258-12(2)

City of Newton, Massachusetts

Department of Planning and Development

1000 Commonwealth Avenue Newton, Massachusetts 02459

Telephone
(617) 796-1120
Telefax
(617) 796-1142
TDD/TTY
(617) 796-1089
www.newtonma.gov

Setti D. Warren
Mayor

Candace Havens
Director

WORKING SESSION MEMO

DATE: May 3, 2013

TO: Board of Aldermen

FROM: Candace Havens, Director of Planning and Development
Eve Tapper, Chief Planner for Current Planning

SUBJECT: #258-12 BH NORMANDY RIVERSIDE, LLC/MASSACHUSETTS BAY TRANSPORTATION AUTHORITY petition for a change of zone to Mixed Use 3/Transit Oriented District for a portion of land located at 327 Grove Street, also identified as Section 42, Block 11, Lot 3A, currently zoned Public Use.

#258-12(2) BH NORMANDY RIVERSIDE, LLC/MASSACHUSETTS BAY TRANSPORTATION AUTHORITY petition for a SPECIAL PERMIT/SITE PLAN APPROVAL to construct a mixed use, transit-oriented development including an office building of approximately 225,000 sq. ft., a residential building containing 290 apartments with 5,000 sq. ft. of retail space, a three story building containing approximately 15,000 sq. ft. of retail space and approximately 8,000 sq. ft. of community space, and related site improvements; to permit office use on the ground floor, medical office use, retail and personal establishments of more than 5,000 sq. ft., eating and drinking establishments of more than 5,000 sq. ft., retail banking and financial services, and health club establishments on the ground floor; and reduced minimum setbacks of side setback of office building, and front setback of retail/community building; parking facility design standards including stall width, stall depth, maneuvering space for end stalls, minimum width for entrance and exit driveways, tandem stalls, number of required off-street loading facilities and design standards of same, landscape screening requirements, surfacing and curbing requirements and one foot candle lighting at 327 GROVE STREET, Ward 4, on land known as SBL 42, 11, 3A containing approx. 9.4 acres of land in a proposed Mixed Use 3 Transit Oriented Zoned district. Ref: Sec 30-13(f), Table A Footnote; 30-13(g); 30-15(v)(1); 30-15, Table 3; 30-19(d)(22); 30-19(h); 30-19(h)(2)a); 30-19(h)(2)b); 30-19(h)(2)e); 30-19(h)(4)a); 30-19(h)(5)a); 30-19(i); 30-19(i)(1)a); 30-19(j); 30-19(j)(1)a); 30-19(j)(2)d); 30-19(l); 30-19(l)(2); 30-19(l)(3); 30-19(m); 30-23; 30-24; 30-24(i)(7) of the City of Newton Revised Zoning Ordinance, 2012.

In response to questions raised at the Land Use Committee public hearings, previous working session meetings and/or staff technical reviews, the Planning Department is providing the following materials for the upcoming working session. This information is supplemental to staff analysis previously provided for the public hearing.

BACKGROUND

At its March 5th meeting, the Land Use Committee held a working session on transportation, site access and parking issues for the proposed Station at Riverside development. On April 2nd, the Committee discussed internal site design and signage. This memo outlines the issues that will be addressed at the May 7th working session, which includes engineering, water and sewer infrastructure improvements, and fiscal impacts. At a working session scheduled for May 21st, the Land Use Committee will discuss all outstanding issues and the proponent will give a presentation of the development highlighting the changes that have been made to the project as a result of the public comments and those of the Alderman and the Planning Department during the special permit process.

WATER AND SEWER INFRASTRUCTURE

The Engineering Division of the Department of Public Works and Weston & Sampson, a peer reviewer hired by the City, have both reviewed the submitted plans and have concluded that, in general, the proposed infrastructure is appropriate for the development. However, the peer reviewer has requested that the petitioner confirm several outstanding items as listed in Appendix A of their report (see Attachment A). The petitioner's team of engineers recently met with representatives from Department of Public Works. Appropriate City staff will be present at the working session to discuss these issues in more detail (see Attachment B for the City's report).

In addition, several residents expressed concerns at the public hearing about past flooding at Lyons Field and the Quinobequin Road area and questioned whether a development at Riverside will exacerbate these past problems. To the contrary, the Engineering Division believes that the work done on the Riverside site will improve conditions farther "downstream" of the project. The flooding issue at Lyons Field is related to the sanitary sewer system being overwhelmed, not on-site drainage infrastructure. During major rainfall events, such as the storm of March 2010, the sewer that runs through Lyons Field surcharged, causing temporary flooding at Lyons Field. The downstream issues will need to be addressed via reduction of infiltration and inflow (I & I) getting into the sanitary sewer system. There are various programs that can be initiated, and will be determined once exact flow rates from the development are finalized.

Finally, both the Engineering Division and the Weston & Sampson reports expressed concern that the Intermodal Commuter Facility is sited over an existing 60" diameter stormwater drain main that is within a 30-foot wide City main drain easement. This pipe must be accessible for future maintenance. The Engineering Division recommends that the drainpipe be relocated. While we understand that the ICF will be located on MBTA land and is not subject to this special permit, its construction is critical to the proposed mixed-use development project. If the ICF cannot be built in its currently proposed location, then the entire proposed site plan might be subject to change. The petitioner should be prepared to discuss plans for relocation of the 60" pipe out from under the ICF or present other plans, acceptable to the City's Engineering

Division that allows for adequate access to the pipe.

FISCAL IMPACT

Section 30-24(i) includes additional findings that the Board of Aldermen must make in order to approve a special permit for a Mixed-Use Development in the Mixed-Use 3/Transit-Oriented District zoning district. One of these findings, Section 30-24(i)(3), requires that *"the proposed Mixed-Use Development has a positive fiscal on the city after accounting for all new tax revenue and expenses related to, but not limited to, school capacity, public safety services and public infrastructure maintenance."* In order to make that claim, the proponent hired a consultant, RKG Associates, to produce a report that showed that the net fiscal impact of the proposed project is estimated to be just over $450,000 per year (see Attachment C).

The City hired a peer reviewer, Cambridge Economic Research, to check this work. Overall, the peer reviewer agreed that the RKG fiscal impact report is "fundamentally sound and transparent." However, she identified several data points that she believed were either out of date or not comparable to the proposed project (see Attachment D). The Planning Department agrees that the list of comparable housing developments, which were used to help project the number of school children that will likely live at the Riverside development, should be amended to include the Woodland Park development on Grove Street. In the past, the proponent has consistently argued that the number of school children projected for this project will be lower than other housing developments because they intend to provide many small units that they believe is unlikely to attract families. However, the Board of Aldermen only has control of the site plan and the exterior massing of the building. The City is legally barred from restricting the internal layout of the building and, therefore, there is nothing to prevent a different bedroom mix in the final project than what has been proposed to date. In addition, the *Newton Comprehensive Plan* advocates for a diversity of housing types and sizes.

The Development team has received a copy of the peer reviewer's report, but to date has not responded her recommendations. The petitioner should be prepared to do so at the working session.

PETITIONERS' RESPONSIBLITIES

Aside from coming to this working session prepared to answer questions about water and sewer infrastructure and fiscal impact, the proponent should be working on addressing any outstanding issues that have been discussed in previous working sessions for the next meeting on May 21st.

Attachments
A: Weston & Sampson Drainage System Peer Review – Riverside Development Project
B: Engineering Division Memorandum
C: RKG Associates Fiscal Impact Report
D: Cambridge Economic Research's Peer Review of the Economic & Fiscal Impact Analysis

Five Centennial Drive
Peabody, MA 01960-7985
tel: 978-532-1900 fax: 978-977-0100
www.westonandsampson.com

October 5, 2012

Lou Taverna, P.E.
City Engineer
1000 Commonwealth Avenue
Newton Centre, MA 02459

Re: Drainage System Peer Review – Riverside Development Project

Mr. Taverna:

Weston & Sampson is pleased to provide this letter report related to our peer review of the proposed drainage system for the Riverside Development Project.

We reviewed the following major documents provided by the City of Newton:

- Stormwater Management Report, Dated: August 27, 2012, by:Vanasse Hangen Brustlin
- Site Plans: The Station at Riverside Dated: August 27, 2012, by:Vanasse Hangen Brustlin

The elements of our review within the documents included:

- A general review of the drainage system for the development.
- Review the Grading Plan, the Utility Plan, and drainage related detail sheets.
- Check sizing of drain pipes and infiltration systems.
- Review compliance with Massachusetts Stormwater Standards.
- Review compliance with City of Newton Stormwater Standards.
- Review compliance with Charles River Watershed TMDLs for Pathogens and Nutrients.
- Review the HydroCAD and StormCAD models that were used for Massachusetts Stormwater Compliance.

A Stormwater Management Report documents compliance with the Massachusetts Stormwater Management Standards and is a required submittal with the Notice of Intent. Our review of the Stormwater Management Report was performed to determine compliance with the items listed above. Additional reviews for other components will be performed by City of Newton Conservation Commission and MADEP reviewers.

The Riverside Development Project is governed by the following stormwater regulations that protect communities from development changes that adversely affect stormwater quality and quantity:

- Massachusetts Stormwater Management Standards
- Total Daily Maximum Loads, Environmental Protection Agency

- City of Newton Stormwater Standards

Our review includes an evaluation of compliance with each of these elements.

EXECUTIVE SUMMARY

The impact land development has on a drainage basin is a critical concern for tributary communities. Concerns center on stormwater quality and quantity. Stormwater quality and quantity are both directly impacted by the percentage of pervious and impervious land cover within a watershed.

Pervious land cover, such as grass, soil, and woods, decrease the amount of stormwater runoff, while impervious land cover, such as pavement and buildings, increase the amount of stormwater runoff from a storm event.

The Riverside Development Project, as presented for our review, will not adversely affect the Charles River Watershed due to a net reduction of ½ acre of impervious area. The ½ acre reduction will reduce the volume and rate of flow to the Charles River Watershed and improve stormwater quality through a variety of treatment systems.

Best Management Practices (BMPs) and Low Impact Development (LIDs) are Land Planning and Engineering Design approaches to managing stormwater runoff. These practices emphasize conservation, onsite natural features, and engineered hydrologic controls to protect stormwater quality while reducing runoff flow rates.

The existing Riverside MBTA site incorporates one (1) BMP, an oil/water separator. The Riverside Development Project incorporates a combination of ten (10) BMP's and LID's with five (5) infiltration systems and five (5) bio-retention systems. The increase of nine (9) BMP's on the site, in conjunction with the reduction of impervious area, will reduce stormwater quality and quantity impacts on the community and the Charles River Watershed.

Massachusetts Stormwater Management Standards Review

The Massachusetts Stormwater Standards 1 thru 10 are applicable to the project. We have determined that the proposed Stormwater system is in compliance with the standards to the extent described below.

Standard 1 - No New Untreated Discharges – No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

Upon review of the Stormwater Management Report and Site Plan the project appears to be in compliance with Standard 1. The project is utilizing an existing outfall and has provided Best Management Practices (BMP's) for treatment. Minimal treatment exists on the current site.

Standard 2 - Peak Rate Attenuation – Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

Upon review of the Stormwater Management Report, Site Plan and hydrologic modeling computations the project appears to be in compliance with Standard 2. Table 3 - Peak Discharge Rates, indicates peak discharge rates for existing and proposed conditions that show a net discharge rate reduction for the 2-year, 10-year, and 100-year 24-hour storm event as required.

The reduction is attributed to the decrease in impervious area and flow attenuation through the proposed BMP's.

The project site is stated as being outside the 100-year BLSF and has been confirmed against FIRM.

Standard 3 - Recharge To Groundwater – Loss of annual recharge to ground water shall be eliminated or minimized through the use of infiltration measures.

Upon review of the Stormwater Management Report, Site Plan, hydrologic modeling computations, BMP sizing data, recharge volume requirements, and recharge capture area adjustment the project appears to be in compliance with Standard 3. Table 4 - Summary of Recharge Calculations show these results.

