

NO.	REVISIONS	DATE	INT.
1	INITIAL SUBMISSION TO TOWN OF DURHAM	12/21/20	AWS

DATE ISSUED: 12/21/20
SCALE: 1" = 10'
DESIGNED BY: AWS
DRAWN BY: AWS
APPROVED BY: MJS
DWF FILE:

BANK RESTORATION PLAN
prepared for
PAUL N. & LUCINDA J. RASMUSSEN
5 GLASSFORD LANE
DURHAM, STRAFFORD COUNTY, NEW HAMPSHIRE

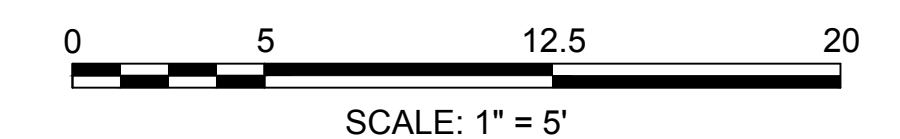
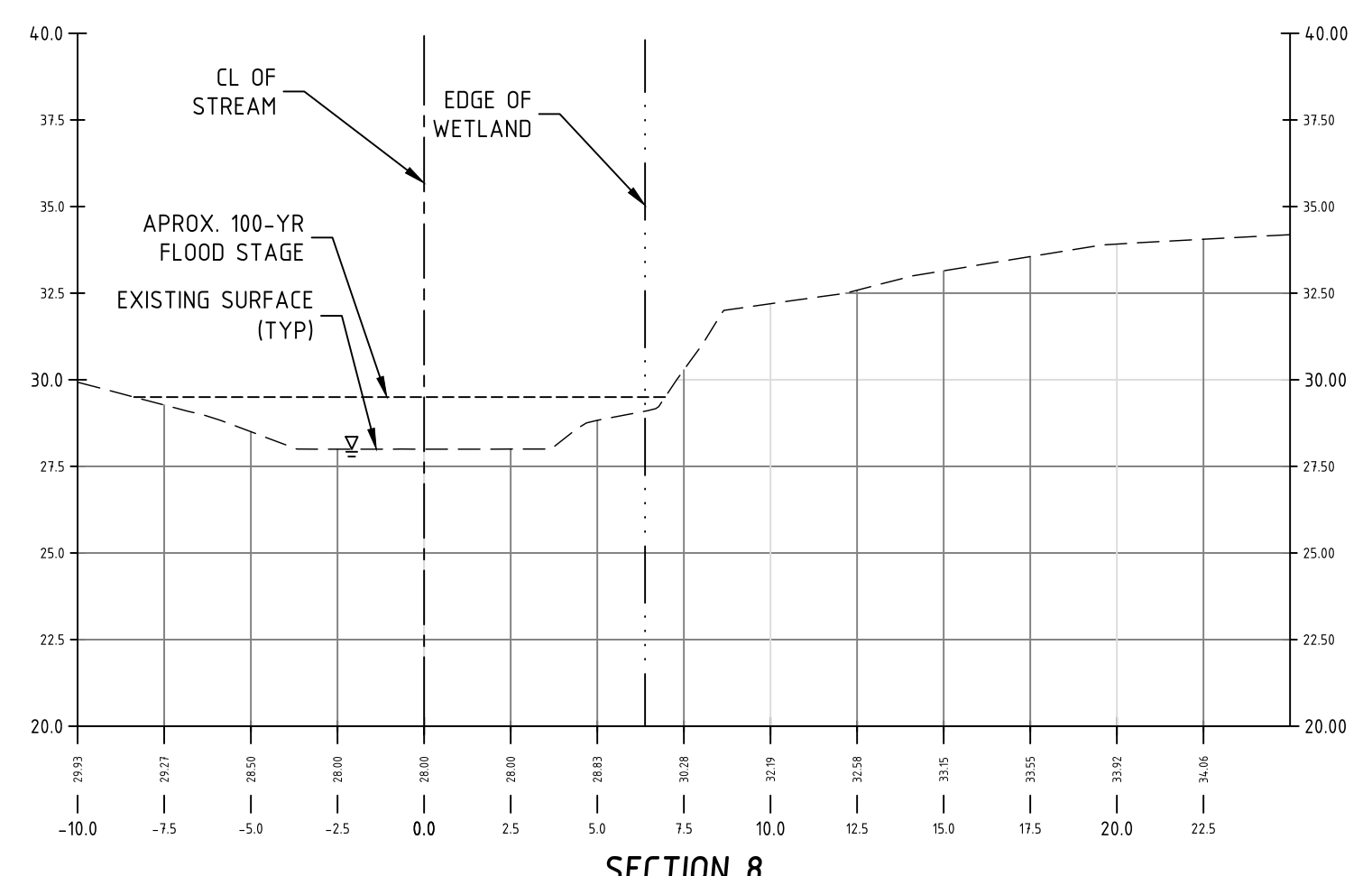
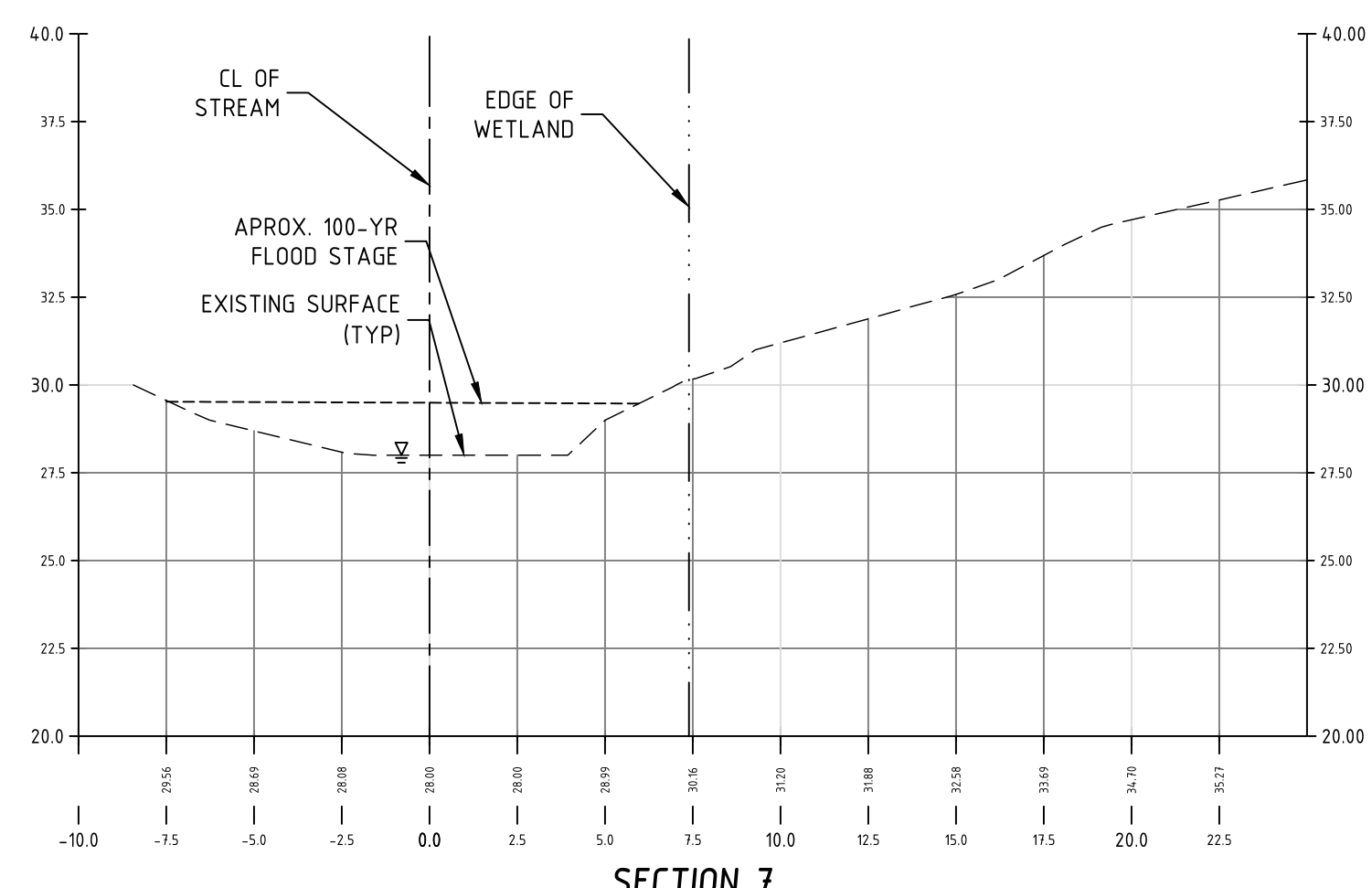
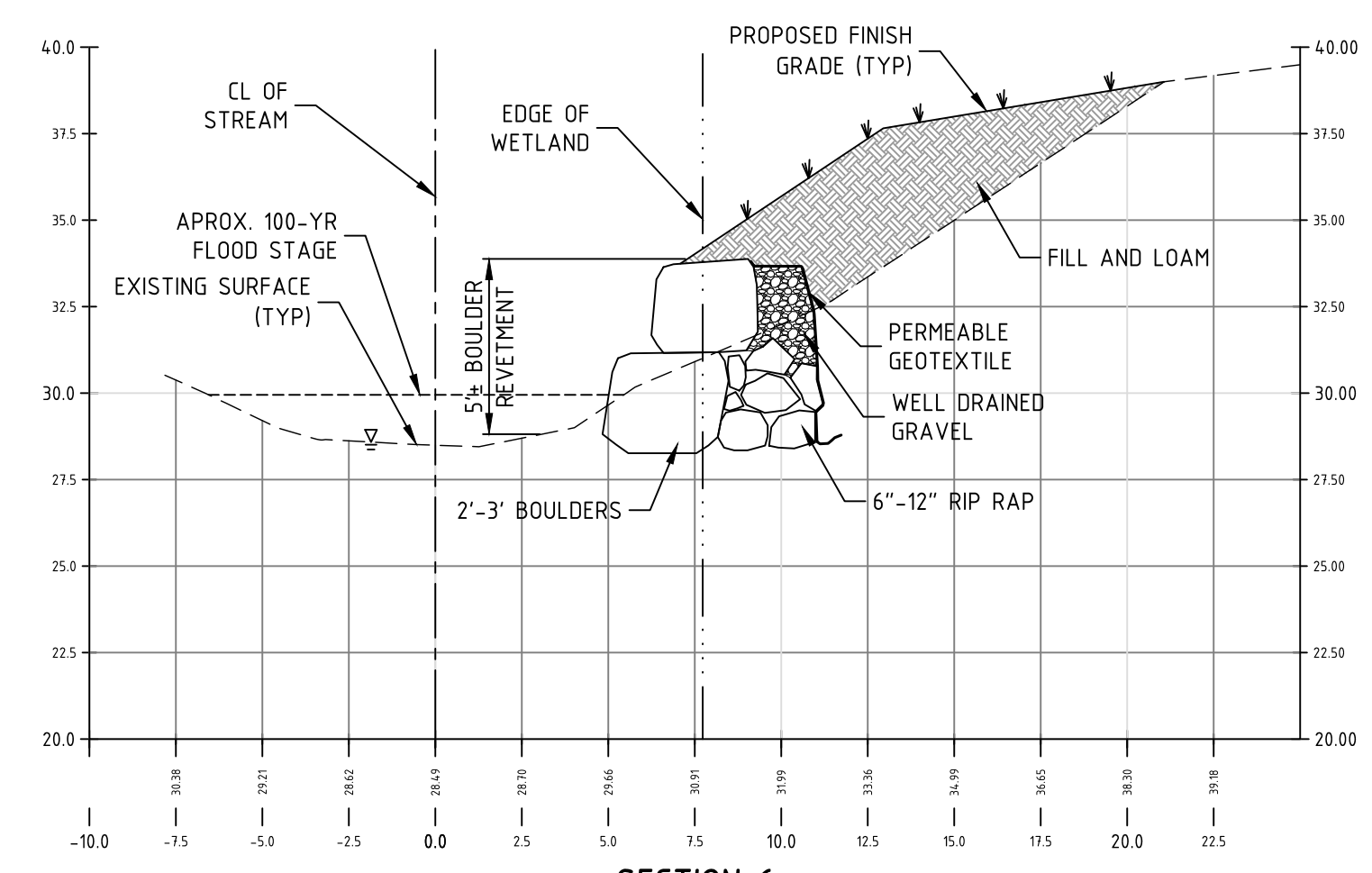
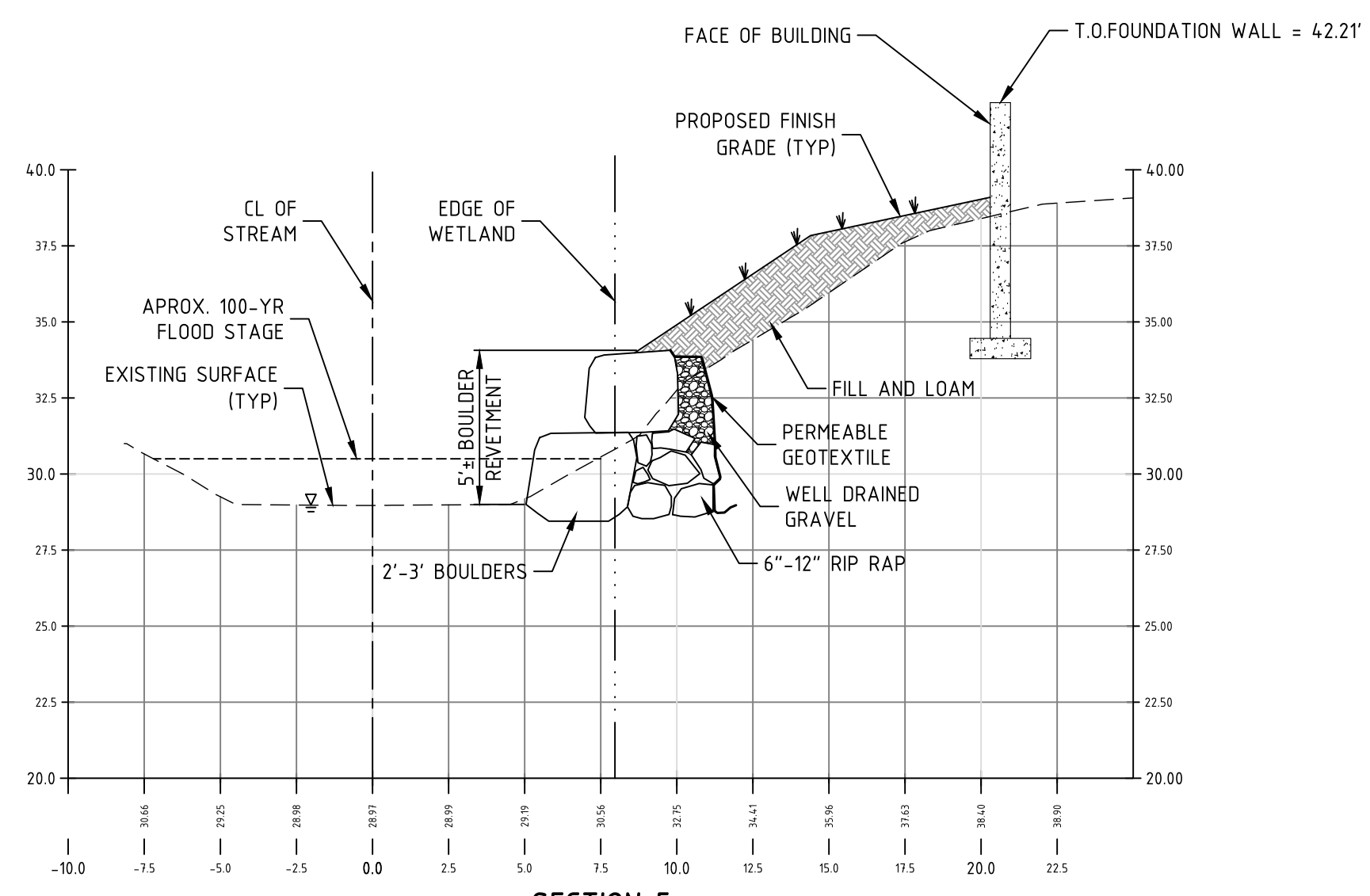
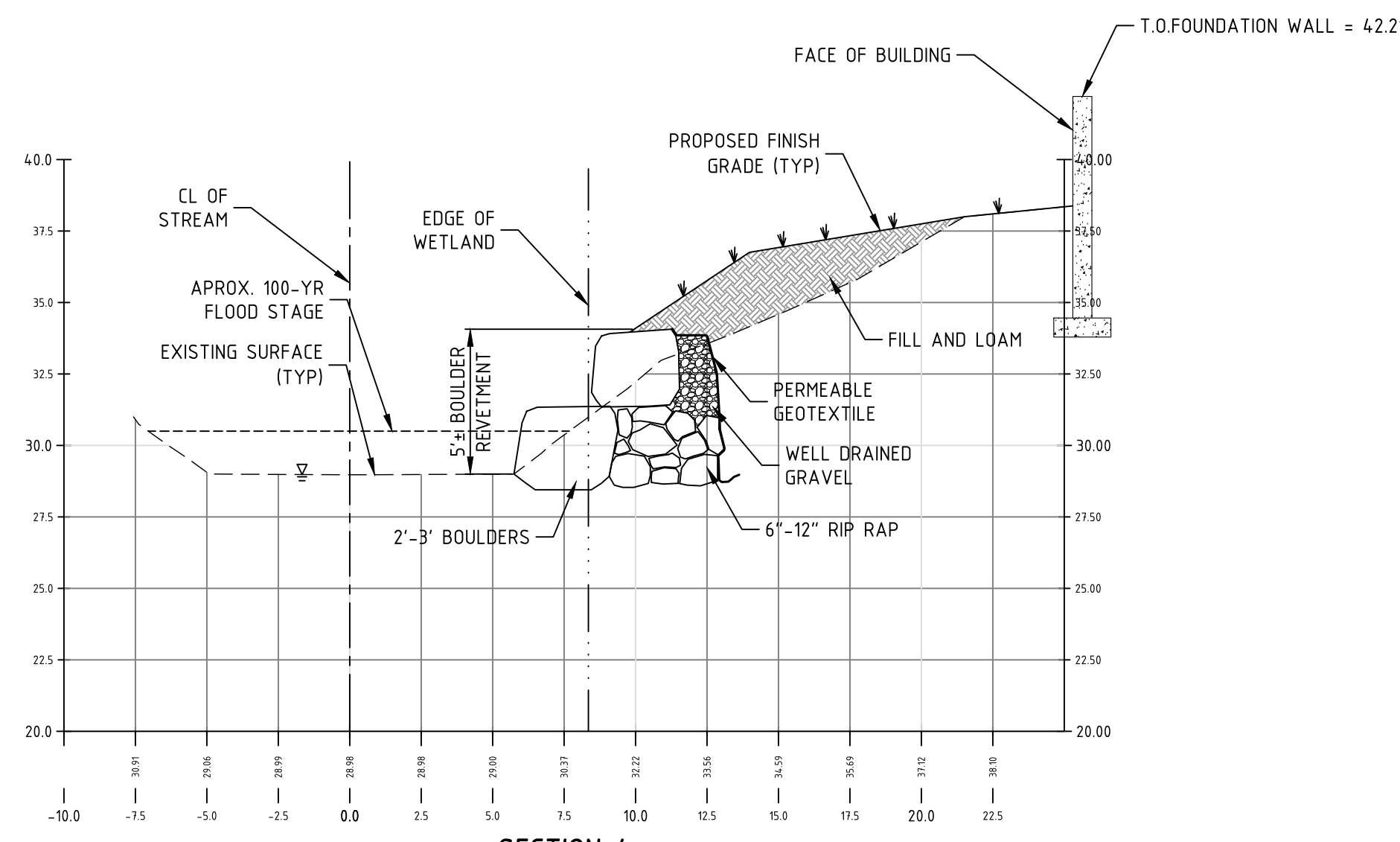
