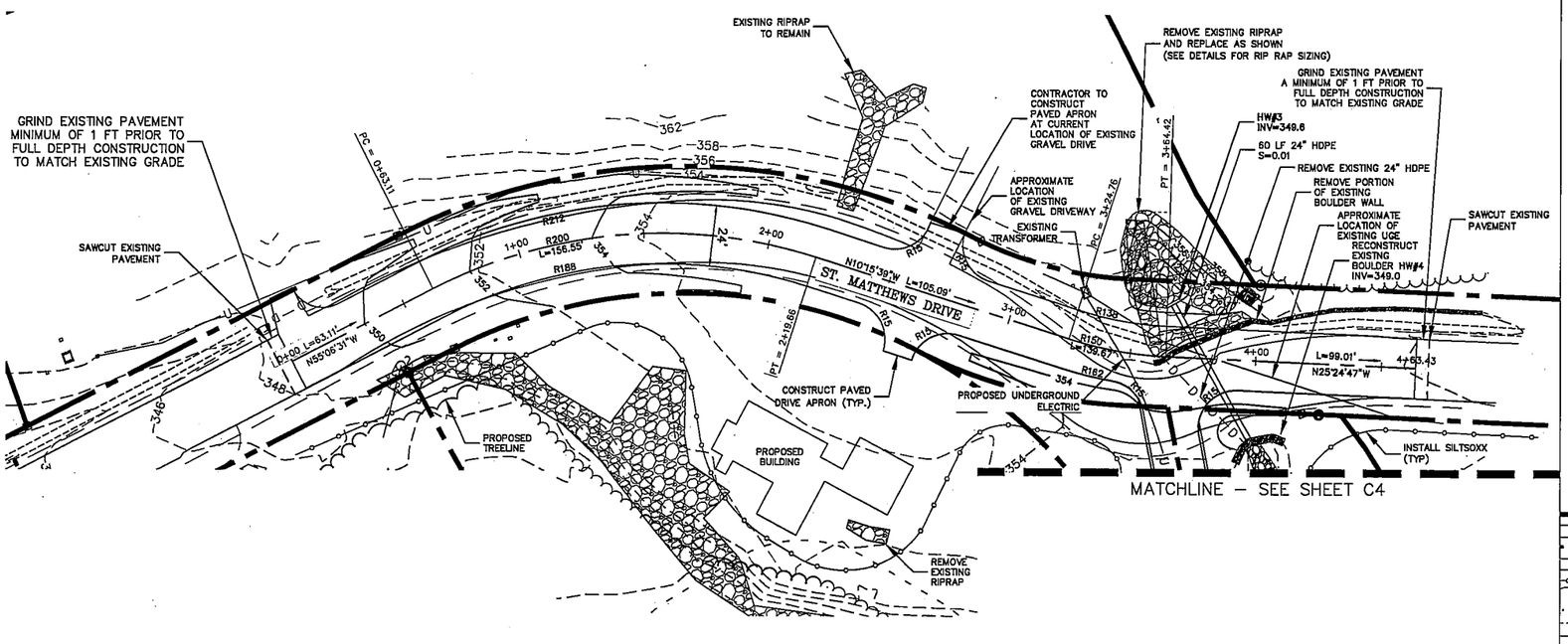


LEGEND

- UTILITY POLE & GUY WIRE
- SIGN
- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIPE/ROD FOUND
- PILE OF STONES
- 5/8" RE-BAR W/ ID CAP TO BE SET
- 4"X4" GRANITE BOUND TO BE SET
- PROPOSED CATCH BASIN
- PROPOSED TRANSFORMER
- PROPOSED HEADWALL
- X 334.5 PROPOSED SPOT GRADE
- PROPOSED FLARED END SECTION
- TEST PIT LOCATION
- CONIFEROUS TREE
- DECIDUOUS TREE
- CONCRETE
- RIP RAP
- P-300 TURF MATTING
- WETLAND IMPACT AREA
- 4K LEACH FIELD
- EXISTING BUILDING
- PROPOSED BUILDING
- TEST PIT
- WELL
- TYP. TYPICAL
- RET. RETAINING
- CONC. CONCRETE
- TVB TELEVISION BOX
- TB TELEPHONE BOX
- TRANS. TRANSFORMER
- PROPERTY LINE
- OHW EXISTING OVERHEAD WIRES
- DRAIN LINE
- PROPOSED DRAIN LINE
- EXISTING UNDERGROUND UTILITY LINE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED SILTSOXX
- TREE LINE
- BUILDING SETBACK LINE
- 100 EXISTING CONTOUR LINE
- 100 PROPOSED CONTOUR LINE
- EDGE OF JURISDICTIONAL WETLAND
- PROPOSED GRADING AND DRAINAGE EASEMENT

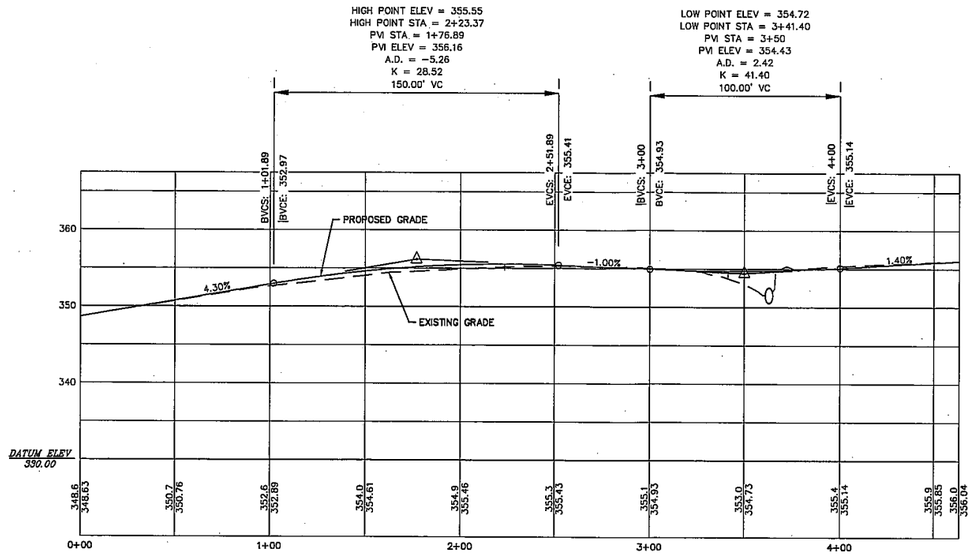
NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS	07/01/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	05/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: 1"=30'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

ROADWAY PLAN & PROFILE
SAINT MATTHEWS DRIVE
prepared for
GERRIOR LANE TRUST

THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH



SAINT MATTHEWS DRIVE ROADWAY PLAN & PROFILE

SCALE: H: 1"=40' V: 1"=10'

LAND USE OFFICE
JUL 01 2013
RECEIVED

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

MJS ENGINEERING, PC
CIVIL ENVIRONMENTAL CONSULTING ENGINEERING
5 RAILROAD ST., P.O. BOX 359
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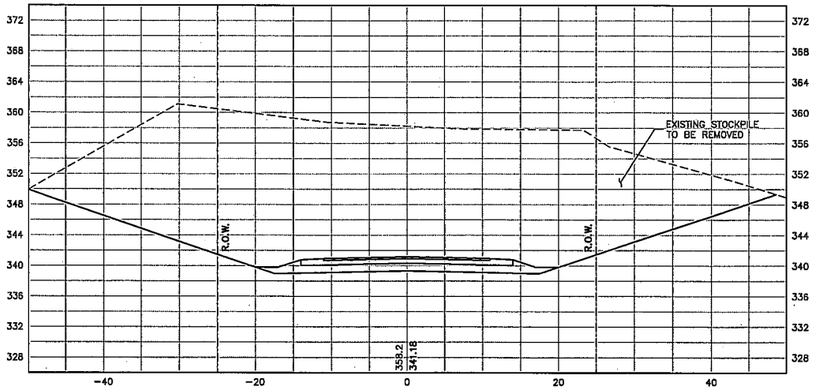
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM

JOB: 11-060

C5

1+00



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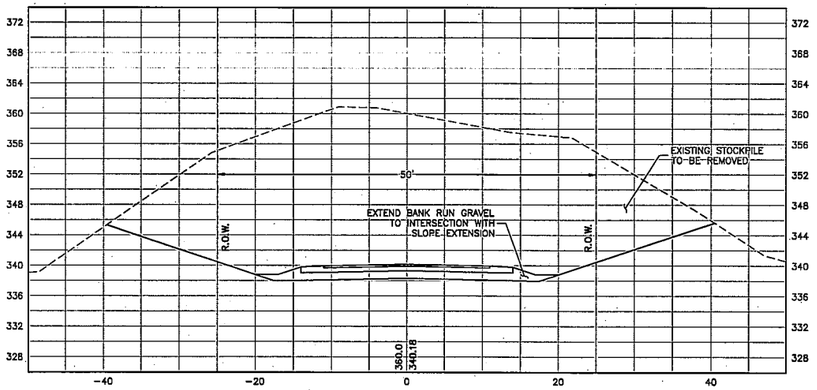

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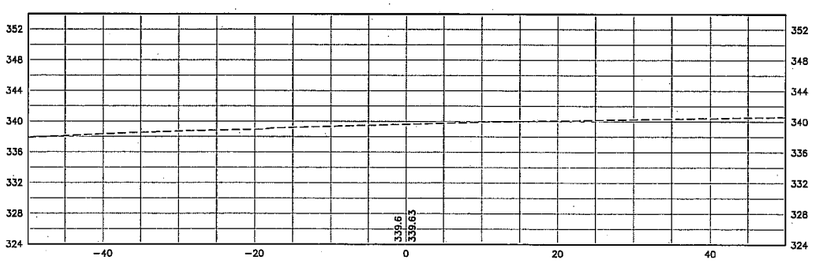

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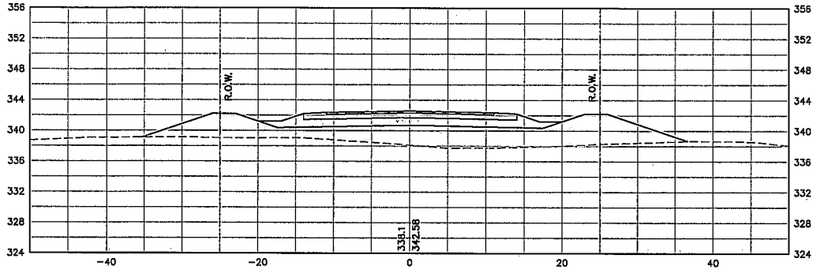

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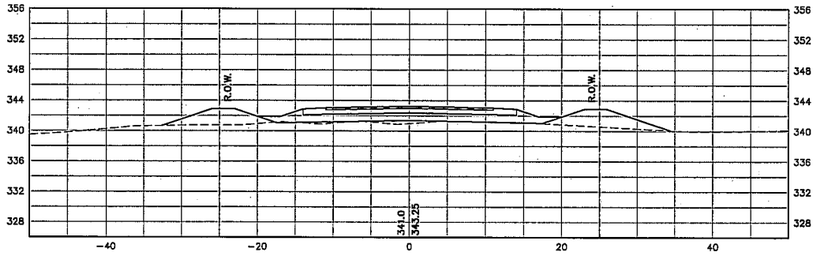

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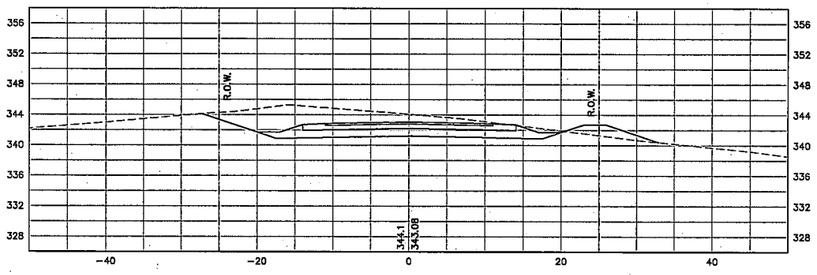

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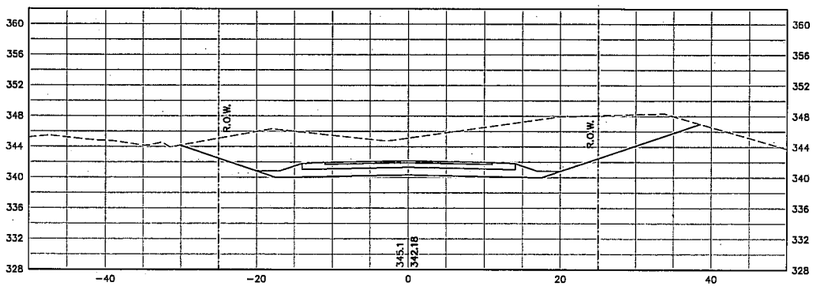

