Taunton Weir renovation project

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TAUNTON WEIR RENOVATION PROJECT
INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD

ADVISOR: DEREK BRADFORD

DEAN: STEVEN WHITE

ROGER WILLIAMS UNIVERSITY SPRING 2007
DURING THE 1900's (1830-1915) Taunton, Massachusetts was the railroad and industrial hub of the country with a thriving mass transit system and an abundance of opportunity for those eager to lead successful lives. Locals as well as foreign-born persons flocked to the trade centers dotted along the historic Taunton Mill River and settled alongside their job sites, creating a boom in population during the industrially prosperous period. It was an area full of neighborhoods with coworkers and friends interacting on a daily basis and became known as the Weir Village.

Traveling to the same area around 1970, there is little to show for the Weir's earlier prosperity. What were once large successful industrial corporations are now hollow shells littering the river's edge. In 1979, the first real acknowledgment of the area's commercial and residential depletion was discussed and a plan was put into action starting with the formation of the Weir Corporation.

Today the city and many corporations are working to renovate this historically significant site. Several steps have already been undertaken to improve the site's quality. The river is undergoing an extensive cleanup after years of factories dumping hazardous wastes and chemicals into the river. The sites surrounding the old mills have been designated as Brownfield Sites funded by the EPA for cleanup of contaminated sites to spur redevelopment. Downriver the Robertson Mill has been converted into 64 units of affordable housing and 18,000 sq. ft. of small business space (1995). Also, across the river from the old mills, the city created a waterfront park on which abandoned, hazardous lots once stood. The city has also promoted economic growth through façade improvement grants, advocacy for a community police substation, a yearly riverfront festival, and Weir Corporation scholarships.
Problem Statement

As the next generation of architects we are the future planners of our communities. We have a major responsibility to react to the environmental issues we are faced with. Sustainable community living and “new” urbanism are by no means new inventions, but need to be re-worked into today’s functional society. This “model” community is often referred to as utopic and idealistic, destined for failure. However, some characteristics of these communities can eventually be interwoven into our everyday lives, leading to cleaner air, happier people, and a more prosperous economy. In Southeastern Massachusetts we are losing open space at a rapid pace, adding to on-going problem of suburban sprawl, and worsening the quality of life within our communities.

- Loss of Open Space: One half of our open space and agricultural land has been developed in the past 50 years. We are losing land to development at a rate of 7.8 acres each day. As architects, we need to reuse brown-field sites where it is possible, to enable open space to remain open space.

- Suburban Sprawl: Sprawl hurts our economy and adds to the cost of doing business. Our population’s growth in Southeastern Massachusetts is outstripping job growth and our sprawling development pattern raises our infrastructure costs and reduces business efficiency.

- Quality of Life: Our quality of life is being negatively affected. Sprawl empties cities, consumes open space, destroys farms, pollutes air and water and increases commuting times to the point that we are more commuters than neighbors.

— (Creating Livable Communities in Southeastern Massachusetts, Issues for the Governor)

The Taunton Weir has been in an economical and social crisis since the early 1970’s. There is a desperate need to renovate the area to better the lives of those who live there and to re-establish the commercial and residential hub it once was. Job opportunities that once provided locals as well as commuters with the means to survive are no longer available. The high density housing once obtainable for people working in the area no longer exists and instead, large barren strips of land are covered in overgrown weeds and oceans of pavement. Low income and middle income families are in serious need of housing. Local rail lines are underutilized without a train station close enough for area commuters to use. The Weir Village has a potential to be the prosperous community it once was with renovation and rebuilding of community ties, and economical assistance.

INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD
My project will focus on the ongoing revitalization of the Weir Village; to re-establish community centers, to renovate and rebuild small business and residential space, and to create better access routes in and around the site. The site covers the land bordered by Route 138 and the Taunton River, also called the three mill river, stretching from first street (North-Eastern boundary) to fifth street (South-Western boundary). Route 138 will remain as one of the site’s arterial roads with new connectors and boulevards introduced. There is an existing active rail line on the northern boundary of the site where the city has proposed a future station. This station has the ability to reactivate the Weir Village and to better connect the surrounding area stations.

The site will be split into phases, addressing each site as a collective part of the whole. The first phase that the project focuses on is the area between fourth and fifth street and the land directly across West Water Street, the existing F.B. Rogers Mill. The existing inactive rail line will be turned into a major pedestrian route, continuing to the proposed East Taunton rail station site and connecting to a proposed river walk.

The city has already restored the site immediately across the river into a green park. The proposed river walk and pedestrian bridges will connect this existing greenway to the new site.

The site will be designed with mass transit in mind, utilizing the GATRA local bus service and the commuter rail that runs to Boston, Massachusetts (in accordance with the proposed East Taunton station mentioned prior). Ample pedestrian routes will be created to motivate people to bike and walk rather than using their automobile.
Mixed income medium density, low-rise housing complexes will be introduced throughout the site with the goal to draw first-time home buyers as well as middle and low income families, young and old. Mixed-use buildings will also be brought into the site with apartment style housing options with views to the river.

The public streets have lost their value as centers of culture and activity. Streets have instead become channels for trucks and cars, creating a dirty place that is now looked down upon, instead of being celebrated.

With new urbanist ideals in mind, this project will re-establish pedestrian use and activity along the streetscape, creating relationships and daily occurrences, from which Weir Village was established years prior.

Zoning has created a barrier in the ability to create a mixed-use highly functional site. Instead, residential and commercial areas are separated by miles of travel and focus on vehicular movement. Changing zoning codes to allow for mixed-use development would both help the economy and the environment alike.

