# MURPHY INSURANCE AGENCY MODIFICATION OF APPROVED SITE PLAN

OWNER (131 MILFORD STREET): MUSTAFA DEMIR & REYNE CHAREST- DEMIR 131 MILFORD STREET MEDWAY, MA 01747

OWNER/APPLICANT (133 MILFORD STREET): DENNIS MURPHY, JR. 50 MAIN STREET

SURVEYOR/ENGINEER: DAVID E. ROSS ASSOCIATES, INC. 111 FITCHBURG ROAD P.O. BOX 368 AYER, MA 01432

Medway Planning & Economic
Development Board

HUDSON, MA 01749

DATE OF APPROVAL: 1-15-2014 DATE OF ENDORSEMENT: 3-11-2014



LOCUS MAP SCALE: 1" = 1000'



LOCUS MAP SCALE: 1" = 300'

REVISIONS

7-18-13 ORIGINAL ENDORSEMENT

8-16-13 COMPLETE SITE PLAN SET 12-19-13 PER PEER REVIEW COMMENTS 3-4-14 PER SITE PLAN DECISION AND CONSERVATION COMMISSION CONDITIONS PROJECT ADDRESS: 131 & 133 MILFORD STREET MEDWAY, MA

ASSESSOR'S REFERENCE: MAP 78, 99-131 (131 MILFORD ST.) MAP 78, 43-085 (133 MILFORD ST.)

ZONING DISTRICT: INDUSTRIAL III

SHEET INDEX:

SHEET 1 - COVER SHEET

SHEET 2 - EXISTING CONDITIONS PLAN

SHEET 3 - SITE PLAN

SHEET 4 - CONSTRUCTION DETAILS

SHEET 5 - EROSION & SEDIMENTATION CONTROL PLAN

MAJOR SITE PLAN APPROVAL WAS GRANTED TO THE APPLICANT FOR THE EXISTING INSURANCE BUILDING AT 133 MILFORD STREET BY THE MEDWAY

- SITE PLANS DATED AUGUST 15, 2008, PREPARED BY DAVID E. ROSS
  ASSOCIATES, INC. ENTITLED "MURPHY INSURANCE AGENCY SITE PLAN",
  APPROVED ON JULY 15, 2008 AND ENDORSED ON AUGUST 26, 2008 BY TOWN OF MEDWAY PLANNING BOARD.
   "SITE PLAN DECISION MURPHY INSURANCE AGENCY SITE PLAN 133
  MILFORD STREET", GRANTED BY THE TOWN OF MEDWAY PLANNING BOARD