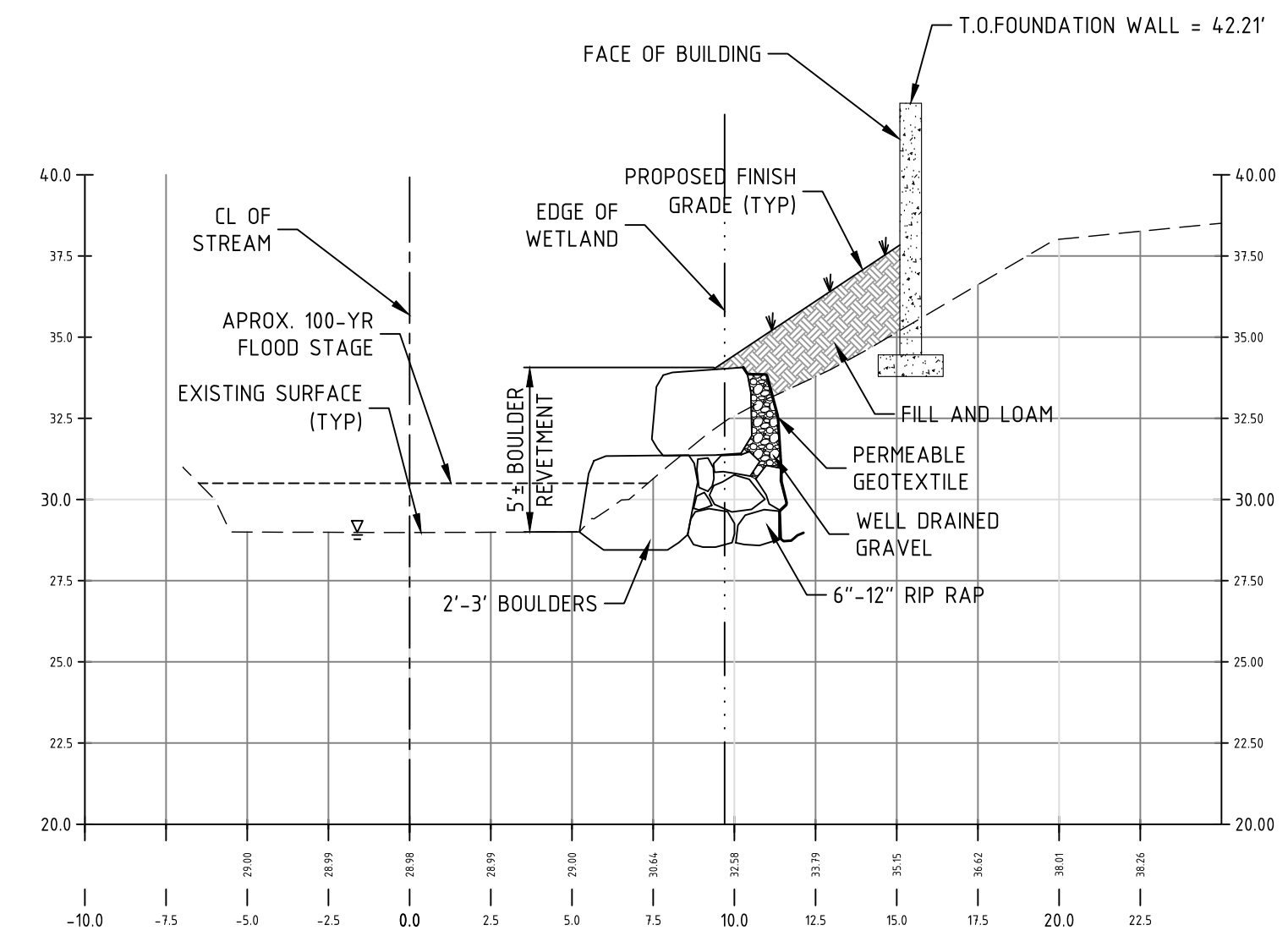
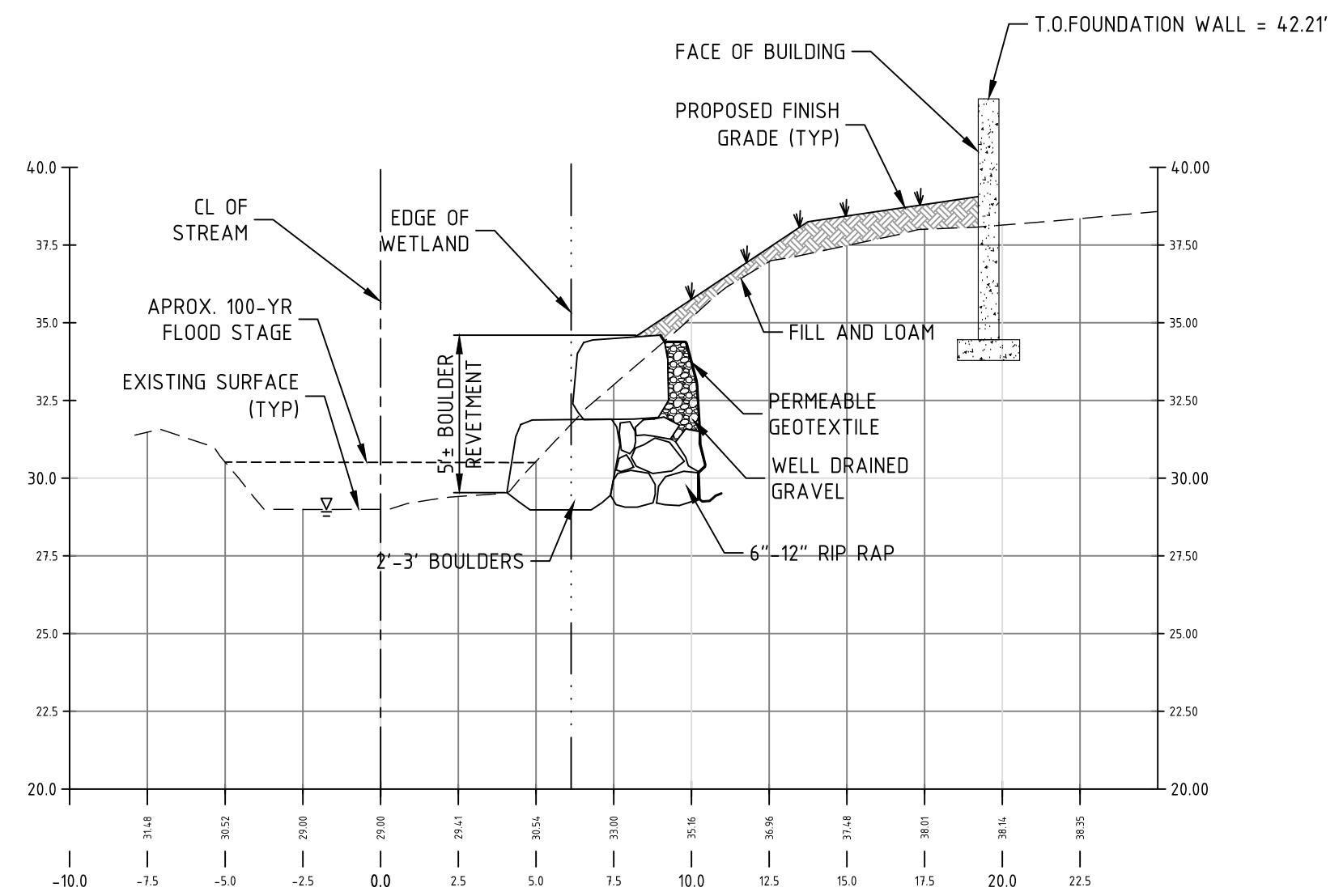
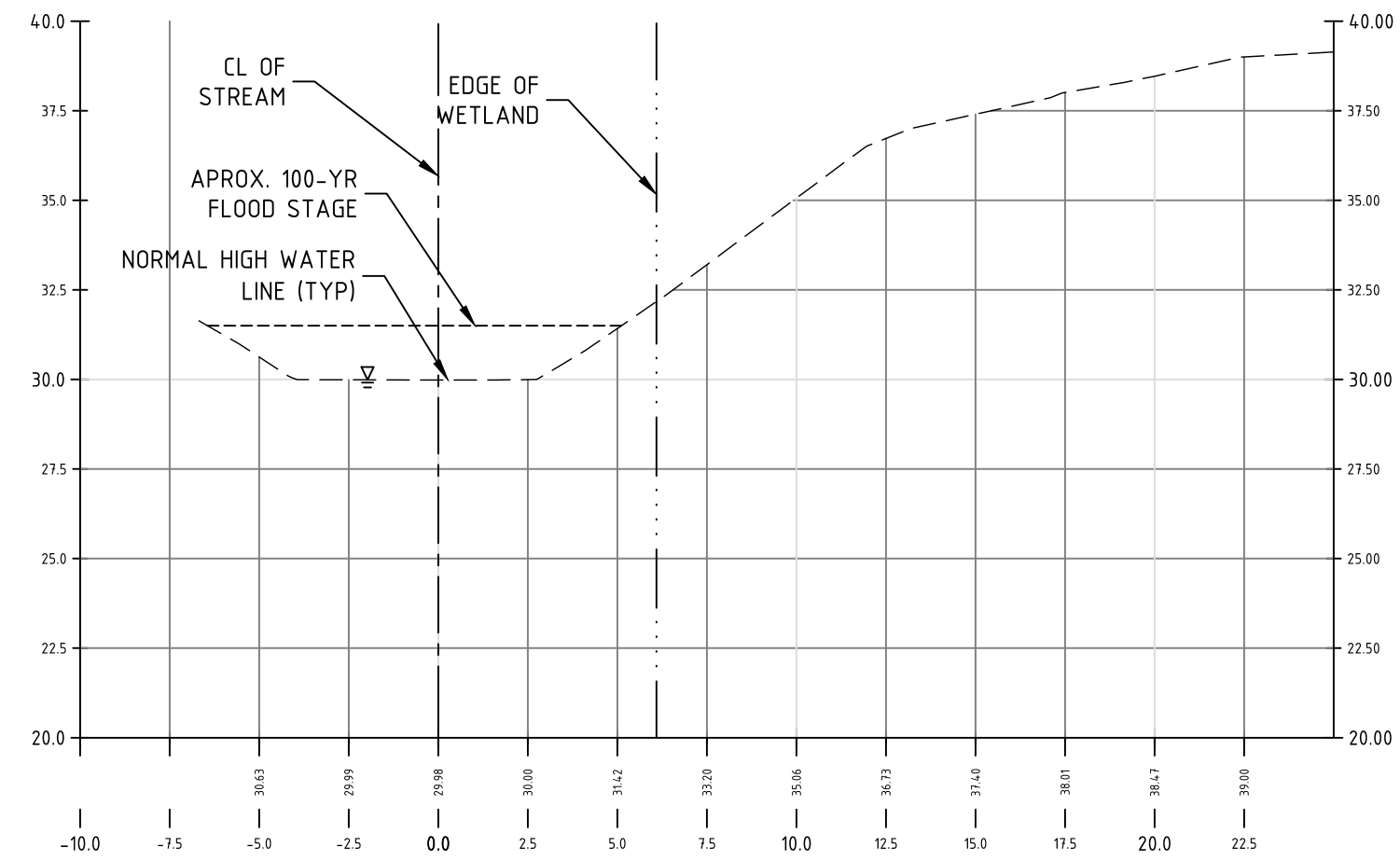
MJS ENGINEERING, P.C.
CIVIL • STRUCTURAL • ENVIRONMENTAL
5 Railroad St., P.O. Box 359
Newmarket, NH 03857
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JOB: 20-039
C1

