THE CITY OF NEW YORK
OFFICE OF THE MAYOR
NEW YORK, N.Y. 10007

Technical Memorandum for the East River Science Park

CEQR Number 01DME004M TM001

Modification of Programming for the Bellevue Psychiatric Building and Designation of the East River Science Park Site as an Expansion Site of the Chinatown Empire Zone

I. INTRODUCTION

The Mayor's Office for Economic Development and Finance (now the Office of the Deputy Mayor for Economic Development) issued a Notice of Completion for the East River Science Park (ERSP) Final Environmental Impact Statement (FEIS) on November 9, 2001. Subsequent to the approval of the ERSP project in 2001, the project changed slightly and new information was obtained. The Psychiatric Building was removed from the project and it was determined to be eligible for listing on the State/National Register of Historic Places. The remainder of the ERSP project did not change in any material aspect with the exception that the project would proceed in two phases, rather than three. Additionally, it is now proposed that the Chinatown Empire Zone (EZ) be expanded to include the site of the ERSP. Compared to the reuse of the Psychiatric Building described in the FEIS, a change in reuse if that building is also being proposed. The purpose of this technical memorandum is to determine whether the proposed changes to the reuse of the former Bellevue Psychiatric Building ("Psychiatric Building") as compared with the reuse program identified and analyzed in the 2001 *East River Science Park Final Environmental Impact Statement* (FEIS) and the designation of the ERSP as an EZ would result in any significant adverse environmental impacts. This technical memorandum also examines background conditions updated to 2012 and uses that updated information to determine if there would be any impacts from the modified Psychiatric Building redevelopment not previously disclosed in the FEIS.

The modified program for the Psychiatric Building differs from the initial projected development of the Psychiatric Building component of the ERSP project analyzed in the FEIS that include a change from staff housing, laboratory space, daycare, and conference center uses, to hotel, medical office, conference center, and retail uses. A detailed description of the proposed modified Psychiatric Building redevelopment, which is expected to be completed by 2012, is provided in the Project Description below.

This technical memorandum uses City Environmental Quality Review (CEQR) guidelines and thresholds to determine whether the proposed changes would result in significant adverse

environmental impacts not previously disclosed in the 2001 FEIS. As described in the New York State Department of Environmental Conservation SEQRA regulations, 6 NYCRR Sections 617.9(a)(7)(i)(a), (b), and (c), and the 2001 *CEQR Technical Manual*, the lead agency may require the preparation of a supplemental EIS if there are significant adverse impacts not addressed or inadequately addressed in the EIS that arise from changes proposed for the project, newly discovered information, or a change in circumstances related to the project. This technical memorandum was prepared to assess the need for further environmental review and finds that there would be no additional significant adverse impacts in any of the CEQR technical areas analyzed in the 2001 *East River Science Park FEIS* as a result of the modified development planned for the Psychiatric Building, the designation of the ERSP as an EZ, changes in background conditions or newly discovered information. Further, although the Psychiatric Building was determined to be eligible for listing on the State and National Registers of Historic Places subsequent to the completion of the FEIS, close coordination with the New York State Office of Parks, Recreation and Historic Preservation (the State Historic Preservation Office - OPRHP) and resulting commitments in the project to protect and restore the historic nature of the building ensure that there would be no significant adverse impact to this historic resource.

II. PROJECT DESCRIPTION

The New York City Economic Development Corporation (NYCEDC) and the New York City Health and Hospitals Corporation (HHC) propose to facilitate the redevelopment of the former Psychiatric Building at Bellevue Hospital Center. As stated above, the reuse of the Psychiatric Building with a different set of proposed uses was previously approved as one component of an earlier version of the ERSP project, which is now under construction.

The Psychiatric Building is located on an approximately 82,000-square foot parcel at 500 First Avenue, between East 29th Street and East 30th Street (Block 962, Lot 97) in the Kips Bay neighborhood of Manhattan. The modified proposed project would entail close coordination with SHPO in designing the reuse of the partially vacant building for hotel, conference center, medical office, and retail uses. Based on a Reasonable Worst Case Development Scenario (RWCDS), the proposed redevelopment would include approximately 240,000 square feet (sf) of hotel space (approximately 450 rooms); a 45,000 sf Conference Center; 53,420 sf of retail space including a restaurant and a fitness club/gymnasium; 60,000 sf of medical office space, and 55,000 sf of parking below grade. A total of 453,420 sf of nonresidential, mixed-use development is envisioned as part of the project.

Analysis of the modified proposal for the Psychiatric Building has been performed for the expected Build Year, or completion of construction and occupancy for the former Bellevue Psychiatric Building redevelopment project site, of 2012, and includes the impacts of other projects that would affect conditions in the study area, irrespective of implementation of the proposed project.

Background and Site History

Built in 1931, the Psychiatric Building is a nine-story, 398,420-square foot, red brick, limestone and granite structure built in the shape of the letter "H." The building was designed by Charles

B. Meyers in an Italian Renaissance style similar to the neighboring buildings on the Bellevue Hospital campus, many of which were designed by McKim, Mead and White.

Since the early 1980s, the New York City Department of Homeless Services (NYCDHS) has operated the building as a shelter for homeless men and an intake center for the shelter system. Independent of these proposed actions, NYCDHS is in the process of closing the shelter facility and relocating the intake center to another NYCDHS facility.

The current modified proposal for the Psychiatric Building is the result of an RFP that was issued by NYCEDC and HHC in March 2008. The goals of the development project as specified in the RFP were to: establish a reliable revenue source for Bellevue Hospital; support local medical-related institutions with hotel and conference space; preserve the Psychiatric Building; and achieve a LEED® Silver rated project. A hotel and conference use was suggested in the RFP because studies showed that these uses were the most financially beneficial and physically feasible, given the reuse constraints of the building. The hotel and conference center use would also complement the hospitals, research institutions and other medical-related uses along First Avenue. Several proposals were received in response to the RFP; the RWCDS evaluated in this technical memorandum comprises common elements of these proposals.

The current modified proposal for the Psychiatric Building alters the proposal for the building's reuse and renovation as initially described in the November 2001 ERSP FEIS. This earlier proposal received ULURP approval from the City Council on December 19, 2001. Pursuant to CEQR, the Mayor's Office for Economic Development and Finance was the lead agency responsible for conducting the environmental review and determining whether the proposed action would have significant impacts on public health and the environment. After considering the FEIS, the Office of the Deputy Mayor for Economic Development and Rebuilding (formerly the Mayor's Office for Economic Development and Finance and currently the Office of the Deputy Mayor for Economic Development) adopted the Statement of Findings on May 17, 2007.

During the period between the 2001 approval of the ERSP project and the 2007 Statement of Findings, with the exception of taking the Psychiatric Building out of the ERSP project and the determination of its eligibility for listing in the State and National Registers of Historic Places, neither the ERSP project nor its context changed in any material respect. However, the initially selected developer withdrew from the project in 2004. NYCEDC consequently released a second RFP for the ERSP in November 2004 to designate a new developer and a new developer was designated in August 2005. No substantial change has occurred in the use or site plan of the approved ERSP project. However, as indicated in the 2007 Statement of Findings, the phasing of the project differs, with the overall project now proposed in two phases instead of three. The overall program for the ERSP project includes 872,000 sf of bioscience space, approximately 61,000 sf of open space, and 720 parking spaces. The ULURP-approved site plan requires that the buildings and open space be constructed atop a raised platform to enhance views of the East River, provide passive open space and enhance the Bellevue Hospital campus. The currently defined second phase of the ERSP project (the Option Parcel, located south of East 30th Street to the east of the Psychiatric Building) is expected to be completed following the 2012 Build Year. The first phase of the ERSP project (the East and West Towers) is under construction and is expected to be completed by 2012, along with associated site improvements, including portions of the pedestrian plaza.

The renovation of the Psychiatric Building that was described and evaluated in the ERSP FEIS included adaptive reuse of the building only. As described in the FEIS, the previously approved program for the Psychiatric Building included approximately 220 units of staff housing in the east wing of the building, 115,000 sf of clinical research and practice space in the west wing of the building, a 9,000-sqaure foot conference center in the center wing, and a 10,000-square foot child care center on the lower level (total of 353,000 gross square feet (gsf).

Description of the Modified Proposal for the Psychiatric Building

The modified proposed development scenario totals 453,420 gsf of floor area as follows, based on a RWCDS for the site. As stated above, the RWCDS is based on developer proposals that were received in response to the March 2008 RFP.

- Hotel: 240,000 gsf (approximately 450 rooms)
- Conference Center: 45,000 gsf
- Retail/Restaurant/Gym: 53,420 gsf
- Medical Office: 60,000 gsf
- Parking: 55,000 gsf

The redeveloped Psychiatric Building would be adjacent to the ERSP – a biotechnology center located between East 28th and East 29th Streets, east of First Avenue. The first phase of the ERSP project, approximately 600,000 sf in two towers, is currently under construction. The second phase of the project includes a tower on the parcel just east of the Psychiatric Building (the Option parcel), but the construction start date has not yet been determined. When complete, ERSP would contain 872,000 sf of bioscience space.

As part of the ERSP project, a raised pedestrian plaza would extend east from First Avenue, and would physically connect the Psychiatric Building's southern edge with the ERSP. The plaza would contain a cul de sac with turn-around above the bed of East 29th Street and, continuing east, it would contain landscaping, passive seating areas, a food kiosk, and opportunities for waterfront viewing. The plaza would also contain a glass enclosed Wintergarden between the two ERSP towers. Because of the grade change that slopes downward to the East River from First Avenue, some of first floor of the Psychiatric Building would be below the level of the plaza, requiring light wells for windows of the Psychiatric Building. Consultation with the OPRHP would occur prior to altering the exterior of the building. Parking for Bellevue Hospital and the ERSP would be located under the raised plaza.

Parking for the Psychiatric Building is proposed to be located below the building, possibly through valet service. Vehicle drop-off would be located at the midblock on East 30th Street. East 30th Street is an eastbound street and would remain so under the proposed project, except between First Avenue and the midblock hotel drop-off area, where there would also be a westbound lane so cars could turn around and exit at First Avenue. Building entry design treatments may include a port cochere on First Avenue, where a courtyard now exists.

The Psychiatric Building contains 11 WPA-era murals and it is expected that the some of the murals would be restored, particularly in the public areas, such as the lobbies. None of the murals are currently visible, having been covered by paint or plaster decades ago. The City's

Public Design Commission has jurisdiction over mural restoration and it is expected that the designated developer would work with the Design Commission to implement a mural restoration program.

For the proposed retail component, a mix of retail, restaurant and gymnasium/sports club uses are proposed. These would primarily face First Avenue, with the gym and medical offices located in the basement. A utility easement in favor of the ERSP property extends into the Psychiatric Building to allow for utility connections.

Table 1 below shows the changes in the project program compared to the program for the Psychiatric Building analyzed in the 2001 FEIS.

Table 1
Psychiatric Building Program – 2001 FEIS vs. 2008 Proposed Modified Redevelopment

Land Use	Development Program Analyzed in 2001 FEIS for Projected Reuse	Current Redevelopment Program	Net Difference
Staff Housing	220 Units	0	(-220 units)
Laboratory	115,000 sf	0	(-115,000 sf)
Community Facility (Child Care)	10,000 sf	0	(-10,000 sf)
Conference Center	9,000 sf	45,000 sf	36,000 sf
Hotel	0	240,000 sf (450 rooms)	240,000 sf (450 rooms)
Medical Office	0	60,000 sf	60,000 sf
Retail	0	53,420 sf	53,420 sf
Parking	0	55,000 sf	55,000 sf

An additional modification is the designation of the East River Science Park as part of the existing Chinatown/Lower East Side Empire Zone (EZ) (see Figure 1). The EZ program is a certification program through which businesses that create jobs or make investments in a geographically designated area are made eligible for a variety of New York State tax credits and benefits. Under the current rules, businesses in the program must be certified as eligible and if qualified may operate with a substantially reduced tax burden for up to ten years. The New York City Department of Small Businesses is applying to Empire State Development Corporation, on behalf of the City, for approval of the proposed designation, pursuant to EZ regulations allowing such changes. The proposed action also requires City legislation to formally complete the City's request to re-designate the EZ. The Chinatown/Lower East Side EZ is governed by a local administrative board, constituted in accordance with applicable state regulations, and managed by the Renaissance Economic Development Corporation, which is the local administrator for this EZ.

Required Approvals and Review Procedures

The following discretionary public approvals are anticipated for the Psychiatric Building redevelopment:

- Site disposition - through HHC's process (HHC Act, Section 7385 (6)), which requires a public hearing by the HHC Board and a City Council vote.

- Empire Zone expansion - requires City Council and Mayoral enactment of a local law creating an EZ on the site, and Empire State Development Corporation approval.

In addition, redevelopment of the Psychiatric Building will be done in accordance with the following:

- Historic Preservation MOA - a Memorandum of Agreement (MOA) on the building signed by OPRHP, the City of New York and HHC was entered into as a condition of securing Federal funds for the ERSP project. Close coordination with the OPRHP, which has already commenced, shall continue through project design, especially because the use of Historic Tax Credits is anticipated.

- NYC Design Commission -The NYC Design Commission will review and approve mural restoration efforts.

Purpose and Need

The Psychiatric Building is located in the midst of a major medical service and research corridor along First Avenue from approximately East 16th Street (Beth Israel Medical Center) to the East 60s (Memorial Sloan-Kettering Cancer Center, Weill Cornell Medical Center) to the East 90s (Mount Sinai Medical Center). New development to be undertaken as part of the ERSP would support the medical and scientific research and economic development opportunities available within this corridor. In support of this, the purpose of the modified proposal for the Psychiatric Building is to provide a reliable revenue stream to HHC, specifically Bellevue Hospital, and create much needed hotel and conference center space catering to the surrounding medical and life science-related communities. The disposition would occur through a long-term ground lease. The revenue stream established through the ground lease would specifically help support the operations of Bellevue Hospital.

The Psychiatric Building redevelopment would maintain the architectural integrity of the Psychiatric Building with façade restoration and would occur pursuant to a Memorandum of Agreement with the OPRHP that ensures that redevelopment of this State and National Register of Historic Places-eligible building would include appropriate measures to avoid or minimize any adverse effects to the integrity or appearance of the Psychiatric Building.

The proposed redevelopment is expected to achieve a Leadership in Energy and Environmental Design ("LEED") rating of at least Silver. The project would also maximize employment opportunities for the City's local and disadvantaged residents through participation in the Targeted Hiring and Workforce Development Program ("THWDP"). The proposed action also advances the City's economic development goals by supporting hospitals and other medical facilities along the First Avenue corridor with a complimentary use, and through job creation.

The purpose of the proposed EZ designation is to address the economic needs of this designated geographic area, including redevelopment of sites suitable for development that are currently underutilized. The proposed designation of the East River Science Park as part of the EZ would provide a variety of financial incentives and benefits for companies seeking to locate on the site that would maintain or increase employment and invest in their businesses.

III. ANALYSES

Land Use, Zoning, and Public Policy

The 2001 ERSP FEIS indicated that the ERSP, which included the renovation of the Psychiatric Building as part of that previously approved project, would not substantially change land use in the surrounding area and would not result in significant adverse land use impacts. The previously proposed uses for the Psychiatric Building were described as being consistent with the medical-oriented facilities on the Bellevue campus, as well as with adjacent sites that also encompass biomedical and life sciences uses.

The modified proposal for the Psychiatric Building with hotel, medical office, retail and conference center uses that is the subject of this technical memorandum would alter area land uses to a greater extent than the previous proposal, although the revised uses still would be compatible with, and supportive of, the adjacent medical and life science-related institutional and mixed-use development. No significant adverse land use impacts would be expected. In addition, the expansion of the Empire Zone to the ERSP site would not have an impact on Land Use.

Land Use

Land use conditions within the ERSP FEIS study area were updated for this technical memorandum through consultation with the New York City Department of City Planning (DCP) and field surveys conducted in October 2008 to account for updated existing conditions and the status of development projects anticipated for completion through 2012 (see Figure 1). There have been no changes to the land use of the project site, which continues to be occupied by a nine-story, 398,420-square-foot, former Psychiatric Building associated with Bellevue Hospital Center.

Since the certification of the 2001 ERSP FEIS, the institutional no-build projects listed in the 2001 FEIS have been completed and the two southerly towers of the ERSP project are now in construction. In addition, there are two residential projects within the ¼-mile radius study area that are expected to be completed by 2012, including a 12-story apartment building at 305 East 33rd Street and two nine-story residential buildings on East 25th Street. The 12-story building located at 305 East 33rd Street, between First and Second Avenues would contain 130 dwelling units. The project is currently under construction and has a build year of 2010. The proposed two nine-story infill residential buildings located on East 25th Street, between First and Second Avenues, would contain 33 and 57 dwelling units, respectively. The proposed modified project has a build year of 2012.

Despite these proposed developments, however, the essential land use patterns within the project study area have remained similar to those detailed in the 2001 FEIS. Similar to the project analyzed in the 2001 FEIS for the ERSP and the former Psychiatric Building, the proposed modified project would include renovation of the existing Psychiatric Building and an adaptive reuse of the building. Although the newly proposed commercial use of the former Psychiatric Building (including approximately 240,000 gsf of hotel space with approximately 450 rooms, 45,000 gsf of conference space, 55,000 gsf of retail space including a restaurant and a fitness club/gymnasium, 40,000 gsf of medical office space, and 55,000 gsf of parking below grade)

would differ from the previously analyzed mixed-use development that included 220 units of staff housing, 115,000 gsf of laboratory space, 9,000 gsf of conference space and a 10,000 gsf child care center, the new uses proposed would be compatible with existing and anticipated future uses in the study area. The area in the immediate vicinity of the former Psychiatric Building is expected to continue to exhibit a mix of institutional, residential, and mixed uses. Therefore, the proposed new use of the former Psychiatric Building would not result in any significant adverse impacts on land use, and would not alter the findings of the 2001 FEIS.

Zoning and Public Policy

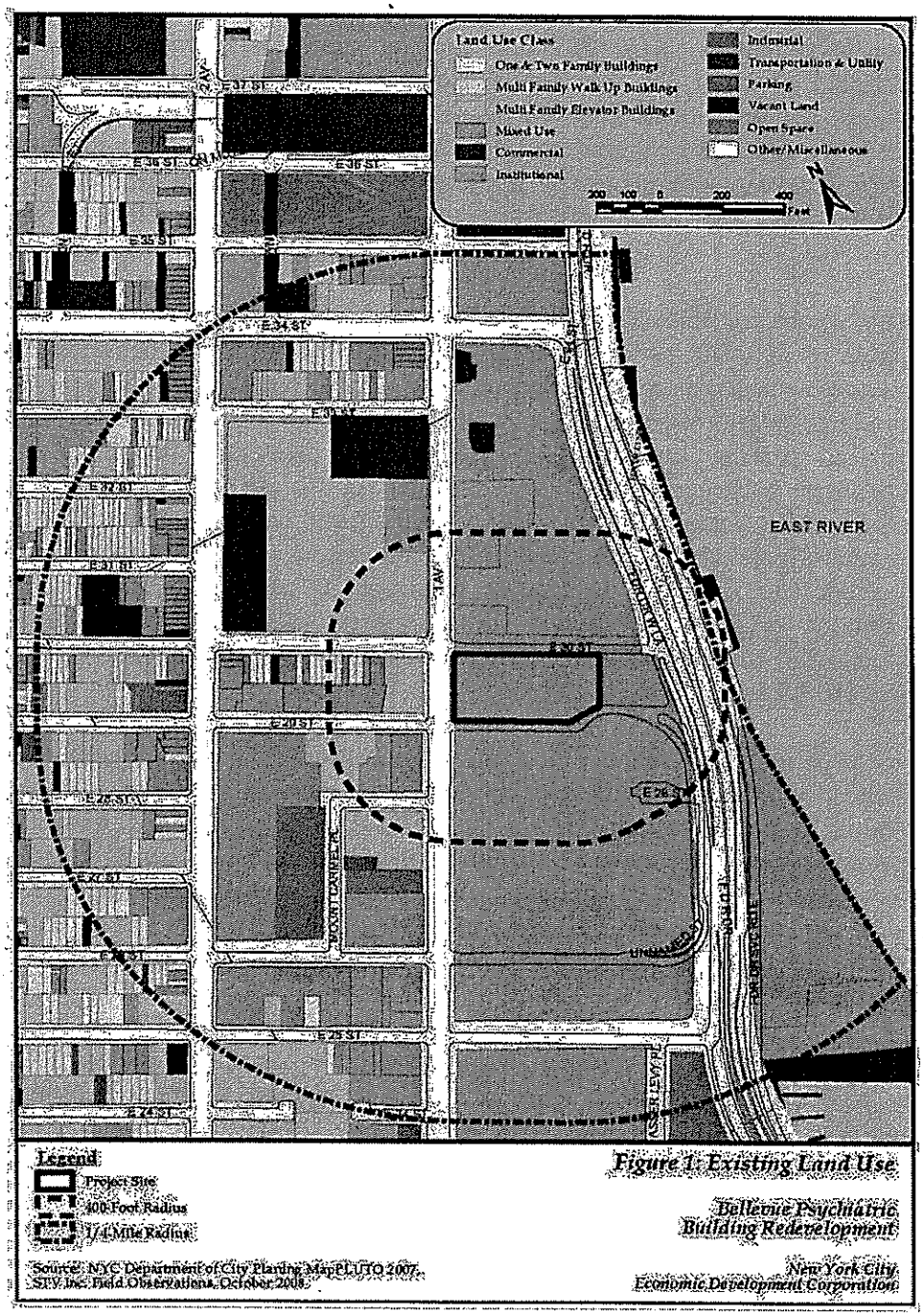
The project site is located in a C6-2 zoning district. The disposition approval obtained through the 2001 ULURP approvals for the ERSP restricted C6-2 uses on the site to: Use Groups 3 and 4 (hospital related uses); Use Group 6A (neighborhood retail), which was limited to not more than 5 percent of the total new floor area; and Use Group 6B (office), which was allowed on a limited and temporary basis only. However, the ERSP project stalled and the Psychiatric Building was never disposed pursuant to that approval. The NYC Department of City Planning has subsequently confirmed that the use restrictions do not apply since the disposition mechanism has changed. The Psychiatric Building would be conveyed through HHC's disposition authority (HHC Act, Section 7385 (6)) and thus the redevelopment of the Psychiatric Building for hotel, office and retail uses would be as-of-right under current zoning.

As indicated in the Project Description section above, designation of the ERSP as part of the existing Chinatown/Lower East Side Empire Zone (EZ) is also proposed. The EZ program is a certification program through which businesses that create jobs or make investments in a geographically designated area are made eligible for a variety of New York State tax credits and benefits. The New York City Department of Small Businesses is applying to the Empire State Development Corporation, on behalf of the City, for approval of the proposed designation, pursuant to EZ regulations allowing such changes. The proposed action also requires City legislation to formally complete the City's request to re-designate the EZ. Extending the Chinatown/Lower East Side EZ would support the stated need of economic development and foster the growth of biotechnology enterprises in New York City and would not alter the findings of the 2001 FEIS related to public policy.

Public policy relevant to the Psychiatric Building redevelopment in the form of a comprehensive plan for Manhattan Community Board 6 has been introduced since the 2001 ERSP EIS. The plan, entitled *197-a Plan for Eastern Section of Community District 6 Borough of Manhattan* and approved in March 2008,, focuses on the waterfront and open space. 197-a Plan policies that are relevant to the Psychiatric Building and its vicinity include creating attractive open spaces and continuing north-south pedestrian circulation within the ERSP site, making improvements related to views and access through the campus between the waterfront and First Avenue; maintaining the existing street wall character along avenues; preserving the historic character and campus setting of Bellevue Hospital; considering landmark status for the Psychiatric Building; improving the East River Esplanade between 23rd Street and 42nd Street; and exploring FDR reconstruction opportunities related to creation of a decked park.

The modified proposal for the Psychiatric Building would not conflict with any of the applicable policies of the 197-a Plan for Manhattan Community District 6. It would enhance the future adjacent open space on the ERSP site and would preserve waterfront views. It would also

protect the historic features of the Psychiatric Building, the street wall along First Avenue, as well as the historic character of the Bellevue Hospital campus. Therefore, the modified proposal would not result in any significant adverse impacts to previously existing or updated public policies related to the project site and its land use study area.



Socioeconomic Conditions

The 2001 FEIS for the ERSP project identified no significant adverse socioeconomic impacts associated with that previously approved project that included the reuse of the Psychiatric Building. Because the modified proposal for the Psychiatric Building site includes an increment over the previously proposed project of nearly 300,000 gsf of commercial use and 36,000 gsf of conference center space, a socioeconomic screening analysis has been conducted for this technical memorandum according to *CEQR Technical Manual* methodologies to evaluate the potential for the modified proposal for the Psychiatric Building redevelopment to affect socioeconomic conditions. As described below, the current redevelopment proposal would not be expected to adversely affect the five categories of potential socioeconomic impacts identified in the *CEQR Technical Manual.* The project is not expected to cause significant direct or indirect residential or business and institutional displacement, or adversely affect specific industries.

According to the *CEQR Technical Manual,* a residential development of 200 units or less or a commercial development of 200,000 gsf or less would typically not result in socioeconomic impacts, unless it generates socioeconomic conditions that are very different from the prevailing conditions. The currently proposed reuse of the Psychiatric Building for a combination of hotel, medical office, retail and parking use would not include any residential dwelling units. Nonresidential development proposed for the site includes up to 453,420 gsf of hotel, commercial and medical office space, with the largest component comprising a 450-room, 240,000-square foot hotel. The hotel and associated office and commercial space would change the land use on the project site compared to existing conditions (a partially occupied men's shelter and intake center), or future conditions with the previously approved mixed-use development that included 220 units of staff housing, 115,000 gsf of laboratory space, a 9,000 sf conference center and a 10,000 sf child care center.

As indicated in the ERSP FEIS, the previous proposal for the Psychiatric Building would have reused an underutilized city-owned property and would have generated recurring economic activities. By providing a complementary set of uses that would foster the growth of biotechnology enterprises and fulfill the expansion needs of the New York University School of Medicine (NYUSOM), the FEIS indicated that it would have supported the activities of the NYUSOM, refurbished an underutilized building, created significant new biotechnology facilities, and benefitted the economy of the City and State by promoting growth of the biomedical/biotechnical research industry.

The *CEQR Technical Manual* calls for evaluation of socioeconomic conditions related to both residential conditions and business conditions where an action is expected to create substantial socioeconomic changes. According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a proposed action may reasonably be expected to create substantial socioeconomic changes within the area affected by the action that would not occur in the absence of the action. Actions that would trigger a CEQR analysis include those with the potential for the following:

- *Direct residential displacement* - the direct displacement of a residential population so that the socioeconomic profile of the neighborhood would be substantially altered;

- *Direct business displacement* - the direct displacement of substantial numbers of businesses or employees or the direct displacement of a business or institution that is unusually important because: it has a critical social or economic role in the community and would have unusual difficulty in relocating successfully; it is of a type or in a location that makes it the subject of other regulations or publicly adopted plans aimed at its preservation; it serves a population uniquely dependent on its services in its present location; or it is particularly important to neighborhood character;
- *Indirect residential and business displacement* - the introduction of substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. Such an action could lead to indirect displacement. As indicated above, the *CEQR Technical Manual* additionally states that residential development of 200 units or less or commercial development of 200,000 gsf or less would typically not result in significant socioeconomic impacts; and,
- *Adverse Impacts on Specific Industries* - a significant adverse impact may occur if an action would measurably diminish the viability of a specific industry that has substantial economic value to the City's economy. An example as cited in the *CEQR Technical Manual* would be new regulations that prohibit or restrict the use of certain processes that are critical to specific industries.

The following sections address the potential for these impacts as a result of the modified proposal for the project site.

Direct Residential Displacement

As with the previously approved project, there would be no direct residential displacement. The New York City Department of Homeless Services (NYCDHS) has operated the former Psychiatric Building since 1998 as a shelter for homeless men and an intake center for the shelter system and, independent of the proposed actions, is in the process of closing the shelter facility and relocating the intake center to another NYCDHS facility. The building is expected to be vacant by June 2009. While the demand for staff housing that would have been addressed by the previously proposed project would not be met with the current proposal, no significant adverse socioeconomic impacts as a result of direct residential displacement are expected.

Direct Business Displacement

The Psychiatric Building is currently partially vacant and is expected to be fully vacant by June 2009. No commercial businesses or employees would be displaced by the modified proposed action. The current proposal would result in an increase in employment on the project site compared to the previously proposed project. Laboratory space that would otherwise have been constructed with the previous proposal will not be provided under the current proposal. Therefore, no significant adverse socioeconomic impacts related to direct business displacement are expected.

Indirect Residential Displacement

The *CEQR Technical Manual* calls for a detailed evaluation of indirect residential displacement in circumstances where a project can lead to indirect changes including the following:

- The addition of substantial new population with different socioeconomic characteristics compared to the size and character of the existing population;

- The direct displacement of uses or properties that have a "blighting" effect on property values in the area;
- The displacement of one or more components of the population that would alter the socioeconomic composition of the study area;
- The introduction of a "critical mass" of non-residential uses such that the surrounding area becomes more attractive as a residential neighborhood; and,
- The introduction of a land use that could have a similar indirect effect if it is large enough or prominent enough or combines with other like uses to create a critical mass large enough to offset positive trends in the study area, to impede efforts to attract investment to the area, or to create a climate for disinvestment.

Compared to the previously approved project, the currently proposed project would have the similar effects of utilizing an underutilized property and making the surrounding area more attractive as a residential neighborhood. However, with the newly proposed hotel and retail components, the modified proposal would introduce more intense generators of economic activity than the previously proposed redevelopment of the Psychiatric Building, thereby increasing the likelihood that the project would make the area more attractive as a residential neighborhood and, by extension, potentially increasing rents in the area.

