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AS&E 5781

November 24, 2010

Acton Conservation Commission  
472 Main Street  
Acton, MA 01720

Re: 50 Powder Mill Road  
DEP 085-1002

Dear: Commission Members:

The purpose of this letter is to provide you with the information you requested during the public hearing for an amendment to the Order of Conditions for 50 Powder Mill Road.

The information will be presented as a series of topics and will hopefully address all of the Commission's concerns. If a topic has not been addressed or if additional information should be required please inform us at the beginning of next week and we will make an effort to provide you with additional information at the continued hearing on December 1<sup>st</sup>.

### ***Crushed Stone at Rear of Building***

Note number 6 describes the placement of a 3 foot wide strip of crushed stone that is to be placed on the existing ground surface. No excavation of the ground surface is proposed.

The purpose of the stone is to absorb the impact of roof runoff and to decrease the potential for erosion.

The crush stone will also allow for foot traffic around the building for routine maintenance.

Crush stone on the bank at the northern end of the building will be more stable than the existing earthen slope as the angle of repose for crushed stone is steeper than that of sand.

### ***Siding of Rear and West sides of Building***

The majority of the necessary work related to the residing of the building can be performed by persons located on a vertical lift or pump jacks.

However, to assure that materials are not deposited on the bank or in the river a platform with a net below and extending off the sides will be erected from the building along the back and west side of the building as shown on the attached details. The net system on the west side is not designed for foot traffic as the area is accessible by utilizing a vertical lift located on the parking lot.

The installation of both systems will not require alterations to resource areas and we believe will provide adequate protections to the resource area from falling objects.

After the netting systems are removed the portions of the building altered to support them will be closed by light weight plates supported by the vertical lift and bolted through the building for attachment. The plate at the rear of the building will be supported on its east end by persons/equipment located in the area of the chimney.

### ***Parging of Foundation***

Boarded over windows are present in the brick foundation and it is desired that the windows be sealed and the brick foundation walls be sealed by parging, plastering or stuccoing with a sealant to form a uniform wall faced that will inhibit the penetration of moisture into the space between the bricks, window closures and flowable fill to be placed in the basement. The penetration of moisture is not desired as it will cause deterioration of building components due to freezing and thawing and mold formation.

The parging materials will be applied by hand and transported along the foundation walls in five gallon buckets and this should not result in adverse impacts to resource areas.

### ***Flowable Fill***

Flowable fill, or FloFill, is a mixture of Portland cement, water, fine aggregate and fly ash whose composition varies with the required application. The mixture of the components changes to accommodate the required viscosity, hardening time and strength. Certain mixtures are also available to provide other desired or necessary characteristics.

The existing basement is located below flood level and the failure of the foundation could result in the collapse of a portion of the building into the river. The location of the building directly above the bridge is problematical. The filling of the basement will provide protections against flood damage and increase the usability and support for the portions of the building to remain.

Prior to the placement of the Flowable Fill, the basement will be stripped of all electrical equipment and materials made of wood. Existing structural supports will be replaced with those comprised of masonry units. The windows will be sealed with masonry units.

The fill will be pumped, or placed by chutes, in lifts not exceeding 2 feet and allowed to stiffen [not hardened] prior to the placement of the next lift to not place hydrostatic pressure on the exposed foundation walls.

### ***Loading Dock Area***

The Loading Dock Area is shown on the plans subject to the Notice of Intent and is not a modification being requested at this time.

The use of the term loading dock may be a misnomer as the building is not proposed to have an eight foot wide door located 4 feet off the ground as is common for most loading docks. Rather, the building is to have a standard man door facing the loading dock area which will be used to carry parts into and out of the building on foot.

The door will also serve as a secondary building exit.

The only liquid materials that will be carried through the door at the loading dock will be in one gallon, or less, containers packaged for retail sale.

We have modified the plan to show that a "weatherproof shelter box" is to be located on the building at the loading dock area to house sufficient containment pillows and loose granular material to contain a 25 gallon spill that could be associated with the failure of a tank on a delivery or other vehicle located in the loading area and parking lot.