LAND USE OFFICE

JUL 0 1 2013

RECEIVED

LEGEND:

340.18	PROPOSED ELEVATION	R.O.W.	RIGHT OF WAY
360.0	EXISTING ELEVATION		
———	PROPOSED GRADE		
- - - - - - -	EXISTING GRADE		

NOTE: REFER TO HERITAGE LANE CROSS SECTION FOR ADDITIONAL INFORMATION

NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS-NO REVISIONS THIS SHEET	07/01/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	5/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: 1"=10'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

HERITAGE LANE
CROSS SECTIONS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

MJS ENGINEERING, PC
CIVIL ENVIRONMENTAL CONSULTING ENGINEERING
5 RAILROAD ST., P.O. BOX 359
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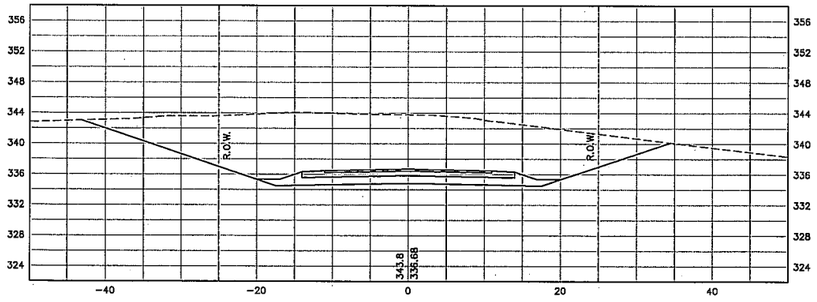
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM

JOB: 11-060

XS1

5+00



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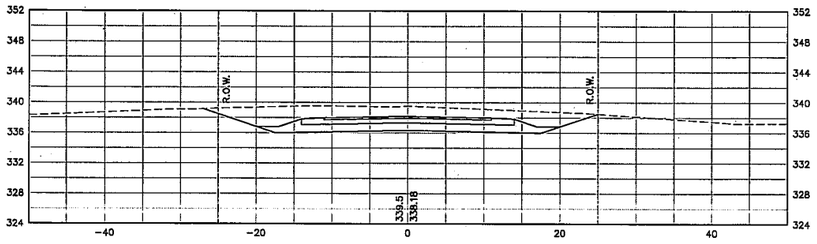

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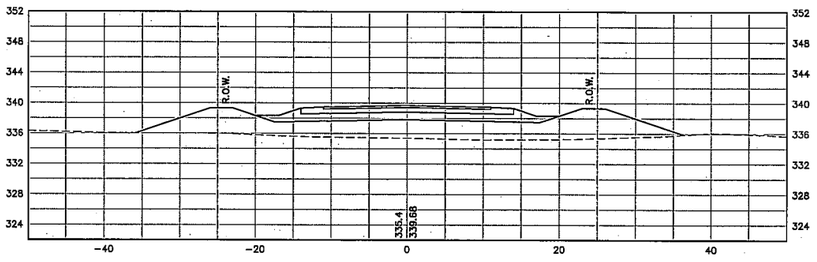

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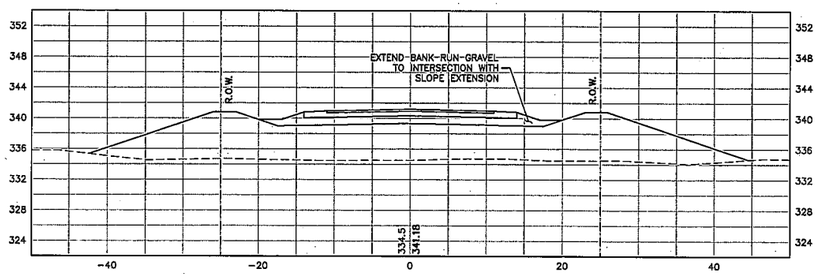

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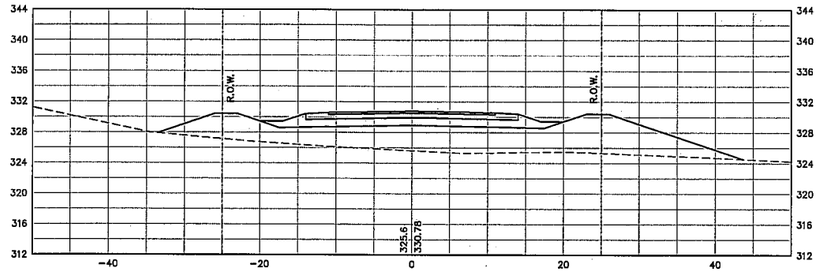

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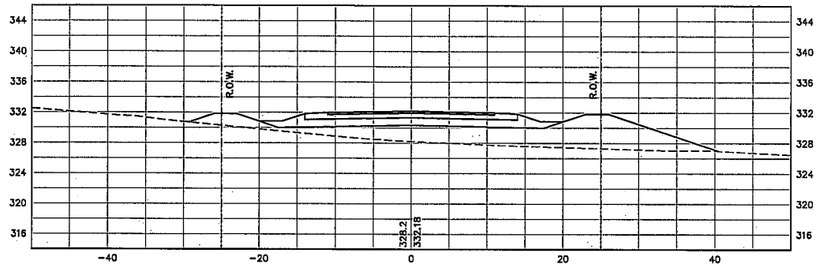

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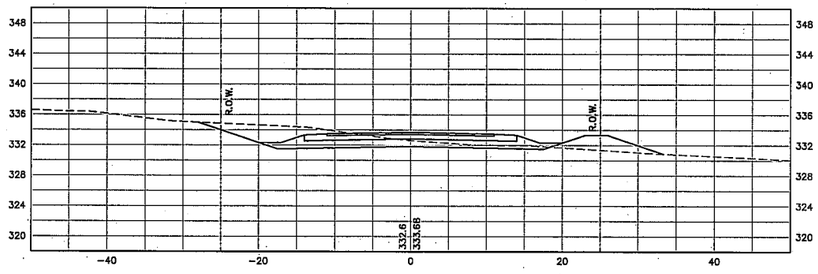

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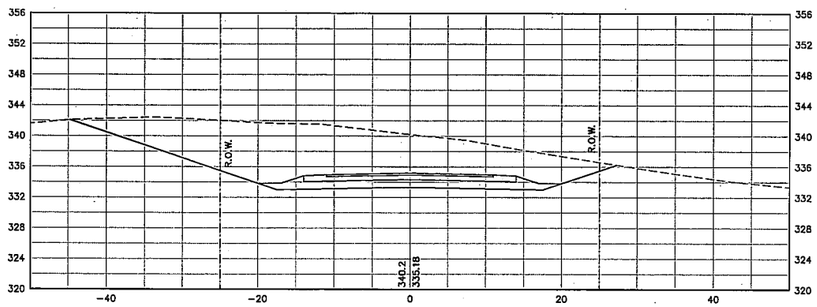

LAND USE OFFICE

JUL 01 2013

RECEIVED

LEGEND:

340.18	PROPOSED ELEVATION
360.0	EXISTING ELEVATION
———	PROPOSED GRADE
- - - - -	EXISTING GRADE
R.O.W.	RIGHT OF WAY

NOTE: REFER TO HERITAGE LANE CROSS SECTION FOR ADDITIONAL INFORMATION

NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS-NO REVISIONS THIS SHEET	07/01/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	5/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: 1"=10'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

HERITAGE LANE
CROSS SECTIONS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

MJS ENGINEERING, PC
CIVIL ENVIRONMENTAL CONSULTING ENGINEERING
5 RAILROAD ST., P.O. BOX 359
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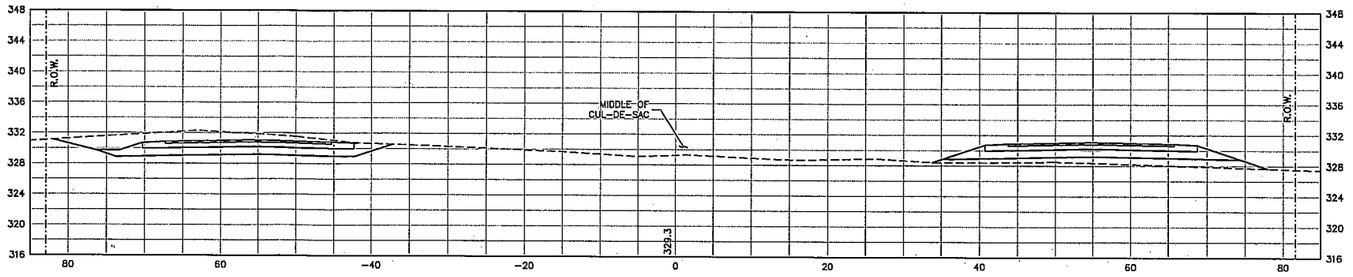
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM

JOB: 11-060

XS2

9+50



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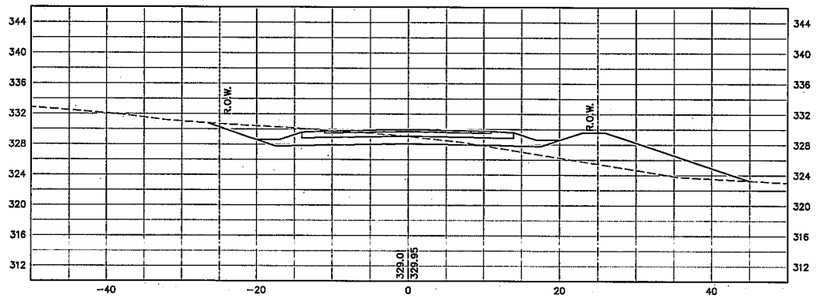

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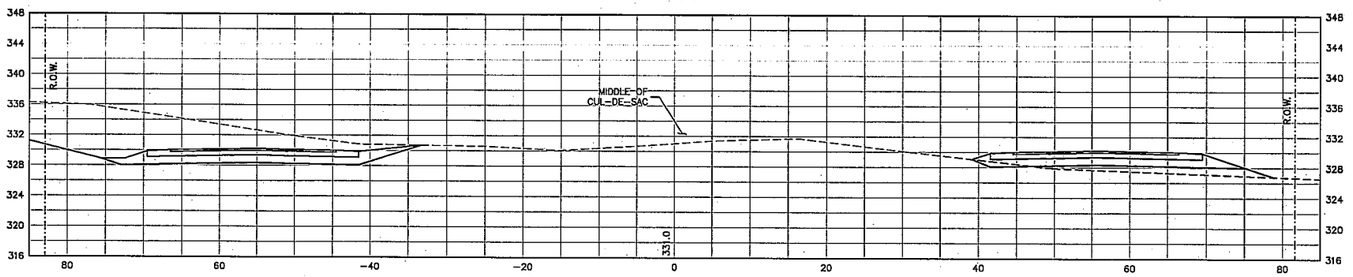

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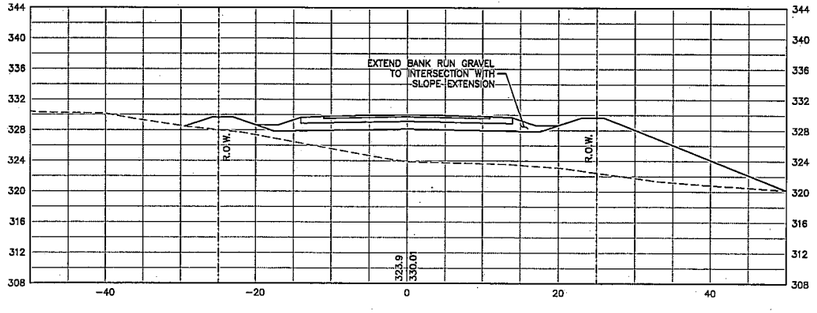

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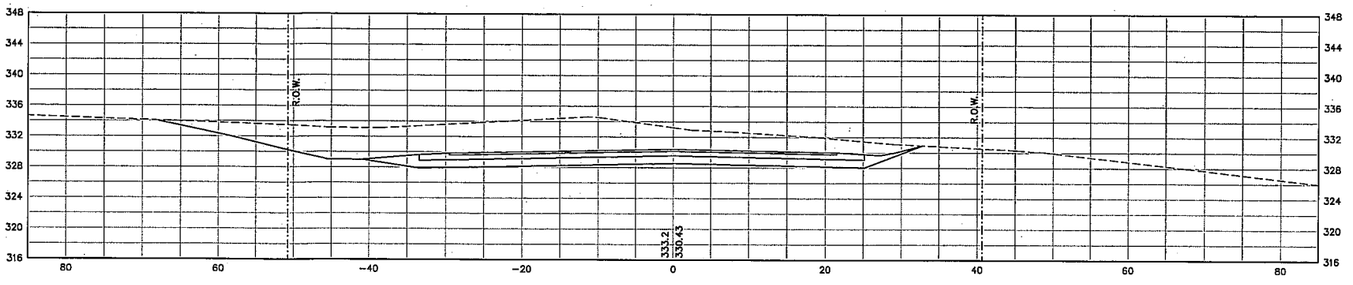