As it relates to the potential for indirect residential displacement, nine census tracts that fall within approximately ½-mile of the project site that comprise the study area for indirect displacement (see Figure 2) do not contain significant concentrations of households that would be considered at risk of secondary displacement. According to the 2000 census, the 34,546 households that reside in this socioeconomic study area had a year 2000 median household income of $62,524 compared to all households in the borough of Manhattan ($47,030), and the city as a whole ($38,293). Census tract 66 that is located directly southwest of the project site and that includes portions of Second Avenue had the lowest household incomes of the nine study area census tracts ($44,914). Field surveys indicate that housing conditions in this area are mixed, with some older four-story mixed-use buildings present facing Second Avenue that may contain fewer than six units, leaving them unprotected by rent regulation. However, this census tract contains only five percent of the study area's total households.

The area in general has experienced extensive new development of market rate housing and the relatively small amount of potential secondary displacement pressure generated by the modified proposal would not be expected to substantially accelerate trends related to rising land values and rents. Therefore, the limited indirect residential displacement pressure that might be generated by the modified proposal for reuse of the former Psychiatric Building would not be expected to result in significant adverse impacts from indirect residential displacement.

Indirect Business and Institutional Displacement

As with the analysis of indirect residential displacement, the preliminary assessment for indirect business and institutional displacement focuses on the issue of whether an action would increase property values, and thus rents, throughout the study area, making it difficult for some categories of businesses to remain in the area. An action can lead to such indirect changes if:

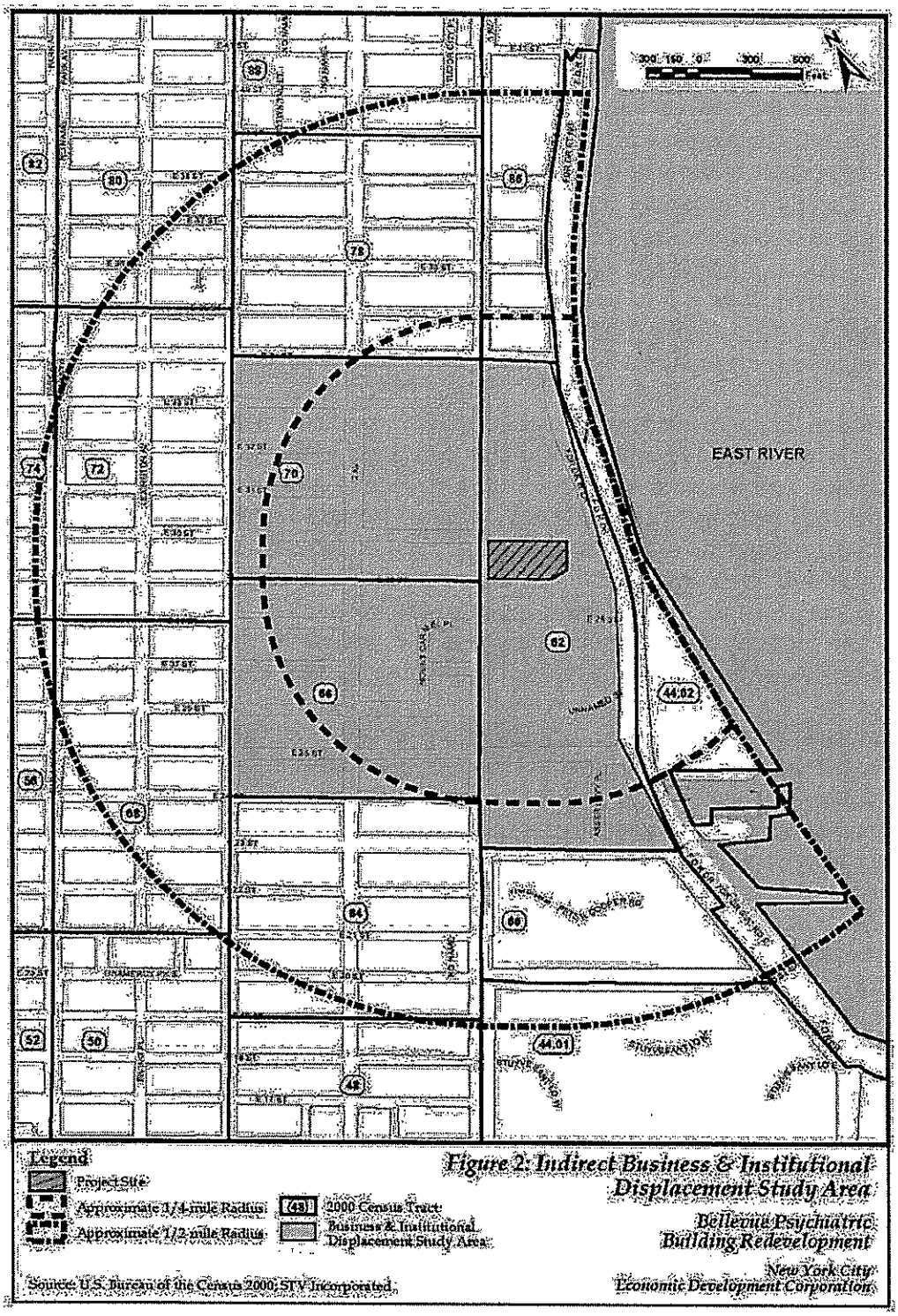


Figure 2: Indirect Business & Institutional Displacement Study Area
Bellevue Psychiatric Building Redevelopment
New York City Economic Development Corporation

- It introduces enough of a new economic activity to alter existing economic patterns;
- It adds to the concentration of a particular sector of the local economy enough to alter or accelerate an ongoing trend to alter existing patterns;
- It displaces uses or properties that have had a "blighting" effect on commercial property values in the area, leading to rises in commercial rents;
- It directly displaces uses of any type that directly support businesses in the project area or bring people to the area that form a customer base for local businesses;
- It directly or indirectly replaces residents, workers, or visitors who form the customer base of existing businesses in the project area; or,
- It introduces a land use that could have a similar indirect effect, through the lowering of property values if it is large enough or prominent enough or combines with other like uses to create a critical mass large enough to offset positive trends in the study area, to impede efforts to attract investment to the area, or to create a climate for disinvestment.

With regard to the more intensive economic activity associated with hotel and retail use currently proposed for the former Psychiatric Building compared to the previously approved project, the new proposed action would introduce a new economic activity (hotel and convention center space) that may potentially alter existing economic patterns to some degree. It would introduce commercial development to the east side of the First Avenue medical corridor that now contains institutional uses with biomedical science research facilities under construction. Additional visitors to the area that would require support services such as restaurants and services would increase the intensity of economic activity in the area in general compared to the previous proposal for the project site with its mix of predominantly staff housing and laboratory space.

However, these new uses would be integrated into the fabric of the existing Bellevue campus and would for the most part occupy space that is now underutilized. The new uses would also largely be oriented towards staff of, and visitors to, the First Avenue medical corridor and would support the ongoing increase in biomedical science activities within the ERSP. The change in study area economic activity would mostly be expected to affect the immediately surrounding blocks in terms of the character of the area. For smaller area businesses that generally might be more vulnerable to pressures from rent increases, such as smaller service-related establishments and eating and drinking establishments on Second Avenue, the moderate increment of additional commercial use compared to the previously proposed action would not likely be large enough to increase area commercial rents to a degree that would substantially change the character of the area. This info is based on the proposed size of the development in relation to surrounding socioeconomic conditions as assessed in an October 2008 field survey, and on information on prevailing economic trends provided by NYC Department of City Planning and the 2001 ERSP FEIS. Recent data on hotel trends was provided by the NYC Economic Development Corporation.

A field survey of businesses within approximately ½-mile of the project site was undertaken in October 2008 to inventory existing conditions. The most prevalent business types found within this study area are eating establishments (16 percent), institutions/community facilities (14.6 percent), medical offices (9.7 percent), and food stores (9.7 percent). In addition, there are a significant number of tailors and laundries, and personal and beauty care establishments. The eating establishments in the area generally are smaller non-chain restaurants, diners, and take-out pizza or ethnic food establishments, housed in mixed-use (residential and commercial) buildings.

There is a high concentration of bars on Second Avenue in particular. Conditions of storefronts vary although there are many newer establishments catering to more upscale markets. Nearly 40 percent of the commercial uses, especially eating and drinking establishments and food stores, are found along Second Avenue. In contrast, First Avenue is dominated by institutional and community facility uses centered around NYU Medical Center.

The newly proposed uses for the Psychiatric Building are expected to facilitate new economic growth in the study area, and bring more intensive economic activity to the immediate First Avenue vicinity. While these changes in economic conditions could result in some limited indirect business displacement of smaller, lower margin storefronts that are more susceptible to rent increases as a result of increasing land values, the new program of redevelopment would not result in significant adverse indirect business and institutional displacement impacts within the study area. Potential increases in land values in this area would not be expected to be of a magnitude that would cause significant adverse indirect business displacement that would change the nature of economic activity in the area or the area's neighborhood character.

The development of the proposed hotel in the context of the larger surrounding section of the East Side of Manhattan in which the study area is located would continue an ongoing development trend, with other hotels currently proposed on East 44th Street between Second Avenue and Third Avenue, on East 43rd Street between Second and Third Avenue, and at Madison Avenue and East 33rd Street. As of September 2008, the Manhattan hotel occupancy rate was 85.7 percent, down from 86.7 percent in September 2007, although the average daily hotel room rate of $381 represented an 8.6 percent increase from September 2007.[1] The proposed hotel would also meet demand for lodgings in this far eastern area of lower Midtown that is currently underserved by hotel facilities, and that contains numerous large institutions that draw visitors that otherwise would not have convenient nearby access to hotel accommodations.

Adverse Effects on Specific Industries

The change in proposed use of the former Psychiatric Building would not be expected to result in significant impacts on clusters of specific industries, specifically the medical and life science industries, within the study area. The First Avenue Medical Corridor would benefit from the addition of hotel accommodations to support its workers and visitors. Substantial reductions in employment or negative effects on the economic viability of local industries or categories of businesses would not be expected.

Empire Zone

The Empire Zone (EZ) Program is proposed to be extended to the ERSP as part of the revised proposed action for the ERSP. Empire Zones are designated areas of New York State that offer tax benefits and incentives to encourage economic development, business investment, and job creation. The goal of the program is to create jobs and stimulate private investment in new or existing businesses in order to alleviate problems in impoverished areas of the State. To receive certain benefits, a business needs only to reside within the boundaries of a zone. All Empire Zone certified businesses may be eligible for wage tax credits, investment tax credits, zone capital credits and NYS sales tax refunds.

[1] "Economic Snapshot," New York City Economic Development Corporation, November 2008.

The establishment of the Empire Zone on the ERSP would have beneficial economic effects of stimulating job creation, expanding the range and scope of economic activity in the area, enhancing capital opportunities of local businesses and institutions, and improving the quality of life for residents, workers, and visitors. This aspect of the proposed project would help to establish the already proposed mix of uses in the area to where the zone would be expanded and would enhance the economic vitality of the uses described and evaluated in the ERSP FEIS, as well those in the modified proposal for the Psychiatric Building redevelopment. As with the other elements of the modified proposal, the extension of the Empire Zone to the ERSP would not be expected to result in significant adverse socioeconomic effects and is expected to strengthen economic conditions in the area.

Community Facilities

No significant adverse impacts to community facilities were identified in the ERSP as a result of the previously approved project. The FEIS evaluation of community facility impacts was limited to Police and Fire, and impacts on Bellevue Hospital.

With regard to the demand for community facilities, as stated in the *CEQR Technical Manual*, the demand for community services generally stems from the introduction of new residents to an area. Since no residential units are proposed under the modified proposal for the Psychiatric Building, no further analysis of effects on the demand for community facilities is warranted.

While the existing and historic community facility use of the Psychiatric Building would change to commercial use with the modified proposal, the existing men's shelter that occupies the Psychiatric Building will be relocated by mid-2009 irrespective of the modified proposal for the Psychiatric Building. Therefore, no direct impacts to, or displacement of, community facilities uses would occur. New York University School of Medicine facilities such as staff housing, staff practice and research space that had been proposed for the Psychiatric Building under the previously approved project, and that would have directly served and enhanced the community facility functions of the overall Bellevue campus, are no longer proposed. This change in the reuse program, however, would not be expected to result in significant adverse impacts to community facilities as other research and laboratory uses are currently under construction as part of the ERSP project. The currently proposed hotel, medical office space and increased conference center space would also complement and enhance the existing and future uses at Bellevue Hospital. The expansion of the Empire Zone to the ERSP site would not have an impact on Community Facilities.

Open Space

The ERSP FEIS indicated that the approved project would not result in any significant adverse impacts to open space resources. With no proposed staff housing, the modified proposal for the Psychiatric Building would not generate residential demand for open space, and therefore no further analysis of potential indirect effects to open space related to the addition of a new residential population is warranted.

The modified proposal would, however, increase worker population with its mix of hotel, office and retail uses compared to the laboratory space and staff housing previously proposed. An

evaluation of potential indirect open space impacts related to worker population was therefore conducted for this technical memorandum pursuant to the methodologies of the *CEQR Technical Manual.*

The evaluation assessed the effects of the change in use program, and the increase in future worker population on the Psychiatric Building project site compared to that of the previously approved project. Updated area conditions were also considered, including newly planned residential developments in the study area identified for completion by 2012. These developments were identified through consultation with the New York City Department of City Planning in November 2008, and included: a proposed 12-story apartment building with 130 dwelling units that would generate 221 residents and five workers; and, two nine-story residential buildings with a total of 90 dwelling units that would generate 153 residents and four workers. With the projects previously identified in the ERSP FEIS, there would be 1,351 new residents and 2,257 new workers in the ¼-mile study area. The change in the phasing and timing of the ERSP project was also considered in the updated open space analysis.

Table 2 shows that in the future with the proposed project, the active open space ratio would increase, but the passive open space ratio would decrease. This decrease is less than five percent however, and according to the *CEQR Technical Manual* does not represent a substantial change from 2006 No Build Conditions as described in the 2001 FEIS. Therefore, the open space conditions in the ¼-mile study would not be substantially changed by the modified proposal. No significant adverse impacts to open space resources would result.

The expansion of the Empire Zone to the ERSP site would not have an effect on open space resources in the study area.

Table 2: Adequacy of Open Spaces in the Non-residential Study Area

Non-Residential Study Area (1/4-Mile)	2001 FEIS		Updated Conditions	
	2006 No-Build Condition	2006 Build Condition *	2012 No-Build Condition **	2012 Build Condition ***
Study Area Population				
Residents	21,834	22,134	23,432	23058
Workers	18,101	20,364	20,585	21306
Total User Population	39,935	42,498	44,017	44,364
Open Space Acreage				
Total	11.467	12.454	12.518	12.518
Active	3.587	3.587	3.587	3.587
Passive	7.88	8.867	8.928	8.928
Open Space Ratios				
Active (Residents)	0.0898	0.0844	0.1531	0.1556
Passive (Workers)	0.4353	0.4354	0.4337	0.4190
Combined Passive (Residents and Workers)	0.1973	0.2086	0.2028	0.2012
Percentage Change in Ratios (Build to No-Build)				
Active (Residents)	-6.03%		1.62%	
Passive (Workers)	0.02%		-3.38%	
Combined Passive (Residents and Workers)	5.74%		-0.78%	

* The 2006 Build Condition in the 2001 FEIS includes two phases of East River Science Park Development, respectively in 2004 and 2006.

** The proposed construction program analyzed in the 2001 FEIS (2006 Build Condition) is used as the basis for the Psychiatric Building development 2012 No-Build Condition, though the 2012 No-Build Condition relies on 2000 Census data (in place of the 1990 Census data used in the FEIS) and excludes the Biotech II development, which will not be finished by 2012.

*** The updated 2012 Build Condition only changes the use of the Psychiatric Building with respect to the FEIS (adding 981 employees per the new program subject to this technical memorandum in place of 260 employees previously considered in the FEIS); this 2012 Build Condition is compared to the 2012 No-Build Condition with a net increase of 721 workers and net decrease of 374 residents.

Shadows

The ERSP FEIS included a shadow analysis for the overall ERSP project that considered shadows for four representative days of the year and concluded that there would be no significant shadow impacts from the previously proposed ERSP project shadow increments. The FEIS further found that increases in shadows cast on the East River Esplanade for a short duration in the afternoon from September to March would not significantly alter the character of that open space. No shadow increment would have been added by the previous Psychiatric Building proposal, which did not include building additions. Similarly, the current proposal for the Psychiatric Building does not contemplate a building addition and, therefore, based on a shadow screening conducted for this technical memorandum, no significant adverse shadow impacts are expected by the modified proposal.

The expansion of the Empire Zone to the ERSP site would not have an effect on shadows.

Historic and Archaeological Resources

No significant adverse impacts to historic or archaeological resources were identified in the 2001 FEIS for the ERSP project. Subsequently, the Psychiatric Building was subject to a MOA among OPRHP, HHC and the City of New York. The MOA requires, among other things, consultation with OPRHP prior to altering the interior or the exterior of the Psychiatric Building (see Appendix A – Agency Correspondence).

With regard to archaeological resources, the ERSP FEIS indicated that there does not appear to be any discrete land area of any size within the project site that has not been repeatedly built upon since the founding of the Bellevue Hospital complex. Utility connections, steam tunnels, catch basins, and storage tanks have also been repeatedly installed and abandoned throughout the complex. Any former yards -- which at one time could have maintained archaeological resources relating to industrial activities -- and residential structures, were subsequently disturbed. It was concluded that the project site has no potential for prehistoric or historical period archaeological resources, and no further consideration for archaeological resources is warranted (see Appendix A. Agency Correspondence). Therefore, as with the previously approved project, the current proposed modified redevelopment of the Psychiatric Building would not have any significant adverse effects on archaeological resources.

No significant adverse impacts to historic resources were identified in the FEIS, which indicated that the restoration of the Psychiatric Building and the sympathetic adaptive reuse of the building were considered a significant positive impact on historic resources. With regard to other ERSP development, the FEIS indicated that while the new buildings would alter the context of the potential and designated historic resources, the design and use of materials would be simple, but compatible with the more elaborate design of the existing Psychiatric Building and R & S Building.

As construction of ERSP's West Tower would occur within approximately 40 feet of the Psychiatric Building, construction would follow the requirements of New York City Department of Buildings *Technical Policy and Procedure Notice* (TPPN) *#10/88*, concerning procedures for avoidance of damage to historic structures from adjacent construction. This policy and the procedure notice were developed by the Department of Buildings for construction near historic landmarks to avoid potential adverse impacts during construction.

The Psychiatric Building has been determined to be eligible for listing in the State and National Registers of Historic Places. In a Resource Evaluation for the Psychiatric Building prepared by the OPRHP in 2007, the building is identified as being eligible for inclusion in the National Register based on Criterion A (properties associated with events that have made significant contribution to the broad patterns of our history) and Criterion C (properties that embody the distinctive characterizing of a type, period or method of construction; or represent the work of a master; or possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction). In its Resource Evaluation, OPRHP described the building's Italian Renaissance architectural features, including its contributing perimeter fence.

According to OPRHP, the Psychiatric Building, along with the other historic structures on the Bellevue campus (R & S Building, Administration Building, and C & D Building), is architecturally significant as an example of urban institutional design, and meets Criterion A in the areas of social history and health for its association with Bellevue Hospital, which is reported to be the oldest municipal hospital in North America.

The proposed combination of hotel, medical office, retail and parking use in the renovated Psychiatric Building would occur in close coordination with SHPO and pursuant to the MOA that is intended to ensure that construction, alteration, remodeling, demolition or other modifications to the structure or setting would maintain the building's relationship to Bellevue's historic buildings, and preservation of the gathering rooms (such as the auditorium and the lobbies) would be undertaken to the extent possible.

With the provisions of the MOA in place, consultation with OPRHP would occur, especially since the use of Historic Tax Credits is anticipated for this project. Given the MOA's safeguards against inappropriate redevelopment of the building and the fact that the project would primarily entail reuse of the building with some changes to the ground floor of the building for the addition of storefronts, no significant adverse impacts to the Psychiatric Building or its surrounding context would be anticipated.

The inclusion of medical office space and the close physical interface with the ERSP project would maintain an association with the Bellevue campus. By providing accommodations for staff and visitors, the hotel would also support ongoing biomedical research functions on the Bellevue campus. Upgrading of the building and the activation of its surrounding streetscape with ground floor retail would be expected to enhance access of the public to this historic resource and improve its visual conditions. To avoid construction period impacts on this historic resource, construction would follow the requirements laid out in *TPPN #10/88*. Therefore, no significant adverse impacts to historic resources are anticipated. The expansion of the Empire Zone to the ERSP site also would have no effect on historic or archaeological resources.

Urban Design and Visual Resources

The 2001 ERSP FEIS did not identify any significant adverse urban design or visual resources impacts from the Psychiatric Building renovation and reuse or the larger ERSP project. The FEIS notes that the Psychiatric Building is a richly decorated brick and stone building that is the only visual resource on the ERSP project site, but that the FDR Drive, the parking beneath it, and the Waterside complex obscure most views to and from the East River and the Esplanade. It further notes that there are few significant view corridors to the nearby waterfront in the study area, due to superblocks and the FDR Drive, and that waterfront views eastward along East 29th Street and East 30th Street to the elevated FDR roadway and above are limited to a sliver of the East River and the opposite waterfronts of Greenpoint, Brooklyn, and Hunters Point, Queens, with the Waterside residential complex, the NYU Hospital Center/NYUSOM and Bellevue Hospital Center blocking views to the river from other east-west streets in the study area for urban design and visual resources.

The ERSP FEIS indicated that the effects of the previously approved Psychiatric Building renovation and reuse would comprise a major improvement to the character of First Avenue, and

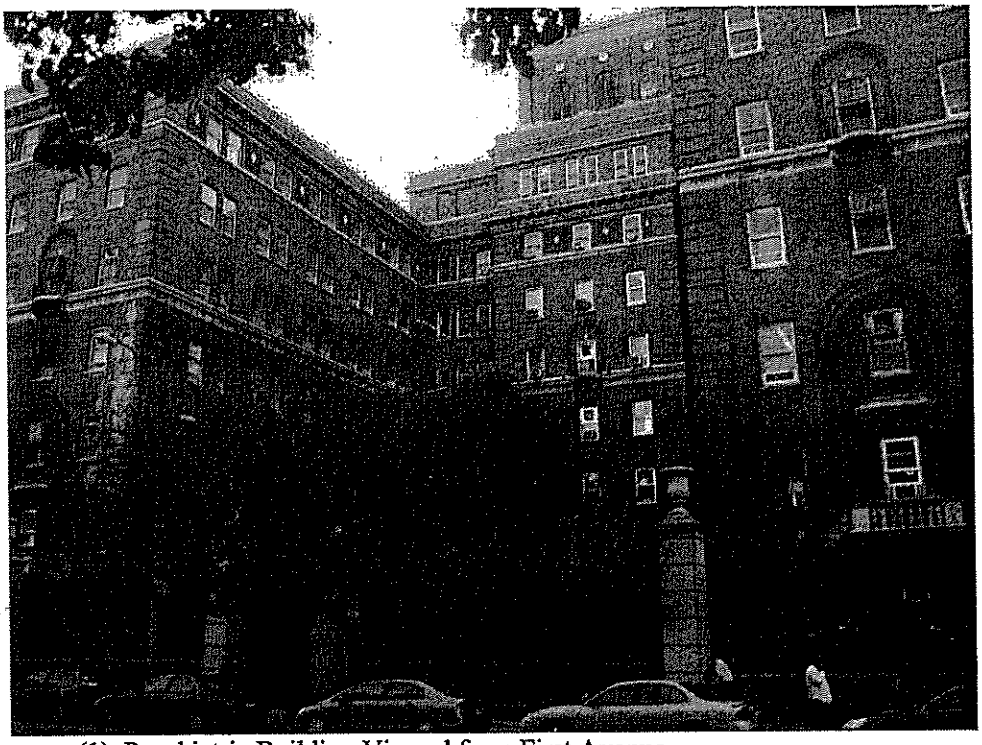
that the restoration of the façade, as well as full utilization of the building, would considerably improve its character as a visual resource.

With respect to urban design conditions of the larger ERSP site and study area, the FEIS stated that the proposed 220-foot and 280-foot tall towers of the ERSP project would be visible from First Avenue and would have a more imposing presence on the eastern portions of the ERSP project site and its low-rise uses, but that their height would be consistent with other tall buildings in the area. It stated that more distant views of the Psychiatric Building from the FDR Drive, the East River and the East River Esplanade were expected to be largely blocked by the new ERSP high rise towers. With the construction of the Option Parcel tower on hold, the Psychiatric Building would continue to be visible from the FDR Drive and distant areas to the east, including the East River Esplanade.

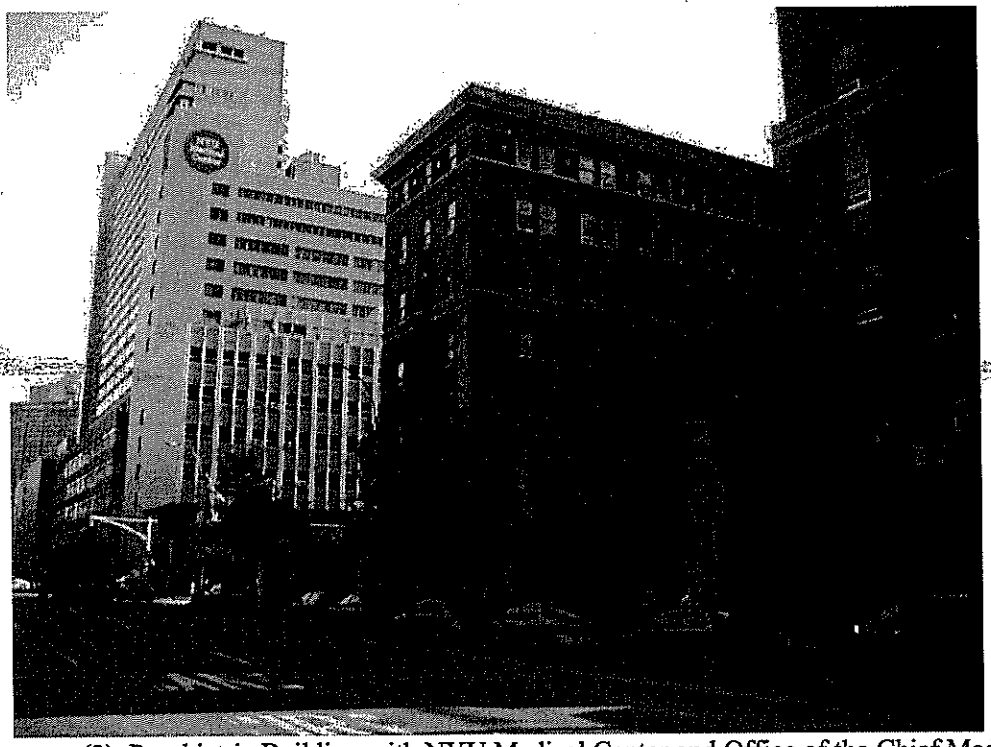
Under the modified proposal for the Psychiatric Building, even with the greater visibility compared to the previously approved project of the building from the east in 2012 as a result of the delay in construction of the Option Parcel tower, views from areas to the east including the East River Esplanade would not be significantly affected. The Psychiatric Building redevelopment project would not block visual access to the waterfront and is expected to enhance the East River Esplanade by providing a nearby hotel facility whose patrons would likely take advantage of this waterfront amenity, increasing pedestrian activity on and leading to the waterfront.

The urban design and visual resources screening analysis that was conducted for this technical memorandum pursuant to *CEQR Technical Manual* guidelines for the modified proposal for the Psychiatric Building confirmed the ERSP FEIS' conclusions of no significant adverse impact on block shapes, streetscape conditions, and building uses, shapes and forms in the study area. Updated photographs of the Psychiatric Building and its surrounding areas are shown in Figure 3. The screening analysis indicated that the change in use from primarily staff housing and laboratory use to primarily hotel/conference center, medical office and retail use would bring an increase in activity to the site and its surrounding streetscape compared to future conditions in 2012 with the previously approved project. Hotel lobby and façade treatments would be expected to differ from building entrance and façade treatments otherwise expected without the modified proposal. With the modified uses and design, there would be a more inviting and publicly oriented treatment of the First Avenue courtyard. Streetscape features of the current proposal may include a port cochere entrance on First Avenue, with pavers and circulation area replacing some of the existing landscaping features within the First Avenue courtyard. With the addition of ground floor shops with transparent storefronts and the round-the-clock use associated with a hotel, First Avenue in this location would have a more active appearance, improving the streetscape. On East 29th Street, the proposed cul de sac and pedestrian plaza associated with the ERSP project would face windows of hotel rooms or medical offices, with an active use of the East 29th Street courtyard enhancing the attractiveness of that space both day and night. As with the previously approved project, the pedestrian plaza on East 29th Street would provide the key interface between the Psychiatric Building redevelopment and the ERSP project.

