Urawing Name: P:\19pro\19-063\Internal\dwg\19063 Civilz. Wed. 28 Oct 2020 - 3:17pm

> OWNER MICHAEL & MARTI MULHERN 97 BAGDAD RD DURHAM, NH 03824

CIVIL ENGINEER



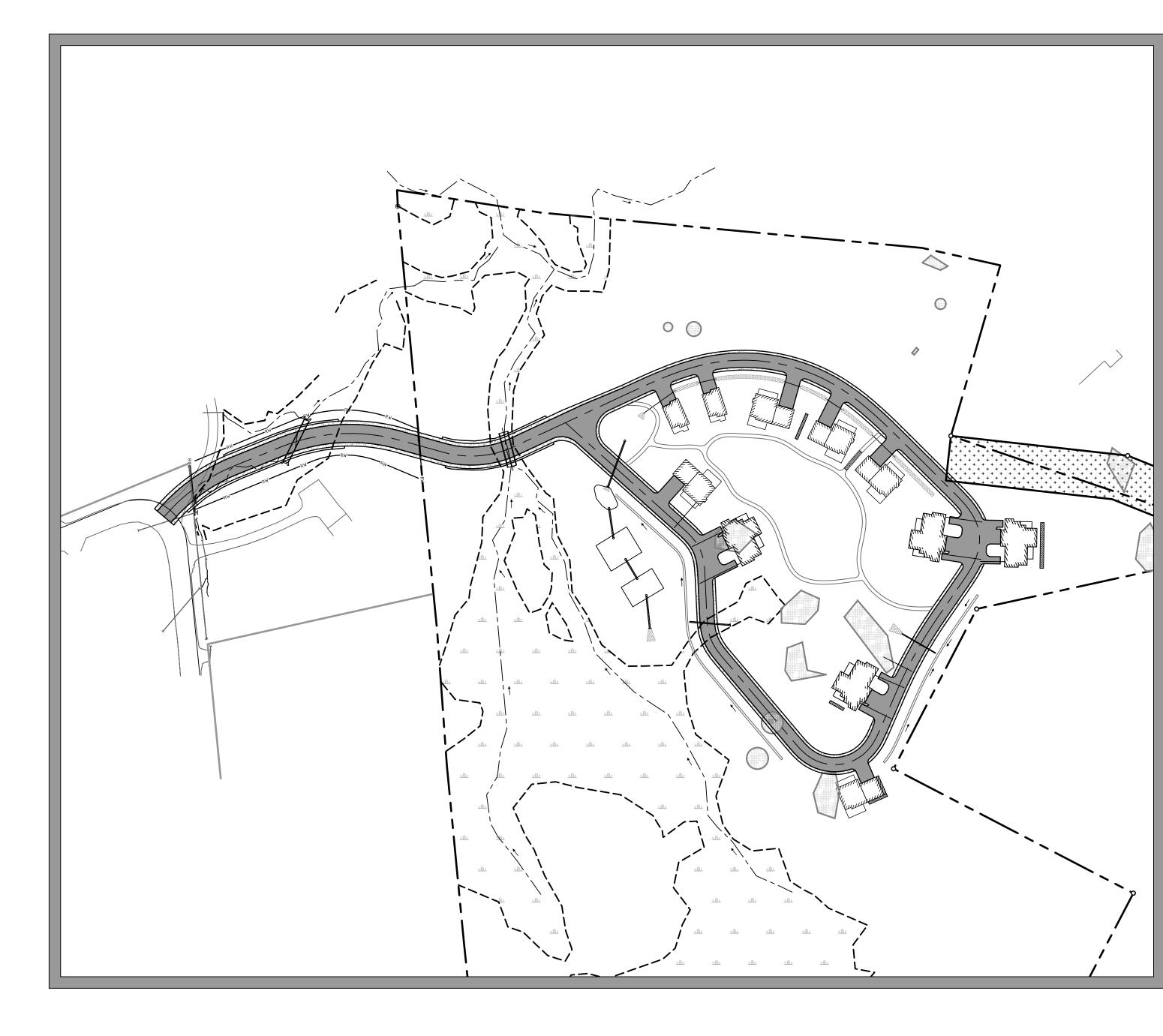
SURVEYOR TRITECH

ENGINEERING CORPORATION 755 CENTRAL AVENUE DOVER, NEW HAMPSHIRE 03820 TELEPHONE 603 742 8107 FAX 603 742 3830

LANDSCAPE ARCHITECT woodburn



103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

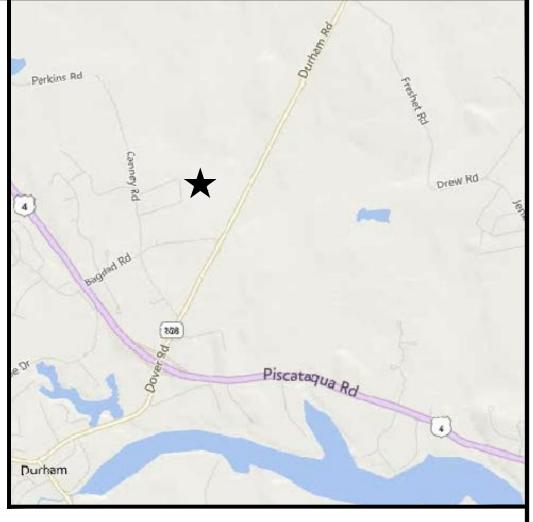


SITE PLAN

for

MICHAEL & MARTI MULHERN

93 BAGDAD ROAD DURHAM, NH OCTOBER 28, 2020



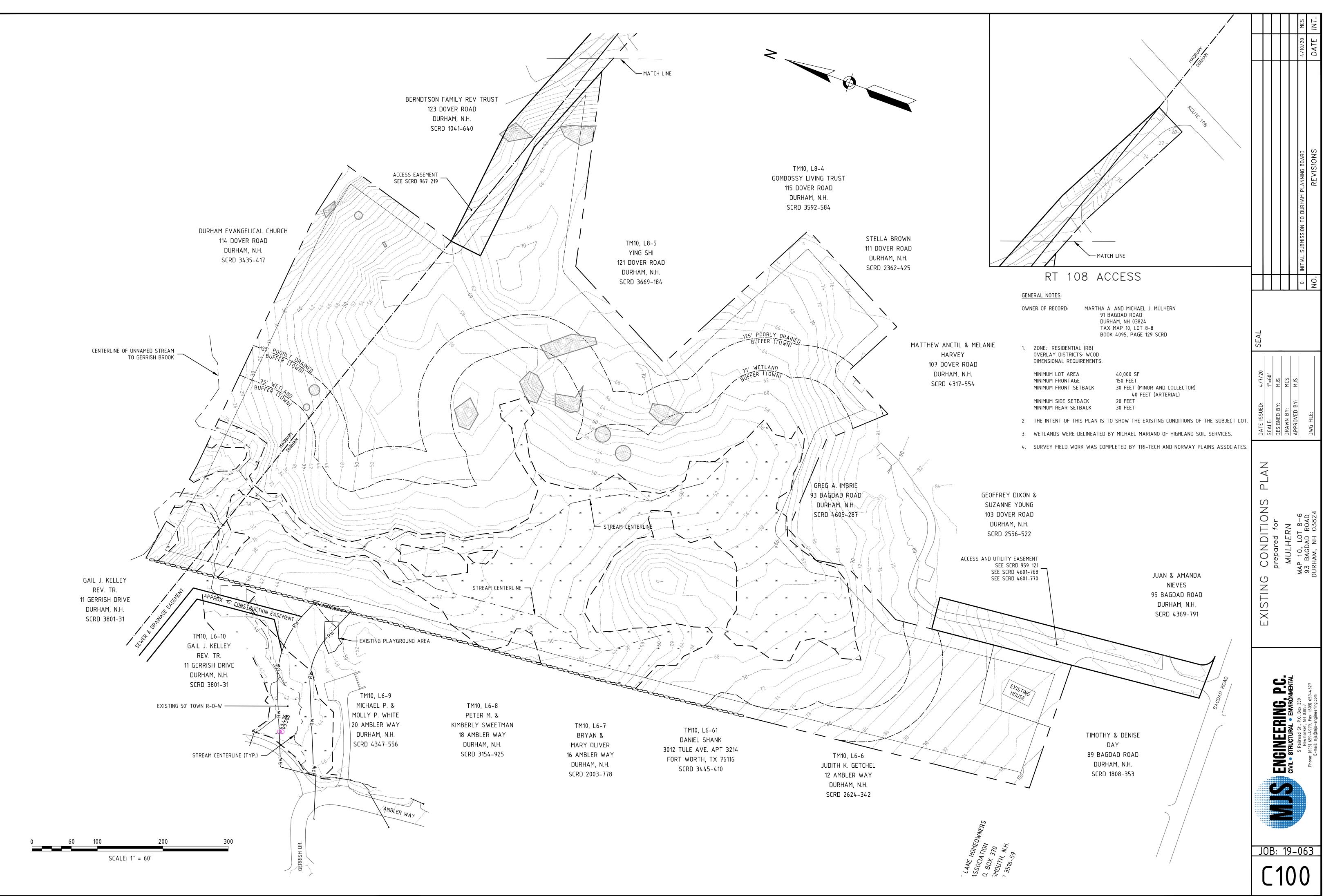
LOCUS MAP SCALE 1:12 000

TABLE OF CONTENTS

TITLE	SHEET
EXISTING CONDITIONS PLAN	C100
OVERALL SITE PLAN	.C101
ENTRANCE SITE PLAN	C102
CLUSTER SITE PLAN.	. C103
ENTRANCE GRADING PLAN	C104
CLUSTER GRADING PLAN	C105
ROAD PLAN & PROFILE	.C201-204
WETLAND CROSSING SECTIONS	.C301
CONSTRUCTION DETAILS	C501-503

