

EROSION & SEDIMENTATION NARRATIVE

PROJECT DESCRIPTION:

THIS PROJECT IS THE FIFTH SECTION OF A SAND AND GRAVEL EXCAVATION SITE. THIS SITE IS LOCATED ON THE EASTERLY SIDE OF CONN. ROUTE 32, AND INCORPORATES PORTIONS OF THE REMAINING LAND OF FRANKLIN NASIN, LLC. THE PROJECT AREA IS 46.3 ACRES. AND PROPOSES TO EXCAVATE APPROXIMATELY 3,630,400 CUBIC YARDS OF SAND AND GRAVEL.

EROSION & SEDIMENTATION CONTROL

PLAN PREPARER: TOWNE ENGINEERING, INC P.O. BOX 162

SOUTH WINDHAM, CT 06266 PH: 860-423-6371

PERSON RESPONSIBLE FOR EROSION AND

SEDIMENTATION CONTROL: HAROLD HOPKINS WINDHAM MATERIALS, LLC P.O. BOX 346

CONSTRUCTION SEQUENCE:

WILLIMANTIC, CT 06226

-MARK LIMIT OF PHASE

PH: 860-456-4111

-INSTALL EROSION AND SEDIMENTATION CONTROLS AS DETAILED ON THESE

-REMOVE TREES AND STUMPS IN PHASE AREA TO BE EXCAVATED, DISPOSE OF TREES, AND STUMPS IN ACCORDANCE WITH CURRENT DEP REGULATIONS. MAXIMUM AREA TO BE DISTURBED WITHOUT FINAL STABILIZATION IS 5 ACRES

-CONSTRUCT PHASE I WORKING FROM THE SOUTHERLY LIMITS AND THEN PROGRESSING IN A NORTHERLY DIRECTION.

-STRIP TOPSOIL AND SUBSOIL. STOCKPILE IN DESIGNATED AREAS, AND RING PILE(S) WITH SILTATION BARRIER. THE CONTRACTOR SHALL TEMPORARILY SEED THE STOCKPILE(S) IF THEY ARE GOING TO REMAIN FOR THIRTY DAYS OR MORE.

-AS EXCAVATION PROCEEDS NORTHERLY, EACH AREA WILL BE EXCAVATED DOWN TO THE PROPOSED FINISHED GRADES SHOWN ON THIS PLAN.

-EXCAVATION SHALL BE PERFORMED IN A "DOWN CUTTING" MANNER SO THAT ALL EXCAVATION RUNOFF WILL BE CONTAINED IN THE EXCAVATED PIT WITH MINIMAL STORMWATER RUNOFF IMPACTING UNDISTURBED AREAS.

-AS EXCAVATION PROCEEDS, ALL FINAL SLOPES IN THE CURRENT PHASE SHALL BE GRADED TO THE DESIGNED SLOPE (AS SHOWN), AND SHALL BE STABILIZED WITH A 6 INCH MINIMUM LAYER OF TOPSOIL AND SUBSOIL MIX SEEDED AND MULCHED. NO MULCH SHALL BE APPLIED TO THE SLOPE UNTIL THE SEED HAS BEEN TRACKED INTO THE SOIL WITH A BULLDOZER, OFFSETTING ON EACH PASS.

-ALL FLAT AREAS (LESS THAN 15% SLOPE) BROUGHT TO FINAL GRADE SHALL BE STABILIZED WITH A 12 INCH MINIMUM LAYER OF TOPSOIL AND SUBSOIL MIX, SEED AND MULCH WITHIN 30 DAYS.

-STABILIZATION OF THE FINAL GRADED SLOPES SHALL BE COMPLETED WITHIN 30 DAYS OF BEGINNING THE NEXT PHASE, SUBJECT TO THE APPROVAL OF THE DESIGN ENGINEER AND THE LOCAL ZONING OFFICER.

EROSION AND SEDIMENTATION NOTES

OPERATION AND MAINTENANCE:

IN GENERAL, EROSION AND SEDIMENTATION CONTROL AND RESTORATION MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (D.E.P. BULLETIN #34) PUBLISHED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, AND TO ALL LOCAL TOWN REQUIREMENTS.

THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE TO ENSURE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY MAKE NECESSARY REPAIRS. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR

HAY BALES OR SILT FENCE SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF AN OBSERVED FAILURE. FAILURE OF THE SILTATION BARRIER HAS OCCURRED WHEN SEDIMENT FAILS TO BE RETAINED BY THE BARRIER BECAUSE

-THE BARRIER HAS BEEN OVERTOPPED, UNDERCUT, OR BYPASSED BY STORMWATER RUNOFF BARRIER HAS BEEN KNOCKED OVER OR MOVED OUT OF POSITION. -BARRIER HAS DECOMPOSED OR HAS BEEN DAMAGED.

WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA OR WHEN GRADING ACTIVITY HAS TEMPORARILY CEASED FOR A PERIOD OF TIME EXPECTED TO EXCEED ONE MONTH. TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT CONTROL MEASURES ARE UTILIZED.

ADDITIONAL SEDIMENTATION AND/OR EROSION CONTROL MEASURES IF REQUESTED BY THE TOWN OR DESIGN ENGINEER SHALL BE INSTALLED WITHIN 24 HOURS OF ANY SUCH REQUEST.

ALL DISTURBED AREAS SHALL BE PROTECTED WITH A MINIMUM VEGETATION COVER AS SHOWN IN ACCOMPANYING CHART.

THE CONTRACTOR SHALL PLAN AND PERFORM ALL LAND DISTURBING ACTIVITIES

IN A MANNER AS TO MINIMIZE THE EXTENT OF THE DISTURBED AREAS. THE CONTRACTOR HEREBY ACKNOWLEDGES HIS RESPONSIBILITY TO INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ON THIS SITE AND THAT HIS FAILURE TO INSTALL AND MAINTAIN THESE DEVICES COULD RESULT

THE EROSION AND SEDIMENTATION CONTROLS SUCH AS HAY BALES OR SILT FENCE MUST BE INSTALLED PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, EXCEPT WHERE OTHERWISE SPECIFIED.

THE CONTRACTOR SHALL MAKE REGULAR INSPECTIONS OF THE SITE TO INSURE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, AND WILL MAKE REPAIRS AS REQUIRED.

MAINTENANCE OF THE SEDIMENTATION/DETENTION BASINS WILL BE PERFORMED AS NECESSARY. AND AT LEAST TWICE ANNUALLY TO ENSURE THE CONTINUED INFILTRATION OF STORM WATER. ALL MAINTENANCE TO THE SEDIMENTATION/DETENTION BASINS SHALL BE PREFORMED BY THE

THE EROSION AND SEDIMENTATION CONTROL SHALL BE MAINTAINED UNTIL THE SITE HAS STABILIZED. SILTATION BARRIERS SHALL BE REMOVED ONCE PERMANENT STABILIZATION IS COMPLETE.

ALL STOCKPILED MATERIALS SHALL BE LOCATED IN THE SELF CONTAINED AREA, AND MUST BE RINGED WITH HAY BALES, OR SILT FENCE. ANY STOCKPILED MATERIAL REMAINING FOR MORE THAN ONE MONTH SHALL BE TEMPORARILY SEEDED FOR STABILIZATION.

PROJECT TIME TABLE

IN FINES OR SUSPENSION OF WORK.

THIS PROJECT WILL COMMENCE IN THE SPRING OF 2021. FINAL PROJECT COMPLETION WILL DEPEND ON THE CONTRACTOR'S CURRENT DEMAND FOR SAND

GENERAL NOTES

"DOWN CUTTING" SHALL BE USED AT EMBANKMENT EXCAVATION TO KEEP STORM RUNOFF AND ASSOCIATED SILTATION CONTAINED WITHIN THE EXCAVATION.

THE MAXIMUM AREA DISTURBED, I.E. AREAS NOT STABILIZED WITH TOPSOIL, SEED AND MULCH, AT ANY TIME BE LIMITED TO 5 ACRES.