The Riverside Development Project incorporates a combination of ten (10) BMP's and LID's with five (5) infiltration systems and five (5) bio-retention systems to increase annual groundwater recharge.

Standard 4 - Water Quality – Stormwater management systems must be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS).

Upon review of the Stormwater Management Report, Site Plan, hydrologic modeling computations, BMP sizing data, and TSS calculation worksheet the project appears to be in compliance with Standard 4.

The Riverside Development Project incorporates a combination of ten (10) BMP's and LID's with five (5) infiltration systems and five (5) bio-retention systems and removes at least 80% of TSS. This is confirmed in the MADEP TSS worksheet calculations.

Standard 5 –Land Uses With Higher Potential Pollutant (LUHPPL)

Upon review of the Stormwater Management Report, Site Plan, and hydrologic modeling computations it appears that the project is not a LUHPPL and does not generate higher concern.

We confirmed that the land use designations for the Riverside Development Project site are not on the MADEP LUHPPL list.

The one category where the site could have qualified as a LUHPPL is the number of parking spaces. This concern was addressed by reducing the number of uncovered parking space surfaces below the MADEP threshold.

Standard 6 –Area of Critical Environmental Concern (ACEC)

Upon review of the Stormwater Management Report and Site Plan, the project does not appear to be in a ACEC.

We reviewed the MAGIS database and confirmed that there are not any ACEC within the discharge area for the Riverside Development Project.

Standard 7 –Project Classification – New Development or Redevelopment

Upon review of the Stormwater Management Report, and Site Plan, the project appears to be in compliance as a redevelopment project.

Standard 8 – Construction Period Pollution Prevention – Erosion and Sedimentation Controls

Upon review of the Stormwater Management Report, the project appears to be in compliance. An erosion and sediment control program has been developed in accordance with MADEP requirements.

The Construction Pollution Prevention Plan implements:

- Erosion Control Barriers – For Wetland Protection
- Stabilized Construction Exits – For Offsite Sediment Protection
- Pavement Sweeping – For Sediment Removal
- Temporary Sedimentation Basins and Diversion Basins - As necessary for fine-grained sediment protection
- Catch Basin Inlet Protection – For Sediment Inflow Protection
- Temporary Mulching and Seeding –For Soil stabilization
- Dewater Protocol – For Sediment Removal

Standard 9 – Operation and Maintenance Plan

Upon review of the Stormwater Management Report, the project appears to be in compliance. An Operation and Maintenance Plan has been developed in accordance with MADEP requirements..

The Long-Term Operation and Maintenance Plan implements:

- Maintenance of Pavement Systems
- Maintenance of Vegetative areas
- Management of Snow and Ice
- Spill Prevention Response Plan
- Stormwater Maintenance Measures For Catch Basins, Infiltration Systems, Water Control Devices, Outfalls, Roof Drain Leaders, and Bioretention Basins

Standard 10 – Prohibition of Illicit Discharges

Upon review of the Stormwater Management Report and Site Plan, the project appears to be in compliance. The documents indicate that all sanitary and stormwater structures remaining from the existing development will be removed.

City of Newton Standards Review

In addition to the "no net increase in post construction peak discharge rates" required in MADEP Standard 2, the City of Newton also requires "no net increase in post construction flow volume".

Upon review of the Stormwater Management Report, Site Plan and hydrologic modeling computations, the project appears to be in compliance with the City of Newton Volume requirements. Table 5 - Stormwater Volume Analysis, indicates peak discharge volumes for existing and proposed conditions that show a net discharge volume reduction for the 2-year, 10-year, and 100-year 24-hour storm event as required.

The reduction is attributed to the decrease in impervious area and flow attenuation through the proposed BMP's.

Total daily Maximum Load (TDML), EPA, Charles River Watershed Association Review

The project proposes the use of BMP's and LID's capable of achieving the required 65% phosphorous removal. Actual phosphorous removal will be determined during the final drainage design process.

Conclusion

The proposed Riverside Development Project appears to be in compliance with evaluation criteria, including Massachusetts Stormwater Standards, City of Newton Stormwater Standards, and TMDLs for the Charles River Watershed. In general the project will improve water quality and reduce peak runoff rates and volume through a reduction in impervious area and the implementation of BMPs and LIDs.

There are several utility crossings along the route of proposed drainage structures. Elevation data for the proposed structures was not included with the project documentation. Each crossing should be evaluated to ensure there are not any vertical conflicts.

The Intermodal Commuter Facility is shown over the existing 60-inch drainage culvert. Access to this pipe for future repair and maintenance should be provided.

All existing drainage infrastructure should be cleaned and inspected to ensure that it meets the theoretical carrying capacities that were assumed in the calculations.

Weston & Sampson reviewed our specific technical findings with the developer on October 4, 2012. There are several outstanding items that need to be confirmed and provided. Most of these items are missing support documentation and apparent typographical errors. Other items will

require minor additional calculations that are not expected to impact the findings of our report. Please note that the report conclusions are based on receiving this documentation and verifying its compliance with our meeting discussions. A list of the outstanding issues are included in Appendix A of this report.

Weston & Sampson appreciates the opportunity to present our findings. If you have any questions or require additional information please call me. I may be reached at (978) 532-1900 x2280.

Very truly yours,

WESTON & SAMPSON ENIGINEERS, INC.

10/5/2012

X 

David M. Elmer, PE
Senior Associate
Signed by: David Elmer

cc: File

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APPENDIX A – OUTSTANDING ISSUES

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OUTSTANDING ISSUE STANDARD 2 Peak Rate Attenuation:

A. The proposed flow rates in Table 3 do not correspond to the computational hydrologic data in Appendix G, please clarify.

B. A confirmation of subarea area and composite curve number (CN) break down was not completed due to insufficient information and impacts the results.

C. Pending final confirmation of HSG A as the assumed soil group for the site. Permeability test need to be performed to finalize infiltration basin sizing.

D. Time of Concentration backup needs to be provided.

OUTSTANDING ISSUE STANDARD 3 Recharge To Groundwater:

A. Page 19 states a Required Recharge Volume of 22,050 cubic feet and 21,038 cubic feet of recharge provided. The Required recharge Volume of 22,050 does not correspond to the computational data of 18,654 or 18,667 stated in table 4. Recharge Provided page 11-22,647 page 19-21,038 recharge calculations 18,654. Correct inconsistencies.

B. A confirmation of subarea area and composite break down (impervious in particular) was not completed due to insufficient information and impacts the results.

C. Pending final confirmation of HSG A as the assumed soil group for the site as it determines the Required Recharge Volume and Provide Recharge Volume.

D. Is the separation from high seasonal groundwater and the bottom of exfiltration beds greater than 4 FT.? Not confirmed.

OUTSTANDING ISSUE STANDARD 4 Water Quality:

A. TSS removal rates concur with MassDEP Stormwater handbook, clarification of the selected BMP option should be provided in the write-up to correspond with TSS removal calculation worksheet.

B. A confirmation of subarea area and composite break down (impervious in particular) was not completed due to insufficient information and impacts the results.

OUTSTANDING ISSUE City of Newton Stormwater Standards:

A. Table 5 Existing 10-year volume should be 0.75 not .075?

B. Table 5 units (AF) not (CF)?

C. The proposed volumes in Table 5 do not correspond to the computational hydrologic data in Appendix G, please clarify.

OUTSTANDING ISSUE General:

A. Document TMDL - 65% reduction in phosphorus to be provided.

B. Check the catch basin inlet capacity. Some CB Inlets may need double structures.

OUTSTANDING ISSUE STORMCAD:

A. What Design Storm for sizing?

B. Why flows introduced at manholes?

C. Why intensity on nodes w/o C values?

D. Why CA values on nodes w/o C or A

E Should A values be at CB's not MH?

F. Where is flow from infiltration or bio retention system overflows?

G. Where are subareas introduced to the system?

H. Check that Areas tributary to CB's + Areas tributary to Infiltration/Bio retention systems = Site Area

I. Why flows of 3.2 cfs in CO-10 - CB-K7 inflow upstream is 0.30 cfs

J Why total flows in the range of 1.0-46 cfs? Total of 16cfs introduced? Check influent to site.

CITY OF NEWTON
ENGINEERING DIVISION

MEMORANDUM

To: Alderman Ted Hess-Mahan, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – The Station at Riverside

Date: October 3, 2012

CC: Lou Taverna, PE City Engineer (via email)
Linda Finucane, Associate City Clerk (via email)
Eve Tapper, Chief Planner (via email)
Alexandria Ananth, Sr. Planner (via email)
Derek Valentine, Planner (via email)

In reference to the above site, I have the following comments for a plan entitled:

The Station at Riverside
Grove Street
Newton, MA
Prepared by: VHB Inc.
Dated: August 27, 2012

Executive Summary:

This project involves construction of 588,000 square feet of building space (exclusive of an *Intermodal Building*) on 9.4 acres site. Clarification is needed in regards to the Intermodal building; it appears that this is not part of the filing of the Special Permit based on the narrative and the subdivision of land shown on Sheet S-2.0. The lot of the intermodal building is labeled as Public Use; will the MBTA file a separate permit for this 1,000-vehicle parking garage and Intermodal Building or will the applicant include this as part of this project? Who will be the owner of this facility, and who will maintain this facility. If the intermodal building has separate ownership, it would appear that access easements would be needed between the owner of this building and the special permit under submission.

The intermodal building is sited directly over an existing 60" diameter stormwater drain main that is within a 30-foot wide City main drain easement. This is not sound engineering practice, with the placement of a 180-foot wide building over this 60" pipe; future access for maintence is impossible. If the building must be placed as proposed, the 60" drainpipe should be relocated, so that it is complete accessible for future maintence. In concert with the relocation of the 60" drain pipe the landowners will have to grant the City a new main drain easement and it shall be recorded at the Middlesex Registry of Deeds.

The siting of a proposed *residential- retail* building labeled *"Building B"* is directly over a 48" diameter water transmission line, owned by the Massachusetts Water Resource Authority (MWRA) in which the Authority is requiring the applicant to relocate so that the water main is completely accessible. It appears that extensive blasting may be required for the relocation of the water main, and construction of some components of *'Building A'* along the property line and Route 128.

The sanitary sewer basin – the [*pipe network downstream*] that this project will contribute substantial flows needs improvements in regards to capacity, due to deficiencies caused from *Infiltration & Inflow (I&I: groundwater infiltrating pipes and sewer manholes & inflow from illegal sump pumps and other illicit connections)*. Flow calculations are needed from the proponents to indicate the total amount of additional sewage flow that will be added to the system; the capacity of the existing downstream network, and options for I/I removal. The Director of Utilities will need to review various options for I&I removal, estimated construction costs, and benefits to upgrading the sewer system within this sewer basin/network.

It appears that this site and the *Hotel Indigo* will be swapping some land to provide for access for this petition, if this is the case then an Approved Not Required (ANR) Plan in accordance with Mass. Gen. Laws Chapter 41, Section 81P, to combine the two lots will be needed.

If this project were approved, as a public benefit all the overhead wires along Grove Street should be placed underground along the entire frontage of this petition, as all of the sidewalk and curb line will be modified, this would be the ideal circumstance to provide this improvement.

Grove Street is a *Scenic Road* per City Ordinance, and any tree removal, curb line modification and street modifications need to be approved by the Planning Board.

Since the Riverside MBTA Station is part of an *Emergency Evacuation System*, it is imperative to note that the Station access must never be hindered during construction.

Grade Changes:

1. Details are needed of the proposed retaining walls along the frontage of Grove Street where the retaining walls will be approximately 20-feet high.

2. All walls over 4-feet will need a safety fence along its entire length.

3. As a result of the massive grade change occurring along Grove Street in front of the proposed residential building, a large number of mature deciduous & coniferous trees will be lost this will need to comply with the City's Tree Ordinances.

4. Although architectural elevations were supplied, some site sections would be useful in evaluating these grade changes.