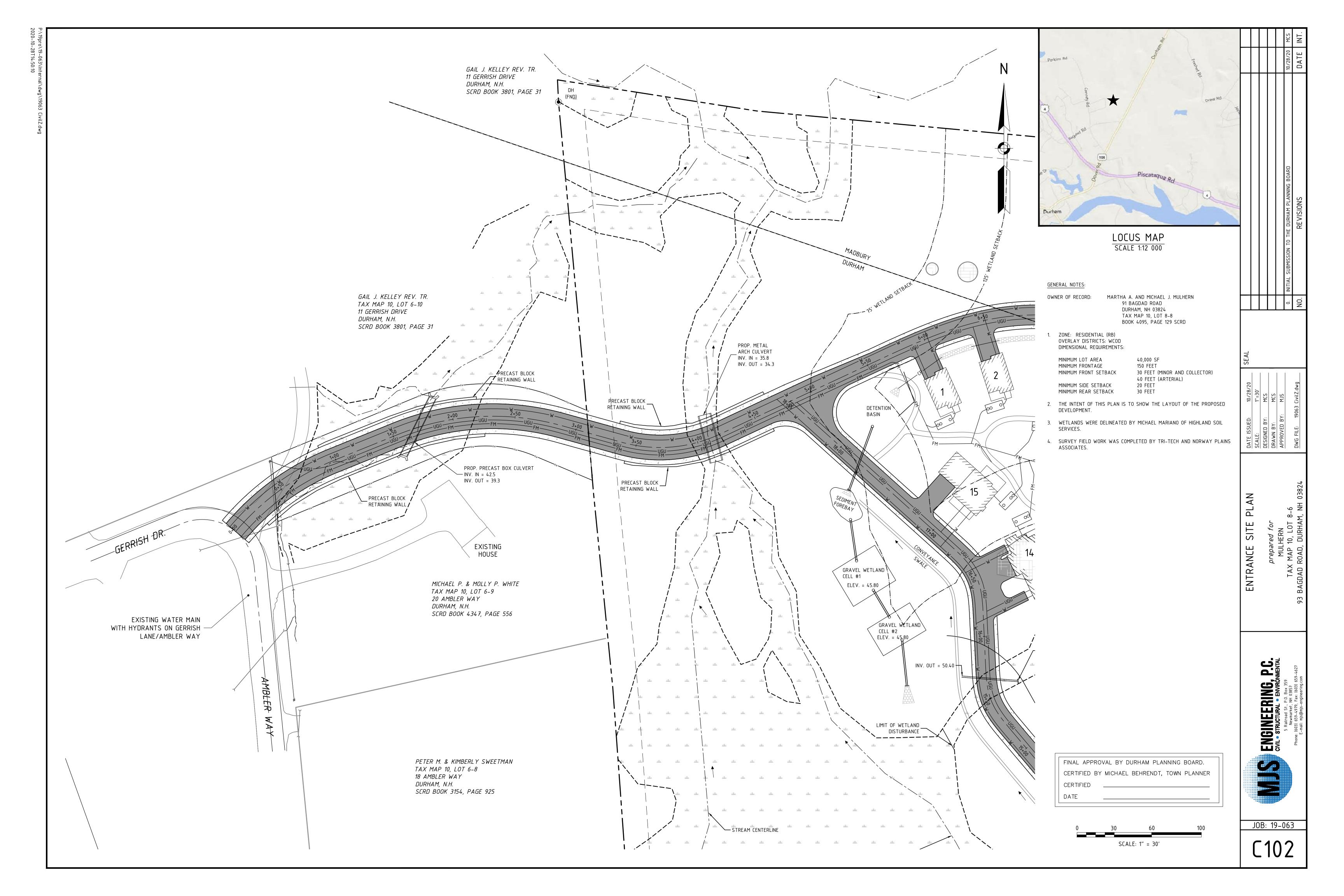
0.	INITIAL SUBMISSION TO DURHAM	10/28/20	MJS
NO.	REVISIONS	DATE	INT.



