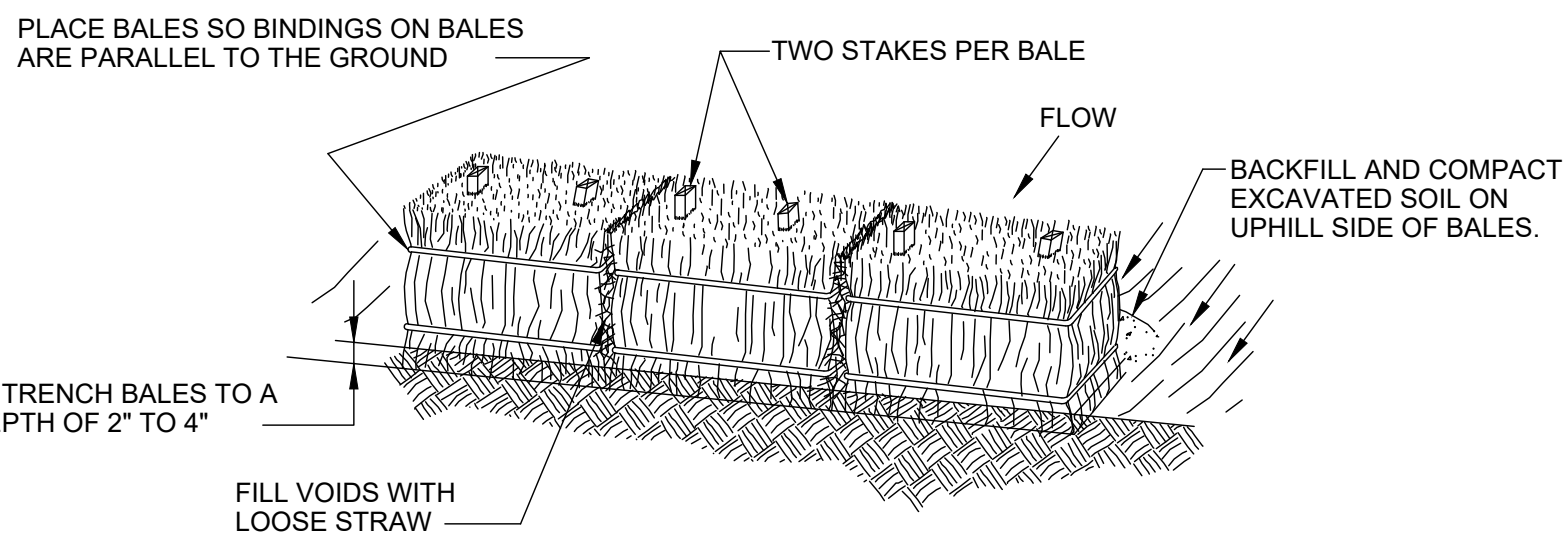
- ALL DIMENSIONS ARE IN INCHES (") EXCEPT AS NOTED.
- CONSTRUCT CATCH BASINS LEAVING ONE (1) BLOCK OUT PER SIDE AT EXISTING GROUND ELEVATION TO ALLOW WATER TO ENTER.
- IF GROUND WITHIN A CATCH BASIN'S WATERSHED BECOMES DISTURBED AND THE CATCH BASIN WILL NOT BE BACKFILLED TO TOP OF GRATE ELEVATION FOR AT LEAST EIGHT (8) HOURS, INSTALL SEDIMENTATION CONTROL SYSTEM FOR CATCH BASIN.
- INSTALL LEFT OUT BLOCKS NOT SOONER THAN TWO (2) HOURS PRIOR TO BACKFILLING AROUND CATCH BASIN.
- IMMEDIATELY AFTER PLACING FILL, INSTALL SEDIMENTATION CONTROL SYSTEMS.
- THE ENDS OF THE DIKE SHALL BE THE SAME ELEVATION AS THE SPILLWAY OR GREATER.
- MAXIMUM HEIGHT OF DIKE SHOULD NOT EXCEED 1/3 HEIGHT OF THE CHANNEL.
- STONE DIKES SHALL BE PLACED AT 50' INTERVALS IN ALL TEMPORARY DITCHES AND CHANNELS.

NOTE:

SEE PLANS AND SPECIAL  
PROVISIONS FOR LOCATION OF  
AND ADDITIONAL INFORMATION  
REGARDING TURBIDITY  
CONTROL CURTAIN.