The Weir’s history shows the economic potential of the site with proper development and accessibility to surrounding districts. The area needs to reinvent its sense of community and regain its character back. Although it no longer functions as the industrial center it once was, the site now provides large potential as a new urban community.
Taunton Weir Renovation Project

Site: Weir Village, Taunton, MA

Independent Project Proposal

Jessica Lynn Harwood
BOTH SITES WERE INTENDED TO SHOW THE FUTURE POSSIBILITY TO CONTINUE SIMILAR BUILDING DESIGN ON THE SURROUNDING SITES (PINK SPACE).
TAUNTON WEIR RENOVATION PROJECT

INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD

A. LOCATION: 36 SECOND ST., OWNER: CITY OF TAUNTON
B. LOCATION: 350 SOMERSET AVE., OWNER: HATHAWAY FAMILY REALITY LLC
C. LOCATION: 450 SOMESET AVE., OWNER: ABATECOLA, JOYCE A. (NEW DEVELOPMENT)
D. LOCATION: 528 WEIR ST., OWNER: CITY OF TAUNTON (FIRE HOUSE)
E. LOCATION: 175 WEST WATER ST., OWNER: WEIR RIVER VIEW LLC
F. LOCATION: 267 WEST WATER ST., OWNER: KC PROPERTIES NOMINEE TRUST
G. LOCATION: 391 WEST WATER ST., OWNER: BRICKMILL PROPERTIES INC.
H. LOCATION: WEST WATER ST., OWNER: CITY OF TAUNTON (OLD Fs ROGERS SILVER MILL)
I. LOCATION: WEST WATER ST., OWNER: FELT MANAGEMENT LLC
J. LOCATION: 491 WEST WATER ST., OWNER: BAYSTATE INDUSTRIAL PROPERTY I
K. LOCATION: WEST WATER ST., OWNER: CITY OF TAUNTON
L. LOCATION: FIRST ST., OWNER: NU-BRITE CHEMICAL CO INC.
M. LOCATION: 120 INGELL ST., OWNER: WEIR ROBERTSON LIMITED PARTNERSHIP
N. LOCATION: 245 WEST WATER ST., OWNER: CROSS MERRILL N TR
O. LOCATION: 15 FIFTH ST., OWNER: TAUNTON FIFTH STREET LLC
P. LOCATION: 24 WEIR AVE., OWNER: ZOLL THOMAS M TRUSTEE
TAUNTON'S "Silver City" Legacy

Located on the site is the historically known F.B. Rogers Silver Factory. The area has recently been assigned a brown field status and given funds by local, as well as national, organizations to clean the area for renovation and or rebuilding.

Located along West Water Street and the Three Mill River on a sliver of land no more than 70 feet wide, the old factory building shows the remains of traditional Taunton factory architecture with brick facades and large windows.

Clearly the target of vandalism, the exterior of the building has suffered years of deterioration both from natural causes and pure brutality.
The site contains an old unused rail line that runs parallel with the Taunton Three Mill River. The rail line originally ran to Fall River, MA but was closed down after bridge demolition.

Over-passes and grade-level tracks still remain, as a reminder of the site's previous activity and prosperity.

The tracks now exist within yards of overgrown weeds and cut through people's lawns.

The rail line's location is an ideal place for a new throughway road or pedestrian path, cutting through the site longitudinally, eventually meeting up with live tracks to the north end of the site where Taunton is proposing a new train station.
The site for my proposal consists of the land to the west of the Taunton River, bordered by the inactive rail line.

To the east across the Taunton River there are many single family houses with medium sized lots.

To the west, on the other side of the inactive rail line, there are many single family houses and triple deckers.

Along the west side of the river is the newly refurbished Weir Village Riverfront Park.

The Weir Village Riverfront Park created after cleaning the once polluted area, the Weir Corporation developed the park design and obtained funds and donations to make it all happen. Hours of volunteer work was put into the project.

META New Bedford/Taunton River Commuter Rail Extension

Project Overview - Stoughton Alternative
TAUNTON WEIR RENOVATION PROJECT
Zones within Site: Classified Brownfield Site

Building District (Orange)
Residential District (Yellow)
Industrial District (Peach)

Proposal:
To convert all Industrial plots to Mixed-Use areas
To increase density within existing residential areas as well as to propose new housing developments

<table>
<thead>
<tr>
<th>District</th>
<th>Min. Lot Area</th>
<th>Min. Driveway Area</th>
<th>Minimum Frontage</th>
<th>Minimum Side Yard Setback</th>
<th>Maximum Height in Stories</th>
<th>Maximum Height in Feet</th>
<th>Maximum FAR (Lot Coverage)</th>
<th>Maximum Density (SFA)</th>
<th>Lot Size</th>
<th>Other Density Standards</th>
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<td>60,000</td>
<td>48,000</td>
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<td>2.5</td>
<td>35</td>
<td>40</td>
<td>20</td>
<td>0.5</td>
<td>10°T</td>
</tr>
<tr>
<td>Suburban Residential</td>
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<td>22,000</td>
<td>125</td>
<td>20</td>
<td>2.5</td>
<td>35</td>
<td>40</td>
<td>20</td>
<td>0.5</td>
<td>20°T</td>
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<tr>
<td>Urban Residential *5</td>
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<td>11,250</td>
<td>100</td>
<td>20</td>
<td>2.5</td>
<td>35</td>
<td>60</td>
<td>40</td>
<td>1</td>
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<tr>
<td>Office District</td>
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<td>11,250</td>
<td>100</td>
<td>20</td>
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<td>40</td>
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<td>Business District *8</td>
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<td>11,250</td>
<td>100</td>
<td>20</td>
<td>2.5</td>
<td>35</td>
<td>-</td>
<td>40</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Highway Business</td>
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<td>11,250</td>
<td>100</td>
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<td>-</td>
<td>40</td>
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<tr>
<td>Industrial Residential</td>
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<td>43,560</td>
<td>150</td>
<td>20</td>
<td>2.5</td>
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<td>-</td>
<td>20</td>
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<tr>
<td>Central Business District</td>
<td>10,000</td>
<td>5,000</td>
<td>50</td>
<td>5</td>
<td>2.5</td>
<td>35</td>
<td>-</td>
<td>20</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27,000</strong></td>
<td><strong>19,500</strong></td>
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</tbody>
</table>