3. "CERTIFICATE OF SITE PLAN COMPLETION - MURPHY INSURANCE AGENCY

Medway, Mass. Murphy Insurance

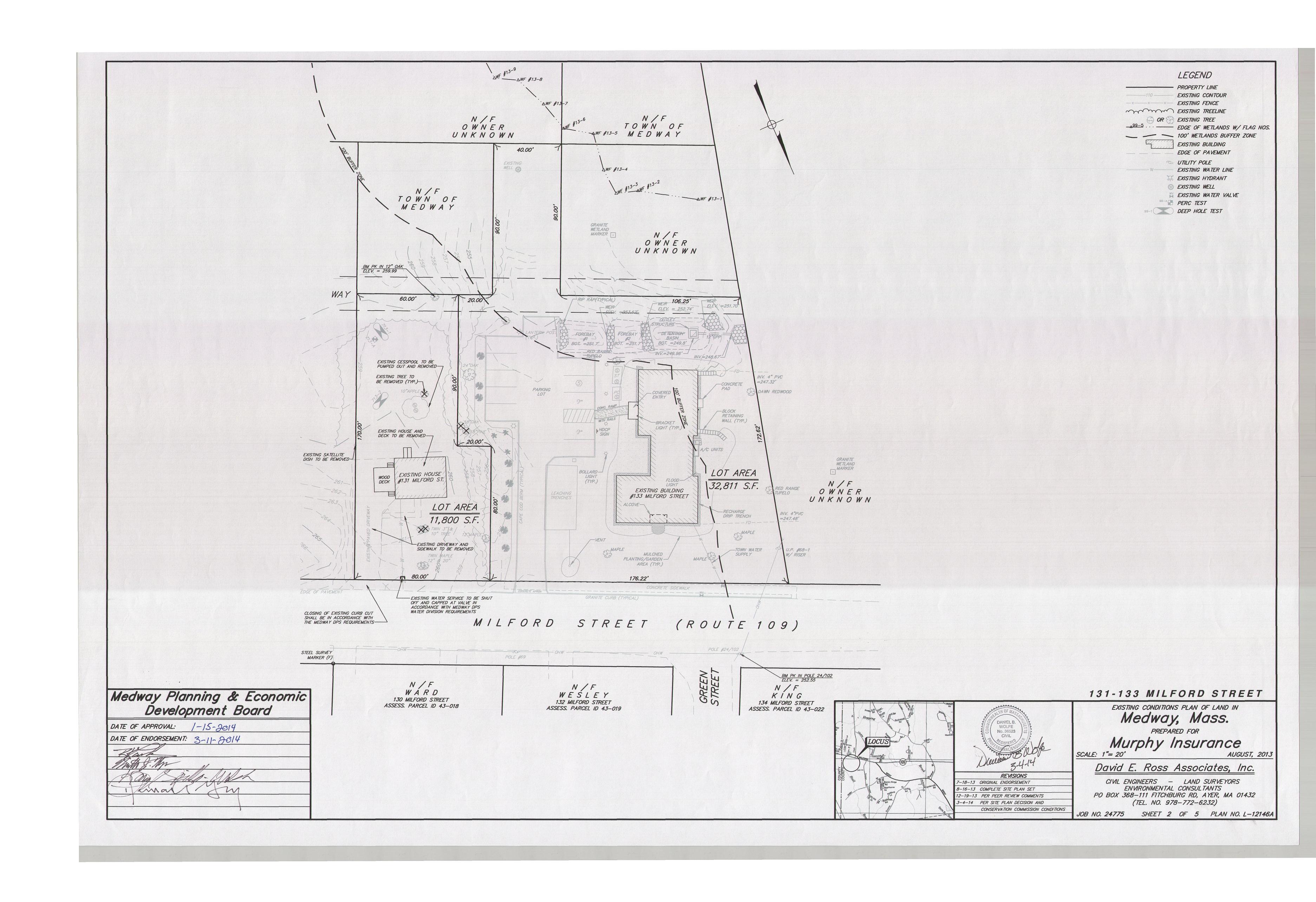
COVER SHEET

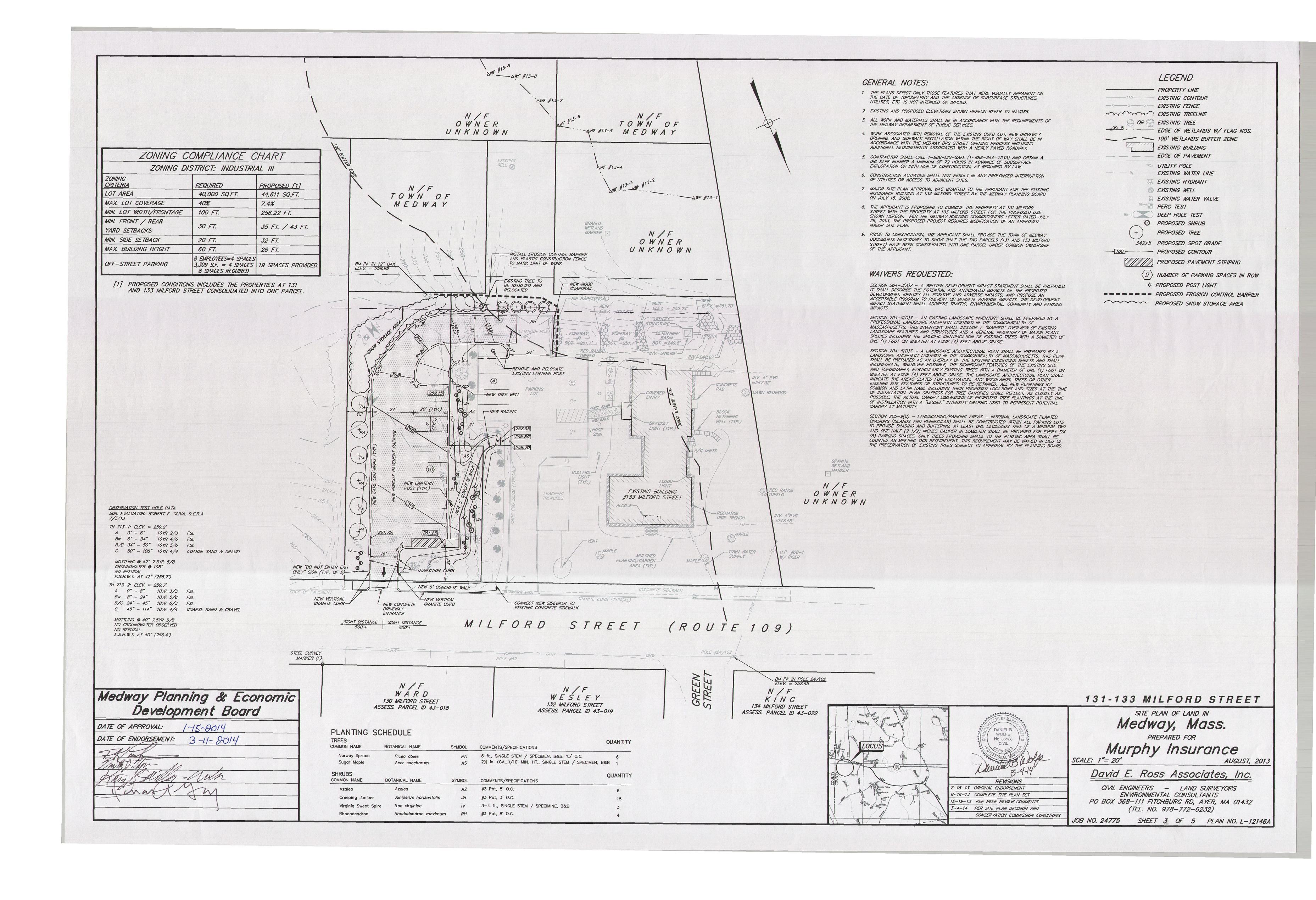
David E. Ross Associates, Inc.