LAND USE OFFICE

JUL 01 2013

RECEIVED

LEGEND:

340.18	PROPOSED ELEVATION	R.O.W.	RIGHT OF WAY
360.0	EXISTING ELEVATION		
———	PROPOSED GRADE		
- - - - - -	EXISTING GRADE		

NOTE: REFER TO HERITAGE LANE CROSS SECTION FOR ADDITIONAL INFORMATION

NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS-NO REVISIONS THIS SHEET	07/01/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	5/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: 1"=10'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG. FILE:

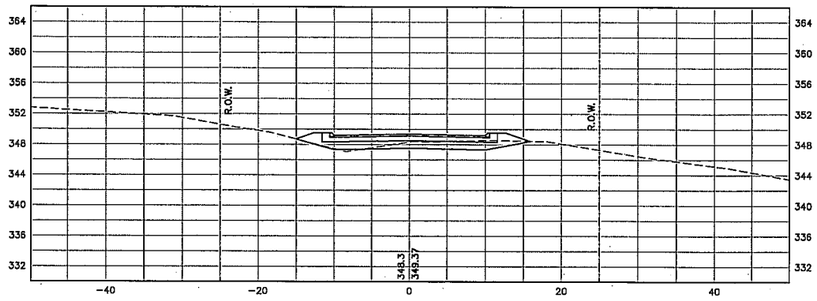
HERITAGE LANE
CROSS SECTIONS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

MJS ENGINEERING, PC
CIVIL ENVIRONMENTAL CONSULTING ENGINEERING
5 RAILROAD ST., P.O. BOX 359
NEWMARKET, NH 03857
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: MJSMILES-ENGINEERING.COM

JOB: 11-060

XS3

1+00



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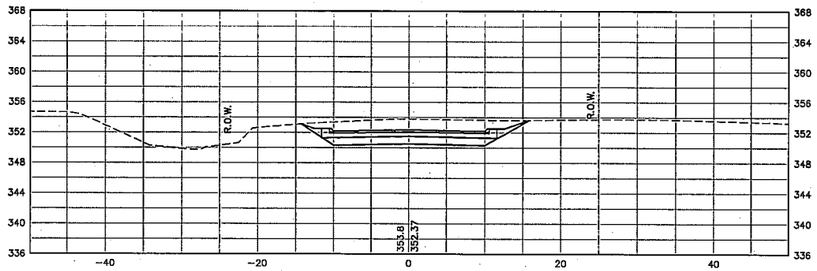

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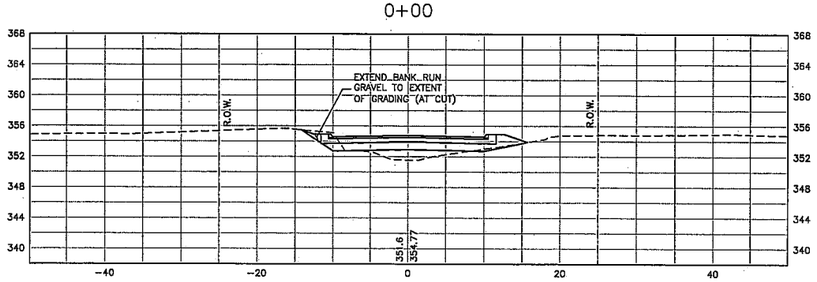

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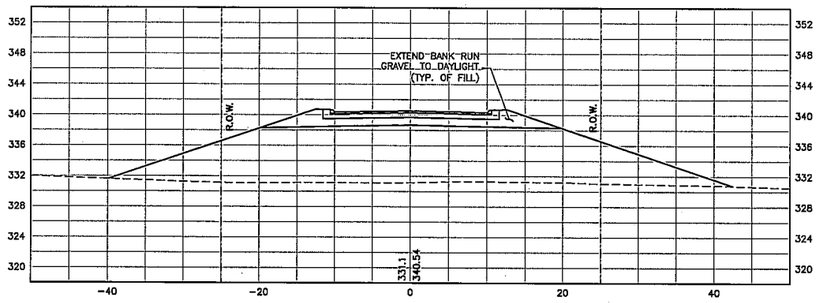

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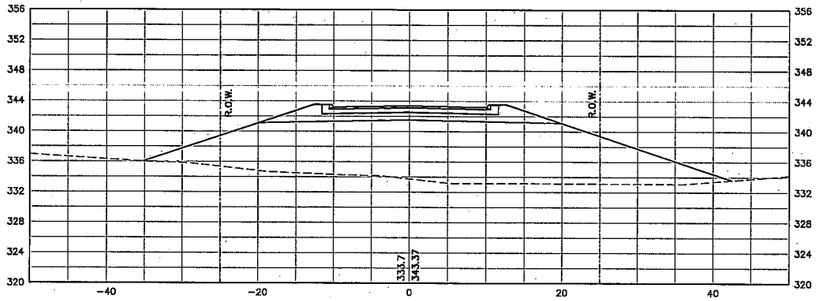

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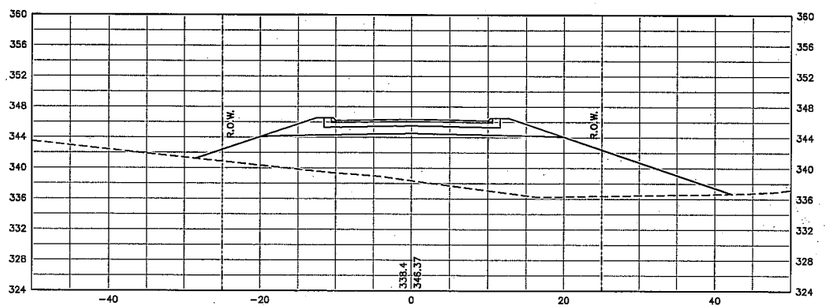

LAND USE OFFICE

JUL 01 2013

RECEIVED

LEGEND:

340.18	PROPOSED ELEVATION	R.O.W.	RIGHT OF WAY
360.0	EXISTING ELEVATION		
———	PROPOSED GRADE	NOTE: REFER TO SHARED DRIVE CROSS SECTION FOR ADDITIONAL INFORMATION	
- - - - - -	EXISTING GRADE		

NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS-NO REVISIONS THIS SHEET	07/01/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	5/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: 1"=10'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

SHARED DRIVE
CROSS SECTIONS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

MJS ENGINEERING, PC
CIVIL ENVIRONMENTAL CONSULTING ENGINEERING
5 RAILROAD SQ., P.O. BOX 359
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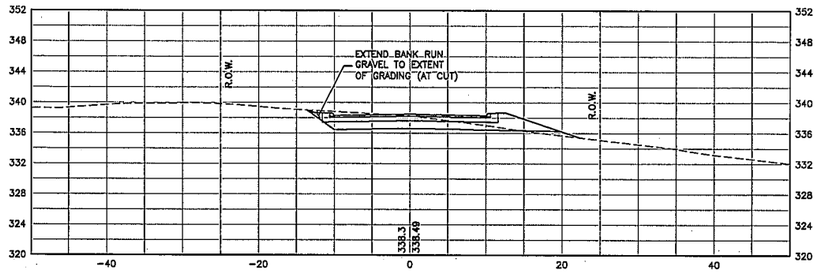
PHONE: (603) 659-6979, FAX: (603) 659-6627
E-MAIL: MJSENG@MJS-ENGINEERING.COM

JOB: 11-060

XS4

4+00



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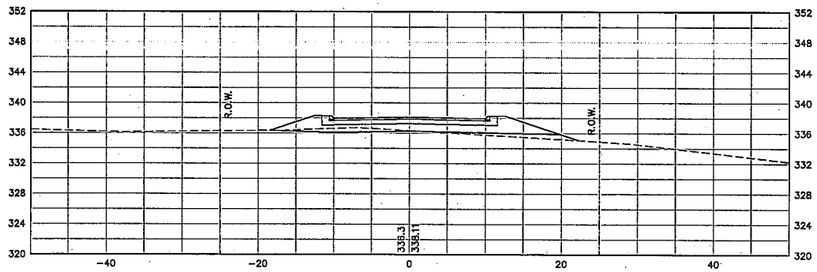

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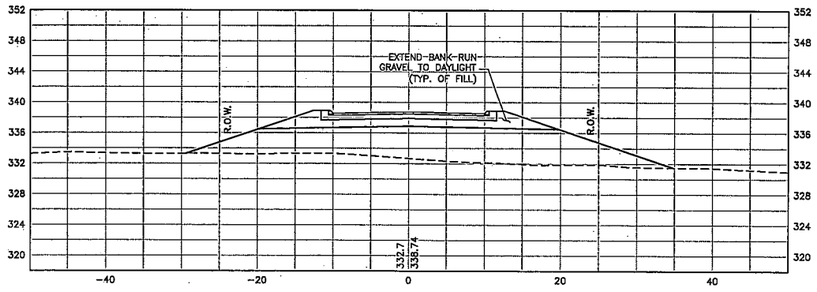

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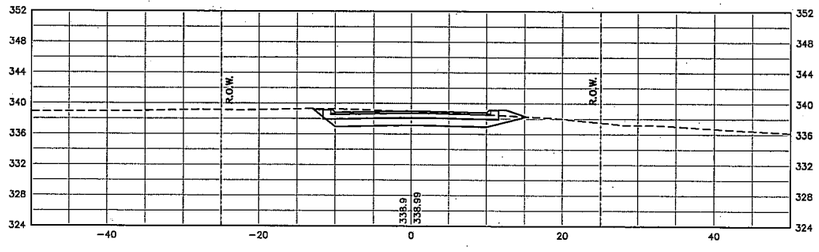


LAND USE OFFICE

JUL 01 2013

RECEIVED

LEGEND:

340.18	PROPOSED ELEVATION
360.0	EXISTING ELEVATION
———	PROPOSED GRADE
- - - - - - -	EXISTING GRADE
R.O.W.	RIGHT OF WAY

NOTE: REFER TO SHARED DRIVE CROSS SECTION FOR ADDITIONAL INFORMATION

NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS-NO REVISIONS THIS SHEET	07/01/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	5/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: 1"=10'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

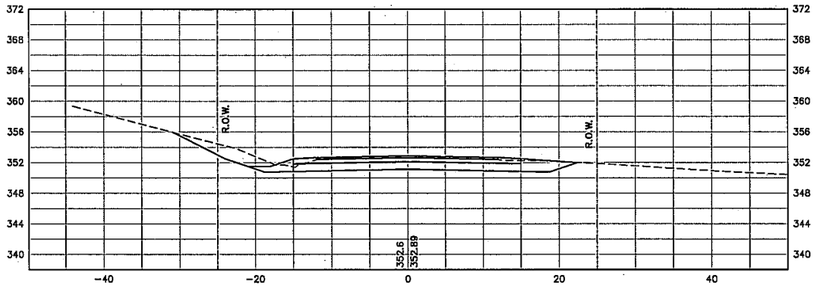
SHARED DRIVE
CROSS SECTIONS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

MJS ENGINEERING, PC
CIVIL ENVIRONMENTAL CONSULTING ENGINEERING
5 RAILROAD ST., P.O. BOX 359
NEWMARKET, NH 03857
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM

JOB: 11-060

XS5

1+00



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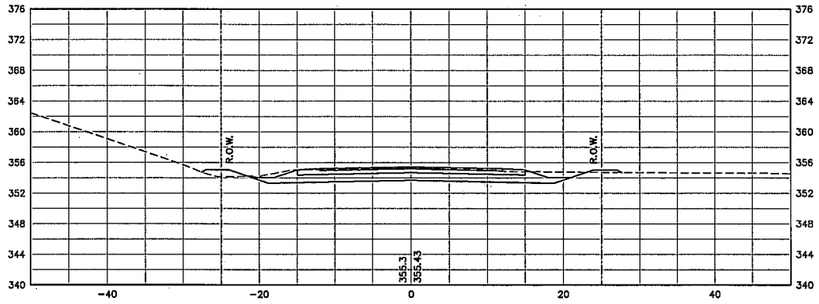