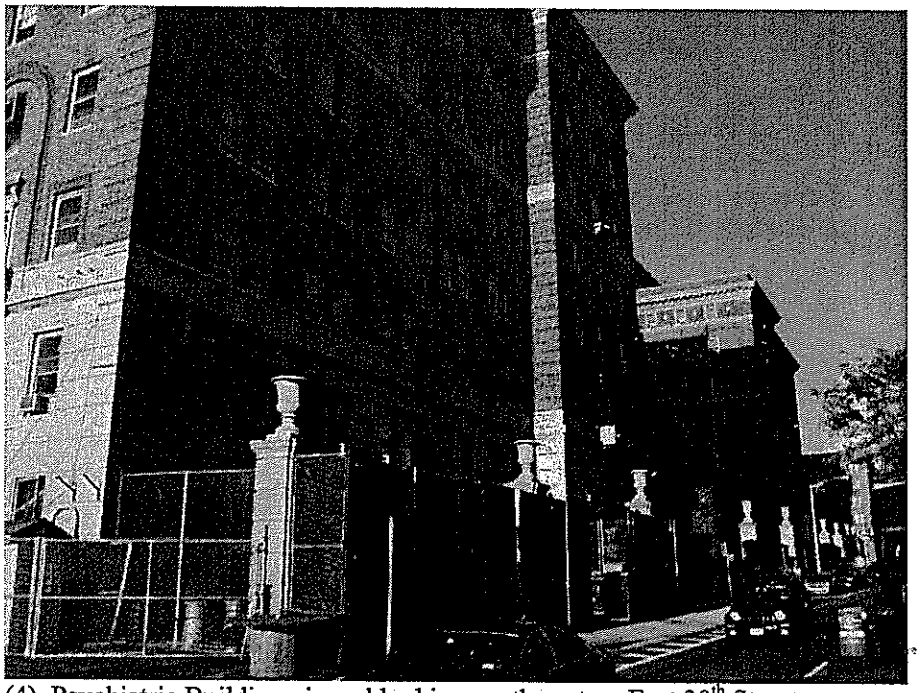
Figure 3. Views of Project Site and Study Area



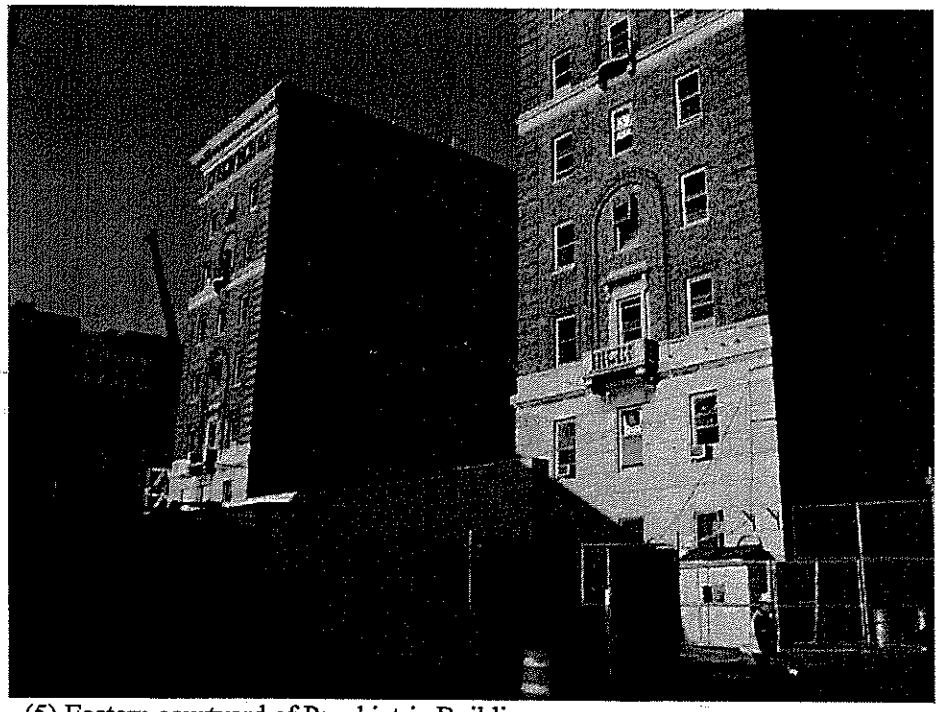
(1) Psychiatric Building Viewed from First Avenue.



(2) Psychiatric Building with NYU Medical Center and Office of the Chief Medical Examiner to the north.

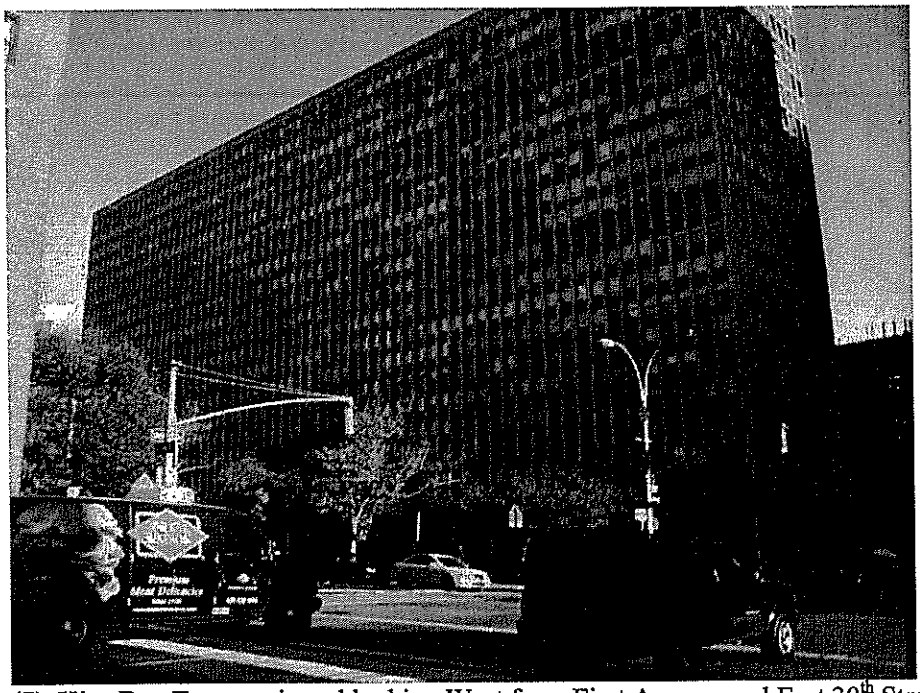


(4) Psychiatric Building viewed looking southwest on East 30th Street.

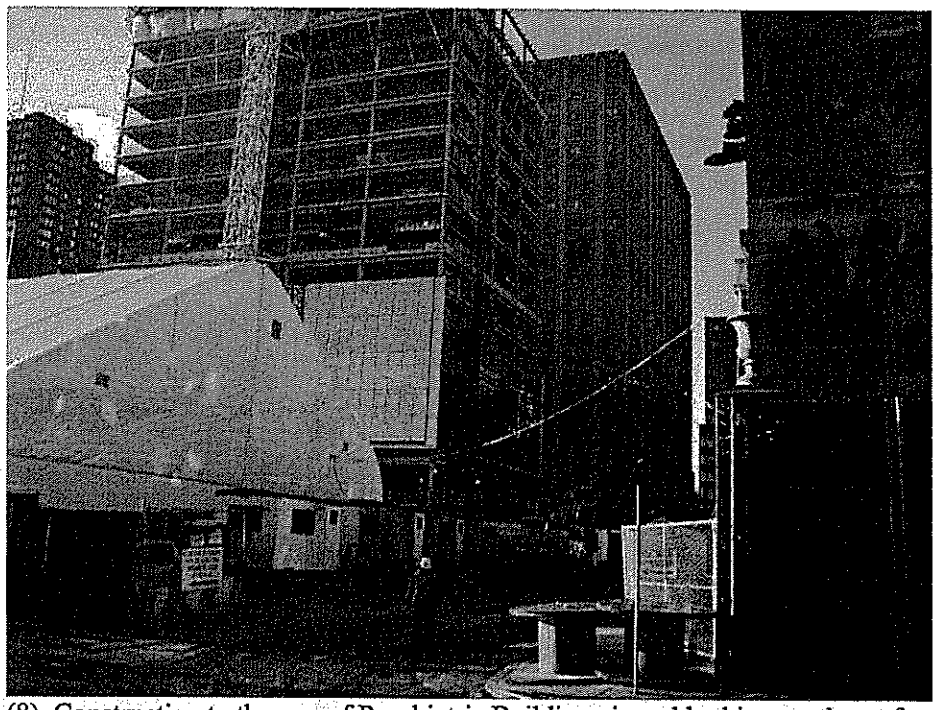


(5) Eastern courtyard of Psychiatric Building.

(6) Southern façade of Psychiatric Building and East 29th Street construction.

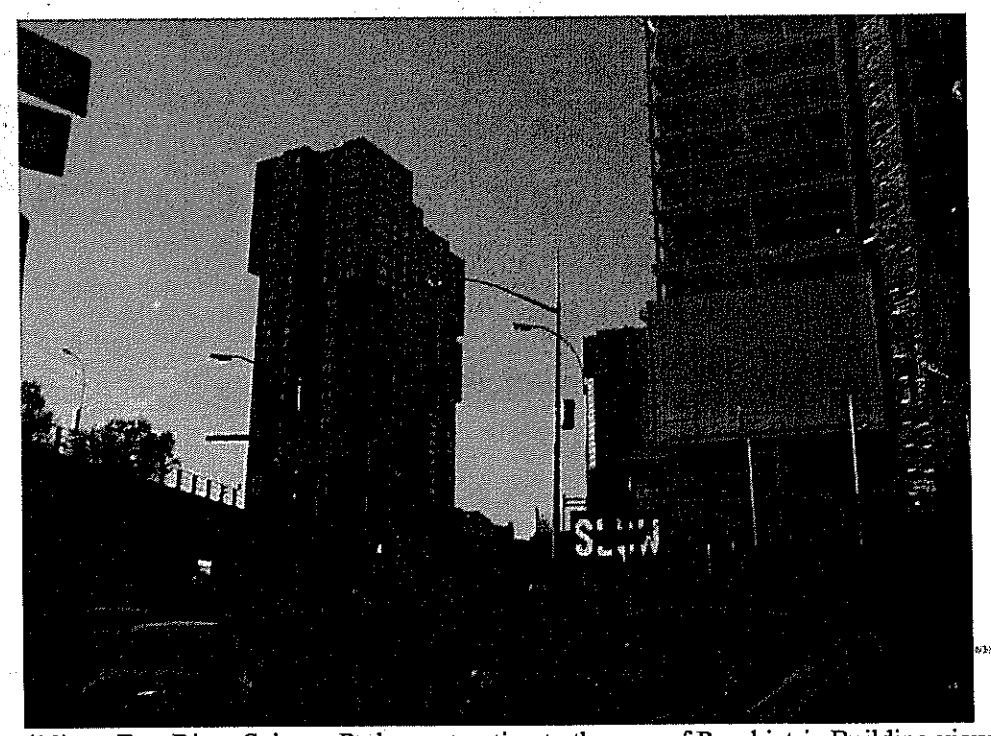


(7) Kips Bay Towers viewed looking West from First Avenue and East 30th Street.



(8) Construction to the rear of Psychiatric Building viewed looking southeast from East 30th Street and northeast corner of Psychiatric Building.

(9) FDR Drive and view toward waterfront from East 30th Street.



(10) East River Science Park construction to the rear of Psychiatric Building viewed looking southeast from East 30th Street and FDR Drive.

(11) First Avenue Medical Corridor viewed looking northeast from East 26th Street.

A minor change in the configuration of vehicular access on East 30th Street is currently proposed. East 30th Street is an eastbound street and would remain so under the proposed project, but with the proposal to be two-way between the midblock hotel drop-off area and First Avenue so that cars can turn around and exit at First Avenue.

Reuse of the project site for a hotel and other nonresidential development would benefit urban design conditions in the urban design study area by providing a complementary use to the surrounding buildings in this existing medical corridor, through greater activation of the block face along First Avenue than previously proposed. By providing support services and modern accommodations for visitors to the existing and planned medical and research facilities, the modified proposal would introduce synergies that would make the entire First Avenue corridor within the study area a more attractive environment to work in, as well as to visit, for its state-of-the art facilities. Hotel visitors would also likely take advantage of recreational amenities such as the planned ERSP pedestrian plaza.

Building bulk and massing as viewed from the most prominent First Avenue frontage of the Psychiatric Building would be unchanged from the previously approved project. The visual conditions along First Avenue would improve and activate with the opening of the existing courtyard as a secondary entrance to the proposed hotel. The East 30th Street courtyard would serve as the primary vehicular drop-off point, with garage access from East 30th Street at the location of a newly built roadway that would provide access to the ERSP garage.

The modified proposal for the Psychiatric Building is not expected to have significant adverse impacts on visual resources in the study area. Existing notable views of the historic buildings of the Bellevue campus would not be obstructed by the proposed action. Views toward the waterfront down East 30th Street, currently blocked by the FDR Drive, would not be otherwise changed.

The former Psychiatric Building itself would be largely unaltered although the primary visual effects would be the rehabilitation of its facades. The adaptive reuse of the building would include new fenestration at ground floor level along the First Avenue frontage. As indicated above, any modifications would blend with the building's Italian Renaissance style architecture, and would continue previous basic rehabilitation and modernization efforts on the Psychiatric Building site and the Bellevue campus. These have included the refurbishment of the Psychiatric Building's eastern courtyard building portion, with modern vertically configured windows that respect that rhythm of the building's fenestration above, and sensitive repair of the easternmost wall of the building with matching colors and materials.

The restoration and sympathetic reuse that is currently proposed is expected to have a significant positive impact on this visual resource. While the change in use is not expected to significantly alter the character of the surrounding area's streets, it should be noted that OPRHP indicated in a 2006 Resource Evaluation for the Psychiatric Building that its association with Bellevue Hospital qualifies the building as meeting Criterion A for Inclusion in the National Register ("Association with events that have made significant contribution to the broad patterns of our history"). The current redevelopment plan would maintain a close physical interface with the ERSP and the remainder of the Bellevue campus, and part of the redevelopment program would include medical office space. As a result of the currently proposed redevelopment of the Psychiatric

Building, the ERSP plaza that is now under construction on East 29th Street would face a more active building façade to the north, and would benefit from an increase in pedestrians generated by the hotel, conference center and other uses proposed for the Psychiatric Building. The expansion of the Empire Zone to the ERSP site would not have an effect on Open Space.

Neighborhood Character

The ERSP FEIS concluded that the previously proposed project would not have significant adverse effects on neighborhood character, or the various elements that together define neighborhood character. It indicated that with uses consistent with the medical-oriented facilities in the study area, land use would not be significantly impacted. The restoration and adaptive reuse of the Psychiatric Building would contribute positively to the character of the area. With regard to urban design, it concluded that although the previously proposed ERSP project would alter the urban design of the project area by introducing new, tall buildings of contemporary design, the expected design and use of materials were expected to be compatible with the more elaborate design and use of the area's existing historic buildings. The FEIS stated that all traffic impacts could be mitigated through signal timing changes. Noise levels were expected to change from the "marginally acceptable" to the "marginally unacceptable" category, although mechanical equipment such as heating, ventilation, and air conditioning (HVAC) and elevator motors would have sufficient noise reduction devices pursuant to applicable regulations and standards. The FEIS indicated that measures would be undertaken to mitigate any noise impacts.

While the modified proposal would have differing effects on the elements that together comprise neighborhood character, no significant adverse impacts have been identified related to land use, socioeconomic conditions, urban design and visual conditions, traffic and parking, noise, or historic resources. The modified proposal, while introducing commercial uses, would still be complementary from a land use perspective. The hotel would support visitors and patients of the Bellevue Hospital campus and ERSP. Medical office use would be consistent with surrounding uses on the campus. Urban design would be enhanced with the restoration of the Psychiatric Building's façade. The proposed modifications to the reuse of the Bellevue Psychiatric Building would result in significant traffic impacts at two study area intersections, which were not previously identified in the ERSP FEIS. However, these impacts could be mitigated through signal timing changes.

An assessment of potential noise impacts of the modified proposal indicate mobile source-related noise impacts would not occur. The *CEQR Technical Manual* has set noise attenuation requirements for buildings based on anticipated exterior noise levels. These recommended noise attenuation values are designed to provide an interior noise level of 45 dBA or lower. As the area noise levels are primarily the result of vehicular movement; the anticipated insignificant increase in traffic noise levels from project-related vehicles, as well as the agreement between noise monitoring conducted for this technical memorandum and the 2001 ERSP FEIS, indicate that the attenuation requirements for the proposed project would not change from the those determined for the 2001 ERSP FEIS. As a result, required L_{10} attenuation would not be greater than 35dB for any of the building facades of the modified development. The only source of project-related stationary noise would be from internal and external mechanical equipment required for the modified development (such as elevator motors). This equipment would be fitted with the

required noise reduction devices to comply with applicable NYC noise regulations and standards.

Because the proposed reuse of the Psychiatric Building would add a complementary set of uses to this portion of the Bellevue campus and would physically upgrade an underutilized historic resource, effects of the reuse would be expected to be beneficial to neighborhood character. The proposed hotel would enliven the First Avenue streetscape and ground floor retail would similarly activate the immediately surrounding sidewalks in this area. Therefore, conclusions of the ERSP FEIS related to neighborhood character would still be applicable to the modified proposal. No significant adverse neighborhood character impacts are anticipated due to the reuse of the Psychiatric Building or the expansion of the Empire Zone to the ERSP site.

Natural Resources

No significant adverse impacts related to natural resources would occur as a result of the modified proposal for the Psychiatric Building or due to the expansion of the Empire Zone to the ERSP site. As defined in the *CEQR Technical Manual*, a natural resource is a plant, animal species or any area capable of providing habitat for plant and animal species. Any area capable of functioning to support environmental systems and maintain the City's environmental balance may also be considered a natural resource. Such resources include surface and groundwater, soils, drainage systems, wetlands, dunes, beaches, grasslands, woodlands, landscaped areas, gardens, parks and built structures used by wildlife.

The project site is urbanized and has been completely developed and disturbed, does not contain natural features of significance, nor is it located immediately adjacent to any natural resources. No habitat for rare, threatened or endangered species exists within the project site. A letter dated November 17, 2008 was received from the New York State Department of Environmental Conservation (NYSDEC), Division of Fish, Wildlife and Marine Resources stating that the project site has no known occurrences of rare or state-listed animals and plants, significant natural communities, or other significant habitats maintained in the New York Natural Heritage Program databases (see Appendix A. Agency Correspondence).

Floodplains are defined as areas low enough in elevation to hold flood waters during significant storm events. Regulated floodplains are defined by the Federal Emergency Management Agency (FEMA) and include areas that flood during storms that have a one percent chance of occurring in any given year, which is equivalent to the likelihood of a storm occurring once every 100 years (100-year storm). FEMA also maps the 500-year floodplain but these areas are not regulated. At the local level, New York City's Local Law 33 of 1988 regulates construction in the 100-year floodplain and requires that habitable structures be flood-proof or elevated above the 100-year floodplain. The project site is not located in a 100-year or a 500-year floodplain. FEMA's Flood Insurance Rate Map for the project site indicates that the boundary of the 100-year floodplain Zone AE is adjacent to the northeastern and southeastern corners of the Psychiatric Building project site. Nevertheless, the proposed action would not result in significant adverse impacts related to the floodplain.

As described by the *CEQR Technical Manual*, all of New York City's coastal resources are considered important and are protected by the New York State Department of State (NYSDOS)

Coastal Management Program. In addition, New York City has a Local Waterfront Revitalization Plan (LWRP) that guides utilization and development of the city's shoreline. As the project site is located within New York City's coastal zone boundary as outlined by the New York City Department of City Planning (DCP), an analysis of the consistency of the proposed action with the applicable coastal zone policies is included in the LWRP section of this technical memorandum.

Since no significant natural resources exist on the project site, the modified proposed action would not result in significant impacts on natural resources. The project site is totally devoid of natural resources and is already occupied by an existing building and paved areas. The modified redevelopment is not expected to have any significant impacts on natural resources, including ground water, floodplains, coastal resources, wildlife, wetlands, uplands, built resources, and significant, sensitive, or designated resources.

Hazardous Materials

The ERSP FEIS addressed the potential for the presence of hazardous materials resulting from the overall ERSP project and included descriptions of the findings of a Phase I Environmental Site Assessment (ESA) for the overall ERSP project. The ESA recommended appropriate precautions to avoid adverse environmental impacts from contaminants including removal of hazardous materials in compliance with all applicable regulations to ensure that no adverse hazardous materials impacts would occur to this area as a result of the previously proposed actions. A Health and Safety Plan (HASP) for recommended Phase II investigations was prepared and approved by the DEP, but was not immediately implemented due to the temporary morgue activities at Bellevue related to the events of September 11, 2001.

With regard to the Psychiatric Building, the Phase I ESA described in the ERSP FEIS indicated the presence of asbestos and lead-based paint (LBP), which could potentially be released into the air during renovation or demolition. The FEIS also described the potential for hazards associated with the future use of materials in the proposed laboratories, including hazardous chemicals, biohazards, and radioactive materials.[2]

Additional analyses of conditions of the Psychiatric Building have been conducted since the ERSP FEIS. An Environmental Site Assessment of the Bellevue Psychiatric Hospital site (Psychiatric Building) was completed by AKRF, Inc. in March 2008. The assessment identified potential environmental concerns associated with the site resulting from its past or current uses as well as similar uses on neighboring properties.[3] This ESA revealed the following recognized environmental conditions on or near the Psychiatric Building.

- Two 55-gallon drums were observed in the basement, one empty and one sealed with unknown contents. No signs of staining or leaking were observed in the area around the drums.
- Asbestos-containing materials (ACMs) were determined to be present within the building in a May 2007 asbestos investigation. ACMs were detected in many components,

[2] AKRF Inc., *East River Science Park Final Environmental Impact Statement,* November 2001.
[3] AKRF Inc., *Phase I Environmental Site Assessment for the Bellevue Hospital Site,* March 2008.

including the following: cementitious pipe insulation and joint insulation, vinyl floor tiles and floor coverings, plaster, suspended ceiling tiles, window caulking and roofing materials. The suspect materials were observed to be in generally good condition; however, localized and significantly damaged areas were noted.

- Lead-based paint was determined to be present within the building by a May 2007 lead paint investigation. Lead-based paint was detected in many of the surfaces, including walls, ceilings, doors, door components, window components, and radiators throughout the building. Paint was generally in good condition in occupied spaces, such as the dorm rooms, dorm halls, office areas, and recreation rooms at the site. However, painted surfaces in the unoccupied areas were observed to be in poor condition. The damaged areas were extensive and had resulted in the accumulation of paint chips along the floors and other surfaces.
- Fluorescent lights and electrical transformers may include components containing polychlorinated biphenyls (PCBs) and/or mercury.
- Numerous documented spills have occurred at the south-adjacent Bellevue Hospital complex and at other adjacent properties. Spills include tank test failures and soil contaminated with petroleum products. Due to their proximity to the subject site and the tidal influence of the East River, these adjacent spills may affect soil and groundwater beneath the project site.

The ESA recommended that the contents of the sealed 55-gallon drum observed in the basement be determined and the drum and that its contents be disposed of in accordance with applicable regulations.

Due to the proximity of adjacent documented spills and historic adjacent auto repair facilities and garages, a subsurface (Phase II) investigation, including the advancement of soil borings and groundwater monitor wells, was recommended. Several activities were identified, including:

- Soil and groundwater samples should be collected from the borings/monitor wells to characterize soil and groundwater quality beneath the study site.
- Prior to any renovation or interior demolition activities, a comprehensive asbestos survey should be conducted throughout the building to identify all visual and hidden ACMs. Destructive techniques should be utilized, including probes into walls to access hidden asbestos-containing materials and the removal of floor tiles to access multiple layers of flooring and/or cores through roofing. ACMs should be removed by a licensed abatement contractor in accordance with all applicable federal, state and local regulations.
- Any renovation activities with the potential to disturb lead-based paint must be performed in accordance with the applicable Occupational Safety and Health Administration regulation (OSHA 29 CFR 1926.62 - Lead Exposure in Construction).
- Unless there is labeling or test data that indicate that fluorescent light fixtures do not contain mercury and/or PCBs, disposal, if required, should be performed in accordance with applicable federal, state, and local regulations and guidelines, according to the ESA.

The ESA recommended that if soil disturbance is required for site development activities, excavated soil should be managed in accordance with all applicable regulations. Soil intended for off-site disposal should be tested in accordance with the requirements of the intended receiving facility. Transportation of material leaving the site for off-site disposal must be in

accordance with federal, state and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc. If dewatering is necessary for any future development, discharges to the municipal sewer system must meet DEP criteria for effluent to municipal sewers, in accordance with the DEP Bureau of Wastewater Treatment (BWT) Wastewater Quality Control Permit. Discharge water may need pretreatment to meet these criteria, according to the ESA.[4]

With adherence to the recommendations of the 2001 ERSP FEIS with regard to hazardous materials on the overall ERSP site, including the findings of its described ESA, as well as the recommendations of the 2008 ESA for the Psychiatric Building, conclusions of the FEIS are expected to be applicable to the modified proposal. With the implementation of measures described in the FEIS, no adverse impacts related to hazardous materials are expected to occur as a result of the demolition and construction activities for the proposed ERSP, or as part of its operations. Any potential additional excavation for a 55,000 gsf parking garage beneath the Psychiatric Building site or other new site disturbance, would be expected to adhere to these same measures and would similarly comply with applicable rules and regulations. Therefore, no significant adverse impacts are anticipated with the modified proposal for the Psychiatric Building, especially since there will be no laboratory uses. Additionally, the expansion of the Empire Zone to the ERSP site would not have an impact on the presence of hazardous materials or any required clean up or remediation.

Waterfront Revitalization

The project site for the former Psychiatric Building, as well as surrounding areas to the east of First Avenue within a 400-foot radius study area, are located within New York City's Coastal Zone, as defined by the New York City Department of City Planning (DCP). This section examines the proposed action's consistency with the policies of the New York State Coastal Zone Commission as well as New York City's Local Waterfront Revitalization Program (LWRP; see Appendix B) and compares its consistency to that of the previously approved Psychiatric Building reuse and redevelopment as described in the ERSP FEIS. The proposed modified redevelopment of the Psychiatric Building and the expansion of the Empire Zone to the ERSP site would not alter the findings of the 2001 FEIS related to waterfront revitalization and consistency with coastal zone policies and would therefore not result in significant adverse impacts to waterfront revitalization or the City's ten LWRP policies.

The federal Coastal Zone Management Act (CZMA) of 1972 was enacted to support and protect the distinctive character of New York City's waterfront and to set forth standard policies for reviewing proposed development projects along coastlines and/or proposed policy changes that would affect the Coastal Zone. The New York City Waterfront Revitalization Program (WRP) is the City's principal Coastal Zone management tool. The ten policies of the new LWRP are designed to more effectively realize the City's waterfront planning goals for those areas within the Coastal Zone, addressing the following issues: (1) residential and commercial redevelopment, (2) water-dependent and industrial uses, (3) commercial and recreational boating, (4) coastal ecological systems, (5) water quality, (6) flooding and erosion, (7) solid

[4] Ibid.

waste and hazardous substances, (8) public access, (9) scenic resources, and (10) historical and cultural resources. The policies in the City's WRP include the following:

- Support and facilitate residential and commercial redevelopment in appropriate coastal zone areas;
- Support water-dependent and industrial uses in New York City coastal areas that are well suited to their continued operation;
- Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers;
- Protect and restore the quality and function of ecological systems within the New York City coastal area;
- Minimize loss of life, structures, and natural resources caused by flooding and erosion;
- Minimize environmental degradation from solid waste and hazardous substances;
- Provide public access to and along New York City's coastal waters;
- Protect scenic resources that contribute to the visual quality of New York City; and,
- Protect, preserve, and enhance resources significant to the historical, archaeological, and cultural legacy of the New York City coastal area.

The ERSP FEIS described existing conditions within the Coastal Zone area and Coastal Zone area conditions without the proposed action and with the proposed action, and evaluated the proposed action's consistency with the LWRP, which are a set of policies for development and use of the waterfront, listed above, that provide a framework for evaluating discretionary actions in the Coastal Zone. The following section compares the consistency of the modified proposal for the Psychiatric Building with the LWRP policy consistency of the previously approved Psychiatric Building redevelopment

Consistency with the LWRP Policies

Since there would be no effect on LWRP policies from the expansion of the EZ to the ERSP site, this section focuses the LWRP analysis on the modified proposal for the Psychiatric Building.

Policy 1: Support and facilitate commercial and residential development in areas well-suited to such development.

Policy 1.1: Encourage commercial and residential redevelopment in appropriate coastal zone areas. The ERSP FEIS indicated that the previously proposed reuse of the Psychiatric Building would complement the existing facilities in the area and strengthen the medical-related resources that characterize the First Avenue corridor. The project site is also appropriate for the modified proposal for the Psychiatric Building since the revised redevelopment would also support existing institutional uses along the First Avenue Medical corridor with needed accommodations (hotel space) and additional services for out-of-town professionals, patients and visitors. The presence of the elevated FDR Drive that physically separates the site from the East River precludes the use of the project site for water dependant uses. Therefore, the modified proposal would be consistent with this policy.

Policy 1.2: Encourage non-industrial development that enlivens the waterfront and attracts the

public. As with the previous proposal for the Psychiatric Building, the modified non-industrial program of reuse would draw visitors to the Coastal Zone area, enlivening the pedestrian plaza now in construction adjacent to the south along East 29th Street. The currently proposed mixed-use hotel development would improve the streetscape through the revitalization of the former Psychiatric Building and would bring increased activity to the waterfront vicinity, similar to the previously approved reuse of the building for primarily staff housing and laboratory space, and would be consistent with this policy.

Policy 1.3: Encourage redevelopment in the coastal area where public facilities and infrastructure are adequate or will be developed. Area public facilities and infrastructure indicated in the ERSP FEIS as being adequate to serve the former proposal for the Psychiatric Building would similarly be adequate to service the modified redevelopment proposal.

With regard to community facilities such as elementary schools, libraries, and publicly funded daycare centers, demand for these services would be reduced or eliminated with the modified proposal, which -- unlike the previously approved project -- would not add residential population.

Policy 2: Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.

Policy 2.1: Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas. As indicated in the ERSP FEIS, the project site is not located within a Significant Maritime and Industrial Area; therefore, this policy does not apply.

Policy 2.2: Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas. As indicated in the ERSP FEIS, the proposed project site is not located along the waterfront and is separated from the waterfront by a public esplanade and the elevated FDR Drive with service roads below. Therefore, the project site is not a suitable location for working waterfront uses.