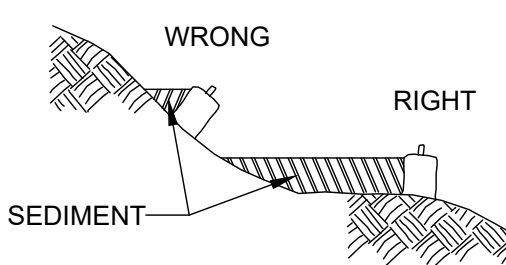


#### FLOATING SECTION



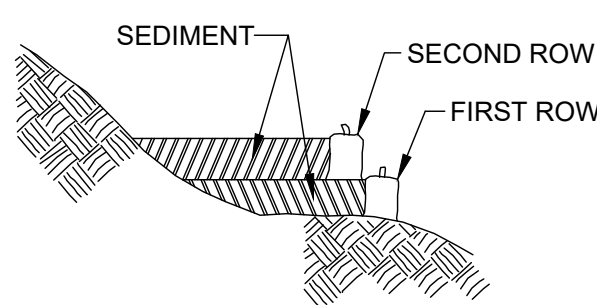
#### INSTALLATION

- IDEALLY, BALES SHOULD BE ENTRENCHED 2 TO 4 INCHES AND TIGHTLY BUTTED TOGETHER. BALES CAN BE SUCCESSFULLY PLACED WITHOUT A TRENCH IF GOOD GROUND CONTACT IS MADE. REMOVE HEAVY BRUSH AND FILL IN ALL VOIDS WITH LOOSE STRAW.
- BALES SHALL BE ONLY USED AS A TEMPORARY BARRIER AND FOR NO LONGER THAN 60 DAYS. THEY SHALL NOT BE USED ON A JOB ADJACENT TO A RESIDENTIAL NEIGHBORHOOD, RESIDENCES OR ADJACENT TO OR IN A WATERCOURSE.
- WHEN SEDIMENTATION DEPOSITS REACH WITHIN 3" OF THE TOP OF THE BALES, REMOVE SEDIMENTATION OR ADD ADDITIONAL BALES ON SEDIMENTATION DIRECTLY BEHIND THE FIRST ROW OF BALES AS DIRECTED BY THE ENGINEER.
- UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS AND WHEN DIRECTED BY THE THE ENGINEER, HAY BALES WILL BE REMOVED AND USED AS MULCH. ANY SEDIMENTATION WILL BE THINLY SPREAD UPON ESTABLISHED GROUND COVER.