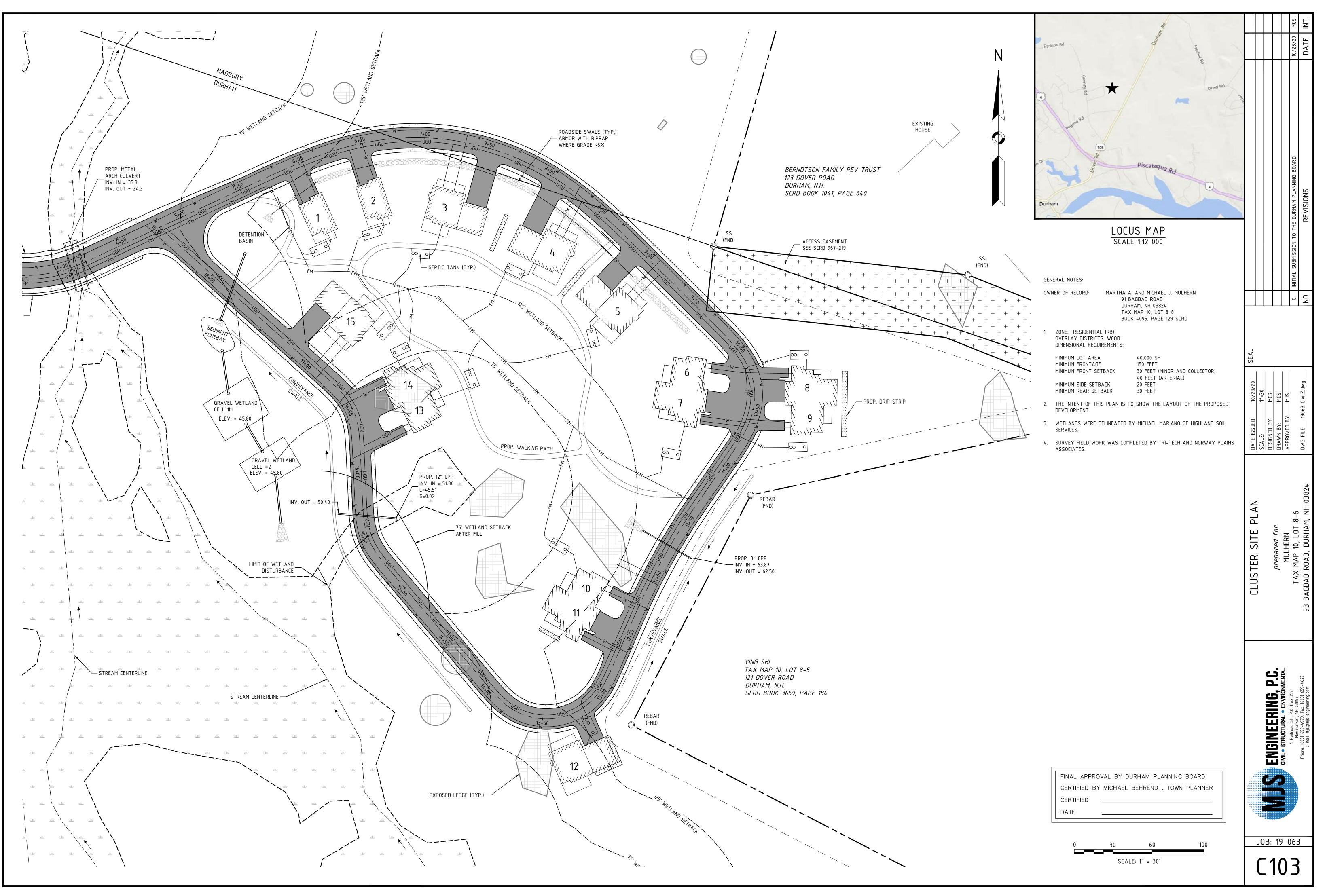


P:\19pro\19-063\Internal\dwg\19063 CivilZ.dw 2020-10-28T14:45:01

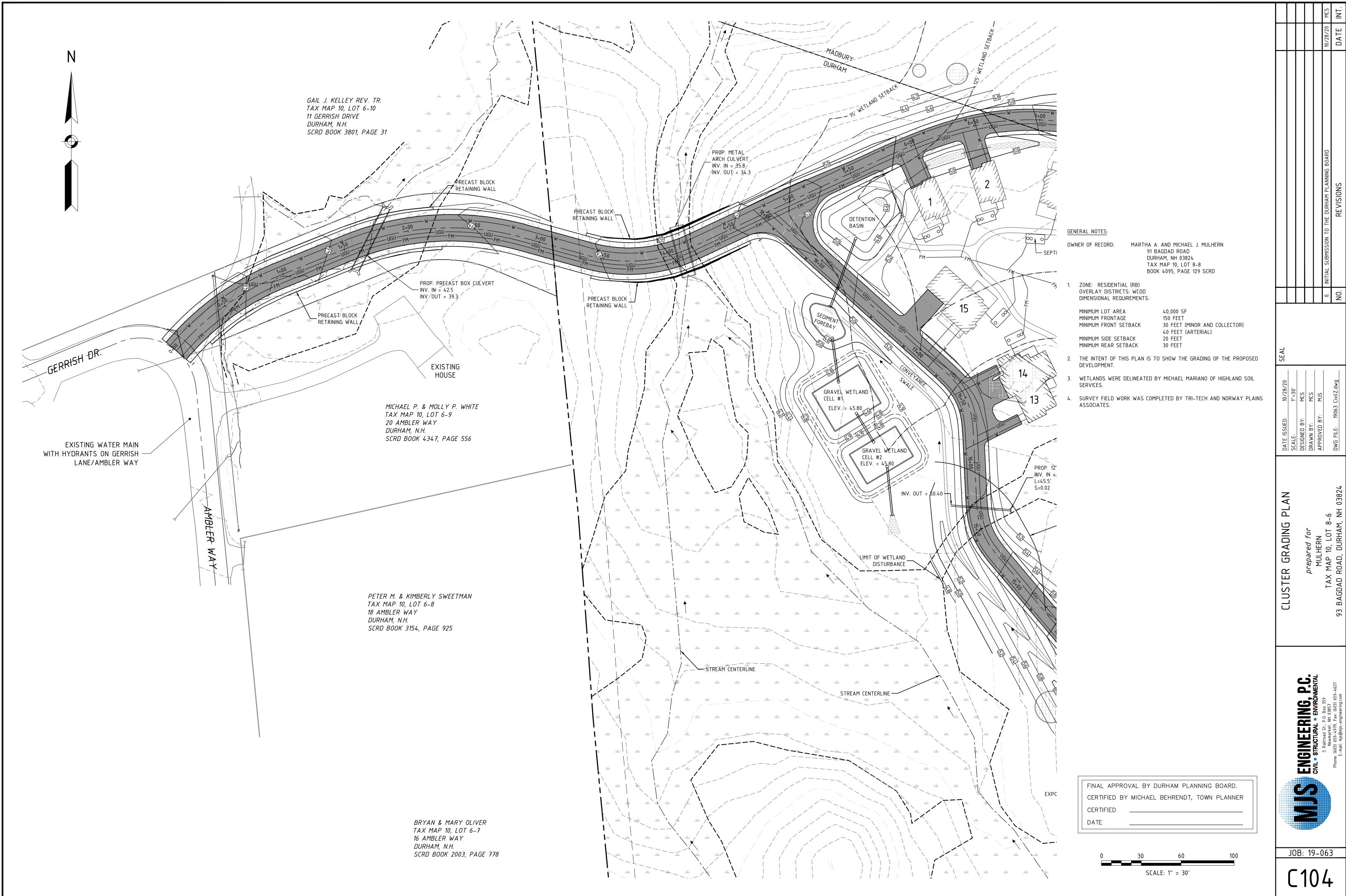




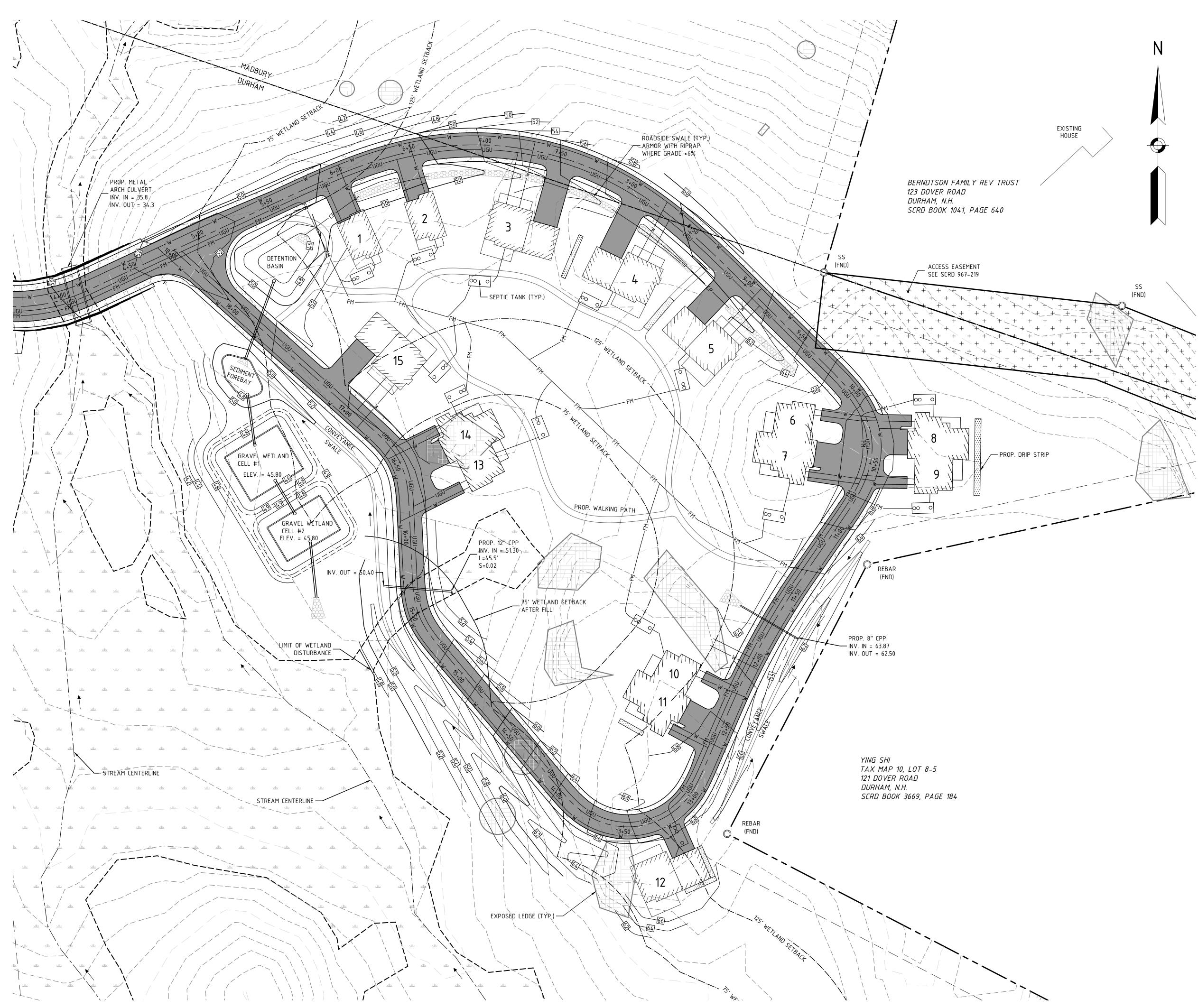
P:\19pro\19-063\Internal\dwg\19063 CivilZ 2020-10-28T14:50:23





