

**NEW BUILDING AT
TISBURY MARKETPLACE**

**79 beach Road
Vineyard Haven, Massachusetts
February 2010**

HISTORY AND BACKGROUND

The Property as we Found It

Tisbury Market was built in the early 1980's on property then known as Duarte Village. Indeed there were enough buildings on the property to make a village had they not been so deteriorated and so haphazardly placed. There were five ramshackle houses, one a lean-to set half in the ground at the water's edge, a cinder block warehouse, a large concrete platform, several garages and sheds, three buildings of unknown purpose and two commercial structures, so designated only because they happened to house actual businesses. None were even close to code conforming; the typical septic system was a 50 gallon oil drum with holes drilled in it.. In addition there were abandoned cars and a bus, rusting machinery, and debris scattered about.

It was clear that all this had just happened over the years, with no plan and no thought to the long term. Most people didn't even realize that the property bordered Lagoon Pond because you couldn't see the water for all the buildings and debris in the way.

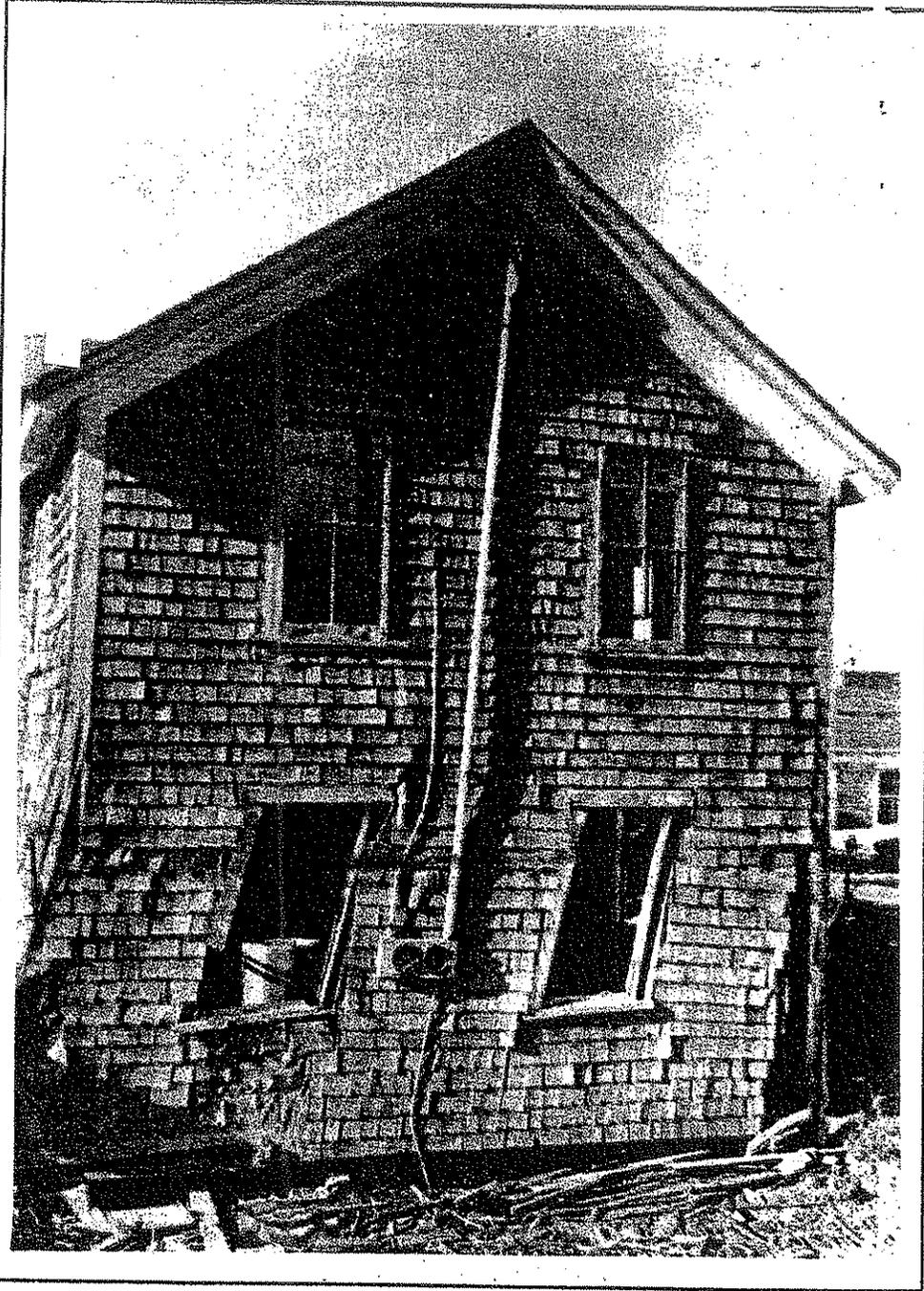
The Tisbury Marketplace Concept

If one bothered to look there was actually a lovely view of the Lagoon's West Arm with Hine's Point beyond. In the foreground was Ferryboat Island (also part of the property), so named because it was a ferry terminus in the days prior to construction of the Lagoon Bridge. A deteriorating foot bridge connected the Island to the shore.

This view became the driving force behind the design of the Marketplace. We resolved that every store and office, and every visitor would be treated to this view. We also noted that the two aforementioned commercial buildings (the current site of the Net Result and Saltwater Restaurant), although in poor condition, could serve as "book ends" to the Beach Road frontage and remain as reminders of the past. The remainder of the structures were demolished, as we could not postulate how they could contribute to a coherent plan for the property.

The plan called for setting the buildings back from the water in an "L" to give a sense of enclosure and to capture the view for all. They were raised on piles above the flood level. Public parking would be inside the "L" with employee parking in the rear and out of sight. Most didn't realize that the landscaped berm in the center of the parking lot was actually a raised septic system, designed to gain legal elevation from ground water. It served to soften and separate the parking lot. Now that the town has sewer this is no longer functional but remains as a landscape feature.