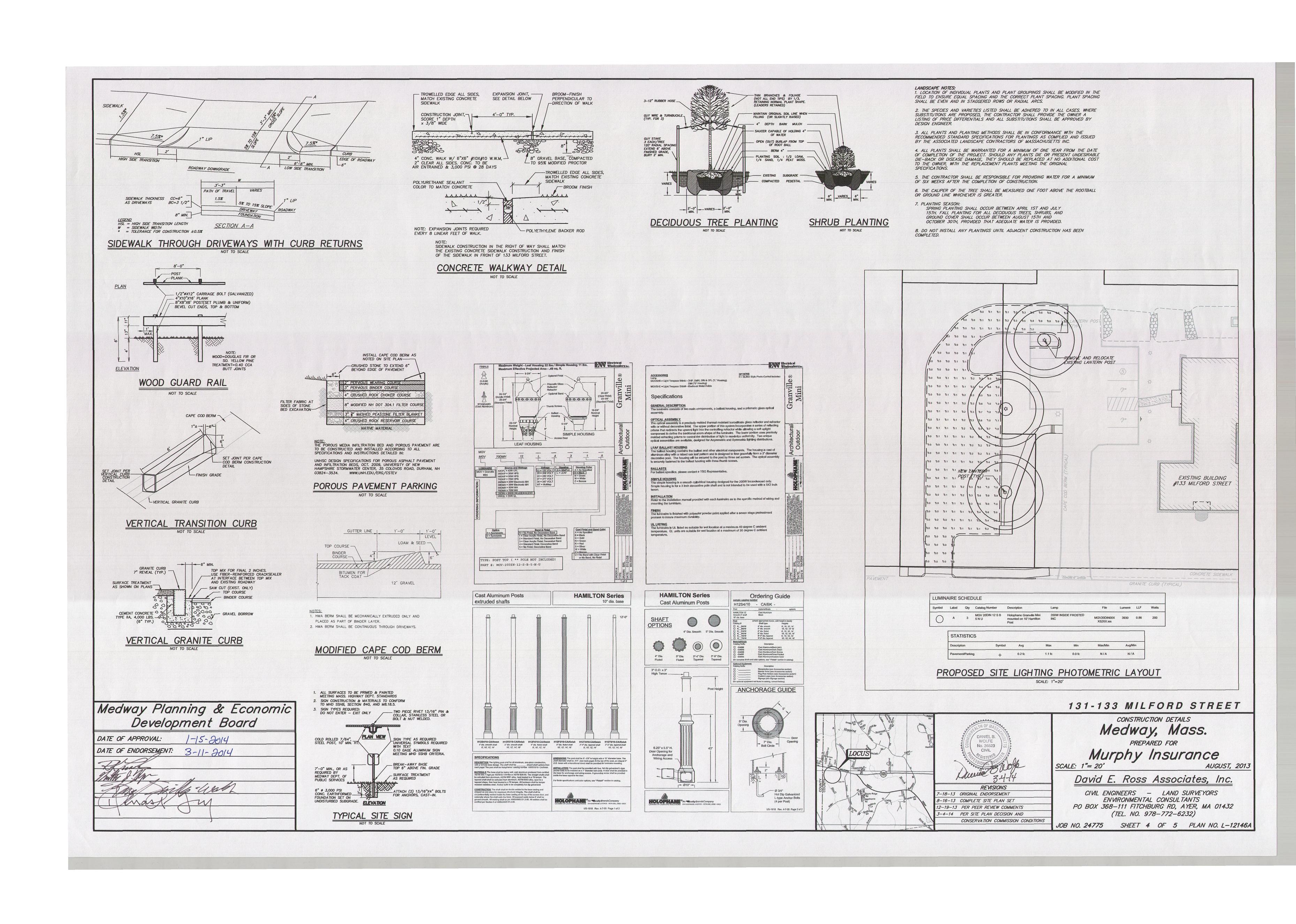
CIVIL ENGINEERS - LAND SURVEYORS ENVIRONMENTAL CONSULTANTS PO BOX 368-111 FITCHBURG RD, AYER, MA 01432 (TEL. NO. 978-772-6232)

JOB NO. 24775 SHEET 1 OF 5 PLAN NO. L-12146A

FINAL PLAN REVISION: MARCH 4, 2014







STORM WATER POLLUTION PREVENTION AND EROSION & SEDIMENTATION CONTROL PLAN **EROSION CONTROL MEASURES:** 1. THE CONTRACTOR AND PROPERTY OWNER SHALL BE RESPONSIBLE FOR ENSURING THAT EROSION AND SEDIMENTATION ARE CONTROLLED. THIS PLAN SHALL BE ADAPTED TO FIT THE CONTRACTOR'S EQUIPMENT, WEATHER CONDITIONS, ANY ORDERS OF CONDITIONS ISSUED BY THE MEDWAY CONSERVATION COMMISSION AND ANY SPECIAL CONDITIONS ISSUED BY THE MEDWAY PLANNING BOARD. 2. THE MOST IMPORTANT ASPECTS OF CONTROLLING EROSION AND SEDIMENTATION ARE LIMITING THE EXTENT OF DISTURBANCE AND STABILIZING SURFACES AS SOON AS POSSIBLE. OF SECONDARY IMPORTANCE IN EROSION CONTROL IS LIMITING THE SIZE AND LENGTH OF THE TRIBUTARY DRAINAGE AREA TO THE WORK SITE AND DRAINAGE STRUCTURES. THESE FUNDAMENTAL PRINCIPLES SHALL BE THE KEY FACTORS IN THE CONTRACTOR'S CONTROL OF EROSION ON THE SITE. ALL DISTURBED SURFACES SHALL BE STABILIZED A MINIMUM OF 14 DAYS AFTER CONSTRUCTION IN ANY PORTION OF THE SITE HAS CEASED OR IS TEMPORARILY HALTED UNLESS ADDITIONAL CONSTRUCTION IS INTENDED TO BE INITIATED WITHIN 21 DAYS.

4. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF ALL EROSION CONTROL DEVICES ON—SITE. ALL EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED. ANY SEDIMENTS REMOVED FROM THE CONTROL DEVICES SHALL BE DISPOSED OF ON THE UPLAND SIDE OF THE EROSION CONTROL LINE. 5. AT NO TIME SHALL SILT-LADEN WATER BE ALLOWED TO ENTER SENSITIVE AREAS (BUFFER ZONE, WETLANDS, OFF-SITE AREAS AND DRAINAGE SYSTEMS). ANY RUNOFF FROM DISTURBED SURFACES SHALL BE DIRECTED THROUGH SETTLING BASINS AND EROSION CONTROL BARRIERS PRIOR TO ENTERING ANY SENSITIVE AREAS. GENERAL CONSTRUCTION REQUIREMENTS:

1. ANY WORK PERFORMED IN THE PUBLIC RIGHT-OF-WAY, WHICH INCLUDES NON-PAVED AREAS, REQUIRES A STREET OPENING & ROADWAY ACCESS PERMIT ISSUED BY THE TOWN OF MEDWAY DEPARTMENT OF PUBLIC 2. ANY REFUELING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL NOT BE CONDUCTED IN PROXIMITY TO DRAINAGE SYSTEM COMPONENTS OR INSIDE OF ANY 100 FOOT BUFFER ZONE TO ANY WETLAND. 3. NO ON-SITE DISPOSAL OF SOLID WASTE, INCLUDING BUILDING MATERIALS IS ALLOWED ON THE SITE. 4. NO MATERIALS SHALL BE DISPOSED OF INTO ANY WETLAND BUFFER ZONE, WETLANDS OR EXISTING OR PROPOSED DRAINAGE SYSTEMS. ALL CONTRACTORS INCLUDING: CONCRETE SUPPLIERS, PAINTERS AND PLASTERERS, SHALL BE INFORMED THAT THE CLEANING OF EQUIPMENT IS PROHIBITED IN AREAS WHERE THE WASH-WATER WILL DRAIN DIRECTLY TO THE BUFFER ZONE OR WETLANDS. 5. NO EQUIPMENT OR MATERIAL STORAGE, OR STOCKPILING OF MATERIALS SHALL TAKE PLACE WITHIN THE 100' BUFFER ZONE TO THE WETLANDS. 6. CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL WHICH SHALL INCLUDE STREET SWEEPING OF ALL PAVED SURFACES WITHIN THE SITE AND OFF-SITE AREAS THAT ARE IMPACTED BY SITE CONSTRUCTION ON A REGULAR 7. ALL SITE WORK SHALL BE STABILIZED AT THE END OF THE WORK DAY OR PRIOR TO ANTICIPATED CONDITIONS WHICH COULD CAUSE EROSION OR AIRBORNE SEDIMENT PROBLEMS (I.E., RAIN, HIGH WINDS, EXPOSED 8. SITE OPERATIONS IN THE AREA OF DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER TO MAINTAIN OR CREATE GRADES AND SURFACES WHICH SLOPE AWAY FROM ADJACENT PROPERTIES. 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THAT MILFORD STREET IS KEPT CLEAR OF CONSTRUCTION RELATED DEBRIS. ALL MATERIALS TRACKED ONTO MILFORD STREET SHALL BE PROMPTLY 10. CONSTRUCTION MATERIALS SHALL BE PILED IN SUCH A MANNER AS NOT TO CONCENTRATE RUNOFF.

11. SIDE SLOPES SHALL NOT EXCEED A SLOPE OF TWO-FEET HORIZONTAL TO ONE-FOOT VERTICAL IN CUT OR THREE-FEET HORIZONTAL TO ONE-FOOT VERTICAL IN FILL. 12. CONSTRUCTION ACTIVITIES SHALL NOT RESULT IN ANY PROLONGED INTERRUPTION OF UTILITIES OR ACCESS 13. PRIOR TO THE START OF CONSTRUCTION, THE EXISTING OFF-SITE AREAS AND MILFORD STREET CONDITIONS (DRAINAGE, PAVEMENT, VEGETATION) SHOULD BE INSPECTED AND THEIR CONDITIONS NOTED AND/OR 14. PRIOR TO INITIATING ANY CONSTRUCTION OR SITE DISTURBANCE WITHIN ANY 100 FT. WETLANDS BUFFER ZONE, A NOTICE OF INTENT OR A REQUEST FOR DETERMINATION MUST BE FILED WITH THE MEDWAY CONSERVATION COMMISSION. THE COMMISSION MUST ISSUE AN ORDER OF CONDITIONS OR A DETERMINATION 15. FIVE DAYS PRIOR TO INITIATING ANY WORK WITHIN THE MILFORD STREET RIGHT-OF-WAY OR ANY WORK THAT COULD IMPACT TRAFFIC FLOW AND PUBLIC SAFETY, THE MEDWAY POLICE DEPARTMENT SHALL BE NOTIFIED TO ENABLE SCHEDULING DETAIL OFFICERS. DETAIL OFFICERS SHALL BE PROVIDED AS REQUIRED BY THE POLICE

16. AN EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED AS PART OF THIS CONSTRUCTION DOCUMENT. THIS PLAN DESCRIBES THE MINIMUM METHODS TO BE USED DURING ALL SITE CONSTRUCTION TO AVOID DAMAGE OR ALTERATIONS TO SENSITIVE (WETLAND TRIBUTARY OR OFF-SITE) AREAS. 17. THE MEDWAY FIRE CHIEF SHALL BE NOTIFIED OF ALL PROPOSED BLASTING, IF REQUIRED. ALL BLASTING SHALL BE PERFORMED BY A LICENSED BLASTER IN ACCORDANCE WITH COMMONWEALTH OF MASSACHUSETTS AND TOWN OF MEDWAY PEGLIA TROUS. TOWN OF MEDWAY REGULATIONS. 18. OWNER ACCEPTS RESPONSIBILITY FOR WORK AND MATERIALS WITHIN THE SCOPE OF THIS PLAN.

19. UNLESS OTHERWISE SHOWN OR SPECIFIED, ALL WORK, MATERIALS AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS HIGHWAY DEPARTMENT'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION, TOWN OF MEDWAY REQUIREMENTS, AND INDIVIDUAL UTILITY COMPANY 20. ALL UTILITY WORK, MATERIALS AND APPURTENANCES SHALL ALSO BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

21. THE CONTRACTOR SHALL CALL 1-888-DIG-SAFE (1-888-344-7233) AND OBTAIN A DIG SAFE NUMBER A MINIMUM OF 72 HOURS IN ADVANCE OF SUBSURFACE EXPLORATION OR INITIATION OF CONSTRUCTION, AS 22. AT NO TIME SHALL HEAVY EQUIPMENT ENTER THE WETLAND RESOURCE AREA. PRE-CONSTRUCTION:

1. PRIOR TO CONSTRUCTION, AN EROSION CONTROL BARRIER (STRAW BALES, SILT FENCE, AND PLASTIC CONSTRUCTION FENCE) SHALL BE INSTALLED TO LIMIT THE AREA OF DISTURBANCE. THESE BARRIERS SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY SURFACES HAVE BEEN FULLY STABILIZED. THE EROSION CONTROL BARRIERS AS SHOWN ON THE SITE PLAN ARE THE MINIMUM REQUIRED TO PROTECT THE WET AREAS. 2. A TEMPORARY STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED TO PREVENT TRACKING OF SILT, MUD, ETC. ONTO MILFORD STREET. THE STONE SHALL BE REPLACED REGULARLY AS WELL AS WHEN THE STONE IS SILT LADEN. THE CONSTRUCTION ENTRANCE SHALL BE LEFT IN PLACE UNTIL THE BINDER PAVEMENT SURFACE IS 3. THE CONTRACTOR SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL EROSION ON—SITE TO BE USED TO SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE 4. THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL ON SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED ON THE PLANS OR IN THE ORDERS OF CONDITIONS.