Construction Management:

1. A detailed construction management plan is needed for this project. At a minimum, it must address the following: staging site for construction equipment, lay down areas identified for construction materials, parking of construction worker's vehicles, phasing of the project with anticipated completion dates and milestones, safety precautions, emergency contact personnel of contractor. Anticipated dewatering during construction, site safety & stability. Address any impact to abutting properties.

2. Stabilized driveway entrances are needed during construction in concert with a tire wash and mud removal to ensure City streets are kept clean.

3. A site safety plan is needed which will show paths of travel for emergency vehicle access during construction. How the site will be secured during construction and after hours.

Blasting:

1. A Blasting Permit will be required by the Newton Fire Department. This will include a pre-blast survey.

2. If an on-site rock crushing operation is planned, the applicants need to address issues in regards to noise control & dust control.

Drainage:

1. The proposed drainage improvements as proposed by the applicants will improve both water quality and quantity exiting the site. A peer review is being performed and will be provided via separate cover. Further detailed profiles of each infiltration system is required, in addition to on-site soil testing for recharge systems, all tests are required within 20-feet of each system.

2. The Operations and Maintenance (O&M) plan for Stormwater Management Facilities is acceptable and if the project is approved the O&M must be incorporated into the deeds; and recorded at the Middlesex Registry of Deeds. A copy of the recording instrument shall be submitted to the Engineering Division.

3. It is imperative to note that the ownership, operation, and maintenance of the proposed drainage system and all apparentness including but not limited to the drywells, catch basins, and pipes are the sole responsibility of the Homeowners Association.

Environmental:

1. Has a 21E investigation & report been performed on the site, if so copies of the report should be submitted the Newton Board of Health and the Engineering Division.

2. Are there any existing underground oil or fuel tanks, are they to be removed, if they have been evidence should be submitted to the Newton Fire Department, and Newton Board of Health.

3. As the total site disturbance is over an acre, a Phase II General Construction (NPDES) Permit will need to be filed with DEP & EPA. A Stormwater Pollution Prevention Plan (SWPPP) will need to be developed.

Sewer:

1. Detailed profiles are needed which shows the existing water main, proposed water service(s), sewer main and proposed sewer service(s) with the slopes and inverts labeled to ensure that there are no conflicts between the sewer services and the water service. The minimum slope for a service is 2.0%, with a maximum of 10%. Pipe material shall be 6" diameter SDR 35 PVC pipe within 10' of the dwelling then 4" pipe per Massachusetts State Plumbing Code. In order to verify the slopes and inverts of the proposed service connection, two manholes of the existing sanitary sewer system need to be identified on the plan with rim & invert elevations. The crown of the service connection & the sewer main need to match.

2. A hydraulic capacity of the downstream sanitary sewerage system needs to be evaluated and submitted to the Engineering Division, and the Director of Utilities. This study needs demonstrate that there will be no impact to the municipal system and should address at a minimum:

    - A plan showing a reduction in infiltration and inflow into the sanitary sewer system of at least eight gallons for every one gallon of sanitary sewage contributed by this development;

    - A calculation of the life-cycle cost of the proposed sanitary system;

3. Use City of Newton Details in lieu of the details submitted.

4. With the exception of natural gas service(s), all utility trenches within the City's right of way shall be backfilled with Control Density Fill (CDF) Excavatable Type I-E, detail is available in the City of Newton Construction Standards Detail Book.

5. All new sewer service and/or structures shall be pressure tested or video taped after final installation is complete. Method of final inspection shall be determined solely by the construction inspector from the City Engineering Division. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of the two methods stated above is completed. All testing MUST be witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not

be recommended until this test is completed and a written report is received by the City Engineer. ***This note must be added to the final approved plans.***

6. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of the two methods stated above is completed. All testing MUST be witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until this test is completed and a written report is received by the City Engineer**.**

Water:

1. A quantitative analysis that demonstrates that the water demands of the proposed development will not overburden the water supply of existing infrastructure provided by the City, including fire flow testing for the proposed fire suppression system, exterior fire hydrants, as well as domestic demands from the entire development. The applicant must coordinate these tests with both the fire department and utilities division; representatives of each department shall witness the testing and test results shall be submitted in a written report. Hydraulic calculations shall be submitted to the Fire Department for approval. Hydraulic analysis for both domestic and fire suppression will be required via hydraulic modeling in a format acceptable to the utilities director.

2. All water connections shall be chlorinated & pressure tested in accordance to AWWA and the City of Newton Construction Standards and Specifications prior to opening the connection to existing pipes.

3. Approval of the final configuration of the water service(s) shall be determined by the Utilities Division, the engineer of record should submit a plan to the Director of Utilities for approval

General:

1. As of January 1, 2009, all trench excavation contractors shall comply with Massachusetts General Laws Chapter 82A, Trench Excavation Safety Requirements, to protect the general public from unauthorized access to unattended trenches. Trench Excavation Permit required. This applies to all trenches on public and private property. *This note shall be incorporated onto the plans*

2. All tree removal shall comply with the City's Tree Ordinance.

3. Due to the total square footage of the building, a scale-massing model will be needed.

4. The contractor is responsible for contacting the Engineering Division and scheduling an appointment 48 hours prior to the date when the utilities will be made available for an inspection of water services, sewer service, and drainage system installation. The utility is question shall be fully exposed for the inspector to view; backfilling shall only take place when the City's Inspector has given their approval. *This note should be incorporated onto the plans*

5. The applicant will have to apply for Street Opening, Sidewalk Crossing, and Utilities Connecting permits with the Department of Public Works prior to any construction. *This note must be incorporated onto the site plan.*

6. The applicant will have to apply for a Building Permits with the Department of Inspectional Service prior to any construction.

7. Prior to Occupancy Permit being issued, an As-Built Plan shall be submitted to the Engineering Division in both digital format and in hard copy. The plan should show all utilities and final grades, any easements and final grading. *This note must be incorporated onto the site plan.*

8. If a Certificate of Occupancy is requested prior to all site work being completed, the applicant will be required to post a Certified Bank Check in the amount to

cover the remaining work. The City Engineer shall determine the value of the uncompleted work. *This note must be incorporated onto the site plan.*

Note: If the plans are updated it is the responsibility of the Applicant to provide all City Departments [Conservation Commission, ISD, and Engineering] involved in the permitting and approval process with complete and consistent plans.

If you have any questions or concerns please feel free to contact me @ 617-796-1023.

RKG ASSOCIATES INC

ECONOMIC AND FISCAL IMPACT ANALYSIS OF THE PROPOSED RIVERSIDE STATION TRANSIT ORIENTED DEVELOPMENT

NEWTON, MASSACHUSETTS

JULY 14, 2012

Prepared for:

BH Normandy Riverside LLC
c/o Normandy Real Estate Partners
99 Summer Street
Boston, Massachusetts 02110

Prepared by:

RKG Associates, Inc.
Economic, Planning and Real Estate Consultants
634 Central Avenue
Dover, New Hampshire 03820
Tel: 603-953-0202

Web: www.rkgassociates.com

Economic Planning and Real Estate Consultants

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I. EXECUTIVE SUMMARY

RKG Associates, Inc. (RKG) was retained by BH Normandy Riverside LLC in co-operation with Normandy Real Estate Partners, to prepare an economic and fiscal impact analysis of the proposed Riverside Station Transit Oriented Development (TOD) in Newton, Massachusetts. The intent of this analysis is to assist the developer with the planning and permitting of the project by providing an estimate of the likely economic and fiscal costs and benefits associated with redevelopment of the Riverside Station TOD (or the TOD). With respect to economic analyses, such impacts include changes in employment, wages and state income tax; changes in the school-age population; and changes in retail sales and sales tax. From a fiscal perspective, this analysis considers the costs incurred by the City for providing municipal services to the businesses and residents of the proposed development. Additionally, to the extent that there are school-age children, this analysis estimates their impact, if any, on the City's capacity to absorb additional students. Weighed against these estimated costs is the estimated municipal revenue, primarily represented by real property taxes, to be paid to the City of Newton.

A. Location and Site

The Riverside Station TOD is an approximate 25-acre parcel (in total) at 327 Grove Street in Newton, Massachusetts. The site is in close proximity to the Massachusetts Turnpike and Interstate-95 (Route 128), with ramp access (exit 22) from the latter. The site is bounded by the interstate, railroad, and wooded area (abutting the Charles River), as presented in Map 1. Adjacent to the Riverside Station TOD is the Indigo Hotel, at 399 Grove Street. This property is improved with a 190+ room hotel situated on an approximate 2.7-acre site. Across the street from this there are residential condominiums at 406-416 Grove Street and the Woodland Golf Club. Also adjacent to the TOD, at 269-287 Grove Street, is an approximate 569,000 square foot (SF) office on 11.2-acres of land. Across the street from this, at 264-290 Grove Street is an apartment complex totaling nearly 63,100 SF on 7±-acres.

Map 1 – Aerial view of Site of Proposed Riverside Station TOD in Newton, MA

1. Development Plan and Phasing

The Riverside Station TOD site, as improved, includes the Riverside "T" station, an MBTA carhouse and maintenance facility, a train storage yard and a bus terminal building. There are approximately 960-surface parking spaces at present. Therefore, the site is primarily impervious parking. It is anticipated that all of these uses will remain as part of the Riverside Station TOD, although some may relocate internally on the site. Additionally, the surface parking will be replaced by an approximate 1,000-car parking structure and the adjacent Indigo Hotel parcel may be subdivided to provide for the assemblage of a 0.7-acre parcel to the Riverside Station TOD (a preliminary master plan rendering appears below).

Current development plans[1] for the Riverside Station TOD are presented in Table 1 and include office and retail space, as well as residential development of approximately 290 rental units (with 15% as affordable). At this time it is assumed that Phase 1 construction would be the parking garage and on-site roadway and infrastructure improvements, requiring around 15-months to complete. It should be noted that this Phase 1 development will include replacing the 960-surface parking spaces with an approximately 1,000-space parking garage.

This construction would be followed by an approximate two-year construction period for the residential and office/retail components, with completion projected for mid-2015. In summary, the proposed Riverside Station TOD includes 225,000 SF of office space; 20,000 SF of community retail space (with an additional 2,800 SF of retail within the MBTA garage); and a mix of 290-units of rental housing (around 319,300 SF) and approximately

[1] Development of these components (not directly related to the MBTA or its garage) may occur on approximately 9.4 acres of the overall 25-acre site.

8,000 SF of use as community space (unspecified at this time and not included in this analysis as it is assumed to be tax-exempt).

In addition, in order to serve this development an approximate 998-space parking garage and 19-surface parking spaces will be developed (excluding the 1,000-space MBTA garage).

Table 1 – Proposed Riverside Station TOD

Proposed Development Riverside Station			SF	Units	Spaces	Construction Phasing Time	Complete
Phase 1							
MBTA Garage and Structured Parking					1,000	15-mos.	mid-2013
Phase 2							
Office Space			225,000	NA	563	24 mos.	mid-2015
Retail **(1)**			22,800	NA	19	24 mos.	mid-2015
Residential			319,315	290	435	24 mos.	mid-2015
Estimated Mix	**Market**	**Affordable**					
Studio	14	2					
1-BR	133	24					
2-BR	89	16					
3-BR	10	2					
Totals	**246**	**44**	**567,115**	**290**	**2,017**		

Source : Walsh Company, LLC and RKG Associates, Inc.

Note : Parking total includes MBTA garage with 1000-spaces.

(1) Includes 20,000 SF of local retail and 2,800 SF of retail within MBTA parking garage

B. Key Findings

The key findings are summarized next and presented in detail in other chapters of this report[2].