While the possibility of such a spill is remote and could occur within any parking lot, it should be expected that the presence of automobile technicians at the site will increase the possibility of any spill being promptly and properly contained.

The loading dock area was occupied by an open shed structure utilized for the storage of building materials and supplies until recently.

### ***Fluids Utilized and Generated on Site***

Liquids such as lubricants that are to be drained from and replaced in vehicles are not transported to the site in individual containers and will not enter the building through the man door at the loading dock area.

Liquids utilized and generated in the service bays are pumped into, or out of, tanks set in containment devices approved by the Board of Health.

The appropriate bay doors will be utilized for access. Individual containers of fluids are not used for reasons of economics, the elimination of recycling containers and decreasing the opportunity for spills.

Waste oils and other liquids will be stored in double containment vessels and removed for site by pumping to a truck in the front parking lot.

The delivery and removal trucks are operated by personnel with knowledge and equipment necessary for spill containment.

### ***Tree Trimming/Removal***

This office has not had an opportunity to review and tabulate the extent of tree branches to be trimmed and the possible removal of dead, damage or disease trees. We suggest that an on site meeting be held with Mr. Tidman and a representative of this office prior to the initiation of any

work at the rear of the building to assess the need for trimming and removal and make a verifiable record of the extent of trimming/removal to be performed.

***Picnic Area***

Our client has indicated the desire to install a picnic bench for employee use adjacent to the loading dock area. 310 CMR 10.58(6)(b)1 allows for the construction of unpaved pedestrian walkways and we believe that a crushed stone area for a picnic area is within this category.

***Interests of the Act & Bylaw***

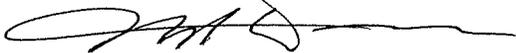
It is our opinion that the planned rehabilitation of the building to allow it to be economically viable and an asset to the community will only serve to decrease the possibility of a deteriorating building at this location having adverse impacts to the interests of the Act and Purposes of the Bylaw.

If improvements are not made the possibility of materials being carried by wind and flood waters into the river will be increased. The carriage of materials, including uprooted trees, by floodwaters could increase flooding and stormwater damage by impeding flow under the Powder Mill Road Bridge.

Materials carried from the deteriorating structure could impact the fresh water mussels in the Assabet River.

The buildings on the site once utilized water power and might be exempt under 310CMR10.58(6)(k).

Very truly yours,  
Mark T. Donohoe, PE



for:  
Acton Survey & Engineering, Inc.

cc: Leo Bertolami



Acton Survey &  
Engineering, Inc.