Policy 2.3: Provide infrastructure improvements necessary to support working waterfront uses. The project site is separated from the East River by the elevated FDR Drive and its service roads, and thus it is not an appropriate site for working waterfront uses.

Policy 3: Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers.

None of the three policies related to New York City's working waterways are applicable to either the former or current proposal for reuse of the Psychiatric Building.

Policy 4: Protect and restore the quality and function of ecological systems within the New York City coastal area.

Policies 4.1 and 4.2 are not applicable to the either the former or current proposal for reuse of the Psychiatric Building because there will be no disturbance within the New York City coastal area as a result of this project.

With regard to Policy 4.3 (protect vulnerable plant, fish, and wildlife species, and rare ecological communities; and design and develop land and water uses to maximize their integration or compatibility with the identified ecological community), there are no vulnerable plant, fish, or wildlife species, or rare ecological communities on the project site. A letter dated November 17, 2008 from the New York State Department of Environmental Conservation (NYSDEC), Division of Fish, Wildlife and Marine Resources provided current confirmation that the project site has no known occurrences of rare or state-listed animals and plants, significant natural communities, or other significant habitats maintained in the New York Natural Heritage Program databases. Therefore, none of the above mentioned would be adversely affected as a result of either the former or current proposal for reuse of the Psychiatric Building.

Policy 4.4: Maintain and protect living aquatic resources. Neither the previously approved proposal nor the current modified proposal for the Psychiatric Building would have an effect on living aquatic resources. The project site is separated from the East River by the elevated FDR Drive and its service roads.

Policy 5: Protect and improve water quality in the New York City coastal area.

With no significant increases in impervious surfaces or excavation compared to the previous proposal for the Psychiatric Building, the modified proposal, as with the previously approved project, is not expected to increase impacts from direct or indirect discharges to waterbodies (Policy 5.1), impacts from non-point source pollution (Policy 5.2), or impacts to East River water quality impacts from erosion or placing of fill, or impacts to the quality or quantity of groundwater, streams, and sources of water for wetlands (Policy 5.4). As with the previously approved project, if dewatering is required, it would be done in conformance with New York City Department of Environmental Protection's (DEP's) regulations.

Policy 6: Minimize the loss of life, structures, and natural resources caused by flooding and erosion.

Policy 6.1: Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the condition and use of the property to be protected and the surrounding area. Similar to the previously approved project, the modified proposal for the Psychiatric Building would not alter any features of the shoreline or any structural or on-structural flood or erosion control measures. The Psychiatric Building site is already mostly paved. As the minor additional amount of paved surface on the project site from the modified proposal would be minimal -- such as from a potential vehicular drop off driveway facing First Avenue where an existing courtyard is now partly landscaped -- the proposed project would not increase flood hazards on or adjacent to the project site.

As with the previously approved project, Policy 6.2 related to directing public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit, and Policy 6.3 related to protection and preservation of non-renewable sources of sand for beach nourishment, are not applicable to the modified proposal.

Policy 7: Minimize environmental degradation from solid waste and hazardous substances.

Similar to the previously approved project, the modified proposal would also be consistent with Policy 7.1 related to management of solid waste material, hazardous wastes, toxic pollutants, and substances hazardous to the environment to protect public health, control pollution, and prevent degradation of coastal ecosystems. Development would occur in an area that is currently served by the City of New York Department of Sanitation (DSNY) residential trash and recycling pick-ups as well as private carters. Private carters would be responsible for the handling and disposal of commercial solid waste in a manner that would protect coastal resources. Any toxic or hazardous waste encountered during construction would be handled in accordance with DEP, US Occupational Safety and Health Administration (OSHA) and US Environmental Protection Agency (EPA) requirements. Potential impacts during construction and development activities would be avoided by implementing a Construction Health and Safety Plan (CHASP).

A Phase I Environmental Site Assessment (ESA) for the Psychiatric Building prepared by AKRF, Inc. in March 2008 recommended that the contents of a sealed 55-gallon drum observed in the basement should be determined. The drum and its contents should be disposed of in accordance with applicable disposal regulations. Due to the proximity of adjacent documented spills and historic adjacent auto repair facilities and garages, a Subsurface (Phase II) Subsurface Investigation, including the advancement of soil borings and groundwater monitor wells, should be conducted, according to the ESA. Soil and groundwater samples should be collected from the borings/monitor wells to characterize soil and groundwater quality beneath the study site. Prior to any renovation or demolition activities, a comprehensive asbestos survey should be conducted throughout the building to identify all visual and hidden ACMs. Any renovation activities with the potential to disturb lead-based paint must be performed in accordance with the applicable Occupational Safety and Health Administration regulation (OSHA 29 CFR 1926.62 - Lead Exposure in Construction). Unless there is labeling or test data that indicate that fluorescent light fixtures do not contain mercury and/or PCBs, disposal, if required, should be performed in accordance with applicable federal, state, and local regulations and guidelines.

If soil disturbance is required for site development activities, excavated soil should be managed in accordance with all applicable regulations. Soil intended for off-site disposal should be tested in accordance with the requirements of the intended receiving facility. Transportation of material leaving the site for off-site disposal must be in accordance with federal, state and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc. If dewatering will be necessary for any future development, discharges to the municipal sewer system must meet DEP criteria for effluent to municipal sewers, in accordance with the DEP Bureau of Wastewater Treatment (BWT) Wastewater Quality Control Permit. Discharge water may need pretreatment to meet these criteria. Thus, environmental degradation from solid waste and hazardous substances will be minimized or avoided with the implementation of this project.

Policy 7.2: Prevent and remediate discharge of petroleum products. See Policy 7.1 above.

Policy 7.3: Transport solid waste and hazardous substances and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources. See Policy 7.1 above.

Policy 8: Provide public access to and along New York City's coastal waters.

No additional impacts to existing physical, visual, and recreational access to the waterfront would result from the modified proposal compared to the previously approved project (Policy 8.1). The modified proposal for the Psychiatric Building would not affect existing or proposed public access (Policy 8.2), visual access to waters, coastal land and open space (Policy 8.3), open space and recreation (Policy 8.4) or open space and recreation on publicly owned land (Policy 8.5).

Policy 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.

Similar to the previously proposed project, the modified proposal for the Psychiatric Building would not have an effect on visual quality associated with New York City's urban context and the historic and working waterfront (Policy 9.1).

With regard to Policy 9.2 (protect scenic values associated with natural resources), the area is not located within a Special Natural Area District, a Special Natural Wildlife Area, or a Recognized Ecological Complex. Given the intervening presence of the FDR Drive and its parking and service roads below, the scenic value of the East River would not be affected by the modified proposal or the previously approved project. Therefore, both the previously approved project and the modified proposal would be consistent with this policy.

Policy 10: Protect, preserve, and enhance resources significant to the historical, archaeological, and cultural legacy of the New York City coastal area.

Policy 10.1: Retain and preserve designated historic resources and enhance resources significant to the coastal culture of New York City. Similar to the previously approved project, the effect of the modified proposal would comprise a major improvement to the character of First Avenue in the vicinity of several historic resources on the Bellevue campus. The restoration of the façade on the Psychiatric Building site, as well as full utilization of the building, would considerably improve the Psychiatric Building's character as a visual resource. The project would maintain the architectural integrity of the Psychiatric Building with façade restoration and complementary new design features, all in accordance with SHPO guidelines. The redevelopment would maintain the building's exterior and complement its historic architecture.

The redevelopment would occur pursuant to a Memorandum of Agreement (MOA) among OPRHP, HHC and the City of New York regarding the Psychiatric Building that ensures that redevelopment of this State and National Register of Historic Places-eligible building includes appropriate measures to avoid or minimize any adverse effects to the integrity or appearance of the Psychiatric Building. Therefore, the proposed action would be consistent with this policy.

Policy 10.2: Protect and preserve archaeological resources and artifacts. The ERSP FEIS indicated that the project site has no potential for historical period archaeological resources and that no significant adverse archaeological effects were anticipated as a result of that previously approved project. No increase in effects on archaeological resources would be anticipated with the modified proposal. Therefore, both the previously approved project and the modified proposal would be consistent with this policy.

Infrastructure

As described in the 2001 ERSP FEIS, the anticipated demand for the renovated Psychiatric Building as a result of that previously approved project would total 86,760 gallons per day (gpd) of water, with an anticipated air-conditioning rate of 0.10 gpd/sf. This projected level of water usage was determined not to overburden the City's ability to provide water; no significant adverse impacts to the water supply were projected.

Given the size of New York City's water supply system and the City's commitment to maintaining adequate water supply and pressure, few actions have the potential to cause a significant impact on the water supply system. Therefore, only very large developments or actions having exceptionally large water demands (e.g., more than one million gallons per day) or those at the farthest reaches of the water supply system would warrant a detailed water supply and/or water pressure assessment. Similarly, only unusual actions with very large wastewater flows could have potential impacts on wastewater treatment. The proposed project is not such a project.

As a result of the currently proposed project with revised uses for the Psychiatric Building, anticipated water demand is expected to reach 167,000 gpd for water and 43,850 gpd for air conditioning, which would result in a net increase in total water demand of approximately 210,850 gpd (see following table).

The estimated total water consumption resulting from the proposed modified development of the Psychiatric Building would be well below the general threshold of one million gpd. Therefore, the modified proposal would not result in significant adverse impacts on water supply.

-Next page is Page 39 -

Table 3
Psychiatric Building Redevelopment Water Demand: 2001 ERSP FEIS vs. 2008 Modified Proposal

Psychiatric Building	Use	Size (gsf)	Domestic Use (gpd)	Air Conditioning (gpd)	Total Water Demand (gpd)
2001 EIS	Clinical Research and Practice	115,000	13,800	11,500	25,300
	Conference Space	9,000	1,080	900	1,980
	Child Care Center	10,000	3,000	1,000	4,000
	220 Staff Housing Units	184,000 (300 persons)	33,600	18,400	55,500
	Cellar Level Mechanical	35,000	N/A	3,500	N/A
		Total	51,480	35,300	86,780
2008 Modified Proposal	Hotel	450 rooms 240,000	114,750*	24,000	138,750
	Conference Center	45,000	7,650	4,500	12,150
	Retail/Restaurant/Gym	53,420	9,350	9,350	18,700
	Medical Office	60,000	15,000	6,000	21,000
	Parking	55,000	N/A	N/A	N/A
	Cellar Level Mechanical	45,000	N/A	4,500	N/A
		Total	146,750	48,350	195,100

Note: Domestic Use and Air Conditioning Rates are based on Table 3L-2 Water Usage and Sewage Generation Rates for Use in Impact Assessment of the *CEQR Technical Manual.*
* Assuming two beds per room and annual average occupancy rate of 86% (based on NYCEDC *Economic Snapshot* data from September 2006 to August 2008), 1.7 beds (users) per room is used in calculating domestic water use of the hotel.

The project site is located within the service area of the Newtown Creek Water Pollution Control Plant (WPCP), which discharges treated wastewater flows, or "effluent," into the East River.

The ERSP FEIS estimated that the previously approved project would generate 51,480 gpd of sanitary sewage. As the Newtown Creek WPCP has excess capacity, anticipated sanitary sewage was not expected to overburden the system. The ERSP FEIS indicated that the previously approved project would not result in significant adverse sewer impacts.

Anticipated sanitary sewage generation of approximately 146,750 gpd from the currently proposed redevelopment with revised uses for the Psychiatric Building would not cause the Newtown Creek Water Pollution Control Plant (WPCP) to exceed its design capacity or SPDES permit flow limit. Therefore, the currently proposed project with revised uses for the Psychiatric Building, as well as the expansion of the Empire Zone to the ERSP site would not result in any significant adverse sewer impacts.

Solid Waste

Solid waste from commercial and manufacturing uses in New York City is collected by private carters and disposed of by commercial transport to carriers to licensed disposal facilities. Commercial solid waste is typically hauled to out-of-city landfills. Residential and municipal solid waste is handled by the New York City Department of Sanitation.

The FEIS for the previously approved ERSP project anticipated weekly waste generation from the Psychiatric Building redevelopment of approximately 9,832 pounds (lbs) based upon the presence of 60 retail workers and 658 laboratory workers for the Psychiatric Building. As that projected waste amount would not overburden the City's solid waste disposal capabilities, no significant adverse impacts related to waste disposal were anticipated. In addition, it was determined that the proposed project would comply with the City's recycling program and would be designed to accommodate source separation of solid waste in conformance with City recycling regulations and state solid waste laws. Table 4, below, compares solid waste generation from the previously approved project to the current proposal for the Psychiatric Building.

The currently proposed project with modified uses for the Psychiatric Building would be expected to generate a total of 981 workers and approximately 59,355 lbs of solid waste per week, which includes 576 hotel/concierge workers (43,200 lbs at a rate of 75 lbs/week/employee), 165 retail workers (13,035 lbs at a rate of 79 lbs/week/employee), and 240 medical office workers (3,120 lbs at a rate of 13 lbs/week/employee).

As the Psychiatric Building would be occupied by commercial tenants, its solid waste would be disposed of by commercial haulers. Although the revised use for the Psychiatric Building would generate an increased amount of solid waste compared to the previously approved ERSP project, the amount is typical for a commercial project of this size and would not overburden private carters. Additionally, the expansion of the Empire Zone to the ERSP site has no effect on waste disposal. Therefore, there would be no significant impact related to waste disposal. In addition, the project would comply with the City's recycling program and would be designed to accommodate source separation of solid wastes in conformance with City recycling regulations and state solid waste laws.

-Next page is Page 41 –

Table 4
Solid Waste Generation on Psychiatric Building Site: 2001 ERSP FEIS vs. 2008 Modified Proposal

	Use	Size (gsf)	Solid Waste Handled by DSNY (lbs/wk)	Solid Waste Handled by Private Carriers (lbs/wk)	Total Solid Waste (lbs/wk)
2001 FEIS	Clinical Research and Practice	115,000 gsf	N/A	N/A	N/A
	Conference Space	9,000 gsf	N/A	N/A	N/A
	Child Care Center	10,000 gsf	N/A	N/A	N/A
	220 Staff Housing Units	184,000 gsf	N/A	N/A	N/A
		Total			9,832
2008 Modified Proposal	Hotel	450 rooms 240,000 gsf	0	43,200	43,200
	Conference Center	45,000 gsf	0	Included in hotel calculation	Included in hotel calculation
	Retail/Restaurant/Gym	53,420 gsf	0	13.035	13,035
	Medical Office	60,000 gsf	0	3,120	3,120
	Parking	55,000 gsf	0	0	0
		Total		59,355	59,355

Note: Expected Solid Waste Generational Rates are based on Table 3M-1 Solid Waste Generational Rates for Use in Impact Assessment of the *CEQR Technical Manual.*

Energy

The ERSP FEIS concluded that the amount of anticipated energy use for the previously approved redevelopment of the Psychiatric Building would not result in any significant additional load for local power companies and would not result in any adverse impacts.

For the currently proposed project with modified uses for the Psychiatric Building, electricity and possibly gas and steam would be used to provide heating, cooling and lighting to the project site. Consolidated Edison (Con Ed) supplies electricity, steam and natural gas to Manhattan including the project area. Various grades of petroleum fuel oils from commercial suppliers could also be used for heating. Energy consumption from the proposed project, estimated at 54,218,500,000 BTU's per year, is not expected to result in significant load for Con Ed and would not result in any adverse impacts. (Estimated BTUs are based on the Energy Use Index Averages, Table 3N-1 of the *CEQR Technical Manual.*)

The proposed project would comply with the New York State Energy Conservation Code guidelines. This code governs performance requirements of heating, ventilation and air conditioning systems as well as the exterior building envelope. The code, pursuant to Article II of the Energy Law of the State of New York, promulgated on January 1, 1979 and updated in 2007, requires that new and recycled buildings (both public and private) be designed to insure adequate thermal resistance to heat loss and infiltration.

The New York State Energy Conservation Code provides requirements for the design and selection of mechanical, electrical and illumination systems. In compliance with the code, the

basic designs would incorporate all energy conservation measures including meeting the code's requirement related to energy efficient and combined thermal transmittance.

The building design would follow guidelines using the United States Green Building Council LEED® rating system in conformity with Executive Order 111 (EO 111). The proposed redevelopment is expected to achieve a LEED® rating of at least Silver and to comply with Local Law 86. The expansion of the Empire Zone to the ERSP site would not have an impact on Energy.

Traffic and Parking

Because the proposed modified development would include different uses for the Psychiatric Building than were previously considered in the ERSP FEIS, a new traffic and parking study has been prepared to determine whether the revised program would alter the previous findings and/or result in any additional impacts related to traffic and parking.

The ERSP FEIS determined that the previously proposed project would result in mitigatable traffic impacts at five intersections where significant traffic impacts would be expected during the AM, MD, and PM peak hours. These include eastbound 30th Street at First and Second avenues, eastbound 34th Street at Second Avenue, westbound 34th Street at the Queens Midtown Tunnel entrance, and westbound 29th Street at First Avenue. Based on the recent vehicle count data and revised traffic analyses presented in the Technical Memorandum, these intersections would no longer experience significant impacts during the AM and PM peak hours. The midday peak hour was not analyzed in the new traffic study. There were no parking impacts from the previously proposed project.

As indicated in the current traffic study conducted for this technical memorandum, the modified proposed project would result in traffic impacts at two intersections that were not indicated as being significantly impacted in the ERSP FEIS (FDR Drive service road/34th Street and Second Avenue/34th Street). However, as with the previously proposed project, all traffic impacts would be fully mitigated through changes in signal timing.

The general conclusion presented in the ERSP FEIS and indicated in the updated study for the modified proposal is that no unmitigatable impacts would result from the proposed reuse of the Psychiatric Building. Parking demand created by the proposed reuse of the Psychiatric Building would be offset by the number of parking spaces introduced by the project and, because the site is located within the Manhattan Central Business District (south of 61st Street), the inability of the proposed action to accommodate projected future parking demands would be considered a parking shortfall per CEQR guidelines and would not be deemed a significant impact.

The traffic analysis conducted for this technical memorandum is summarized below.

Existing Traffic Conditions

Overall, the existing traffic volumes in the area are fairly balanced between the AM and PM peak hours. The highest traffic volumes are carried along Second Avenue, ranging from 1,850 to 2,620 vehicles per hour (vph) during the peak hours. First Avenue supports lower traffic volumes, typically between 1,465 and 1,930 vph. Southbound FDR Drive service road traffic

volumes are up to 1,275 vph approaching the 34th Street intersection, and are reduced to between 435 to 545 vph at 23rd Street during the AM and PM peak hours, respectively. The northbound FDR Drive service road and eastbound 34th Street carry similar traffic volumes, ranging from 640 to 865 vph during both peak hours. The remaining roadways in the area process up to 650 vph per direction during the AM and PM peak hours.

Each of the intersections comprising the traffic study area was analyzed in terms of its capacity to accommodate existing traffic volumes as defined by the resulting levels of service (LOS). Most movements at the study intersections operate at acceptable levels of service with overall operations at LOS mid-D or better during both the AM and PM peak analysis hours. The following movements and overall intersection operations, however, are at poor levels of service.

- At its intersection with FDR Drive service road, the eastbound 23rd Street approach operates at LOS E, and the northbound FDR Drive service road approach operates at LOS beyond mid-D during the AM peak hour. During the PM peak hour, the left-turn movements from eastbound 23rd Street and the northbound FDR Drive service road operate at LOS beyond mid-D. The southbound FDR Drive service road's through/right-turn shared movement operates at LOS E. The overall intersection functions slightly over the threshold for LOS mid-D during both peak hours.
- Westbound 23rd Street at First Avenue operates at LOS F, and the overall intersection functions at just beyond LOS mid-D during the PM peak hour.
- At its intersection with Second Avenue, westbound 23rd Street's through movement operates at a LOS beyond mid-D during the AM, and its left-turn movement operates at LOS F during the AM and PM peak hours.
- At its intersection with the FDR Drive service road, eastbound 34th Street's left- and right-turn movements operate at LOS E during the AM peak hour, and at LOS F and beyond mid-D, respectively, during the PM peak hour. Northbound FDR Drive service road's left-turn movement functions at LOS E, and the southbound FDR Drive service road approach as well as the overall intersection operate at beyond LOS mid-D during both peak hours.
- Eastbound 34th Street at First Avenue functions at LOS E during the PM peak hour.
- At Second Avenue, eastbound 34th Street operates at LOS E during the AM and PM peak hours, and westbound 34th Street's left-turn movement operates at beyond LOS mid-D during the AM peak hour.

2012 Future Traffic Conditions without the Proposed Modifications

Overall, background project-generated traffic combined with the overall background growth in the study area would result in traffic volume increases of 45 to 120 vehicles during each peak hour. In general, most intersections would experience a two-to-three-percent increase over existing traffic volumes.

The projected increase in traffic volumes by 2012 would result in an increase in delay at the study intersections; however, most movements would continue to operate at the same LOS as outlined in the Existing Conditions section with the following exceptions (see Table 8):

- Southbound FDR Drive service road's through/right-turn movement at 23rd Street would deteriorate from LOS E to F during the PM peak hour.
- At East 34th Street, the northbound FDR Drive service road's left-turn movement would deteriorate from LOS E to F during the PM peak hour. The southbound FDR Drive

service road approach during the AM peak hour and the overall intersection during the both peak hours would deteriorate from LOS D to E.

Probable Traffic Impacts of the Proposed Modifications

The analysis of future conditions with the project (e.g., the future Build condition) requires determination of the numbers of trips by travel mode expected to be generated by the proposed redevelopment of the Psychiatric Building, the assignment of these vehicle trips to the street network approaching the site, and the determination of projected levels of service at the critical locations analyzed.

The proposed reuse of the Psychiatric Building would consist of a combination of land uses including a 240,000-square foot hotel (approximately 450 rooms), a 45,000-square foot conference center, a combined 55,000-square foot retail/restaurant/gym use, a 60,000-square foot medical office, and 55,000-square foot accessory parking garage. For trip generation purposes, retail/restaurant/gym use was considered to be composed of 25,000 gsf of restaurant, 25,000 gsf of health club, and 5,000 gsf of retail space. Also, it was assumed that the conference center would be used primarily by the hotel and/or the medical community in the surrounding area, and would not itself be a generator of additional trips to the project area. This is the same approach used in the FEIS, which included a conference center land use, but the conference center was assumed to not be a generator of additional trips to the area, as it would be used primarily by NYU and Bellevue staff (see page 13-18 of the FEIS). This technical memo used the same assumptions to be consistent with the FEIS.

The trip generation rates and assumptions are summarized in Table 5. Using these factors, the Psychiatric Building reuse would generate a total of 1,017 and 1,215 person trips, which yield 273 and 185 vehicle trips during the AM and PM peak hours, respectively (see Tables 6 and 7).

The determination of the net 2012 Build traffic volumes involved the removal of vehicular trips included in the No Build conditions associated with the previously approved reuse program of the Psychiatric Building (including staff housing, clinical research and practice space, a conference center, and a child-care center) and the addition of the vehicle trips generated by the proposed reuse program discussed above. It was calculated, based on the trip generation rates used in the FEIS, that the previously approved reuse would generate 20 and 16 vehicle trips during the AM and PM peak hours, respectively. These trips were removed from the traffic network according to the FEIS trip assignments.

Overall, in 2012, the Psychiatric Building reuse program would result in traffic volume increments at the study area intersections of approximately ten to 160 vehicles during the AM and five to 100 vehicles during the PM peak hour. First Avenue traffic volumes through the study area can be expected to increase by 50 to 80 vehicles during the AM peak hour and by 20 to 35 vehicles during the PM peak hour, corresponding to between one and four percent increases compared to No Build traffic volumes. Second Avenue traffic volumes would increase by 20 to 35 vehicles (one percent increase) at its intersections with 29th and 34th streets, and by 40 to 80 vehicles (three percent increase) at 23rd and 30th streets during the peak hours. Eastbound 30th Street would experience an increase of 50 to 60 vehicles at Second Avenue, representing the highest percent increase in the area (up to nine percent at Second Avenue). The total 2012 Build traffic volumes are presented in the full Traffic Study (see Appendix C).

The level-of-service analyses for the Build condition indicated that significant traffic impacts would be expected at two of the study intersections not previously indicated in the ERSP FEIS as being significantly impacted.

- At its intersection with the FDR Drive service road, eastbound 34th Street's left-turn movement would deteriorate within LOS E and F during the AM and PM peak hours, respectively, by incurring approximately five seconds of additional delay per vehicle. The southbound FDR Drive service road would incur eight seconds of additional delay, and the overall intersection would incur four seconds of additional delay within LOS E during the AM peak hour.
- Westbound 34th Street's left-turn movement at Second Avenue would deteriorate from LOS D to E during the AM peak hour by incurring approximately nine seconds of delay per vehicle.

Proposed Mitigation Measures

As mentioned above, the proposed modifications to the reuse of the Bellevue Psychiatric Building would result in significant traffic impacts at two study area intersections that were not previously identified in the ERSP FEIS. However, these impacts could be mitigated as follows.

- At the intersection of the FDR Drive service road and 34th Street, the impacts could be mitigated during the AM peak hour by adding a leading seven-second signal phase for eastbound 34th Street followed by a 19-second east/westbound 34th Street phase, shifting one second from the red time to the green time for the northbound FDR Drive service road leading phase, and increasing the north/southbound FDR Drive service road phase by one second. Similarly, the impacts could be mitigated by adding a leading six-second signal phase for eastbound 34th Street and reducing the east/westbound 34th Street phase to 16 seconds during the PM peak hour.
- Westbound 34th Street's left-turn movement at Second Avenue could be improved by shifting one second of green time from Second Avenue to the westbound 34th Street phase.

With these mitigation measures in place, the significant adverse impacts of the proposed project at the above-mentioned intersections would be eliminated (see Table 8). The conclusion of the ERSP FEIS that the previously approved project would not result in significant adverse traffic impacts that can not be mitigated would also apply to the current modified proposal. The expansion of the Empire Zone to the ERSP site would not affect Traffic and Parking.