1. Fiscal Impacts

The estimated fiscal impacts refer to the costs and revenues to the City of Newton, Massachusetts arising from the costs of various municipal services and activities provided to Riverside Station TOD. The estimated taxable real property assessment value of the TOD is $108.4 million, resulting in the following:

- Total real property taxes to the City of Newton, prior to any adjustments, from the TOD are estimated to be slightly more than $1.9 million annually.
- The estimated cost to provide municipal services to the TOD is $816,500 and the estimated education costs are $624,800.
- As a result of these two adjustments, the estimated annual real estate property taxes to the City of Newton are a net positive benefit of $482,700 annually.
- As noted above, the estimated education costs are $624,800, based on an estimated 44 students and the FY2011 per capita costs for education (from the general fund). The estimate of 44 students was developed, in part, on the average experiences from a sample of other existing apartment complexes in Newton (please refer to Table 11 elsewhere in this report). It should be noted that these other complexes all have a 25% affordability mix of apartments, while the proposed TOD is to have a 15%

[2] Throughout most of the written narrative dollar amounts have been rounded for ease to the reader. The unrounded amounts appear in the tables and spreadsheets in this report.

affordability mix. Also, the other complexes have fewer one-bedroom units when compared to the proposed TOD. As a result, the number of potential students residing at the TOD may be lower than the estimate in this analysis, however, given the assumptions and inputs used in this analysis, RKG considers 44 students a reasonable estimate for the TOD.

- Finally, based on data and information provided by representatives of the Newton Public Schools, the three schools likely to be recipients of any students residing at the Riverside Station TOD have excess capacity for FY2016, coincidental with the projected completion of the residential component of the TOD.
- There is a 1% Community Preservation Act (CPA)[3] property tax surcharge, which equates to an estimated $19,000 annually from the TOD.
- Estimated personal property taxes are $93,500.
- Other selected fees and revenues, including motor vehicle excise tax, lottery and Chapter 70 School Aid, add another potential $200,800 in annual, ongoing revenues.

2. Economic Impacts

The economic impacts of the proposed Riverside Station TOD include employment, wages and associated taxes (both state income and sales tax). These include short-term impacts from the construction and construction related activity (estimated to be three to four years in total) and from the ongoing impacts associated with the on-site office and retail development.

a) Short-Term

The short-term employment includes 1,297 direct jobs and 1,225 indirect/induced jobs. The wages from these positions are $77.5 million (direct) and $68.0 million (indirect/induced) with resulting state income tax of $3.3 million (direct) and $2.8 million (indirect/induced). Massachusetts sales tax from locally purchased construction materials adds $3.1 million[4]. The one-time building permit fees payable to the City of Newton are $3.5 million. Short-term direct impacts would include the direct construction labor and employment. The indirect short-term impacts would include the economic activity among building materials and suppliers, as an example, which are required to support the direct impacts. The induced impacts are an estimate of the direct wages re-circulating through the economy, for example, construction workers purchasing meals and other incidentals.

b) Ongoing

The ongoing employment includes 935 direct jobs and 1,158 indirect/induced jobs. The annual wages from this employment amounts to $72.4 million (direct) and $79.6 million (indirect/induced) with resulting state income tax of $3 million (direct) and $3.3 million (indirect/induced). Massachusetts sales tax from retail sales on-site is $320,600 annually. Ongoing direct impacts would include the direct office and retail employment. The indirect

[3] The CPA allows communities to create a local fund for open space protection, historic preservation and the provision of affordable housing by raising money through a surcharge of up to 3% of the real estate tax levy on real property.

[4] Approximately 75% of construction materials (excluding those purchased for tax exempt development such as for the MBTA garage) are assumed to be purchased locally, or with Massachusetts as the point of transfer – therefore subject to Massachusetts sales tax.

ongoing impacts would include the economic activity among businesses that support the direct impacts, such as office supply companies. The induced impacts are an estimate of the direct wages re-circulating through the economy, for example, office and retail workers purchasing meals and other incidentals.

Table 2 summarizes the economic and fiscal impacts of the proposed TOD. In conclusion, the net annual revenues, after municipal and school expenses, to the City of Newton are projected to be nearly $778,300[5] from the TOD. This includes a net real property tax of $482,700; personal property tax of $94,800; and, other fees and revenues of $200,800. In addition to this ongoing net revenue stream, there is a one-time estimated payment of more than $3.5 million in building permit fees.

Table 2 – Summary Economic and Fiscal Impacts of the Riverside Station TOD

SUMMARY IMPACTS Riverside Station TOD	Short-Term	Ongoing
ECONOMIC		
Employment	**2,522**	**2,093**
Direct	1,297	935
Indirect/Induced	1,225	1,158
Wages	**$145,453,243**	**$151,932,403**
Direct	$77,484,148	$72,362,361
Indirect/Induced	$67,969,095	$79,570,042
Income/Payroll Tax	**$6,051,296**	**$6,386,207**
Direct	$3,259,004	$3,039,003
Indirect/Induced	$2,792,291	$3,347,204
MA Sales Tax	**$3,096,573**	**$320,625**
FISCAL		
Building Permit Fees	**$3,510,629**	
Real Estate Property Taxes		$1,923,981
less Service Costs		($816,471)
Less Education Costs		($624,800)
Net Real Estate Property Taxes		**$482,710**
CPA Tax		**$19,240**
Personal Property Tax		**$94,775**
Other Fees and Revenues		**$200,836**
Excise Tax		$84,718
Lottery		$30,697
Licenses & Permits		$33,981
Chapter 70 School Aid		$51,439

SOURCE : RKG Associates, Inc. and City of Newton, MA

[5] This excludes and estimated $19,000 annually as the Community Preservation act surcharge, which are typically funds to be used for historic preservation, open space and affordable housing, rather than go into the City of Newton general fund.

3. Summary Impacts for Massachusetts and for Newton

The estimated economic and fiscal impacts, to be realized by Massachusetts and Newton, are summarized in the following Table 3, indicating the following:

- **Massachusetts** – Direct *short-term* employment of 1,297, with wages of $77.5 million, income/payroll taxes of $3.3 million and sales tax receipts totaling $3.1 million. Direct *ongoing* employment of 935, with wages of $72.4 million, income/payroll taxes of $3 million and annual sales tax receipts totaling $320,600.

- **Newton** – *One-time* building permit fees of $3.5 million. *Annual and ongoing **net*** property tax of $482,700; personal property tax of $93,500; other revenues (including motor vehicle excise tax, lottery and Chapter 70 School Aid) of $200,800; and a 1% Community Preservation Act property tax surcharge of $19,000 annually, for a total net ongoing revenue, from these sources, of $797,600 for the City of Newton.

Table 3 – Riverside TOD Summary Economic and Fiscal Impacts – Massachusetts and Newton

SUMMARY IMPACTS Riverside Station TOD	MASSACHUSETTS	NEWTON
Short-Term or One Time		
Direct Employment	1,297	NA
Direct Wages	$77,484,148	NA
Income/Payroll Tax	$3,259,004	NA
Sales Tax	$3,096,573	NA
Building Permit Fee(s)	NA	$3,510,629
Ongoing and Annual		
Direct Employment	935	NA
Direct Wages	$72,362,361	NA
Income/Payroll Tax	$3,039,003	NA
Sales Tax	$320,625	NA
Net Property Tax	NA	$482,710
Personal Property Tax	NA	$94,775
Excise Tax	NA	$84,718
Lottery Revenue	NA	$30,697
Licenses & Permits	NA	$33,981
Chapter 70 School Aid	NA	$51,439
CPA Tax	NA	$19,240
Total Ongoing Revenue(s)	**$3,359,628**	**$797,560**

SOURCE : RKG Associates, Inc. and City of Newton, MA

II. ECONOMIC IMPACTS

This chapter presents an analysis of the estimated economic impacts (short-term and ongoing) associated with the proposed Riverside Station TOD in Newton, MA.

A. Short-Term Impacts (Construction Period)

The direct short-term employment and wage impacts are a reflection of the construction activity and the associated wages. The construction activity typically varies from project to project, but is not considered as an ongoing (meaning year in and year out) activity.

1. Direct Impacts

The inputs and assumptions utilized in estimating employment impacts are presented at the bottom of Table 6 and include:

- Construction costs and other off-site and on-site roadway and infrastructure improvements were provided by the Walsh Company, LLC. The labor costs are estimated to represent approximately 60% of total construction costs and of this approximately 50% are direct wages.

- Construction jobs are calculated as the total estimated wages divided by the estimated annual average construction wage for Massachusetts (through the third quarter of 2010 – similar to Table 4). This statewide average weekly wage is $1,150 or about $120 less than that specifically for the City of Newton at $1,270. The average wage for the construction industry is the basis for an annual wage per worker. This wage is then multiplied by the effective state income tax rate provided by the Massachusetts Department of Revenue in order to estimate state income taxes.

Table 4 – Newton, MA – Employment and Wages (2010 thru 3rd quarter)

Newton, Massachusetts thru the 3rd Quarter of 2010	# of Firms	Avg. Mo. Employment	Avg Wkly Wage
Total, All Industries	**3,664**	**53,235**	**$1,114**
23 - Construction	175	1,689	$1,269
31-33 - Manufacturing	53	788	$1,792
DUR - Durable Goods Manufacturing	26	611	$2,078
NONDUR - Non-Durable Goods Manufacturing	27	176	$804
42 - Wholesale Trade	147	1,189	$2,393
44-45 - Retail Trade	334	4,903	$616
48-49 - Transportation and Warehousing	45	476	$854
51 - Information	91	1,837	$1,854
52 - Finance and Insurance	210	1,884	$2,110
53 - Real Estate and Rental and Leasing	151	1,106	$3,564
54 - Professional and Technical Services	731	4,999	$1,616
55 - Management of Companies and Enterprises	33	955	$2,446
56 - Administrative and Waste Services	187	7,895	$623
61 - Educational Services	92	9,185	$1,107
62 - Health Care and Social Assistance	392	8,634	$992
71 - Arts, Entertainment, and Recreation	64	918	$586
72 - Accommodation and Food Services	182	3,730	$439
81 - Other Services, Ex. Public Admin	765	2,235	$602

Source : Massachusetts Executive Office of Labor and Workforce Development

a) Indirect and Induced Impacts

The inputs and assumptions utilized in estimating these short-term impacts are presented at the bottom of Table 6 and include:

- Direct construction employment is increased via multipliers developed by the U.S. Department of Commerce, using RIMS II modeling (Table 5) which is specific to the industry sector, to arrive at estimated total indirect/induced short-term employment (across a multitude of industry sectors) for Massachusetts as a whole.

- Direct wages for construction form the basis for estimating indirect wages, which are increased via RIMS II multipliers to arrive at estimated total indirect and induced short-term wages (across a multitude of industry sectors) for Massachusetts as whole.

Table 5 – RIMS II Multipliers for Select Industries - Massachusetts

RIMS II Multipliers (2002/2007) - Type II State of Massachusetts by NAICS Code	Indirect and Induced Earnings	Employ
Construction	0.8772	0.9441
Retail	0.7720	0.4784
Office		
Insurance	1.3019	1.9112
Real Estate	1.9866	1.0656
Professional	0.7392	1.2877
Management	0.8479	1.9092
Administrative	0.7008	0.4064
Average	**1.1153**	**1.3160**

Source: RIMS II - U.S. Bureau of Economic Analysis

- The average wage per indirect/induced worker is calculated and this wage is then multiplied by the effective state income tax rate provided by the Massachusetts Department of Revenue in order to estimate state income taxes.

For purposes of estimating sales tax, it is assumed that 75% of construction material purchases (excluding those for tax exempt development/construction) are local (in Massachusetts or with Massachusetts as the point of transfer) and taxable at a 6.25% tax rate.

2. Findings of Short-Term Impacts

Table 6 presents estimated short-term impacts for direct and indirect/induced, indicating:

- Direct construction jobs at 1,297 with an estimated total wage of $77.5 million, resulting in estimated state income tax receipts of $3.3 million.

- The direct construction jobs are multiplied by the employment RIMS II multiplier as follows 1,297 X 0.9441 = 1,225, to derive indirect/induced employment. Similarly, direct construction wages of $77.5 million are multiplied by RIMS II to estimate $68 million in indirect/induced wages, resulting in $2.8 million in state income receipts.