THE GRAVEL ACCESS DRIVE TO THE PROPERTY LINE SHALL BE MAINTAINED IN A STABLE CONDITION WITH A 3 INCH MINIMUM LAYER OF BITUMINOUS CONCRETE ROAD MILLINGS OR PROCESSED STONE AGGREGATE. ADDITIONAL MILLINGS OR STONE SHALL BE APPLIED AS NECESSARY.

NO MAJOR REPAIR OF EXCAVATING. HAULING. OR LOADING EQUIPMENT SHALL OCCUR ON SITE. NO WASHING OF ANY VEHICLE OR EQUIPMENT SHALL BE

NO STUMPS SHALL BE BURIED ON SITE. STUMPS MAY BE STOCKPILED TEMPORARILY, GROUND IN PLACE WITH A PORTABLE STUMP GRINDER, OR MAY BE HAULED OFF SITE AND DISPOSED OF PROPERLY. TEMPORARY STOCKPILING STUMPS SHALL NOT BE DONE WITHIN THE WETLANDS REGULATED AREAS OR WITHIN 100 FEET OF THE PROPERTY LINE.

DUST SHALL BE CONTROLLED BY WATERING THE SURFACE OF THE GROUND WHENEVER DUST CONDITIONS EXIST, INCLUDING THE ACTIVE EXCAVATION

NO TOPSOIL OR SUBSOIL SHALL BE REMOVED FROM THIS SITE, UNLESS IT REMAINS SURPLUS FROM THE FINAL STABILIZATION PHASE OF WORK.

ALL PERMANENT SEEDING SHALL BE DONE WITH A GRASS DRILL OR CULTIPACKER SEEDER, IF AVAILABLE. ON STEEP SLOPE WHERE DRILLING IS NOT FEASIBLE, BROADCAST SEEDING AND TRACKING WITH A BULLDOZER IS ACCEPTABLE. THE ENTIRE SLOPE SHALL BE COVERED WITH TRACKS BY OFFSETTING EACH PASS.

HYDROSEEDING OR BROADCAST SEEDING WITHOUT TRACKING IS NOT ACCEPTABLE. ALL SEEDED AREAS SHALL BE TRACKED AND THEN MULCHED.

THE MAXIMUM PERMITTED SLOPE IS 2 TO 1. IN THE EVENT THAT STABILIZATION OF THE 3 TO 1 SLOPES BECOMES A PROBLEM, A TURF REINFORCEMENT MAT SHALL BE UTILIZED TO STABILIZE THE SLOPE. THE DESIGN ENGINEER RECOMMENDS THE CURLEX I WITH FIBER NET REINFORCEMENT, MANUFACTURED BY THE AMERICAN EXCELSIOR COMPANY CONTRACTORS CAN CONTACT THE MANUFACTURER THROUGH THEIR WEBSITE AT WWW.CURLEX.COM OR BY PHONE AT 1-800-777-7645.

SMALL TREES (THOSE WITH LESS THAN A 4 INCH CALIPER) AND BRUSH SHALL BE CHIPPED, AND STORED ON SITE TO ASSIST IN MULCHING OF DISTURBED AREAS IN THE RESTORATION PHASE OF THIS PROJECT, ALONG WITH BEING UTILIZED AS A TEMPORARY SILTATION BARRIER IN AREAS WHERE NO CONCENTRATED SURFACE WATER FLOW EXISTS

THE SITE SHALL BE STABILIZED IN THE FLAT AREAS WITH 12 INCHES OF TOPSOIL AND SUBSOIL MIX, AND 6 INCHES OF THE SAME SUBSOIL AND TOPSOIL MIX ON THE SLOPED EMBANKMENT AREAS.

NO EXCAVATION SHALL OCCUR WITHIN 4 FEET OF THE SEASONAL HIGH GROUND

ALL EQUIPMENT SHALL BE FUELED ON THE REFUELING PAD WHICH IS NEXT TO THE EXISTING SCALE HOUSE, WEST OF SECTION ONE. ALL REFUELING EQUIPMENT SHALL BE EQUIPPED WITH A SPILL CLEAN UP KIT, WITH A 44 GALLON ABSORPTION CAPACITY, OR APPROVED EQUAL.

