1/23/06 -(7)

STAMSKI AND MCNARY, INC.

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WILLIAM F. MCNARY, P.L.S.
JOSEPH MARCH, P.E., P.L.S.

January 10, 2006

Acton Board of Selectmen
c/o Garry Rhodes
472 Main Street
Acton, MA 01720

Re: 144 Great Road
Site Plan Revisions

Members of the Board,

Enclosed are 5 copies of the revised Site Plan for the referenced site. A lighting plan is also attached. The site plan has been revised to address Town Staff comments in interdepartmental communications. The responses, which follow, address comments of the noted staff members and are presented in the outline form of the respective communications.

Roland Bartl, Town Planner, ID-Communication Date: November 23, 2005

1. No response needed.

2. The building commissioner has indicated that the Zoning Bylaw requires pavement.

3. Easements will be granted for the sidewalk along Great Road as needed. Utilities have been avoided with the current layout of the sidewalk. The Town will be the applicant for the sidewalk approval from the state, as has been done in the past, with the Site Plan applicant preparing the application package.

4. No response needed.

5. The applicant is willing to consider granting a 20 foot wide easement over the property from Great Road to the Bruce Freeman Trail in lieu of constructing the sidewalk between the existing driveway and the southerly property line.

Dean A. Charter, Mun. Prop. Dept., ID-Communication Date: November 8, 2005

1. No response needed.

2. The applicant is willing to consider granting a 20 foot wide easement over the property from Great Road to the Bruce Freeman Trail in lieu of constructing the sidewalk between the existing driveway and the southerly property line

Art Wu, Transportation Advisory Committee, e-mail **Date: November 22, 2005**

The standard width requirement for sidewalks, according to the Site Plan Regulations, is 5 feet as proposed. Due to the budgetary constraints of this project, the applicant is unable to offer a more generous width as requested. Otherwise, the layout of the sidewalk is very consistent with the recommended design standard provided by the TAC.

Engineering Department Communication **Date: November 23, 2005**

1. Other Permits and Variances

    1. Applications for the necessary State Permits for work within Great Road have been prepared.

2. Drainage Calculations

    A. Curve Number Calculations

        a. The patio area and existing driveway have been removed from the curve number calculations since the runoff will be infiltrated in the infiltration trenches. The lengths of the infiltration trenches have been labeled on the Grading and Utilities Plan and the Detail Sheet. The infiltration trenches have been added to the Operation and Maintenance Plan. Inspection ports have been added to the infiltration trenches.

        b. Post construction subcatchment 1B had the same area as pre construction subcatchement 1 since some of the roof runoff will be infiltrated in the trench in exchange for some walk surface runoff. Nevertheless, additional infiltration trench has been added to assuage the concern and the trench calculations have been updated and are attached.

3. Plans

    A. A north arrow has been added to the landscape plan.

4. General Site Characteristics

    A. The setbacks for the building have been shown on the plan.

5. Natural Site Characteristics.

    A. Spot grades have been shown along Great Road to avoid puddles.

    B. A second temporary benchmark has been shown on the plan.

    C. The stone bound at the angle point in the layout was not found. The applicant prefers not to incur the additional expense of resetting the bound, given the tight budgetary constraints of the project.

D. General Note #12 has been corrected to read Great Road.

6. Site Improvements

A. The traffic sign on the northerly side of the property near Great Road has been shown on the Existing Conditions Plan.

B. Two sign locations have been identified on the plans.

C. The existing driveway constitutes one driveway. It is effectively used as a one way on each side of the island and actually crosses the highway layout line in a monolithic paved surface. Therefore, it is acceptable as shown and has been confirmed with the Building Commissioner..

D. The sidewalk in front of the building has been reconfigured to allow for a grass strip.

E. The sidewalk will not interfere with the existing stone bound as presently proposed.

F. The sidewalk has been moved away from UP #20/38.

G. The applicant is willing to grant an easement for the sidewalk along Great Road.

H. A railing has been proposed at the existing culvert as suggested.

I. The proposed driveway has been located at the most distant point from the potential traffic signal. The sidewalk along Great Road is proposed at a grade that will be suitable for a potential crosswalk.