Few people know that as part of the purchase of the property we also obtained Sarson's Island in Sengekontacket Pond. We donated this to Felix Neck Wildlife Refuge, a fact little noticed in the blare of controversy surrounding the development of the Marketplace.



The Marketplace Today

Throughout its 25 year history the project has had only the briefest of vacancies among its 26 stores and offices. It has been an unqualified success in this regard. Over the years all of the spaces have been individually purchased through a condominium regime. Today it is home to many familiar, long time businesses. Every one is Island owned and, except for brief respites, open year-round.

It is also the home of Gannon and Benjamin's boat construction business. G&B, one of the premier wooden sailboat builders in the world, have produced a number of classic boats here that lie in Vineyard Haven and other harbors.

In addition the lawn facing Lagoon Pond, which is well over an acre in size, and Ferryboat Island are a public resource enjoyed by picnickers, sunbathers, children and dog walkers.

It is safe to say that the Marketplace is a well known Island institution that has made a significant contribution to Island life and commerce.

DENSITY AND OPEN SPACE

Beach Road Properties Compared

It is interesting to compare the areas of Beach Road properties and the degree to which they have been developed. The attached aerial shows clearly that Tisbury Marketplace is developed to a density far less than the typical property along the road. Footprints of the Marketplace buildings occupy about 11% of the five acre property. Non permeable areas (roofs and paving) occupy only 18%. Many of our neighbors occupy from 50% to as much as 80% in these categories.

The addition contemplated by this application would increase the Marketplace densities to 12.3% in footprints and 18.9% in total non-permeable areas. (If Ferryboat Island is not counted the percentages would be about 17% and 24% respectively).

Public Benefit

Low density delivers a public benefit from that fact alone -- more air and openness is presumed to be more desirable. But low density does not necessarily convey a direct benefit. In the case of Tisbury Marketplace it does. The condominium association has always allowed public access to its waterfront area. The lawn is arguably the largest and most accessible private area along the town's waterfront, and a favorite among picnickers and dog walkers.

The condominium association has also indicated that it would grant an easement for a bike path along the water, which would open the area up to many more users. No other property along the path has as much to offer or is as crucial to this effort.

Future Development

It is logical to ask whether there are limits on development at the Marketplace, or whether this is just one of a series of applications that will continue to increase its density.