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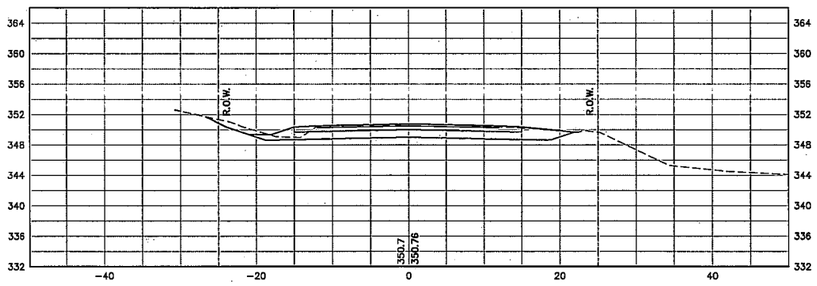

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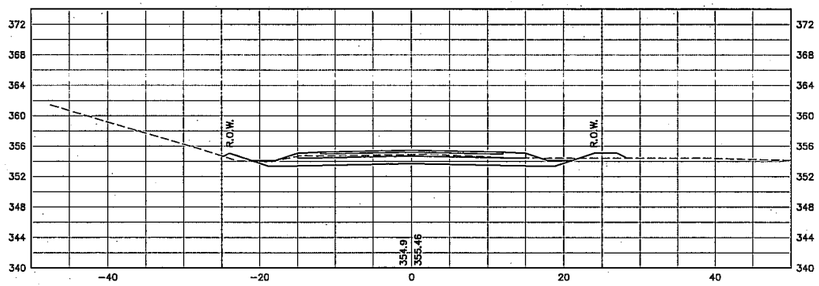

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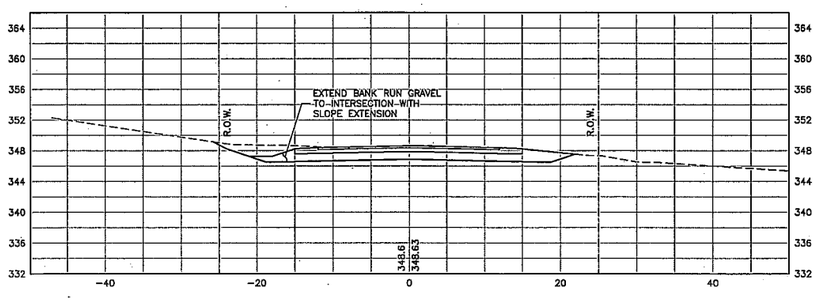

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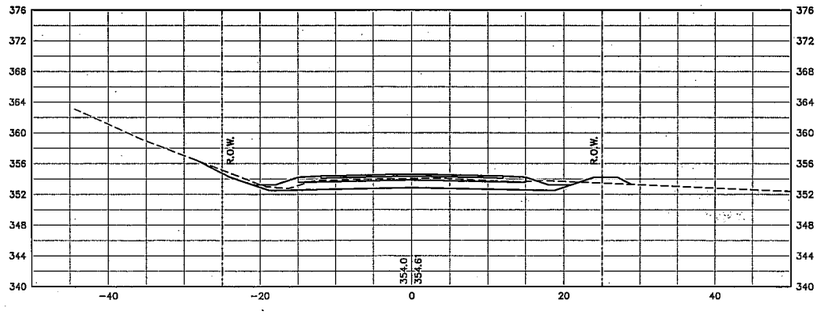

LAND USE OFFICE

JUL 01 2013

RECEIVED

LEGEND:

340.18	PROPOSED ELEVATION
360.0	EXISTING ELEVATION
———	PROPOSED GRADE
- - - - - - -	EXISTING GRADE
R.O.W.	RIGHT OF WAY

NOTE: REFER TO ST. MATTHEWS DRIVE CROSS SECTION FOR ADDITIONAL INFORMATION

NO.	REVISIONS	DATE	INT.
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SEAL

DATE: 5/15/13
SCALE: 1"=10'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

ST. MATTHEWS DRIVE
CROSS SECTIONS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

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XS6

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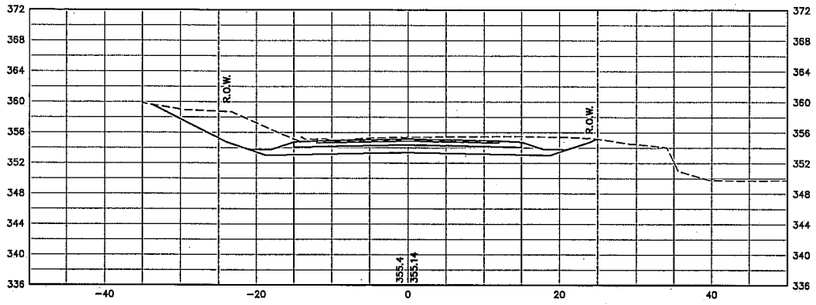

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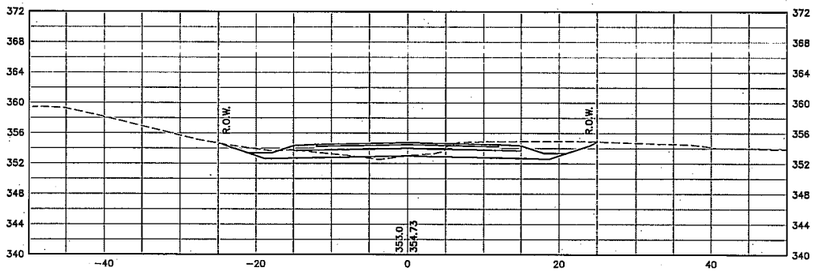

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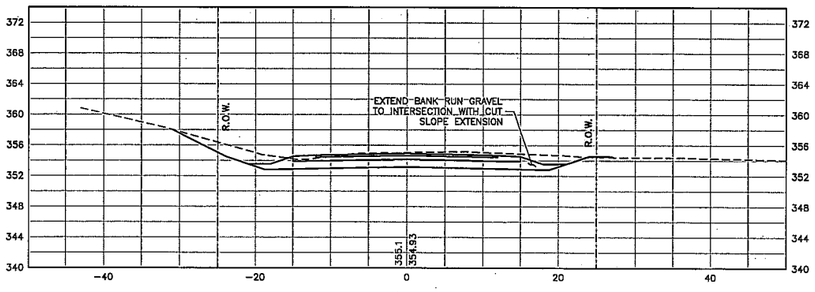

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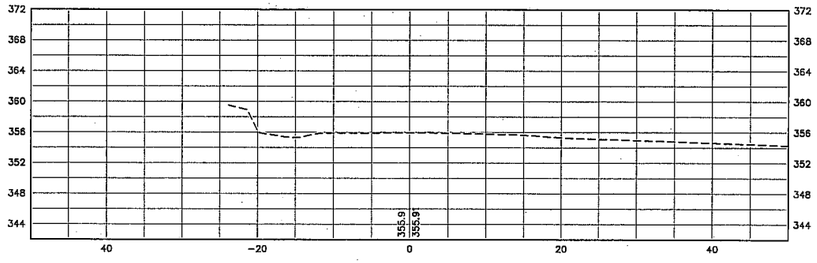

LAND USE OFFICE

JUL 01 2013

RECEIVED

LEGEND:

340.18	PROPOSED ELEVATION
360.0	EXISTING ELEVATION
———	PROPOSED GRADE
- - - - - -	EXISTING GRADE
R.O.W.	RIGHT OF WAY

NOTE: REFER TO ST. MATTHEWS DRIVE CROSS SECTION FOR ADDITIONAL INFORMATION

NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS-NO REVISIONS THIS SHEET	07/01/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	5/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: 1"=10'
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

ST. MATTHEWS DRIVE
CROSS SECTIONS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

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CONSTRUCTION SEQUENCING AND EROSION CONTROL NOTES

EXISTING CONDITIONS
1. THE PROJECT LOCATION IS: LATITUDE 43'-10'-17", LONGITUDE 71'-04'-39".
2. THE TOTAL PARCEL CONSISTS OF APPROXIMATELY 125 ACRES STRADDLING THE NOTTINGHAM/BARRINGTON TOWN LINE WITH ACCESS FROM ROUTE 4. THE PARCEL IS CURRENTLY SUBDIVIDED INTO 37 RESIDENTIAL LOTS, APPROVED IN 2005. 12 OF THE 37 LOTS ARE LOCATED IN NOTTINGHAM.
3. THE ORIGINAL PROJECT WAS PROPOSED TO BE CONSTRUCTED IN TWO PHASES. PHASE 1 HAS BEEN COMPLETED. ALL BUT ONE LOT IN PHASE 1 HAS BEEN DEVELOPED.

PROPOSED PROJECT
1. THIS PROJECT IS THE RE-SUBDIVISION OF THE PHASE 2 PORTION OF THE ORIGINAL DEVELOPMENT INTO A TOTAL OF 10 LOTS AND 1,000 FT OF NEW ROAD. TWO OF THE PROPOSED LOTS WILL HAVE FRONTAGE ON ST. MATHEWS DRIVE AND BE ACCESSED BY A SHARED DRIVEWAY.
2. THE BALANCE OF THE PHASE 2 LAND AREA WILL REMAIN UNDEVELOPED AND BE ADDED TO THE EXISTING CONSERVATION LAND CREATED UNDER THE ORIGINAL SUBDIVISION.
3. THE TOTAL AREA OF DISTURBANCE FOR BOTH PHASES IS 267,271 SF.

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, LATEST EDITION, ITEM NO. 304.1 OR 304.2 HAVE BEEN INSTALLED;
   2. IN AREAS NOT TO BE PAVED
      A. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
      B. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
      C. EROSION CONTROL BLANKETS HAVE BEEN INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.03.
C. ALL DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED WITHIN 45 DAYS AND PERMANENTLY STABILIZED NO LATER THAN 3 DAYS AFTER FINAL GRADING.

EROSION CONTROL PRACTICES:
A. INSTALLATION:
   1. 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.
B. INSPECTION:
   1. 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.
   3. ANY SIGNS OF RILL OR GULLY EROSION SHALL BE IMMEDIATELY REPAIRED.
C. MAINTENANCE:
   1. MAINTAIN EROSION CONTROLS PER THE TYPICAL DETAILS AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL NOTES ON THIS PAGE.
D. REMOVAL
   1. 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. SHALL BE UTILIZED BETWEEN NOVEMBER 30TH AND MAY 1ST. THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1 ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE FOLLOWING METHODS PRIOR TO ANY THAW OR SPRING MELT EVENT.
B. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY NOVEMBER 30TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 30TH, SHALL BE SEEDED AND COVERED WITH 3-4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX MEETING THE FOLLOWING CRITERIA;
   1. THE MIX SHALL HAVE AN ORGANIC PORTION BETWEEN 25% AND 65%, DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS;
   2. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS SHALL NOT BE USED AS THE ORGANIC MATERIAL;
   3. THE MIX SHALL NOT CONTAIN SILTS, CLAYS, OR FINE SANDS;
   4. THE MIX SHALL HAVE A PARTICLE SIZE BY WEIGHT OF 100% PASSING A 3-INCH SCREEN, 90% TO 100% PASSING A 1-INCH SCREEN, 70% TO 100% PASSING A 0.75-INCH SCREEN, AND 30% TO 75% PASSING A 0.25 INCH SCREEN;
   5. THE MIX pH SHALL BE BETWEEN 5.0 AND 8.0;
C. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY NOVEMBER 30TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 30TH, SHALL BE SEEDED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX MEETING THE CRITERIA SPECIFIED IN (B)(1-5);
D. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX, MEETING THE CRITERIA SPECIFIED IN (B)(1-5) SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1-INCH IN DEPTH.
E. INSTALLATION OF EROSION CONTROL BLANKETS SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH OR ON FROZEN GROUND.
F. ALL PROPOSED COLD WEATHER STABILIZATION IN ACCORDANCE WITH (A) OR (B) SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
G. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY NOVEMBER 30TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 30TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
H. AFTER NOVEMBER 30TH, INCOMPLETE ROAD OR PARKING SURFACES 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, LATEST EDITION, ITEM NO. 304.1 OR 304.2.