8.5.2.10 Taunton River Valley
All that land along or sloping toward the Taunton River that is at or below an elevation of sixteen (16) feet above mean sea level, U.S.G.S., upstream of the confluence of the Taunton and Three Mile Rivers.
14.1.3.1 Cluster Housing: Allowable Uses

As allowed in the zoning district which contains the Cluster Residential Development, and:
- Rural Res. - single family
- Suburban Res. - two family

14.1.3.2 General Dimensional Requirements

Single family, duplex and multifamily cluster may be constructed with each structure on a separate lot or with all structures on a single lot under common ownership. All dimensional requirements of the zoning district which contains the Cluster Residential Development shall be followed, unless modified by the provisions of the Cluster Residential Development ordinance.

The following dimensional requirements shall apply:

<table>
<thead>
<tr>
<th></th>
<th>Suburban Residential</th>
<th>Rural Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multiple Lots</td>
<td>Single Tract</td>
</tr>
<tr>
<td>Min. Tract Size</td>
<td>10 AC</td>
<td>10 AC</td>
</tr>
<tr>
<td>Min. Tract Frontage</td>
<td>50'</td>
<td>50'</td>
</tr>
<tr>
<td>Min. Buffer Zone*</td>
<td>75'</td>
<td>75'</td>
</tr>
<tr>
<td>Maximum Height:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single fam., two fam.</td>
<td>35'</td>
<td>35'</td>
</tr>
<tr>
<td>Multifamily</td>
<td>40'</td>
<td>40'</td>
</tr>
<tr>
<td>Maximum Stories:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single fam., two fam.</td>
<td>2 1/2</td>
<td>2 1/2</td>
</tr>
<tr>
<td>Multifamily</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Min. Individual Lot Dimensions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot Area, per unit</td>
<td>15,000 s.f.</td>
<td>NA</td>
</tr>
<tr>
<td>Maximum Units per Structure</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Minimum Open Space Requirement:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single fam., duplex</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>Multifamily</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Min. Distance Between Dwelling Structures</td>
<td>35'</td>
<td>35'</td>
</tr>
<tr>
<td>Min Setback for all Non-dwelling Structures</td>
<td>7.5'</td>
<td>7.5'</td>
</tr>
</tbody>
</table>

Frontage, setbacks, side and rear yard dimensions shall be guided by the characteristics of the site, proposed structures, the nature of the existing built environment in the area, and principles of good site planning. Zero lot line development is permitted.
14.1.5.1 Common Open Space: Purpose
The location and layout of the Common Open Space shall take into account, preserve, and where appropriate promote such features of the parcel as rivers, ponds, wetlands, historic sites, wildlife habitats, unique geological or botanical areas or features, existing or potential trails, paths, and open space links, and sites for active recreation. The Common Open Space shall have restrictions placed on it to insure that no buildings or roadways can be built on it in the future.

14.1.5.4 Ownership of Common Open Space
Such open land shall either be conveyed to (1) the City of Taunton and accepted by it for park or open space use; (2) to a non-profit organization the principal purpose of which is the conservation of open space, or (3) to a corporation or trust owned or to be owned by the owners of lots or residential units within a Cluster Residential Development.

14.2.4 Affordability Structure: Pricing Standards
As part of the application, a market plan will be submitted proposing the breakdown and price structure for all units in the development. Further affordable units, the following standards shall apply in calculating prices:

Sale Units:
(1) The mortgage interest rate shall reflect a rate at which a fixed rate mortgage is realistically available from conventional lenders in the area. Exceptions can be made if (a) the developer buys down the mortgage, or (b) if the developer obtains a commitment of mortgage funds at a lower interest rate from the Massachusetts Housing Finance Agency. With regard to a buydown, the bought-down interest rate should only apply if the rate of increase in the mortgage interest rate is 1/2 of 1% per year or less.
(2) The amount of mortgage payment should be based on a down payment of 5%
(3) Property taxes shall be calculated on the basis of the current rate in the municipality
(4) Insurance and homeowner’s association fees shall be set at realistic levels, based on the best applicable experience. Where a blanket hazard insurance policy is taken out by the homeowner’s association, insurance need not be included as a separate cost category.