PRELIMINARY SITE WORK: GRUBBING AND STRIPPING ON SLOPES LEADING TO ANY WETLANDS, EXISTING OR PROPOSED DRAINAGE SYSTEM SHALL NOT OCCUR DURING PERIODS OF HEAVY RAIN. 2. ROUGH GRADING OF THE SITE SHOULD BE CONDUCTED IN SUCH A MANNER AS TO MAINTAIN OR CREATE GRADES SLOPING AWAY FROM SENSITIVE AREAS AND INTO TEMPORARY SETTLING BASINS WHEREVER POSSIBLE. 3. MATERIAL REMOVED SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROLS SHALL BE UTILIZED ALONG THE DOWNSLOPE SIDE OF THE PILES IF THE PILES ARE TO 4. STOCKPILES SHALL BE LOCATED AS NEEDED, WITHIN THE LIMITS OF DISTURBANCE, IN AREAS OF MINIMAL IMPACT. IF A STOCKPILE IS LOCATED ON A SLOPE, THE RUNOFF SHALL BE DIRECTED AWAY FROM THE PILE. STOCKPILES SHALL BE CONTAINED WITHIN EROSION CONTROL DEVICES.

5. NO SOIL OR LOAM SHALL LEAVE THE SITE EXCEPT IN ACCORDANCE WITH THE TOWN OF MEDWAY 6. IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL SILT FENCES, MULCH TUBES OR ARMORED DIKES SHALL BE UTILIZED. ADDITIONAL TEMPORARY SETTLING BASINS ARE REQUIRED, LOCATED WITHIN

# THE DISTURBED AREA, TO MINIMIZE THE TRIBUTARY AREAS. Medway Planning & Economic Development Board

DATE OF APPROVAL: 1-15-2014 DATE OF ENDORSEMENT: 3-11-2014

## DRAINAGE SYSTEM:

MATERIAL PRESENT SHALL BE REMOVED.

DESIGN ENGINEER.

1. THE DRAINAGE SYSTEM SHALL BE INSTALLED FROM THE DOWNSTREAM END UP. SEDIMENT SHALL NOT BE 2. RIP RAP SHALL BE INSTALLED AT THE PIPE INLETS AND OUTLETS IMMEDIATELY UPON PLACEMENT OF THE PIPE. SILT FENCES SHALL BE INSTALLED AT THE OUTFALLS OF THE INFILTRATION BASIN. THEY SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED. 3. DRAINAGE SYSTEM PIPING SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE). 4. WATER SHALL NOT BE ALLOWED TO ENTER PIPES FROM UNSTABILIZED. SURFACES. 5. THE DRAINAGE SYSTEM SHALL REMAIN CLOSED DURING SITE CONSTRUCTION. BASE MATERIAL SHOULD BE PLACED AS SOON AS POSSIBLE AND SHOULD NOT BE DEFERRED TO THE TIME OF PAYING. CAREFUL CONSIDERATION SHOULD BE GIVEN TO RUNOFF PATERNS DURING THIS PERIOD AND TEMPORARY CONTROL DEVICES SHOULD BE ERECTED OR CONSTRUCTED AS REQUIRED. 6. IMMEDIATELY FOLLOWING PAVING, THE SHOULDERS SHALL BE GRADED, LOAMED AND SEEDED AND MULCHED IF NECESSARY. ALL SURFACES SHOULD BE RAPIDLY AND THOROUGHLY STABILIZED TO THEIR FINAL CONDITION TO AVOID ENTRY OF SEDIMENTS INTO THE DRAINAGE SYSTEM. 7. AT THE COMPLETION OF WORK, THE DRAINAGE SYSTEM SHALL BE OPENED AND INSPECTED. ANY FOREIGN

UTILITIES: 1. CARE SHALL BE TAKEN TO ASSURE THAT THE UTILITY TRENCHES DO NOT CHANNELIZE RUNOFF TOWARDS 2. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY UTILITY INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE. 3. THE ABANDONMENT OF WATER LINES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE MEDWAY DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS. 4. EXISTING SEWAGE DISPOSAL SYSTEM TO BE PUMPED OUT AND BACKFILLED WITH CLEAN GRAVEL FILL PER TOWN OF MEDWAY BOARD OF HEALTH REGULATIONS. 5. UNDERGROUND UTILITIES SHALL HAVE A COLOR CODED IDENTIFICATION TAPE PLACED A MINIMUM OF 12" ABOVE THE PIPE OR CONDUIT AND NOT CLOSER THAN 12" FROM THE FINISHED GRADE. TAPE SHALL BE 6" WIDE, DURABLE, NON-BIODEGRADABLE PLASTIC. ALL BACKFILL MATERIAL AROUND PIPE OR CONDUIT SHALL HAVE NO STONES GREATER THAN 2". 6. THE PLANS DEPICT ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON THE DATE OF TOPOGRAPHY AND THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. IS NOT INTENDED OR IMPLIED. ANY DISCREPANCIES IN THE LOCATION OF UTILITIES SHALL PROMPTLY BE REPORTED BY THE CONTRACTOR TO THE

LANDSCAPING 1. LANDSCAPING SHALL OCCUR AS SOON AS POSSIBLE TO PROVIDE PERMANENT STABILIZATION OF DISTURBED 2. CONTRACTOR SHALL UTILIZE A VARIETY OF SLOPE STABILIZATION METHODS AND MATERIALS, WHICH SHALL BE ADJUSTED TO THE SITE CONDITIONS. EROSION CONTROL BLANKETS OR MIRAFI MIRAMAT (OR SIMILAR 3. IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT ALLOW THE ESTABLISHMENT OF VEGETATION, TEMPORARY MULCHING WITH HAY, TACKIFIED WOOD CHIPS OR OTHER METHODS SHALL BE PROVIDED. 4. SEED APPLICATIONS SHALL BE IN ACCORDANCE WITH THE GRASS AND SLOPE COVER SPECIFICATIONS. 5. TO ENSURE A DENSE, SUCCESSION GROWTH, SEED MIXTURE TYPE "C" IS REQUIRED ON ALL DISTURBED SURFACES, EXCEPT WHERE LAWN AREA IS PROPOSED. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SUFFICIENT WATER AND/OR IRRIGATION FOR A MINIMUM OF TWO WEEKS FROM THE DATE OF PLANTING OF TREES AND AS REQUIRED TO OBTAIN THE MINIMUM

STANDARDS FOR LAWN SURFACE STABILIZATION. SEE GRASS AND SLOPE COVER SPECIFICATIONS.