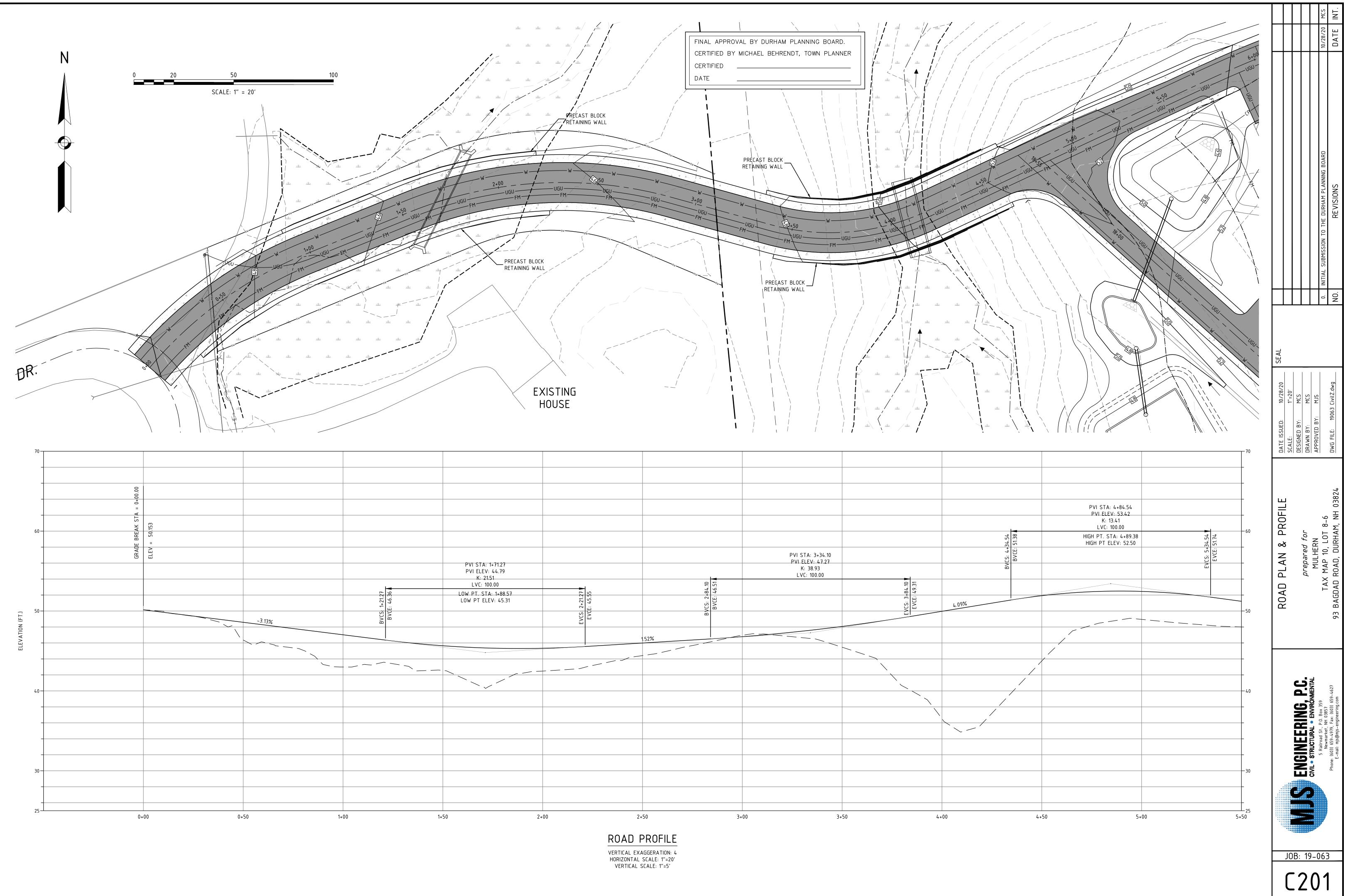




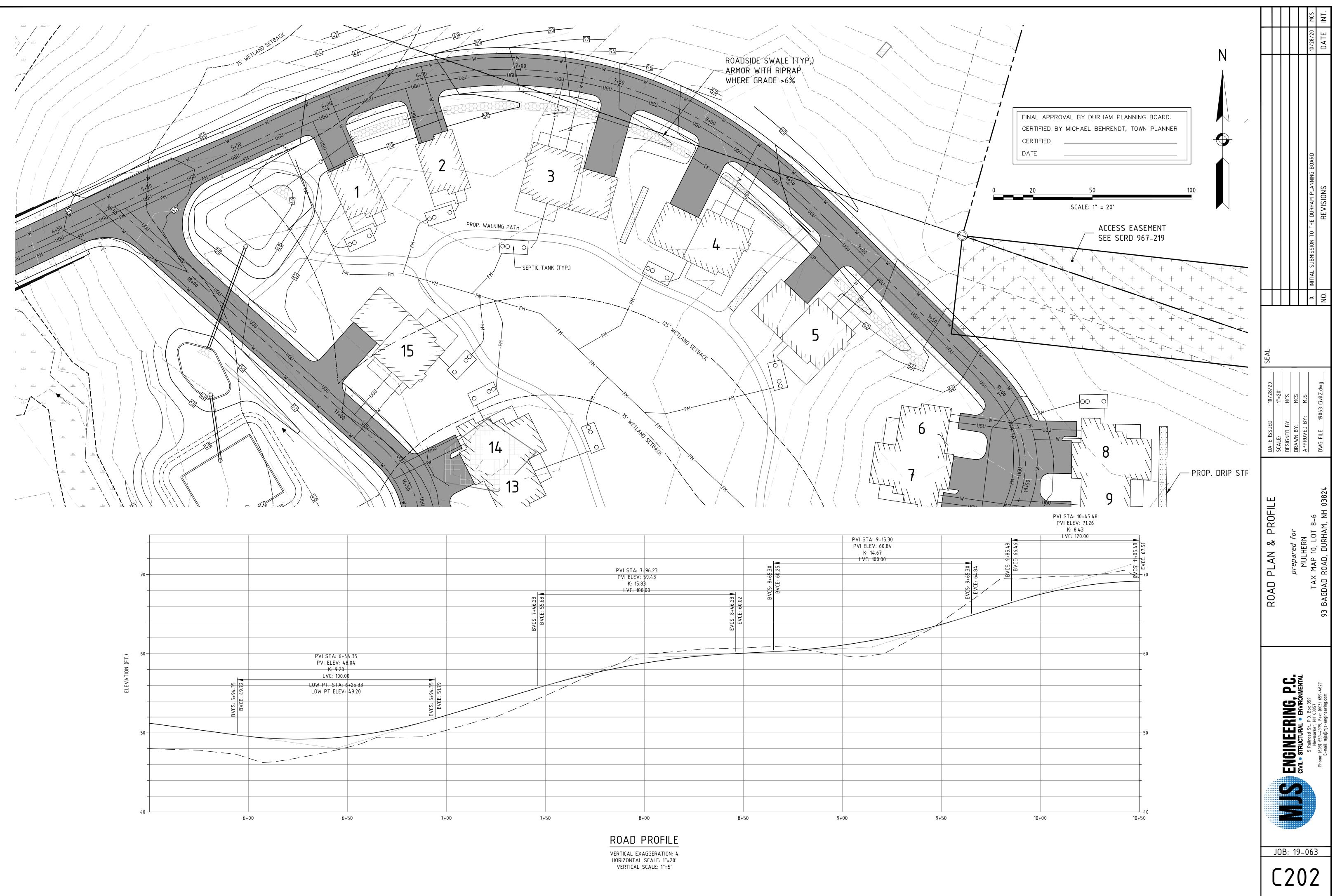


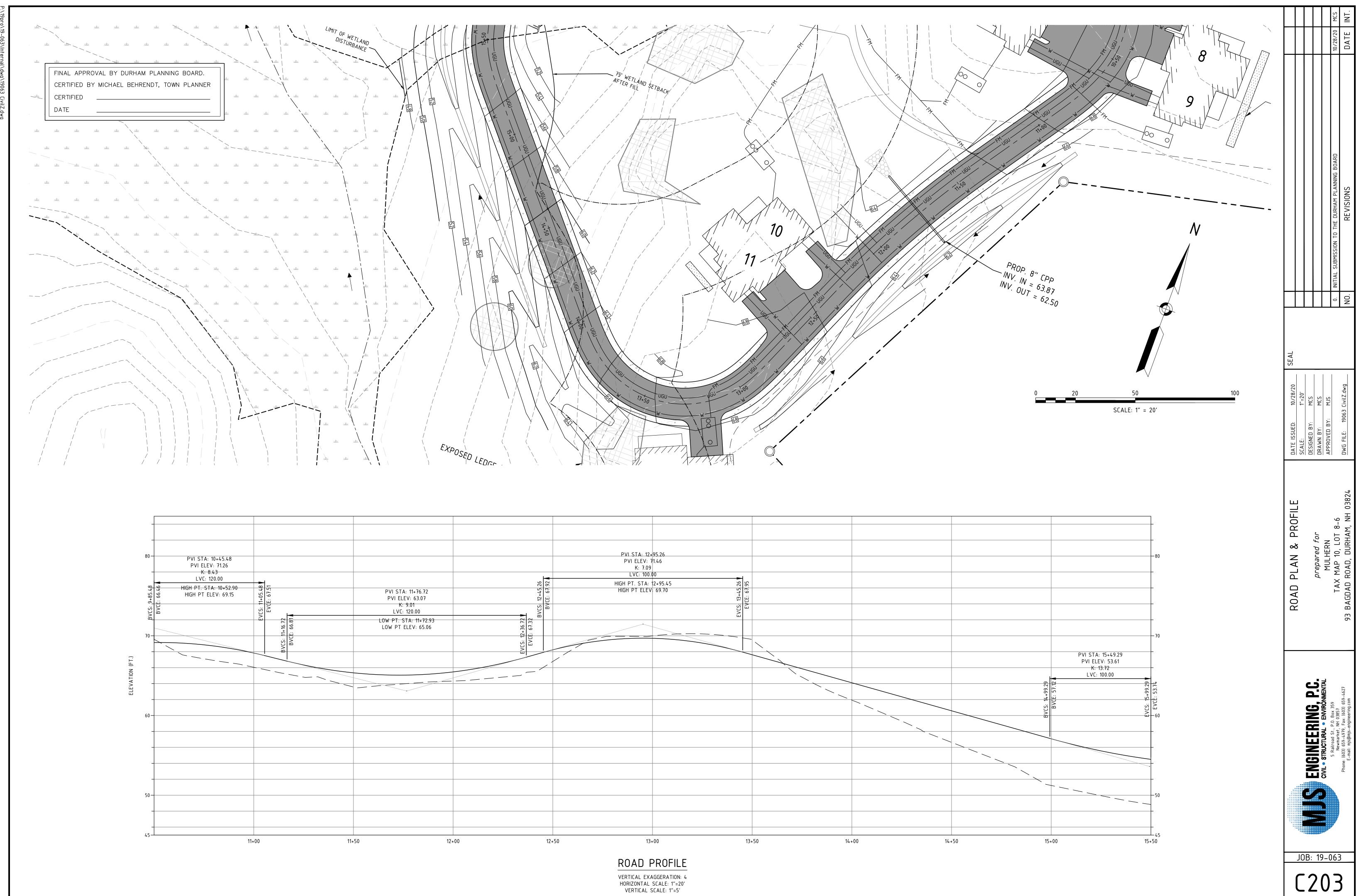
		MCS INT.
Ν		10/28/20 DATE
	GENERAL NOTES: OWNER OF RECORD: MARTHA A. AND MICHAEL J. MULHERN 91 BAGDAD ROAD DURHAM, NH 03824 TAX MAP 10, LOT 8-8 BOOK 4095, PAGE 129 SCRD 1. ZONE: RESIDENTIAL (RB) OVERLAY DISTRICTS: WCOD DIMENSIONAL REQUIREMENTS: MINIMUM LOT AREA 40,000 SF MINIMUM FRONTAGE 150 FEET MINIMUM FRONT SETBACK 30 FEET (MINOR AND COLLECTOR) 40 FEET (ARTERIAL) 40	Image: Constant of the constant
	MINIMUM SIDE SETBACK 20 FEET MINIMUM REAR SETBACK 30 FEET 2. THE INTENT OF THIS PLAN IS TO SHOW THE GRADING OF THE PROPOSED DEVELOPMENT. BY MICHAEL MARIANO OF HIGHLAND SOIL	SEAL
	 4. SURVEY FIELD WORK WAS COMPLETED BY TRI-TECH AND NORWAY PLAINS ASSOCIATES. 	DATE ISSUED: 10/28/20 SCALE: 1"=30' DESIGNED BY: MCS DRAWN BY: MCS APPROVED BY: MJS DWG FILE: 19063 CivilZ.dwg
		CLUSTER GRADING PLAN <i>prepared for</i> MULHERN TAX MAP 10, LOT 8-6 93 BAGDAD ROAD, DURHAM, NH 03824
	FINAL APPROVAL BY DURHAM PLANNING BOARD. CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER CERTIFIED DATE	ENGLOSO CONTROLUCION CONTROLUCIÓN CONTROL
	0 30 60 100	JOB: 19-063
	SCALE: 1" = 30'	C105