14.2.4.2 Unit Composition
(1) With regard to the middle income units: 100% of the middle income units shall be affordable to households earning 88.5% of the middle income ceiling, or 106% of the area median income, adjusted for family size;
(2) With regard to the moderate income units: 50% of the moderate income units shall be affordable to households earning 90% of the moderate income ceiling, or 72% of the area median income, adjusted for family size; 50% of the moderate income units shall be affordable to households earning 75% of the moderate income ceiling, or 60% of the area median income, adjusted for family size; preference in purchase or rental of these units shall be given to moderate income households earning less than 90% of the moderate income ceiling.
(3) With regard to the low income units: 50% of the low income units shall be affordable to households earning less than 90% of the low income ceiling, or 45% of the area median income adjusted for family size; 50% of the low income units should be affordable to households earning 75% of the low income ceiling, or 37.5% of the area median income, adjusted for family size; preference in purchase or rental of these units shall be given to low income households earning less than 90% of the low income ceiling.
ZONING

14.2.4.3 Required Affordable Units
Applications under this section shall meet one of the following thresholds for affordable housing:

% of all Units Type of unit provided

10% Units donated to the THA or to other non-profit agency approved by the Municipal Council or;

15% Units purchased by the THA at not more than EOCD maximum allowable reimbursement prices and;

15% Sold or rented to low income households according to the distribution in Section 14.2.4.2 and pricing in Section 14.2.4.1 or;

25% Sold or rented to moderate income households according to the distribution in Section 14.2.4.2 and pricing in Section 14.2.4.1 and;

100% Of the above sold or rented to middle income households according to the distribution in Section 14.2.4.2 and pricing in Section 14.2.4.1.

If the housing agencies do not have the funding to purchase the units or maintain the donated units then the option should be transferred to add 15% of the total units in the development to the second option.
<table>
<thead>
<tr>
<th>Use</th>
<th>RRD</th>
<th>SRD</th>
<th>URD</th>
<th>BD</th>
<th>CBD</th>
<th>OD</th>
<th>HBD</th>
<th>ID</th>
<th>OSC</th>
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<td>With entertainment</td>
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<td>-</td>
<td>SP2</td>
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<td>Feathers/felt/fur/leather</td>
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<td>Curing/dyeing/processing</td>
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<td>Fitness Clubs</td>
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**ZONING**

**SECTION 5.2**
## ZONING

### SECTION 5.2

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INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD
7.3 OFF-STREET PARKING

7.3.1 PARKING AND LOADING REQUIREMENTS

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<td>over 1,000 sq ft</td>
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<td></td>
<td>over 1,400 sq ft</td>
</tr>
<tr>
<td>Industrial Uses</td>
<td>Minimum 3 spaces, plus 1 space per 300 sq ft</td>
</tr>
<tr>
<td></td>
<td>over 600 sq ft</td>
</tr>
<tr>
<td>Restaurants, hotel,</td>
<td>Spaces equal in number to not less than half</td>
</tr>
<tr>
<td>restaurant, cafeteria,</td>
<td>the seating capacity of each such establishment.</td>
</tr>
<tr>
<td>hall, club, theater,</td>
<td></td>
</tr>
<tr>
<td>bowling alley, or other place of assembly</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Uses</td>
<td>Minimum 3 spaces, plus 1 space per 300 sq ft</td>
</tr>
<tr>
<td></td>
<td>over 600 sq ft</td>
</tr>
</tbody>
</table>

Parking Space size: 9 feet by 18 feet, exclusive of driveways

Minimum Aisle Width: The aisle width between parking spaces shall not be less than 24 feet where parking is located on both sides of the aisle.

Special Provisions

An off-street parking area containing one hundred and sixty two (162) square feet of paved surface exclusive of driveways, shall be provided for each motor vehicle stored overnight or longer by an occupant of the premises.

Nonprofit membership clubs (yacht club, golf clubs, etc.) shall provide off-street parking on the premises so arranged to accommodate not less than one hundred automobiles, plus ten (10) additional spaces per hundred members of the club enrollment.

Parking and loading areas are to be graded, subsurfaced, with a non-dusting material, drained and suitably maintained to the extent necessary to avoid nuisance of dust, erosion, or any water flow onto streets or adjoining properties.

A parking area shall not be designed to interfere with loading or unloading zones, access driveways, or egress and ingress to the site.

No loading platform or receiving door shall be located in any front yard, or on the street side of any retail store or other commercial building except a gasoline filling station.

In the Business District and Central Business District parking may be waived or reduced by the Special Permit or Site Plan Review Granting Authority.

In Industrial Districts the following areas may be excluded in figuring the gross floor area: hallways, lobbies, boiler rooms and other unoccupiable space which shall be determined by the Building Commissioner or City Planner.

In industrial districts no more than 25% of the required parking shall be located in the front of the building.
10.4 APARTMENT BUILDING(s) ROW HOUSES COMPLEX(es) AND CONDOMINIUM BUILDING(s) CONTAINING FOUR OR MORE DWELLING UNITS.

10.4.1 Applicability and Procedure
The following criteria shall apply to all requests for multi-family residential developments. A special permit for multi-family development shall be subject to the procedures set forth in Sections 3.4, 3.5 and 3.6 inclusive.

10.4.2 General Criteria:
In considering the granting of a special permit for the establishment of apartments, row houses, and other forms of multi-family structures, the Municipal Council (Council) shall take into consideration the needs of the community, the effect of the development upon the neighborhood and the community in terms of environmental impacts, socioeconomic impacts, municipal facilities, utilities, drainage, traffic, landscaping, and the health and welfare of the inhabitants. If, after consideration, the Council determines that the development is not in the best interest of the city for any of the aforementioned reasons, the application for said permit shall be denied.

10.4.3 General Requirements
For each development, the applicant shall submit twenty (20) copies of the proposed site plan to the City Planner's office in accordance with the Site Plan Review procedures of Section 15.