- Next page is Page 46 -

Table 5: Former Bellevue Psychiatric Building Reuse Trip Generation Factors

Land Use	Medical Office		Hotel	Local Retail	Health Club	Restaurant
	Employees	Patients/Visitors				
Size/Units	240 employees	60,000 gsf	450 rooms	5,000 gsf	25,000 gsf	25,000 gsf
Trip Generation	(1) 2.0 per employee	(2) 33.6 per 1,000 sf	(3) 9.4 per room	(2) 154.0 per 1,000 sf	(5) 44.7 per 1,000 sf	(7) 173.0 per 1,000 sf
Temporal Distribution		(2)	(3)	(2)	(5)	(8)
AM	48.0%	20.0%	6.6%	1.0%	4.8%	1.0%
PM	48.0%	5.0%	7.7%	10.0%	13.2%	7.7%
Modal Splits		(2)	(4)	(2)	(6)	(9)
Auto	13.0%	25.0%	9.1%	2.0%	14.0%	2.0%
Taxi	2.0%	25.0%	17.5%	2.0%	1.0%	2.0%
Subway	42.0%	29.0%	24.2%	14.0%	22.0%	14.0%
Commuter Rail	11.0%	11.0%	0.0%	0.0%	0.0%	0.0%
Bus	14.0%	0.0%	3.1%	3.0%	6.0%	3.0%
Walk	18.0%	10.0%	46.1%	79.0%	57.0%	79.0%
Directional Distribution	(2)		(3)	(2)	(5)	(10)
	In Out	In Out	In Out	In Out	In Out	In Out
AM	95% 5%	58% 42%	41% 59%	50% 50%	41% 59%	52% 48%
PM	15% 85%	20% 80%	59% 41%	50% 50%	75% 25%	61% 39%
Vehicle Occupancy	(2)		(3)	(2)	(5)	(7)
Auto	1.20	1.65	1.65	1.65	1.40	1.65
Taxi	1.40	1.40	1.40	1.40	1.40	1.40
Truck Trip Generation	(2) 0.2 per 1,000 sf		(3) 0.06 per 1,000 sf	(2) 0.35 per 1,000 sf	(5) 0.19 per 1,000 sf	(9) 0.35 per 1,000 sf
AM	9.6%		12.2%	7.7%	6.0%	7.7%
PM	1.0%		0.0%	1.0%	1.0%	1.0%
AM/PM	In 50%	Out 50%	In Out 50% 50%	In Out 50% 50%	In Out 50% 50%	In Out 50% 50%

Notes:
(1) Assumed one trip in and one trip out per employee
(2) First Avenue Properties FSEIS (2008)
(3) East 125th Street Development FEIS (2008)
(4) No. 7 Subway Extension—Hudson Yards Rezoning and Development Program FGEIS (2003)
(5) 770 Eleventh Avenue Mixed-Use Development Rezoning DEIS (2008)
(6) 2000 Census for New York County Tract 62 journey-to-work data
(7) Pushkarev & Zupan, *Urban Space for Pedestrians* (1975)
(8) *CEQR Technical Manual* (2001)
(9) Modal split and truck trip generation for the restaurant use was based on the data for local retail due to lack of available information in New York City
(10) Based on data for Land Use 932 (High-Turnover Sit-Down Restaurant) from *ITE Trip Generation, 7th Edition*

Table 6: Former Bellevue Psychiatric Building Reuse Person Trips by Mode

Land Use	Auto		Taxi		Subway		Rail		Bus		Walk		Total	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM PEAK HOUR														
Medical Office														
Employees	28	1	4	0	92	5	24	1	31	2	39	2	219	12
Patients/Visitors	58	42	58	42	68	49	26	19	0	0	23	17	234	169
Hotel	10	15	20	29	28	40	0	0	4	5	53	76	114	165
Local Retail	0	0	0	0	1	1	0	0	0	0	3	3	4	4
Health Club	3	4	0	0	5	7	0	0	1	2	13	18	22	32
Restaurant	0	0	0	0	3	3	0	0	1	1	18	16	22	21
Total	101	64	84	72	196	104	50	20	36	9	149	132	616	402
PM PEAK HOUR														
Medical Office														
Employees	4	25	1	4	15	82	4	22	5	27	6	35	35	196
Patients/Visitors	5	20	5	20	6	23	2	9	0	0	2	8	20	81
Hotel	17	12	34	23	47	32	0	0	6	4	89	62	192	134
Local Retail	1	1	1	1	5	5	0	0	1	1	30	30	39	39
Health Club	15	5	1	0	24	8	0	0	7	2	63	21	111	37
Restaurant	4	3	4	3	28	18	0	0	6	4	160	103	203	130
Total	47	66	45	51	125	170	6	30	25	39	351	259	599	615

Table 7: Former Bellevue Psychiatric Building Reuse Vehicle Trips by Type

Peak Hour	Auto		Taxi		Delivery		Total	
	In	Out	In	Out	In	Out	In	Out
AM	67	39	81	81	3	2	151	122
PM	32	47	53	53	0	0	85	100
Total	99	86	134	134	3	2	236	222

Table 8: 2012 No Build, Build, and Mitigated Build Traffic Conditions

INTERSECTION & APPROACH		Mvt.	No Build			Build			Mitigated Build			Mitigation Measures
			V/C	Control Delay	LOS	V/C	Control Delay	LOS	V/C	Control Delay	LOS	
AM Peak												
34th Street and FDR Drive Service Road												
34th Street	EB	Def(L)	0.92	70.9	E	0.95	76.0	E	0.81	49.3	D	- Add a seven-second leading signal phase for EB 34th Street.
		T	0.01	25.8	C	0.01	25.8	C	0.01	26.6	C	
		R	1.04	71.5	E	1.04	71.5	E	1.04	71.5	E	- Reduce EB/WB 34th Street phase to 19 seconds.
	WB	LT	0.06	26.3	C	0.06	26.3	C	0.10	33.2	C	
		R	0.06	26.4	C	0.06	26.4	C	0.11	33.4	C	- Shift one second from the red time to the green time of the NB FDR Drive service road phase.
FDR Drive Service Road	NB	L	1.00	62.1	E	1.00	62.4	E	0.96	49.5	D	
		TR	0.29	7.7	A	0.29	7.7	A	0.28	7.2	A	
	SB	LTR	1.02	55.5	E	1.05	63.5	E	1.02	55.0	D	- Add one second to the NB/SB FDR Drive service road phase.
Overall Intersection		-		**55.5**	**E**		**59.7**	**E**		**51.8**	**D**	
34th Street and Second Avenue												
34th Street	EB	TR	1.05	77.6	E	1.05	78.5	E	1.05	78.5	E	- Shift one second of green time from Second Avenue to WB 34th Street.
	WB	Def(L)	0.70	46.8	D	0.81	55.5	E	0.76	50.1	D	
		T	0.41	17.6	B	0.42	17.8	B	0.41	16.9	B	
Second Avenue	SB	L	0.48	16.2	B	0.48	16.2	B	0.49	17.3	B	
		LTR	0.88	21.8	C	0.89	22.1	C	0.91	24.3	C	
Overall Intersection		-		**33.1**	**C**		**33.9**	**C**		**35.0**	**C**	
PM Peak												
34th Street and FDR Drive Service Road												
34th Street	EB	Def(L)	1.13	124.3	F	1.14	129.0	F	0.98	74.7	E	- Add a six-second leading signal phase for EB 34th Street.
		T	0.01	25.8	C	0.01	25.8	C	0.01	25.8	C	
		R	0.97	54.7	D	0.97	54.7	D	0.97	54.7	D	- Reduce EB/WB 34th Street phase to 16 seconds.
	WB	LT	0.02	25.8	C	0.02	25.8	C	0.03	30.6	C	
		R	0.02	25.9	C	0.02	25.9	C	0.02	30.7	C	
FDR Drive Service Road	NB	L	1.08	82.2	F	1.08	82.3	F	1.08	82.3	F	
		TR	0.23	3.6	A	0.23	3.6	A	0.23	3.6	A	
	SB	LTR	1.02	50.2	D	1.03	51.6	D	1.03	51.6	D	
Overall Intersection		-		**60.3**	**E**		**61.6**	**E**		**55.6**	**E**	

Transit and Pedestrians

Because the proposed modified development would include different uses than were previously considered in the ERSP FEIS, a new transit and pedestrian study has been prepared to determine whether the revised program would alter the previous findings and/or result in any additional impacts. The FEIS determined that no significant adverse impacts to transit or pedestrians would result from the previously proposed development; likewise, no significant adverse impacts to transit or pedestrians would result from the modified proposal for reuse and redevelopment of the Psychiatric Building.

Additional bus trips induced by the Psychiatric Building redevelopment would be distributed among seven bus lines and would not cause any significant transit impacts. While there would also be an increase in the number of subway riders (300 project-generated subway trips), they would be distributed in a manner set forth in the FEIS and would not result in significant adverse impacts. Increases in pedestrian volumes are expected to be heavy, but would not result in significant adverse impacts to pedestrian operations. (See trip generation rates and assumptions summarized in Table 5 above.)

The proposed reuse of the Psychiatric Building would result in 46 and 64 bus trips during the weekday AM and PM peak hours, respectively, and would generate a combined total of 115 bus trips during the AM and 100 trips during the PM peak hour – both below the *CEQR Technical Manual* threshold of 200 peak hour riders for triggering significant impacts. These trips would be distributed to the seven bus lines serving the area; therefore, the proposed project would not result in any significant impacts to bus operations during the peak hours.

Further, the project would also result in approximately 300 new subway trips during each peak hour, requiring a more detailed analysis of transit conditions to determine the potential for significant impacts. In accordance with the ERSP FEIS, since the IRT Lexington line's 33rd Street station has higher ridership levels than its 28th Street station, project-generated subway trips were assigned to the 33rd Street station for a more conservative assessment of the impacts of the project on subway operations. The 300 project-generated subway trips were assigned to the various station elements at the 33rd Street station based on percentages derived from the ERSP FEIS. It was determined that the station elements would experience an incremental increase of nine to 33 pedestrians during the peak 15-minutes of the AM peak hour compared to the pedestrian volumes cited in the FEIS. This increase in pedestrian volumes would not alter the findings of the FEIS (e.g., that the proposed Psychiatric Building reuse would not result in any significant impacts to the subway operations).

In terms of actual station usage information, the FEIS indicated that the 33rd Street station is used by approximately 26,000 persons per day. More recent data posted by NYCT indicates that this same station is now used by about 31,900 persons per day, which represents an increase of 22.7 percent over the 2001-2008 period (about three percent per year).

No new transit counts were collected as part of the new study. Therefore, previous data, including subway person-trip assignments, were used as the basis for the transit analyses. Additional pedestrian counts were not anticipated to be needed for this project.

Pedestrian conditions were qualitatively assessed for this project given the area's unique surrounding characteristics. As cited in the ERSP FEIS, the Bellevue Hospital, ERSP and NYU Hospital campuses would be partially linked and thus some pedestrian circulation would occur away from First Avenue. As such, very little impact would be realized at the street level elements (sidewalks and crosswalks). Therefore, increases in pedestrian traffic to the surrounding street system are expected to be small, with no significant impacts to pedestrian operations during weekday peak periods likely. No significant transit or pedestrian impacts are anticipated from the modified proposal or the expansion of the Empire Zone to the ERSP site.

Air Quality

Because the proposed modified development for the Psychiatric Building would include different uses that were not previously considered in the ERSP FEIS, air quality and noise assessments were conducted to determine whether the revised program would alter the previous findings and/or result in any additional impacts related to air quality or noise. The general conclusion presented in the ERSP FEIS and indicated in the updated study for the modified proposal is that no unmitigatable air quality or noise impacts would result from the proposed reuse of the Psychiatric Building.

Potential impacts from the redevelopment and operation of the proposed project could result in both mobile and stationary source air quality impacts. Mobile source impacts would be related to increases in project-induced vehicles at intersections in the vicinity of the proposed project. Pollutants studied for the project include carbon monoxide (CO) and particulate matter smaller than 2.5 microns ($PM_{2.5}$). Stationary source impacts could result from HVAC emissions emitted from the project. These emissions from both mobile and stationary sources could affect air quality sensitive locations (such as sidewalks, open windows, intake vents) downwind from the emission source.

Mobile Sources

An initial intersection screening procedure described in the *CEQR Technical Manual* was conducted to determine which of the studied traffic intersections would require detailed analysis for CO. Based on this procedure, it was determined that a detailed assessment of mobile source air quality impacts would be required for two intersections (First Avenue at East 29th Street and First Avenue at East 30th Street). These intersections were selected based on the fact that they would each incur more than 100 project-induced trips in the future build year. The results of the detailed assessment presented in Table 9 show that the 8-hour CO concentrations do not surpass the EPA's National Ambient Air Quality Standards (NAAQS) nor would they result in a contravention of the *de minimus* criteria contained in the *CEQR Technical Manual*. Therefore, project-related mobile source impacts from CO would not occur.

- Next page is Page 52 -

Table 9
Build Condition (2012) Predicted 8-Hour CO Concentration (ppm)*

Site #	Receptor Location	Maximum Eight-Hour Concentration	
		AM	PM
1	29th Street & 1st Avenue	3.5	3.7
2	30th Street & 1st Avenue	3.5	3.7
* Includes background concentration of 2.0 ppm. NAAQS standard is 9 ppm.			

The assessment of mobile source emissions of $PM_{2.5}$ was based on whether the proposed project would induce a significant number of Heavy Duty Diesel Vehicles (HDDV's). As the traffic studies indicated a small number of project induced heavy vehicles, based on screening procedures found in the *CEQR Technical Manual* it was concluded that project impacts from mobile source emissions of $PM_{2.5}$ would not occur.

Stationary Sources

Potential Impacts from Project Emissions

According to the *CEQR Technical Manual*, the assessment of stationary sources typically considers information such as building land use, boiler fuel type, stack height and square footage. However, heat and hot water for the proposed project would be generated from the existing HVAC system that is to be upgraded. Since Bellevue Hospital currently utilizes Con Edison steam to provide heat and hot water, no fuel will be burned on site and no assessment of stationary source emissions from those operations is required. In addition, the proposed project would not consist of any uses that would result in toxic emission releases. Therefore, project-related impacts from stationary source emissions are not anticipated.

Potential Impacts on the Proposed Project from Existing Emission Sources

Field reconnaissance has also determined that the neighborhood is overwhelmingly residential and institutional in nature and there are no manufacturing land uses within 400 feet of the project site. In addition, there are no major pollutant sources within 1000 feet of the proposed project site. Therefore, stationary source impacts at the project site are unlikely and no further analysis is required.

Field reconnaissance as well as a study of neighborhood land usage indicates that the area surrounding the project site, although predominantly residential and institutional, includes a mix of commercial, institutional, retail and residential buildings. These emissions sources could impact sensitive project-related air quality receptors. However, the proposed development would not be located within 1000 feet of a large emissions source such as a power generation plant. In addition, stack emission sources from nearby commercial institutional or large scale residential buildings would be located at a higher elevation than the proposed site.

Air toxics are also of concern. However, the proposed project would not be located within 400

feet of manufacturing facilities and the modified development would not be impacted by toxic emissions from nearby medical, chemical or research labs. This conclusion is based on the findings contained in the 2001 ERSP FEIS.

As a result, stationary source impacts at the project site are unlikely and no further analysis of off-site emission sources is required. The expansion of the Empire Zone to the ERSP site would not have an impact on Air Quality.

Noise

Potential project–related noise impacts could result from increases in project-induced vehicles in the vicinity of existing sensitive residential receptors. Since the proposed project has a hotel component, the potential impact that existing noise levels would have on occupants of the proposed hotel must also be studied. The expansion of the Empire Zone to the ERSP site would not have an impact on Noise.

Mobile Sources

Existing Noise Conditions

Existing conditions noise levels were monitored at two locations to update the noise monitoring conducted in the 2001 ERSP EIS. As shown in Table 10, with respect to the NYC *CEQR Technical Manual* noise exposure standards, Site 1 is in the "marginally unacceptable" category while Site 2 is in the "marginally acceptable" category. These noise level readings indicate a general agreement with those monitored for the 2001 ERSP FEIS.

Table 10
Existing Noise Levels

Site	Location	Time	L_{eq}	L_1	L_{10}	L_{50}	L_{90}
1	First Avenue between E 29th Street & E. 30th Street	AM	70.9	79.1	74.2	68.1	62.1
		PM	73.0	84.5	73.4	67.3	60.4
2	E 30th Street between 1st Avenue & FDR Drive	AM	66.5	73.0	68.9	64.9	62.8
		PM	66.1	74.0	68	64.5	62.8

*Noise monitoring conducted on January 6, 2009.

Mobile Source Assessment

According to the *CEQR Technical Manual*, a noise impact related to mobile sources would occur if project-induced traffic would more than double the existing traffic. A study of existing and future traffic volumes indicates that there would be no doubling of traffic volumes at any of the studied traffic locations. This finding is in agreement with those of the 2001 ERSP EIS. As a result of this screening procedure, it is anticipated that mobile source-related noise impacts would not occur.

Attenuation Requirements

The *CEQR Technical Manual* has set noise attenuation requirements for buildings based on anticipated exterior noise levels. These recommended noise attenuation values are designed to provide an interior noise level of 45 dBA or lower. As the area noise levels are primarily the

result of vehicular movement; the anticipated insignificant increase in traffic noise levels from project-related vehicles, as well as the agreement between noise monitoring results of this study and the 2001 ERSP FEIS, indicate that the attenuation requirements for the proposed project would not change from the those determined for the 2001 ERSP FEIS. As a result, required L_{10} attenuation would not be greater than 35dB for any of the building facades of the modified development.

Stationary Sources
The only source of project-related stationary noise would be from internal and external mechanical equipment required for the modified development (such as elevator motors). This equipment would be fitted with the required noise reduction devices to comply with applicable NYC noise regulations and standards.

Construction Impacts

The ERSP FEIS summarized the construction plan and identified potential impacts that could result from construction activities associated with the previously approved ERSP project that included renovation of the Psychiatric Building. Activities involved in the 24-month renovation were to include interior demolition and reconstruction, façade and roof repair and restoration, and replacement of windows and exterior doors. Impacts on the surrounding community from construction of the overall ERSP project were expected to be temporary in duration. A construction protection plan for cultural resources, including the Psychiatric Building, pursuant to New York City Department of Buildings Technical Policy and Procedures Notice #10/88 was requested by SHPO as part of their review of the ERSP project, to avoid any significant adverse impacts to the Psychiatric Building. The FEIS indicated that impacts resulting from the presence of hazardous materials would be avoided by the removal of PCB-containing equipment and fixtures, following a Health and Safety Plan for a Phase II investigation to be performed with approval of the DEP, and following applicable Occupational Safety and Health Administration regulations related to lead-based paint, and abating asbestos-containing materials in accordance with City, state and federal regulations. With these procedures in place, no significant adverse impacts were identified as a result of hazardous materials removal.

Construction-related activities resulting from the modified proposal for the Psychiatric Building, as well as the expansion of the Empire Zone to the ERSP, would not have any significant adverse impacts on historic resources, natural resources, infrastructure, traffic, air quality, noise, or hazardous materials conditions. Construction of the project site would begin in 2009 and be completed in 2012 with an overall construction period ranging from approximately 28 to 38 months. The proposed action would be constructed within an existing corridor of hospitals and research institutions along First Avenue, requiring actions to maintain access to surrounding sites, including emergency access, and measures to avoid construction impacts. Construction activities would normally take place Monday through Friday, although the delivery/installation of certain critical equipment could occur on weekend days. Construction staging most likely would occur on the project site itself and may, in some cases, extend within portions of sidewalks, and curb and travel lanes of public streets adjacent to the construction sites. The staging areas would be located on the project site and would include East 29th and East 30th Streets, and the courtyards of the former Psychiatric Building. To safeguard the public and to provide necessary

access to the project site, it is recommended that the sidewalk along the portion of First Avenue adjacent to the project site, between East 30th and East 29th Streets, be covered with a sidewalk scaffold. Any sidewalk or street closures require the approval of the New York City Department of Transportation's Office of Construction Management and Coordination (NYCDOT-OCMC), the entity that ensures that critical arteries are not interrupted, especially during peak travel periods, and that appropriate sidewalk signage and barricading would be in place to ensure pedestrian safety.

Construction of the project would require noise and dust control measures during the construction period. In addition, there would be requirements for street crossing and entrance barriers, protective scaffolding, and strict compliance with all applicable construction safety measures.

Changes to noise levels during construction of the proposed project would include the introduction of noise and vibration from the operation of construction equipment. Based on *CEQR Technical Manual* standards, however, the noise generated by these activities would not be significant. Small increases in noise levels are expected to be found near a few defined truck routes and the streets in the immediate vicinity of the project site. These increases in noise levels caused by delivery trucks and other construction vehicles would not be significant, however.

Construction noise is regulated by the revised 2005 New York City Noise Code promulgated on July 7, 2007 and by the EPA noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7 AM and 6 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, appropriate low-noise emission level equipment and operational procedures would be used. Compliance with noise control measures would be ensured by directives to the construction contractor.

Public Health

According to the *CEQR Technical Manual*, an assessment of a proposed project's potential impact on public health should be undertaken if the project would result in significant increases in noise, odors, or air pollutant emissions; if it would produce heavy metals or expose workers, residents, or visitors to hazardous materials resulting from prior contamination of the site; or if it would attract vermin.

The modified proposal for the Psychiatric Building and the expansion of the Empire Zone to the ERSP site would not introduce significant adverse traffic or air quality impacts, or result in significant adverse impacts related to hazardous materials. The proposed project would not be expected to attract vermin and standard pest control measures would be employed to prevent and avoid vermin problems. Construction-related changes to traffic, air, and noise conditions would be temporary and would not result in significant adverse impacts on the surrounding community.

An assessment of public health impacts is ultimately based on the likelihood of public exposure to the various elements that put public health at risk. However, as is described in other sections

of this technical memorandum, no adverse hazardous materials, traffic, air, or noise impacts would occur as a result of the modified proposal. The modified redevelopment proposal would therefore not introduce any factors that place the public at risk, and no significant adverse public health impacts would result.

III. CONCLUSIONS

As described in the analyses above, none of the changes that are proposed to the ERSP project, including a re-programming of the uses in the Bellevue Psychiatric Building and the designation of the ERSP site as an expansion site in the Chinatown Empire Zone, would result in significant adverse environmental impacts that were not previously identified in the FEIS.

Robert R. Kulikowski, Ph.D.
Assistant to the Mayor

June 8, 2009
Date

APPENDIX A

MEMORANDUM of AGREEMENT
REGARDING THE PSYCHIATRIC BUILDING AT BELLEVUE HOSPITAL
NEW YORK COUNTY, NEW YORK

Between
THE NEW YORK STATE OFFICE OF PARKS, RECREATION, AND HISTORIC PRESERVATION,
THE NEW YORK CITY HEALTH AND HOSPITALS CORPORATION AND
THE CITY OF NEW YORK

WHEREAS, The New York City Economic Development Corporation acting on behalf of the New York City Health and Hospitals Corporation ("NYCHHC") asked the New York State Office of Parks, Recreation, and Historic Preservation ("OPRHP") to review a proposal regarding the East River Science Park (the "Project") which is adjacent to a property, the Psychiatric Building, which has been determined eligible for inclusion on the State and National Registers of Historic Places; and

WHEREAS, The City of New York (the "City") is the owner of the land underlying the Psychiatric Building and the NYCHHC is the lessor of such land pursuant to an Agreement dated June 16, 1970 between the City and the NYCHHC; and

WHEREAS, the OPRHP has determined that the new buildings associated with the East River Science Park would tower over the historic Psychiatric Building and that the design of the new building is not in keeping with the OPRHP's guidelines for new construction; and

WHEREAS, the OPRHP has found that an Adverse Effect to the Psychiatric Building would result from the development of the East River Science Park; and

WHEREAS, all prudent and feasible alternatives to the proposal have been explored,

NOW THEREFORE, in accordance with Section 106 of the National Historic Preservation Act of 1966, the OPRHP, the NYCHHC and the City agree that the Project may proceed subject to the Stipulation below.

Stipulation

A. Covenant

The Psychiatric Building is the subject of the attached preservation covenant between the OPRHP, the NYCHHC and the City. Execution of the Covenant by the OPRHP, the

NYCHHC and the City has taken into account the impact of the undertaking on the adjacent historic property.

NEW YORK STATE HISTORIC PRESERVATION OFFICE

BY: Ruth Pierpont DATE: 6/21/07

TITLE: DSHPO

CONCUR:

NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

BY: _____ DATE: _____

TITLE: PRESIDENT

THE CITY OF NEW YORK

BY: _____ DATE: _____

TITLE: Dep Mayor

Approved as to form

By: _____

Acting Corporation Counsel

PRESERVATION COVENANT TO BE USED FOR CONVEYANCE OF PSYCHIATRIC BUILDING

1. In consideration of the approval of the New York State Office of Parks, Recreation and Historic Preservation (the "OPRHP") of a proposal regarding the East River Science Park which is adjacent to a building, the Psychiatric Building (the "Psychiatric Building"), located on a portion of Tax Lot 100 in Tax Block 962 in the Borough of Manhattan in the City of New York (such portion known as Parcel 1 and being more fully described and depicted in Exhibit A hereto), each of the New York City Health and Hospitals Corporation (the "NYCHHC"), as lessor of the Psychiatric Building pursuant to an Agreement dated June 16, 1970 between The City of New York (the "City"), and the City, as owner of the Psychiatric Building, hereby covenant on behalf of themselves, their heirs, successors, and assigns at all times to notify the OPRHP in writing prior to undertaking any construction, alteration, remodeling, demolition, or other modification to structures or setting that would affect the features of the Psychiatric Building that make the Psychiatric Building eligible for inclusion on the State and National Registers of Historic Places. Such notice shall describe in reasonable detail the proposed undertaking and its expected effect on the integrity or appearance of the Psychiatric Building.

2. Within thirty (30) calendar days of receipt of notification provided by the NYCHHC or the City pursuant to paragraph 1 of this covenant, the OPRHP will respond to the sender of the notification (the "Sender")

(a) That the Sender may proceed with the proposed undertaking without further historic preservation consultations; or

(b) That the Sender must initiate and complete consultation with the OPRHP before the Sender can proceed with the proposed undertaking.

If the OPRHP fails to respond to the Sender's written notice, as described in paragraph 1 of this covenant, within thirty (30) calendar days of the OPRHP's receipt of the same, then the Sender may proceed with the proposed undertaking without further historic preservation consultations with the OPRHP.

3. If the response provided to the Sender by the OPRHP pursuant to paragraph 2 of this covenant requires consultation with that office, then all parties will so consult in good faith to arrive at mutually-agreeable and appropriate measures that the Sender will take to avoid or minimize any adverse effects associated with the proposed undertaking. If the parties are unable to arrive at such mutually-agreeable measures, then the Sender shall undertake mitigation in the form of recordation for the concerned property--in accordance with the standards of the Secretary of the Interior of the United States of America for recordation and any applicable state standards for recordation, or in accordance with such other standards to which the parties may mutually agree--prior to proceeding with the proposed undertaking. Pursuant to this covenant, any mitigation

measures to which the Sender and the OPRHP mutually agree, or any recordation that may be required, shall be carried out solely at the expense of the Sender.

4. The OPRHP shall be permitted at all mutually agreeable reasonable times to inspect the Psychiatric Building in order to ascertain its condition and to fulfill its responsibilities hereunder, provided such inspection can be conducted safely.

5. In the event that the Psychiatric Building (a) is substantially destroyed by fire or other casualty, or (b) is not totally destroyed by fire or other casualty, but damage thereto is so serious that restoration would be financially impractical in the reasonable judgment of the NYCHHC or the City, this covenant shall terminate on the date of such destruction or casualty. Upon such termination, the NYCHHC and the City shall deliver a duly executed and acknowledged notice of such termination to the OPRHP, and record a duplicate original of said notice in the County of New York County Deed Records. Such notice shall be conclusive evidence in favor of every person dealing with the Psychiatric Building as to the facts set forth therein.

6. The failure of the OPRHP to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

7. Until terminated pursuant to paragraph 5 or any subsequent agreement or release by OPHRP, the covenant shall be a binding servitude upon the Psychiatric Building and shall be deemed to run with the land. Execution of this covenant shall constitute conclusive evidence that the NYCHHC and the City agree to be bound by the foregoing conditions and restrictions and to perform the obligations herein set forth.

EXHIBIT A

PARCEL 1

BEGINNING at a point on the easterly side of First Avenue (100 feet wide); said point being the corner formed by the intersection of the easterly side of First Avenue with the southerly side of former East 30th Street (60 feet wide), discontinued and closed;

Running thence easterly along said southerly side of former East 30th Street (60 feet wide), discontinued and closed, a distance of 416.74 feet to a point; said line forming an interior angle of 90 degrees 00 minutes 00 seconds with the easterly side of First Avenue;

Running thence southerly through lands now or formerly Bellevue Hospital (tax Lot 100), a distance of 61.14 feet to a point; said line forming an interior angle of 90 degrees 00 minutes 00 seconds with the last-mentioned course;

Running thence easterly through lands now or formerly Bellevue Hospital (tax Lot 100), a distance of 2.98 feet to a point; said line forming an interior angle of 270 degrees 00 minutes 00 seconds with the last-mentioned course;

Running thence southerly through lands now or formerly Bellevue Hospital (tax Lot 100), a distance of 75.00 feet to a point; said line forming an interior angle of 90 degrees 00 minutes 00 seconds with the last-mentioned course;

Running thence westerly through lands now or formerly Bellevue Hospital (tax Lot 100), a distance of 3.08 feet to a point; said line forming an interior angle of 90 degrees 00 minutes 00 seconds with the last-mentioned course;

Running thence southerly through lands now or formerly Bellevue Hospital (tax Lot 100), a distance of 48.42 feet to a point; said line forming an interior angle of 270 degrees 00 minutes 00 seconds with the last-mentioned course;

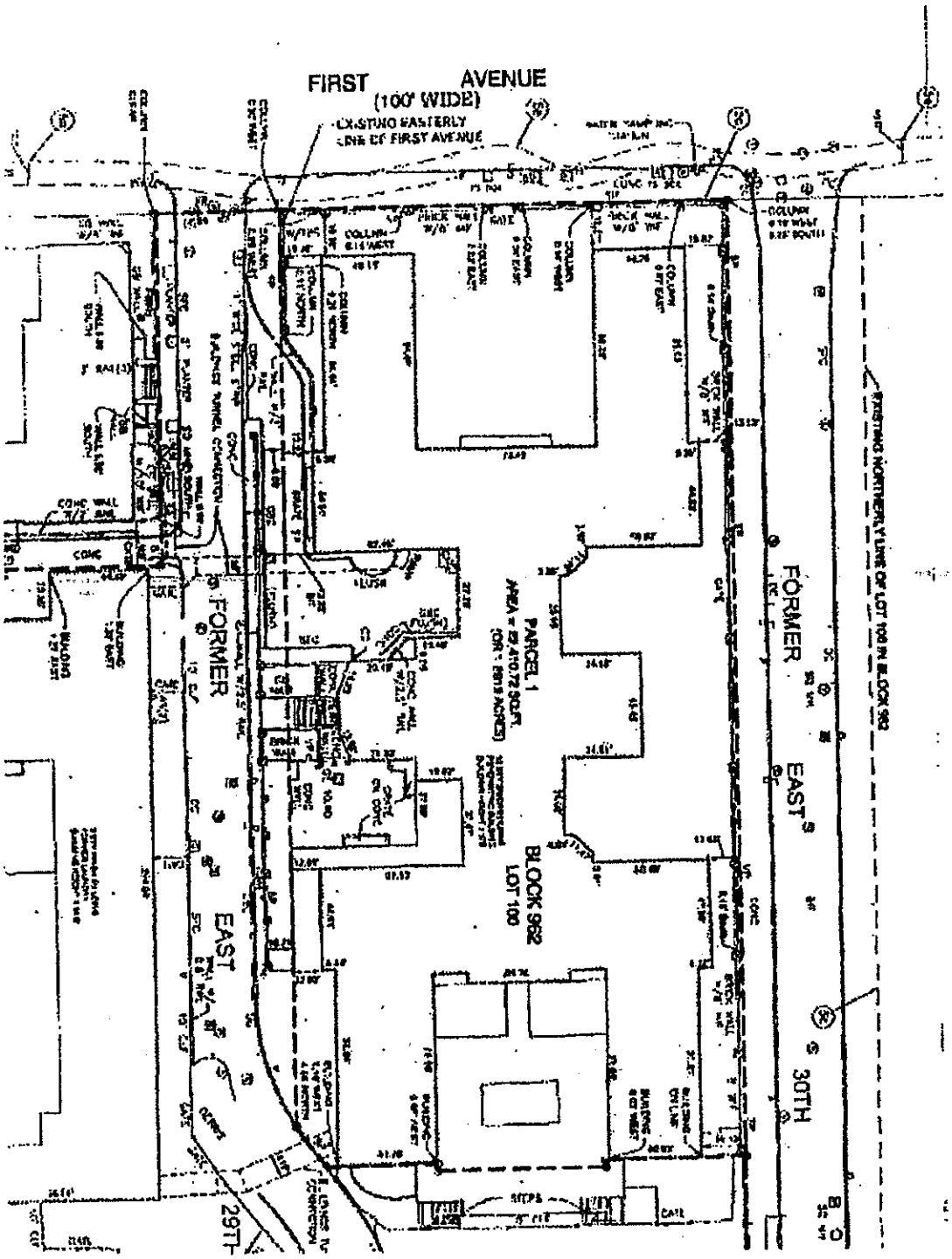
Running thence southwesterly through lands now or formerly Bellevue Hospital (tax Lot 100), a distance or 16.45 feet to a point of curvature; said line forming an interior angle of 128 degrees 27 minutes 29 seconds with the last-mentioned course;

Running thence westerly through lands now or formerly Bellevue Hospital (tax Lot 100) on a curve bearing to the right with a radius of 107.00 feet and a central angle of 02 degrees 56 minutes 57 seconds, an arc distance of 5.51 feet to a point, the radial line of said curve forming an interior angle of 90 degrees 00 minutes 00 seconds with the last-mentioned course;

Running thence westerly through lands now or formerly Bellevue Hospital (tax Lot 100), a distance of 398.90 feet to a point on the easterly side of First Avenue, said line forming an interior angle of 58 degrees 29 minutes 28 seconds with the radial line of the last-mentioned course;

Running thence northerly along the easterly side of First Avenue, a distance of 197.50 feet to the place and point of beginning; said line forming an interior angle 90 degrees 00 minutes 00 seconds with the last-mentioned course;

Containing 82,410.72 square feet or 1.8919 acres.