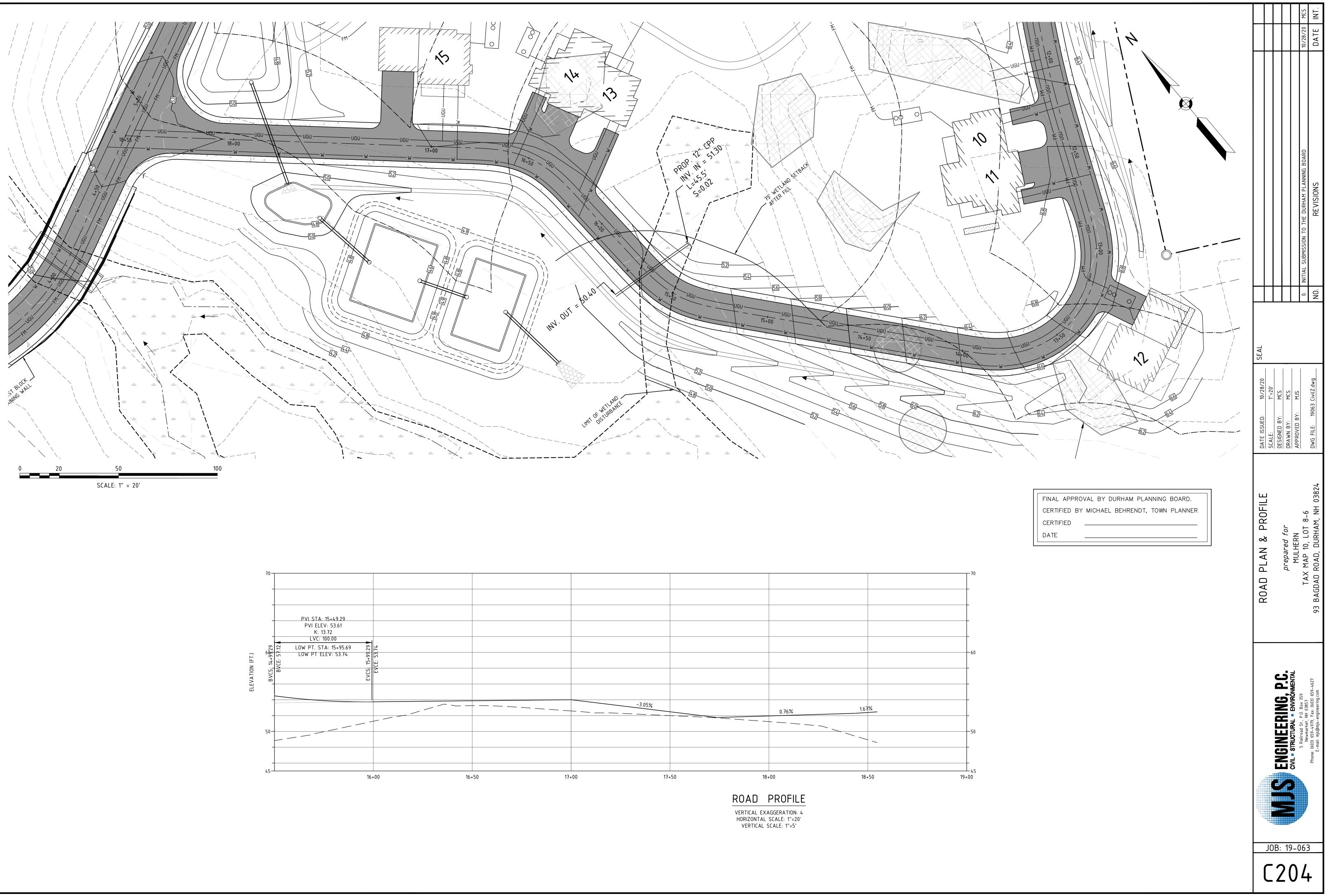


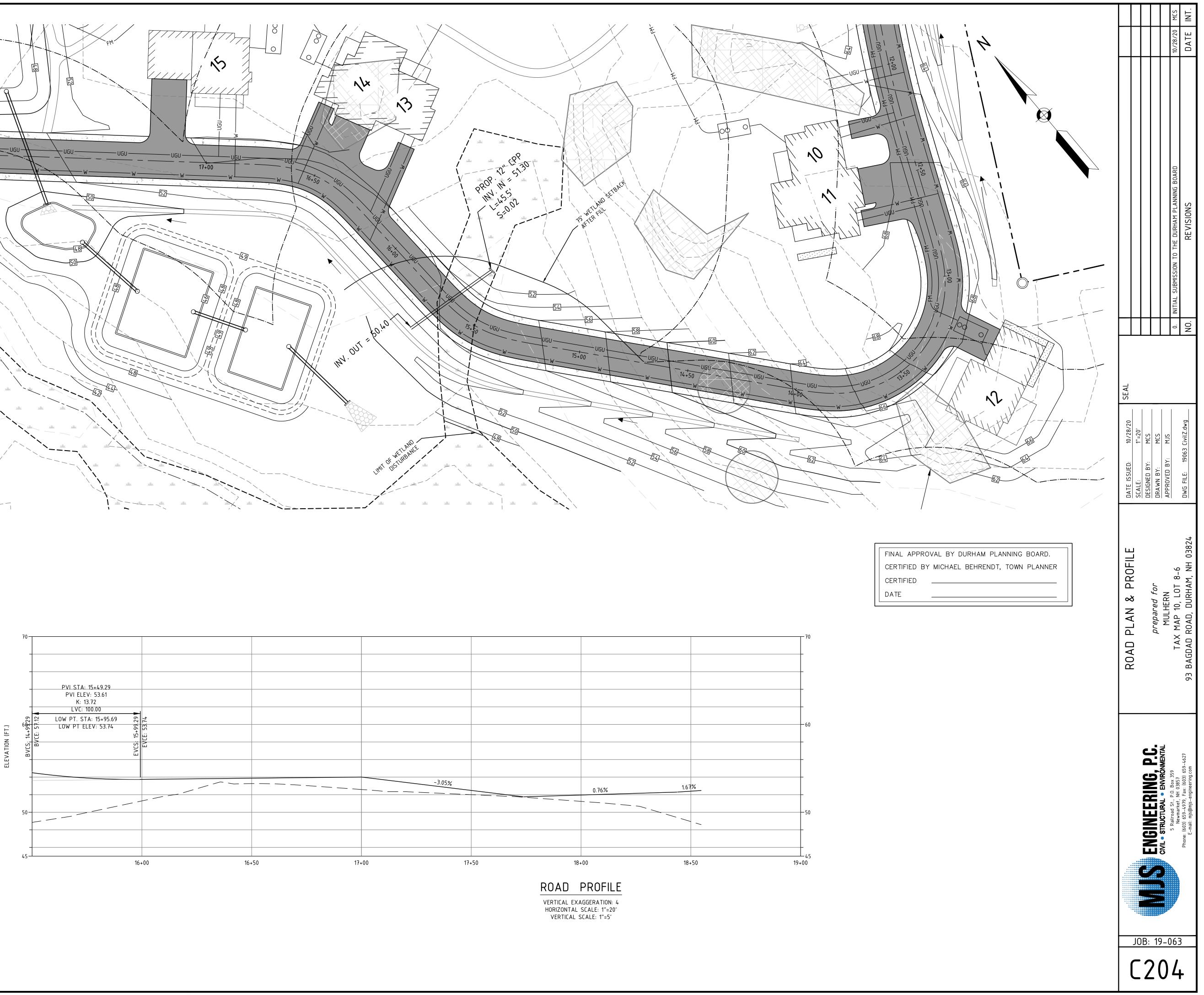


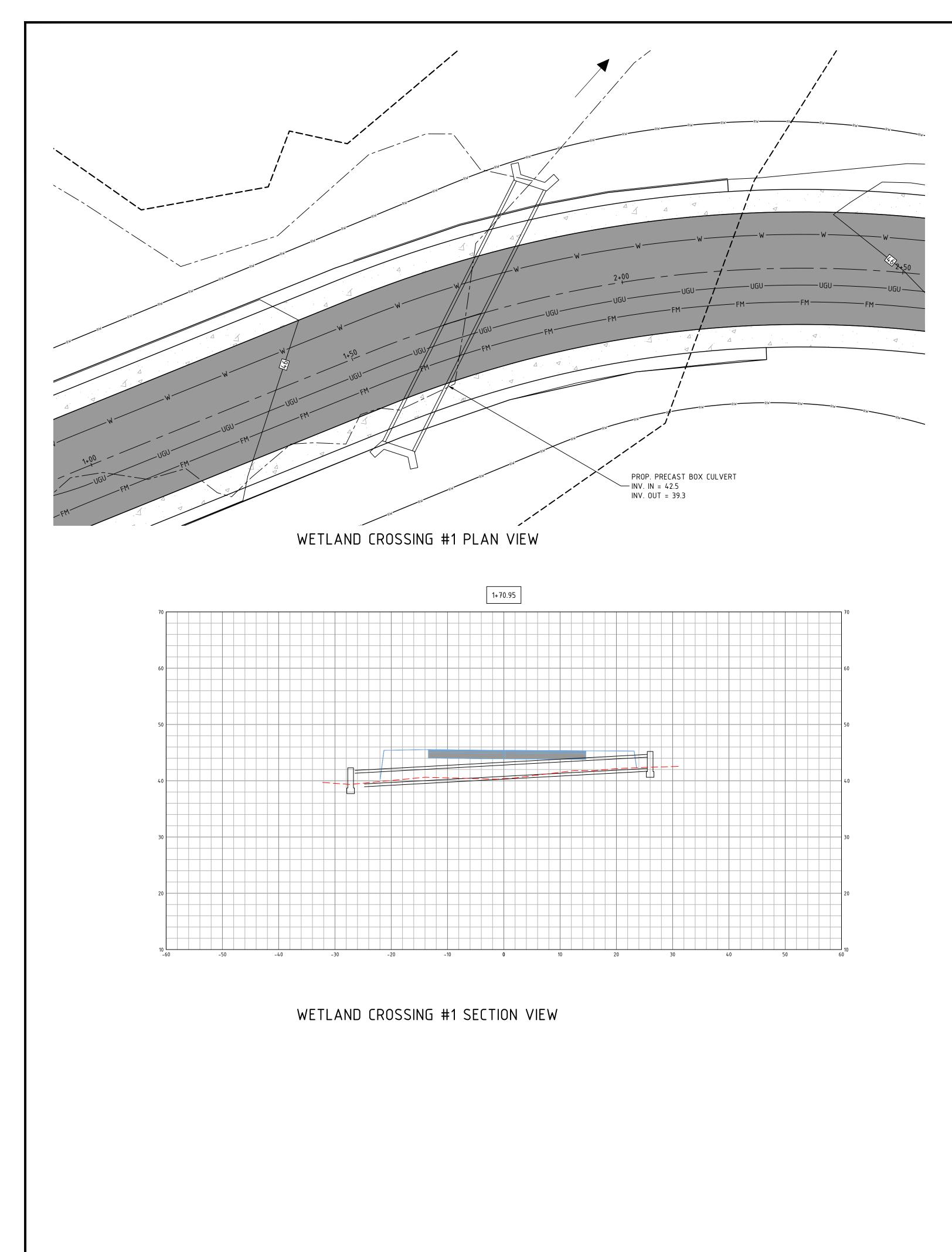


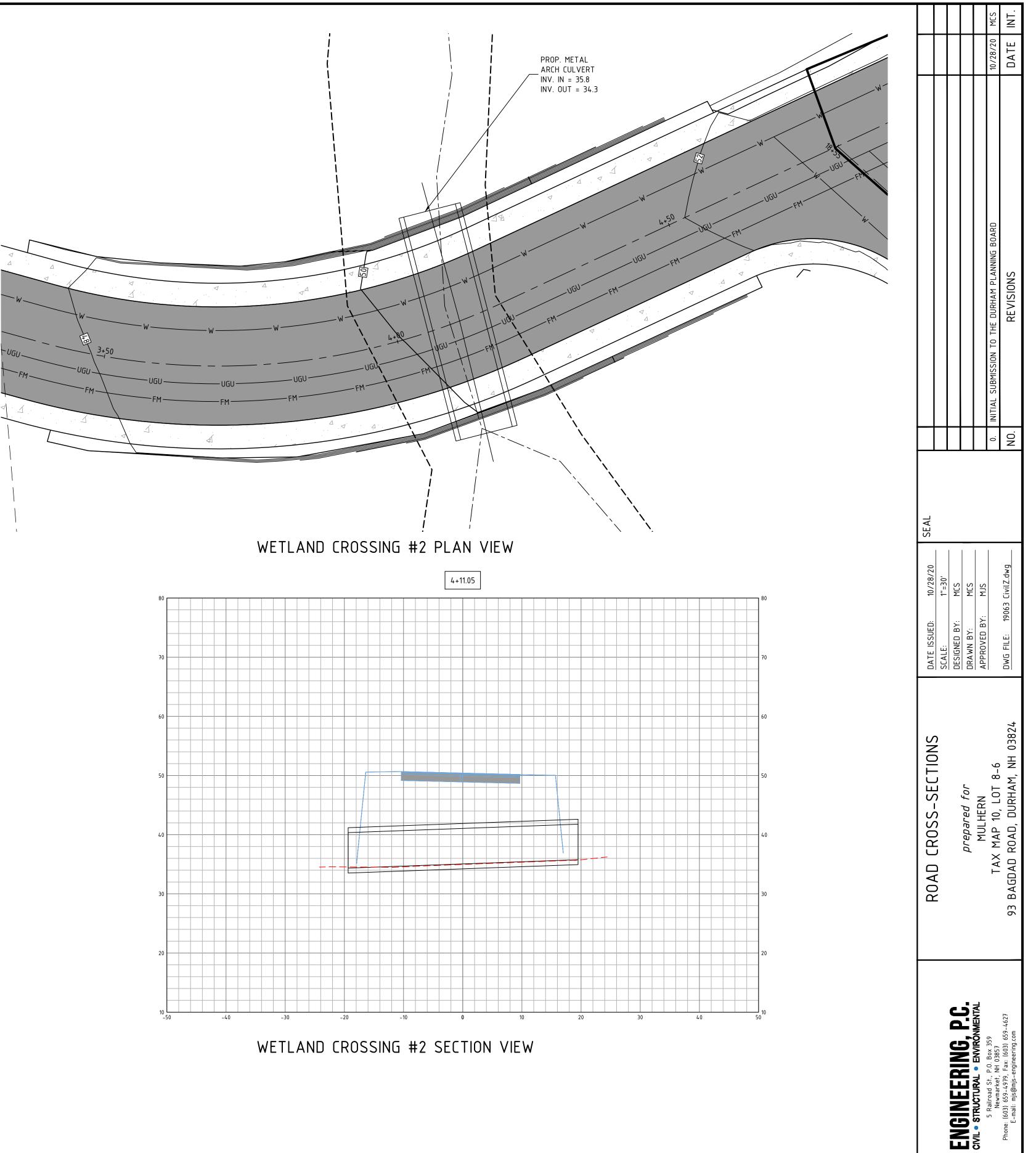
	PVI STA: 12+ PVI ELEV: 7	1.46			_
	K: 7.09 LVC: 100.0	00			
5.26 57.92	HIGH PT. STA: HIGH PT ELEV	12+95.45 <u>8</u> 6.			-
(CS: 12+45.26 BVCE: 67.92 ▲		ت <u>ع</u>			
		EVCS:			
+36.72 67.32					
EVCS: 12+36.72 EVCE: 67.32					
					_
					_
					-
12-	+50 13+	+00 13	+50 14	+00 14+	.5

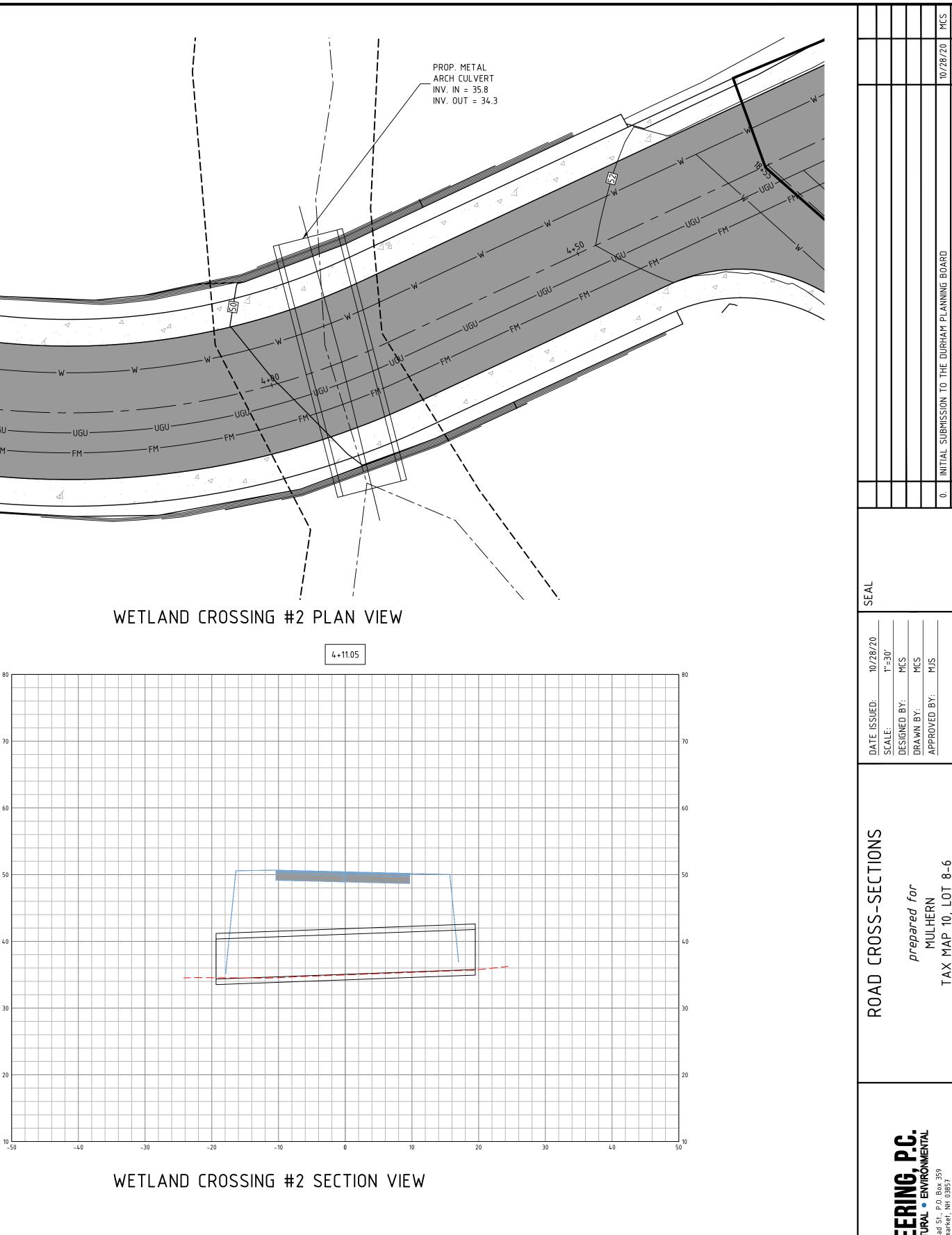












JOB: 19-063

C301

CONSTRUCTION SEQUENCING AND EROSION CONTROL NOTES:

AREA OF DISTURBANCE/STABILIZATION A. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL THE AREA OF UNSTABILIZED SOIL EXCEED 5 ACRES AT ANY ONE TIME BEFORE THE AREA IS STABILIZED.