10.4.4 The Site Plan
The site plan shall conform to the standards set forth in Section 15.6.1.

10.4.5 Dimensional Criteria
The dimensional criteria for multi-family residential structures shall conform to the standards set forth in Section 6.3.

10.4.6 Development Density
Multi-family developments in the Urban Residential District shall have a maximum density of 6 units per buildable acre. In determining net buildable area for new construction, no wetland or flood plain areas (FIRM Zone A or the Taunton Flood Hazard District) shall be calculated into the buildable area - i.e. if total area equals 20 acres of which 10 acres are wetland or flood plain, the net buildable area is 10 acres and the allowed density is 10 acres x 6 units or 60 units.

10.4.7 Water, Sewer and Drainage
Design and plan content for water, sewer and drainage systems shall conform to the standards set forth in Section 15, Site Plan Review. Proposals to tie in to city utilities shall require the approval of the City DPW Commissioner and the Municipal Council.

10.4.8 Parking
All parking shall be at the side or rear of the building for which it is intended and all parking spaces shall be paved. No parking shall be allowed in the required front yard space nor within twenty-five feet of any other lot line. All parking areas shall be adequately landscaped. There shall be provided 2 spaces for each dwelling unit, except for elderly housing participating in a recognized government subsidy program, which shall require one and a half (1 1/2) spaces per unit.
10.4.9 Interior Ways
All interior ways used for vehicular traffic shall have a minimum pavement width of not less than twenty-four (24) feet.

10.4.10 Open Space
Open space shall be provided in appropriate places and every effort shall be made to preserve wooded areas or other site amenities. No open space shall be less than 50 feet in width, and all open space shall be open and unobstructed to the sky. Recreation structures such as swimming pools, cabanas and similar recreation buildings may be towards the open space requirement. A minimum of 25% of the total tract shall be designated as open space and no wetland areas shall be calculated as part of the minimum open space requirement.

The open space shall be preserved in accordance with and following the procedures of Section 14.5.1.4., and shall normally be conveyed to a corporation or trust owned or to be owned by the owners of lots or residential units within the Cluster Residential Development.

10.4.11 Building Design and Location
A maximum of eight (8) units is permitted per building.
Where more than one building is erected on a lot, it shall be separated from any building by a minimum of forty (40) feet and all buildings shall be set back a minimum of twenty-five (25) feet from any interior way and fifteen (15) feet from any parking area.

10.4.12 Road Construction
All interior roadways and parking areas shall be constructed in accordance with the subdivision rules and regulations of the City.

10.4.13 Access and Egress
For each lot there shall be not more than one entrance and exit driveway for each five hundred (500) feet of street frontage on which the lot faces.

10.4.14 Utilities
All utilities shall be placed underground.

10.4.15 Fees
There shall be an application fee of $50 per unit requested in the application, with a minimum fee of $150. Review and inspection fees shall be as established in the Municipal Council's Special Permit Rules and Regulations.
EARLY MASSING STUDIES

EXPLORING THE VARIOUS POSSIBILITIES OF PERIMETER BLOCK HOUSING OCCUPYING ALL 4 SIDES, OR LEAVING ONE SIDE OPEN

REPETITIVE ROW HOUSING UNITS WITH INTERIOR COURTYARDS

POSSIBLE SOLAR ORIENTATION WITH MASSING AND ROOF ANGLES
CREATION OF PUBLIC PARKING GARAGES BELOW PLYNTH COURTYARD HOUSING ALONG WEST WATER STREET WILL PROVIDE PARKING FOR VISITORS AND POTENTIAL SHOPPERS, AS WELL AS THOSE USING THE CIVIC SPACES. EACH GARAGE WILL HAVE APPROXIMATELY 75 PUBLIC SPACES SURROUNDED BY INDIVIDUAL PRIVATE SPACES DIRECTLY ACCESSIBLE BY THOSE LIVING IN THE UNITS ABOVE.
WITHIN A DENSELY POPULATED DESIGN, THE PROBLEM BETWEEN PUBLIC AND PRIVATE NEEDS TO BE ADDRESSED CAREFULLY.

THE PUBLIC SECTOR WILL BE ALONG THE STREET LEVEL OF THE PERIMETER BLOCKS ON THE PROPOSED BOULEVARD, WEST WATER STREET.
TAUNTON WEIR RENOVATION PROJECT

PROCESS

INDEPENDENT PROJECT PROPOSAL
THE ORIGINAL SITE COVERED THE SPACE FROM FIRST STREET TO FIFTH STREET.

THE FINAL SITE WAS Confined TO THE AREA BETWEEN 5TH AND FOURTH STREET

EARLY MASTER PLANNING STUDIES

PERIMETER HOUSING DISPERSED OVER THE SITE WITH RETAIL ALONG THE ROAD PARALLEL TO THE RIVER, TURNING IT INTO THE MAIN BOULEVARD WITH PEDESTRIAN FRIENDLY SIDEWALKS AND CIVIC SPACE

ORIGINAL PROPOSED SITE
BOTH SITES WERE INTENDED TO SHOW THE FUTURE POSSIBILITY TO CONTINUE SIMILAR BUILDING DESIGN ON THE SURROUNDING SITES (PINK SPACE).
DIAGRAMS FOR ORIGINAL SITE (YELLOW)

CHANGES TO RED SITE

DIAGRAMS OF SITE PERIMETER UNIT MASSING, PARKING BELOW (PINK), INTERIOR COURT YARDS (GREEN), AND RETAIL FRONTAGE (DARK PINK)

NOTE: THIS IS THE ORIGINAL SITE THAT I CHOSE. I LATER ALTERED IT TO THE RIGHT OF THE UNUSED RAIL LINE, AND ONLY TO 4 BLOCKS
Taunton Weir Renovation Project

Diagram of the Taunton Weir Renovation Project with various elements labeled, including:
- PLYNTH PERIMETER
- BLOCK HOUSING
- PARKING LEVEL
- NEW SITE, RED ZONE.