GENERAL NOTES:
OWNER OF RECORD: PAUL N. & LUCINDA J. RASMUSSEN
105 MADBURY ROAD
DURHAM, NH 03824
TAX MAP 04, LOT 38-15
BOOK 4670, PAGE 906 SCRD

- ZONE: RESIDENTIAL (RA)
OVERLAY DISTRICTS: SPOD&WOOD
DIMENSIONAL REQUIREMENTS:

MINIMUM LOT AREA	20,000 SF
MINIMUM FRONTAGE	100 FEET
MINIMUM FRONT SETBACK	30 FEET (MINOR AND COLLECTOR)
	40 FEET (ARTERIAL)
MINIMUM SIDE SETBACK	10 FEET
MINIMUM REAR SETBACK	30 FEET
MAXIMUM IMPERVIOUS AREA	30%
- THE INTENT OF THIS PLAN IS TO SHOW THE CONSTRUCTION REQUIREMENTS FOR RIVER BANK RESTORATION.
- WETLANDS WERE DELINEATED BY MARK WEST OF WEST ENVIRONMENTAL IN ACCORDANCE WITH ARMY CORP WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1.
- SURVEY FIELD WORK WAS COMPLETED BY HORIZONS ENGINEERING.
- TOTAL AREA OF WETLANDS DISTURBANCE 304 SF
TOTAL AREA OF DISTURBANCE WITHIN WOOD 1,340 SF
TOTAL AREA OF DISTURBANCE WITHIN SPOD 1,036 SF