TEMPORARY VEGETATION
A. SITE PREPARATION
   1. INSTALL EROSION ANS SEDIMENT CONTROL MEASURES AS SPECIFIED ABOVE.
   2. ENSURE RUNOFF IS DIVERTED FROM SEEDED AREA.
   3. ON SLOPES OF 4:1 OR STEEPER, CREATE HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.
B. SEED BED PREPARATION
   1. REMOVE STONES AND TRASH FROM AREA TO BE SEEDED.
   2. COMPACTED SOIL SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME, AND SEED.
   3. 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
   2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM ¼ TO ½ INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
   3. TEMPORARY SEEDING SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15TH.
   4. AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHOULD BE COVERED WITH HAY OR STRAW MULCH.
   5. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.
D. MAINTENANCE
   1. TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING ½ 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.
   2. 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 PREPARATION
   1. REFER TO SITE PREPARATION FOR TEMPORARY SEEDING.
B. SEED BED PREPARATION
   1. 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 REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
   2. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
   3. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
   4. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
   5. 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. 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 ¼ TO ½ 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 DIAMTER.
   5. SLOPES MUST BE NO STEEPER THAN 2 TO 1.
   6. 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.
   7. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
D. MAINTENANCE
   1. PERMANENTLY SEEDED AREAS SHOULD BE INSPECTED MONTHLY.
   2. MOW SEEDED AREAS AS NECESSARY.
   3. 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
A. 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
      A. WITHIN 100 FEET OF WETLANDS THE TIME PERIOD SHOULD BE NO GREATER THAN 7 DAYS.
      B. IN OTHER AREAS IT SHALL BE NO GREATER THAN 14 DAYS.
B. TEMPORARY MULCHING
   1. HAY OR STRAW MULCHES
      A. ORGAINIC MULCHES INLCUDING HAY AND STRAW SHALL BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS.
      B. APPLICATION RATE SHALL BE 2 BALES/1,000 SF (70-90 POUNDS) OR 1.5-2.0 TONS/ACRE TO COVER 75-90% OF THE GROUND.
      C. ANCHORING
         1. NETTING: NETTING SHALL BE JUTE, WOOD FIBER, OR BIODEGRADABLE PLASTIC NETTING INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
         2. TACKIFIER: APPLY POLYMER OR ORGANIC TACKIFIER TO ANCHOR HAY OR STRAW MULCH. APPLY PER MANUFACTURER'S SPECIFICATIONS. TYPICAL APPLICATION RATES ARE 40-60 LBS/ACRE FOR POLYMER MATERIAL AND 80-120 LBS/ACRE FOR ORGANIC LIQUID.
      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.
      E. MAINTENANCE
         1. INSPECT PERIODICALLY AND AFTER RAIN STORMS FOR RILLS OR DISPLACEMENT OF MULCH. REPAIR AS NECESSARY. CONTINUE INSPECTIONS UNTIL 85% VEGETATIVE COVER IS ESTABLISHED.
   2. EROSION CONTROL BLANKET OR MATTING
      A. REFER TO PLANS FOR TYPICAL EROSION CONTROL MATTING DETAIL. INSTALL PER MANUFACTURERS SPECIFICATIONS.
      B. APPLICATION AND TIMING
         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.
         2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) IN ADDITION TO THOSE LISTED ABOVE USE ON SIDE SLOPES OF GRASSED WATERWAYS AND MODERATE SLOPES (GREATER THAN 8%).
      C. MAINTENANCE
         1. INSPECT PERIODICALLY AND BEFORE AND AFTER STORM EVENTS TO ENSURE CONTACT WITH THE SOIL UNTIL 85% VEGETATIVE COVER IS ESTABLISHED. REPAIR AND RESTAPLE AS NECESSARY.
C. PERMANENT MULCHING
   1. WOOD CHIPS OR GROUND BARK
      A. APPLY TO A THICKNESS OF 2 TO 6 INCHES. TYPICAL APPLICATION RATES ARE 10-20 TONS/ACRE OR 460-920 POUNDS/1,000 SF.
      B. MAINTENANCE:
         1. INSPECT ANNUALLY AND AFTER RAIN EVENTS OF 2.5 INCHES OR MORE IN A 24 HOUR PERIOD. REPAIR/REPLACE AS NECESSARY.
   2. EROSION CONTROL MIX
      A. COMPOSITION OF THE MIX SHALL BE AS FOLLOWS:
         1. ORGANIC MATTER CONTENT SHALL BE BETWEEN 25-65% DRY WEIGHT BASIS.
         2. PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING THE 3" SCREEN, 90-100% PASSING THE 1" SCREEN, 70-100% PASSING THE 0.75 INCH SCREEN, AND 30-75% PASSING THE 0.25 INCH SCREEN.
         3. THE ORGANIC PORTION SHALL BE ELONGATED AND FIBROUS. IT SHALL NOT CONTAIN WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS.
         4. THE MIX SHALL NOT CONTAIN SILTS, CLAYS, OR FINE SANDS.
         5. SOLUBLE SALTS CONTENT SHALL BE < 4.0MMHOS/CM AND A pH OF 5.0-8.0.
      B. PLACEMENT OF BERM
         1. PLACE BERM ALONG A LEVEL CONTOUR. BERM MUST BE A MINIMUM OF 12" HIGH ON THE UPHILL SIDE AND 2 FEET WIDE.
      C. MAINTENANCE
         1. INSPECT PERIODICALLY AND AUGMENT AS NEEDED TO MAINTAIN INITIAL THICKNESS. REPLACE IF NO LONGER FUNCTIONING AS INTENDED.

SEED MIXTURE SELECTION BASED ON SOIL TYPE

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

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

SEED MIXTURES FOR PERMANENT VEGETATION

MIXTURE	SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SF
A	TALL FESCUE CREEPING RED FESCUE REDTOP *TOTAL*	20 20 2 *42*	0.45 0.45 0.05 *0.95*
B	TALL FESCUE CREEPING RED FESCUE CROWN VETCH OR FLATPEA *TOTAL*	15 10 15 - 30 *40 OR 55*	0.35 0.25 0.35 - 0.75 *0.95 OR 1.35*
C	TALL FESCUE CREEPING RED FESCUE BIRDSFOOT TREFOIL *TOTAL*	20 20 8 *48*	0.45 0.45 0.20 *1.10*
D	TALL FESCUE FLATPEA *TOTAL*	20 30 *50*	0.45 0.75 *1.20*
E	CREPPING RED FESCUE KENTUCKY BLUEGRASS *TOTAL*	50 50 *100*	1.15 1.15 *2.30*
F	TALL FESCUE	*150*	*3.60*

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

DUST CONTROL
A. DUST SHALL BE CONTROLLED ON SITE DURING CONSTRUCTION BY IMPLEMENTING THE FOLLOWING DUST CONTROL MEASURES
   1. MULCHING AND VEGETATIVE COVER TO REDUCE DUST.
   2. MECHANICAL SWEEPERS AND FINE WATER SPRAYS.
   3. COVER SURFACES WITH CRUSHED STONE OR COARSE GRAVEL.

PHASE 1 CONSTRUCTION SEQUENCING NOTES
1. THIS PROJECT IS PROPOSED TO BE CONSTRUCTED IN TWO PHASES. THE NOTES OF THIS SECTION REFER TO PHASE 1.
2. PHASE 1 INCLUDES THE REALIGNMENT AND RECONSTRUCTION OF A PORTION OF ST. MATTHEWS DR. AT THE SOUTHWEST CORNER OF THE PARCEL. THE LENGTH OF ROAD TO BE RECONSTRUCTED IS APPROXIMATELY 450 FT. THIS PHASE ALSO INCLUDES THE CONSTRUCTION OF APPROXIMATELY 500 FT OF SHARED DRIVEWAY ACCESS FOR LOTS 9 AND 10.
3. THE COMMON DRIVEWAY CONSTRUCTION SHALL PROCEED FIRST TO MINIMIZE DAMAGE TO ANY PROPOSED WORK IN ST. MATHEWS DRIVE.
4. INSTALL ALL TEMPORARY EROSION CONTROL MEASURES AS SHOWN ON THE PLANS PRIOR TO START OF CONSTRUCTION.
5. CLEAR/GRUB ONLY WITHIN THE LIMITS OF GRADING AS SHOWN ON THE PLANS. REMOVE STUMPS ONLY FROM THOSE AREAS THAT CAN BE WORKED AND STABILIZED WITHIN 45 DAYS OF REMOVAL.
6. STUMPS SHALL BE DISPOSED OFF-SITE IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
7. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE. CONSTRUCT IN LOCATION(S) SHOWN ON THE PLANS AND PER THE STABILIZED CONSTRUCTION ENTRANCE DETAIL.
8. STOCKPILES
   A. STOCKPILE LOAM IN LOCATION(S) SHOWN ON THE PLANS FOR RE-USE AS NEEDED.
   B. TEMPORARILY STABILIZE LOAM STOCKPILES WITH:
      1. WINTER RYE GRASS - PRIOR TO SEPTEMBER 15TH
      2. MULCH - FROM SEPTEMBER 15TH TO MAY 1ST
9. BEGIN DRIVEWAY CONSTRUCTION WITH THE INSTALLATION OF THE PROPOSED 48" CULVERT.
10. CULVERT INSTALLATION SHALL BE COMPLETED DURING LOW FLOW CONDITIONS.
11. THE CULVERT SHALL BE INSTALLED TO THE LINE AND GRADES AS SHOWN ON THE DESIGN PLANS.
12. THE BEDDING AND BACKFILL MATERIALS SHALL BE INSTALLED AND COMPACTED IN ACCORDANCE WITH THE CONSTRUCTION DETAILS.
13. THE DESIGN ENGINEER SHALL INSPECT THE SOIL CONDITIONS AT THE SITE PRIOR TO THE PLACEMENT OF THE BEDDING AND CULVERT. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH SUITABLE BEDDING MATERIAL APPROVED BY THE ENGINEER.
14. ONCE BACKFILL MATERIAL IS OVER THE CROWN OF THE CULVERT TO A MINIMUM DEPTH OF 1 FT, THE REMAINDER OF THE DRIVEWAY CONSTRUCTION SHALL PROCEED.
15. CONSTRUCT AND STABILIZE ALL PERMANENT SEDIMENT, EROSION, AND DETENTION CONTROL FACILITIES AS SHOWN.
16. SHARED DRIVEWAY CONSTRUCTION
   A. CUTS AND FILLS:
      1. CONSTRUCT IN LOCATION(S) AND TO GRADES AS SHOWN ON THE PLANS
      2. FILLS:
         A. PLACE MAXIMUM 12" LIFTS AND COMPACT TO 95% MAXIMUM DRY DENSITY.
         B. ALL MATERIAL BASED ON PROCTOR TEST SHALL BE FREE OF DELETERIOUS MATERIAL SUCH AS LOAM, STUMPS, BRUSH, AND ROCKS LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING PLACED.
      3. LOAM AND SEED SLOPES WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
   B. BASE MATERIALS:
      1. BANK RUN AND CRUSHED GRAVEL SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY TO THE DEPTHS SPECIFIED IN THE SHARED DRIVE CROSS SECTION.
17. ONCE DRIVEWAY CONSTRUCTION IS COMPLETED TO CRUSHED GRAVEL GRADE, BEGIN RECONSTRUCTION OF ST. MATHEWS DRIVE.
18. THE TOWN DPW SHALL BE PROVIDED ADEQUATE NOTIFICATION PRIOR TO BEGINNING CONSTRUCTION. TEMPORARY ROADWAY CLOSURE MAY BE REQUIRED DURING THIS CONSTRUCTION.
19. REMOVE ORGANICS, RIPRAP, STONEWALLS, AND ANY OTHER UNSUITABLE MATERIALS FROM THE GRADING LIMITS AS SHOWN ON THE PLANS FOR THE RECONSTRUCTION OF ST. MATTHEWS DRIVE.
20. ST. MATTHEWS DRIVE ROAD RECONSTRUCTION
   A. CUTS AND FILLS:
      1. CONSTRUCT IN LOCATION(S) AND TO GRADES AS SHOWN ON THE PLANS
      2. FILLS:
         A. PLACE MAXIMUM 12" LIFTS AND COMPACT TO 95% MAXIMUM DRY DENSITY.
         B. ALL MATERIAL BASED ON PROCTOR TEST SHALL BE FREE OF DELETERIOUS MATERIAL SUCH AS LOAM, STUMPS, BRUSH, AND ROCKS LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING PLACED.
      3. LOAM AND SEED SLOPES WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
   B. DRAINAGE AND UTILITY STRUCTURES
      1. INSTALL AS NECESSARY AND STABILIZE.
   C. BASE MATERIALS:
      1. BANK RUN AND CRUSHED GRAVEL SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY TO THE DEPTHS SPECIFIED IN THE ST. MATTHEWS DRIVE CROSS SECTION.
   D. PAVEMENT FOR ST. MATTHEWS DRIVE AND SHARED DRIVE
      1. PLACE AS SOON AS POSSIBLE AFTER THE SELECT MATERIALS ARE INSTALLED AND ACCEPTED TO ELIMINATE SOIL EROSION.
      2. STABILIZE ALL ROADWAYS, PARKING AREAS, AND THE SHARED DRIVEWAY WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
21. INSPECT, MAINTAIN, AND IF NECESSARY, REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES AS STATED IN EROSION CONTROL NOTES ON THIS SHEET.
22. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES ONCE INITIAL GROWTH IS ESTABLISHED.