GRASS AND SLOPE COVER SPECIFICATIONS:

1. ALL DISTURBED AREAS INCLUDING SHALL BE GRADED AND STABILIZED BY PLANTING OR OTHER METHOD AS SHOWN OR SPECIFIED ON THE PLANS. 2. A MINIMUM OF 6" OF LOAM SHALL BE APPLIED TO ALL SURFACES TO BE SEEDED. LOAM SHALL BE UNIFORMLY APPLIED, SHAPED AND SMOOTHED. 3. LOAM ACIDITY SHALL BE CHECKED AND ADJUSTED TO A PH OF 6.5. APPLY LIME AT A MINIMUM RATE OF 50 LBS. PER 1,000 SQUARE FEET, IF NECESSARY (IF PERMITTED BY THE ORDERS OF CONDITIONS ONLY). 4. ORGANIC-SLOW RELEASE FERTILIZER OF A TYPE 5-2-2 APPLIED AT A RATE OF 50 LBS. PER 500 SQUARE FEET (IF PERMITTED BY THE ORDERS OF CONDITIONS ONLY, IF APPLICABLE). 5. RAKE A SEED BED USING A YORK RAKE OR HAND RAKING TO A MINIMUM DEPTH OF 3" THOROUGHLY 6. SEEDING MAY BE PERFORMED BY HAND OR BY MECHANICAL OR TRACTOR MOUNTED SPREADER. 7. AREAS SEEDED BEFORE APRIL 15 OR AFTER NOVEMBER 1 SHALL BE REAPPLIED BETWEEN THE AFOREMENTIONED DATES IF A MINIMUM GERMINATION OF 90%, DETERMINED BY SURFACE AREA COVERAGE, HAS NOT OCCURRED OR IF THE SURFACE AREA HAS ERODED OR BECOME UN- STABILIZED.

A. HAND SEEDING: SEED SHALL BE APPLIED BY HAND OR BY BROADCAST SPREADER, TO PROVIDE A UNIFORM DISTRIBUTION OF SEED. SEED SHALL BE LIGHTLY RAKED INTO A DEPTH OF 1/2" - 1", WITH ALL RAKING TO BE PERPENDICULAR TO THE SLOPE. 3. SEED IS TO BE ROLLED WITH A WATER BALLAST ROLLER TO ENSURE CONTACT OF SEED WITH SOIL. DO NOT COMPACT SOIL 4. AREA SHALL BE MULCHED USING SEED-FREE STRAW TO ADEQUATELY COVER THE AREA TO A DEPTH OF 1/2"-1", ENSURING A UNIFORM COVER OF 75% OF THE SURFACE AREA. 5. MULCH SHALL BE SECURED BY MEANS OF SECURED LANDSCAPE FABRIC, EROSION CONTROL NETTING (3/4"-1" MESH), OR OTHER BIODEGRADABLE MATERIAL WHICH WILL ENSURE ADEQUATE COVER UNTIL THE SURFACE HAS GROWN TO 90% GERMINATION OR ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

1. HYDROSEEDING IS ENCOURAGED FOR ALL AREAS, ESPECIALLY FOR LARGE AREAS AND STEEP SLOPES. 2. HYDROSEEDING SHALL BE PERFORMED IN A SINGLE UNIFORM LAYER.
3. A TRACK EQUIPPED MACHINE SHALL TRAVEL PERPENDICULAR TO ANY SLOPE TO PROVIDE COMPACTED SURFACE DEPRESSIONS FOR HYDROSEEDING TO CATCH. SUCH TRACKS SHALL BE A MINIMUM OF THREE (3') FEET ON CENTER FOR THE TOTAL LENGTH OF THE SLOPE. 4. APPLICATION RATES ON SLOPES GREATER THAN 3:1 (HORIZONTAL TO VERTICAL) SHALL HAVE A MINIMUM SEEDING RATE OF 4 LBS. / 1000 S.F. 5. A LATEX OR FIBER TACKIFIER SHALL BE USED ON ALL AREAS AT THE RATE RECOMMENDED BY THE MANUFACTURER AND ON ALL SLOPES IDENTIFIED ABOVE (NO. 4). A MINIMUM RATE OF 50 LBS. OF TACKIFIER PER 500 GALS. OF WATER 6. FERTILIZER AND LIME MAY BE INCORPORATED INTO THE HYDROSEED MIXTURE IN THE QUANTITIES AND TYPE IDENTIFIED PREVIOUSLY (IF PERMITTED BY THE ORDERS OF CONDITIONS ONLY).

STANDARD CONSERVATION MIX CONFORMING TO THE RECOMMENDATIONS OF THE U.S. NATURAL RESOURCES SERVICES GUIDELINES (FORMERLY THE SOIL CONSERVATION SERVICE, S.C.S.) AND SHALL CONFORM TO THE FOLLOWING STANDARDS: MINIMUMS (BY TOTAL WEIGHT OF MIX):

20% ANNUAL RYE 15% RED TOP FESCUE 10% WHITE CLOVER 5% CROWNVETCH

NO MORE THAN 40% OF THE TOTAL MIX, BY WEIGHT, SHALL CONSIST OF ANNUAL RYE OR OTHER ANNUAL SPECIES. APPLY AT A RATE OF 4 LBS. PER 1,000 SQUARE FEET. B. ALL SEED SHALL BE OF THE PREVIOUS YEAR'S CROP AND SHALL HAVE A QUANTIFIED MIXTURE ANALYSIS ATTACHED. NO MORE THAN 10% OF TOTAL MIXTURE SHALL CONSIST OF WEED SEED SPECIES.