The original plans from the early 1980's always contemplated expansion of the facilities. In fact the condominium documents reserved certain development rights to the developer. The attached plat indicates these. There were originally three. The first, at the location of Saltwater Restaurant, has already been used. The second is the subject of this application. The third is the area between the two legs of the 1984 construction.

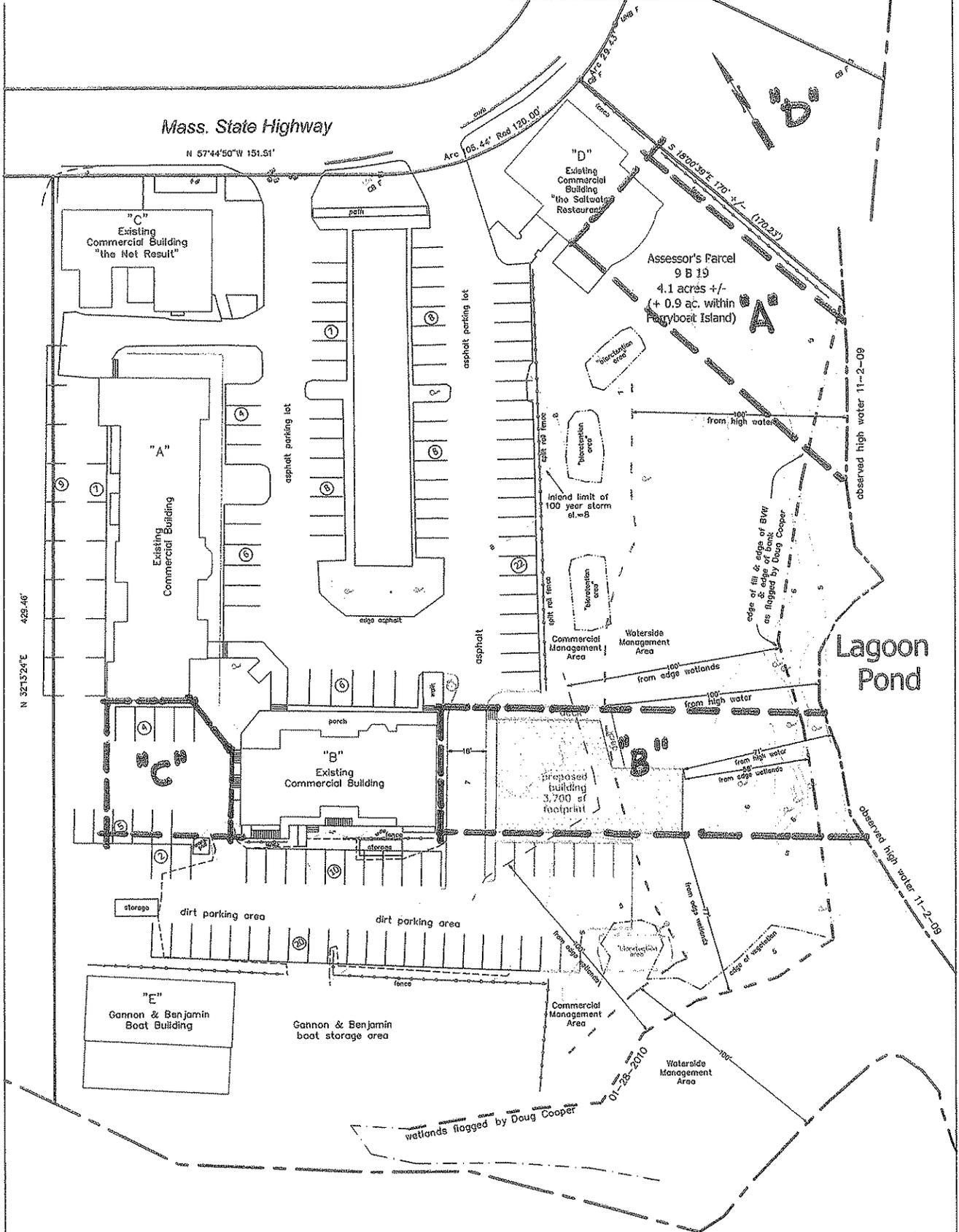
Accordingly, the maximum density of the Marketplace is controlled by the condominium documents and is limited to the areas shown in the plat. Documents memorializing this have been submitted to MVC staff.