- Construction costs for materials are $83.4 million in total. However, it is assumed that $17.4 million in materials purchases are for building and site improvements that are tax-exempt. Of the $66.1 million subject to sales tax, is assumed that 75% or $49.5 million is purchased locally resulting in $3.1 million in sales tax receipts.

- Building permit fees to the City of Newton, at a rate of $18.60 per $1,000 in construction valuation, result in an estimated $3.5 million (excluding the construction considered to be for a tax-exempt use[6]).

[6] Discussions with representatives of the Newton Inspectional Services indicated that if the MBTA owned portions of the site were maintained and inspected by MBTA and/or state officials, the City would likely not charge a building permit fee.

Table 6 – Estimated Short-Term Economic Impacts – Riverside Station TOD – Newton, MA

		Proposed Riverside Station TOD - Newton, MA				
	Inputs & Assumptions	Office	Retail	Residential	Other & Commuter	*TOTAL*
Property Use or Proposed Development						
Square Feet (SF) of Development		225,000	22,800	319,315		**567,115**
Number of Units				290		**290**
Number of Parking Spaces		563	19	435	1,000	**2,017**
Estimated Stabilized Occupancy (SF)		213,750	20,520	303,349		**537,619**
SHORT TERM IMPACTS						
Construction Costs - LABOR						
Commuter Garage (1,000 spaces)	*(tax-exempt)*				$20,222,971	**$20,222,971**
Roadway/Paving and Bus Turnaround	*(tax-exempt)*				$1,012,050	**$1,012,050**
Onsite Roadwork	*(tax-exempt)*				$1,625,000	**$1,625,000**
Relocate Water Line/Culvert	*(tax-exempt)*				$1,625,000	**$1,625,000**
Grove Street Entry	*(tax-exempt)*				$1,300,000	**$1,300,000**
Grove Street Roundabouts/Highway Access	*(tax-exempt)*				$6,500,000	**$6,500,000**
Site Work		$942,500		$455,000		**$1,397,500**
Retail Building			$5,014,425			**$5,014,425**
Office Building		$51,701,000				**$51,701,000**
Office Parking		$15,772,250				**$15,772,250**
Residential Building				$41,895,100		**$41,895,100**
Residential Parking				$6,903,000		**$6,903,000**
Total LABOR Investment		**$68,415,750**	**$5,014,425**	**$49,253,100**	**$32,285,021**	**$154,968,296**
less estimated Exempt						**$122,683,275**
Short Term Direct Employment Impacts						
Constructions Wages	50.00%					**$77,484,148**
Employment (FTE's)						**1,297**
State Income/Payroll Tax						**$3,259,004**
Short Term Indirect/Induced Employment Impacts						
Wages						**$67,969,095**
Employment						**1,225**
State Income/Payroll Tax						**$2,792,291**
Construction Costs - MATERIALS						
Commuter Garage	*(tax-exempt)*				$10,889,292	**$10,889,292**
Roadway/Paving and Bus Turnaround	*(tax-exempt)*				$544,950	**$544,950**
Onsite Roadwork	*(tax-exempt)*				$875,000	**$875,000**
Relocate Water Line/Culvert	*(tax-exempt)*				$875,000	**$875,000**
Grove Street Entry	*(tax-exempt)*				$700,000	**$700,000**
Grove Street Roundabouts/Highway Access	*(tax-exempt)*				$3,500,000	**$3,500,000**
Site Work		$507,500		$245,000		**$752,500**
Retail Building			$2,700,075			**$2,700,075**
Office Building		$27,839,000				**$27,839,000**
Office Parking		$8,492,750				**$8,492,750**
Residential Building				$22,558,900		**$22,558,900**
Residential Parking				$3,717,000		**$3,717,000**
Total MATERIALS Investment		**$36,839,250**	**$2,700,075**	**$26,520,900**	**$17,384,242**	**$83,444,467**
less estimated Exempt						**$66,060,225**
Short Term Sales Tax & Permit Fee Impacts						
Estimated Materials Purchased Locally	75.00%	$27,629,438	$2,025,056	$19,890,675	$0	**$49,545,169**
Sales Tax from Local Purchase	6.25%	$1,726,840	$126,566	$1,243,167	$0	**$3,096,573**
Building Permit Fees - City of Newton	$0.0186	$1,957,743	$143,490	$1,409,396		**$3,510,629**

Other Inputs and Assumptions	**Office**	**Retail**	**Residential**	**Other & Commuter**	**Construction**
Direct Employees / SF or UNIT	250	300	0.04	NA	NA
Indirect/Induced Employee Multiplier	1.3160	0.4784	NA	NA	0.9441
Direct Annual Wage (FTEs)	$81,596	$33,384	$27,083	NA	$59,731
Indirect/Induced Wage Multiplier	1.1153	0.7720	NA	NA	0.8772
Sales / SF	NA	$250	NA	NA	NA
Effective State Income Tax Rate	4.21%	4.11%	3.31%		4.21%
Estimated Assessment Value per SF	$250	$150	$175		
Newton Property Tax (per $000's)	$0.02089	$0.02089	$0.01090		
Stabilized Occupancy	95.00%	90.00%	95.00%		

SOURCE : RKG Associates, Inc., Normandy Real Estate Partners, Walsh Company, LLC and City of Newton, MA

B. Ongoing Impacts

The ongoing impacts are a reflection of the ongoing and on-site activity represented by the proposed retail and office developments.

1. Direct Impacts

The inputs and assumptions utilized in estimating ongoing employment impacts are presented at the bottom of Table 7 and include:

- The SF of build-out by type of use was provided by the Walsh Company, LLC.
- The direct ongoing employment is a function of the size of the development, such as 20,000 SF (and the 2,800 SF of retail within the MBTA garage)[7] of retail development divided by industry standards[8] reflecting the average SF per employee, in this example 300 SF/employee (also assumes all jobs are new). For residential property management, the standard applied is 0.04 employees per unit, reflecting the developer's experience at other similar apartment/residential complexes.
- This employment is adjusted to reflect an estimated stabilized occupancy for each type of use, in other words a vacancy factor is considered for office[9], at 5%, and an estimated 10% for retail uses.
- The average wage for employment in office sector and retail sector industries is provided by the Massachusetts Executive Office of Labor and Workforce Development. The average wage (excluding benefits) for residential/property management represents the experiences of the developer at similar properties. These wages are multiplied by the effective state income tax rate provided by the Massachusetts Department of Revenue in order to estimate state income taxes.

a) Indirect and Induced Impacts

The inputs and assumptions utilized in estimating these impacts are presented at the bottom of Table 7 and include:

- Direct office and retail employment are increased via RIMS II multipliers. By way of example, the blended or average office employment multiplier of 1.3160 is applied against the estimated direct office employment to derive the estimated indirect/induced employment. Similarly, the retail employment multiplier of 0.4784 is applied against the estimated direct retail employment.
- Direct wages for office and retail form the basis for estimating indirect wages, which are also increased via RIMS II multiplier. By way of example, the blended or average office wage multiplier of 1.1153 is applied against the estimated direct office wage to derive the estimated indirect/induced wages. Similarly, the retail wage multiplier of 0.7720 is applied against the estimated direct retail wage.
- RKG has not applied a multiplier to the residential/property management employees, considering that some may be residents of the TOD, and their spin-off as demand and spending may already be reflected in the estimated on-site retail activity.
- Similarly, it is possible that the nearby Indigo Hotel could realize increased occupancy considering the increased employment and economic activity at the TOD, such as business travel related to the 225,000 SF of new office development. If so,

[7] Discussions with the developer indicate that the retail component of this project is likely to be smaller, service and convenience stores supportive of neighborhood uses (rather than destination drive to retail). Additionally, retail within the MBTA garage is likely to be "targeted" to and for the ease of the commuter, such as a coffee shop, dry cleaners and the like.
[8] The Urban Land Institute (ULI)
[9] Discussions with the developer indicate that much of the proposed office development will be build-to-suit, implying that there are tenants in hand. As a result, RKG has applied a 5% vacancy factor, indicating that full-occupancy would be 95%.

this in turn could result in increased hotel sales and occupancy tax, although not measured in this analysis.

For purposes of estimating sales tax impacts, although specific tenants are unknown at this time, it is assumed that 100% of the retail sales occurring on-site are both taxable and net new sales and that these are taxable at a 6.25% sales tax rate. The dollar amount of retail sales reflects an estimated average of $250 per SF for the stabilized occupancy.

2. Findings of Ongoing Impacts

Table 7 presents estimated ongoing impacts (both direct and indirect/induced) indicating:

- Direct (and stabilized) office employment of 855 positions with annual wages of $69.8 million resulting in $2.9 million in state income tax receipts.
- Direct retail employment of 68 positions, with an annual wage of $2.3 million and nearly $94,000 in state income tax receipts.
- On-site residential/property management employment of 12 positions with $314,200 in wages and $10,400 in state income taxes.
- Total indirect and induced employment of 1,158 positions, across a variety of industry sectors and throughout Massachusetts, with an estimated annual payroll of $79.6 million, resulting in approximately $3.3 million in state income taxes.
- Retail sales (inclusive of the 2,800 SF of retail within the MBTA garage) of $5.1 million resulting in approximately $320,600 in state sales tax.

Table 7 – Estimated Ongoing Economic Impacts – Riverside Station TOD – Newton, MA

		Proposed Riverside Station TOD - Newton, MA				
	Inputs & Assumptions	Office	Retail	Residential	Other & Commuter	*TOTAL*
Property Use or Proposed Development						
Square Feet (SF) of Development		225,000	22,800	319,315		**567,115**
Number of Units				290		**290**
Number of Parking Spaces		563	19	435	1,000	**2,017**
Estimated Stabilized Occupancy (SF)		213,750	20,520	303,349		**537,619**
ONGOING IMPACTS						
Estimated Direct Employment		855	68	12	0	**935**
Estimated Indirect/Induced Employment		1,125	33	0	0	**1,158**
Total Employment		**1,980**	**101**	0	0	**2,081**
Estimated Direct Annual Wages		$69,764,729	$2,283,466	$314,167	$0	**$72,362,361**
Estimated Indirect/Induced Annual Wages		$77,807,207	$1,762,835	$0	$0	**$79,570,042**
Total Wages		**$147,571,935**	**$4,046,301**	**$314,167**	**$0**	**$151,932,403**
Ongoing State Income/Payroll Tax						
from Direct Wages		$2,934,324	$93,809	$10,404	$467	**$3,039,003**
from Indirect/Induced Wages		$3,272,592	$74,145	$0	$467	**$3,347,204**
Total Income Tax		**$6,206,916**	**$167,954**	**$10,404**	**$933**	**$6,386,207**
Estimated Retail Sales and Sales Tax						
Annual Retail Sales			$5,130,000			**$5,130,000**
Annual Retail Sales Tax	6.25%		$320,625			**$320,625**

Other Inputs and Assumptions	**Office**	**Retail**	**Residential**	**Other & Commuter**	**Construction**
Direct Employees / SF or UNIT	250	300	0.04	NA	NA
Indirect/Induced Employee Multiplier	1.3160	0.4784	NA	NA	0.9441
Direct Annual Wage (FTEs)	$81,596	$33,384	$27,083	NA	$59,731
Indirect/Induced Wage Multiplier	1.1153	0.7720	NA	NA	0.8772
Sales / SF	NA	$250	NA	NA	NA
Effective State Income Tax Rate	4.21%	4.11%	3.31%		4.21%
Estimated Assessment Value per SF	$250	$150	$175		
Newton Property Tax (per $000's)	$0.02089	$0.02089	$0.01090		
Stabilized Occupancy	95.00%	90.00%	95.00%		

SOURCE : RKG Associates, Inc., Normandy Real Estate Partners, Walsh Company, LLC and City of Newton, MA

III. FISCAL IMPACTS

In the past several years, local governments have become increasingly concerned about the impacts of new developments on municipal budgets. Local residents and officials want to know if a proposed development would provide an increase in taxes and other revenues that would cover the costs of any increases in municipal services. In order to understand this relationship, local officials have used fiscal impact analysis to compare future municipal revenues and expenditures associated with a proposed development. Fiscal impact analysis has been defined as *"a projection of the direct current public costs and revenues associated with residential or nonresidential growth to the local jurisdiction in which the growth is taking place"*[10]. This chapter presents an analysis of the likely fiscal impacts associated with the proposed Riverside Station TOD.