SITE EQUIPMENT NOTES:

THE ANTICIPATED EQUIPMENT THAT SHALL BE USED FOR THE EXCAVATION PROPOSED IN THIS PROJECT SHALL BE:

- 2 RUBBER TIRE LOADERS
- 2 BULLDOZER 1 SKIDDER

MATERIALS:

- 1 STUMP GRINDER 1 LOGGING GRAPPLE EXCAVATOR (NEEDED FOR STUMP GRINDER)
- 1 WATER TRUCK
- 1 PORTABLE SCREENING PLANT 1 PORTABLE CRUSHER 1 HYDRAULIC EXCAVATOR WITH HOE-RAM (TO BREAK LARGE BOULDERS)
- 15 TRI-AXLE DUMP TRUCKS, (17 CU. YDS. MAX. CAPACITY, 15 CU. YDS. AVERAGE LOAD)

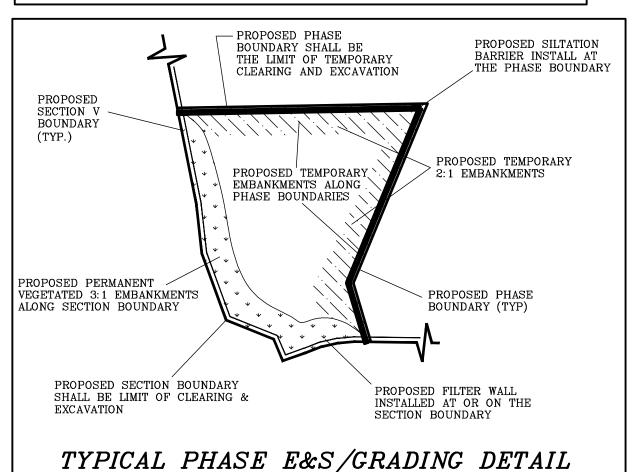
IT IS ANTICIPATED THAT THE HOURS OF OPERATION FOR THIS PROJECT WILL BE 7 A.M. TO 5 P.M., MONDAY THROUGH FRIDAY, AND 7 A.M. TO 1 P.M. ON SATURDAY. NO WORK IS TO BE PERMITTED ON SUNDAYS OR HOLIDAYS, AND NO WORK SHALL BE PERFORMED DURING THE HOURS OF 5 P.M. TO 7 A.M.

SECTION IV PHASE AREAS & VOLUMES PHASE 5.5 ACRES 431,300 CUBIC YARDS PHASE 2 5.3 ACRES 415,600 CUBIC YARDS PHASE 3 6.3 ACRES 494,000 CUBIC YARDS PHASE 4 6.4 ACRES 501,800 CUBIC YARDS PHASE 5 8.2 ACRES 642,900 CUBIC YARDS PHASE 6 8.0 ACRES 627,300 CUBIC YARDS PHASE 7 6.6 ACRES 517,500 CUBIC YARDS