- B. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED: 1. IN AREAS TO BE PAVED, BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM
- NO. 304.1 OR 304.2 HAVE BEEN INSTALLED; 2. IN AREAS NOT TO BE PAVED
- 2.A. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; 2.B. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN
- INSTALLED: 2.C. EROSION CONTROL BLANKETS HAVE BEEN INSTALLED IN ACCORDANCE WITH ENV-WQ

1506.03. C. DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED WITHIN 45 DAYS AND PERMANENTLY STABILIZED NO LATER THAN 3 DAYS AFTER FINAL GRADING.

EROSION CONTROL PRACTICES

- INSTALLATION: INSTALL ALL EROSION CONTROLS AS SHOWN ON THE GRADING PLAN, TYPICAL DETAILS, AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL NOTES ON THIS PAGE. MANUFACTURER'S SPECIFICATIONS SHALL BE FOLLOWED.
- INSPECTION: INSPECT ALL EROSION CONTROLS WEEKLY AND AFTER EVERY RAIN EVENT OF 0.5 INCHES OR GREATER UNLESS OTHERWISE NOTED. 2. TEMPORARY STABILIZATION PRACTICES SHALL BE INSPECTED ONCE PER WEEK DURING
- CONSTRUCTION UNTIL EXPOSED SURFACES ARE STABILIZED. . ANY SIGNS OF RILL OR GULLY EROSION SHALL BE IMMEDIATELY REPAIRED. C. MAINTENANCE:
- MAINTAIN EROSION CONTROLS PER THE TYPICAL DETAILS AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL NOTES ON THIS PAGE.
- REMOVAL ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE 85% VEGETATIVE
- COVER HAS BEEN ESTABLISHED. 2. AFTER REMOVAL, ALL DISTURBED AREAS SHALL BE REGRADED, FERTILIZED, AND RESEEDED. MONITOR TO ENSURE VEGETATIVE GROWTH IS ESTABLISHED AND REPAIR AS NEEDED UNTIL MINIMUM OF 85% VEGETATIVE COVER IS ESTABLISHED.

COLD WEATHER SITE STABILIZATION

- A. TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE ADDITIONAL STABILIZATION TECHNIQUES SPECIFIED IN THIS SECTION SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1.
- B. SUBJECT TO (C), BELOW, THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE: LIMITED TO ONE ACRE; AND
- PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT.
- C. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN IS DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST AND SUBMITTED TO
- THE DEPARTMENT FOR APPROVAL AS A REQUEST TO WAIVE THE ONE—ACRE LIMIT D. SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING OR TACKIFIER OR WITH AT LEAST 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(B)
- SUBJECT TO (F) AND (G), BELOW, ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF 15% OR GREATER THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR THAT ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH AT LEAST 4 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(B).
- F. ANCHORED HAY MULCH OR EROSION CONTROL MIX THAT MEETS THE CRITERIA OF ENV-WQ 1506.05(B) SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH IN DEPTH. EROSION CONTROL BLANKETS SHALL NOT BE INSTALLED OVER SNOW GREATER THAN ONE INCH
- IN DEPTH OR ON FROZEN GROUND. H. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH (D) OR (E), ABOVE, SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE
- WILL EXIST FOR MORE THAN 5 DAYS. ALL DITCHES OR SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15. OR THAT ARE DISTURBED AFTER OCTOBER 15. SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN
- LOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT. AFTER OCTOBER 15. INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3-INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, TABLE 304-1, ITEM NO. 304.1, 304.2, OR 304.3, AVAILABLE AS NOTED IN APPENDIX B.

TEMPORARY VEGETATION

D.

- A. SITE PREPARATION INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED ABOVE.
- ENSURE RUNOFF IS DIVERTED FROM SEEDED AREA. ON SLOPES OF 4:1 OR STEEPER, CREATE HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF. SEED BED PREPARATION
- REMOVE STONES AND TRASH FROM AREA TO BE SEEDED. COMPACTED SOIL SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE APPLYING
- FERTILIZER, LIME, AND SEED. APPLY FERTILIZER AT A RATE OF 600 LBS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE.
- C. SEEDING 1. SEED PER THE FOLLOWING RECOMMENDATIONS

SEASON	APPLICATION DATE	MIXTURE TYPE	QUANTITY (Ib./Ac.)
EARLY SPRING	NO LATER THAN 5/15	OATS	80
LATE SPRING/ FALL	4/1 TO 6/1 & 8/15 TO 9/15	PERENNIAL RYE	30
EARLY SPRING/ FALL	4/1 TO 5/15 & 8/15 TO 9/15	ANNUAL RYE	40
FALL	8/15 TO 9/15	WINTER RYE	112

- 2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
- TEMPORARY SEEDING SHALL OCCUR PRIOR TO SEPTEMBER 15TH IN THE YEAR IN WHICH THE AREA BEING SEEDED WAS DISTURBED. AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHALL BE COVERED WITH HAY OR STRAW MULCH MEETING THE FOLLOWING CRITERIA: 4.A. HAY AND STRAW MULCHES SHALL BE ANCHORED WITH MULCH NETTING OR TACKIFIER
- SO THAT THEY ARE NOT BLOWN AWAY BY WIND OR WASHED AWAY BY FLOWING WATER:
- 4.B. MULCH MATERIALS SHALL BE SELECTED BASED UPON SOILS, SLOPE, FLOW CONDITIONS, AND TIME OF YEAR; 4.C. HAY OR STRAW MULCH SHALL BE APPLIED AT A RATE OF 1.5 TO 2 TONS PER
- ACRE, EQUIVALENT TO 70 TO 90 POUNDS PER 1,000 SQUARE FEET; 5. IF VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA IS NOT ACHIEVED PRIOR TO OCTOBER 15TH, ONE OR MORE ADDITIONAL EROSION CONTROL
- METHODS SHALL BE IMPLEMENTED. MAINTENANCE
- TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHOULD ALSO BE INSPECTED JUST PRIOR TO SEPTEMBER 15. TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF
- EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHOULD BE IMPLEMENTED.
- 3. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. 4. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

PERMANENT VEGETATION A. SITE PREPARATIO

С.

- REFER TO SITE PREPARATION FOR TEMPORARY SEEDING. B. SEED BED PREPARATION 1. REFER TO SEED BED PREPARATION FOR TEMPORARY SEEDING IN CONJUNCTION WITH THESE
- NOTES 2. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A
- COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE. 3. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE
- OR OTHER UNSUITABLE MATERIAL. 4. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE
- ARFA MUST BF TILLED AND FIRMED AS ABOVE. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A 5.
- DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED. 6. APPLY FERTILIZER AT A RATE OF 600 LBS PER ACRE OF 10-10-10. APPLY LIMESTONE
- PER ACRE. SEEDING
- 1. UNLESS OTHERWISE NOTED, GRASS SEED MIXTURE 'C' SHALL BE APPLIED AT THE SPECIFIED RATE AS NOTED IN THE 'SEED MIXTURES FOR PERMANENT VEGETATION' TABLE. 2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.
- SEEDING OPERATIONS SHOULD BE ON THE CONTOUR. 3. WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
- 4. WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER. SLOPES MUST BE NO STEEPER THAN 2 TO 1
- LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT
- WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING. 8. TEMPORARY SEEDING SHALL OCCUR PRIOR TO SEPTEMBER 15TH IN THE YEAR IN WHICH THE
- AREA BEING SEEDED WAS DISTURBED. 9. AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHALL BE COVERED WITH HAY OR STRAW MULCH MEETING THE FOLLOWING CRITERIA: 9.A. HAY AND STRAW MULCHES SHALL BE ANCHORED WITH MULCH NETTING OR TACKIFIER SO THAT THEY ARE NOT BLOWN AWAY BY WIND OR WASHED AWAY BY FLOWING WATER: 9.A. MULCH MATERIALS SHALL BE SELECTED BASED UPON SOILS, SLOPE, FLOW CONDITIONS,
- AND TIME OF YEAR: 9.B. HAY OR STRAW MULCH SHALL BE APPLIED AT A RATE OF 1.5 TO 2 TONS PER ACRE, EQUIVALENT TO 70 TO 90 POUNDS PER 1,000 SQUARE FEET; 10. IF VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA IS NOT ACHIEVED PRIOR TO OCTOBER 15TH, ONE OR MORE ADDITIONAL EROSION CONTROL
- METHODS SHALL BE IMPLEMENTED. MAINTENANCE PERMANENTLY SEEDED AREAS SHOULD BE INSPECTED MONTHLY.
- MOW SEEDED AREAS AS NECESSARY. BASED ON INSPECTION, AREAS SHOULD BE REPAIRED AND/OR RESEEDED TO ENSURE 85% OF THE SOIL SURFACE IS COVERED BY VEGETATION.

MULCHING & EROSION CONTROL MATTING

- GENERAL 1. APPLY PRIOR TO A STORM EVENT. CLOSELY MONITOR THE WEATHER TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS. 2. MULCHING WITHIN A SPECIFIED TIME PERIOD FROM ORIGINAL SOIL EXPOSURE
- 2.B. IN OTHER AREAS IT SHALL BE NO GREATER THAN 14 DAYS.
- YEAR. TEMPORARY MULCHING 1. HAY OR STRAW MULCHES
 - 1.A. ORGANIC MULCHES INCLUDING HAY AND STRAW SHALL BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS.
 - TONS/ACRE TO COVER 75-90% OF THE GROUND.
 - 1.C. ANCHORING SHALL BE ONE OF THE FOLLOWING 1.C.1. NETTING SHALL BE JUTE, WOOD FIBER, OR BIODEGRADABLE PLASTIC NETTING NSTALLED PER MANUFACTURER'S SPECIFICATIONS. 1.C.2. TACKIFIER: APPLY POLYMER OR ORGANIC TACKIFIER TO ANCHOR HAY OR STRAW
 - FOR ORGANIC LIQUID.
 - 1.D. WINTER APPLICATION: APPLY TO A DEPTH OF 4 INCHES OR DOUBLE THE ABOVE LISTED APPLICATION RATE. NOTE THAT IF SEEDING IS NECESSARY, MULCH WILL NEED TO BE REMOVED AND THE AREA SEEDED AND MULCHED IN THE SPRING.
 - 1.E.1. INSPECT PERIODICALLY AND AFTER RAIN STORMS FOR RILLS OR DISPLACEMENT OF MULCH. REPAIR AS NECESSARY. CONTINUE INSPECTIONS UNTIL 85%
- 2. EROSION CONTROL BLANKET OR MATTING MANUFACTURERS SPECIFICATIONS.
- 2.B. APPLICATION AND TIMING 2.B.1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE ON THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER), ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS, AND WETLANDS.
- ADDITION TO THOSE LISTED ABOVE USE ON SIDE SLOPES OF GRASSED
- AS NECESSARY.

- 2. EROSION CONTROL MIX 2.A. SHALL BE PLACED AT A THICKNESS OF 2 INCHES OR MORE FOR MULCHING. 2.B. COMPOSITION OF THE MIX SHALL BE AS FOLLOWS:
- 2.B.2. PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING THE 3" SCREEN,
- 2.B.3. THE ORGANIC PORTION SHALL BE ELONGATED AND FIBROUS SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS. IT SHALL <u>NOT</u> CONTAIN WOOD AND BARK CHIPS,
- 2.B.4. THE MIX SHALL NOT CONTAIN SILTS, CLAYS, OR FINE SANDS. 2.B.5. SOLUBLE SALTS CONTENT SHALL BE < 4.0MMHOS/CM AND A pH OF 5.0-8.0, 2.C. PLACEMENT OF BERM
- HIGH ON THE UPHILL SIDE AND 2 FEET WIDE. UPSLOPE AREA MUST HAVE A SLOPE OF LESS THAN 5%. 2.D. MAINTENANCE: INSPECT PERIODICALLY AND AUGMENT AS NEEDED TO MAINTAIN INITIAL THICKNESS. REPLACE IF NO LONGER FUNCTIONING AS INTENDED.