P.O. Box 666 97 Great Rd. Suite 6  
Acton, MA 01720-0666  
(978) 263-3666 Fax (978) 635-0218  
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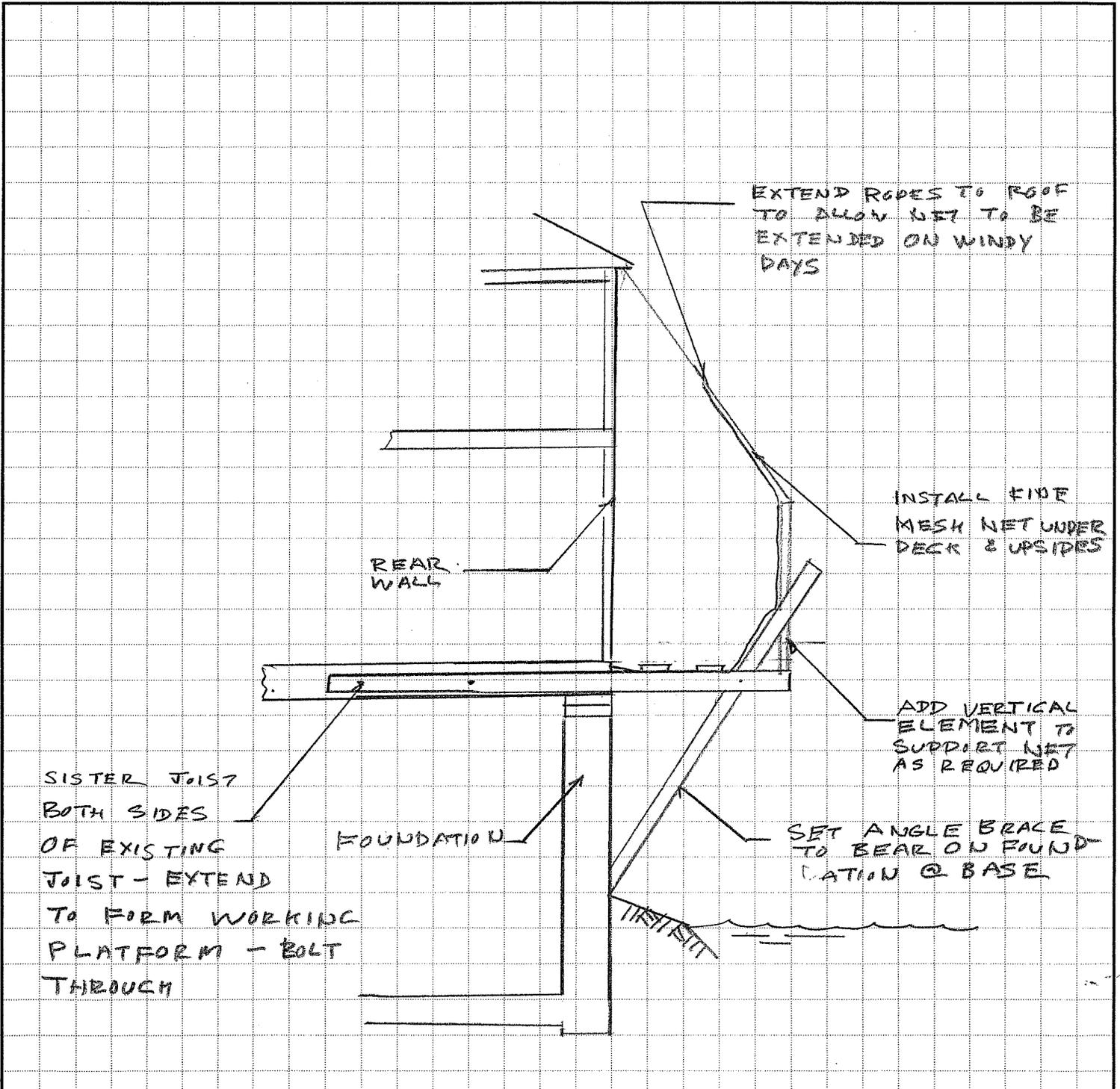
JOB 50 POWDEL MILL ROAD 571

SHEET NO. 1 OF 2

CALCULATED BY MTO DATE 11-23-10

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

SCALE \_\_\_\_\_



REAR STAGING DETAILS - N.T.S.



Acton Survey &  
Engineering, Inc.