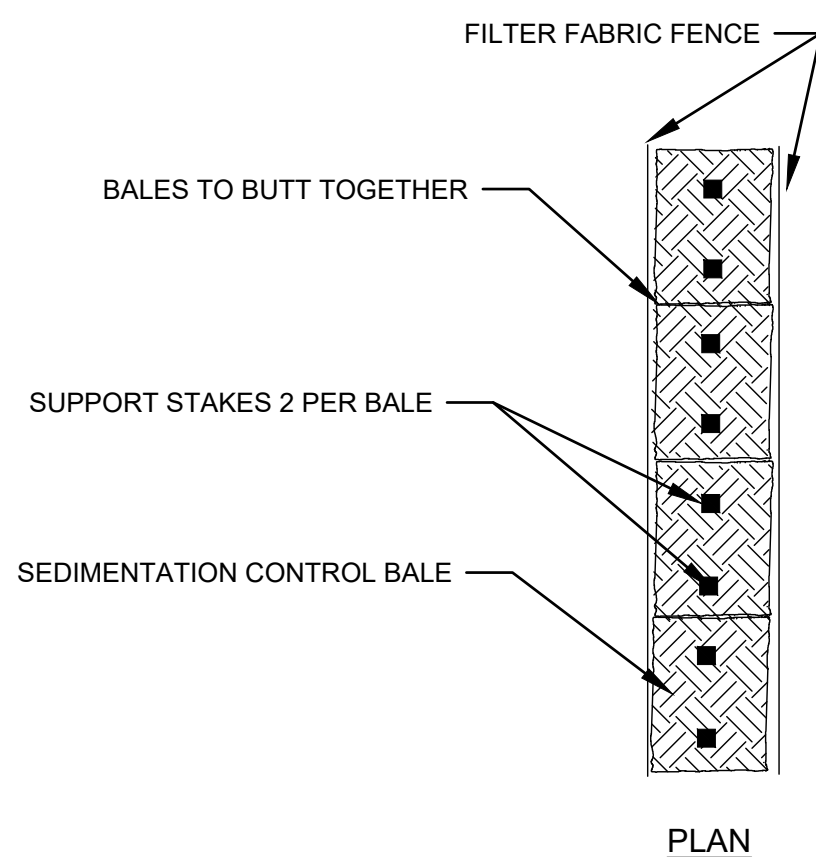
#### BALE PLACEMENT

BALES PLACED AWAY FROM TOE OF SLOPE HAVE A LARGER CONFINEMENT  
AREA. ADDITIONAL BALES SHOULD BE ADDED BEHIND ORIGINAL BALES  
BEFORE SEDIMENT TOPS THE FIRST BALE.