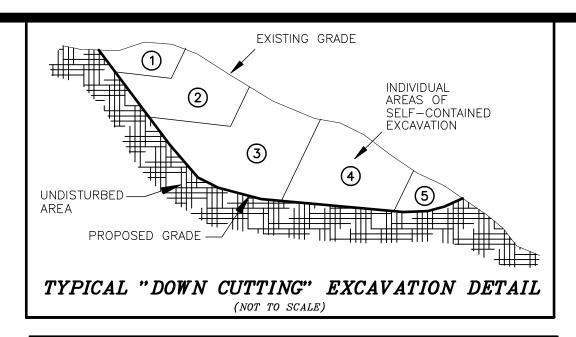
3,630,400 CUBIC YARDS

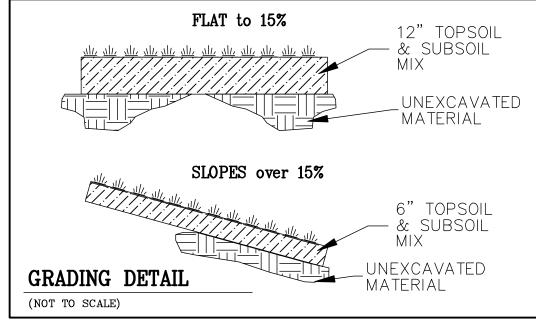
46.3 ACRES

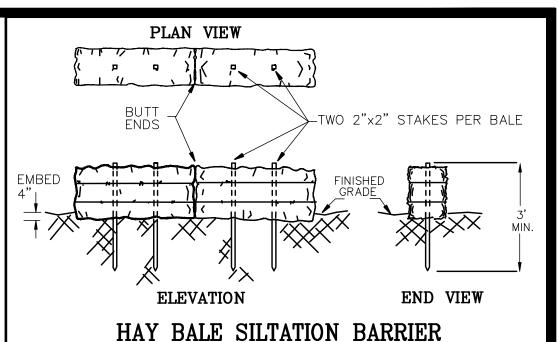
TOTAL:



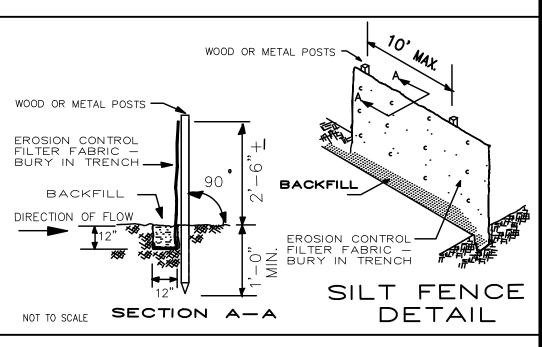
Franklin Nasin, LLC 500' Abutters to Proposed Section V Parcels 2-1 & 2-2 Jon & Theresa Young 6 Forge Lane Franklin, CT 06254

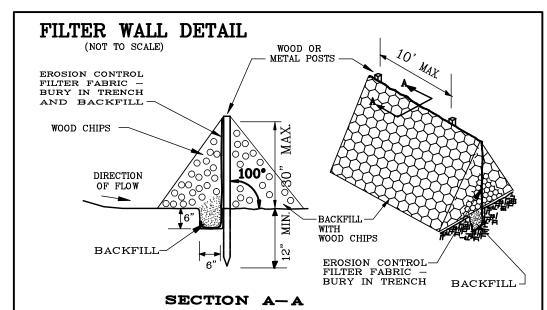






(NOT TO SCALE)





SURFACES COMPACTED BY CONSTRUCTION EQUIPMENT SHOULD BE SCARIFIED TO A MINIMUM DEPTH OF 2" BEFORE PLACING TOPSOIL.

VEGETATIVE COVER FOR DISTURBED AREAS

ESTABLISHMENT PROCEDURES:

TOPSOIL WILL BE PLACED AS SPECIFIED ON THESE PLANS ON ALL AREAS TO BE SEEDED. *APPLY LIME AND/OR FERTILIZER ACCORDING TO SOIL TEST RESULTS. INCORPORATE FERTILIZER WITH SOIL TO A DEPTH OF 3". FINE GRADE SEEDBED BEFORE APPLYING SEED.

APPLY SEED UNIFORMLY AND COVER BY LIGHTLY RAKING TO A MINIMUM DEPTH EQUAL

O THE LARGEST DIMENSION OF THE LARGEST SEED WHERE A MIXTURE IS USED.

SMOOTH AND FIRM SEEDBED BY ROLLING. MULCH IMMEDIATELY, USING HAY OR STRAW AT A RATE OF 3 BALES PER 1,000 SQ. FT. ANCHOR MULCH WITH CELLULOSE FIBER MULCH OR EQUAL, APPLIED HYDRAULICALLY

FERTILIZER: COMPLETE COMMERCIAL FERTILIZER, 50% ORGANIC

LIME: RAW GROUND AGRICULTURAL LIMESTONE MULCH: HAY OR STRAW (FREE FROM WEED SEEDS)			
RECOMMENDED PERMANENT SEEDING: WHERE AN AREA WILL BE EXPOSED FOR MORE THAN ONE YEAR OR WHERE FINAL GRADING IS COMPLETED BEFORE SEPTEMBER 30.			
AREA WHERE SEED MIX APPLIES	SEED MIX	MINIMUM APPLICATION RATE **	SEEDING DATES
PROPOSED GRASSLANDS	CONSERVATION/ WILDLIFE MIX***	25 LBS/AC.	APRIL 15 - JUNE 15 AUG. 15 - SEPT. 15
BASIN AREAS	NEW ENGLAND WETMIX***	18 LBS/AC.	APRIL 15 - JUNE 15 AUG. 15 - SEPT. 15