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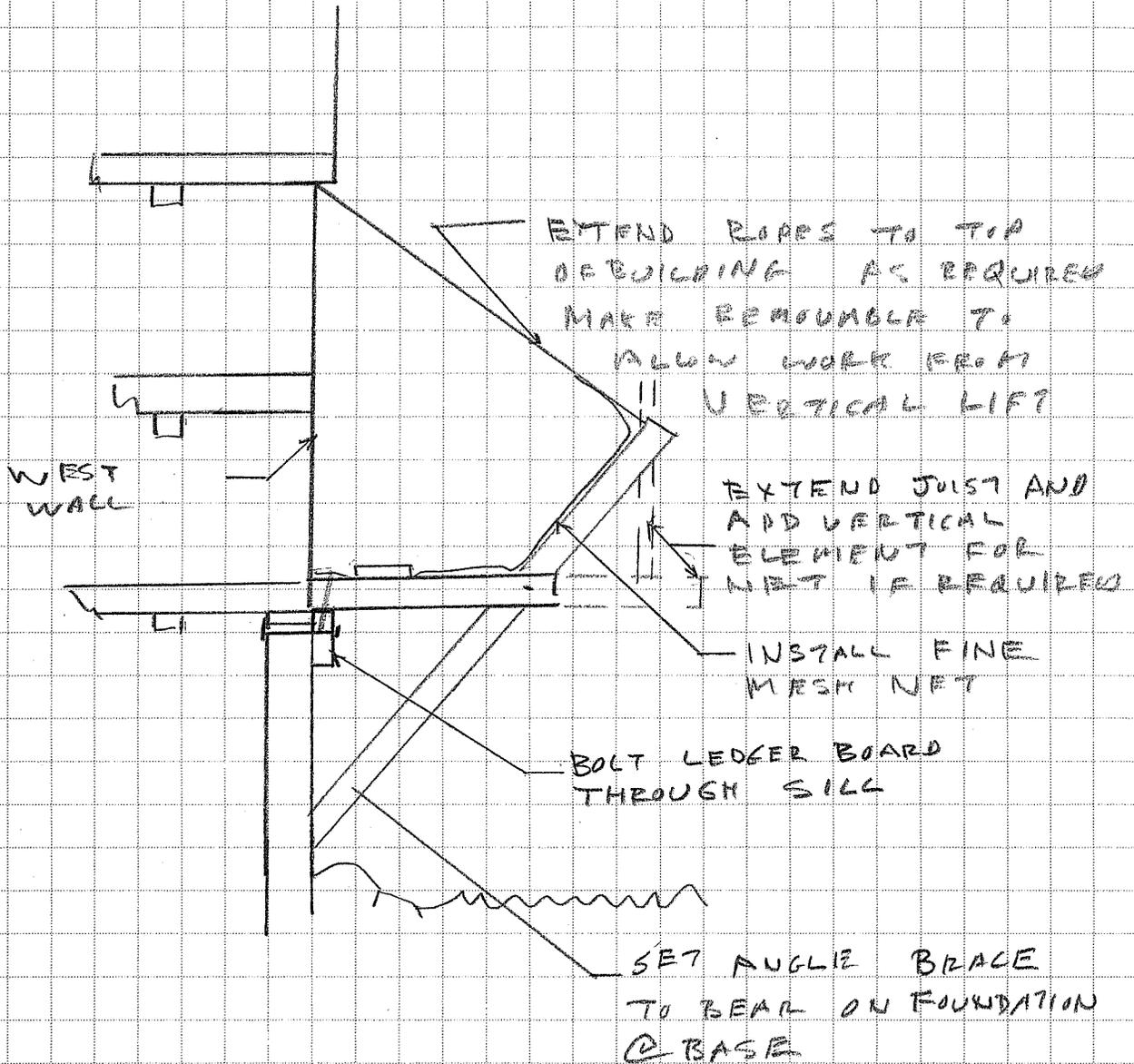
JOB 50 DOWDELMILL RD 11-24-10