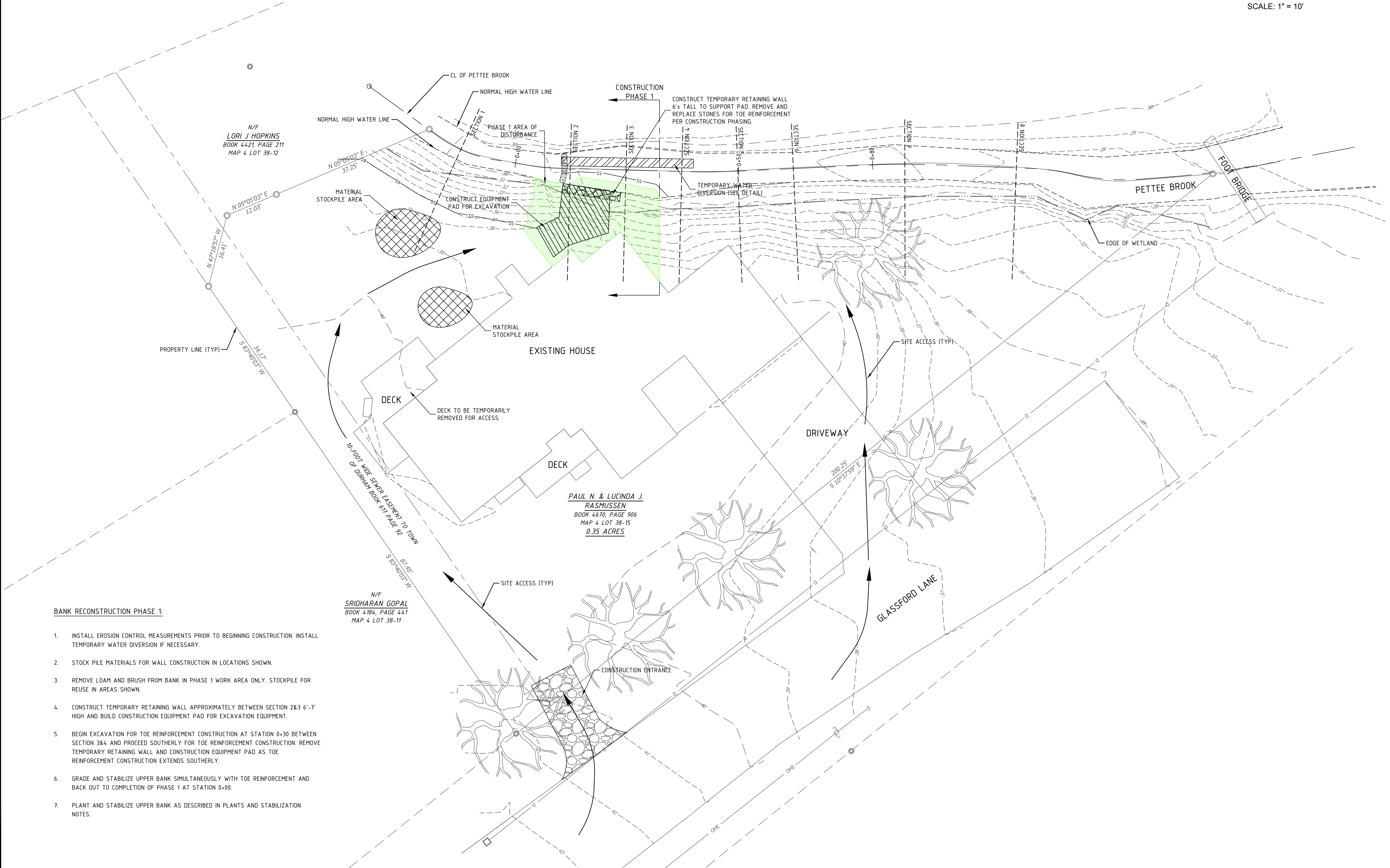
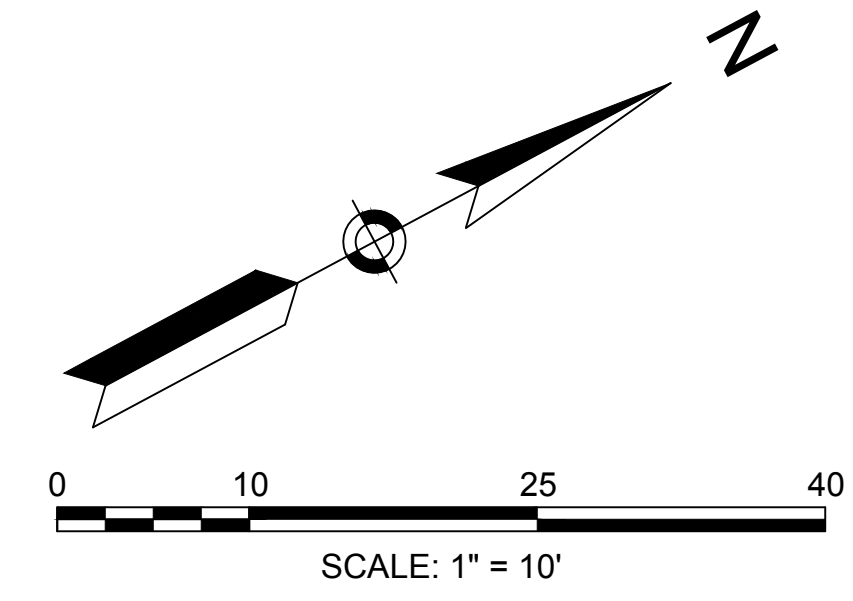
NO.	REVISIONS	DATE	INT.
1	INITIAL SUBMISSION TO TOWN OF DURHAM	12/21/20	AWS

SEAL
 MICHAEL SEBERT
 No. 8887
 State of New Hampshire
 Professional Engineer

PETTEE BROOK CROSS SECTIONS
 prepared for
 PAUL N. & LUCINDA J. RASMUSSEN
 5 GLASSFORD LANE
 DURHAM, STRAFFORD COUNTY, NEW HAMPSHIRE

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BANK RECONSTRUCTION PHASE 1:

1. INSTALL EROSION CONTROL MEASUREMENTS PRIOR TO BEGINNING CONSTRUCTION. INSTALL TEMPORARY WATER DIVERSION IF NECESSARY.
2. STOCK PILE MATERIALS FOR WALL CONSTRUCTION IN LOCATIONS SHOWN.
3. REMOVE LOAM AND BRUSH FROM BANK IN PHASE 1 WORK AREA ONLY. STOCKPILE FOR REUSE IN AREAS SHOWN.
4. CONSTRUCT TEMPORARY RETAINING WALL APPROXIMATELY BETWEEN SECTION 2&3 6'-7' HIGH AND BUILD CONSTRUCTION EQUIPMENT PAD FOR EXCAVATION EQUIPMENT.
5. BEGIN EXCAVATION FOR TOE REINFORCEMENT CONSTRUCTION AT STATION 0+30 BETWEEN SECTION 3&4 AND PROCEED SOUTHERLY FOR TOE REINFORCEMENT CONSTRUCTION. REMOVE TEMPORARY RETAINING WALL AND CONSTRUCTION EQUIPMENT PAD AS TOE REINFORCEMENT CONSTRUCTION EXTENDS SOUTHERLY.
6. GRADE AND STABILIZE UPPER BANK SIMULTANEOUSLY WITH TOE REINFORCEMENT AND BACK OUT TO COMPLETION OF PHASE 1 AT STATION 0+00.
7. PLANT AND STABILIZE UPPER BANK AS DESCRIBED IN PLANTS AND STABILIZATION NOTES.

