ACTON PLANNING BOARD

FORM DIR

DEVELOPMENT IMPACT REPORT

The Development Impact Report (DIR) is intended to serve as a guide to the applicant in formulating the development proposal, as well as a guide to the Planning Board in its evaluation of the proposed development in the context of existing conditions and planning efforts by the Town. The DIR should be prepared as early in the development process as possible, even if certain aspects are unknown at that time. It is recommended that the various aspects of the DIR, together with a conceptual development plan, are discussed with the Planning Department staff as soon as possible, prior to the filing of an application for approval of a preliminary plan.

The DIR seeks to raise the broad range of issues generally associated with development plans in a form and in a language that is understandable to a layperson. It assesses development impacts which could possibly be avoided or mitigated if recognized early in the development process. Other portions of the DIR request information which will help the Town plan ahead and ensure adequate services in the future. It is the hope of the Planning Board that the use of the DIR, along with early consultations with the Planning Department staff and the applicant's continuing cooperation throughout the development process, will foster a development of excellent quality and design sensitive to Acton's natural and historic heritage and other community concerns.

The DIR shall be filed with an application for approval of a preliminary and a definitive subdivision plan. The DIR shall clearly and methodically assess the relationship of the proposed development to the natural, physical, and social environment. In preparing the DIR, professionals of the respective fields shall be consulted and a systematic, interdisciplinary approach shall be utilized which will ensure the integrated use of the natural and social sciences and the environmental design arts in planning, designing and engineering of the proposed project.

DEVELOPMENT IMPACT REPORT

Please type or print information in blanks below.

1. Name of Proposed Subdivision "Hayward Farm"

2. Location 121 Hayward Road

3. Name of Applicant(s) Acton Management, Inc.

4. Brief Description of the Proposed Project Proposed 4-lot Residential Compound Subdivision and 2 ANR lots on 4.45 acre tract on north side of Hayward Road in R-2 zoning district

5. Name of Individual Preparing this DIR Scott P. Hayes, PE
   Address FORESITE Engineering Business Phone (978) 461-2350
   16 Gleasondale Road, 1-1, Stow, MA 01775

6. Professional Credentials Massachusetts Registered Professional Civil Engineer #41017
   MA DEP Certified Soil Evaluator SE#1030

A. Site Description

7. Present permitted and actual land uses by percentage of the site.

Uses	*Percentage*
Industrial	0%
Commercial	0%
Residential	100%
Forest	0%
Agricultural	0%
Other (specify)	0%

8. Total acreage on the site: 4.45 acres.

Approximate Acreage	*At Present*	*After Completion*
Meadow or Brushland (non agriculture)	N/A	N/A
Forested	4.35	1.95
Agricultural (includes orchards, cropland, pasture)	N/A	N/A
Wetland	N/A	N/A
Water Surface Area	N/A	N/A
Flood Plain	N/A	N/A
Unvegetated (rock, earth, or fill)	N/A	N/A
Roads, buildings and other impervious surfaces	0.10	0.60
Other (indicate type) Lawn/landscaping	N/A	1.90

9. List the zoning districts in which the site is located and indicate the percentage of the site in each district. *Note: be sure to include overlay zoning districts.*

District	***Percentage***
Residence 2 (R-2)	100%

10. Predominant soil type(s) on the site: Paxton, NRCS Soil Map Units 307B & 307C

Soil drainage (Use the US Natural Resources Conservation Service's definition)

Soil Type	***% of the Site***
Well drained	100%
Moderately well drained	
Poorly drained	

11. Are there bedrock outcroppings on the site? X yes ____ no

12. Approximate percentage of proposed site with slopes between:

Slope	***% of the Site***
0 - 10%	100%
10 - 15%	
greater than 15%	

13. In which of the Groundwater Protection Districts in the site located? How close is the site to a public well? Zone(s) 4 Proximity to a public well: 8,200+/- feet

14. Does the project site contain any species of plant or animal life that is identified as rare or endangered? (Consult with the Massachusetts National Heritage Program and the Acton Natural Resources Director). ____ yes X no

If yes, specify:

15. Are there any unusual or unique features on the site such as trees larger than 30 inches D.B.H., bogs, kettle ponds, eskers, drumlins, quarries, distinctive rock formation or granite bridges?
X yes ____ no