FIRST AVENUE
(100' WIDE)
EXISTING EASTERLY
LINE OF FIRST AVENUE
FORMER
EAST
29TH
PARCEL 1
BLOCK 982
LOT 100
FORMER
EAST
30TH

THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION
100 Old Slip, New York, NY 10005 (212) 487-6800

ENVIRONMENTAL REVIEW

DME/01DME004M — PROJECT NUMBER
06/27/01 — DATE RECEIVED

PROJECT EAST RVR SCIENCE PRK/NYU: EAST RIVER SCIENCE PARK/ NYU

[ ] No architectural significance

[X] No archaeological significance

[ ] Designated New York City Landmark or Within Designated Historic District

[ ] Listed on National Register of Historic Places

[X] Appears to be eligible for National Register Listing and/or New York City Landmark Designation

[ ] May be archaeologically significant; requesting additional materials

COMMENTS Text of DEIS dated 6/22/01 is acceptable.

Gina Santucci — SIGNATURE
06/29/01 — DATE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, Albany, New York 12233-4757
Phone: (518) 402-8935 • **FAX:** (518) 402-8925

Alexander B. Grannis
Commissioner

November 17, 2008

Josh Moreinis
S T V Incorporated
225 Park Avenue South
New York City, NY 10003-1604

Dear Mr. Moreinis:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed Re-development of the former Bellevue Psychiatric Hospital Building, site as indicated on the map you provided, located at 500 First Avenue, New York City.

We have no records of <u>known</u> occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain any information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. For these reasons, we cannot provide a definitive statement on t he presence or absence of rare or state-listed species, or of significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

Sincerely,
Tara Salerno
Tara Salerno, Information Services
NY Natural Heritage Program

Enc.
cc: Reg. 2, Wildlife Mgr.

APPENDIX B

For Internal Use Only:
Date Received: WRP no.
DOS no.

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's designated coastal zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)*. The WRP was adopted as a 197-a Plan by the Council of the City of New York on October 13, 1999, and subsequently approved by the New York State Department of State with the concurrence of the United States Department of Commerce pursuant to applicable state and federal law, including the Waterfront Revitalization of Coastal Areas and Inland Waterways Act. As a result of these approvals, state and federal discretionary actions within the city's coastal zone must be consistent to the maximum extent practicable with the WRP policies and the city must be given the opportunity to comment on all state and federal projects within its coastal zone.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, other state agencies or the New York City Department of City Planning in their review of the applicant's certification of consistency.

A. APPLICANT

1. Name: New York City Economic Development Corporation
2. Address: 110 William Street
3. Telephone: (212) 312-3718 Fax: (212) 312-3989 E-mail: rbelsky@nycedc.com
4. Project site owner: City of New York -- NYC Health and Hospitals Corp.

B. PROPOSED ACTIVITY

1. Brief description of activity:

   The project would redevelop the Psychiatric Building on the Bellevue Hospital campus located on East 29th and First Avenue in Manhattan, for hotel, medical office, conference center, and retail use. The Psychiatric Building is currently partially vacant and partially occupied by a men's homeless shelter operated by the NYC Department of Homeless Services. The project also includes the expansion of the Chinatown Empire Zone ("EZ") to cover the adjacent East River Science Park ("ERSP") site.

2. Purpose of activity:

   The project will restore an landmark-eligible building (determined eligible for listing on the State and National Registers by the NYS Office of Parks, Recreation and Historic Preservation) and provide a complimentary use along the First Avenue medical corridor. The EZ expansion will enable certain benefits for the ERSP project.

3. Location of activity: (street address/borough or site description):

   The Psychiatric Building is located on an approximately 82,000 square foot parcel at 500 First Avenue, between East 29th and East 30th Streets in the Kips Bay neighborhood of Manhattan. ERSP is located between East 28th and East 29th Streets, from First Avenue to the FDR service road.

Proposed Activity Cont'd

4. If a federal or state permit or license was issued or is required for the proposed activity, identify the permit type(s), the authorizing agency and provide the application or permit number(s), if known:

   N/A

5. Is federal or state funding being used to finance the project? If so, please identify the funding source(s).

   It is expected that the project will receive historic preservation tax credits.

6. Will the proposed project require the preparation of an environmental impact statement?
   Yes _____ No ✓ If yes, identify Lead Agency:

7. Identify **city** discretionary actions, such as a zoning amendment or adoption of an urban renewal plan, required for the proposed project.

   - Site disposition, through HHC's process (HHC Act, Section 7385 (6)
   - Empire Zone Expansion, which requires City Council approval

C. COASTAL ASSESSMENT

Location Questions:	**Yes**	**No**
1. Is the project site on the waterfront or at the water's edge?		✓
2. Does the proposed project require a waterfront site?		✓
3. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land underwater, or coastal waters?		✓

Policy Questions	**Yes**	**No**

The following questions represent, in a broad sense, the policies of the WRP. Numbers in parentheses after each question indicate the policy or policies addressed by the question. The new Waterfront Revitalization Program offers detailed explanations of the policies, including criteria for consistency determinations.

Check either "Yes" or "No" for each of the following questions. For all "yes" responses, provide an attachment assessing the effects of the proposed activity on the relevant policies or standards. Explain how the action would be consistent with the goals of those policies and standards.

4. Will the proposed project result in revitalization or redevelopment of a deteriorated or under-used waterfront site? (1)		✓
5. Is the project site appropriate for residential or commercial redevelopment? (1.1)	✓	
6. Will the action result in a change in scale or character of a neighborhood? (1.2)		✓

Policy Questions cont'd	Yes	No
7. Will the proposed activity require provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (1.3)		✓
8. Is the action located in one of the designated Significant Maritime and Industrial Areas (SMIA): South Bronx, Newtown Creek, Brooklyn Navy Yard, Red Hook, Sunset Park, or Staten Island? (2)		✓
9. Are there any waterfront structures, such as piers, docks, bulkheads or wharves, located on the project sites? (2)		✓
10. Would the action involve the siting or construction of a facility essential to the generation or transmission of energy, or a natural gas facility, or would it develop new energy resources? (2.1)		✓
11. Does the action involve the siting of a working waterfront use outside of a SMIA? (2.2)		✓
12. Does the proposed project involve infrastructure improvement, such as construction or repair of piers, docks, or bulkheads? (2.3, 3.2)		✓
13. Would the action involve mining, dredging, or dredge disposal, or placement of dredged or fill materials in coastal waters? (2.3, 3.1, 4, 5.3, 6.3)		✓
14. Would the action be located in a commercial or recreational boating center, such as City Island, Sheepshead Bay or Great Kills or an area devoted to water-dependent transportation? (3)		✓
15. Would the proposed project have an adverse effect upon the land or water uses within a commercial or recreation boating center or water-dependent transportation center? (3.1)		✓
16. Would the proposed project create any conflicts between commercial and recreational boating? (3.2)		✓
17. Does the proposed project involve any boating activity that would have an impact on the aquatic environment or surrounding land and water uses? (3.3)		✓
18. Is the action located in one of the designated Special Natural Waterfront Areas (SNWA): Long Island Sound- East River, Jamaica Bay, or Northwest Staten Island? (4 and 9.2)		✓
19. Is the project site in or adjacent to a Significant Coastal Fish and Wildlife Habitat? (4.1)		✓
20. Is the site located within or adjacent to a Recognized Ecological Complex: South Shore of Staten Island or Riverdale Natural Area District? (4.1and 9.2)		✓
21. Would the action involve any activity in or near a tidal or freshwater wetland? (4.2)		✓
22. Does the project site contain a rare ecological community or would the proposed project affect a vulnerable plant, fish, or wildlife species? (4.3)		✓
23. Would the action have any effects on commercial or recreational use of fish resources? (4.4)		✓
24. Would the proposed project in any way affect the water quality classification of nearby waters or be unable to be consistent with that classification? (5)		✓
25. Would the action result in any direct or indirect discharges, including toxins, hazardous substances, or other pollutants, effluent, or waste, into any waterbody? (5.1)		✓
26. Would the action result in the draining of stormwater runoff or sewer overflows into coastal waters? (5.1)		✓
27. Will any activity associated with the project generate nonpoint source pollution? (5.2)		✓
28. Would the action cause violations of the National or State air quality standards? (5.2)		✓

Policy Questions cont'd	Yes	No
29. Would the action result in significant amounts of acid rain precursors (nitrates and sulfates)? (5.2C)		✓
30. Will the project involve the excavation or placing of fill in or near navigable waters, marshes, estuaries, tidal marshes or other wetlands? (5.3)		✓
31. Would the proposed action have any effects on surface or ground water supplies? (5.4)		✓
32. Would the action result in any activities within a federally designated flood hazard area or state-designated erosion hazards area? (6)		✓
33. Would the action result in any construction activities that would lead to erosion? (6)		✓
34. Would the action involve construction or reconstruction of a flood or erosion control structure? (6.1)		✓
35. Would the action involve any new or increased activity on or near any beach, dune, barrier island, or bluff? (6.1)		✓
36. Does the proposed project involve use of public funds for flood prevention or erosion control? (6.2)		✓
37. Would the proposed project affect a non-renewable source of sand ? (6.3)		✓
38. Would the action result in shipping, handling, or storing of solid wastes, hazardous materials, or other pollutants? (7)		✓
39. Would the action affect any sites that have been used as landfills? (7.1)		✓
40. Would the action result in development of a site that may contain contamination or that has a history of underground fuel tanks, oil spills, or other form or petroleum product use or storage? (7.2)		✓
41. Will the proposed activity result in any transport, storage, treatment, or disposal of solid wastes or hazardous materials, or the siting of a solid or hazardous waste facility? (7.3)		✓
42. Would the action result in a reduction of existing or required access to or along coastal waters, public access areas, or public parks or open spaces? (8)		✓
43. Will the proposed project affect or be located in, on, or adjacent to any federal, state, or city park or other land in public ownership protected for open space preservation? (8)		✓
44. Would the action result in the provision of open space without provision for its maintenance? (8.1)		✓
45. Would the action result in any development along the shoreline but NOT include new water-enhanced or water-dependent recreational space? (8.2)		✓
46. Will the proposed project impede visual access to coastal lands, waters and open space? (8.3)		✓
47. Does the proposed project involve publicly owned or acquired land that could accommodate waterfront open space or recreation? (8.4)		✓
48. Does the project site involve lands or waters held in public trust by the state or city? (8.5)		✓
49. Would the action affect natural or built resources that contribute to the scenic quality of a coastal area? (9)		✓
50. Does the site currently include elements that degrade the area's scenic quality or block views to the water? (9.1)		✓

Policy Questions cont'd	Yes	No
51. Would the proposed action have a significant adverse impact on historic, archeological, or cultural resources? (10)		✓
52. Will the proposed activity affect or be located in, on, or adjacent to an historic resource listed on the National or State Register of Historic Places, or designated as a landmark by the City of New York? (10)	✓	

D. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's Waterfront Revitalization Program, pursuant to the New York State Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If the certification can be made, complete this section.

"The proposed activity complies with New York State's Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent Name: Rachel Belsky, Vice President, NYC Economic Development Corp

Address: 110 William Street, NY NY 10039

Telephone (212) 312-3718

Applicant/Agent Signature: _____ Date: _____

APPENDIX C

Appendix C-1

Turning Movement Count Summaries

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 23rd Street and First Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 23rd Street* (EB)			*East 23rd Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		34	155	7	0	0	0	19	63	0	0	41	15	541		
to	Truck		18	29	9	0	0	0	3	4	0	0	39	9			
7:15	Bus		7	9	7	0	0	0	10	15	0	0	40	8			
7:15	Auto		72	213	9	0	0	0	20	97	0	0	90	30	758		
to	Truck		19	9	10	0	0	0	7	1	0	0	45	12			
7:30	Bus		12	10	12	0	0	0	4	16	0	0	55	15			
7:30	Auto		85	232	12	0	0	0	25	101	0	0	131	32	895		
to	Truck		21	9	11	0	0	0	6	11	0	0	55	15			
7:45	Bus		15	35	14	0	0	0	5	12	0	0	49	19			
7:45	Auto	1	77	264	15	0	0	0	26	104	0	0	157	37	955		
to	Truck		22	15	14	0	0	0	5	1	0	0	61	19			
8:00	Bus		17	12	17	0	0	0	2	13	0	0	53	24		3,149	
8:00	Auto		87	258	15	0	0	0	29	98	0	0	159	31	956		
to	Truck		23	10	14	0	0	0	2	3	0	0	63	21			
8:15	Bus		14	11	17	0	0	0	2	27	0	0	51	21		3,564	
8:15	Auto		91	261	21	0	0	0	28	102	0	0	162	27	980		
to	Truck		25	12	17	0	0	0	3	4	0	0	52	24			
8:30	Bus		19	14	18	0	0	0	1	28	0	0	49	22		3,786	
8:30	Auto		72	264	14	0	0	0	26	99	0	0	147	21	908		
to	Truck		21	15	13	0	0	0	2	5	0	0	49	19			
8:45	Bus		17	16	15	0	0	0	2	30	0	0	44	17		3,799	
8:45	Auto		69	259	19	0	0	0	24	98	0	0	147	19	887		
to	Truck		21	14	17	0	0	0	3	4	0	0	46	16			
9:00	Bus		11	17	16	0	0	0	1	28	0	0	41	17		3,731	
Peak Hour Volume (PHV)			485	1,152	190	0	0	0	128	514	0	0	1,047	283	3,799		
PHV (by approach)			1,827			0			642			1,330					
Peak Hour Factor (PHF)			0.96			#DIV/0!			0.97			0.95					
Total Autos			1,439			0			512			741					
Total Trucks			201			0			25			308					
Total Buses			187			0			105			281					
% Auto			78.8%			#DIV/0!			79.8%			55.7%					
% Heavy Vehicles (Trucks & Buses)			21.2%			#DIV/0!			20.2%			44.3%					

PROJECT:	**Former Bellevue Psych Building Redevelopment**
FILE NAME:	**TMC Summary.xls**
LOCATION:	**East 23rd Street and First Avenue**
TIME PERIOD:	**PM Peak Period**
COUNT DATE :	**Wednesday, October 29, 2008**
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	**12/15/08**
	03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 23rd Street* (EB)			*East 23rd Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		28	216	31	0	0	0	13	103	0	0	96	29	645		
to	Truck		4	14	6	0	0	0	5	5	0	0	15	12			
4:15	Bus		8	8	15	0	0	0	0	14	0	0	12	11			
4:15	Auto		21	218	27	0	0	0	12	198	0	0	121	22	765		
to	Truck		6	13	12	0	0	0	6	4	0	0	16	14			
4:30	Bus		9	9	16	0	0	0	1	15	0	0	10	15			
4:30	Auto		24	238	24	0	0	0	19	113	0	0	132	24	721		
to	Truck		8	4	13	0	0	0	4	5	0	0	7	17			
4:45	Bus		14	9	17	0	0	0	3	15	0	0	15	16			
4:45	Auto		32	240	29	0	0	0	20	94	0	0	127	25	708		
to	Truck		12	7	8	0	0	0	3	6	0	0	6	18			
5:00	Bus		12	10	10	0	0	0	5	14	0	0	16	14		2,839	
5:00	Auto	1	27	242	21	0	0	0	21	96	0	0	121	21	656		
to	Truck		5	8	9	0	0	0	2	5	0	0	6	9			
5:15	Bus		10	9	14	0	0	0	1	12	0	0	11	6		2,850	
5:15	Auto		38	255	12	0	0	0	34	95	0	0	117	22	698		
to	Truck		7	10	10	0	0	0	0	2	0	0	13	10			
5:30	Bus		6	8	20	0	0	0	1	15	0	0	17	6		2,783	
5:30	Auto		31	279	17	0	0	0	28	89	0	0	107	21	672		
to	Truck		6	2	9	0	0	0	1	1	0	0	11	8			
5:45	Bus		5	8	11	0	0	0	0	16	0	0	15	7		2,734	
5:45	Auto		57	251	11	0	0	0	29	93	0	0	105	40	734		
to	Truck		10	8	5	0	0	0	1	7	0	0	15	7			
6:00	Bus		7	11	6	0	0	0	0	16	0	0	34	21		2,760	
Peak Hour Volume (PHV)			209	1,091	145	0	0	0	118	447	0	0	572	178	2,760		
PHV (by approach)			1,445			0			565			750					
Peak Hour Factor (PHF)			0.98			#DIV/0!			0.96			0.84					
Total Autos			1,241			0			485			554					
Total Trucks			89			0			19			79					
Total Buses			115			0			61			117					
% Auto			85.9%			#DIV/0!			85.8%			73.9%					
% Heavy Vehicles (Trucks & Buses)			14.1%			#DIV/0!			14.2%			26.1%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 29th Street and First Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 29th Street* (EB)			*East 29th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		49	251	0	0	0	0	0	0	0	0	0	0	328		
to	Truck		0	20	0	0	0	0	0	0	0	0	0	0			
7:15	Bus		2	6	0	0	0	0	0	0	0	0	0	0			
7:15	Auto		61	351	0	0	0	0	0	0	0	0	0	0	458		
to	Truck		3	23	0	0	0	0	0	0	0	0	0	0			
7:30	Bus		1	19	0	0	0	0	0	0	0	0	0	0			
7:30	Auto		55	326	0	0	0	0	0	0	0	0	0	0	416		
to	Truck		1	20	0	0	0	0	0	0	0	0	0	0			
7:45	Bus		4	10	0	0	0	0	0	0	0	0	0	0			
7:45	Auto	1	78	362	0	0	0	0	0	0	0	0	0	0	489		
to	Truck		3	27	0	0	0	0	0	0	0	0	1	0			
8:00	Bus		2	16	0	0	0	0	0	0	0	0	0	0		1,691	
8:00	Auto		96	423	0	0	0	0	0	0	0	0	0	0	576		
to	Truck		3	32	0	0	0	0	0	0	0	0	0	1			
8:15	Bus		4	17	0	0	0	0	0	0	0	0	0	0		1,939	
8:15	Auto		59	333	0	0	0	0	0	0	0	0	0	0	449		
to	Truck		2	32	0	0	0	0	0	0	0	0	0	0			
8:30	Bus		3	20	0	0	0	0	0	0	0	0	0	0		1,930	
8:30	Auto		71	377	0	0	0	0	0	0	0	0	0	0	499		
to	Truck		2	29	0	0	0	0	0	0	0	0	0	0			
8:45	Bus		3	17	0	0	0	0	0	0	0	0	0	0		2,013	
8:45	Auto		67	331	0	0	0	0	0	0	0	0	0	0	447		
to	Truck		4	29	0	0	0	0	0	0	0	0	0	0			
9:00	Bus		1	15	0	0	0	0	0	0	0	0	0	0		1,971	
Peak Hour Volume (PHV)			326	1,685	0	0	0	0	0	0	0	0	1	1	2,013		
PHV (by approach)			2,011			0			0			2					
Peak Hour Factor (PHF)			0.87			#DIV/0!			#DIV/0!			0.50					
Total Autos			1,799			0			0			0					
Total Trucks			130			0			0			2					
Total Buses			82			0			0			0					
% Auto			89.5%			#DIV/0!			#DIV/0!			0.0%					
% Heavy Vehicles (Trucks & Buses)			10.5%			#DIV/0!			#DIV/0!			100.0%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 29th Street and First Avenue
TIME PERIOD:	PM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08
	03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 29th Street* (EB)			*East 29th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		53	326	0	0	0	0	0	0	0	0	0	0	432		
to	Truck		6	34	0	0	0	0	0	0	0	0	0	0			
4:15	Bus		2	11	0	0	0	0	0	0	0	0	0	0			
4:15	Auto		52	372	0	0	0	0	0	0	0	0	0	0	478		
to	Truck		4	35	0	0	0	0	0	0	0	0	0	0			
4:30	Bus		1	14	0	0	0	0	0	0	0	0	0	0			
4:30	Auto		64	354	0	0	0	0	0	0	0	0	0	0	456		
to	Truck		3	19	0	0	0	0	0	0	0	0	0	0			
4:45	Bus		1	15	0	0	0	0	0	0	0	0	0	0			
4:45	Auto		43	365	0	0	0	0	0	0	0	0	0	0	448		
to	Truck		1	21	0	0	0	0	0	0	0	0	0	0			
5:00	Bus		1	17	0	0	0	0	0	0	0	0	0	0		1,814	
5:00	Auto	1	45	334	0	0	0	0	0	0	0	0	0	0	402		
to	Truck		1	7	0	0	0	0	0	0	0	0	0	0			
5:15	Bus		3	12	0	0	0	0	0	0	0	0	0	0		1,784	
5:15	Auto		59	334	0	0	0	0	0	0	0	0	0	0	434		
to	Truck		1	20	0	0	0	0	0	0	0	0	0	0			
5:30	Bus		1	19	0	0	0	0	0	0	0	0	0	0		1,740	
5:30	Auto		56	336	0	0	0	0	0	0	0	0	0	0	413		
to	Truck		1	9	0	0	0	0	0	0	0	0	0	0			
5:45	Bus		3	8	0	0	0	0	0	0	0	0	0	0		1,697	
5:45	Auto		54	331	0	0	0	0	0	0	0	0	0	0	417		
to	Truck		1	13	0	0	0	0	0	0	0	0	0	0			
6:00	Bus		2	16	0	0	0	0	0	0	0	0	0	0		1,666	
Peak Hour Volume (PHV)			227	1,439	0	0	0	0	0	0	0	0	0	0	1,666		
PHV (by approach)			1,666			0			0			0					
Peak Hour Factor (PHF)			0.96			#DIV/0!			#DIV/0!			#DIV/0!					
Total Autos			1,549			0			0			0					
Total Trucks			53			0			0			0					
Total Buses			64			0			0			0					
% Auto			93.0%			#DIV/0!			#DIV/0!			#DIV/0!					
% Heavy Vehicles (Trucks & Buses)			7.0%			#DIV/0!			#DIV/0!			#DIV/0!					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 30th Street and First Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08
	03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 30th Street* (EB)			*East 30th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		0	0	28	0	0	0	94	0	0	0	0	0	131		
to	Truck		0	0	3	0	0	0	4	0	0	0	0	0			
7:15	Bus		0	0	0	0	0	0	2	0	0	0	0	0			
7:15	Auto		0	0	23	0	0	0	70	0	0	0	0	0	102		
to	Truck		0	0	3	0	0	0	4	0	0	0	0	0			
7:30	Bus		0	0	1	0	0	0	1	0	0	0	0	0			
7:30	Auto		0	0	32	0	0	0	92	0	0	0	0	0	131		
to	Truck		0	0	0	0	0	0	2	0	0	0	0	0			
7:45	Bus		0	0	0	0	0	0	5	0	0	0	0	0			
7:45	Auto	1	0	0	24	0	0	0	98	0	0	0	0	0	126		
to	Truck		0	0	0	0	0	0	2	0	0	0	0	0			
8:00	Bus		0	0	1	0	0	0	1	0	0	0	0	0		490	
8:00	Auto		0	0	35	0	0	0	86	0	0	0	0	0	123		
to	Truck		0	0	0	0	0	0	1	0	0	0	0	0			
8:15	Bus		0	0	0	0	0	0	1	0	0	0	0	0		482	
8:15	Auto		0	0	28	0	0	0	97	0	0	0	0	0	136		
to	Truck		0	0	3	0	0	0	4	0	0	0	0	0			
8:30	Bus		0	0	0	0	0	0	4	0	0	0	0	0		516	
8:30	Auto		0	0	30	0	0	0	85	0	0	0	0	0	124		
to	Truck		0	0	4	0	0	0	3	0	0	0	0	0			
8:45	Bus		0	0	0	0	0	0	2	0	0	0	0	0		509	
8:45	Auto		0	0	26	0	0	0	74	0	0	0	0	0	108		
to	Truck		0	0	2	0	0	0	4	0	0	0	0	0			
9:00	Bus		0	0	2	0	0	0	0	0	0	0	0	0		491	
Peak Hour Volume (PHV)			0	0	125	0	0	0	384	0	0	0	0	0	509		
PHV (by approach)			125			0			384			0					
Peak Hour Factor (PHF)			0.89			#DIV/0!			0.91			#DIV/0!					
Total Autos			117			0			366			0					
Total Trucks			7			0			10			0					
Total Buses			1			0			8			0					
% Auto			93.6%			#DIV/0!			95.3%			#DIV/0!					
% Heavy Vehicles (Trucks & Buses)			6.4%			#DIV/0!			4.7%			#DIV/0!					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 30th Street and First Avenue
TIME PERIOD:	PM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08
	03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 30th Street* (EB)			*East 30th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		0	0	24	0	0	0	102	0	0	0	0	0	136		
to	Truck		0	0	5	0	0	0	2	0	0	0	0	0			
4:15	Bus		0	0	1	0	0	0	2	0	0	0	0	0			
4:15	Auto		0	0	26	0	0	0	100	0	0	0	0	0	128		
to	Truck		0	0	0	0	0	0	2	0	0	0	0	0			
4:30	Bus		0	0	0	0	0	0	0	0	0	0	0	0			
4:30	Auto		0	0	16	0	0	0	89	0	0	0	0	0	109		
to	Truck		0	0	1	0	0	0	1	0	0	0	0	0			
4:45	Bus		0	0	0	0	0	0	2	0	0	0	0	0			
4:45	Auto		0	0	30	0	0	0	96	0	0	0	0	0	132		
to	Truck		0	0	1	0	0	0	5	0	0	0	0	0			
5:00	Bus		0	0	0	0	0	0	0	0	0	0	0	0		505	
5:00	Auto	1	0	0	21	0	0	0	81	0	0	0	0	0	104		
to	Truck		0	0	1	0	0	0	1	0	0	0	0	0			
5:15	Bus		0	0	0	0	0	0	0	0	0	0	0	0		473	
5:15	Auto		0	0	18	0	0	0	99	0	0	0	0	0	120		
to	Truck		0	0	0	0	0	0	2	0	0	0	0	0			
5:30	Bus		0	0	0	0	0	0	1	0	0	0	0	0		465	
5:30	Auto		0	0	12	0	0	0	81	0	0	0	0	0	96		
to	Truck		0	0	3	0	0	0	0	0	0	0	0	0			
5:45	Bus		0	0	0	0	0	0	0	0	0	0	0	0		452	
5:45	Auto		0	0	14	0	0	0	66	0	0	0	0	0	81		
to	Truck		0	0	0	0	0	0	0	0	0	0	0	0			
6:00	Bus		0	0	0	0	0	0	1	0	0	0	0	0		401	
Peak Hour Volume (PHV)			0	0	69	0	0	0	332	0	0	0	0	0	401		
PHV (by approach)			69			0			332			0					
Peak Hour Factor (PHF)			0.78			#DIV/0!			0.81			#DIV/0!					
Total Autos			65			0			327			0					
Total Trucks			4			0			3			0					
Total Buses			0			0			2			0					
% Auto			94.2%			#DIV/0!			98.5%			#DIV/0!					
% Heavy Vehicles (Trucks & Buses)			5.8%			#DIV/0!			1.5%			#DIV/0!					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 34th Street and First Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 34th Street* (EB)			*East 34th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		12	178	38	0	0	0	22	206	0	0	65	26	605		
to	Truck		4	5	1	0	0	0	3	6	0	0	2	2			
7:15	Bus		1	14	4	0	0	0	0	10	0	0	5	1			
7:15	Auto		16	235	37	0	0	0	26	151	0	0	78	35	639		
to	Truck		2	9	2	0	0	0	1	1	0	0	1	1			
7:30	Bus		3	19	2	0	0	0	1	9	0	0	7	4			
7:30	Auto		21	249	50	0	0	0	19	183	0	0	87	24	699		
to	Truck		1	14	1	0	0	0	1	5	0	0	2	1			
7:45	Bus		2	18	2	0	0	0	1	10	0	0	7	1			
7:45	Auto	1	25	278	45	0	0	0	29	139	0	0	102	32	725		
to	Truck		3	21	2	0	0	0	2	3	0	0	1	1			
8:00	Bus		4	16	2	0	0	0	0	14	0	0	4	2		2,668	
8:00	Auto		18	244	53	0	0	0	25	169	0	0	111	53	751		
to	Truck		6	20	1	0	0	0	1	4	0	0	4	0			
8:15	Bus		1	18	1	0	0	0	1	14	0	0	7	0		2,814	
8:15	Auto		32	286	53	0	0	0	19	133	0	0	116	34	743		
to	Truck		2	21	2	0	0	0	1	2	0	0	2	0			
8:30	Bus		1	21	2	0	0	0	0	9	0	0	7	0		2,918	
8:30	Auto		27	234	56	0	0	0	18	105	0	0	100	24	648		
to	Truck		2	23	1	0	0	0	2	5	0	0	0	1			
8:45	Bus		2	23	2	0	0	0	1	13	0	0	8	1		2,867	
8:45	Auto		24	244	34	0	0	0	18	141	0	0	94	17	651		
to	Truck		7	20	1	0	0	0	4	2	0	0	2	0			
9:00	Bus		3	22	2	0	0	0	1	8	0	0	7	0		2,793	
Peak Hour Volume (PHV)			123	1,205	220	0	0	0	99	610	0	0	462	148	2,867		
PHV (by approach)			1,548			0			709			610					
Peak Hour Factor (PHF)			0.92			#DIV/0!			0.83			0.87					
Total Autos			1,351			0			637			572					
Total Trucks			104			0			20			9					
Total Buses			93			0			52			29					
% Auto			87.3%			#DIV/0!			89.8%			93.8%					
% Heavy Vehicles (Trucks & Buses)			12.7%			#DIV/0!			10.2%			6.2%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 34th Street and First Avenue
TIME PERIOD:	PM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*First Avenue* (NB)			*First Avenue* (SB)			*East 34th Street* (EB)			*East 34th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		36	304	65	0	0	0	48	120	0	0	100	25	773		
to	Truck		0	21	2	0	0	0	1	0	0	0	1	2			
4:15	Bus		3	19	3	0	0	0	2	12	0	0	8	1			
4:15	Auto		31	271	62	0	0	0	39	110	0	0	88	24	736		
to	Truck		0	24	0	0	0	0	3	14	0	0	1	0			
4:30	Bus		1	19	3	0	0	0	17	17	0	0	10	2			
4:30	Auto		26	284	62	0	0	0	35	144	0	0	94	23	735		
to	Truck		3	10	0	0	0	0	1	3	0	0	0	0			
4:45	Bus		1	22	2	0	0	0	2	11	0	0	8	4			
4:45	Auto		26	263	50	0	0	0	46	122	0	0	115	25	703		
to	Truck		2	12	2	0	0	0	1	1	0	0	2	0			
5:00	Bus		4	12	2	0	0	0	1	10	0	0	5	2		2,947	
5:00	Auto	1	27	299	63	0	0	0	21	134	0	0	104	29	728		
to	Truck		0	9	0	0	0	0	0	0	0	0	1	1			
5:15	Bus		1	14	2	0	0	0	1	13	0	0	8	1		2,902	
5:15	Auto		35	301	54	0	0	0	21	120	0	0	101	15	720		
to	Truck		1	15	1	0	0	0	1	2	0	0	4	0			
5:30	Bus		2	25	2	0	0	0	1	5	0	0	13	1		2,886	
5:30	Auto		24	284	50	0	0	0	21	145	0	0	96	29	703		
to	Truck		3	6	0	0	0	0	1	2	0	0	1	0			
5:45	Bus		1	12	2	0	0	0	0	15	0	0	10	1		2,854	
5:45	Auto		34	275	35	0	0	0	25	130	0	0	97	27	664		
to	Truck		1	10	1	0	0	0	0	0	0	0	1	1			
6:00	Bus		2	13	1	0	0	0	0	5	0	0	5	1		2,815	
Peak Hour Volume (PHV)			131	1,263	211	0	0	0	92	571	0	0	441	106	2,815		
PHV (by approach)			1,605			0			663			547					
Peak Hour Factor (PHF)			0.92			#DIV/0!			0.90			0.95					
Total Autos			1,481			0			617			498					
Total Trucks			47			0			6			9					
Total Buses			77			0			40			40					
% Auto			92.3%			#DIV/0!			93.1%			91.0%					
% Heavy Vehicles (Trucks & Buses)			7.7%			#DIV/0!			6.9%			9.0%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 23rd Street and Second Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 23rd Street* (EB)			*East 23rd Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		0	0	0	40	290	30	0	71	42	27	45	0	684		
to	Truck		0	0	0	9	42	8	0	11	13	1	7	0			
7:15	Bus		0	0	0	10	9	2	0	12	2	0	13	0			
7:15	Auto		0	0	0	41	312	60	0	67	40	38	59	0	789		
to	Truck		0	0	0	4	54	11	0	10	24	5	5	0			
7:30	Bus		0	0	0	9	14	1	0	13	4	1	17	0			
7:30	Auto		0	0	0	43	352	56	0	74	31	37	77	0	805		
to	Truck		0	0	0	11	45	3	0	11	8	0	6	0			
7:45	Bus		0	0	0	11	9	1	0	15	2	0	13	0			
7:45	Auto	1	0	0	0	54	341	52	0	78	36	50	58	0	826		
to	Truck		0	0	0	5	57	4	0	12	8	2	6	0			
8:00	Bus		0	0	0	15	13	1	0	14	1	0	19	0		3,104	
8:00	Auto		0	0	0	49	343	47	0	85	39	42	77	0	855		
to	Truck		0	0	0	6	54	8	0	16	8	3	11	0			
8:15	Bus		0	0	0	14	12	3	0	14	0	1	23	0		3,275	
8:15	Auto		0	0	0	27	287	30	0	93	48	39	68	0	767		
to	Truck		0	0	0	6	67	6	0	21	13	10	3	0			
8:30	Bus		0	0	0	3	8	2	0	18	2	0	16	0		3,253	
8:30	Auto		0	0	0	23	248	50	0	57	22	36	91	0	691		
to	Truck		0	0	0	12	51	3	0	20	7	4	5	0			
8:45	Bus		0	0	0	13	12	2	0	15	0	0	20	0		3,139	
8:45	Auto		0	0	0	25	175	27	0	60	23	45	57	0	585		
to	Truck		0	0	0	16	52	8	0	19	10	7	11	0			
9:00	Bus		0	0	0	6	10	4	0	9	2	1	18	0		2,898	
Peak Hour Volume (PHV)			0	0	0	227	1,493	208	0	443	184	187	397	0	3,139		
PHV (by approach)			0			1,928			627			584					
Peak Hour Factor (PHF)			#DIV/0!			0.89			0.80			0.93					
Total Autos			0			1,551			458			461					
Total Trucks			0			279			105			44					
Total Buses			0			98			64			79					
% Auto			#DIV/0!			80.4%			73.0%			78.9%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			19.6%			27.0%			21.1%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 23rd Street and Second Avenue
TIME PERIOD:	PM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 23rd Street* (EB)			*East 23rd Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		0	0	0	59	336	29	0	72	26	28	62	0	696		
to	Truck		0	0	0	2	32	5	0	6	7	0	0	0			
4:15	Bus		0	0	0	1	11	0	0	13	0	0	7	0			
4:15	Auto		0	0	0	77	382	28	0	81	31	36	86	0	813		
to	Truck		0	0	0	6	36	1	0	6	7	1	0	0			
4:30	Bus		0	0	0	3	9	2	0	14	1	0	6	0			
4:30	Auto		0	0	0	77	314	30	0	83	23	52	75	0	737		
to	Truck		0	0	0	4	27	3	0	4	1	0	1	0			
4:45	Bus		0	0	0	2	12	4	0	15	0	0	10	0			
4:45	Auto		0	0	0	96	367	43	0	85	28	66	59	0	835		
to	Truck		0	0	0	12	28	2	0	4	2	0	2	0			
5:00	Bus		0	0	0	4	11	0	0	15	0	0	11	0		3,081	
5:00	Auto	1	0	0	0	130	352	53	0	59	19	51	81	0	822		
to	Truck		0	0	0	2	26	1	0	7	1	2	1	0			
5:15	Bus		0	0	0	5	2	2	0	20	0	0	8	0		3,207	
5:15	Auto		0	0	0	67	408	58	0	88	21	56	70	0	829		
to	Truck		0	0	0	2	19	3	0	4	1	0	1	0			
5:30	Bus		0	0	0	4	5	3	0	12	0	0	7	0		3,223	
5:30	Auto		0	0	0	63	390	43	0	75	38	48	80	0	811		
to	Truck		0	0	0	5	32	2	0	1	2	0	2	0			
5:45	Bus		0	0	0	3	6	0	0	12	0	0	9	0		3,297	
5:45	Auto		0	0	0	94	394	38	0	78	30	51	97	0	857		
to	Truck		0	0	0	3	22	0	0	4	3	0	0	0			
6:00	Bus		0	0	0	5	13	3	0	17	0	0	5	0		3,319	
Peak Hour Volume (PHV)			0	0	0	383	1,669	206	0	377	115	208	361	0	3,319		
PHV (by approach)			0			2,258			492			569					
Peak Hour Factor (PHF)			#DIV/0!			0.99			0.93			0.93					
Total Autos			0			2,090			408			534					
Total Trucks			0			117			23			6					
Total Buses			0			51			61			29					
% Auto			#DIV/0!			92.6%			82.9%			93.8%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			7.4%			17.1%			6.2%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 29th Street and Second Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 29th Street* (EB)			*East 29th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		0	0	0	0	0	37	0	0	0	14	0	0	65		
to	Truck		0	0	0	0	0	9	0	0	0	0	0	0			
7:15	Bus		0	0	0	0	0	1	0	0	0	4	0	0			
7:15	Auto		0	0	0	0	0	24	0	0	0	15	0	0	48		
to	Truck		0	0	0	0	0	3	0	0	0	1	0	0			
7:30	Bus		0	0	0	0	0	1	0	0	0	4	0	0			
7:30	Auto		0	0	0	0	0	14	0	0	0	10	0	0	31		
to	Truck		0	0	0	0	0	0	0	0	0	0	0	0			
7:45	Bus		0	0	0	0	0	2	0	0	0	5	0	0			
7:45	Auto	1	0	0	0	0	0	21	0	0	0	17	0	0	49		
to	Truck		0	0	0	0	0	7	0	0	0	1	0	0			
8:00	Bus		0	0	0	0	0	0	0	0	0	3	0	0		193	
8:00	Auto		0	0	0	0	0	32	0	0	0	30	0	0	80		
to	Truck		0	0	0	0	0	5	0	0	0	5	0	0			
8:15	Bus		0	0	0	0	0	2	0	0	0	6	0	0		208	
8:15	Auto		0	0	0	0	0	24	0	0	0	23	0	0	56		
to	Truck		0	0	0	0	0	5	0	0	0	0	0	0			
8:30	Bus		0	0	0	0	0	1	0	0	0	3	0	0		216	
8:30	Auto		0	0	0	0	0	45	0	0	0	24	0	0	81		
to	Truck		0	0	0	0	0	6	0	0	0	0	0	0			
8:45	Bus		0	0	0	0	0	2	0	0	0	4	0	0		266	
8:45	Auto		0	0	0	0	0	50	0	0	0	14	0	0	68		
to	Truck		0	0	0	0	0	1	0	0	0	1	0	0			
9:00	Bus		0	0	0	0	0	0	0	0	0	2	0	0		285	
Peak Hour Volume (PHV)			0	0	0	0	0	150	0	0	0	116	0	0	266		
PHV (by approach)			0			150			0			116					
Peak Hour Factor (PHF)			#DIV/0!			0.71			#DIV/0!			0.71					
Total Autos			0			122			0			94					
Total Trucks			0			23			0			6					
Total Buses			0			5			0			16					
% Auto			#DIV/0!			81.3%			#DIV/0!			81.0%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			18.7%			#DIV/0!			19.0%					