A. General Approach

There are several different techniques available for determining the fiscal impact of the proposed Riverside Station TOD. All of these techniques are based on the same general assumptions. First, it is assumed that current municipal operating costs and revenues are the best basis for determining future costs and revenues. A second assumption is that the proposed development comes "on line" all at once. This assumption allows a comparison of the financial effect of the entire project on municipal costs and revenues. In reality, many projects are constructed over a period of greater than one year; however, since municipal costs and revenues generally occur in equal proportions, this steady-state approach does not detract from the appropriateness or accuracy of this method. It should also be noted that fiscal impact analysis is only concerned with local public costs and expenditures.

1. Methodology and Assumptions

Fiscal impact analysis, as applied in this report, encompasses the identification and comparison of both municipal service costs (and school costs where applicable) related to the proposed project, and the potential public revenues resulting from the development. Overall, the methodology and assumptions for estimating the net fiscal impacts are as follows:

- The proposed project is developed under current market conditions and in constant 2011 dollars (in regards to assessed values and market conditions, etc.).
- Municipal service costs were estimated from historic City budgets using an average service cost per employee approach for non-residential uses and per housing unit basis for residential uses. This cost factor was applied to projected levels of new (direct) ongoing employment, as well as the new housing units.
- The cost analysis assumes that the proposed project will fund its own trash removal, snow plowing, on-site maintenance, and provide on-site security.

[10] Robert W. Burchell, et al. *The New Practitioner's Guide to Fiscal Analysis*. Center for Urban Policy Research, Rutgers University, 1985.

- Municipal revenues were based on an estimate of future real property taxes from the proposed project for building improvements only. Real property values were estimated in co-operation with the City of Newton Assessor[11]. These values were then multiplied by the FY2011 tax rate of $20.89/$1,000 (commercial) and $10.90/$1,000 (residential), in order to estimate real property taxes for the project.

- It is anticipated that the one-time fees/payments, such as building permit fees charged by the City of Newton, would offset any costs incurred by the City during the construction period. These fees are calculated per the City of Newton schedule of $18.60 per $1,000 of total estimated construction costs (excluding tax-exempt materials).

- Other fees and revenues could include personal property taxes from businesses, both individual and corporate, as well as possible motor vehicle excise fees, licenses and permits, and Chapter 70 School Aid, which are presented in more detail in Table 14.

B. Estimated Municipal Costs

A review of the City of Newton actual and budgeted expenditures (the latter for FY2011) indicates specific expenses for municipal departments and other costs as shown in Table 8. Certain of these costs are considered variable and would be impacted by new private-sector development including education (from the residential component); public safety; public works and so on. Other of these costs, such as debt service, and retiree costs, are not likely to be incrementally impacted by additional private sector development, unless for example the City of Newton were to obligate public monies to the private development. It is the consultants' understanding that this is not the case with this proposed development.

As indicated in Table 8, the estimated annual "cost to run" the City of Newton, averaged over the last several years, is $282.7 million, with slightly more than 56%, or $159.3 million, applied to the public schools. However, it should be noted that not all expenses are evenly allocated to either residential or non-residential uses, and that some expenses are considered to be fixed and would not necessarily fluctuate with new development activity.

For example, with commercial development there is no consideration given to possible impacts to education services and costs. It is assumed that the office workers would be daily commuters to the site (or existing Newton residents), and as such would not generate demand for education services. While it is possible that some of the office workers may relocate to Newton, such relocation is considered nominal. In any event, to the extent that some office workers do relocate to Newton, their potential demand for education services is accounted for elsewhere in this analysis. Also, it is generally assumed that the retail shoppers would be commuters to the site or already residents of Newton. As such, the retail on-site is not considered as destination retail for shoppers' goods and services, indicating a limited trade area and/or a geographic draw coincidental with the office and transit uses on-site.

Other expenses such as debt service, interest and pensions are pre-existing and would not necessarily be impacted by the incremental commercial or residential development proposed

[11] While these property values were developed in co-operation with the Newton Assessor it should be noted that they represent the best estimate of value at this time, developed in part from the assumptions and inputs utilized in this analysis and a sampling of other comparable properties in the City of Newton.

for the TOD. As such, Table 8 includes the estimated "cost to run" the City for those expenditures that would most likely be impacted by new, incremental development. In this analysis these costs amount to $241.1 million (inclusive of schools); if schools are excluded the impacted expenses total $81.8 million.

Table 8 – Average Fiscal Year Expenditures – City of Newton, MA

Newton, MA EXPENDITURES	FY 2008 (A)	FY 2009 (A)	FY 2010 (A)	FY 2011 (B)	Average	% of Total	Estimated Costs that are Impacted
General Govt	$12,869,213	$12,446,465	$13,219,766	$13,371,258	$12,976,676	**4.59%**	$12,976,676
Public Safety	$31,150,150	$37,331,701	$33,298,502	$35,601,049	$34,345,351	**12.15%**	$34,345,351
Public Education	$152,728,991	$155,491,957	$162,777,983	$166,191,767	$159,297,675	**56.36%**	$159,297,675
Public Works	$19,871,674	$21,129,394	$20,712,576	$21,651,242	$20,841,222	**7.37%**	$20,841,222
Health & Human Svs	$3,486,798	$3,652,882	$3,764,238	$3,803,731	$3,676,912	**1.30%**	$3,676,912
Culture & Recreation	$10,430,886	$10,116,160	$10,098,384	$9,144,762	$9,947,548	**3.52%**	$9,947,548
Debt & Interest	$7,426,543	$10,009,160	$14,332,264	$16,010,731	$11,944,675	**4.23%**	$0
Pensions & Retirees	$19,666,614	$20,827,227	$21,932,507	$23,382,339	$21,452,172	**7.59%**	$0
State & County Charges	$5,512,027	$5,453,169	$5,619,317	$5,589,086	$5,543,400	**1.96%**	$0
Budget Reserves				$112,975	$112,975	**0.04%**	$0
Special Appropriations	$1,787,561	$2,373,187	$1,771,618	$4,162,280	$2,523,662	**0.89%**	$0
TOTALS	**$264,930,457**	**$278,831,302**	**$287,527,155**	**$299,021,220**	**$282,662,265**	**100.00%**	**$241,085,382**
without Public Education	*$112,201,466*	*$123,339,345*	*$124,749,172*	*$132,829,453*	*$123,364,590*		*$81,787,708*

Source : City of Newton, Massachusetts and RKG Associates, Inc.

(A) = Actual and (B) = Budget

1. Allocation of Municipal Service Costs

In determining the fiscal implication of the proposed Riverside Station TOD, estimates have to be made concerning alterations the development would have on the community's expenditures and revenues. In most instances a determination of these financial changes are benchmarked to a corresponding change in a baseline indicator, such as housing units (for residential development) and employment (for commercial development). The resulting change in municipal service costs (per housing unit or per employee) are then compared with a change in revenue (typically a change in real property tax) in order to derive a net cost or a net benefit of the proposed development. The following Table 10 presents the approach for allocating the City of Newton expenses to a type of land use, essentially residential uses and non-residential uses, as based on the City's assessment and classification report for FY2011.

Table 9 – Allocation of Municipal Service Costs - Newton, MA

Parcel and Assessment Distribution Newton, MA (FY 2011)	Parcels	Assessment	% of Parcels	% of Assessment	Average
Residential	25,943	$ 18,113,666,363	88.0%	89.5%	**88.7%**
Commercial/Industrial and Personal Property	3,548	$ 2,119,141,737	12.0%	10.5%	**11.3%**
Total	**29,491**	**$ 20,232,808,100**	**100.00%**	**100.00%**	

Source : City of Newton, Massachusetts and RKG Associates, Inc.

The underlying assumption is that the community's parcels and its assessed value, by type of use, are proportional to expenses of providing services to the same properties.

- There are a total of 29,491 parcels in the tax base and of these 88.0% are residential, and the remaining are commercial, industrial or personal property (the other 12.0%).
- Similarly, of the total assessment value of $20.2 million, approximately 10.5% is for non-residential parcels and the remaining 89.5% for residential.

- Averaging these distributions (parcels and assessment) indicates that residential properties are proportionately 88.7% while non-residential are 11.3%.

- Setting aside education costs (discussed elsewhere), the annual "cost to run" the City for impacted departments and budget items is $81.8 million (Table 8) with 88.7% or $72.6 million as residential and 11.3% or $9.2 million as commercial (Table 10).

Table 10 – Allocation of Municipal Service Costs

Municipal Services Cost Allocation	Input	Costs
Total Impacted Costs *net* of School		**$81,787,708**
Residential	88.7%	$72,584,718
Commercial	11.3%	$9,202,989
Per Household	32,000	$2,268
Per Worker	54,230	$170

Source : City of Newton, MA and RKG Associates, Inc.

a) Benchmarking Service Costs

There are approximately 54,230 persons working in Newton[12], which equals an estimated municipal cost per employee of $9,202,989 (total) ÷ 54,230 = $170 per employee. There are approximately 32,000 housing units[13] in Newton indicating a residential municipal service cost (excluding schools) of $72,584,718 (total) ÷ 32,000 = $2,270 per housing unit. Utilizing these cost benchmarks, the estimated additional service costs from the proposed TOD are $816,500 with $158,700 (non-residential) and $657,800 (residential). These estimates are prior to any potential additional costs that might arise from conversations with selected municipal officials, as presented next.

2. Departmental Interviews

The consultants spoke with several municipal officials and department heads regarding any issues or concerns that they may have about possible additional costs or expenses, to their budget, as a result of the proposed Riverside Station TOD, as summarized next.

a) Planning and Development

Initial discussions were held with representatives of the Planning and Development Department in order to assure that the consultants had an understanding of overall issues and concerns from the City's point-of-view, as well as a summary recap of any of the City's past experiences with similar studies. These discussions helped to formulate the eventual approach and work plan used by RKG in this analysis.

b) Police

Discussions with the Police Chief indicated that a concern for his department would be the increased traffic on Grove Street, resulting from a higher density development on-site and an

[12] This includes the count identified in Table 4 as well as approximately 1,000 municipal employees as identified by the City of Newton Human Resources Department.
[13] Estimates developed by Demographics*Now*, a national vendor of demographic and other proprietary modeling data.

increase in utilization of the MBTA and other transit lines given an increase in on-site parking capacity. Also, the Chief indicated that on Red Sox home game days, with riders taking public transportation to Fenway, there is an increase of local traffic. The Chief indicated that he would like to learn more about the project's proposed traffic impacts. According to the development plans (Table 6) approximately $12.0 million in construction costs (labor and materials) is dedicated to Grove Street improvements. According to representatives of Vanasse Hangen Brustlin, Inc. (VHB), a consulting firm for the developer, roundabouts are proposed at the northbound off-ramp entrance; another at the service road leading to the southbound on-ramp on Asheville Road; and, a third inside the site, proper.

c) Fire

Discussions with the Fire Chief indicated that a proposed 300 (rounded) increase in residential units would represent less than a 1% increase in the total Newton housing inventory, which is considered to be a reasonable increase in demand that the department could absorb within existing staffing and workload. In terms of emergency calls and false alarms it was believed that most modern buildings are so designed to minimize false calls, and that since the proposed project was not primarily a retail project, the potential for human error in setting off false alarms would also be negligible. Some concern was offered regarding the possible increase in emergency and first responder calls to the site, given an increase in on-site population (workers/residents). However, there was no indication from the Chief that the potential expense of any additional work or effort from the Fire Department would exceed the likely increased real property tax contributions from the TOD.

d) Public Works – Water and Sewer

Conversations with the City of Newton Water and Sewer Department indicated that the City has enterprise accounts for water and sewer usage, and as such the proposed new development and uses at Riverside Station TOD are not likely to generate any annual fiscal "cost" to Newton that is not otherwise covered by the "pay as you use" approach. According to the representative, the City has water capacity to service the proposed development, but not sewer capacity. As a result, there will be mitigation required to remove a certain amount of flow from the system. According to the representative, there is an ongoing dialogue with representatives of VHB regarding this issue. As noted in the construction costs (Table 6), approximately $2.5 million has been allocated for relocation of a water line.