PHASE 2 CONSTRUCTION SEQUENCING NOTES
1. THIS PROJECT IS PROPOSED TO BE CONSTRUCTED IN TWO PHASES. THE NOTES OF THIS SECTION REFER TO PHASE 2.
2. PHASE 2 INCLUDES THE CONSTRUCTION OF THE PROPOSED 1,000 FT OF ROADWAY AND CUL-DE-SAC DESIGNATED AS HERITAGE LANE.
3. INSTALL ALL TEMPORARY EROSION CONTROL MEASURES AS SHOWN ON THE PLANS PRIOR TO START OF CONSTRUCTION.
4. CLEAR/GRUB ONLY WITHIN THE LIMITS OF GRADING AS SHOWN ON THE PLANS. REMOVE STUMPS ONLY FROM THOSE AREAS THAT CAN BE WORKED AND STABILIZED WITHIN 45 DAYS OF REMOVAL.
5. CLEAR/GRUB
   A. STUMPS SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
6. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE. CONSTRUCT IN LOCATION(S) SHOWN ON THE PLANS AND PER THE STABILIZED CONSTRUCTION ENTRANCE DETAIL.
7. STOCKPILES
   A. STOCKPILE LOAM IN LOCATION(S) SHOWN ON THE PLANS FOR RE-USE AS NEEDED.
   B. TEMPORARILY STABILIZE LOAM STOCKPILES WITH:
      1. WINTER RYE GRASS - PRIOR TO SEPTEMBER 15TH
      2. MULCH - FROM SEPTEMBER 15TH TO MAY 1ST
8. CONSTRUCT AND STABILIZE ALL TEMPORARY AND PERMANENT SEDIMENT, EROSION, AND DETENTION CONTROL FACILITIES AS LISTED ABOVE.
   A. THESE SHALL BE INSTALLED BEFORE ANY MAJOR EARTH MOVING OPERATIONS.
9. HERITAGE LANE ROAD CONSTRUCTION
   A. CUTS AND FILLS:
      1. CONSTRUCT IN LOCATION(S) AND TO GRADES AS SHOWN ON THE PLANS
      2. FILLS:
         A. PLACE MAXIMUM 12" LIFTS AND COMPACT TO 95% MAXIMUM DRY DENSITY.
         B. ALL MATERIAL BASED ON PROCTOR TEST SHALL BE FREE OF DELETERIOUS MATERIAL SUCH AS LOAM, STUMPS, BRUSH, AND ROCKS LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING PLACED.
      3. LOAM AND SEED SLOPES WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
   B. DRAINAGE AND UTILITY STRUCTURES
      1. INSTALL AS SHOWN IN ACCORDANCE WITH DETAILS AND DRY STABILIZE.
   C. BASE MATERIALS:
      1. BANK RUN AND CRUSHED GRAVEL SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY TO THE DEPTHS SPECIFIED IN THE HERITAGE LANE CROSS SECTION.
   D. PAVEMENT
      1. PLACE AS SOON AS POSSIBLE AFTER THE SELECT MATERIALS ARE INSTALLED AND ACCEPTED TO ELIMINATE SOIL EROSION.
      2. STABILIZE ALL ROADWAYS AND DRIVES WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
10. INSPECT, MAINTAIN, AND IF NECESSARY, REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES AS STATED IN EROSION CONTROL NOTES ON THIS SHEET.
11. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES ONCE INITIAL GROWTH IS ESTABLISHED.

STOCKPILED MATERIALS CONSTRUCTION SEQUENCING NOTES
1. THE EXISTING MATERIAL STOCKPILE ON THE EAST SIDE OF THE INTERSECTION OF GERRIOR LANE AND ST. MATTHEWS DRIVE WILL BE PROCESSED ON-SITE AND USED FOR CONSTRUCTION OF THE ROADS AND DRIVEWAYS.
2. EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE MATERIAL PROCESSING SITE PLAN.
3. CLEAR AND GRUB THE AREA SHOWN ON THIS PLAN TO BE USED FOR PROCESSING AND STOCKPIPING PROCESSED MATERIAL.
4. LOAM SHALL BE STOCKPILED IN THE LOCATION SHOWN ON THIS SITE PLAN.
5. ALL FILL AND GRAVEL MATERIAL FOR THE PROPOSED SUBDIVISION PROJECT WILL BE PROCESSED FOR THE EXISTING STOCKPILE. ANY EXCESS PROCESSED GRAVEL WILL BE REMOVED FROM THE SITE.
6. THE ESTIMATED QUANTITY OF MATERIAL TO BE PROCESSED FROM THE ON-SITE STOCKPILE IS 10,000 TO 12,000 CY. THE APPROXIMATE QUANTITY OF MATERIAL REQUIRED FOR THE DEVELOPMENT IS 50%. THE REMAINDER OF THE PROCESSED MATERIAL WILL BE REMOVED FROM THE SITE.

ADDITIONAL NOTES
1. NO FUEL SHALL BE STORED ON SITE DURING CONSTRUCTION.
2. DURING CONSTRUCTION DUST SHALL BE PREVENTED FROM BECOMING A SAFETY OR HEALTH HAZARD BY THE IMPLEMENTATION OF ACCEPTED CONTROL METHODS SUCH AS WATERING.
3. ALL CONSTRUCTION MATERIALS THAT ARE SPILLED OR DEPOSITED ON THE PUBLIC ROADWAYS SHALL BE REMOVED BY THE CONTRACTOR.
4. DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
5. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE CONTRACTOR SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.
6. REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE OF THE SITE'S SURFACE AREA AND SHALL BE MAINTAINED THROUGH THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.
7. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN OF BARRINGTON SUBDIVISION REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

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SEAL

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DWG FILE:

CONSTRUCTION DETAILS
prepared for
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THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

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JOB: 11-060

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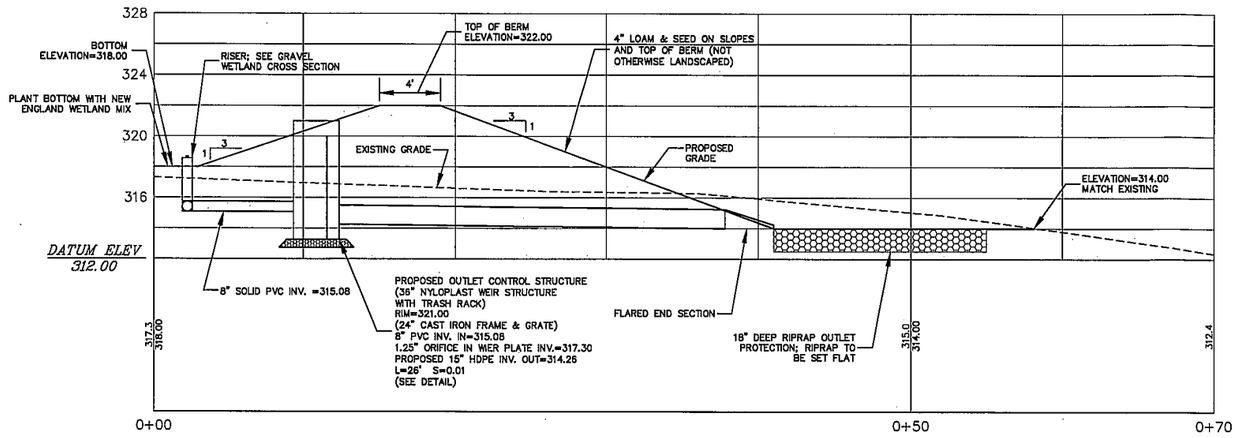
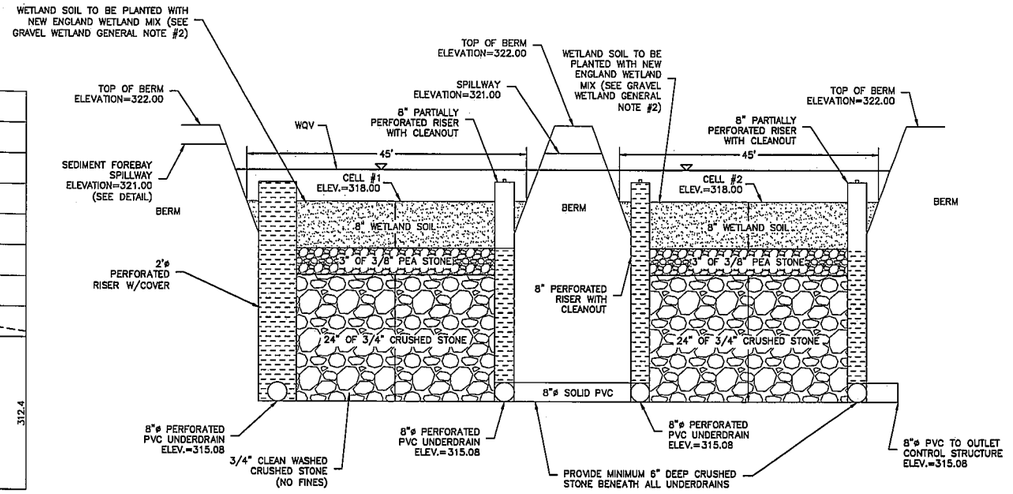


SECTION B-B' GRAVEL WETLAND PIPE OUTLET DETAIL

SCALE: 1"=5'



GRAVEL WETLAND #1 CROSS SECTION

N.T.S

GRAVEL WETLAND GENERAL NOTES:

1. WETLAND SOIL MIX SHALL BE A SILT LOAM WITH A MINIMUM OF 15–20% ORGANIC CONTENT BY MASS. THE CLAY CONTENT SHALL NOT EXCEED 15% BY VOLUME. THE ORGANIC MATTER SHALL CONSIST OF DECIDUOUS LEAF COMPOST PROPERLY MATURED AND AT LEAST ONE YEAR OLD. THERE SHALL BE NO LEAF MULCH, COMPOSTED MIXED YARD DEBRIS, OR WOOD CHIPS.
2. GRAVEL WETLAND BOTTOM TO BE PLANTED WITH NEW ENGLAND WETLAND MIX AVAILABLE FROM:

   PIERSON NURSERIES INC.
   24 BUZZELL ROAD
   BIDDEFORD, ME 04005
   (207)–499–4992

CONSTRUCTION NOTES:

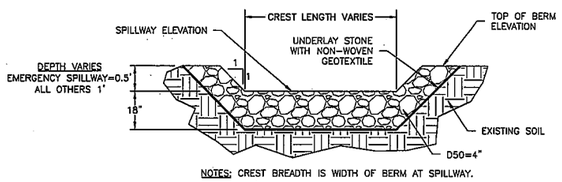
1. DO NOT PLACE GRAVEL WETLANDS INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
2. DO NOT DISCHARGE SEDIMENT–LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE GRAVEL WETLAND DURING ANY STAGE OF CONSTRUCTION.
3. CLEAR AND GRUB THE AREA WHERE THE GRAVEL WETLAND IS TO BE LOCATED. STOCKPILE LOAM FOR REUSE LATER.
4. THE FOUNDATION AREA SHALL BE SCARIFIED PRIOR TO PLACING FILL. ALL UNSUITABLE MATERIAL UNDER THE BERM SHALL BE REMOVED AND REPLACED WITH SUITABLE FOUNDATION MATERIAL.
5. THE BERM SHALL BE CONSTRUCTED BEGINNING FROM THE LOWEST POINT UNIFORMLY ALONG ITS ENTIRE LENGTH. PLACE MATERIALS IN MAXIMUM 12" LOOSE LIFTS COMPACTED TO 95% MAXIMUM MODIFIED PROCTOR DENSITY. EMBANKMENT SOIL SHALL HAVE NO ORGANIC MATTER OR FROZEN MATERIAL AND NO STONES LARGER THAN 2/3 OF THE MAXIMUM LOOSE LIFT THICKNESS. STONES AROUND ANY STRUCTURES AND/OR CONDUITS SHALL NOT EXCEED 3 INCHES. EMBANKMENT FILL MATERIAL SHALL HAVE THE FOLLOWING GRADATION:

SIEVE SIZE:	% PASSING:
#4	80–90
#40	50–80
#100	30–45
#200	15–30

6. ALL PIPE TO PIPE CONNECTIONS SHALL BE WATER–TIGHT.
7. ALL DISTURBED AREAS NOT OTHERWISE PLANTED SHALL RECEIVE FOUR INCHES OF LOAM AND SEEDED PER THE CONSTRUCTION SEQUENCING AND EROSION CONTROL NOTES ON SHEET D1.