SHEET NO. 2 OF 2

CALCULATED BY MTO DATE 11-24-10

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

SCALE \_\_\_\_\_



WEST SIDE NET DETAILS - NTS

**GENERAL NOTES:**

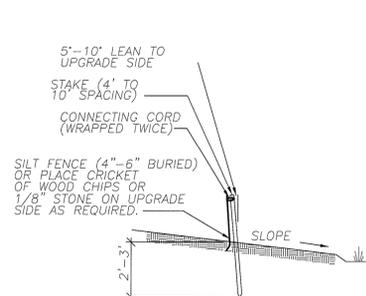
- Plans were prepared for named client and project. Reproduction in whole, in part or by adaptation for other purposes is expressly prohibited.
- Drawings shall not be scaled. If clarification of intent is REQUIRED, contractor shall obtain prompt clarification prior to continuing work.
- Contractor shall visit site prior to initiation of work and shall notify ACTON SURVEY & ENGINEERING, INC. and owner of any discrepancies with site conditions, or proposed construction, on date discovered.
- Contractor shall be responsible for coordinating proposed construction with existing conditions.
- Contractor shall notify Dig-Safe [1-888-344-7233] and verify all underground utilities prior to construction.
- Contractor shall be responsible for obtaining all necessary permits and licenses.
- All work shall conform to all local and state regulatory agencies and utility company requirements.
- Upon entering the site, the contractor shall become responsible for all erosion control, dewatering and shall undertake all measures to protect wetlands, the drainage system and streets from siltation and dust.
- Contractor shall be responsible for repairing any damage caused to roads, walks, utilities, site improvements [existing or proposed] both inside and outside the limit of work if damage due to work directly associated with this project.
- Existing utilities shall be maintained in service as required by the use of site and adjacent properties. Relocate utility lines as required.
- The drainage system shall be maintained and functional during construction and all catch basins, manholes & pipes shall be cleaned after the completion of the project.
- The "site plan" is based on topographic survey showing all visually apparent features of the site on the date(s) that surface explorations and topography were completed.
- No attempt was made, in preparing the plans, to ascertain the location of non-visually apparent subsurface utilities and structures, or conditions.
- The limit of work shall be as designated and / or the edge of the proposed grading and / or the property lines, if not indicated.
- Materials imported to the site shall be free of hazardous waste and noxious materials, stored as designated and shall not hamper the site activities.
- Materials exported from the site shall become the property of the contractor and be disposed of in a legal manner.
- All existing and new utility structures shall be adjusted to finished grades. Setting of rims temporarily at binder course may be required.
- All water mains, water services and force mains shall have a five (5') foot minimum cover.
- All pavements shall be cut to a vertical face outside limits of prior disturbance and prior to installing adjacent new pavements. All new pavements shall be installed in a manner that is uniform, with watertight joints resulting.
- The project shall be complete when the site is found to be litter/debris free, erosion resistant, all erosion barriers are removed and pavements, catch basins, manholes and pipes are clean.
- The contractor shall clearly mark the limits of work in the field prior to the start of construction.
- Hauling of earth to or from the site shall be done between the hours of 9:00 a.m. and 4:00 p.m. on weekdays only.

**SITE NOTES:**

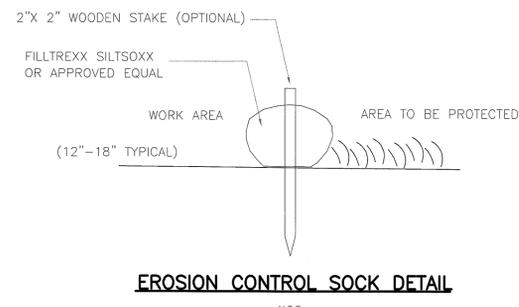
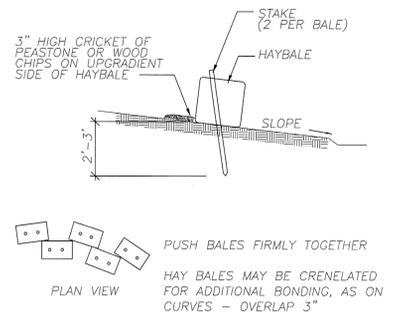
- There will be a decrease in impervious area as a result of the landscape areas and a Site Plan Special Permit will not be required.
- A Notice of Intent must be filed prior to any exterior alterations.
- A Special Permit, Acton Zoning Bylaw 4.1.8, must be filed prior to any exterior grading for work in the Floodway Fringe.

