

CONSTRUCTION SEQUENCE/EROSION CONTROL NOTES:

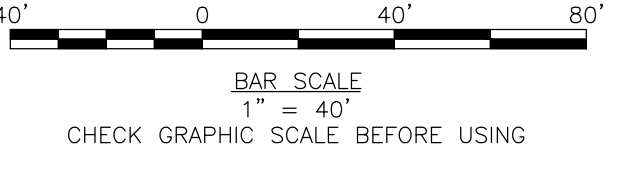
- PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS
- PONDS AND SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING THE SITE)
- ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM
- ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE
- ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE
- ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL
- THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
 - A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED
 - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE
- TEMPORARY VEGETATIVE COVER SHALL BE APPLIED TO ANY DISTURBED AREAS (INCLUDING SOIL STOCKPILE AREAS) THAT HAVE NOT YET REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS. THE RECOMMENDED TEMPORARY SEEDING DATES ARE MARCH 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1.
- AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING, IN ADDITION TO AREAS WHICH CANNOT BE SEEDED WITHIN THE RECOMMENDED SEEDING DATES AND ANY SOIL STOCKPILE AREAS. TEMPORARY MULCHING SHOULD BE PERFORMED AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.
- IF SEEDING CANNOT BE COMPLETED IMMEDIATELY OR WITHIN THE RECOMMENDED SEEDING DATES, USE THE TEMPORARY MULCHING MEASURE TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD EXCEPT WITHIN BANK DISTURBANCE AREAS.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.
- AT THE END OF THE CONSTRUCTION SEQUENCE, LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.
- IF SPOTTED TURTLES ARE OBSERVED IN THE WETLANDS TO BE FILLED, CONTACT MIKE MARCHAND (603-271-3018) OR KIM TUTTLE (603-271-6544) FROM NH FISH AND GAME.
- ALL PERMANENT AND TEMPORARY SEEDING SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):

PERMANENT SEEDING	PROPORTION	GERMINATION MINIMUM	PURITY MINIMUM
LAWNS:			
CREeping RED FESCUE	50%	85%	95%
KENTUCKY BLUEGRASS	40%	85%	90%
MANHATTAN PERENNIAL RYE	10%	90%	95%
TEMPORARY SEEDING*	%WEIGHT	GERMINATION MINIMUM	
WINTER RYE	80% MIN.	85% MIN.	
RED FESCUE (CREeping)	4% MIN.	80% MIN.	
PERENNIAL RYE GRASS	3% MIN.	90% MIN.	
RED CLOVER	3% MIN.	90% MIN.	
OTHER CROP GRASS	0.5% MIN.		
NOXIOUS WEED SEED	0.5% MIN.		
INERT MATTER	1.0% MIN.		

*TEMPORARY SEED FOR LAWNS SHALL ONLY BE PLANTED WHEN PERMANENT GRASSES CANNOT BE PLANTED DUE TO THE GROWING SEASON.

GENERAL NOTES:

- WETLANDS DELINEATED BY CHRISTOPHER ALBERT, CERTIFIED WETLANDS SCIENTIST OF JONES & BEACH ENGINEERS, INC., DECEMBER 2106.

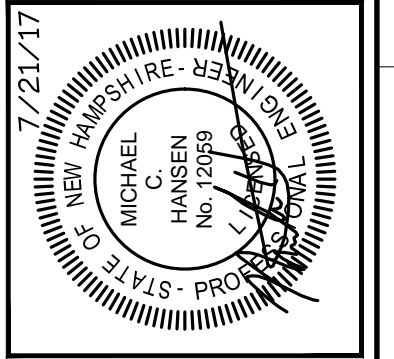


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REV	DESCRIPTION	DATE

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DESIGNED BY: BWT
DRAWN BY: JDE
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EXISTING SITE PLAN

UNIVERSITY OF NEW HAMPSHIRE
DURHAM, NEW HAMPSHIRE

UNH PROJECT ID #2008-0038
WATER TREATMENT PLANT
REPLACEMENT

JOB NO.: 230340.00
DATE: JULY 21, 2017
SCALE: 1"=40'
SHEET: 4 OF 223

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DEMOLITION NOTES:

1. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND/OR APPROVALS FROM THE AGENCIES WITH JURISDICTION PRIOR TO BEGINNING WORK.
2. CONSTRUCTION/DEMOLITION DEBRIS NOT APPROVED FOR REUSE ON-SITE BY THE OWNER OR CONTRACTOR SHALL BE REMOVED FROM THE PROJECT AND DISPOSED OFF SITE IN ACCORDANCE WITH THE LOCAL, STATE, AND FEDERAL REQUIREMENTS. WASTE MANIFEST FORMS DOCUMENTING PROPER DISPOSAL AND SITE DISPOSAL SHALL BE PROVIDED TO THE OWNER.
3. VERIFY THE LOCATION OF EXISTING UTILITIES TO BE DEMOLISHED OR TO REMAIN PROTECTED DURING CONSTRUCTION. IMMEDIATELY NOTIFY THE OWNER OF ANY DISCREPANCIES FOUND BETWEEN THE EXISTING CONDITIONS SHOWN ON DRAWINGS AND FIELD CONDITIONS.
4. COORDINATE TEMPORARY SERVICE INTERRUPTIONS FOR EXISTING UTILITIES SCHEDULED TO FACILITATE THE WORK WITH THE OWNER. NOTIFY OWNER AT LEAST 3 WORKING DAYS PRIOR TO SCHEDULED INTERRUPTION. NOTIFY THE OWNER OF ANY IMPACTS TO THE SCHEDULED INTERRUPTION AT LEAST 48 HOURS PRIOR TO SERVICE INTERRUPTION.
5. IN AREAS WHERE TREE REMOVAL IS REQUIRED, LIMIT REMOVAL TO THE MAXIMUM EXTENT POSSIBLE. TREE REMOVAL SHALL BE LIMITED TO WHAT IS NECESSARY TO REMOVE AS NECESSARY TO COMPLETE WORK.

BLASTING NOTES:

1. LOADING PRACTICES. THE FOLLOWING BLASTHOLES LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
- A. DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
 - B. EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL.
 - C. SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.
 - D. LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
 - E. LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
 - F. EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
2. EXPLOSIVE SELECTION. THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
- A. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
 - B. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
3. PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
4. MUCK PILE MANAGEMENT. MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
- A. REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
 - B. MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
5. SPILL PREVENTION MEASURES AND SPILL MITIGATION. SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
- A. THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
 - 1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
 - 2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
 - 3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
 - 4. INSPECT STORAGE AREAS WEEKLY.
 - 5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
 - 6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
 - 7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
 - B. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 - 1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
 - 2. PLACE DRIP PANS UNDER SPOUTS, VALVES, AND PUMPS.
 - 3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
 - 4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
 - 5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
 - C. THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
 - D. FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-WDG-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT] OR ITS SUCCESSOR DOCUMENT. (SEE <http://DES.NH.GOV/ORGANIZATION/COMMISSIONER/PIP/FACTSHEETS/DWGB/DOCUMENTS/DWGB-22-6.PDF>)



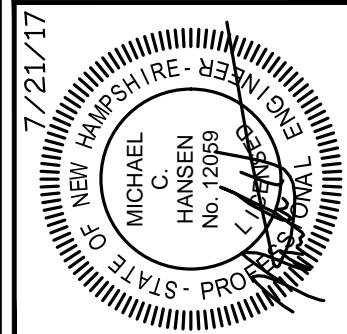
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SITE DEMOLITION & EROSION CONTROL PLAN

UNIVERSITY OF NEW HAMPSHIRE
DURHAM, NEW HAMPSHIREUNH PROJECT ID #2008-0038
WATER TREATMENT PLANT
REPLACEMENT

JOB NO.: 230340.00
DATE: JULY 21, 2017
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PART 2 CONSTRUCTION SUBMITTAL