If yes, specify: Several oak trees over 30" DBH; substantially large and specimen trees identified on Existing Conditions Plan (Sheet 2)

16. Are there any established foot paths running through the site or railroad right of ways?
____ yes X no

If yes, specify:

17. Is the site presently used by the community or neighborhood as an open space or recreation area?
____yes __X__no

Is the site adjacent to conservation land or a recreation area?_____yes __X__no

If yes, specify:_____

18. Does the site include scenic views or will the proposed development cause any scenic vistas to be obstructed from view?_____yes __X__no

If yes, specify:_____

19. Are there wetlands, lakes, ponds, streams, or rivers within or contiguous to the site?
__X__yes ____no

If yes, specify: Intermittent stream running through the site south to north; boundaries confirmed by Order of Resource Area Delineation issued by Conservation Commission

20. Is there any farmland or forest land on the site protected under Chapter 61A or 61B of the Massachusetts General Laws? ____yes __X__no

If yes, specify:_____

21. Has the site ever been used for the disposal of hazardous waste? Has a 21E Study been conducted for the site? ____yes __X__no

If yes, specify results:_____

22. Will the proposed activity require use and/or storage of hazardous materials, or generation of hazardous waste? ____yes __X__no

If yes, specify_____

23. Does the project contain any buildings or sites of historic or archaeological significance? (Consult with the Acton Historic Commission or the Action Historical Society.)
___yes X_no

If yes, please describe_____

24. Is the project contiguous to or does it contain a building in a local historic district or national register district? ___yes __X__no

25. Is the project contiguous to any section of the Isaac Davis Trail? ___yes X no

If yes, please describe _____

B. Circulation System

26. What is the average weekday traffic and peak hour traffic volumes generated by the proposed subdivision?

Average weekday traffic		40
Average peak hour volumes	morning	3.2
Average peak hour volumes	evening	4.2

27. Existing street(s) providing access to proposed subdivision:

Name Hayward Road Town Classification Collector

28. Existing intersection(s): list intersections located within 1000 feet of any access to the proposed development:
Name of ways Joseph Reed Lane, Andrew Drive

29. Location of existing sidewalks within 1000 feet of the proposed site? Existing sidewalk on north side of Hayward Road from Arlington Street to a crosswalk at ABRHS near Charter Road

30. Location of proposed sidewalks and their connection to existing sidewalks:
In lieu of a sidewalk on proposed street frontage, applicant is proposing a sidewalk from the existing crosswalk in Hayward Road at Joseph Reed Ln, thence along the east side of Joseph Reed Lane to the gutter rounding at Brown's Lane (see Sheet 6 for proposed layout)

31. Are there parcels of undeveloped land adjacent to the proposed site? ___yes X no

Will access to these undeveloped parcels been provided within the proposed site?
___yes ___no

If yes, please describe _____

If no, please explain why No undeveloped parcels adjacent to the project site

C. Utilities and Municipal Services

32. If dwelling units are to be constructed, what is the total number of bedrooms proposed?
16 bedrooms (in subdivision) 8 bedrooms (ANR lots)

33. If the proposed use of the site is nonresidential, what will the site be specifically used for and how many feet of Gross floor area will be constructed? _____

34. How will sewage be handled? Individual lot on-site sewage disposal systems

35. Storm Drainage

a. Describe nature, location and surface water body receiving current surface water of the site:

Surface drainage currently runs overland northerly and is collected by a minor intermittent stream that is tributary to Grassy Pond Brook via Kennedy Drive drainage system to the north.

b. Describe the proposed storm drainage system and how it will be altered by the proposed development: Increases in runoff rate and volume will be managed on site by a retention basin that will collect street and other surface drainage and retain and infiltrate it in the basin so as to not increase off-site rate or volume of stormwater runoff for the design storms analyzed. Pretreatment is provided by hydrodynamic separator (Stormceptor). Drainage system complies with DEP Stormwater Management Standard requirements.

c. Will a NPDES Permit be required? X yes ___ no

36. In the event of fire, estimate the response time of the fire department (consult with Fire Dept.) 2 minutes

37. Schools (if residential)
    a. Projected number of new school age children: 0.7 x 8 units = 5.6; round to 6 students
    b. Distance to nearest school: ABRH School complex is approximately 1,500 feet east of site

D. Measures to Mitigate Impacts

Attach brief descriptions of the measures that will be taken to:

38. Prevent surface water contamination.

39. Prevent groundwater contamination.

40. Maximize groundwater recharge.

41. Prevent erosion and sedimentation.

42. Maintain slope stability.

43. Design the project to conserve energy.

44. Preserve wildlife habitat.

45. Preserve wetlands.

46. Ensure compatibility with the surrounding land uses.

47. Control peak runoff from the site so that the post-development rate of runoff will be no greater than the predevelopment rate of runoff for the 10-year storm event.