#### STORMWATER MANAGEMENT, OPERATIONS & MAINTENANCE SCHEDULE

DURHAM NEW HAMPSHIRE 03824-3534 WWW.UNH.EDU/ERG/CSTEV.

STORM WATER COLLECTION SYSTEM:

IN ADDITION TO THE EXISTING SEDIMENT FOREBAYS AND INFILTRATION BASIN ON THE SITE, THE STORMWATER COLLECTION AND MANAGEMENT FOR THE PROPOSED ADDITIONAL PARKING AREA IS PERFORMED BY A POROUS PAVEMENT SYSTEM. RUNOFF PASSES THROUGH VOID SPACES IN THE PAVEMENT AND IS STORED IN A RESERVOIR OF CRUSHED ROCK, SLOWLY INFILTRATING INTO THE GROUND. STORMWATER TREATMENT OCCURS IN A FILTER COURSE OF POORLY GRADED SAND.

#### CONSTRUCTION:

1. TO PREVENT THE INFILTRATION SURFACE, RESERVOIR, AND PAVEMENT FROM BECOMING CLOGGED WITH SOIL, THE PARKING AREA IS TO BE CONSTRUCTED AFTER SUBSTANTIAL GRADING AND LANDSCAPING OF THE SITE IS COMPLETED. 2. THE INSTALLATION OF A POROUS PAVEMENT SYSTEM REQUIRES THE USE OF SKILLS AND TECHNIQUES THAT DIFFER FROM THOSE USED WHILE BUILDING A CONVENTIONAL DRAINAGE SYSTEM. IF THE CONTRACTOR DOES NOT HAVE EXPERIENCE WORKING WITH POROUS PAVEMENT SYSTEMS, REVIEWING AVAILABLE INFORMATION AND OBTAINING TRAINING IS MANDATORY, 3. THE UNIVERSITY OF NEW HAMPSHIRE HAS PUBLISHED SPECIFICATION AND GUIDANCE FOR THE INSTALLATION OF POROUS PAVEMENT SYSTEMS. THESE STANDARDS, REFERENCED BELOW, ARE INCORPORATED AS A PART OF THIS PLAN. UNHHSC DESIGN SPECIFICATIONS FOR POROUS ASPHALT PAVEMENT AND INFILTRATION BEDS, UNIVERSITY OF NEW HAMPSHIRE STORMWATER CENTER, GREGG HALL, 35 COLOVOS ROAD,

## MONITORING AND OPERATION:

THE DRAINAGE SYSTEMS ARE REQUIRED TO BE MONITORED BY THE OWNER, WHO SHALL DIRECT AN INDIVIDUAL ENTITY TO ACT AS THE PROJECT SITE MANAGER. ALL MAINTENANCE SHALL BE DONE IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION STORMWATER MANAGEMENT REGULATIONS. MONITORING AND OPERATION DURING CONSTRUCTION AS WELL AS THROUGHOUT THE LIFE OF THE SYSTEM SHALL CONSIST OF THE FOLLOWING: 1. ALL EROSION CONTROL DEVICES, STOCKPILE AREAS, AND STAGING AREAS SHALL BE INSPECTED AND MAINTAINED IN GOOD WORKING CONDITION THROUGHOUT THE ENTIRE PROJECT. 2. ALL OUTLETS FROM EXISTING DRAINAGE STRUCTURES SHALL BE INSPECTED ON A REGULAR BASIS TO SEE THAT NO EROSION IS OCCURRING. ALL OUTLETS MUST BE FREE FLOWING AND REGULAR INSPECTIONS SHALL BE CONDUCTED TO DETERMINE THAT NO DAMAGE HAS OCCURRED DURING CONSTRUCTION OR 3. PRIOR TO COMPLETION, THE PARKING AREA IS TO BE INSPECTED AND VACUUM SWEPT. 4. ALL MATERIALS USED IN THE CONSTRUCTION OF THE SITE MUST BE STORED IN A NEAT AND ORDERLY MANNER IN STAGING AREAS LOCATED OUTSIDE OF ANY 100' BUFFER ZONES. SPILLS OF TOXIC OR HAZARDOUS MATERIAL MUST BE REPORTED TO THE APPROPRIATE STATE, LOCAL OR FEDERAL AGENCIES AS 5. LUBRICATION AND REFUELING OF VEHICLES MAY NOT BE PERFORMED WITHIN THE 100' BUFFER ZONE, WITHIN THE ZONE 1 RADIUS OF A PUBLIC WATER SUPPLY WELL, OR IN AN AREA PAVED WITH POROUS 6. THE CONSERVATION COMMISSION SHALL BE CONSULTED PRIOR TO THE INITIATION OF ANY REPAIRS INVOLVING THE USE OF HEAVY EQUIPMENT OR DISTURBANCE WITHIN THE 100 FT. WETLAND BUFFER ZONE. A REQUEST FOR DETERMINATION OF APPLICABILITY OR NOTICE OF INTENT MAY BE REQUIRED. 7. UPON COMPLETION OF CONSTRUCTION THE STORMWATER DRAINAGE SYSTEM SHALL BE INSPECTED AND CLEANED OF ANY MATERIAL THAT MAY BE INHIBITING FLOW OF THE STORMWATER.

### OPERATIONS:

1. ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER. 2. PETROLEUM PRODUCTS:

STATE, LOCAL OR FEDERAL AGENCY, AS REQUIRED BY LAW.

A. ON-SITE VEHICLES AND STAGING AREAS SHALL BE REGULARLY MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO PREVENT LEAKAGE. B. PETROLEUM PRODUCTS SHALL BE STORED UNDER COVER AND SHALL BE IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.