PROJECT: Former Bellevue Psych Building Redevelopment
FILE NAME: TMC Summary.xls
LOCATION: East 29th Street and Second Avenue
TIME PERIOD: PM Peak Period
COUNT DATE : Wednesday, October 29, 2008
WEATHER/PAVEMENT: Cloudy / Drizzle
PRINT TIME : 12/15/08
03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 29th Street* (EB)			*East 29th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		0	0	0	0	0	45	0	0	0	23	0	0	77		
to	Truck		0	0	0	0	0	3	0	0	0	4	0	0			
4:15	Bus		0	0	0	0	0	1	0	0	0	1	0	0			
4:15	Auto		0	0	0	0	0	28	0	0	0	14	0	0	50		
to	Truck		0	0	0	0	0	2	0	0	0	0	0	0			
4:30	Bus		0	0	0	0	0	5	0	0	0	1	0	0			
4:30	Auto		0	0	0	0	0	31	0	0	0	19	0	0	58		
to	Truck		0	0	0	0	0	4	0	0	0	0	0	0			
4:45	Bus		0	0	0	0	0	2	0	0	0	2	0	0			
4:45	Auto		0	0	0	0	0	40	0	0	0	9	0	0	57		
to	Truck		0	0	0	0	0	4	0	0	0	0	0	0			
5:00	Bus		0	0	0	0	0	3	0	0	0	1	0	0		242	
5:00	Auto	1	0	0	0	0	0	43	0	0	0	16	0	0	64		
to	Truck		0	0	0	0	0	3	0	0	0	0	0	0			
5:15	Bus		0	0	0	0	0	0	0	0	0	2	0	0		229	
5:15	Auto		0	0	0	0	0	50	0	0	0	14	0	0	68		
to	Truck		0	0	0	0	0	3	0	0	0	0	0	0			
5:30	Bus		0	0	0	0	0	0	0	0	0	1	0	0		247	
5:30	Auto		0	0	0	0	0	46	0	0	0	14	0	0	63		
to	Truck		0	0	0	0	0	1	0	0	0	0	0	0			
5:45	Bus		0	0	0	0	0	1	0	0	0	1	0	0		252	
5:45	Auto		0	0	0	0	0	43	0	0	0	16	0	0	64		
to	Truck		0	0	0	0	0	3	0	0	0	0	0	0			
6:00	Bus		0	0	0	0	0	0	0	0	0	2	0	0		259	
Peak Hour Volume (PHV)			0	0	0	0	0	193	0	0	0	66	0	0	259		
PHV (by approach)			0			193			0			66					
Peak Hour Factor (PHF)			#DIV/0!			0.91			#DIV/0!			0.92					
Total Autos			0			182			0			60					
Total Trucks			0			10			0			0					
Total Buses			0			1			0			6					
% Auto			#DIV/0!			94.3%			#DIV/0!			90.9%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			5.7%			#DIV/0!			9.1%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 30th Street and Second Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 30th Street* (EB)			*East 30th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		0	0	0	85	392	0	0	64	38	0	0	0	657		
to	Truck		0	0	0	2	47	0	0	3	1	0	0	0			
7:15	Bus		0	0	0	4	20	0	0	1	0	0	0	0			
7:15	Auto		0	0	0	61	452	0	0	52	24	0	0	0	671		
to	Truck		0	0	0	5	48	0	0	0	2	0	0	0			
7:30	Bus		0	0	0	2	24	0	0	0	1	0	0	0			
7:30	Auto		0	0	0	76	498	0	0	48	40	0	0	0	767		
to	Truck		0	0	0	1	52	0	0	2	1	0	0	0			
7:45	Bus		0	0	0	10	36	0	0	1	2	0	0	0			
7:45	Auto	1	0	0	0	82	502	0	0	70	26	0	0	0	783		
to	Truck		0	0	0	5	52	0	0	1	1	0	0	0			
8:00	Bus		0	0	0	2	39	0	0	1	2	0	0	0		2,878	
8:00	Auto		0	0	0	79	493	0	0	49	15	0	0	0	728		
to	Truck		0	0	0	4	53	0	0	1	2	0	0	0			
8:15	Bus		0	0	0	2	26	0	0	3	1	0	0	0		2,949	
8:15	Auto		0	0	0	86	445	0	0	46	20	0	0	0	718		
to	Truck		0	0	0	12	69	0	0	1	4	0	0	0			
8:30	Bus		0	0	0	6	26	0	0	2	1	0	0	0		2,996	
8:30	Auto		0	0	0	87	400	0	0	60	17	0	0	0	647		
to	Truck		0	0	0	2	44	0	0	1	2	0	0	0			
8:45	Bus		0	0	0	4	22	0	0	8	0	0	0	0		2,876	
8:45	Auto		0	0	0	103	434	0	0	48	24	0	0	0	703		
to	Truck		0	0	0	9	57	0	0	0	2	0	0	0			
9:00	Bus		0	0	0	3	21	0	0	1	1	0	0	0		2,796	
Peak Hour Volume (PHV)			0	0	0	371	2,171	0	0	243	91	0	0	0	2,876		
PHV (by approach)			0			2,542			334			0					
Peak Hour Factor (PHF)			#DIV/0!			0.93			0.83			#DIV/0!					
Total Autos			0			2,174			303			0					
Total Trucks			0			241			13			0					
Total Buses			0			127			18			0					
% Auto			#DIV/0!			85.5%			90.7%			#DIV/0!					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			14.5%			9.3%			#DIV/0!					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 30th Street and Second Avenue
TIME PERIOD:	PM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08
	03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 30th Street* (EB)			*East 30th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		0	0	0	99	368	0	0	68	38	0	0	0	619		
to	Truck		0	0	0	2	11	0	0	1	2	0	0	0			
4:15	Bus		0	0	0	3	25	0	0	2	0	0	0	0			
4:15	Auto		0	0	0	107	360	0	0	67	26	0	0	0	618		
to	Truck		0	0	0	2	24	0	0	0	1	0	0	0			
4:30	Bus		0	0	0	3	27	0	0	1	0	0	0	0			
4:30	Auto		0	0	0	105	330	0	0	58	34	0	0	0	589		
to	Truck		0	0	0	2	26	0	0	0	1	0	0	0			
4:45	Bus		0	0	0	5	23	0	0	1	4	0	0	0			
4:45	Auto		0	0	0	98	401	0	0	55	31	0	0	0	640		
to	Truck		0	0	0	3	19	0	0	5	1	0	0	0			
5:00	Bus		0	0	0	2	25	0	0	0	0	0	0	0		2,466	
5:00	Auto	1	0	0	0	86	427	0	0	61	30	0	0	0	636		
to	Truck		0	0	0	1	15	0	0	1	2	0	0	0			
5:15	Bus		0	0	0	1	11	0	0	0	1	0	0	0		2,483	
5:15	Auto		0	0	0	73	448	0	0	54	31	0	0	0	646		
to	Truck		0	0	0	4	10	0	0	0	1	0	0	0			
5:30	Bus		0	0	0	3	20	0	0	1	1	0	0	0		2,511	
5:30	Auto		0	0	0	82	496	0	0	47	30	0	0	0	691		
to	Truck		0	0	0	1	10	0	0	2	1	0	0	0			
5:45	Bus		0	0	0	2	19	0	0	1	0	0	0	0		2,613	
5:45	Auto		0	0	0	85	496	0	0	52	31	0	0	0	701		
to	Truck		0	0	0	1	15	0	0	1	0	0	0	0			
6:00	Bus		0	0	0	2	16	0	0	0	2	0	0	0		2,674	
Peak Hour Volume (PHV)			0	0	0	341	1,983	0	0	220	130	0	0	0	2,674		
PHV (by approach)			0			2,324			350			0					
Peak Hour Factor (PHF)			#DIV/0!			0.94			0.92			#DIV/0!					
Total Autos			0			2,193			336			0					
Total Trucks			0			57			8			0					
Total Buses			0			74			6			0					
% Auto			#DIV/0!			94.4%			96.0%			#DIV/0!					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			5.6%			4.0%			#DIV/0!					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 34th Street and Second Avenue
TIME PERIOD:	AM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 34th Street* (EB)			*East 34th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
7:00	Auto		0	0	0	79	680	18	0	227	54	33	26	0	1,255		
to	Truck		0	0	0	10	59	2	0	18	8	1	1	0			
7:15	Bus		0	0	0	4	20	8	0	3	1	1	2	0			
7:15	Auto		0	0	0	86	668	13	0	268	57	38	36	0	1,318		
to	Truck		0	0	0	11	61	4	0	20	7	2	1	0			
7:30	Bus		0	0	0	5	22	10	0	5	0	0	4	0			
7:30	Auto		0	0	0	114	772	6	0	242	41	21	34	0	1,357		
to	Truck		0	0	0	6	45	1	0	9	6	1	1	0			
7:45	Bus		0	0	0	6	25	14	0	7	2	1	3	0			
7:45	Auto	1	0	0	0	77	787	9	0	248	48	39	47	0	1,466		
to	Truck		0	0	0	5	105	2	0	12	12	0	1	0			
8:00	Bus		0	0	0	9	25	19	0	14	4	0	3	0		5,396	
8:00	Auto		0	0	0	55	749	1	0	260	44	41	33	0	1,410		
to	Truck		0	0	0	4	95	2	0	18	10	2	3	0			
8:15	Bus		0	0	0	12	31	17	0	18	8	1	6	0		5,551	
8:15	Auto		0	0	0	89	734	2	0	191	39	50	34	0	1,385		
to	Truck		0	0	0	8	149	1	0	29	4	2	0	0			
8:30	Bus		0	0	0	12	9	19	0	7	2	1	3	0		5,618	
8:30	Auto		0	0	0	124	791	0	0	251	44	33	41	0	1,620		
to	Truck		0	0	0	9	220	0	0	24	7	1	1	0			
8:45	Bus		0	0	0	12	22	16	0	15	3	2	4	0		5,881	
8:45	Auto		0	0	0	99	701	0	0	233	35	32	52	0	1,414		
to	Truck		0	0	0	7	165	0	0	17	4	2	3	0			
9:00	Bus		0	0	0	11	19	19	0	9	2	1	3	0		5,829	
Peak Hour Volume (PHV)			0	0	0	416	3,717	88	0	1,087	225	172	176	0	5,881		
PHV (by approach)			0			4,221			1,312			348					
Peak Hour Factor (PHF)			#DIV/0!			0.88			0.92			0.97					
Total Autos			0			3,418			1,125			318					
Total Trucks			0			600			116			10					
Total Buses			0			203			71			20					
% Auto			#DIV/0!			81.0%			85.7%			91.4%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			19.0%			14.3%			8.6%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 34th Street and Second Avenue
TIME PERIOD:	PM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08
	03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*Second Avenue* (NB)			*Second Avenue* (SB)			*East 34th Street* (EB)			*East 34th Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	L	T	R	L	T	R			
4:00	Auto		0	0	0	59	592	18	0	197	42	31	55	0	1,094		
to	Truck		0	0	0	9	31	1	0	8	5	0	3	0			
4:15	Bus		0	0	0	11	21	2	0	6	1	0	2	0			
4:15	Auto		0	0	0	75	520	24	0	212	30	34	55	0	1,045		
to	Truck		0	0	0	3	30	2	0	6	8	1	1	0			
4:30	Bus		0	0	0	9	23	3	0	3	2	1	3	0			
4:30	Auto		0	0	0	81	536	19	0	220	34	41	50	0	1,084		
to	Truck		0	0	0	3	33	3	0	7	7	2	1	0			
4:45	Bus		0	0	0	11	20	7	0	3	3	0	3	0			
4:45	Auto		0	0	0	77	524	17	0	230	24	42	63	0	1,073		
to	Truck		0	0	0	10	34	1	0	5	3	3	3	0			
5:00	Bus		0	0	0	4	22	3	0	4	2	0	2	0		4,296	
5:00	Auto	1	0	0	0	86	686	18	0	122	30	33	40	0	1,086		
to	Truck		0	0	0	9	26	5	0	4	2	1	1	0			
5:15	Bus		0	0	0	2	10	5	0	3	1	0	2	0		4,288	
5:15	Auto		0	0	0	75	671	16	0	105	24	33	52	0	1,039		
to	Truck		0	0	0	8	20	2	0	2	1	1	1	0			
5:30	Bus		0	0	0	2	14	6	0	2	1	0	3	0		4,282	
5:30	Auto		0	0	0	91	683	23	0	131	20	36	43	0	1,098		
to	Truck		0	0	0	2	14	1	0	19	0	1	2	0			
5:45	Bus		0	0	0	7	14	3	0	5	0	0	3	0		4,296	
5:45	Auto		0	0	0	81	653	19	0	110	17	34	47	0	1,013		
to	Truck		0	0	0	3	12	1	0	9	0	0	1	0			
6:00	Bus		0	0	0	4	15	2	0	3	0	0	2	0		4,236	
Peak Hour Volume (PHV)			0	0	0	370	2,818	101	0	515	96	139	197	0	4,236		
PHV (by approach)			0			3,289			611			336					
Peak Hour Factor (PHF)			#DIV/0!			0.97			0.87			0.93					
Total Autos			0			3,102			559			318					
Total Trucks			0			103			37			8					
Total Buses			0			84			15			10					
% Auto			#DIV/0!			94.3%			91.5%			94.6%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			5.7%			8.5%			5.4%					

PROJECT:	**Former Bellevue Psych Building Redevelopment**
FILE NAME:	**TMC Summary.xls**
LOCATION:	**East 23rd Street and FDR Drive Service Road / Avenue C**
TIME PERIOD:	**AM Peak Period**
COUNT DATE :	**Wednesday, October 29, 2008**
WEATHER/PAVEMENT:	**Cloudy / Drizzle**
PRINT TIME :	**12/15/08**
	03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*FDR Drive* (NB)			*FDR Drive* (SB)			*East 23rd Street* (EB)			*East 23rd Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	T	R	R-1	L	T	R			
7:00	Auto		0	0	0	8	56	28	84	32	10	4	51	0	312		
to	Truck		0	0	0	0	0	1	5	0	0	0	0	0			
7:15	Bus		0	0	0	2	1	0	3	11	0	0	16	0			
7:15	Auto		0	0	0	4	62	24	69	38	13	0	34	0	292		
to	Truck		0	0	0	0	0	1	3	2	0	0	1	0			
7:30	Bus		0	0	0	0	9	0	2	16	0	0	14	0			
7:30	Auto		0	0	0	16	63	42	88	38	10	2	55	0	361		
to	Truck		0	0	0	0	0	1	1	3	0	0	1	0			
7:45	Bus		0	0	0	0	7	0	3	18	0	0	13	0			
7:45	Auto	1	0	0	0	12	59	19	85	21	13	2	55	0	336		
to	Truck		0	0	0	2	0	1	16	2	0	0	1	0			
8:00	Bus		0	0	0	1	15	0	1	14	0	0	17	0		1,301	
8:00	Auto		0	0	0	29	62	15	88	42	22	2	41	0	350		
to	Truck		0	0	0	0	0	1	3	3	0	0	1	0			
8:15	Bus		0	0	0	0	6	0	2	14	0	0	19	0		1,339	
8:15	Auto		0	0	0	35	47	20	76	32	15	5	57	0	339		
to	Truck		0	0	0	0	1	0	4	2	0	0	4	0			
8:30	Bus		0	0	0	0	12	0	6	9	0	0	14	0		1,386	
8:30	Auto		0	0	0	22	57	29	84	45	22	3	45	0	361		
to	Truck		0	0	0	1	2	0	4	2	1	0	4	0			
8:45	Bus		0	0	0	0	7	0	7	10	0	0	16	0		1,386	
8:45	Auto		0	0	0	10	61	39	53	31	7	2	49	0	291		
to	Truck		0	0	0	0	3	2	2	3	0	1	2	0			
9:00	Bus		0	0	0	0	4	0	2	10	0	0	10	0		1,341	
Peak Hour Volume (PHV)			0	0	0	102	268	85	376	196	73	12	274	0	1,386		
PHV (by approach)			0			455			645			286					
Peak Hour Factor (PHF)			#DIV/0!			0.96			0.92			0.89					
Total Autos			0			406			545			210					
Total Trucks			0			8			37			10					
Total Buses			0			41			63			66					
% Auto			#DIV/0!			89.2%			84.5%			73.4%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			10.8%			15.5%			26.6%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 23rd Street and FDR Drive Service Road / Avenue C
TIME PERIOD:	PM Peak Period
COUNT DATE:	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME:	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*FDR Drive* (NB)			*FDR Drive* (SB)			*East 23rd Street* (EB)			*East 23rd Street* (WB)			15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	R	T	R	R-1	L	T	R			
4:00	Auto		0	0	0	20	58	35	111	95	3	6	50	0	415		
to	Truck		0	0	0	0	0	0	1	6	0	0	2	0			
4:15	Bus		0	0	0	0	2	2	6	13	0	0	5	0			
4:15	Auto		0	0	0	17	53	38	82	71	5	9	61	0	370		
to	Truck		0	0	0	0	0	0	3	2	0	0	2	0			
4:30	Bus		0	0	0	0	5	1	5	14	0	0	2	0			
4:30	Auto		0	0	0	16	59	35	112	70	16	9	57	0	411		
to	Truck		0	0	0	0	0	0	3	3	0	0	3	0			
4:45	Bus		0	0	0	0	1	2	3	16	0	0	6	0			
4:45	Auto		0	0	0	8	55	35	73	62	6	13	54	0	344		
to	Truck		0	0	0	2	0	0	1	4	0	0	1	0			
5:00	Bus		0	0	0	0	6	4	1	10	0	0	9	0		1,540	
5:00	Auto	1	0	0	0	17	61	56	79	58	14	9	43	0	371		
to	Truck		0	0	0	0	1	1	1	2	0	0	1	0			
5:15	Bus		0	0	0	0	1	2	2	18	0	0	5	0		1,496	
5:15	Auto		0	0	0	15	60	49	74	62	12	3	64	0	374		
to	Truck		0	0	0	0	0	1	2	2	0	0	1	0			
5:30	Bus		0	0	0	0	3	1	3	18	0	0	4	0		1,500	
5:30	Auto		0	0	0	13	53	42	61	62	10	3	53	0	330		
to	Truck		0	0	0	1	0	0	1	2	0	0	3	0			
5:45	Bus		0	0	0	0	2	3	0	14	0	0	7	0		1,419	
5:45	Auto		0	0	0	15	45	52	79	76	8	4	48	0	348		
to	Truck		0	0	0	0	1	0	0	1	0	0	0	0			
6:00	Bus		0	0	0	0	1	0	3	12	0	0	3	0		1,423	
Peak Hour Volume (PHV)			0	0	0	61	228	207	305	327	44	19	232	0	1,423		
PHV (by approach)			0			496			676			251					
Peak Hour Factor (PHF)			#DIV/0!			0.89			0.94			0.87					
Total Autos			0			478			595			227					
Total Trucks			0			5			11			5					
Total Buses			0			13			70			19					
% Auto			#DIV/0!			96.4%			88.0%			90.4%					
% Heavy Vehicles (Trucks & Buses)			#DIV/0!			3.6%			12.0%			9.6%					

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 34th Street and FDR Drive Service Road
TIME PERIOD:	AM Peak Period
COUNT DATE:	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME:	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*FDR Drive* (NB)			*FDR Drive* (SB)				*East 34th Street* (EB)				*East 34th Street* (WB)				15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	T-1	R	L	T	R	R-1	L	L-1	T	R			
7:00	Auto		58	21	2	4	93	121	35	47	2	105	28	2	0	0	2	555		
to	Truck		5	2	0	0	0	0	0	1	0	7	4	0	0	0	0			
7:15	Bus		1	1	0	0	3	2	3	2	0	0	4	0	0	0	0			
7:15	Auto		66	31	6	2	88	130	50	64	4	108	18	1	0	0	0	609		
to	Truck		3	2	0	0	0	0	1	1	0	7	3	0	0	0	0			
7:30	Bus		7	2	0	0	2	6	2	2	0	0	3	0	0	0	0			
7:30	Auto		76	32	3	1	126	186	40	87	1	118	26	0	0	1	1	740		
to	Truck		4	3	0	0	0	7	0	0	0	3	1	0	0	0	0			
7:45	Bus		5	1	2	0	2	4	3	3	0	1	3	0	0	0	0			
7:45	Auto	1	82	44	2	2	152	165	38	53	2	126	19	1	0	2	0	735		
to	Truck		3	2	0	0	1	2	0	0	0	7	4	0	0	0	0			
8:00	Bus		4	2	0	0	3	6	1	1	0	2	9	0	0	0	0		2,639	
8:00	Auto		92	61	6	0	135	191	42	68	1	101	24	0	0	2	4	768		
to	Truck		2	6	0	0	0	2	2	0	0	3	2	0	0	0	0			
8:15	Bus		3	5	0	0	1	3	1	2	0	2	7	0	0	0	0		2,852	
8:15	Auto		103	70	0	1	113	167	36	49	1	114	28	0	0	1	2	729		
to	Truck		3	5	0	0	0	2	0	0	0	2	8	0	0	0	0			
8:30	Bus		3	3	0	0	1	6	2	2	0	0	7	0	0	0	0		2,972	
8:30	Auto		86	56	3	0	118	193	32	72	1	106	18	2	0	6	7	753		
to	Truck		2	8	0	0	0	2	0	0	0	5	7	0	0	0	0			
8:45	Bus		6	4	0	0	2	4	2	4	0	2	5	0	0	0	0		2,985	
8:45	Auto		89	67	4	0	140	175	46	55	1	129	21	4	0	5	0	782		
to	Truck		3	7	0	0	2	4	2	1	0	2	4	0	0	0	0			
9:00	Bus		5	2	0	0	0	2	2	5	0	0	5	0	0	0	0		3,032	
Peak Hour Volume (PHV)			389	266	11	3	526	743	156	251	5	470	138	3	0	11	13	2,985		
PHV (by approach)			666			1,428				864				27						
Peak Hour Factor (PHF)			0.89			0.95				0.97				0.45						
Total Autos			605			1,385				783				27						
Total Trucks			31			11				38				0						
Total Buses			30			32				43				0						
% Auto			90.8%			97.0%				90.6%				#DIV/0!						
% Heavy Vehicles (Trucks & Buses)			9.2%			3.0%				9.4%				#DIV/0!						