Legend for the diagram:
- PEDESTRIAN
- EGRESS
- RETAIL/APTS
- PARKING STRUCTURE
- CIVIC USES, MISC.
- SERVICE LANE

Independent Project Proposal
UNIT DEVELOPMENT

Units were designed as townhouses in linear bars, sharing one foot concrete party walls.

Along with the interior block courtyard, units were to have their own private exterior courtyard space to be inhabitable as well as a water collection space, ventilation and light shaft.

The units shown here are the double floor townhouse units.

Originally the interior courtyards opened out to the interior block courtyard, but with more studies, they eventually became enclosed within each unit.

Units with interior courtyard opening fully out to the block courtyard

Units with interior courtyard opening tapering out to the block courtyard
INTERIOR COURTYARD SPACE IS INHABITABLE
AND ACCESSED FROM THE LIVING ROOM. IT IS
ALSO A GREY WATER COLLECTION SPACE,
AS WELL AS A LIGHT
AND VENTILATION
SHAFT WITH OPPERA-
ABLE WINDOWS SUR-
ROUNDING THE SPACE.
SOLAR COLLECTION PANELS ON THE ROOFS AT APPROPRIATE ANGLES, 62 AND 28 DEGREES TO GATHER THE MAXIMUM SUNLIGHT DURING THE WINTER AND SUMMER TIMES RESPECTIVELY.

THE BREAK IN THE ROOF STRUCTURE WILL OCCUR TO CREATE A FUNNEL INTO A PERMEABLE WATER COLLECTION COURTYARD IN EACH UNIT.

These details are designed to make the units sustainable, using solar energy and grey water.
HOUSING ARTICULATION STUDIES

ATTACHED UNIT ARTICULATION PRECEDENTS

PARKING BELOW UNIT

BED ZED

MAIDEN LANE

FRONT STREET CONNECTION

MAIN STREET, WASHINGTON

SOLAR ROOF COLLECTORS

INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD
Taunton Weir Renovation Project
Row Houses—several variations of row houses will be offered according to size, cost, and location. They will be placed around a central courtyard either raised up above parking, on a plinth, or at grade level. The plinth row housing will be located along West Water Street across from the F.B. Rogers Mill. The plinth housing will allow for parking below the private courtyard level for home owners, visitors, shoppers, and retail workers.
CIVIC/COMMUNITY Space- 10%

Civic space will be created in an effort to redefine the Weir Village and give it an identity again. The power of community will be reinforced through these spaces and should be a vital part in people's lives.

LIBRARY
YOUTH CENTER, BOYS AND GIRLS CLUB
PHARMACY
RECYCLING CENTER
DAY-CARE FACILITY
MARKET
GYM

MIXED-USE- 15%

The site will have a mixed-use portion as well. With a portion of the site designated to residential/retail.