N/F
LORI J. HOPKINS
BOOK 4421, PAGE 211
MAP 4 LOT 38-12

**PAUL N. & LUCINDA J.
RASMUSSEN**
BOOK 4670, PAGE 906
MAP 4 LOT 38-15
0.35 ACRES

N/F
SRIDHARAN GOPAL
BOOK 4184, PAGE 441
MAP 4 LOT 38-11

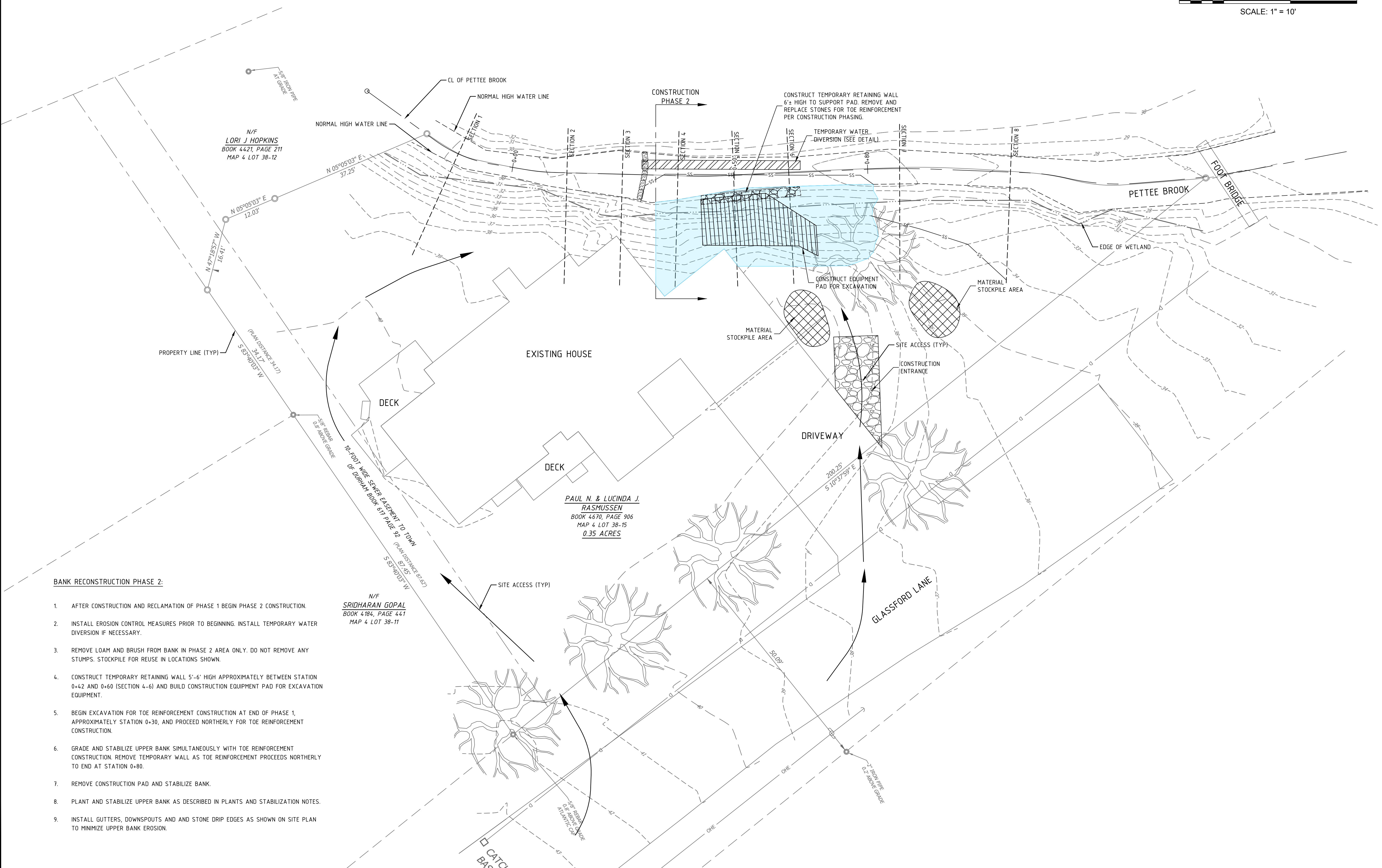
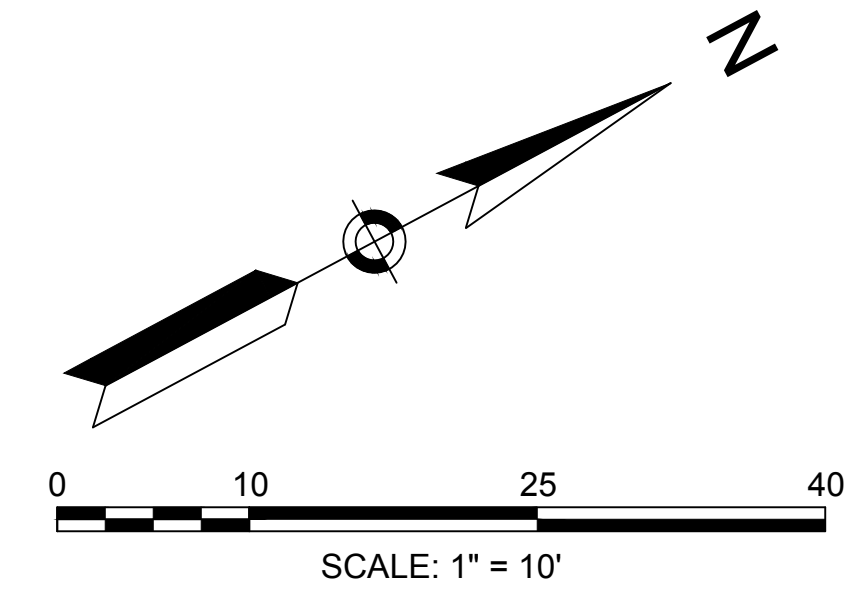
NO.	REVISIONS	DATE	INT.
1	PLAN AND SECTION VIEWS	11/18/20	AWS

SEAL
NEW HAMPSHIRE PROFESSIONAL ENGINEERS
MICHAEL SEBERT
No. 8887
Professional Engineer
1000 North Main Street, Suite 200
Durham, NH 03824
Date: 11/18/20
Scale: 1" = 10'
Designed by: AWS
Drawn by: AWS
Approved by: MJS
DWG File:

PHASE 1 BANK STABILIZATION CONSTRUCTION
prepared for
PAUL N. & LUCINDA J. RASMUSSEN
5 GLASSFORD LANE
DURHAM, STRAFFORD COUNTY, NEW HAMPSHIRE

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JOB: 20-039
C3



- BANK RECONSTRUCTION PHASE 2:**
1. AFTER CONSTRUCTION AND RECLAMATION OF PHASE 1 BEGIN PHASE 2 CONSTRUCTION.
 2. INSTALL EROSION CONTROL MEASURES PRIOR TO BEGINNING. INSTALL TEMPORARY WATER DIVERSION IF NECESSARY.
 3. REMOVE LOAM AND BRUSH FROM BANK IN PHASE 2 AREA ONLY. DO NOT REMOVE ANY STUMPS. STOCKPILE FOR REUSE IN LOCATIONS SHOWN.
 4. CONSTRUCT TEMPORARY RETAINING WALL 5'-6' HIGH APPROXIMATELY BETWEEN STATION 0+42 AND 0+60 (SECTION 4.-6) AND BUILD CONSTRUCTION EQUIPMENT PAD FOR EXCAVATION EQUIPMENT.
 5. BEGIN EXCAVATION FOR TOE REINFORCEMENT CONSTRUCTION AT END OF PHASE 1, APPROXIMATELY STATION 0+30, AND PROCEED NORTHERLY FOR TOE REINFORCEMENT CONSTRUCTION.
 6. GRADE AND STABILIZE UPPER BANK SIMULTANEOUSLY WITH TOE REINFORCEMENT CONSTRUCTION. REMOVE TEMPORARY WALL AS TOE REINFORCEMENT PROCEEDS NORTHERLY TO END AT STATION 0+80.
 7. REMOVE CONSTRUCTION PAD AND STABILIZE BANK.
 8. PLANT AND STABILIZE UPPER BANK AS DESCRIBED IN PLANTS AND STABILIZATION NOTES.
 9. INSTALL GUTTERS, DOWNSPOUTS AND AND STONE DRIP EDGES AS SHOWN ON SITE PLAN TO MINIMIZE UPPER BANK EROSION.

