



1911-2011

BLASTING BEST MANAGEMENT PRACTICES (BMPs)

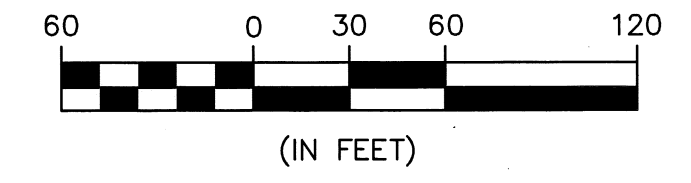
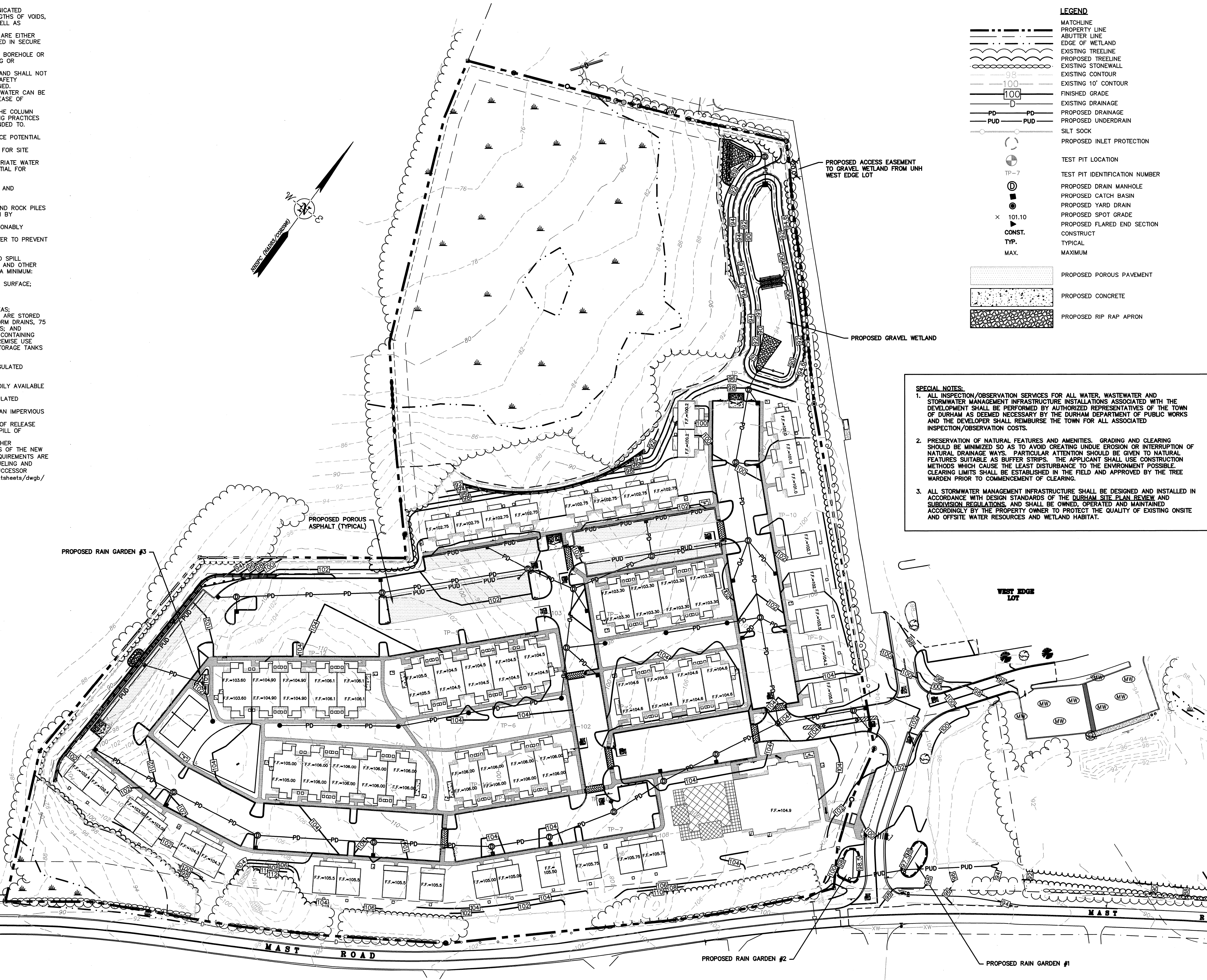
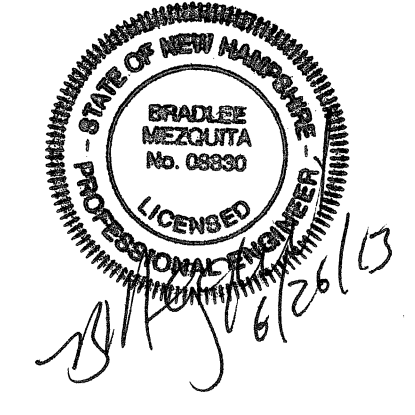
- A. LOADING PRACTICES** THE FOLLOWING BASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
1. DRILLING LOSS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTH AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONE OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
 2. 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.
 3. 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.
 4. LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BASTHOLE OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
 5. 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.
 6. 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.
- B. EXPLOSIVE SELECTION** THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
1. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
 2. 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.
- C. PREVENTION OF MISFIRES** APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
- D. 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:
1. REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
 2. MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- E. 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:
1. THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
 - A. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE;
 - B. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
 - C. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY;
 - D. INSPECT STORAGE AREAS WEEKLY;
 - E. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
 - F. 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; AND
 - G. 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.
 2. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 - A. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
 - B. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
 - C. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
 - D. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES; AND
 - E. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
 3. 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.
 4. 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-DWGB-22-6 "BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT. (SEE <https://des.nh.gov/organization/commissioner/plp/factsheets/dwgb/documents/dwgb-22-6.pdf>)]