GRAVEL WETLAND MAINTENANCE:

1. SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
2. TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION.
3. AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF GRAVEL WETLAND DOES NOT DRAIN WITHIN 72–HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION INCLUDING BUT NOT LIMITED TO REMOVAL AND REPLACEMENT OF WETLAND SOIL AND REPLANTING.
4. VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.



NOTES: CREST BREADTH IS WIDTH OF BERM AT SPILLWAY.

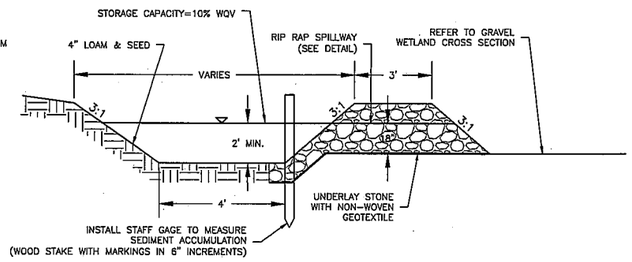
RIP RAP SPILLWAY TYPICAL CROSS SECTION DETAIL

N.T.S.

NOTES:
1. RIP RAP SPILLWAYS ARE LOCATED AT SEDIMENT FOREBAY OUTLETS, BETWEEN CELL #1 AND CELL #2 OF GRAVEL WETLAND AND EMERGENCY SPILLWAY OF GRAVEL WETLAND.

RIP-RAP GRADATION

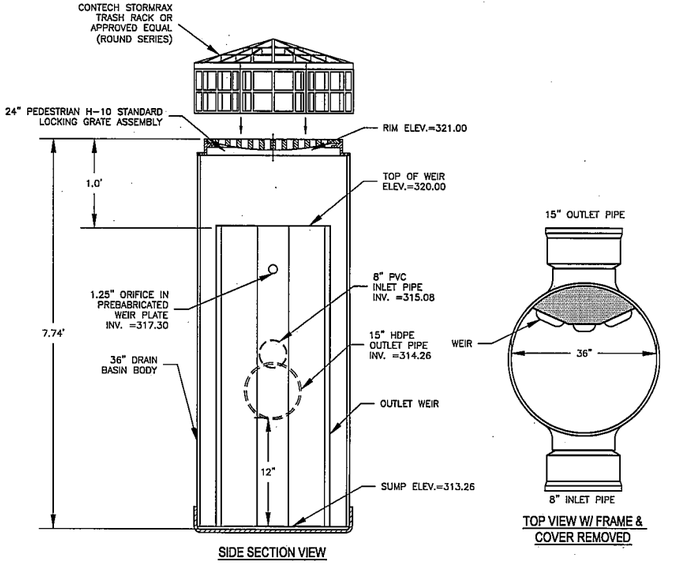
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)		
100	6	TO	8
85	5.2	TO	7.2
50	4	TO	6
15	1.2	TO	2



SEDIMENT FOREBAY TYPICAL CROSS SECTION DETAIL

N.T.S.

NOTES:
1. REFER TO BERM CONSTRUCTION NOTES IN GRAVEL WETLAND DETAIL FOR BERM CONSTRUCTION REQUIREMENTS.
2. REFER TO RIPRAP SPILLWAY CROSS SECTION DETAIL FOR SPILLWAY CONSTRUCTION REQUIREMENTS.
3. THE SEDIMENT FOREBAY SHALL BE MOWED WITH THE REST OF THE SITES LAWN AREAS TO PROMOTE HEALTHY GROWTH AND PREVENT THE ENCROACHMENT OF WEEDS AND WOODY VEGETATION.
4. INSTALL STAFF GAGE TO MEASURE SEDIMENT ACCUMULATION. SEDIMENT SHALL BE REMOVED AFTER SEDIMENT ACCUMULATES TO A DEPTH OF 1 FOOT.



SIDE SECTION VIEW

TOP VIEW W/ FRAME & COVER REMOVED

GRAVEL WETLAND OUTLET CONTROL STRUCTURE: 36" NYLOPLAST WEIR STRUCTURE DETAIL

N.T.S

NOTES:
1. PVC DRAIN BASIN TO BE NYLOPLAST 36 INCH WEIR STRUCTURE OR APPROVED EQUAL. FRAME AND COVER SHALL BE NYLOPLAST 24 INCH PEDESTRIAN H–10 STANDARD LOCKING GRATE ASSEMBLY OR APPROVED EQUAL.
2. FOR SALES, CONTACT:
   HANCOR
   GEOFF HUBBARD – (603) 988–7593
   68 SOUTH STREET
   PORTSMOUTH, NH 03801
3. TRASH RACK AVAILABLE FROM:
   CONTECH
   200 ENTERPRISE DR.
   SCARBOROUGH, ME 04074
   PHONE: 207–885–9830

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1.	REVISED PER TOWN COMMENTS	7/1/13	MJS
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SEAL

DATE: 4/29/13
SCALE: AS SHOWN
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

CONSTRUCTION DETAILS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

MJS ENGINEERING, PC
CIVIL ENVIRONMENTAL CONSULTING ENGINEERING
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JOB: 11–060

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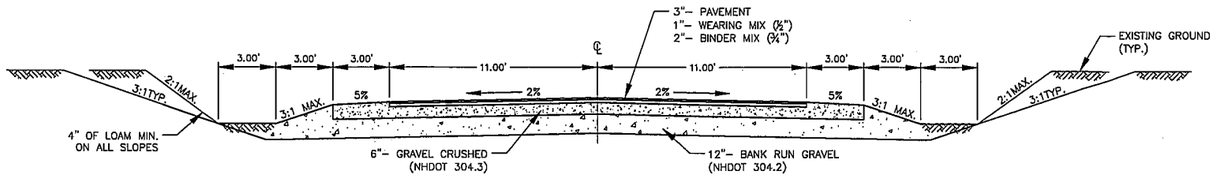
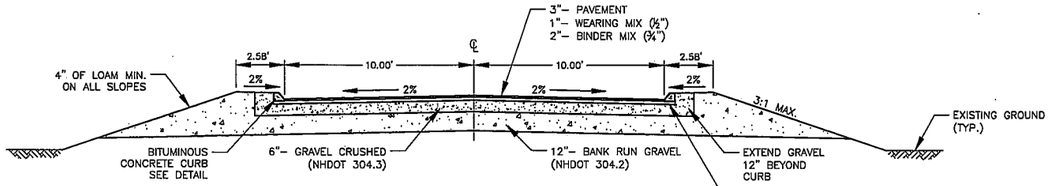


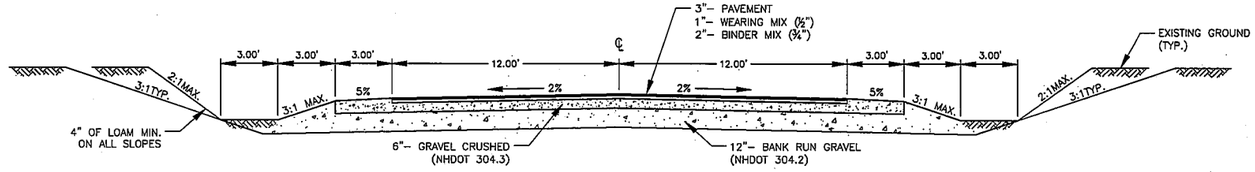
HERITAGE LANE CROSS SECTION

SCALE: NO SCALE



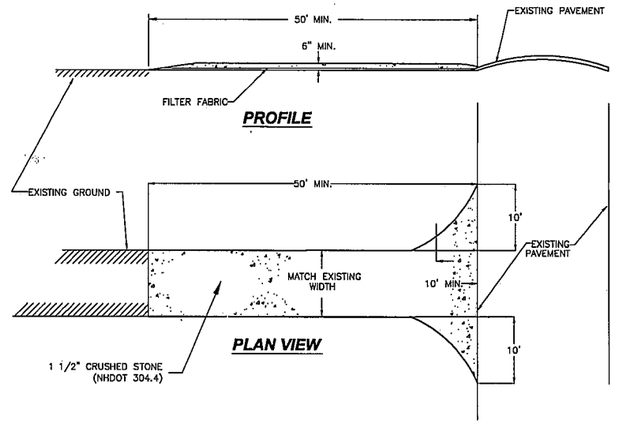
SHARED DRIVE CROSS SECTION

SCALE: NO SCALE



ST. MATTHEWS DRIVE CROSS SECTION

SCALE: NO SCALE

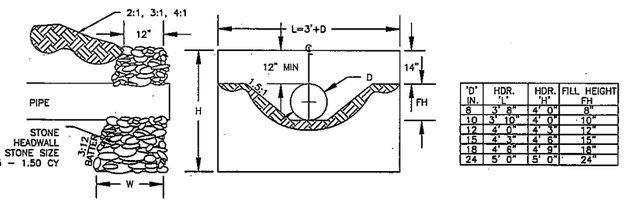


STABILIZED CONSTRUCTION ENTRANCE DETAIL

N.T.S

STABILIZED CONSTRUCTION ENTRANCE NOTES:

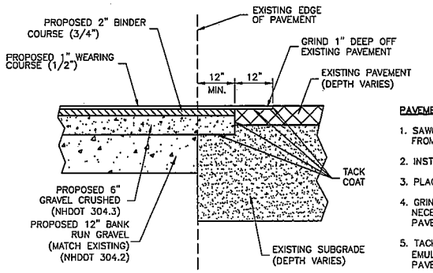
1. GRADE AND COMPACT ACCESS ROAD ENTRANCE AS NECESSARY, PLACE FILTER FABRIC (MIRAFI OR EQUAL) AND PLACE 6" OF 1"–2" STONE TO MATCH SLOPE OF EXISTING ROAD.
2. PROVIDE NECESSARY SWALES OR DIVERSIONS TO MINIMIZE DIRECT FLOW OF WATER ONTO STONE AREA.
3. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED AS NECESSARY 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 ENTERANCE.



'D' IN.	HDR. 'H'	HDR. 'H'	FILL HEIGHT FH
6	3' 8"	4' 0"	8"
10	3' 10"	4' 0"	10"
12	4' 0"	4' 3"	12"
15	4' 3"	4' 6"	15"
18	4' 6"	4' 9"	18"
24	5' 0"	5' 0"	24"

RUBBLE MASONRY HEADWALL DETAIL

N.T.S

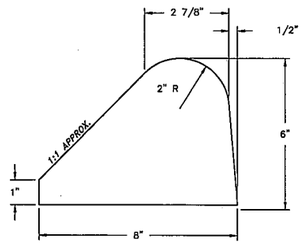


PAVEMENT SAWCUT NOTES:

1. SAWCUT THROUGH DEPTH OF PAVEMENT AT LEAST 1 FT. FROM EDGE OR GREATER IF REQUIRED BY TOWN.
2. INSTALL AND COMPACT CRUSHED GRAVEL TO GRADE.
3. PLACE BINDER COURSE.
4. GRIND EXISTING PAVEMENT MIN. 1 FT. WIDE TO A DEPTH NECESSARY TO PROPERLY MATCH NEW WEARING COURSE PAVEMENT.
5. TACK COAT ALL EXISTING PAVEMENT SURFACES WITH EMULSIFIED ASPHALT (MS–1) PRIOR TO PLACING NEW PAVEMENT.

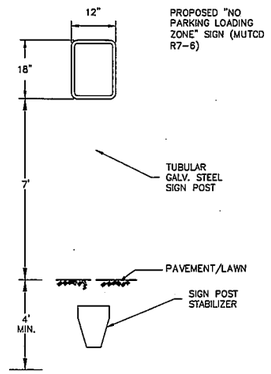
TYPICAL PAVEMENT SAWCUT DETAIL

SCALE: N.T.S.



BITUMINOUS CONCRETE CURB

N.T.S



TYPICAL SIGN DETAIL

N.T.S.

NOTES:
1. SEE PLANS FOR SIGN PLACEMENT.

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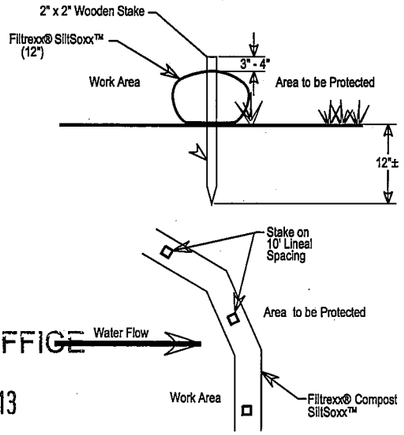

®SiltSoxx™ Plan View

SILTSOXX DETAIL

N.T.S.

Notes:
1. All material to meet Filtrexx® specifications .
2. Compost material to be dispersed on site up slope from protected area.