Few, Peat Island

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Mass. State Highway

N 57°44'50"W 151.51'

Arc 05.44' Rad 120.00'

Assessor's Parcel
9 B 19
4.1 acres +/-
(+ 0.9 ac. within
Ferryboat Island)

Lagoon Pond

observed high water 11-2-09

Lagoon Pond

Site Plan
Tisbury, Mass.
Prepared For
Reid Dunn

Scale: 1" = 20' March 19, 2010

Schofield, Barbini & Hoehn Inc.
Land Surveying & Civil Engineering
12 Surveyor's Lane, Box 339
Vineyard Haven, Mass.
508-693-2781
www.sbhinc.net
MV 9850

Area Table:
Lot area = 4.1 acres +
0.9 acres within Ferryboat Island =
5.0 acres = 217,800 s.f.

Building Areas
9,515 sf (with pervious surface below - "A" + "B")
9,886 sf (with impervious surface below - "C" + "D" + "E")
3,700 sf (new - with impervious surface below)
13,586 sf (total impervious sf of "C" + "D" + "E" + new)

Paved Parking
23,856 sf
Impervious Surface = 17.2%
Building Footprints = 12.3%

WATER QUALITY

Runoff

Inasmuch as the Marketplace is now on public sewer the migration of nitrogen from septic effluents to Lagoon Pond is no longer a concern. What remains a concern is the runoff of storm water from roofs and parking areas.

Beach Road Properties Compared

Density of development has a direct correlation to the consequences of runoff. In the crudest analysis, the greater the percentage of non-permeable area the less the percentage of permeable area to contain and treat the runoff from the non-permeable areas. Tisbury Market has by far the lowest percentage of non-permeable area among developed Beach Road properties. The aerial photograph in the last tab illustrates this.

The threshold of permeable area under today's code is 60%. The threshold under a more restrictive measure imposed by the Tisbury Conservation Commission when permission was granted to pave the condominium parking lot is 50%. The project is not close in either case, being only 24%.

Existing Treatment of Runoff

Not only does the Marketplace enjoy an extremely low percentage of non-permeable area it is the only property in the Beach Road area that employs strategies to treat runoff. The original construction of the Marketplace included settling basins under the buildings. Water from the parking areas was led to these areas where it could accumulate and slowly percolate into the soil. This facility continues to operate today.

In addition, when portions of the Marketplace parking lot were paved the Tisbury Conservation Commission mandated the construction of three bio-retention filters to contain and treat runoff from the new paving. These filters consist of open settling basins containing special species of plants known to remove pollutants in runoff.

Proximity to Wetlands

The Tisbury Conservation Commission generally mandates a buffer area between buildings and wetlands or bodies of water. Where possible this buffer is 100 feet. In commercial areas these requirements may be less stringent owing to the scarcity of waterfront land and the necessity and/or desirability of locating certain types of uses near the water.

In fact the Town of Tisbury has created a new zoning category along Beach Road – the Waterfront Commercial District -- which encourages water related uses. It is divided into two sub areas. In the Waterside Management Area, which is the area lying within 100 feet of the water, “boatyards and other facilities relating to the construction, servicing, maintenance, repair or storage of vessels” are allowed as a matter of right, as are apartments. In the Commercial Management Area other uses by right are added to these, including restaurants, offices and retail stores. Portions of the Zoning law have been submitted to the MVC.

It is apparent from this zoning law that the Town has embraced the idea of a vibrant waterfront area containing a variety of mixed uses: apartments, restaurants, shops and offices, in addition to water related uses. It seems obvious that this has a cultural intent. The law states that its purpose, in part, is to “maintain and enhance the existing marine character.....encourage year round businesses.... promote public access to the water.” Tisbury Market does all of these things now and will continue to do them with the additions contemplated by this application.