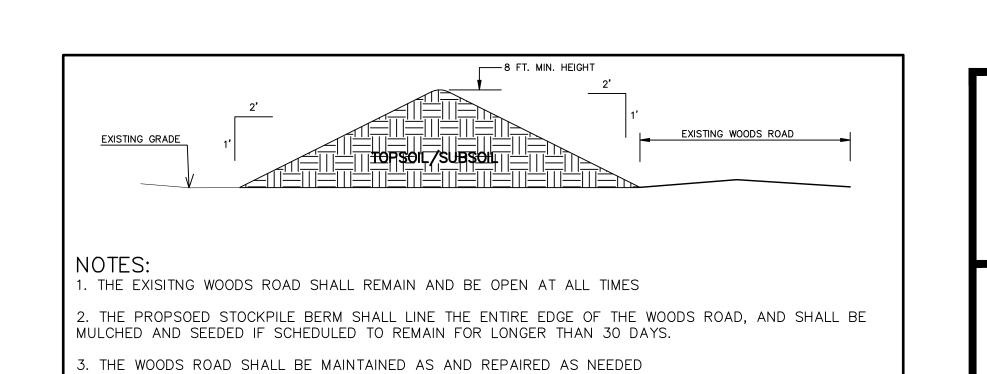
** INCREASE (4X) RATE WHEN HYDROSEEDING. *** GRASS SEED MIXTURES AVAILABLE AT NEW ENGLAND WETLAND PLANTS, INC. 820 West Street Amherst, MA 01002 Phone: 413-548-8000 Fax: 413-549-4000 Email: info@newp.com, Web Address: www.newp.com

RECOMMENDED TEMPORARY SEEDINGS: WHERE FINAL GRADING IS NOT COMPLETED BY SEPT. 30, A TEMPORARY COVER WILL PROTECT THE SOIL OVER THE WINTER MONTHS. SEED (ALL AREAS) RATE PER 1,000 SQ. FT. WINTER RYE 100%

- (1) ROLLING NOT RECOMMENDED ON SLOPES OF A GRADIENT STEEPER THAN 2:1. (2) HYDROSEEDING MAY BE USED FOR APPLYING SEED, FERTILIZER, AND FIBER MULCH IN ONE OPERATION, IN LIEU OF USING STRAW OR HAY MULCH. USE RATE OF 1400 LB./ACRE FOR FIBER MULCH IN THIS TYPE OF OPERATION.
- (3) SHADY MIX: 100% CREEPING RED FESCUE OR 2:1 (65%: 35%) CREEPING RED FESCUE AND K-31 TALL FESCUE RESPECTIVELY, AT 5 LBS. /1000 SQ.FT.
- * NOTE: ALTERNATE SUBJECT TO APPROVAL. FOR ADDITIONAL INFORMATION AND SUGGESTED ALTERNATIVES SEE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, DATED 2002

BOTTOM OF EXCAVATION NOTE:

BASED ON FIGURE 2-6 GROUNDWATER CONTOUR, AUGUST 2008 MAP PREPARED FOR C.R.R.A. BY TRC, WINDSOR, CT. THE PUBLISHED PEAK GROUNDWATER ELEVATION IN THE AREA OF THE PROPOSED SECTION 5 OF THIS CONTINUED GRAVEL EXCAVATION IS 160.00 FT. WE HAVE PROPOSED A 4 FT SEPERATION FROM THE BOTTOM OF EXCAVATION TO THE PEAK WATER TABLE, AND THEREFORE THE MAXIMUM BOTTOM GRADE PROPOSED FOR SECTION 5 IS 164.00 FT.



PROPOSED WOODS ROAD BERM DETAIL

- NOT TO SCALE -