J. The handicapped parking sign has been labeled on the Drainage, Grading and Utilities Plan.

K. The Fire Chief has reviewed and accepted the plan.

L. A potential pedestrian access from the Bruce Freeman Trail to the business may be considered in the future.

M. The 10 foot landscape strip has been shown around the turnaround.

N. No response needed.

O. No response needed.

P. No response needed.

7. Site Utilities

A. The minimum allowable cover over the ADS pipe has been shown in the Typical Drain Trench Detail.

B. The two nearest fire hydrants have been shown on the Existing Conditions Plan.

8. Waste Disposal Facilities

A. The waste disposal will be handled internally.

9. Construction Details

A. A patio detail has not yet been developed. It will be surfaced with pavers, concrete or bituminous concrete. Details could be provided prior to issuance of a building permit if required.

B. A brick walkway detail will be provided on the landscape plan.

C. The sidewalk cross-slope has been changed to 3/16 of an inch per foot on the typical detail. A note referencing General Note # 10 on Sheet 2 of 3 has been added to the detail also.

D. A flap valve has been added to the second outlet of the diversion manhole. The operation and maintenance plan has been updated to identify the O&M of the flap valves.

E. The filter fabric has been removed from the bottom of the proposed infiltration trenches. The fabric has been kept under the peastone layer since it is an integral part of the maintenance of the trenches. See O&M plan.

10. Floor Plans

A. The floor plans are not to scale.

Alison Trout, Recreation Director, Memo **Date: October 31, 2005**

The applicant is willing to consider granting a 20 foot wide easement over the property from Great Road to the Bruce Freeman Trail in lieu of constructing the sidewalk between the existing driveway and the southerly property line.

Doug Halley, Health Director, ID-Communication **Date: November 7, 2005**

1. A new Sewage Disposal System Design will be submitted to the Health Department.

2. The ID's, or Inline Drains, simply collect surface runoff from low points in the lawn not groundwater. Therefore, the setback is 10 feet to the soil absorption system.

3. The proposed infiltration bed has been set back 5 feet from the proposed retaining wall.

4. The vent for the soil absorption system has been shown on the plan.

5. The revised sewage disposal plan will require sch 40 pvc in the soil absorption system.

6. Trash will be handled internally.

We hope that the information provided is helpful in resolving the project issues. We look forward to discussing the project with you at the public hearing. Please call our office if you have any further questions.

Respectfully yours,

Stamski and McNary, Inc.

George Dimakarakos, P.E.

Joseph March, P.E., P.L.S.

cc: Bravery Realty Tust

INFILTRATION TRENCH CALCULATIONS

JOB: SM-3684

Calculateed by: GD

Date: 01/10/05

INFILTRATION OF DRIVEWAY AND PATIO RUNOFF

Driveway Turnaround

AREA (S.F.)= 2614 DESIGN STORM = 100 YEAR RATE (MIN/IN)= 2

CN= 88.2 RAINFALL (IN)= 6.4

RUNOFF Q(IN)=(P-0.2S)^2/(P+0.8S)= 5.03

S=1000/CN-10= 1.34

RUNOFF VOLUME = AREA x Q= 1097 CF

WIDTH OF INFILTRATION TRENCH = 1 FT

DEPTH OF STONE IN TRENCH = 1 FT

LENGTH OF INFILTRATION TRENCH = 60 FT

BOTTOM LEACHING AREA = L x W = 60.00 SF

24 HR INFILTRATION:

LEACH AREA / INF RATE x 24 HR (C.F.) = 3600 CF

3600 CF > 1097 CF O.K.

Patio Area

PAVED AREA (S.F.)= 1950 DESIGN STORM = 100 YEAR RATE (MIN/IN)= 2

CN= 98 RAINFALL (IN)= 6.4

RUNOFF Q(IN)=(P-0.2S)^2/(P+0.8S)= 6.16

S=1000/CN-10= 0.20

RUNOFF VOLUME = AREA x Q= 1001 CF

WIDTH OF INFILTRATION TRENCH = 1 FT

DEPTH OF STONE IN TRENCH = 1 FT

LENGTH OF INFILTRATION TRENCH = 65 FT

BOTTOM LEACHING AREA = L x W = 65.00 SF

24 HR INFILTRATION:

LEACH AREA / INF RATE x 24 HR (C.F.) = 3900 CF

3900 CF > 1001 CF O.K.