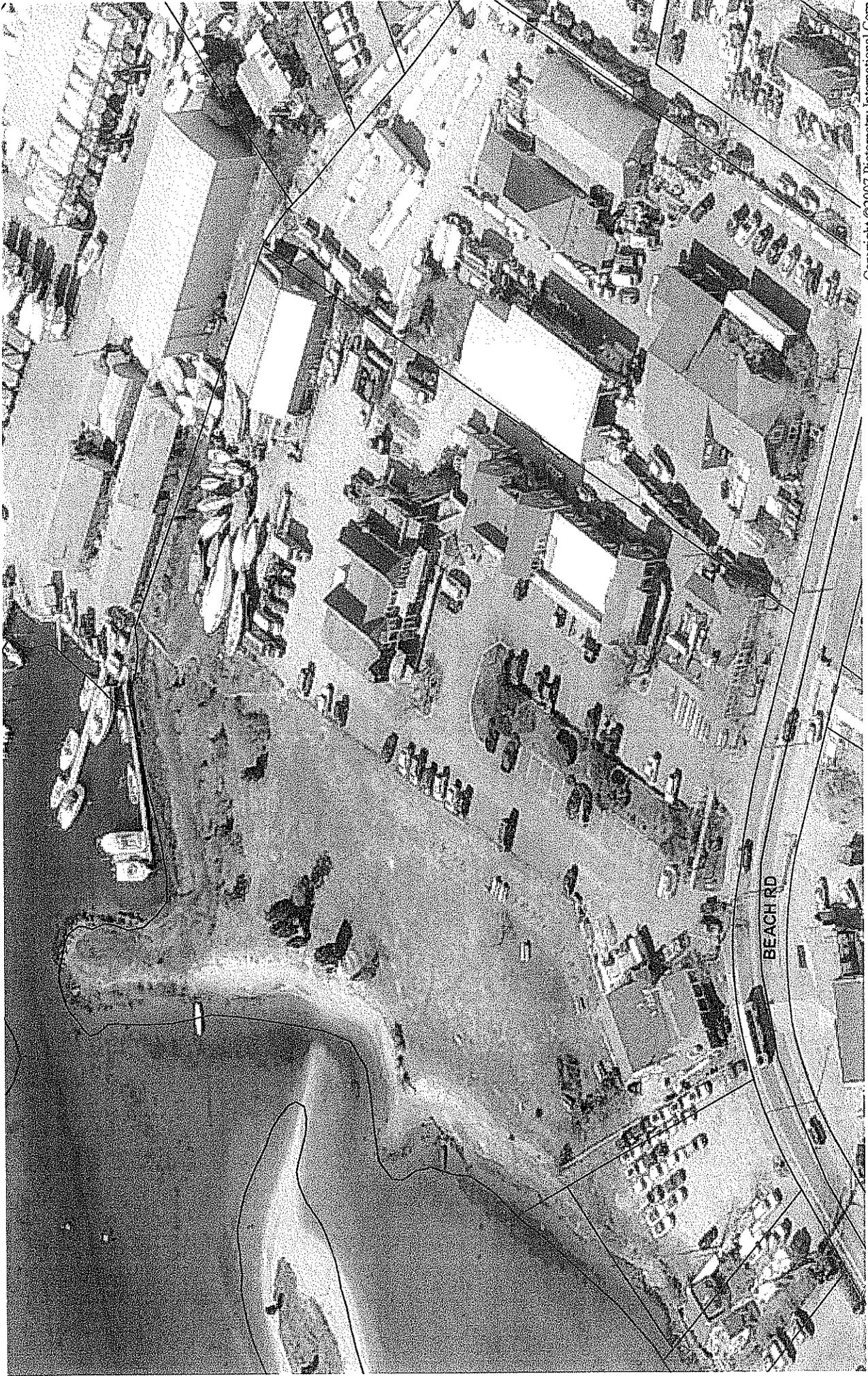
It is interesting to note that the marine uses contemplated by this law do not necessarily need to be located on the water in order to function, it is enough that they are water related, and that they promote the “marine character” of the area. So for example, a ship chandlery or a yacht broker could be located in the Waterside Area. The Gannon and Benjamin boat facility at the Marketplace is an illustration of this. While boats are stored, repaired and built here there is no connection to the waterfront. Boats are trucked to another location before launching.

Obviously there is a fundamental conflict between arms of the government. If the Conservation Commission mandates a 100 foot buffer from bodies of water, there can be no waterside development at all.