#### PREFERRED PLACEMENT

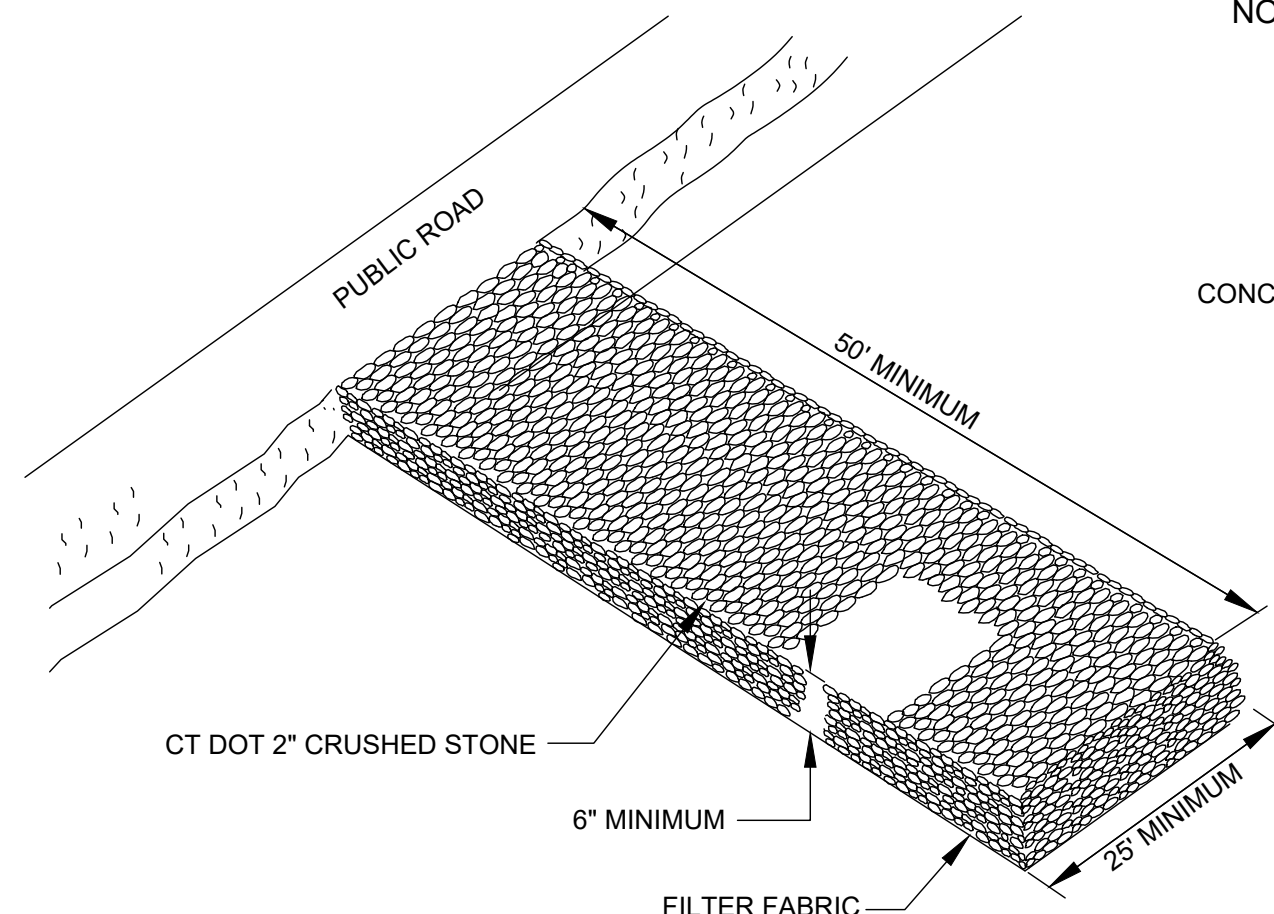
#### DIKES HAY/STRAW BALES



#### PLAN

#### SEDIMENTATION CONTROL SYSTEM DOUBLE SILT FENCE WITH HAYBALES

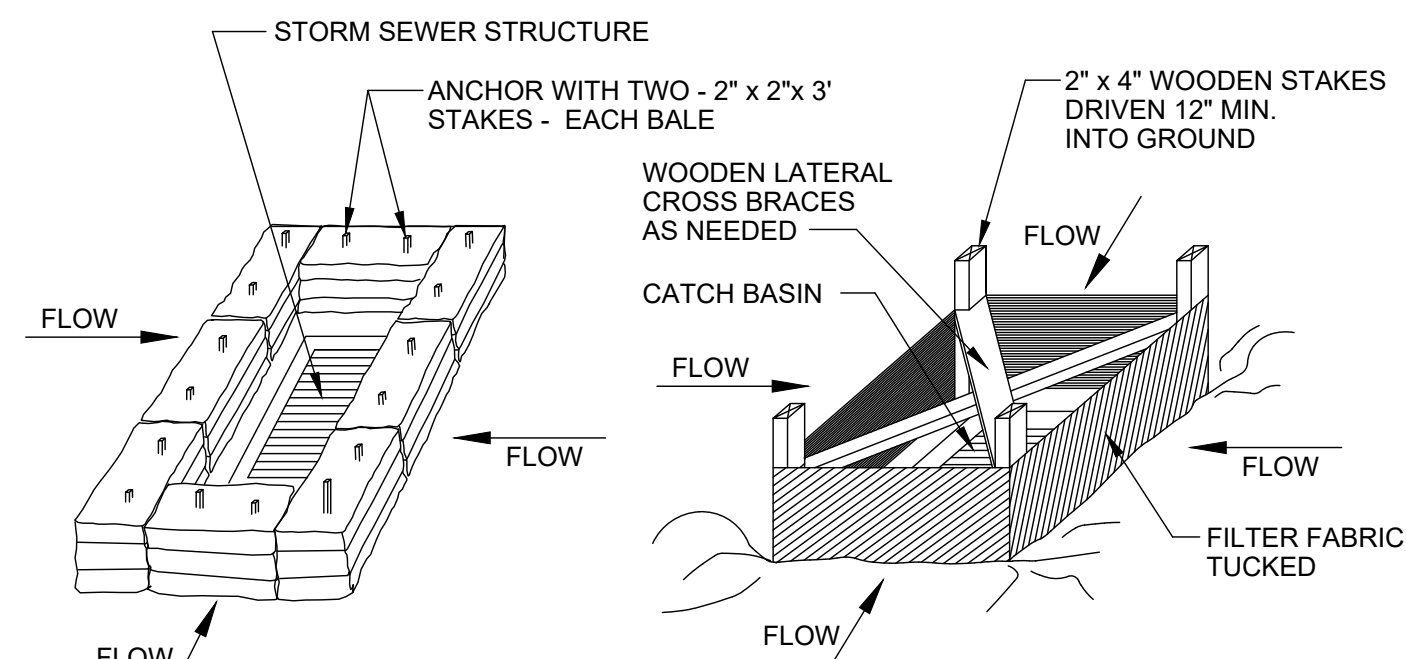
NOT TO SCALE



NOTES:

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- ANTI-TRACKING PADS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER.