48. Preserve historically significant structures and features on the site.

49. To mitigate the impact of the traffic generated by the development.

DEVELOPMENT IMPACT REPORT ADDENDUM

"Hayward Farm" Definitive Subdivision Application

38. To prevent surface water contamination, all storm water runoff from paved surfaces will be collected and treated with a hydrodynamic separator (Stormceptor) and directed to an infiltration basin for infiltration and controlled release to the adjacent down-gradient intermittent stream.

39. Groundwater contamination occurs when sewage leaching facilities are located too close to ground water, and thereby undergo little filtration through natural soils. To prevent groundwater contamination, sewage disposal systems will be constructed a minimum of 4-ft above the estimated seasonal high groundwater elevation and within soils determined by, methods established by the Massachusetts Department of Environmental Protection and Town of Acton Health Department, to be suitable for such leaching facilities.

40. An infiltration basin is proposed to retain and infiltrate treated stormwater on site. The drainage calculations demonstrate greater recharge under proposed conditions than existing conditions (post-development runoff volume is less than pre-development runoff volume).

41. Erosion and sedimentation occur primarily during construction from earth cutting and filling operations prior to stabilization of slopes and from leaving disturbed soils unstable. The subdivision proposed conforms well to the existing grade, with very little cutting or filling required for construction. Additionally, the following methods are proposed to control erosion and sediment migration during construction:

    1. Limiting the amount of clearing to only that which is required to construct improvements and demarking limits of site disturbance with erosion control barriers or construction fence as appropriate.

    2. Utilizing hay bale velocity check dams during road construction.

    3. Providing temporary inlet protection at all drainage inlets (surround catch basins with hay bales, place hay bales at drain pipe inlets and outlets, basin inlet, basin overflow weir), silt sacks in catch basins until the site is suitably stabilized.

42. The project will not create any substantial cut or fill slopes. Slope stability will be maintained by attending to disturbed slopes in a timely manner

(spreading loam and seeding within a short time period after establishing final grades).

43. Due to the relatively small magnitude of the subdivision (4 new houses) and the minimal anticipated maintenance required, the subdivision will have negligible impact on local energy consumption.

44. The development has been designed to utilize the most suitable areas for development and leaves critical wildlife habitat areas largely intact (the intermittent stream and immediately adjacent upland areas on both sides) in its current naturally wooded state.

45. The project will not disturb any wetland resource area and the proposed site design conforms to the Town of Acton Wetland Bylaw Regulations with respect to minimum required setbacks and MA DEP Stormwater Management Standards. The proposed retention basin (a wetland dependent structure) is located adjacent to the intermittent stream to which it discharges and will require an Order of Conditions from the Acton Conservation Commission. Minimal site work (in compliance with Acton Wetland Bylaw regulations) associated with the construction of dwellings on Lots 1, 2 & 3 will occur between the 50-ft and 100-ft buffer zones and will require Orders of Conditions from the Acton Conservation Commission.

46. Surrounding land uses are residential, single family home uses. The proposed development is compatible with the like surrounding uses.

47. A retention basin is proposed to retain, infiltrate and release treated stormwater to the adjacent intermittent stream. Peak off site runoff rates and volumes will be maintained at current values or marginally reduced for the 2-yr, 10-yr and 100-yr design storms. Peak runoff rates from the site will not be increased for the 10-yr design storm. Please refer to the drainage report for a more comprehensive analysis of the drainage system design.

48. No historically significant structures or features on site.

49. With a net increase of only 3 new lots proposed by this subdivision, the average daily traffic to Hayward Street will increase from approximately 10 to 40 vehicle trips per day by the subdivision roadway. This is a relatively small volume of traffic. The low volume of traffic and the fact that a cul-de-sac (not a through street) is proposed should ensure that there is no significant change to the existing traffic patterns in the area.