LEGEND

- MATCHLINE
- - - - - PROPERTY LINE
- - - - - ABUTTER LINE
- - - - - EDGE OF WETLAND
- - - - - EXISTING TREELINE
- - - - - PROPOSED TREELINE
- - - - - EXISTING STONEWALL
- - - - - EXISTING CONTOUR
- - - - - EXISTING 10' CONTOUR
- 100 FINISHED GRADE
- 100 EXISTING DRAINAGE
- PD PROPOSED DRAINAGE
- PUD PROPOSED UNDERDRAIN
- SILT SOCK
- PROPOSED INLET PROTECTION
- TEST PIT LOCATION
- TP-7 TEST PIT IDENTIFICATION NUMBER
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED YARD DRAIN
- PROPOSED SPOT DRAIN
- PROPOSED FLARED END SECTION
- CONSTRUCT
- TYPICAL
- MAXIMUM
- Proposed Porous Pavement
- Proposed Concrete
- Proposed Rip Rap Apron

SPECIAL NOTES:

1. ALL INSPECTION/OBSERVATION SERVICES FOR ALL WATER, WASTEWATER AND STORMWATER MANAGEMENT INFRASTRUCTURE ASSOCIATED WITH THE DEVELOPMENT SHALL BE PERFORMED BY AUTHORIZED REPRESENTATIVES OF THE TOWN OF DURHAM AS DEEMED NECESSARY BY THE DURHAM DEPARTMENT OF PUBLIC WORKS AND THE DEVELOPER SHALL REIMBURSE THE TOWN FOR ALL ASSOCIATED INSPECTION/OBSERVATION COSTS.
2. PRESERVATION OF NATURAL FEATURES AND AMENITIES, GRADING AND CLEARING SHOULD BE MINIMIZED SO AS TO AVOID CREATING UNDE EROSION OR INTERRUPTION OF NATURAL DRAINAGE WAYS. PARTICULAR ATTENTION SHOULD BE GIVEN TO NATURAL FEATURES SUITABLE AS BUFFER STRIPS. THE APPLICANT SHALL USE CONSTRUCTION METHODS WHICH CAUSE THE LEAST DISTURBANCE TO THE ENVIRONMENT POSSIBLE. CLEARING LIMITS SHALL BE ESTABLISHED IN THE FIELD AND APPROVED BY THE TREE WARDEN PRIOR TO COMMENCEMENT OF CLEARING.
3. ALL STORMWATER MANAGEMENT INFRASTRUCTURE SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH DESIGN STANDARDS OF THE DURHAM SITE PLAN REVIEW AND SUBMISSION REGULATIONS AND SHALL BE OWNED, OPERATED AND MAINTAINED ACCORDINGLY BY THE PROPERTY OWNER TO PROTECT THE QUALITY OF EXISTING ONSITE AND OFFSITE WATER RESOURCES AND WETLAND HABITAT.



Peak Campus Development, LLC
 The Lodges at West Edge
 Durham, NH

F	6/21/13	REVISED FOR FINAL APPROVAL
E	6/11/13	ISSUED FOR BUILDING PERMIT
D	12/10/12	REVISED FOR AOT SUBMISSION
C	11/1/12	REVISED FOR PB SUBMISSION
B	9/26/12	REVISED FOR PB SUBMISSION
A	8/22/12	PB SUBMISSION
Mark	Date	Description
PROJECT NO:	P0637	
FILE:	P0637_GRADE.dwg	
DRAWN BY:	KAM/SLK1	
CHECKED:	JMP2	
APPROVED BY:	GMM	

OVERALL GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SCALE: AS SHOWN

SHEET 7