#### ANTI-TRACKING PAD



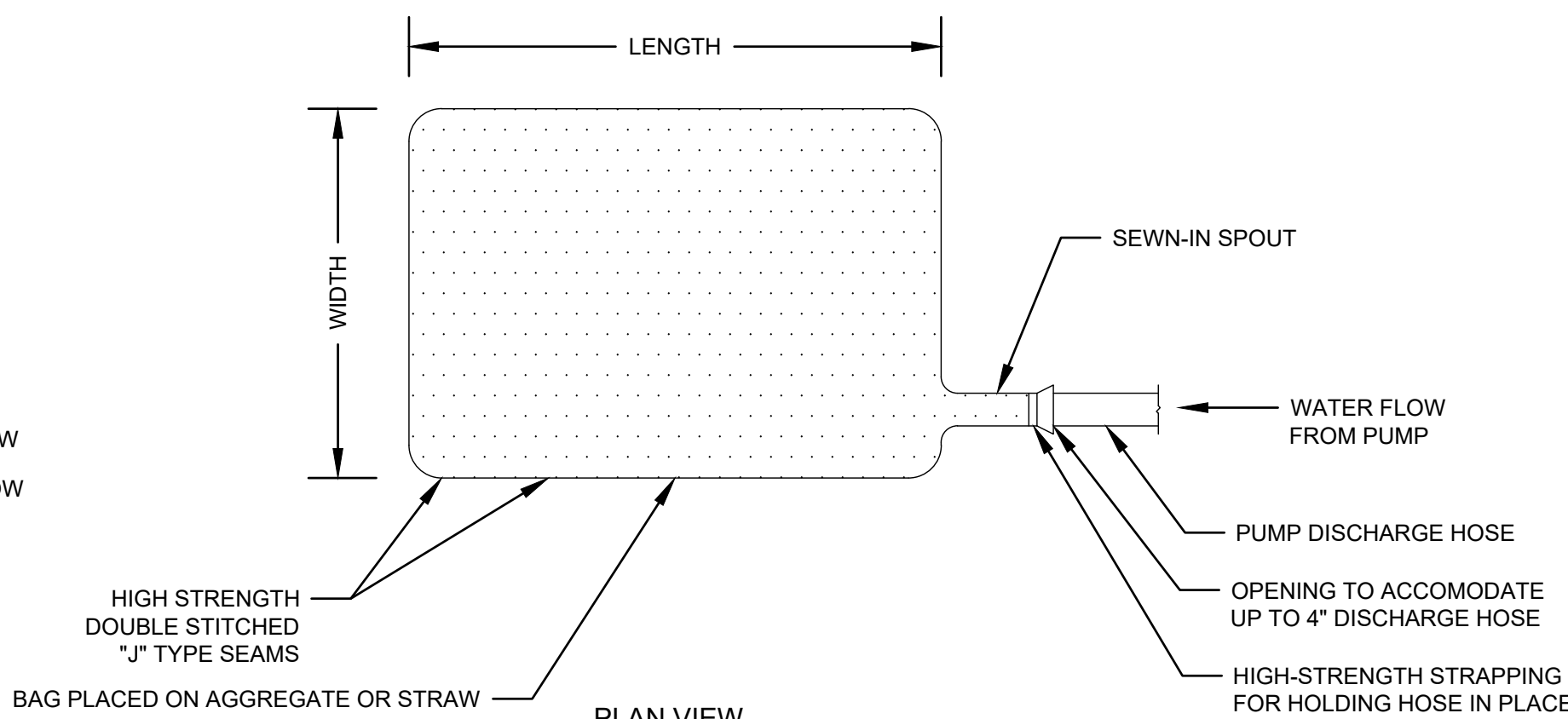
#### HAY BALE INSTALLATION

#### AT CATCH BASIN

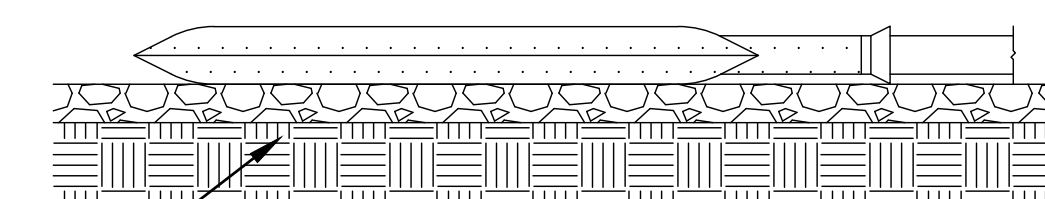
#### CATCH BASIN IN A DEPRESSION

#### SILT FENCE INSTALLATION

#### AT CATCH BASIN

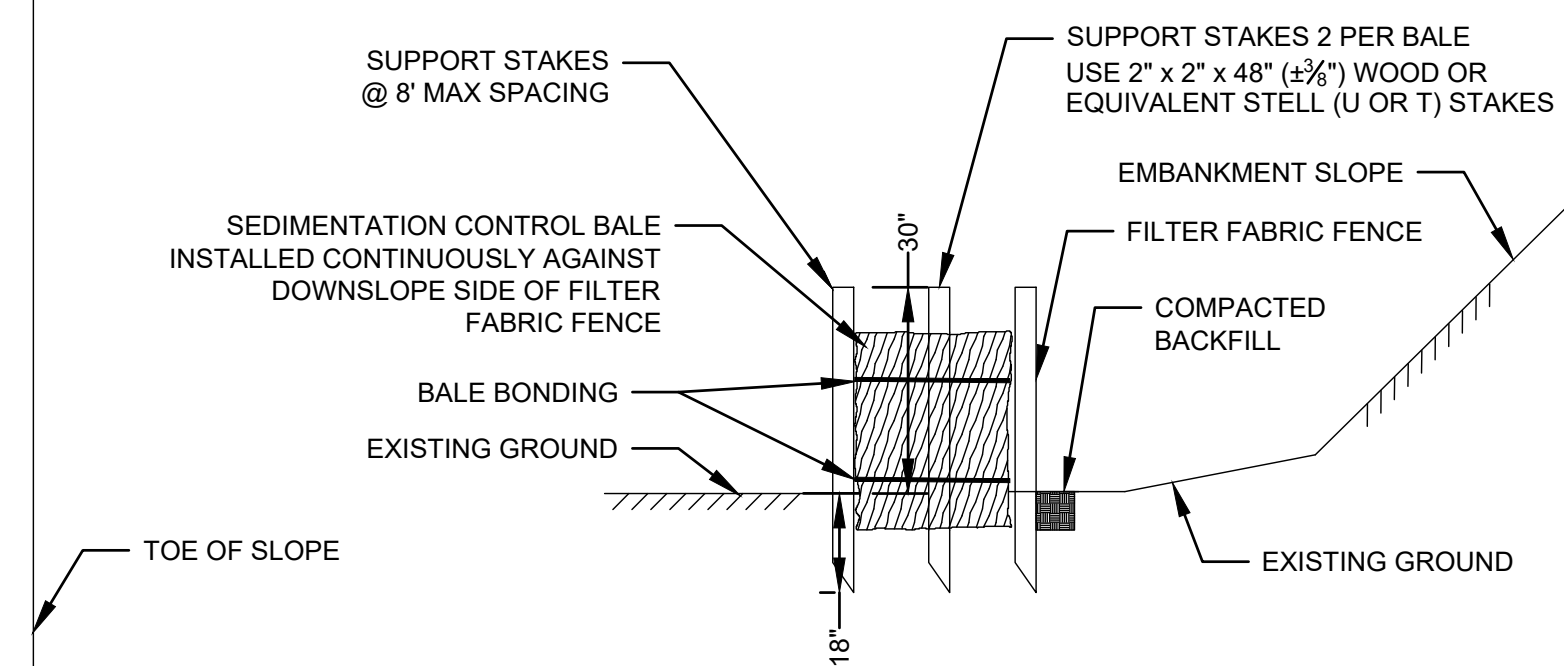


#### PLAN VIEW



#### SIDE VIEW

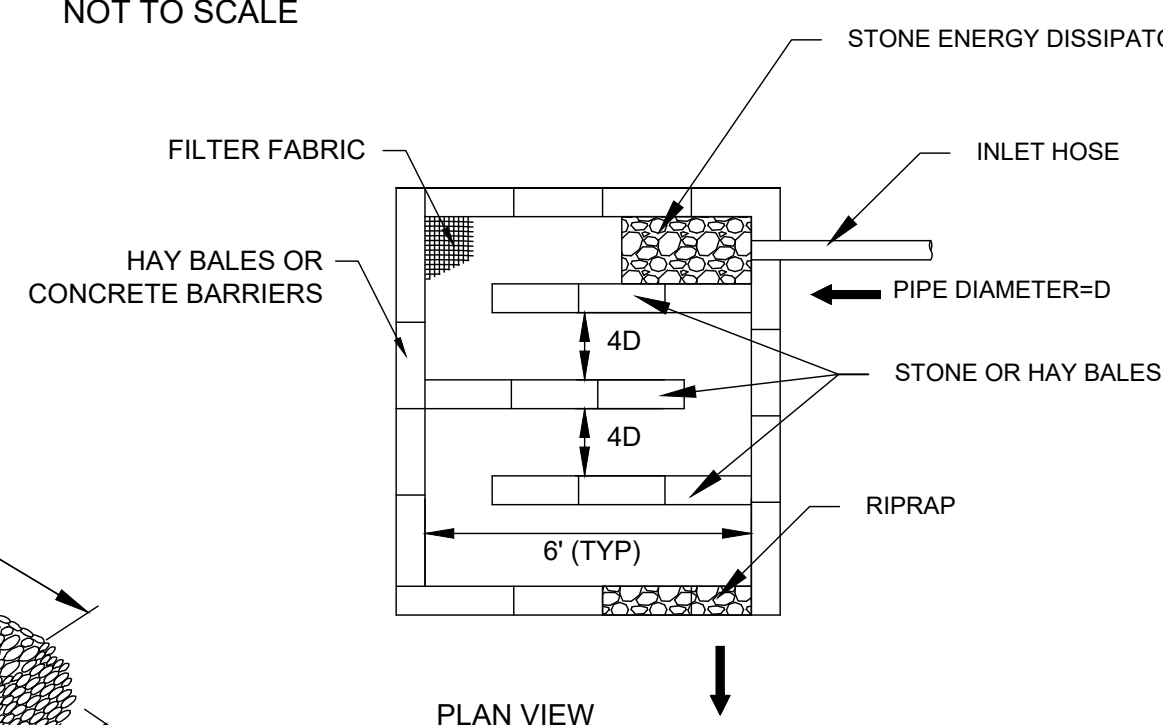
#### SYNTHETIC FILTER BAG



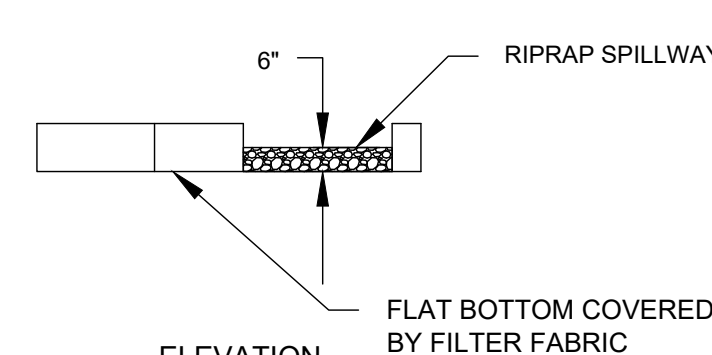