- 1.E. MAINTENANCE
- VEGETATIVE COVER IS ESTABLISHED. 2.A. REFER TO PLANS FOR TYPICAL EROSION CONTROL MATTING DETAIL. INSTALL PER
- 2.B.2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 APRIL 15) IN
- WATERWAYS AND MODERATE SLOPES (GREATER THAN 8%). 3.A. INSPECT PERIODICALLY AND BEFORE AND AFTER STORM EVENTS TO ENSURE CONTACT WITH THE SOIL UNTIL 85% VEGETATIVE COVER IS ESTABLISHED. REPAIR AND RESTAPLE

- 3. MAINTENANCE

- C. PERMANENT MULCHING
- 1. WOOD CHIPS OR GROUND BARK 1.A. APPLY TO A THICKNESS OF 2 TO 6 INCHES. APPLICATION RATES ARE 10-20
 - TONS/ACRE OR 460-920 POUNDS/1,000 SF. 1.B. MAINTENANCE: INSPECT ANNUALLY AND AFTER RAIN EVENTS OF 2.5 INCHES OR MORE IN A 24 HOUR PERIOD. REPAIR/REPLACE AS NECESSARY.
 - 2.B.1. ORGANIC MATTER CONTENT SHALL BE BETWEEN 25-65% DRY WEIGHT BASIS.
 - 90-100% PASSING THE 1" SCREEN, 70-100% PASSING THE 0.75 INCH SCREEN, AND 30-75% PASSING THE 0.25 INCH SCREEN.

REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND

ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS, TRASH

(EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS

2.A. WITHIN 100 FEET OF WETLANDS THE TIME PERIOD SHOULD BE NO GREATER THAN 7

3. MULCH MATERIALS SHALL BE SELECTED BASED UPON SOILS, FLOW CONDITIONS, AND TIME OF

1.B. APPLICATION RATE SHALL BE 2 BALES/1,000 SF (70-90 POUNDS) OR 1.5-2.0

MULCH. APPLY PER MANUFACTURER'S SPECIFICATIONS. TYPICAL APPLICATION RATES ARE 40-60 LBS/ACRE FOR POLYMER MATERIAL AND 80-120 LBS/ACRE

GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS.

2.C.1. PLACE BERM ALONG A LEVEL CONTOUR. BERM MUST BE A MINIMUM OF 12"

SOIL STOCKPILES GENERAL

- STOCKPILES MUST BE LOCATED 50 FEET FROM DITCHES AND CULVERT INLETS. PROTECTION OF STOCKPILES
- PROTECT SOIL AND AGGREGATE STOCKPILES WITH TEMPORARY PERIMETER SEDIMENT BARRIER SUCH AS SILT FENCE OR SILT SOCK.
- COVER ACTIVE STOCKPILES WITH ANCHORED PROTECTIVE COVERING PRIOR TO EXPECTED STORM EVENTS.
- INACTIVE STOCKPILES SHALL BE COVERED WITH ANCHORED TARPS OR 3. TEMPORARILY SEEDED AND MULCHED PER THE TEMPORARY VEGETATION
- AND MULCHING NOTES ON THIS PAGE. STOCKPILES THAT ARE A SOURCE OF DUST SHALL BE COVERED.

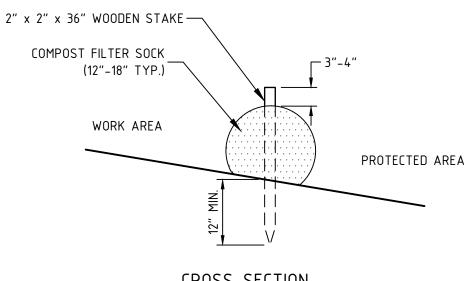
DUST CONTROL DUST SHALL BE CONTROLLED ON SITE DURING CONSTRUCTION BY IMPLEMENTING THE FOLLOWING DUST CONTROL MEASURES

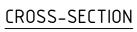
- MULCHING AND VEGETATIVE COVER TO REDUCE DUST. MECHANICAL SWEEPERS AND FINE WATER SPRAYS.
- COVER SURFACES WITH CRUSHED STONE OR COARSE GRAVEL.

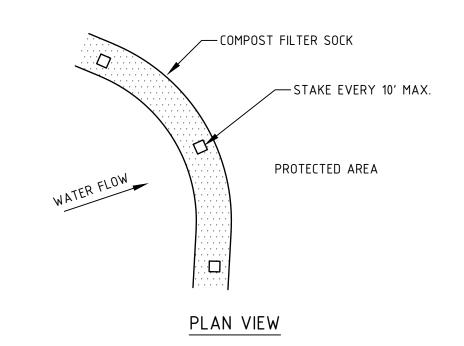
SEED MI	XTURE SELECTIO	N BASED ON SO	DIL TYPE		
USE	SOIL DRAINAGE				
	SEEDING MIXTURE	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	
	B	POOR	GOOD	FAIR	
	C	POOR	GOOD	EXCELLENT	
	D	FAIR	EXCELLENT	EXCELLENT	
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	
	C	GOOD	EXCELLENT	EXCELLENT	
LIGHTLY USED PARKING LOTS, ODD AREAS,	A	GOOD	GOOD	GOOD	
UNUSED LANDS, AND LOW INTENSITY USE	B	GOOD	GOOD	FAIR	
RECREATION SITES.	C	GOOD	EXCELLENT	EXCELLENT	
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL	E	FAIR	EXCELLENT	EXCELLENT	
IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	

NOTE: POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREAS AND ATHLETIC FIELDS.

SEED MIXTURES FOR PERMANE	NT VEGETATION	
SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SF
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
<u>REDTOP</u>	<u>2</u>	<u>0.05</u>
TOTAL	42	0.95
TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR	-	-
<u>FLATPEA</u>	<u>30</u>	0.75
<i>TOTAL</i>	40 <i>O</i> R 55	0.95 OR 1.35
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
<u>BIRDSFOOT TREFOIL</u>	<u>8</u>	<u>0.20</u>
<i>TOTAL</i>	48	1.10
TALL FESCUE	20	0.45
<u>FLATPEA</u>	<u>30</u>	<u>0.75</u>
TOTAL	50	1.20
CREPPING RED FESCUE	50	1.15
<u>KENTUCKY BLUEGRASS</u>	<u>50</u>	<u>1.15</u>
TOTAL	100	2.30
TALL FESCUE	150	3.60
	SPECIES TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL TALL FESCUE CREEPING RED FESCUE CROWN VETCH OR FLATPEA TOTAL TALL FESCUE CREEPING RED FESCUE BIRDSFOOT TREFOIL TOTAL TALL FESCUE ELATPEA TOTAL CREPPING RED FESCUE KENTUCKY BLUEGRASS TOTAL	SPECIESACRETALL FESCUE20CREEPING RED FESCUE20REDTOP2TOTAL42TALL FESCUE15CREEPING RED FESCUE10CROWN VETCH15OR-FLATPEA30TOTAL40 OR 55TALL FESCUE20CREEPING RED FESCUE20DR-FLATPEA30TOTAL40 OR 55TALL FESCUE20BIRDSFOOT TREFOIL8TOTAL48TALL FESCUE20ELATPEA30TOTAL50CREPPING RED FESCUE50KENTUCKY BLUEGRASS50TOTAL100







1. ALL COMPOST MATERIAL TO MEET MANUFACTURES SPECIFICATIONS. 2. FILTER SOCKS SHOULD BE INSTALLED FOLLOWING EXISTING CONTOURS.

COMPOST FILTER SOCK DETAIL

CONSTRUCTION SEQUENCING:

- 1. SCHEDULE A PRE-CONSTRUC CONDITIONS OF APPROVAL PR CONTACT DIG-SAFE, INDIVIDUA OF CONSTRUCTION. INSTALL PERIMETER CONTROL 4. CLEAR/GRUB ONLY WITHIN TH THOSE AREAS THAT CAN BE
- THE PROJECT IS TO BE MANA CHAPTER AGR 3800 RELATIVE
- 6. CLEAR/GRUB A. STÚMPS MAY BE DISPOSED 7. STOCKPILES
- A. STOCKPILE LOAM FOR RE-B. TEMPORARILY STABILIZE L WINTER RYE GRASS MULCH- FROM SEF
- 8. CONSTRUCT AND STABILIZE A FACILITIES AS LISTED ABOVE. A. THESE SHALL BE INSTA RUNOFF MUST BE DIRE
- SEDIMENT TRAP DETAIL. C. STORMWATER PONDS, IN
- TO THEM. REFER TO INDIVIDUAL DE 10. ROAD CONSTRUCTION CUTS AND FILLS: Α.
 - 1. CONSTRUCT IN LOCATI 2. FILLS: A. PLACE MAXIMUM
- B. ALL MATERIAL BA STUMPS, BRUSH LOAM AND SEED S B. DRAINAGE AND UTILITY INSTALL AS SHOWN
- C. BASE MATERIALS: BANK MAXIMUM DRY DENSITY D. STABILIZE ALL PARKING 11. INSPECT. MAINTAIN, AND IF NI
- EROSION CONTROL NOTES ON 12. REMOVE ALL TEMPORARY EROS

ADDITIONAL NOTES: 1. NO FUEL SHALL BE STORED O 2. DURING CONSTRUCTION DUST

- HAZARD BY THE IMPLEMENTATIO 3. ALL CONSTRUCTION MATERIALS SHALL BE REMOVED BY THE
- 4. DO NOT BEGIN CONSTRUCTION APPLIED FOR AND RECEIVED.
- 5. THE GENERAL CONTRACTOR IS CONDITIONS AT THE SITE. ANY THE DESIGN ENGINEER BEFORE