3. Estimate of Students and Education Costs

Discussions with representatives of the Newton Public Schools indicated an average per student cost of $14,200, which is used in this analysis as an average student cost estimate. The representative also suggested that the estimate of possible school children from the TOD may reflect the recent experiences at selected other residential complexes[14]. Table 11 presents apartment count/mix and student enrollment data for these three complexes comparing them with the proposed TOD.

[14] *Enrollment Analysis Report 2010 – 2011 to 2015 – 2016,* Newton Public Schools, 100 Walnut Street, Newtonville, Massachusetts, 02460, issued November 2010

Table 11 – School Children at Other Newton, MA Apartments

School Enrollment Estimated Impacts	Total Units	Affordable Units #	Affordable Units %	1-BR or <	2-BR and 3-BR Units	FY 2010/FY 2011 Avg Enrollment	Avg per 2/3-BR Units
Avalon at Newton Highlands	294	72	25%	95	199	69	0.3467
Avalon at Chestnut Hill	204	51	25%	54	150	58	0.3867
Arborpoint at Woodland Station	180	45	25%	75	105	42	0.4000
averages	**226**	**56**	**25%**	**75**	**151**	**56**	**0.3722**
Riverside Station	**290**	**44**	**15%**	**173**	**117**	**44**	**0.3722**
Costs per Student							$14,200
Estimated Riverside Station TOD Costs							**($624,800)**

Source : City of Newton, MA Public Schools (noted complexes) and RKG Associates, Inc.

a) Unit Mix and Count

As indicated in Table 11, the other apartment complexes range in size from 180-units to 294-units, averaging 226-units per complex, compared to 290-units at the TOD. All of the comparative complexes include 25% of their units as affordable, as compared with 15% of the units for the Riverside Station TOD. The number of affordable units at the other complexes range from 45-units to 72-units, averaging 56-units. This is nearly 30% greater than the number of affordable units at the proposed TOD. The three comparative complexes have fewer one-bedroom units when compared with the TOD, an average of 75-units versus 173-units (with studio apartments) for the TOD. These other complexes also have more two- and three-bedroom units, averaging 151 versus the proposed 117-units for the TOD. This is important to note as, according to Massachusetts Citizen's Housing and Planning Association (CHAPA), there is a diminished likelihood for school-age children in one-bedroom apartments and an increased likelihood in two- and three-bedroom apartments. In one study[15], CHAPA noted that "*compared to single-family homes, new multi-family developments almost always house fewer school-age children per dwelling unit. The probability that multi-family developments will generate school children is influenced by several factors, including:*

- *The number and percentage of dwelling units sized for family households. In virtually all cases, developments that offer three- or four-bedroom units generate more school children per unit than developments limited to one- and two-bedroom units.*
- *Large, high-density multi-family developments appear to be less attractive to families with children than low-rise, moderately dense developments with fewer units per building.*
- *Developments that offer yards, walkways and common open space typically house more children.*
- *Multi-family housing developed exclusively or primarily as affordable to low- and moderate-income families generates more children.*

[15] Community Opportunities Group, Inc, and Connery Associates, *Housing the Commonwealth's School Age Children – The Implications of Multi-Family Housing Development for Municipal and School Expenditures* (August 2003).

- *Regardless of scale, new multi-family developments with one- and two-bedroom units almost always generate enough revenue to pay for the services used by their residents.*
- *New multi-family developments often attract renters who already live in the community."*

The one-bedroom (and studio) units at Riverside Station TOD comprise 60% of the total units, compared with an average of 33% at the comparative complexes. Conversely, two- and three-bedroom units at the TOD account for about 40% of the total units as compared with 67% for the other complexes. Essentially, the unit mix, by bedroom count, for the proposed TOD and the comparative complexes is reversed.

b) Student Enrollment

These three existing apartment complexes in Newton were reported to average 169-students in total in FY2010 and FY2011, or an average of 56-students per complex (Table 11). In light of the CHAPA study, the average number of students at the comparative complexes was 0.3722 per non one-bedroom apartment. Applying this average to the 117 two- and three-bedroom at the Riverside Station TOD, results in an estimated 44 students, also if the distribution of students at Riverside Station TOD is similar to that for the peer group, this indicates 31 elementary students; 4 middle-school students; and 9 senior-high students. RKG realizes that estimating the number of school-age children is not an exact science and that some may consider that the Riverside Station TOD, with 290-units, would have a similar number of students as observed for Avalon at Newton Highlands (294-units), although, the higher number of two- and three-bedroom units at Avalon at Newton Highlands, coupled with the greater number of overall affordable units make this unlikely in RKG's opinion. Similarly, RKG's relationship with other consultants, both active and familiar with Newton and its school system, suggest that the estimated school enrollment may be lower given a lesser count of affordable units at Riverside Station TOD and the lack of amenities for families. As such there is likely a range of possible students residing at the Riverside Station TOD, rather than a hard and absolute number. RKG considers the estimate of 44 additional school age children to be a conservative and reasonable estimate.

c) Student Costs

As noted previously, conversations with representatives of the Newton Public Schools indicated an average per student cost of $14,200. A review of the Newton Public School budgets[16] for FY2010, FY2011 and proposed for FY2012 confirmed this estimate. Referring back to Table 11, the estimated costs associated with these 44 students is $624,800.

d) School Capacities

The representative of the Newton Public School expressed some concern of crowding in the elementary school(s) and the middle school(s). Given the location of the proposed Riverside Station TOD, the estimated 31 elementary students would attend the Williams school. The projected four middle school students would attend Brown and the projected nine senior high students would attend Newton South[17]. The following Table 12 presents the projected

[16] *Newton Public Schools, Newton, Massachusetts - Superintendant's Proposed Budget Fiscal 2012*, dated March 14, 2011.
[17] Derived from conversations with representatives of the Newton Public Schools and reflecting current school jurisdictions.

FY2012 and FY2016 enrollment at these schools relative to their capacities[18]. Enrollments projections for the Williams school indicate a projected decline in enrollment from 308 students in FY2012 to 252 students in FY2016. As such, these enrollments reflect a student population moving from 22 over capacity to 34 under capacity. The projected completion of the residential component at the Riverside Station TOD is mid-2015, suggesting that any potential addition of elementary school students, residing at Riverside Station TOD, would come at a time when the school is under capacity. The potential addition (again after mid-2015) of four students to the middle school (Brown) and nine students to the high-school (Newton South) is not considered to present a need for additional classroom space, given the estimated capacities.

Table 12 – FY2012 and FY2016 Enrollment *versus* Capacity

	Estimated Capacity /1.	Projected Enroll FY '12	Over (Under)	Projected Enroll FY ' 16	Over (Under)
Williams Elementary	286	308	22	252	(34)
Brown Middle School	850	687	(163)	765	(85)
Newton South	1,875	1,699	(176)	1,843	(32)

Source : City of Newton, MA Public Schools and RKG Associates, Inc.

/1. Reflects capacities of 40 SF/student from 2006 study for Williams and Brown. Newton South 2004 study.

C. Estimated Municipal Revenues

In most communities, the primary source of municipal revenues is the real property tax. Thus, the major portion of revenues from a proposed development can be determined by estimating the assessed valuation of future buildings and then multiplying the estimated assessed valuation by the local tax rates. This estimated real property tax is then adjusted by subtracting what the property currently pays in taxes (if any, as some existing properties could be tax exempt), and is further adjusted to reflect estimated municipal service costs. The resulting real property tax contribution of the proposed development is its net fiscal benefit or fiscal cost. It is the consultants' understanding that the property (land) will remain under MBTA ownership, and as such remains tax exempt. However, discussions with representatives of the City indicate that the private-sector building improvements would be taxable and result in the following:

- Estimated assessment values were developed in co-operation with the City of Newton Assessor, indicating an assessment value of $108.4 million.
- Municipal real property taxes equate to $1.9 million inclusive of an approximate $1.07 million for education.
- There is a 1% Community Preservation Act (CPA) property tax surcharge in Newton, which for the proposed Riverside Station TOD equates to an estimated $19,000.

1. Other Fees and Revenues

Estimating some other fees and revenues, such as motor vehicle excise taxes, may be somewhat speculative, considering that it is difficult to know whether there will be any

[18] *Enrollment Analysis Report 2010 – 2011 to 2015 – 2016*, Newton Public Schools, 100 Walnut Street, Newtonville, Massachusetts, 02460, issued November 2010 – for capacity data refer to footnote on Table 12.

relocation of existing Newton residents to the Riverside Station TOD, and, assuming that some residents may opt to live at the TOD and choose not to have a car (or fewer cars). On the other hand, estimating additional fees and revenues from potential Chapter 70 School Aid and personal property taxes are more straightforward. Each of these is presented next.

a) Personal Property Tax

According to the FY2011 summary assessment data for Newton there is slightly more than $1.8 billion in commercial and industrial real estate property assessment. Personal property assessments for individuals (use code 501) and for corporations (use code 502) amount to $113.8 million or approximately 6.2% of the real estate property assessment for commercial and industrial uses. As developed in co-operation with the City of Newton Assessor, the estimated assessment of the non-residential component(s) of the Riverside Station TOD is nearly $72.2 million. Assuming that the assessment of personal property represents $72.2 million X 6.2% = $4.5 million in personal property value for the various non-residential components of the Riverside Station TOD. Utilizing the tax rate of $20.89/$1,000 then results in an estimated personal property tax of $93,500 as in Table 13.

Table 13 – Personal Property Tax – Riverside Station TOD

FY 2011	Assessment
Total Commercial and Industrial Assessment	$1,830,045,937
Personal Property	
Individual Business (501)	$36,759,000
Corporate Business (502)	$77,035,000
	$113,794,000
as % of Total Non-Residential	6.2%
Riverside Station TOD	
Personal Property	$4,473,650
Estimated Tax	$93,455

Source : RKG Associates, Inc. and City of Newton, MA

b) Selected Other Fees and Revenues

These are best represented by motor vehicle excise fees, lottery distributions and licenses and permits. As indicated in Table 14, over the last several years, these have averaged $18.2 million in Newton, or approximately $213 on a per capita basis. Assuming an average household size of 2.5 persons for Newton, and applying this against the stabilized residential occupancy at the Riverside Station TOD (95% of 290 units) equal nearly $149,400 in additional fees and revenues from these sources. Chapter 70 School Aid has averaged $13.7 million over the last several years and is approximately $1,170 per student. Applying this amount to the estimated additional 44 students residing at the proposed Riverside Station TOD, yields approximately $51,400 in Chapter 70 School Aid.

Table 14 – Selected Other Fees & Revenues – Riverside Station TOD

SELECTED OTHER REVENUES	FY 2008 (A)	FY 2009 (A)	FY 2010 (A)	FY 2011 (B)	Average	Per Capita or Student	Riverside Station TOD
Excise Tax	$11,008,570	$10,239,711	$10,110,729	$9,900,000	$10,314,753	$121	$84,718
Lottery	$2,517,849	$2,801,947	$5,681,864	$3,948,500	$3,737,540	$44	$30,697
Licenses & Permits	$4,897,247	$4,190,689	$4,133,581	$3,328,023	$4,137,385	$49	$33,981
Subtotal	**$18,423,666**	**$17,232,347**	**$19,926,174**	**$17,176,523**	**$18,189,678**	**$213**	**$149,397**
Chapter 70 School Aid	$12,754,101	$14,460,608	$14,171,395	$13,343,503	$13,682,402	$1,169	**$51,439**

Source : City of Newton, Massachusetts and RKG Associates, Inc.