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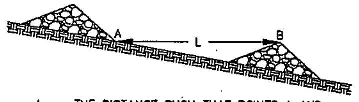
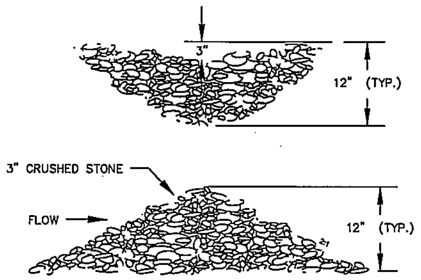


L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.

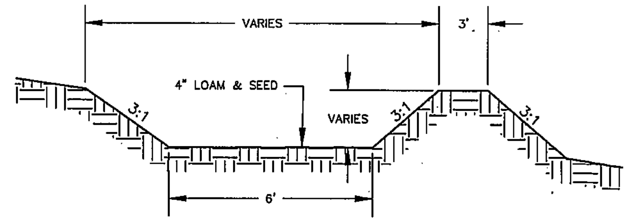


STONE CHECK DAM PROFILE VIEW
N.T.S

CONSTRUCTION SPECIFICATIONS:
1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION, AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

MAINTENANCE NOTES:
1. TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE INSPECTED AFTER EACH STORM AND DAILY DURING PROLONGED STORM EVENTS. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED IMMEDIATELY.
2. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
3. WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED.
4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE.

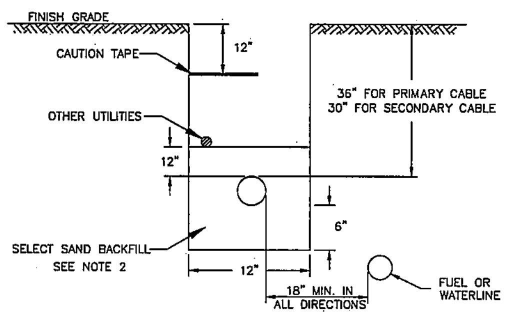
STONE CHECK DAM
N.T.S



VEGETATED TREATMENT SWALE DETAIL
N.T.S

CONSTRUCITON NOTES:
1. REFER TO BERM CONSTRUCTION NOTES IN GRAVEL WETLAND DETAIL FOR BERM CONSTRUCTION REQUIREMENTS.
2. SWALE SHALL HAVE GREATER THAN 85% VEGETATIVE GROWTH PRIOR TO RECEIVING RUNOFF.

MAINTENANCE NOTES:
1. INSPECT ANNUALLY FOR EROSION, SEDIMENT ACCUMULATION, VEGETATION LOSS, AND PRESENCE OF INVASIVE SPECIES.
2. PERFORM PERIODIC MOWING. DO NOT MOW GRASS SHORTER THAN 4 INCHES.
3. REMOVE DEBRIS AND ACCUMULATED SEDIMENT BASED ON INSPECTION.
4. REPAIR ERODED AREAS, REMOVE INVASIVE SPECIES AND DEAD VEGETATION, AND RESEED WITH APPLICABLE GRASS MIX AS WARRANTED BY INSPECTION.



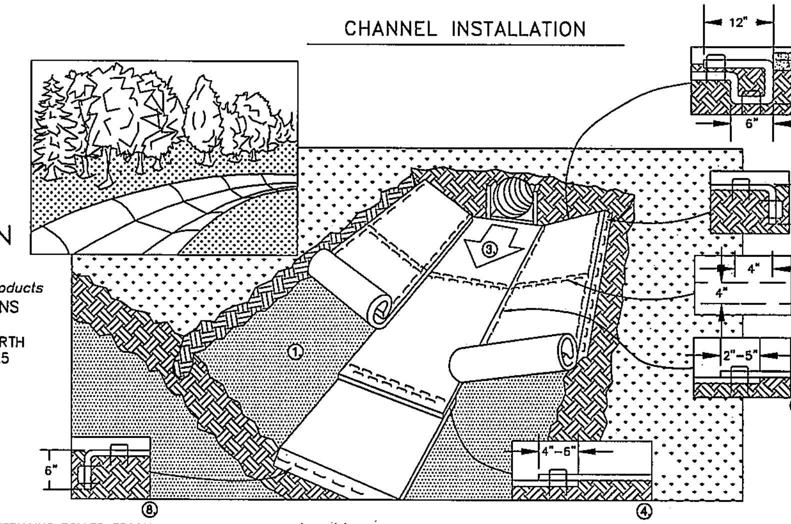
NOTES:
1. CONSTRUCTION TO BE IN ACCORDANCE WITH PSNH CONSTRUCTION STANDARDS FOR NEW ELECTRICAL SERVICE WORK BY CONTRACTORS, MOST RECENT EDITION.
2. SELECT SAND BACKFILL SHALL CONSIST OF A FINE GRANULAR MATERIAL OF WHICH 100% SHALL PASS THROUGH A 1/4" SIEVE. EXCEPT NATURALLY OCCURING SMOOTH ROUND PEBBLES NO GREATER THAN 3/8" IN DIAMETER ARE PERMITTED AS LONG AS THEIR TOTAL VOLUME PER CUBIC FOOT OF SAND DOES NOT EXCEED 1%. THE SAND SHALL BE COMPLETELY FREE OF FROZEN LUMPS, ROCKS, STONES, DEBRIS AND RUBBISH. BACKFILL SHALL BE THOROUGHLY COMPACTED IN 6" LIFTS.
3. CONDUIT SIZES TO BE 5" 3-PHASE PRIMARY AND 4" 3-PHASE SECONDARY. ALL CONDUIT SIZES TO BE VERIFIED BY PSNH.
4. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELCETRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE THE NATIONAL ELECTRIC CODE.

TELEPHONE & ELECTRIC TRENCH
N.T.S

NORTH AMERICAN GREEN
EROSION CONTROL *Products*
Guaranteed SOLUTIONS

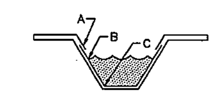
14649 HIGHWAY 41 NORTH
EVANSVILLE, IN 47725
800-772-2040
www.nagreen.com

CHANNEL INSTALLATION



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" (10 CM –15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (5 CM –12.5 CM) (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M – 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.



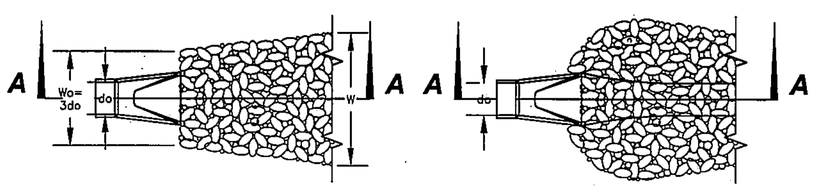
CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

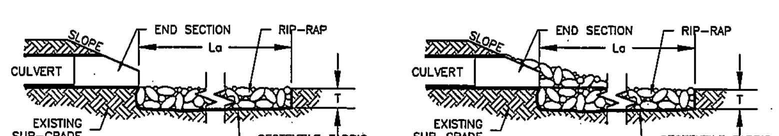
NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE REQUIRED.

TYPICAL TURF REINFORCEMENT MATTING DETAIL
N.T.S

NOTES:
1. FOR SALES CONTACT:
EJ PRESCOTT, INC.
210 SHEEP DAVIS RD.
CONCORD, NH
603-224-9545





SECTION A-A
(PIPE OUTLET TO FLAT AREA NO WELL DEFINED CHANNEL)

SECTION A-A
(PIPE OUTLET TO WELL DEFINED CHANNEL)

RIP-RAP GRADATION

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)		
100	6	TO	8
85	5.2	TO	7.2
50	4	TO	6
15	1.2	TO	2

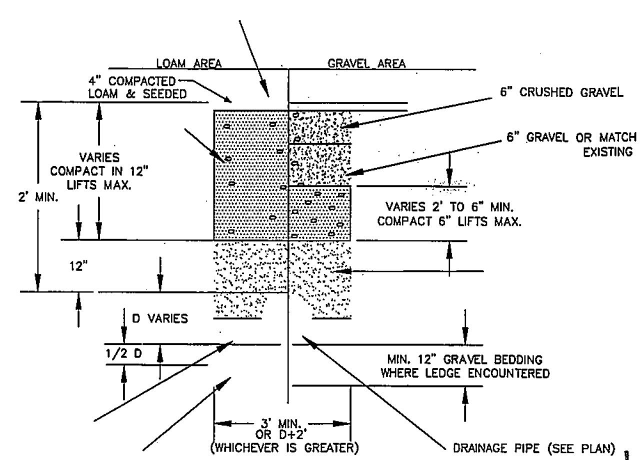
APRON DIMENSION TABLE

PIPE OUTLET	Wo	W	La	T	d50
HW #1	12.0'	60.0'	48.0'	42"	14"
#3	SEE PLAN FOR DIMENSIONS			18"	6"
#4	6.0'	9.0'	15.0'	12"	6"
FES #1	3.0'	12.5'	8.0'	12"	4"
RIPRAP AREA #1	10.0'	10.0'	17.0'	12"	4"
GRAVEL WETLAND OUTLET					
RIPRAP AREA #2	28.25'	35.25'	16.0'	12"	4"

CONSTRUCTION SPECIFICATIONS:
1. PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.
2. MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
3. THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO (2) PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
5. STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
6. RIP-RAP SIZE CHOSEN FOR THE WORST CASE OF ALL OUTLETS. ALL RIP-RAP USED FOR PIPE OUTLET PROTECTION WILL HAVE THE SAME GRADATION AND THICKNESS.

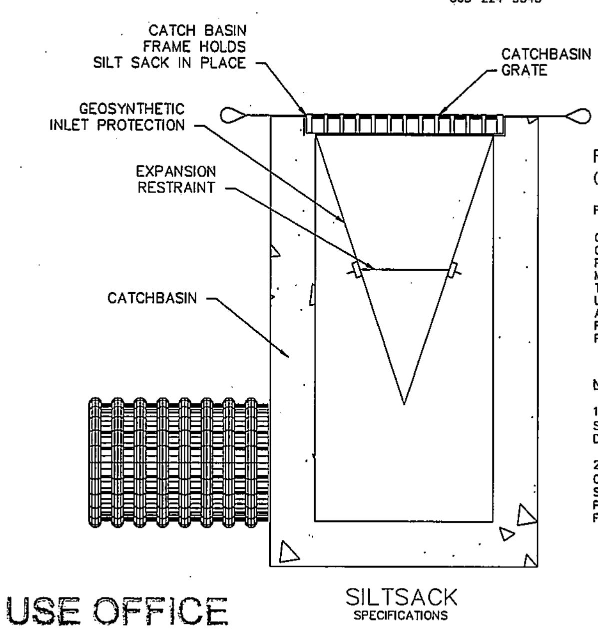
MAINTENANCE NOTES:
1. OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OR DAMAGE TO THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.
2. THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO EROSION IS OCCURRING.
3. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

PIPE OUTLET PROTECTION DETAIL
NOT TO SCALE



STANDARD DRAINAGE PIPE TRENCH
N.T.S

LAND USE OFFICE
JUL 01 2013
RECEIVED



SILTSACK
SPECIFICATIONS

REGULAR FLOW SILTSACK
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	NOTE 120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

NOTES:

1. GEOSYNTHETIC SEDIMENT FILTER TRAP SHALL BE 'REGULAR FLOW SILTSACK®' OR APPROVED EQUAL. SPECIFICATIONS FOR SILTSACK® ARE DETAILED.

2. FILTER TRAPS SHALL BE INSPECTED AFTER EVERY RAIN EVENT OF 0.25" OR GREATER AND SEDIMENTS SHALL BE REMOVED FROM TRAP WHEN SEDIMENT HAS REACHED TWO THIRDS OF THE DEPTH OF THE TRAP, OR IF PONDING OF WATER AT SURFACE BEGINS TO OCCUR. DO NOT PUNCTURE FILTER TRAP TO MITIGATE PONDING.

CATCH BASIN GEOSYNTHETIC SILT SACK
N.T.S

NO.	REVISIONS	DATE	INT.
1.	REVISED PER TOWN COMMENTS	7/1/13	MJS
0.	INITIAL SUBMISSION TO BARRINGTON PLANNING BOARD	5/15/13	MJS

SEAL

DATE: 5/15/13
SCALE: AS SHOWN
DESIGNED BY: MS/MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:

CONSTRUCTION DETAILS
prepared for
GERRIOR LANE TRUST
THE HOMESTEAD SUBDIVISION PHASE II
GERRIOR DRIVE BARRINGTON, NH

MJS ENGINEERING, PC
5 RAILROAD ST., P.O. BOX 359
NEWMARKET, NH 03857
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM
CIVIL
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CONSULTING ENGINEERING

JOB: 11-060

D4