In reality, as can be seen in the aerial view, nearly all of the building along Beach Road is much closer to the water than 100'. In many instances parking and driveways are immediately adjacent to the Lagoon. Much of this was built prior to wetlands regulations, but not all. A number of facilities were permitted after the regulations. These include the parking lot just to the east of the Marketplace, where cars are allowed to the very edge of the water and the lot at 117 Beach Road which was recently asphalted. Fuel tanks were recently installed in beach sand at the Shell station across from the Marketplace. Even closer to home, the Gannon and Benjamin boat building facility and boat storage area at the Marketplace is hard by the wetlands for its full length of 250 feet, as is the large boat storage facility at Maciel Marine. This is well evident in the attached aerial.

New Construction

The building under this application makes a modest intrusion into the 100' buffer. However mitigation measures will totally prevent runoff from the new construction from



entering the Lagoon or adjacent wetland areas. The plan mitigates the effects with treatment of runoff in two ways.

First, while there is no net new parking for this project there is, behind the new building, a sand parking area for 9 cars. This is a replacement for an equal number of spaces currently located on an asphalt area that is to be demolished. So not only is asphalt being traded for sand, any runoff from this sand area will be contained and treated by a new bio-retention filter south of the building. This will be identical to the filters already existing at the Market Place, which were designed by the Woods Hole Group and sized to control a much larger area. Woods Hole has indicated that the test of operational viability of these bio filters is the health of the plants and the lack of pooling of water in the basins. By this standard the filters at Tisbury Market are working effectively.

Second, roof runoff will be captured by a "green" roof of succulent plants that absorb copious amounts of water in fleshy stems and leaves. The use of succulent plants eliminates the need for irrigation in all but the most severe droughts and ensures that when it does rain, up to 85% of the precipitation is taken into the soil and bodies of the plants. The "LiveRoof" brochure is hereby incorporated by reference. A palette of deciduous and evergreen plants compatible with the local climate, such as Sedum, Allium, Sempervivum, Euphorbia and Delosperma will be specified. These both store water and have a special type of metabolism called Crassulacean Acid Metabolism, CAM for short. CAM plants, under drought conditions, open their spores during the night instead of the day, when it is cooler and less windy. This obviously conserves water.

The main benefit of a green roof system in an environment such as Tisbury Market is reduction and treatment of runoff. The soil and plants act like a sponge, capturing as much as 85% of the water falling on the roof. The portion which does escape is filtered before returning to the ground, buffering acid rain and removing nitrates and other pollutants. Any escaping runoff will be further treated before entering the aquifer by routing it through one of the two nearby bio-retention filters. The benefits of green roofs are seen in several other ways, among them fire prevention, noise reduction and heat reduction.

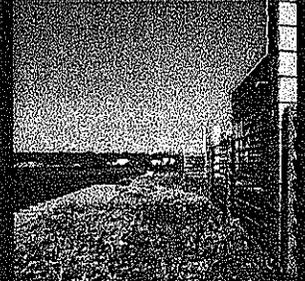
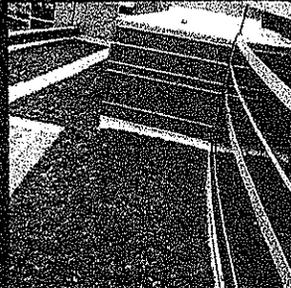
This roof is one of the first of its kind on the Island and the first green roof of any kind for a commercial building. The applicant has visited an installation of of this type and interviewed the landscape maintenance contractor for the installation. The contractor reports that no maintenance has been necessary since installation three years ago.



Project Showcase



Completed projects: Prevegetated Modular Green Roof System



DESIGN

Zoning

All aspects of the new design are in conformance with zoning. The existing project is non-conforming in two ways owing to changes in the zoning laws since the project was built. First, some of the older buildings exceed the current height limit of 28' above the flood level. The new buildings will not exceed the new height limit. Second, the parking in the project exceeds the current requirement that no more than 10% of the property can be devoted to driveways and parking. Since no new parking is required and none will be added, the non-conformity will not be increased. Portions of the current Zoning law have been submitted to MVC.

Architecture

The footprint of the addition is driven primarily by the line that differentiates the Waterside Area from the Commercial Area, this being a line 100' from the high water mark along Lagoon Pond. The portions of the building to the interior of this line will be for office and retail use; the portions outside will be for marine and residential uses.