(A) = Actual and (B) = Budget

D. Reconciliation of Revenues and Costs

The following Table 15 presents the reconciliation of estimated revenues and costs for the proposed Riverside Station TOD (expressed in constant 2011 dollars).

Table 15 – Reconciliation of Revenues and Costs for Riverside Station TOD – City of Newton, MA

		Proposed Riverside Station TOD - Newton, MA				
	Inputs & Assumptions	Office	Retail	Residential	Other & Commuter	*TOTAL*
Property Use or Proposed Development						
Square Feet (SF) of Development		225,000	22,800	319,315		**567,115**
Number of Units				290		**290**
Number of Parking Spaces		563	19	435	1,000	**2,017**
Estimated Stabilized Occupancy (SF)		213,750	20,520	303,349		**537,619**
RECONCILIATION of Revenues and Expenses						
Estimated Ongoing Property Tax						**$1,923,981**
less Education component						**($1,084,282)**
NET of Education						**$839,699**
Estimated Municipal Service Costs						($816,471)
NET Ongoing Property Tax for General Fund						**$23,227**
Estimated Education Costs for New Students						**($624,800)**
Estimated Education Property Tax						$1,084,282
NET Ongoing Property Tax for Education						**$459,482**
Ongoing CPA Tax Surcharge						**$19,240**

Other Inputs and Assumptions	**Office**	**Retail**	**Residential**	**Other & Commuter**	**Construction**
Direct Employees / SF or UNIT	250	300	0.04	NA	NA
Indirect/Induced Employee Multiplier	1.3160	0.4784	NA	NA	0.9441
Direct Annual Wage (FTEs)	$81,596	$33,384	$27,083	NA	$59,731
Indirect/Induced Wage Multiplier	1.1153	0.7720	NA	NA	0.8772
Sales / SF	NA	$250	NA	NA	NA
Effective State Income Tax Rate	4.21%	4.11%	3.31%		4.21%
Estimated Assessment Value per SF	$250	$150	$175		
Newton Property Tax (per $000's)	$0.02089	$0.02089	$0.01090		
Stabilized Occupancy	95.00%	90.00%	95.00%		

SOURCE : RKG Associates, Inc., Normandy Real Estate Partners, Walsh Company, LLC and City of Newton, MA

- Real property taxes, net of the education portion, are nearly $840,000, while municipal service costs are $816,500. As such, the proposed Riverside Station TOD results in a net positive tax benefit (to the general fund and excluding schools) of $23,200.

- Education costs are $624,800, based on an estimated 44 students and the FY2011 per capita costs for education (from the general fund). The portion of property taxes for education is estimated to be slightly more than $1.08 million. As a result there is an annual positive tax benefit for education, from the TOD, of $459,500.

- As a result, the estimated net real property tax to the City of Newton (inclusive of education) is estimated to be nearly $482,700 annually. Additionally there is an estimated annual CPA tax surcharge of $19,200, annually.

Peer Review of

Economic & Fiscal Impact Analysis of the Proposed Riverside Station Transit Oriented Development

Prepared by RKG Associates for BH Normandy Riverside LLC

For

The City of Newton, MA
Planning Department

By:

Cambridge Economic Research

March 8, 2013

Overview

This report was prepared by Cambridge Economic Research at the request of the City of Newton. It provides an independent peer review of the Economic and Fiscal Impact Analysis of the proposed Riverside Station Transit Oriented Development (TOD). This analysis was prepared by RKG Associates for BH Normandy Riverside LLC and was submitted to the City on July 14, 2012. The proposed 564,000 sq. ft. mixed use Riverside TOD would bring some 400 residents and 935 jobs to Newton.

The scope of work of this review is detailed in the Cambridge Economic Research's contract with the City of Newton. The key elements of the scope of work as stated in the contract are to:

- Examine all assumptions and methods used to project costs and benefits.
- Investigate projections of the number of school-age children that the development will attract.
- Review the potential infrastructure and public safety/service costs.
- Analyze the estimated City revenues associated with the project.
- Determine the influence of the assumptions methodology used by RKG Associates on the findings of the fiscal impact analysis.

General Observations

The fiscal impact Analysis prepared by RKG for BH Normandy's Riverside Transit Oriented Development, a mixed used complex of 564,000 sq. ft., is fundamentally sound and transparent. It clearly explains the methodology used and presents calculations and assumptions to support conclusions. The Analysis is generally thorough and conclusions are supported by the data and model results. The methods used to project fiscal impacts are generally valid.

Specific Issues

Most of the assumptions used by RKG Associates to project economic and fiscal impacts are unbiased and well-based. There are however, some concerns and questions that have been raised by this peer review process with regard to the following elements of the Analysis:

a. Phasing of Costs and Benefits. The study projects economic and fiscal impacts at 100% build-out. Annual fiscal impact projections should be phased in over the 4-5 year build out and absorption period projected for the development.

b. Building Permit Fees. Based on the information provided in Table 6 for tax exempt materials and labor, Cambridge Economic Research calculates Building Permit Fees to the City of

Newton to be $3.3 million, rather than $3.5 million as is projected here. This is a difference of only 6% which does not affect the long term fiscal impacts on the City.

c. Infrastructure Costs. Are the costs shown in Table 6 for access, circulation, water and sewer comprehensive? Are there any other infrastructure costs for which the city will need to pay?

d. Net vs. Gross Floor Space. It appears that, based on the jobs projections in Table 7 and the property tax projections in Table 15, the floor space data are gross, rather than net. These projections do not appear to reflect typical efficiency ratios of 75% for office uses and of 65% to 75% for multi-family residential buildings. This needs to be clarified and projections of economic and fiscal benefits should be revised, if necessary.

e. Floor Space for Parking. The floor space projections for each of the uses do not appear to include parking garage space. According to the floor plans submitted by the developer, 6 of the building's 12 floors or 50% of the 10-storey office building will be devoted to parking. Two floors of the six-story residential building will be devoted to parking. Is parking garage space included in the projections of property taxes in Table 15? Again, these appear to be based on net floor space, rather than gross area.

f. Sales Tax Projections, as presented in Table 7, do not recognize that a large portion of retail sales in Massachusetts (food, clothes, & medicine) are tax-exempt.

g. Estimates of On-Going Economic Impacts presented in Table 7 assume that 100% of the businesses that locate in office space in the TOD will be new to the State. In fact, most will very likely be relocating from elsewhere in the state and metro area. Some businesses will be expanding and this employment can be counted as additional. Cambridge Economic Research would estimate that no more than around 20% of the jobs locating in the Riverside development would be new to the state.

h. Municipal Cost Allocation. RKG Associates has distributed costs per employee and per household (Table 9) according to the proportion of assessed value that commercial and residential properties comprise. Instead, we recommend using the proportion of taxes that are actually paid by these properties. For 2012, this was 18.5% ($15.2 million) for commercial properties and 81.5% ($66.6 million) for residential. Applying these percentages to the calculations in Table 10 would yield average costs of $2082 per household and $289 per worker, based on the 2012 jobs count of 52,500. The effect of these revisions would reduce the net revenues from the development that are presented in Table 15 by $57,150, an 11% decrease.

i. Unit Mix. The programmed residential development for Riverside TOD shown in Table 11 has a very high content of studio and one-bedroom apartments, given the suburban location – 60%. This is out of line with the benchmark Avalon and Arborpoint developments, where just 25% to 40% of units have less than 2 bedrooms. What is the basis for programming such a large proportion of one-bedroom units at this site? Is there a market study or data source that underpins the decision to build such a large proportion of small units? Please provide comps in the area with a similarly high content of one-bedroom units (aside from elderly housing).

j. CHAPA Findings. In estimating the number of public school children that the Riverside TOD can be expected to generate, RKG sites the findings of a study by Massachusetts Citizens Housing and Planning Association (CHAPA) regarding factors affecting the probability that multi-family developments will attract families with school children. CHAPA's finding that proximity to quality elementary schools is a key factor for families in the choice of rental housing is not mentioned. It is not recognized that Riverside is within walking distance of the highly-rated Williams Elementary School. Omitted from the RKG Analysis was the CHAPA finding that multi-family rental developments in established single family neighborhoods (such as Auburndale) attract more families with school children.

k. Enrollment Data for Benchmark Complexes. RKG uses three apartment rental complexes as benchmarks to project school enrollments for Riverside residents: The Avalon at Newton Highlands; the Avalon at Chestnut Hill; and the Arborpoint at Woodland Station. The enrollment data for the three benchmarks shown in Table 11 are significantly below those collected by the Schools Department and published in its Annual Enrollment Analysis Report. If the correct 2012 enrollment data are presented for the benchmarks, the result is an average of 0.5044 school children per 2-3 bedroom unit.

l. Choice of Benchmark Complexes. The proposed Riverside TOD development differs from the three benchmarks used by RKG in one important respect. Riverside is 0.5 mile from Williams Elementary School -- easy walking distance. The two Avalon Developments and the Arborpoint at Woodland Station are 1.2 to 1.5 miles from elementary schools. These developments have no direct links with traditional single-family residential neighborhoods, as does the Riverside Station site with the Auburndale neighborhood.

m. Add Woodland Park as a benchmark. The Woodland Park Apartment Complex at 264-290 Grove Street, just across from Riverside Station, should be added to the other three complexes as a benchmark. Woodland Park has 126 units, 80 of which are 2-bedroom. Although there are no 3-bedroom units at Woodland Park, the number of school children per two bedroom apartment at the complex is 0.625, as compared with rates of 0.47 to 0.52 for

the three benchmarks used by RKG, which are more distant from schools. The number of school children in the 4 complexes averages 0.5224 school children per 2-3 bedroom unit. This yields a projection of 61 school children for the Riverside Station Development, compared with the 44 school children projected by RKG Associates.

n. Chapter 70 School Aid (Table 14). The 2012 Chapter 70 Aid amount of $1133 should be used, instead of $1170. This does not appear to have been included in the Table 15, Reconciliation of Revenues and Costs.

o. Other Fees & Revenues. "Other Fees and Revenues" from excise taxes, lottery, and licenses and permits do not appear to have been included in the Table 15, Reconciliation of Revenues and Costs. Where are these?

p. Assessed Value Assumptions. What is the basis for the assumptions of assessed values of $250 sq. ft. for office, $150 sq. ft. for retail, and $175 sq. ft. for residential? The Assessor has used $283 for retail and office and $159 for Residential in their projections of revenue from the Riverside Station Development.

q. Property Tax Calculations. See net/gross square footage questions in Paragraphs d and e above. Please adjust building sizes to reflect gross square footage to include common areas and garage space, if needed. 2012 property tax rates of $21.32 per $1000 for commercial property and $11.17 for residential property should be used. Applying the 2012 property tax rates to RKG's estimates for assessed values yields an estimated of $1.92 million a year. If this is factored into the projections of revenues in Table 15 and if the current data for the four benchmark complexes (see Parag. m above) is used to project school enrollments, education costs amount to $868,000 against education revenues of $1.08 million producing an annual surplus of $211,360 compared with the $459,482 annual net revenue gain projected by RKG.

r. If the adjustments to the municipal cost allocation recommended Parag. h above are made, the surplus would be about $250,000 a year, compared with $502,000 a year projected by RKG Associates. In this case, the net impact of the Riverside Station development would be negligible, adding less that .001% to the City's property tax rolls. The project would be revenue-neutral with little or no discernible fiscal impact on the City-- either positive or negative. On the other hand, there may be some undercounting of floor space (see Parags. d & e) as well as some underestimation of assessed values (Parag. p) which, if corrected, may contribute to the projections of net revenues from the Woodside Station development.