#### SECTION

#### SEDIMENTATION CONTROL SYSTEM DOUBLE SILT FENCE WITH HAYBALES

NOT TO SCALE



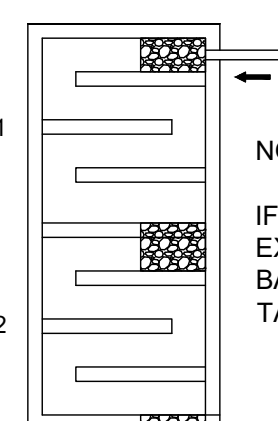
#### PLAN VIEW



#### ELEVATION

#### DEWATERING BASIN

NOT TO SCALE



NOTES:

- VOLUME OF BASIN IS EQUAL TO THE MAXIMUM VOLUME OF WATER CAPABLE OF BEING PUMPED OVER ONE HOUR. THIS VOLUME CAN BE DETERMINED BY THE CONTRACTOR USING THE PUMP MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR TO SHOW APPROXIMATE LOCATION AND SIZE OF HIS PROPOSED DEWATERING BASIN(S) ON HIS EROSION AND SEDIMENTATION CONTROL PLANS. SEE SECTION 1.10, ENVIRONMENTAL COMPLIANCE.
- DEWATERING BASIN(S) NOT TO BE LOCATED IN ANY WETLAND AREA.
- THERE WILL BE NO SEPARATE PAYMENT FOR THE DEWATERING BASINS, BUT IT WILL BE INCLUDED IN THE COST OF THE RESPECTIVE ITEMS "COFFERDAM AND DEWATERING" AND SEDIMENT AND EROSION CONTROL.