FRAME SEDIMENT

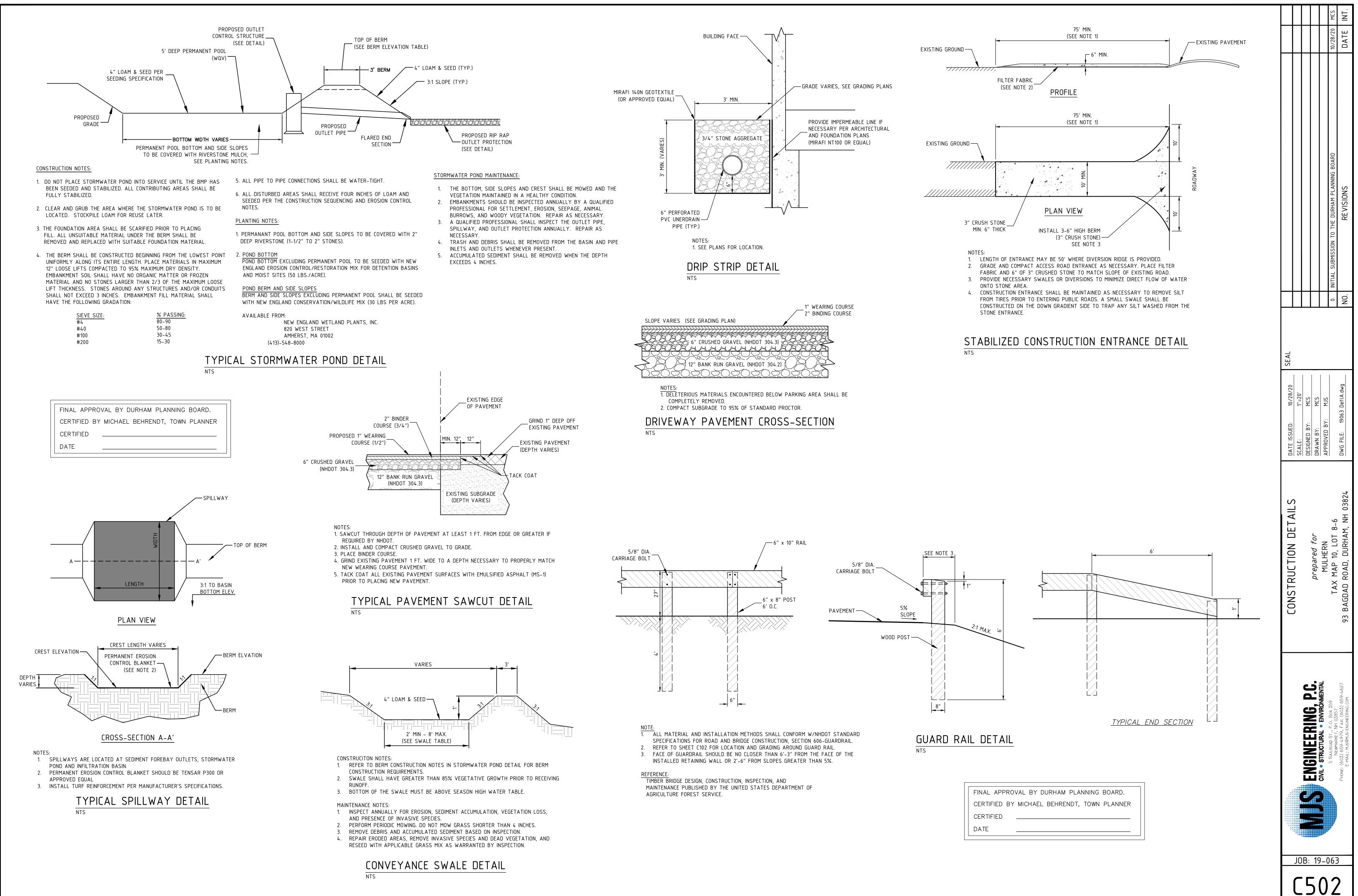
SEDIMENT FIL

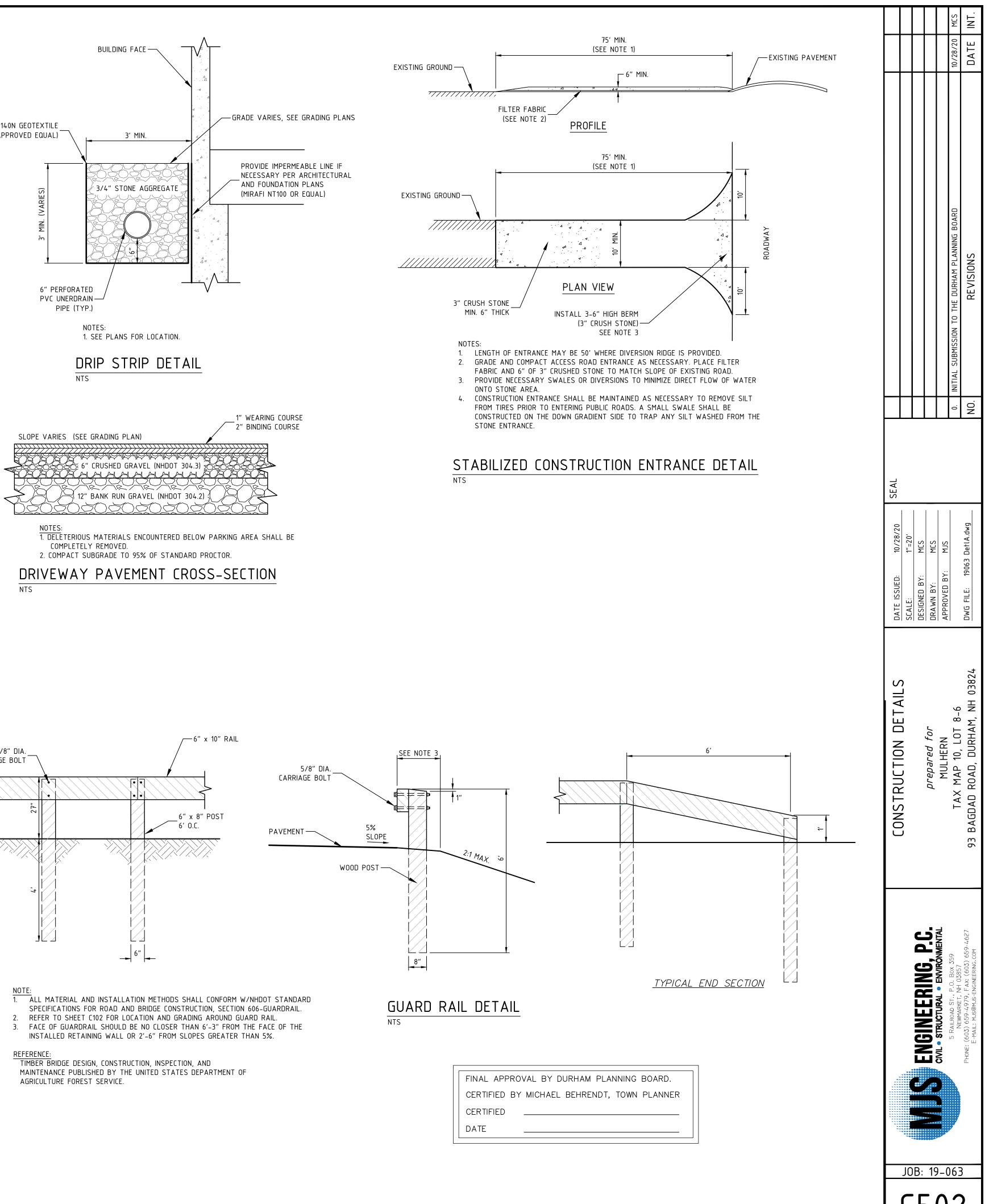
EXPANS RESTRAI

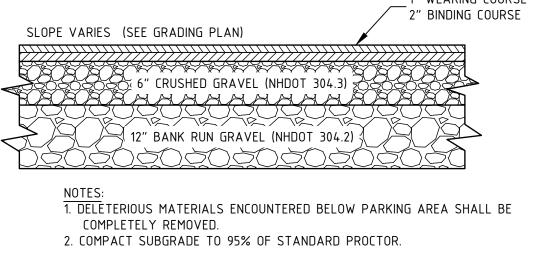
CATCH BASIN-

NTS

JOB: 19–063

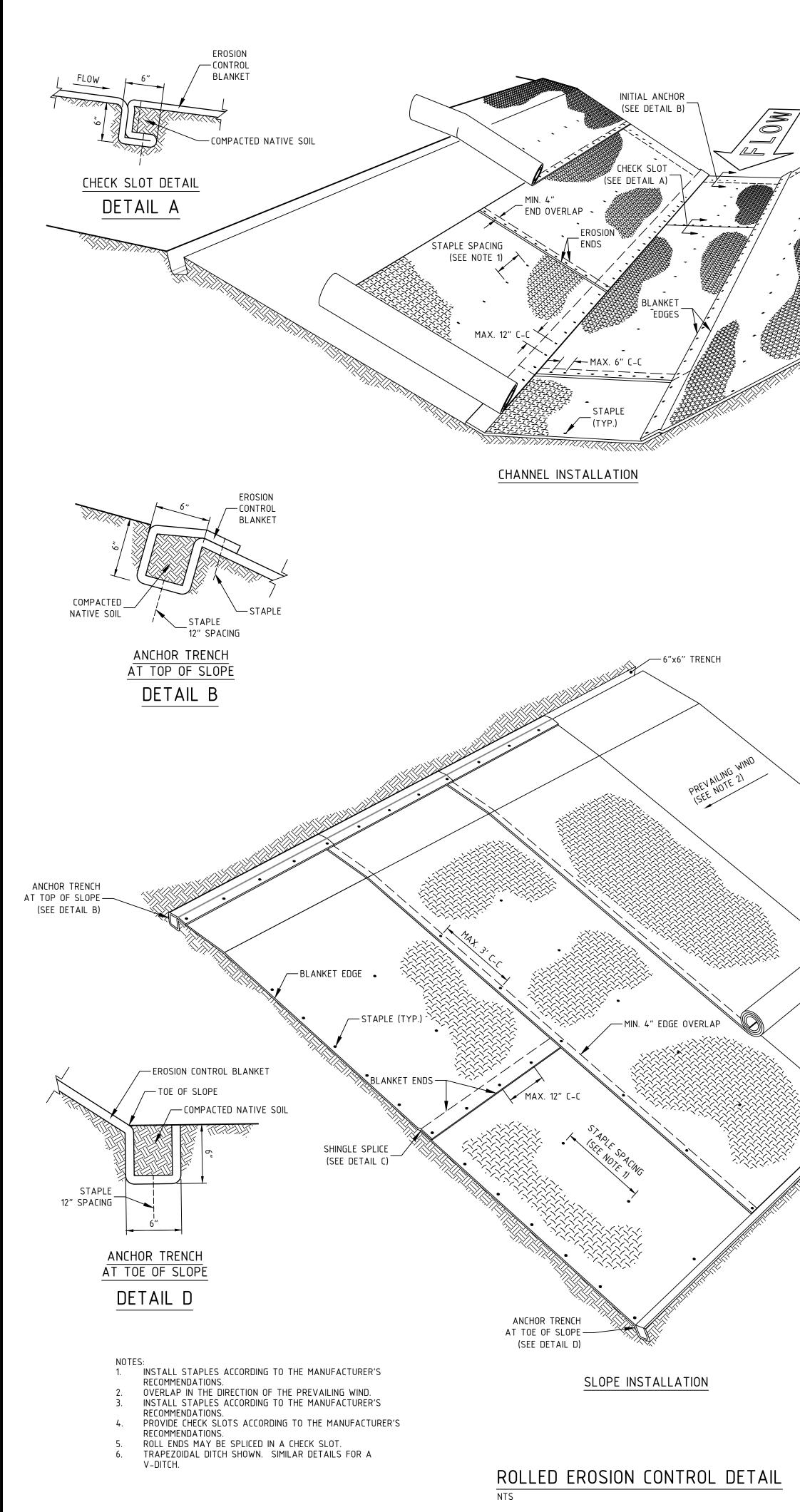












ANCHOR TRENCH AT TOP OF SLOPE (SEE DETAIL B) SHINGLE SPLICE DETAIL C 6"x6" TRENCH FINAL APPROVAL BY DURHAM PLANNING BOARD. CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER

CERTIFIED DATE

CONST					PHONE: (603) 659-4979, FAX: (603) 659-4627 E-MAIL: MJS@MJS-ENGINEERING.COM 93 BAGDAD
CONSTRUCTION DETAILS		prepared for	MULHERN	TAX MAP 10, LOT 8-6	93 BAGDAD ROAD, DURHAM, NH 03824
DATE ISSUED: 10/28/20 SEAL	SCALE: 1"=20' DFSIGNED BY: MCS		APPROVED BY: MJS		DWG FILE: 19063 DetIA.dwg
				0. INITIAL SUBMISSION TO T	NO.
				INITIAL SUBMISSION TO THE DURHAM PLANNING BOARD	REVISIONS
				10/28/20 MCS	DATE INT.