GREEN SPACE- 10%

STREETS, CIRCULATION- 10%

FOR SALE TOWNHOUSING- 40%

NON-RETAIL, FLAT HOUSES- 15%
LIBRARY MEANT TO CREATE AN EASILY ACCESSIBLE AREA FOR THE NEW COMMUNITY AS WELL AS THOSE SURROUNDING TO APPLY AND FURTHER THEIR KNOWLEDGE. THE LIBRARY WILL BE AFFILIATED WITH THE CITY'S SCHOOL SYSTEM AND HAVE TUTORS AVAILABLE. THE MAIN PURPOSE OF THE LIBRARY IS TO SHOW THE IMPORTANCE OF KNOWLEDGE IN EVERYDAY LIFE.
BOYS AND GIRLS CLUB—MEANT TO ACT AS A PLACE OF ACTIVITY FOR KIDS TO GO TO AFTER SCHOOL. IT IS LOCATED AT THE NORTHERN PLYNTH PERIMETER BLOCK ALONG THE PEDESTRIAN STRIP, EASILY ACCESSIBLE BY CAR OR BY WALKING. THE CLUB HAS ACCESS TO THE PRIVATE COURTYARD ON THE BLOCK'S INTERIOR AS WELL AS EASY ACCESS TO THE PEDESTRIAN ACTIVITIES ALONG THE STRIP.
The pharmacy will help those with medications to access them easier. Made to be a mom and pop shop, this store will also create jobs in the area and add to local business.
The recycling centers will create easy access to recycle everyday home waste, adding to the sustainability of the project and helping the environment.
CHILD CARE:
THIS FACILITY WILL HELP CARE FOR CHILDREN WHO'S PARENTS NEED TO WORK AND CANNOT WATCH THEM DURING THE DAY. BEING WITHIN THE NEW DEVELOPMENT WILL HELP ESTABLISH LOCAL RELATIONSHIPS AND ADD BUSINESS TO THE AREA
THE MARKET WILL SUPPLY PRODUCTS THAT WILL PROVIDE LOCALS WITH THE BASIC NEEDS OF EVERYDAY LIFE, LESSENING THE TRIPS TO THE LARGER SUPER MARKETS.
GYM:
THE GYM WILL FACILITATE LOCAL PEOPLE AS WELL AS VISITORS TO LIVE A HEALTHY LIFE, HAVING A FITNESS CENTER WITHIN WALKING DISTANCE. IT WILL ALSO PROVIDE JOBS TO THOSE WITHIN THE COMMUNITY.
MIXED-USE:
A STRIP OF RETAIL WILL BE BUILT ALONG THE PROPOSED BOULIVARD, WEST WATER STREET, WITH RETAIL APARTMENTS ABOVE. THESE UNITS WILL HAVE ACCESS TO THE PLYNTH COURTYARD WITHIN THE PERIMETER BLOCK HOUSING. THE APARTMENTS FACING WEST WATER STREET WILL BE OF A HIGHER COST, HAVING A VIEW ONTO THE 3 MILL RIVER.
GREEN SPACE-
GREEN SPACE WITHIN THE PERIMETER BLOCK HOUSING IS PRIVATE TO THOSE RESIDENTS AROUND IT. THE GREEN WITHIN THE DESIGNATED PEDESTRIAN SPACES AS WELL AS THAT ON THE OTHER SIDE OF THE ROAD ARE PUBLIC.
STREETS/CIRCULATION:
WEST WATER STREET WILL BE WIDENED AND TURNED INTO A BOULEVARD WITH PARALLEL PARKING ALONG THE SIDE. A NEW STREET PARALLEL TO WEST WATER STREET WILL CONNECT FOURTH AND FIFTH STREET. THE OLD UNUSED RAIL LINE WILL BE TURNED INTO A NEW PEDESTRIAN TRAIL.
TOWNHOUSE UNITS
TOWNHOUSES ARE AROUND THE PERIMETER OF THE BLOCKS ON THE LOWER 2 LEVELS. THEY ARE ALL 2-2.5 LEVEL UNITS WITH FLATS ABOVE THEM. THEY VARY IN SIZE FROM 800sq.ft. TO 1200sq.ft.
FLATS:
FLATS ARE LOCATED ABOVE THE TOWNHOUSES ON THE THIRD LEVEL. THEY ARE ACCESSED FROM THE
PLYNTH LEVEL ON STAIRS CASES SHARED BETWEEN TWO FLATS. THEY ARE SMALLER UNITS FOR A SMALL
FAMILY OR COUPLE.
Taunton Weir Renovation Project
TAUNTON WEIR RENOVATION PROJECT

INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD

COURTYARD DETAIL 1/8" = 1'-0"

FINAL WORK
TOWNHOUSE UNITS

The townhouse units are 2-4 bedrooms and range from 780 sq. ft. to 1200 sq. ft. Variations in kitchen and living room size, orientation, and layout make for ample choice in living space.

The townhouse flat units on level 3 are 1-2 bedroom and range from 700 sq. ft. to 960 sq. ft.

All units' fenestration details depend on their N.S.E. or west orientation.

TOWNHOUSE INTERIORS

TOWNHOUSE COURTYARD SECTION 1:40
TOWNHOUSE UNITS

L1 TOWNHOUSES ARE LARGER THAN THE FIRST TYPE. THEY ARE 60' LONG BY 22' WIDE AND RANGE FROM 3-4 BEDROOMS, 1400-2000 SQ. FT.
L1 townhouses are larger than the first type. They are 60' long by 22' wide and range from 3-4 bedrooms, 1400-2000 sq. ft.

These townhouses are located along the western sides of the on-grade courtyard housing blocks.
TYPICAL SPLIT UNITS 1/32"=1'-0"

SPLIT SUB-LEVEL

GRADE LEVEL

TH SECOND LEVEL

FLAT LEVEL 3

Split Level Plan 1/8"=1'-0"

SPLIT LEVEL SECTIONS 1/32"=1'-0"

SPLIT LEVEL ELEVATION VARIATIONS 1/32"=1'-0"
SPLIT LEVEL UNITS ARE 1-3 BEDROOMS AND VARY DEPENDING ON THEIR SOLAR ORIENTATION. THESE UNITS ARE USED WITH THE PLYNTH COURTYARD ABOVE PARKING.

SPLIT LEVEL UNITS RANGE FROM 1000-1200 SQ. FT.

ABOVE THE SPLIT LEVEL UNITS ARE FLAT UNITS WHICH RANGE FROM 1-2 BEDROOMS, 800-920 SQ. FT. THEY ALSO VARY ACCORDING TO SOLAR ORIENTATION. THE FLAT UNITS HAVE PRIVATE BALCONIES ADJACENT TO THE COVERED WALKWAY WHERE SMALL PLANTS CAN GROW.
THE RETAIL APARTMENTS ARE FOR RENT, VARY FROM 1-2 BEDROOMS, 600 SQ. FT. THEY DIFFER IN PRICE ACCORDING TO WHICH SIDE THEY HAVE VIEWS TO. THOSE THAT LOOK OUT ON THE RIVER, ARE OF A HIGHER PRICE, WHEREAS THOSE THAT LOOK BACK TO THE COURTYARDS COST LESS.

THE RETAIL UNITS ARE THE ONLY UNITS FOR RENT IN THE DEVELOPMENT.
TAUNTON WEIR RENOVATION PROJECT

FLAT LEVEL VIEW OVER COURTYARD

COURTYARD TOWNHOUSE VIEW

BRIDGE TOWARD RETAIL BAR, NIGHT VIEW

BOULEVARD VIEW TOWARD RIVER

INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD
Phoenix, AZ is growing rapidly with many mixed-use, low-density urban developments popping up all around the main city. One such is City North, a project by Elkus-Manfredi, where solar power, green roofs and other ecological advancements are put to good use to create a happy healthy living environment for its inhabitants.