**Notice of Intent Amend Notes**

- The bank of the Assabet River is to be protected at all times and no actions shall be taken that will cause erosion of its bank.
- A silt fence shall be installed as shown on the plans to serve as a limit of work a second fence consisting of a plastic construction fence shall be installed to serve as a limit of travel for motorize equipment.
- Tree branches extending over or within ten feet of the building can be removed and trees that are deemed to be unstable may be removed if approved by the Conservation Commission or its designated agents. All materials shall be removed from site on the date generated or chipped for erosion control.
- The chimney shall not be knocked down. It shall be removed in pieces that shall be transported without ground contact to equipment within the construction fence for transport to trucks in the paved area for offsite disposal. All chips and other debris shall be removed from the ground and the area of removal shall be covered with crush stone.
- Prior to the initiation of the foundation removal and replacement the contractor shall provide the Conservation Commission with a construction schedule and a properly secured construction sock shall be placed outside the construction fence. The removal and replacement of the foundation shall be scheduled for completion in a work week.
- A three foot wide crush stone shall be placed across the rear of the building to serve for construction access by foot and to serve as a drip line for roof runoff after construction. The stone may be increased to a width of five feet if desired and if the increase in width does not harm trees or result in grading or other impacts.
- During the roofing and siding of the rear portions of the building the silt fence shall be properly maintained and replaced as necessary.
- During all phases of construction the site shall remain litter free and containers shall be available to receive all wastes and debris. A container may, with the approval of the Commission, be located on the east side of the building for a short period for receiving wastes having to do with the renovation of rear of the building. The container serving the rear of the building shall be removed when renovations at the rear of the building are ceased for over a five day period or if flood conditions are expected.
- Liquid wastes shall not be disposed of in the containers and shall be place in containment devices for proper offsite disposal.
- The rehabilitation of the stormwater management basin shall be detailed by an engineer and submitted to the Conservation Commission or their approved agent for approval prior to the required rehabilitation work being performed.
- Prior to the grading for the handicapped access being performed a erosion sock weighted down with sand bags, or other weights, shall be installed as shown.
- The grading shall only be performed when paving will occur within the same workweek.
- Prior to the moving, or demolition of 56 a weighted erosion sock shall be placed as shown. If the building, or a portion of the building, is to be demolished it shall be loaded directly to trucks for removal offsite.
- The foundation of 56 and utility connections shall be promptly removed, terminated or crushed and backfilled as appropriate and the area shall be promptly paved or left in a manner that will not allow runoff from the backfilled excavation to flow to the pavement. The erosion sock shall be left in placed until the area is paved.
- The site will not be considered completed until all surfaces are erosion resistant and the barriers are removed.

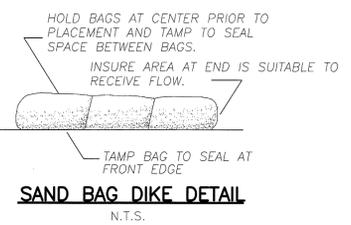


- NOTES:**
- FENCES SHALL BE LOCATED AT LIMIT OF WORK, OR AS SHOWN ON PLANS.
  - PENETRATE OR "SNUG" GROUND WITH BOTTOM FOR ENTIRE LENGTH.
  - DO NOT INSTALL IN A MANNER WHICH WILL CONCENTRATE RUNOFF.
  - BACK FENCE WITH STAKED HAYBALES IN HIGH RISK AREAS.
  - MAINTAIN AND REMOVE FENCE AS REQUIRED.
  - REMOVE PRODUCTS OF EROSION FREQUENTLY.