The massing is driven primarily by the use of the green roof fronting onto the project common areas, which must necessarily be constructed on a flat structure. The green roof, located as it is in a very public place, will serve as a constant reminder to all who see it of the need to conserve energy and maintain water quality, and of new strategies to accomplish this. This is a more modern building that reflects the modern imperatives that it is required to meet.

The remainder of the roofs are a series of offset gables, leading to a coherent design vocabulary with the existing Marketplace and to meeting the requirements of the Tisbury Site Plan Review process. To achieve this under the current height limit of 28 feet has required minimal ceiling heights in the project. These will be mitigated by using exposed trusses on the retail floor and cathedral ceilings on the office and residential level.

Exterior Lighting

The only exterior lighting to be provided for the project will be incandescent recessed downlights on the exterior porches. These will be on a timer to come on at dusk and go off at 11 PM.

Landscaping

Areas indicated for landscaping at the bases of the building will be planted with shrubs similar to the existing plantings in the Marketplace. Please see the attached landscape

plan. The Market Place currently employs organic fertilizers and pesticides and will continue to do so in the future.

Traffic

A traffic and parking study for the project has been performed by C-3 Consulting Group, which is hereby incorporated by reference. In the words of the study “there are no significant deficiencies that would occur from an increase in traffic generated by the proposed building or by a commensurate increase in parking demand.” (Summary, Page 17). Moreover, “parking spaces proposed for the expanded Market Place are adequate to service the expected demand.” (Parking, page 12).

The project will contain no high traffic generating uses.

Flood Plain

The existing buildings at the Marketplace were constructed on piles to achieve compliance with flood hazard regulations. At the time the 100 year flood level was deemed to be 9.4 feet above sea level and the area was in a velocity zone, meaning that buildings had to be constructed so that flood waters could flow beneath the structure.

Since then FEMA has determined that the 100 year flood level is actually 8.0 feet above sea level and that the area is not in a velocity zone. Accordingly, compliance can be achieved by placing the ground floor at elevation 8.0 using conventional construction. It should be noted that it is far more energy-efficient for the floor to be on the ground than floating above it.

Energy Conservation

In addition to the green roof the project will employ high levels of insulation at every opportunity. Walls will be 2x6 with R-21, roofs 16” TJI with R-38. Windows will be 5/8” insulating glass, with U-Factor of 0.35 or better. All jambs and sills will be foamed. Thermostats will be fully programmable.

This configuration complies with the Massachusetts Energy code. A copy of the computer program run for the building is available upon request. Compliance is achieved in spite of the program’s inability to factor in the use of the green roof. In fact the roof is known to decrease interior temperatures in summer by 6-8 degrees Fahrenheit and air conditioning costs between 25% and 50%.

In addition roof temperatures in summer are reduced by as much as 80 degrees Fahrenheit. This significantly mitigates the urban heat island effect for the building’s footprint.

Sewer

When the Tisbury town sewer was built Tisbury Market was allotted a total of 4337 gpd. Currently 1725 gpd is allotted to Saltwater Restaurant and 880 gpd to Net Result on separate sewer connections, leaving 1732 gpd for the remainder of the Marketplace.

The historical usage of Tisbury Market is 977 gpd, leaving the remaining 755 gpd for future development. The applicant paid a betterment fee on the 755 gpd of nearly \$27,000.

On March 16, 2009 the Tisbury Sewer Flow Review Board approved 438 gpd of the remainder for use for the current expansion of the market Place. Materials that document this have been submitted to MVC.

Filled Tidelands

It has been suggested that some or all of the Tisbury Market property is on filled Tidelands. The applicant has located a license granted in 1936 by the State of Massachusetts to fill portions of the property. These were formerly contained in Bass Creek, which extended behind the Marketplace and other properties on Beach Road nearly to Five Corners.

If the building in question is on fill an additional license will be required from the State. There are multiple and conflicting small scale maps which show that the building is in the vicinity of the historical shoreline. These do not, however, yield a clear consensus on the need for a State permit.

In the coming weeks we hope to resolve this matter with Massachusetts DEP. If an additional permit is required we will obtain it. It should be noted that DEP will not accept an application until both the MVC and the Tisbury Conservation Commission have acted.