The site consists of 144 acres of retail, restaurant, residential, hotel, office, cultural, civic, entertainment and fitness uses, creating a major civic hub for northeast valley.
BLOOMFIELD PARK HAS ALL THE ELEMENTS OF A MODERN MIXED-USE DEVELOPMENT, WITH CHARACTERISTICS OF A TRADITIONAL DOWNTOWN. THE OVERALL SITE CONSISTS OF 80 ACRES OF LAND LOCATED IN THE CENTER OF COMMERCIAL AND RESIDENTIAL MARKETS.

THE FENESTRATION AND FACADE TREATMENTS WERE OF PARTICULAR INTEREST HERE. THESE UNITS, HOWEVER ARE LUXURY AND VERY COSTLY.
THE HUNTINGTON
ST. PETERSBURG, FLORIDA

27 UNITS OF LUXURY TOWNHOUSES WITH
3 BEDROOMS
2.5 BATHROOMS
71,750 SQ. FT. SITE
IDEAL LOCATION NEAR THE TAMPA BAY SHORELINE
DEVELOPER- HYDE PARK BUILDERS, INC.
TOWNHOUSES CLUSTERED IN GROUPS OF 3-5
ORGANIZED AROUND A GATED INTERIOR COURTYARD
22 2-CAR GARAGES, 5 1-CAR
COMMUNITY SWIMMING POOL
BARBECUE GRILL
SEATING AREAS WITH CABANA
ATTACHED SINGLE-FAMILY UNITS (1,700 SQ. FT)

PROJECT DESCRIPTION:

Originally the site contained the Huntington hotel for seasonal guests. The building was then turned into an antiques mall and was then abandoned. The site was zoned CDB-2 and allowed residential development therefore there was no zoning change.

The project location is within a historic district and had to conform to the city's architectural provisions and created bungalow style that fit in with the traditional Tampa architectural style. Each unit has a private outdoor area and security is implemented through an electric wrought iron gate.

To rebuild on the site there was a need to:

REMOVER THE 5-STORY HOTEL AND ACCESSORY BUILDINGS
REMOVE VERMIN AND ASBESTOS REMAINS

THE TARGET BUYERS WERE YOUNG BUSINESS PEOPLE AND EMPTY-NESTERS WHO ENDED MAKING UP 30-40% OF THE OWNERSHIP.

THE MAIN ATTRACTION WAS THE LOCATION OF THE SITE NEAR THE WATER AND OTHER CULTURAL, RECREATIONAL, AND RETAIL AREAS.

THE ORIGINAL COST OF THE INFILL PROJECT WAS $10-12 PER SQ. FT.

INDEPENDENT PROJECT PROPOSAL

JESSICA LYNN HARWOOD
Project Breakdown:

12.3 ACRE SITE
285 UNIT DEVELOPMENT W/
  116 TOWNHOUSES
  39 COURTYARD UNITS
  130 CONDOS
REAR-LOCATED GARAGES
ALLIES BEHIND HOUSES SERVE VEHICULAR ENTRY
developer: Eakin/Yougentob Assoc., Inc.
INFILL PROJECT
GREAT URBAN DESIGN AND LOCATION
PROJECT HAS WON 25 LOCAL, REGIONAL, AND NATIONAL
AWARDS

Project Description:

Originally the site was an old abandoned railroad yard in the heart of the historic town Alexandria. The project's success stems from the combination of excellent urban location, creative project design, and site manipulation. Variation in building type and architectural style blends well with the historic community.

EYA designed the site as an integral part of the existing community with its focus outward instead of inward with units facing public streets. They also reconnected arterial roads that were severed when the railroad was used, re-linking the area.

The variation in style and size of units allowed for a variation in price range and architectural deviation.

The courtyard homes are 32 ft. wide double-story attached units (over 2,000 sq. ft.). They are each uniquely designed to fit in as a more suburban home rather than a traditional urban townhouse. The larger buyers were empty nesters and young first-time buyers (3/4 of occupants).
BEDZED, BEDDINGTON’S ZERO ENERGY DEVELOPMENT IS A REMARKABLE SOCIAL AND ECOLOGICAL STEP AGAINST POVERTY IN THE UK. IT IS A MIXED-USE, MIXED-INCOME SETTLEMENT THAT PRODUCES AT LEAST AS MUCH ENERGY AS IT CONSUMES.

BEDZED USES ROOF GARDENS, SUNLIGHT, SOLAR ENERGY, REDUCTION OF ENERGY CONSUMPTION AND WASTE WATER RECYCLING.

THE HOMES ARE DIFFERENT SIZES TO ACCOMMODATE VARIOUS SIZED FAMILIES.

ALONG WITH THE SUSTAINABILITY OF THE PROJECT’S DAILY USES, THE MATERIALS ARE ALSO RECYCLED, RECLAIMED AND NATURAL WHEN POSSIBLE.
HABITAT '67 WAS CREATED BY MOSHE SAIDIE TO GIVE SUNLIGHT, VENTILATION, PRIVACY AND OWNERSHIP TO ITS 158 DWELLINGS, UNITS CONTAINED 1-4 BEDROOMS CAST FROM 354 PREFABRICATED CONTAINERS.

THERE ARE 18 DIFFERENT HOUSE TYPES BASED ON THE SINGLE BOX (17.5'x 38.5'x 10.5').
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