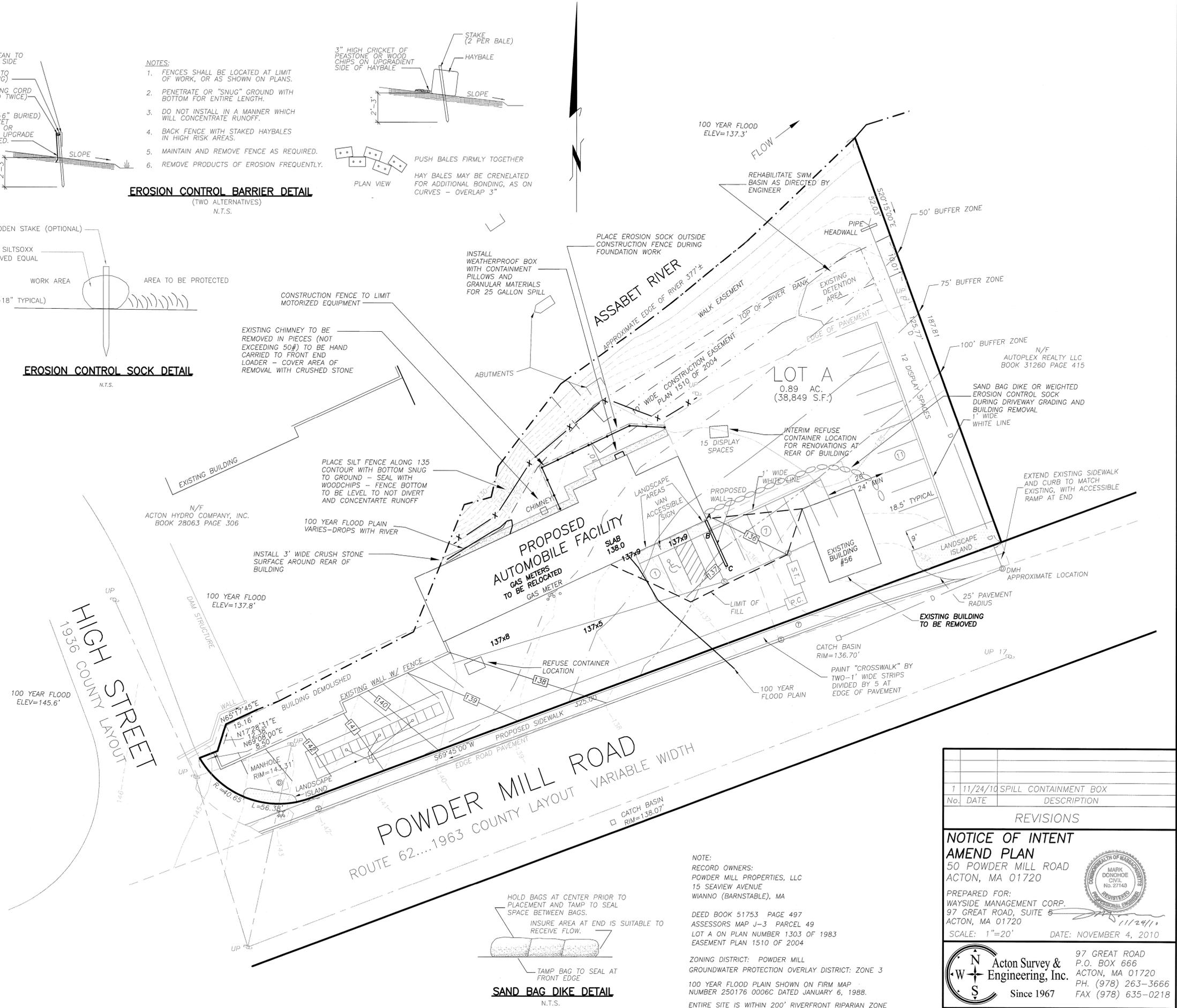


**EROSION CONTROL BARRIER DETAIL**  
(TWO ALTERNATIVES)  
N.T.S.

**EROSION CONTROL SOCK DETAIL**  
N.T.S.



**SAND BAG DIKE DETAIL**  
N.T.S.



**NOTE:**  
RECORD OWNERS:  
POWDER MILL PROPERTIES, LLC  
15 SEAVIEW AVENUE  
WIANNO (BARNSTABLE), MA

DEED BOOK 51753 PAGE 497  
ASSESSORS MAP J-3 PARCEL 49  
LOT A ON PLAN NUMBER 1303 OF 1983  
EASEMENT PLAN 1510 OF 2004

ZONING DISTRICT: POWDER MILL  
GROUNDWATER PROTECTION OVERLAY DISTRICT: ZONE 3

100 YEAR FLOOD PLAIN SHOWN ON FIRM MAP  
NUMBER 250176 0006C DATED JANUARY 6, 1988.

ENTIRE SITE IS WITHIN 200' RIVERFRONT RIPARIAN ZONE

1	11/24/10	SPILL CONTAINMENT BOX
No.	DATE	DESCRIPTION

**REVISIONS**

**NOTICE OF INTENT AMEND PLAN**  
50 POWDER MILL ROAD  
ACTON, MA 01720

PREPARED FOR:  
WAYSIDE MANAGEMENT CORP.  
97 GREAT ROAD, SUITE 5  
ACTON, MA 01720

SCALE: 1"=20'      DATE: NOVEMBER 4, 2010

Acton Survey & Engineering, Inc.  
Since 1967

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