N/F
SRIDHARAN GOPAL
BOOK 4184, PAGE 441
MAP 4 LOT 38-11

PAUL N. & LUCINDA J. RASMUSSEN
BOOK 4670, PAGE 906
MAP 4 LOT 38-15
0.35 ACRES

NO.	REVISIONS	DATE	INT.
1	INITIAL SUBMISSION TO TOWN OF DURHAM	12/21/20	AW

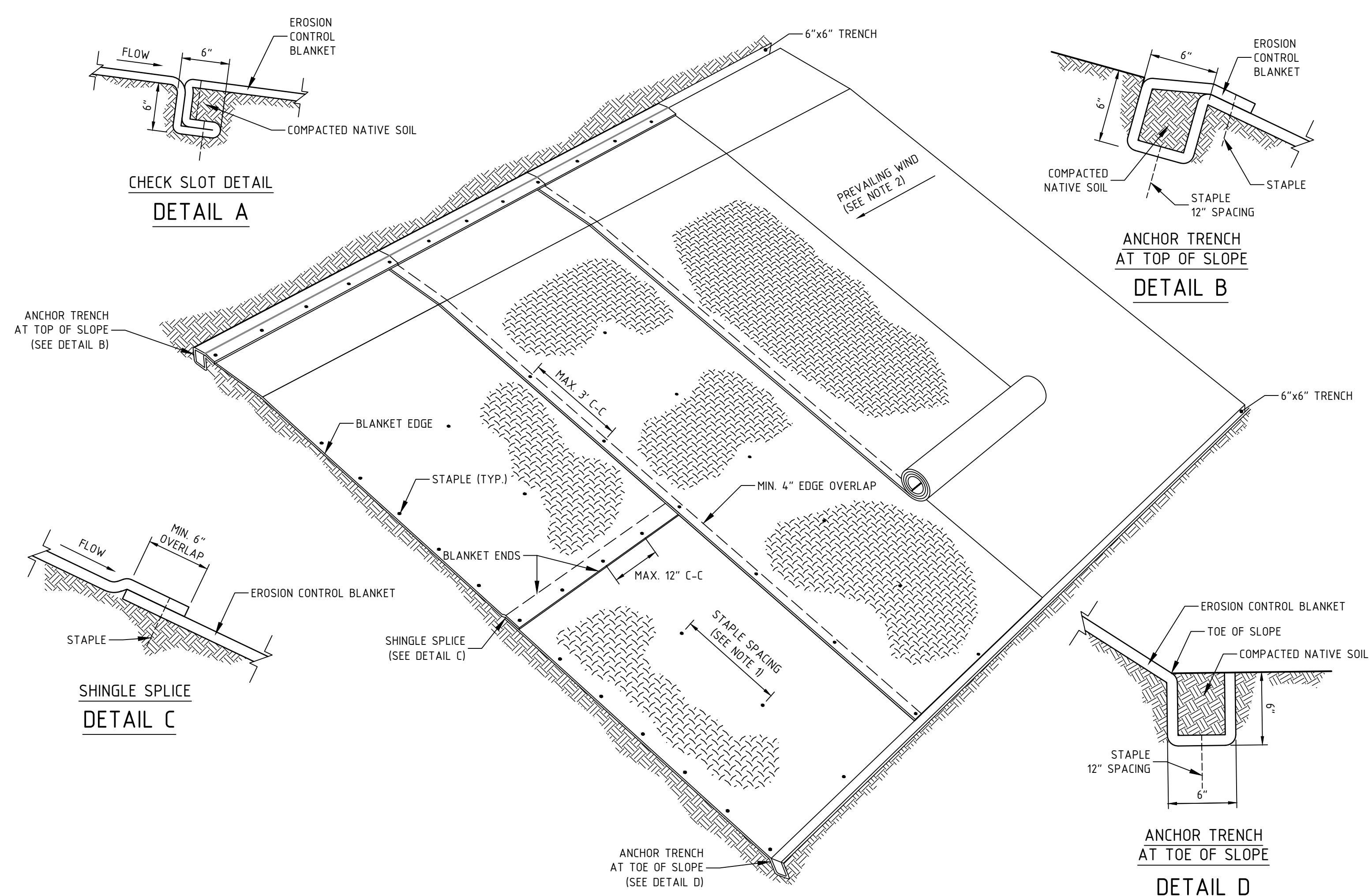
SEAL
NEW HAMPSHIRE PROFESSIONAL ENGINEERS
MICHAEL SEBERT
No. 8887
REGISTERED PROFESSIONAL ENGINEER
CIVIL
DATE ISSUED: 12/21/20
SCALE: 1" = 10'
DESIGNED BY: AWS
DRAWN BY: AWS
APPROVED BY: MJS
DWF FILE:

PHASE 2 BANK STABILIZATION CONSTRUCTION
prepared for
PAUL N. & LUCINDA J. RASMUSSEN
5 GLASSFORD LANE
DURHAM, STRAFFORD COUNTY, NEW HAMPSHIRE

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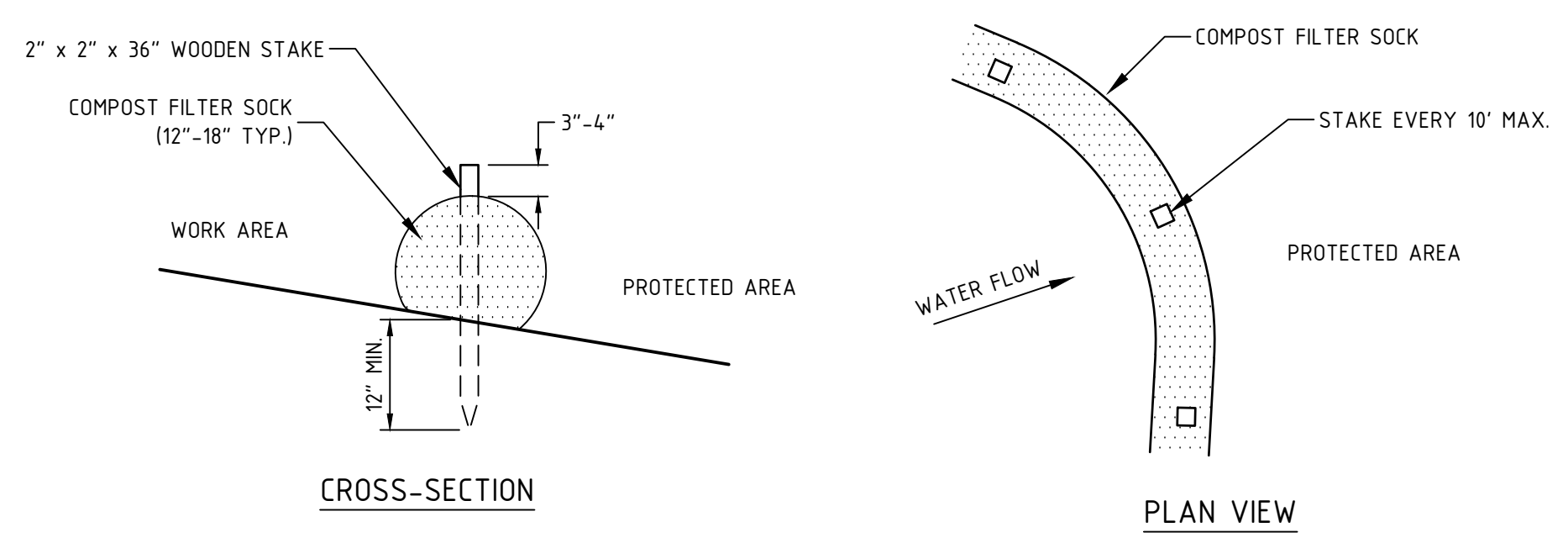
JOB: 20-039
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27 Nov 2019 - 5:16 PM