3. FERTILIZERS: A. FERTILIZERS SHALL ONLY BE USED IN THE MINIMUM AMOUNTS AS RECOMMENDED BY THE MANUFACTURER. B. THE CONTENTS OF ANY UNUSED FERTILIZER SHALL BE TRANSFERRED TO A CLEARLY LABELED, SEALABLE PLASTIC BIN, TO AVOID SPILLAGE. SPILLS OF TOXIC OR HAZARDOUS MATERIAL OR NATURE WILL BE REPORTED TO THE APPROPRIATE

## MAINTENANCE:

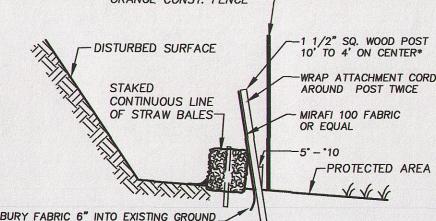
1. POROUS PAVEMENT AREAS ARE TO BE INSPECTED REGULARLY AND TRASH AND DEBRIS REMOVED 2. GRASS CLIPPINGS, MULCH, LOAM, SAND, AND OTHER LOOSE MATERIALS MAY NOT BE STORED ON POROUS PAVEMENT UNLESS PLACED ON TOP OF A TARP. 3. ADJACENT LANDSCAPE AREAS ARE TO BE KEPT WELL MAINTAINED TO PREVENT SOIL FROM BEING TRANSPORTED ONTO THE POROUS PAVEMENT. 4. AT MINIMUM, PARKING AREA IS TO BE VACUUM SWEPT ONCE IN THE FALL AFTER THE LEAVES HAVE FALLEN AND ONCE IN THE SPRING AFTER THE LAST SNOW STORM. MORE FREQUENT VACUUM SWEEPING IS RECOMMENDED AS NECESSARY. 5. POROUS PAVEMENT SURFACE IS TO BE INSPECTED ANNUALLY FOR DETERIORATION OR SPALLING. 6. CONVENTIONAL ASPHALT MAY BE USED TO PATCH HOLES OR MAKE MINOR REPAIRS. POROUS PAVEMENT IS REQUIRED FOR MAJOR REPAIRS OR RESURFACING. 7. PARKING AREA MAY NOT BE SEALCOATED UNDER ANY CIRCUMSTANCES, AS THIS WILL PREVENT THE

## **WINTER MAINTENANCE:**

DRAINAGE SYSTEM FROM WORKING.

RESEARCH AT THE UNIVERSITY OF NEW HAMPSHIRE INDICATES THAT POROUS PAVEMENT PERFORMS WELL IN WINTER CONDITIONS. RESIDUAL SNOW AND ICE ON POROUS PAVEMENT MELTS FASTER THAN ON CONVENTIONAL PAVEMENT AND BLACK ICE FORMATION IS LESS OF A PROBLEM. THEREFORE, THE AMOUNT OF SALT USED CAN TYPICALLY BE SIGNIFICANTLY REDUCED COMPARED TO CONVENTIONAL PAVEMENT. SNOW REMOVAL PERSONNEL WHO ARE NOT FAMILIAR WITH POROUS PAVEMENTS SHOULD EDUCATE HEMSELVES AND OBSERVE HOW THE PAVEMENT BEHAVES DURING STORMS AND ADJUST DEICING 1. APPLY THE MINIMUM AMOUNT OF SALT NECESSARY TO ACCOMPLISH SAFETY OBJECTIVES. 2. USE OF SAND IS NOT ALLOWED. 3. ATTACH ROLLERS OR OTHER DEVICES TO THE BOTTOM OF SNOWPLOWS TO LIFT BLADE SLIGHTLY OFF

#### 6' HIGH FLUORESCENT ORANGE CONST. FENCE-

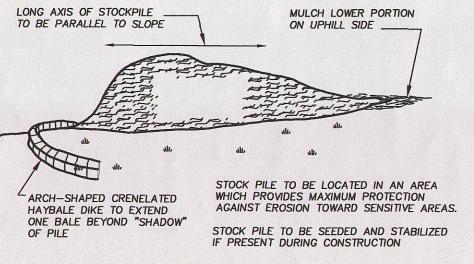


OVER FABRIC AT BASE OF FENCE

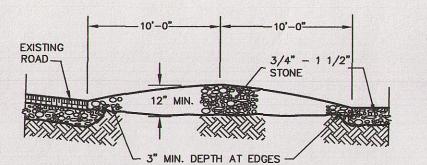
\* STEEL POST MAY BE SUBSTITUTED. DISTANCE BETWEEN POSTS TO VARY AS REQUIRED BY TRIBUTARY AREA: 10' FOR 100 SF/LF FENCE 6' FOR 500 SF/LF FENCE IF POST IS TO BE SET IN PEAT OR UNSTABLE SOILS, THEN 3' OR DEPTH NECESSARY TO PROVIDE A STABLE POST FOR LOADED FENCE CONDITIONS

PROTECTED AREA

#### EROSION CONTROL BARRIER NOT TO SCALE



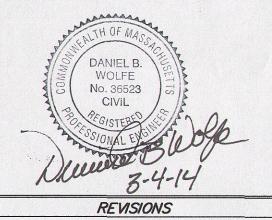
TEMPORARY STOCKPILE NOT TO SCALE



**TEMPORARY** CONSTRUCTION ENTRANCE

NOTES: PURPOSE IS TO REMOVE MUD FROM TIRES OF CONSTRUCTION VEHICLES. CONSTRUCTION ENTRANCE TO BE 20' LONG AND 16' WIDE. CONSTRUCTION ENTRANCES TO BE MAINTAINED AND SWEPT AS NECESSARY TO PREVENT MUD/DIRT DEPOSITS ON ROADWAY.

## 131-133 MILFORD STREET



CONSERVATION COMMISSION CONDITIONS

EROSION & SEDIMENTATION CONTROL PLAN Medway, Mass.

PREPARED FOR

Murphy Insurance

David E. Ross Associates, Inc. CIVIL ENGINEERS — LAND SURVEYORS ENVIRONMENTAL CONSULTANTS

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JOB NO. 24775 SHEET 5 OF 5 PLAN NO. L-12146A