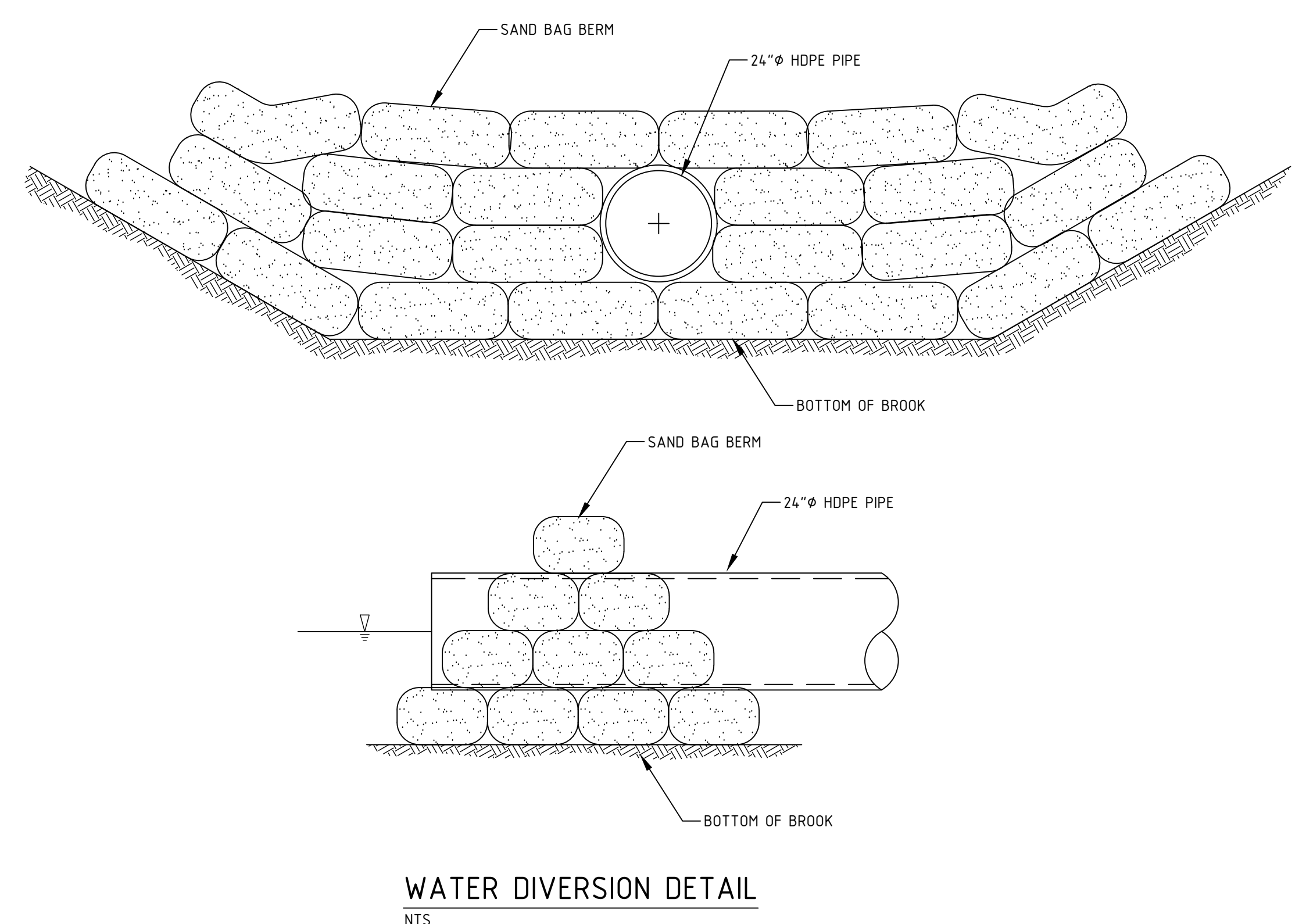
- NOTES:
1. INSTALL STAPLES ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
 2. OVERLAP IN THE DIRECTION OF THE PREVAILING WIND.
 3. INSTALL STAPLES ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
 4. PROVIDE CHECK SLOTS ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
 5. ROLL ENDS MAY BE SPLICED IN A CHECK SLOT.
 6. TRAPEZOIDAL DITCH SHOWN. SIMILAR DETAILS FOR A V-DITCH.

ROLLED EROSION CONTROL DETAIL
NTS

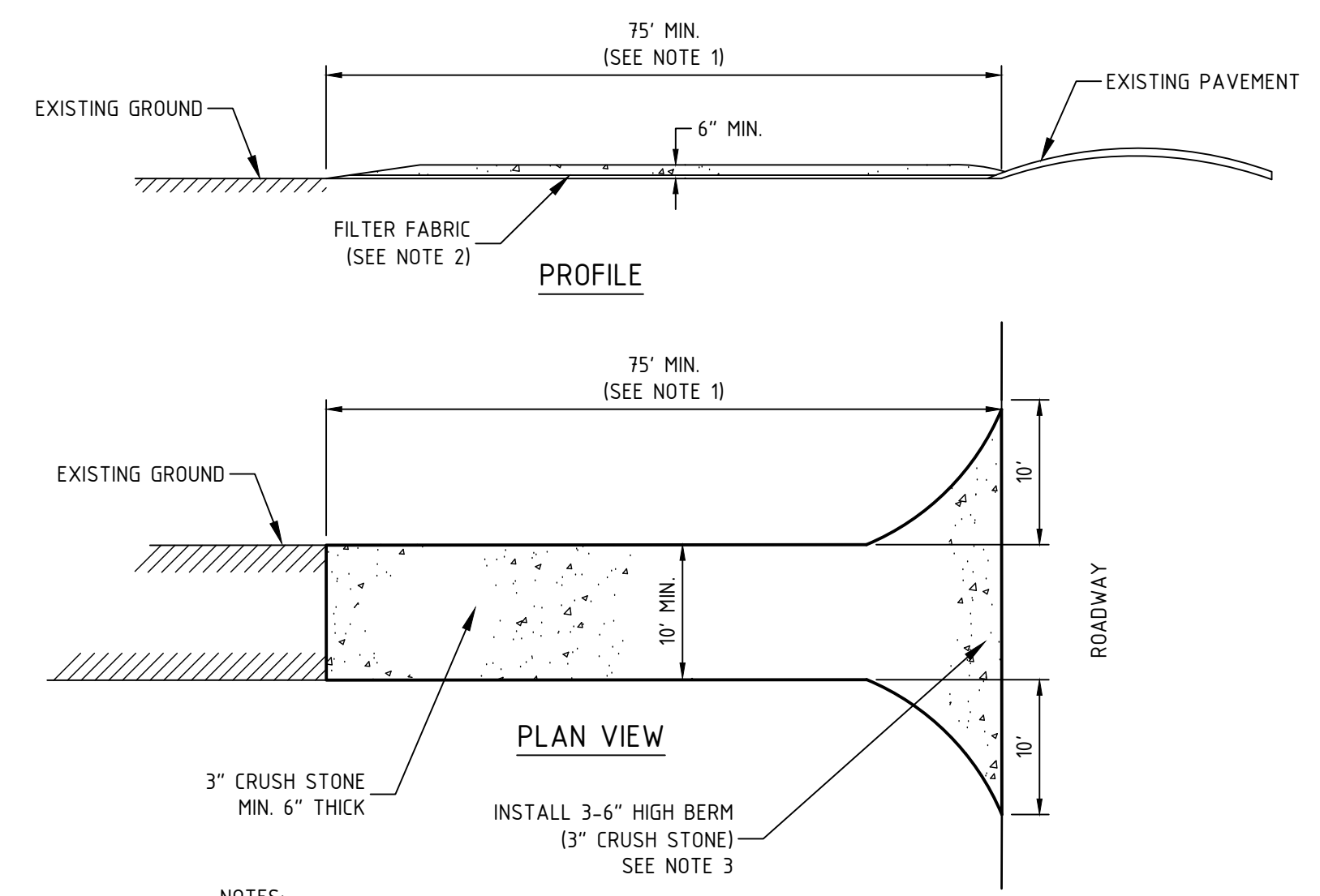


- NOTES:
1. ALL COMPOST MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.
 2. FILTER SOCKS SHOULD BE INSTALLED FOLLOWING EXISTING CONTOURS.

COMPOST FILTER SOCK DETAIL
NTS



WATER DIVERSION DETAIL
NTS



- NOTES:
1. LENGTH OF ENTRANCE MAY BE 50' WHERE DIVERSION RIDGE IS PROVIDED.
 2. GRADE AND COMPACT ACCESS ROAD ENTRANCE AS NECESSARY. PLACE FILTER FABRIC AND 6\"/>
 - 3. PROVIDE NECESSARY SWALES OR DIVERSIONS TO MINIMIZE DIRECT FLOW OF WATER ONTO STONE AREA.
 - 4. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED AS NECESSARY TO REMOVE SILT FROM TIRES PRIOR TO ENTERING PUBLIC ROADS. A SMALL SWALE SHALL BE CONSTRUCTED ON THE DOWN GRADIENT SIDE TO TRAP ANY SILT WASHED FROM THE STONE ENTRANCE.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NTS

DATE ISSUED:	12/21/20	DESIGNED BY:	AMS	DRAWN BY:	AMS	APPROVED BY:	MJS	DWG FILE:	
SCALE:	N/A	DESIGNED BY:	AMS	DRAWN BY:	AMS	APPROVED BY:	MJS	DWG FILE:	
<p>SEAL</p> <p>NEW HAMPSHIRE PROFESSIONAL ENGINEERS & SURVEYORS</p> <p>NO. 8887</p> <p>NO. 8887</p> <p>NO. 8887</p> <p>NO. 8887</p>									
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CONSTRUCTION DETAILS
prepared for
PAUL N. & LUCINDA J. RASMUSSEN
5 GLASSFORD LANE
DURHAM, STRAFFORD COUNTY, NEW HAMPSHIRE

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