PROJECT:	Former Bellevue Psych Building Redevelopment
FILE NAME:	TMC Summary.xls
LOCATION:	East 34th Street and FDR Drive Service Road
TIME PERIOD:	PM Peak Period
COUNT DATE :	Wednesday, October 29, 2008
WEATHER/PAVEMENT:	Cloudy / Drizzle
PRINT TIME :	12/15/08 03:19 PM

TURNING MOVEMENT COUNT SUMMARY

TIME PERIOD	VEHICLE CLASS.	INPUT "1" AT START OF PEAK	*FDR Drive* (NB)			*FDR Drive* (SB)				*East 34th Street* (EB)				*East 34th Street* (WB)				15-MIN. VOLUME	HOURLY VOLUME	HIGHEST HOURLY VOLUME
			L	T	R	L	T	T-1	R	L	T	R	R-1	L	L-1	T	R			
4:00	Auto		81	41	3	0	139	166	38	68	4	94	5	3	1	1	5	689		
to	Truck		5	1	0	0	0	3	1	0	0	5	4	0	0	0	0			
4:15	Bus		4	8	0	0	2	0	0	3	0	2	2	0	0	0	0			
4:15	Auto		74	43	2	0	147	152	36	87	1	93	6	2	0	3	3	704		
to	Truck		3	4	0	0	0	4	2	0	0	6	2	0	0	0	0			
4:30	Bus		7	5	0	0	5	1	2	1	0	2	11	0	0	0	0			
4:30	Auto		82	46	1	0	130	148	44	75	1	105	3	1	0	1	1	681		
to	Truck		6	2	0	0	0	0	1	0	0	6	2	0	0	0	0			
4:45	Bus		5	11	0	0	0	0	1	2	0	1	6	0	0	0	0			
4:45	Auto		94	39	1	0	107	130	40	71	1	96	6	2	0	3	1	624		
to	Truck		4	2	0	0	0	1	1	0	0	3	1	0	0	0	0			
5:00	Bus		4	7	0	0	0	0	1	1	0	2	6	0	0	0	0		2,698	
5:00	Auto	1	94	44	0	0	121	160	36	68	1	105	5	2	0	2	1	680		
to	Truck		3	5	0	0	0	1	2	0	0	7	0	0	0	0	0			
5:15	Bus		4	12	0	0	0	0	1	1	0	0	5	0	0	0	0		2,689	
5:15	Auto		98	39	1	2	138	157	36	70	1	118	3	1	0	1	2	701		
to	Truck		8	1	0	0	0	2	1	0	0	0	4	0	0	0	0			
5:30	Bus		5	5	0	0	1	0	2	2	0	0	5	0	0	0	0		2,686	
5:30	Auto		83	31	2	1	152	183	36	72	0	115	8	1	0	3	1	728		
to	Truck		1	0	0	0	3	3	0	0	0	2	1	0	0	0	0			
5:45	Bus		8	6	0	0	1	1	1	2	0	2	9	0	0	0	0		2,733	
5:45	Auto		95	38	2	1	175	196	44	67	2	113	7	1	0	2	1	777		
to	Truck		1	0	0	0	0	0	0	1	0	3	1	0	0	0	0			
6:00	Bus		5	13	0	0	0	1	2	3	0	0	3	0	0	0	0		2,886	
Peak Hour Volume (PHV)			403	194	5	4	591	704	161	286	4	465	51	5	0	8	5	2,886		
PHV (by approach)			602			1,460				806				18						
Peak Hour Factor (PHF)			0.93			0.87				0.95				0.90						
Total Autos			527			1,438				755				18						
Total Trucks			17			12				19				0						
Total Buses			58			10				32				0						
% Auto			87.5%			98.5%				93.7%				#DIV/0!						
% Heavy Vehicles (Trucks & Buses)			12.5%			1.5%				6.3%				#DIV/0!						

Appendix C-2

Automatic Traffic Recorder (ATR) Summaries

ATR DATA

LOCATION: First Avenue S/O 28th Street
DIRECTION: NB
START DAY: Monday 10/27/08
START TIME: 12:00 AM

ONE HOUR INTERVAL	MONDAY (10/27/08)	TUESDAY (10/28/08)	WEDNESDAY (10/29/08)	THURSDAY (10/30/08)	FRIDAY (10/31/08)	SATURDAY (11/01/08)	SUNDAY (11/02/08)	AVERAGE TUE-THUR
12:00 AM - 1:00 AM	914	1,014	1,167	1,279	1,523	2,868	2,182	1,153
1:00 AM - 2:00 AM	592	634	736	808	1,194	2,486	2,089	726
2:00 AM - 3:00 AM	419	490	445	601	774	2,625	1,731	512
3:00 AM - 4:00 AM	342	234	307	427	589	2,021	1,460	323
4:00 AM - 5:00 AM	455	295	323	496	549	1,740	1,052	371
5:00 AM - 6:00 AM	706	469	625	699	733	964	665	598
6:00 AM - 7:00 AM	1,319	929	1,339	1,341	1,385	893	516	1,203
7:00 AM - 8:00 AM	2,185	1,390	2,224	2,247	1,972	1,181	677	1,954
8:00 AM - 9:00 AM	1,527	2,169	2,522	2,595	2,416	1,345	970	2,429
9:00 AM - 10:00 AM	2,323	2,083	2,287	1,941	2,218	1,293	936	2,104
10:00 AM - 11:00 AM	2,207	1,976	2,147	1,998	2,109	1,619	959	2,040
11:00 AM - 12:00 PM	1,992	2,027	2,335	2,141	2,004	1,783	1,079	2,168
12:00 PM - 1:00 PM	686	2,040	2,222	2,177	1,952	1,797	1,120	2,146
1:00 PM - 2:00 PM	969	2,057	1,623	2,146	1,904	1,733	1,207	1,942
2:00 PM - 3:00 PM	2,202	2,079	2,281	2,305	2,253	2,289	1,222	2,222
3:00 PM - 4:00 PM	2,132	2,410	1,669	2,463	2,009	1,546	1,361	2,181
4:00 PM - 5:00 PM	2,120	2,043	2,286	2,322	2,022	1,983	1,450	2,217
5:00 PM - 6:00 PM	2,122	2,394	1,730	2,202	2,305	1,823	1,445	2,109
6:00 PM - 7:00 PM	2,255	2,533	2,152	2,046	2,269	1,814	1,543	2,244
7:00 PM - 8:00 PM	1,863	2,178	1,784	2,193	2,479	2,080	1,545	2,052
8:00 PM - 9:00 PM	1,131	2,006	2,002	2,320	2,689	2,047	1,668	2,109
9:00 PM - 10:00 PM	1,613	1,804	1,855	2,133	2,610	2,038	1,532	1,931
10:00 PM - 11:00 PM	1,484	1,193	1,836	2,011	3,027	2,044	1,407	1,680
11:00 PM - 12:00 AM	1,421	1,164	1,753	1,901	2,943	2,320	1,205	1,606
24 HOUR TOTAL	34,979	37,611	39,650	42,792	45,928	44,332	31,021	40,018

ATR DATA

LOCATION: Second Avenue S/O 28th Street
DIRECTION: SB
START DAY: Monday 10/27/08
START TIME: 12:00 AM

ONE HOUR INTERVAL	MONDAY (10/27/08)	TUESDAY (10/28/08)	WEDNESDAY (10/29/08)	THURSDAY (10/30/08)	FRIDAY (10/31/08)	SATURDAY (11/01/08)	SUNDAY (11/02/08)	AVERAGE TUE-THUR
12:00 AM - 1:00 AM	1,057	897	1,245	1,221	1,321	1,812	1,885	1,121
1:00 AM - 2:00 AM	679	623	881	935	1,137	1,699	1,922	813
2:00 AM - 3:00 AM	545	414	634	717	979	1,948	1,951	588
3:00 AM - 4:00 AM	471	408	533	653	751	2,091	1,676	531
4:00 AM - 5:00 AM	602	453	639	619	769	1,818	1,090	570
5:00 AM - 6:00 AM	954	902	997	1,027	1,007	1,328	798	975
6:00 AM - 7:00 AM	1,692	1,584	1,820	1,706	1,734	1,239	672	1,703
7:00 AM - 8:00 AM	2,399	2,360	2,433	2,502	2,279	1,491	783	2,432
8:00 AM - 9:00 AM	2,390	2,390	1,590	2,293	2,250	1,745	914	2,091
9:00 AM - 10:00 AM	2,128	1,998	1,514	2,051	2,202	1,560	1,271	1,854
10:00 AM - 11:00 AM	2,122	1,942	1,567	2,152	2,061	1,927	1,452	1,887
11:00 AM - 12:00 PM	2,013	2,025	1,353	2,030	2,013	1,982	1,482	1,803
12:00 PM - 1:00 PM	1,982	1,903	1,331	2,099	2,064	2,038	1,622	1,778
1:00 PM - 2:00 PM	1,992	1,846	1,355	2,027	2,006	2,053	1,627	1,743
2:00 PM - 3:00 PM	1,937	1,935	1,188	1,974	2,180	2,270	1,728	1,699
3:00 PM - 4:00 PM	1,931	1,924	1,386	1,926	2,012	2,260	1,781	1,745
4:00 PM - 5:00 PM	1,930	1,821	1,369	1,834	2,102	2,039	1,920	1,675
5:00 PM - 6:00 PM	2,096	2,088	1,527	1,951	2,311	2,027	1,950	1,855
6:00 PM - 7:00 PM	2,070	2,174	1,824	2,176	2,583	2,304	1,855	2,058
7:00 PM - 8:00 PM	1,508	2,201	2,288	2,311	2,675	2,284	2,117	2,267
8:00 PM - 9:00 PM	1,428	2,050	2,214	2,155	2,771	2,464	2,076	2,140
9:00 PM - 10:00 PM	1,312	1,741	2,026	2,065	2,210	2,356	2,015	1,944
10:00 PM - 11:00 PM	1,279	1,634	1,932	1,850	1,796	2,246	1,798	1,805
11:00 PM - 12:00 AM	1,117	1,714	1,413	1,522	1,883	2,120	1,537	1,550
24 HOUR TOTAL	37,634	39,027	35,059	41,796	45,096	47,101	37,922	38,627

ATR DATA

LOCATION: 23rd Street W/O First Avenue
DIRECTION: EB
START DAY: Monday 10/27/08
START TIME: 12:00 AM

ONE HOUR INTERVAL	MONDAY (10/27/08)	TUESDAY (10/28/08)	WEDNESDAY (10/29/08)	THURSDAY (10/30/08)	FRIDAY (10/31/08)	SATURDAY (11/01/08)	SUNDAY (11/02/08)	AVERAGE TUE-THUR
12:00 AM - 1:00 AM	243	285	305	301	337	417		297
1:00 AM - 2:00 AM	123	148	147	180	190	335		158
2:00 AM - 3:00 AM	88	104	110	108	152	120		107
3:00 AM - 4:00 AM	66	57	80	79	80	10		72
4:00 AM - 5:00 AM	72	61	79	84	85			75
5:00 AM - 6:00 AM	143	163	134	156	195			151
6:00 AM - 7:00 AM	435	363	389	403	411			385
7:00 AM - 8:00 AM	694	616	669	674	641			653
8:00 AM - 9:00 AM	713	654	727	717	737			699
9:00 AM - 10:00 AM	592	529	564	540	579			544
10:00 AM - 11:00 AM	575	526	579	529	567			545
11:00 AM - 12:00 PM	533	602	585	593	578			593
12:00 PM - 1:00 PM	537	632	358	611	584			534
1:00 PM - 2:00 PM	657	624	593	585	614			601
2:00 PM - 3:00 PM	727	612	714	673	682			666
3:00 PM - 4:00 PM	702	710	706	736	701			717
4:00 PM - 5:00 PM	854	713	723	761	767			732
5:00 PM - 6:00 PM	723	707	589	721	698			672
6:00 PM - 7:00 PM	725	657	662	683	698			667
7:00 PM - 8:00 PM	627	731	560	646	681			646
8:00 PM - 9:00 PM	588	668	655	699	654			674
9:00 PM - 10:00 PM	531	649	732	627	662			669
10:00 PM - 11:00 PM	482	515	647	521	524			561
11:00 PM - 12:00 AM	396	430	480	460	407			457
24 HOUR TOTAL	11,826	11,756	11,787	12,087	12,224	882		11,877

ATR DATA

LOCATION: 23rd Street W/O First Avenue
DIRECTION: WB
START DAY: Monday 10/27/08
START TIME: 12:00 AM

ONE HOUR INTERVAL	MONDAY (10/27/08)	TUESDAY (10/28/08)	WEDNESDAY (10/29/08)	THURSDAY (10/30/08)	FRIDAY (10/31/08)	SATURDAY (11/01/08)	SUNDAY (11/02/08)	AVERAGE TUE-THUR
12:00 AM - 1:00 AM	209	241	246	270	385	572	484	252
1:00 AM - 2:00 AM	132	161	168	171	264	434	387	167
2:00 AM - 3:00 AM	79	102	108	138	185	369	326	116
3:00 AM - 4:00 AM	61	76	87	78	123	345	261	80
4:00 AM - 5:00 AM	89	82	95	83	109	294	211	87
5:00 AM - 6:00 AM	184	166	199	189	199	224	127	185
6:00 AM - 7:00 AM	396	369	372	410	368	281	171	384
7:00 AM - 8:00 AM	534	520	558	595	526	336	190	558
8:00 AM - 9:00 AM	643	601	665	624	610	490	247	630
9:00 AM - 10:00 AM	622	542	588	534	590	528	273	555
10:00 AM - 11:00 AM	599	515	486	615	599	551	305	539
11:00 AM - 12:00 PM	553	551	579	585	518	552	362	572
12:00 PM - 1:00 PM	526	496	581	504	553	518	370	527
1:00 PM - 2:00 PM	498	508	533	519	521	543	366	520
2:00 PM - 3:00 PM	487	562	542	506	547	624	402	537
3:00 PM - 4:00 PM	526	525	558	531	551	588	434	538
4:00 PM - 5:00 PM	576	504	533	530	602	568	426	522
5:00 PM - 6:00 PM	612	593	602	620	645	561	458	605
6:00 PM - 7:00 PM	610	634	655	641	716	589	414	643
7:00 PM - 8:00 PM	575	561	597	655	736	658	490	604
8:00 PM - 9:00 PM	478	539	529	558	695	634	447	542
9:00 PM - 10:00 PM	416	419	435	595	507	558	401	483
10:00 PM - 11:00 PM	397	391	421	514	619	574	336	442
11:00 PM - 12:00 AM	334	395	369	490	634	605	301	418
24 HOUR TOTAL	10,136	10,053	10,506	10,955	11,802	11,996	8,189	10,505

ATR DATA

LOCATION: 34th Street W/O First Avenue
DIRECTION: EB
START DAY: Monday 10/27/08
START TIME: 12:00 AM

ONE HOUR INTERVAL	MONDAY (10/27/08)	TUESDAY (10/28/08)	WEDNESDAY (10/29/08)	THURSDAY (10/30/08)	FRIDAY (10/31/08)	SATURDAY (11/01/08)	SUNDAY (11/02/08)	AVERAGE TUE-THUR
12:00 AM - 1:00 AM	284	355	326	348	493	594	612	343
1:00 AM - 2:00 AM	128	195	165	247	307	546	418	202
2:00 AM - 3:00 AM	87	111	134	135	232	553	417	127
3:00 AM - 4:00 AM	57	98	86	109	145	592	312	98
4:00 AM - 5:00 AM	124	111	131	126	170	478	223	123
5:00 AM - 6:00 AM	270	229	222	236	263	356	184	229
6:00 AM - 7:00 AM	573	535	584	577	547	375	225	565
7:00 AM - 8:00 AM	893	808	862	888	806	483	333	853
8:00 AM - 9:00 AM	814	804	823	849	853	512	301	825
9:00 AM - 10:00 AM	822	755	740	813	813	490	307	769
10:00 AM - 11:00 AM	708	735	670	643	643	497	309	683
11:00 AM - 12:00 PM	624	695	613	695	631	446	371	668
12:00 PM - 1:00 PM	585	659	710	698	709	534	423	689
1:00 PM - 2:00 PM	410	657	682	691	699	481	433	677
2:00 PM - 3:00 PM	658	598	701	699	794	544	453	666
3:00 PM - 4:00 PM	680	662	771	760	946	596	449	731
4:00 PM - 5:00 PM	722	637	810	826	899	586	574	758
5:00 PM - 6:00 PM	769	672	735	882	760	571	580	763
6:00 PM - 7:00 PM	751	657	745	749	691	613	527	717
7:00 PM - 8:00 PM	712	656	706	707	629	565	574	690
8:00 PM - 9:00 PM	659	718	657	703	645	572	558	693
9:00 PM - 10:00 PM	605	684	679	687	660	498	501	683
10:00 PM - 11:00 PM	502	590	696	651	665	527	502	646
11:00 PM - 12:00 AM	507	401	546	636	638	599	390	528
24 HOUR TOTAL	12,944	13,022	13,794	14,355	14,638	12,608	9,974	13,724

ATR DATA

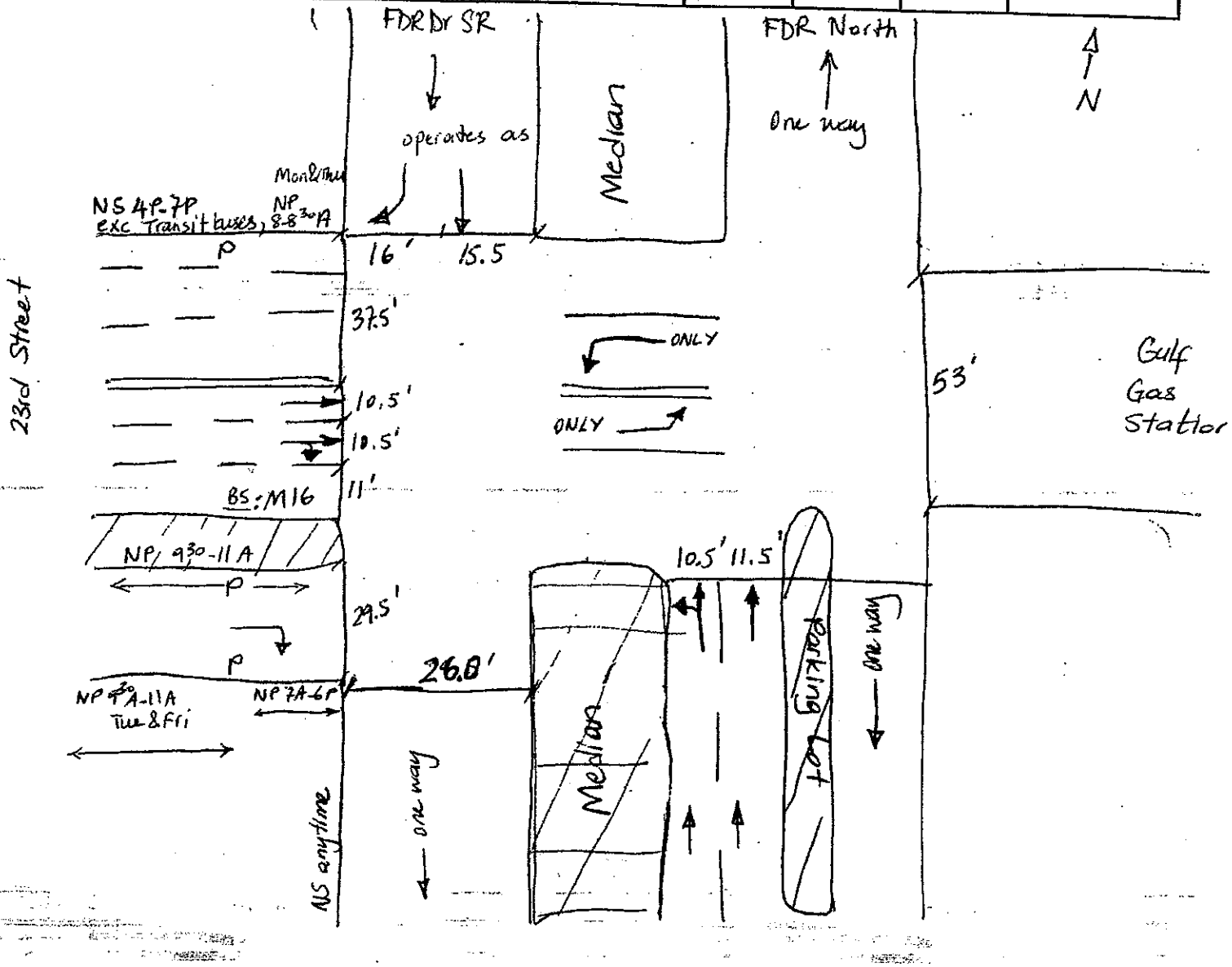
LOCATION: 34th Street W/O First Avenue
DIRECTION: WB
START DAY: Monday 10/27/08
START TIME: 12:00 AM

ONE HOUR INTERVAL	MONDAY (10/27/08)	TUESDAY (10/28/08)	WEDNESDAY (10/29/08)	THURSDAY (10/30/08)	FRIDAY (10/31/08)	SATURDAY (11/01/08)	SUNDAY (11/02/08)	AVERAGE TUE-THUR
12:00 AM - 1:00 AM	171	222	178	246	345	437	281	215
1:00 AM - 2:00 AM	89	121	121	139	208	450	292	127
2:00 AM - 3:00 AM	61	56	74	98	143	468	208	76
3:00 AM - 4:00 AM	58	73	69	63	112	392	203	68
4:00 AM - 5:00 AM	107	97	116	88	127	318	145	100
5:00 AM - 6:00 AM	243	188	206	192	220	234	112	195
6:00 AM - 7:00 AM	346	315	345	385	357	288	119	348
7:00 AM - 8:00 AM	456	441	467	453	450	351	214	454
8:00 AM - 9:00 AM	538	524	519	547	607	393	273	530
9:00 AM - 10:00 AM	549	518	592	564	588	454	305	558
10:00 AM - 11:00 AM	488	493	556	526	551	412	281	525
11:00 AM - 12:00 PM	530	493	539	573	538	479	355	535
12:00 PM - 1:00 PM	491	477	581	573	466	493	402	544
1:00 PM - 2:00 PM	478	501	520	560	534	443	349	527
2:00 PM - 3:00 PM	521	435	536	563	557	521	414	511
3:00 PM - 4:00 PM	497	525	574	498	524	485	457	532
4:00 PM - 5:00 PM	547	508	592	534	534	543	454	545
5:00 PM - 6:00 PM	542	526	579	573	602	545	528	559
6:00 PM - 7:00 PM	573	572	530	609	617	580	488	570
7:00 PM - 8:00 PM	552	545	634	603	599	555	480	594
8:00 PM - 9:00 PM	462	517	520	647	593	572	440	561
9:00 PM - 10:00 PM	456	439	442	597	574	503	410	493
10:00 PM - 11:00 PM	387	361	462	543	556	501	369	455
11:00 PM - 12:00 AM	300	298	350	457	466	460	289	368
24 HOUR TOTAL	9,442	9,245	10,102	10,631	10,868	10,877	7,868	9,993

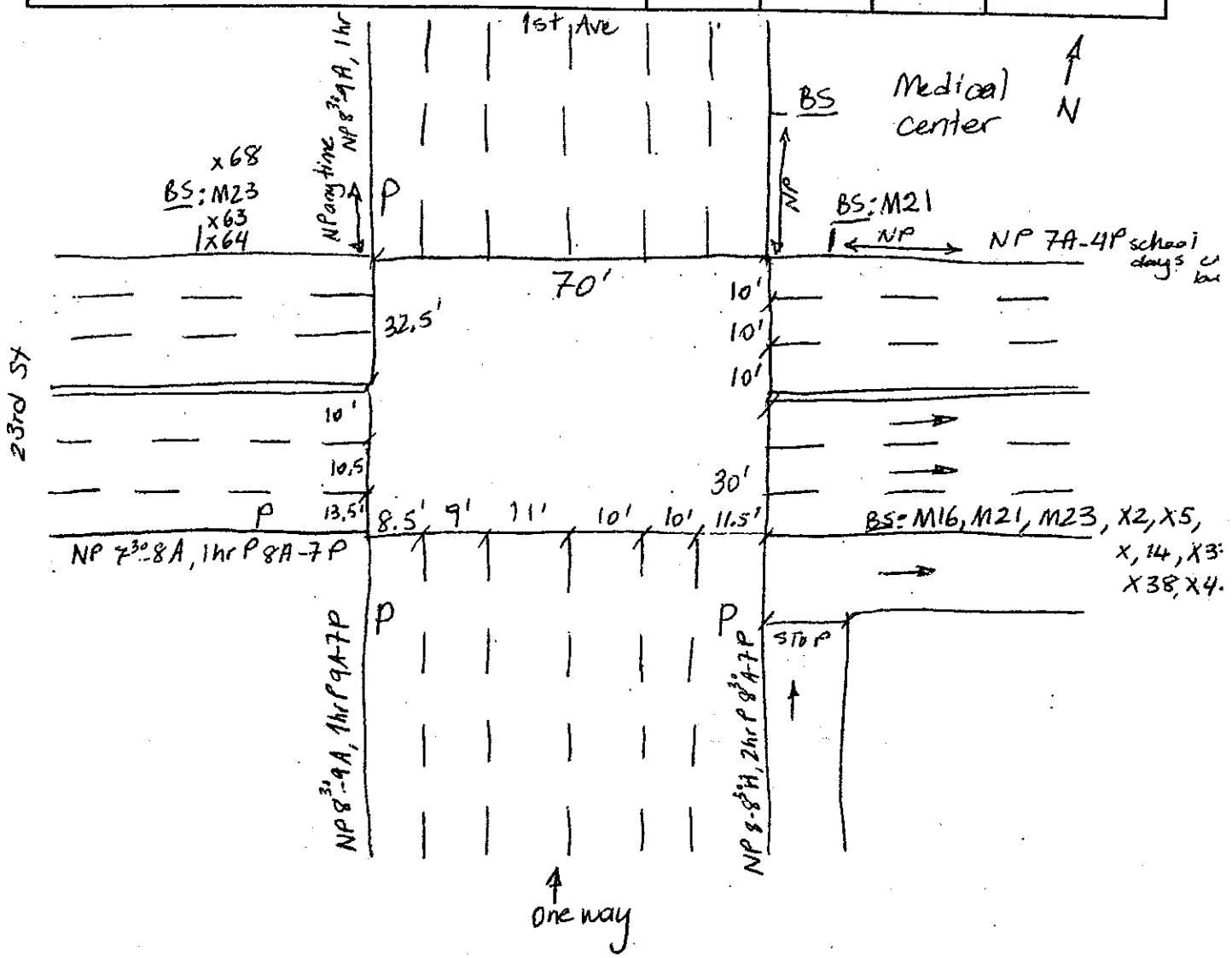
Appendix C-3

Physical Inventories

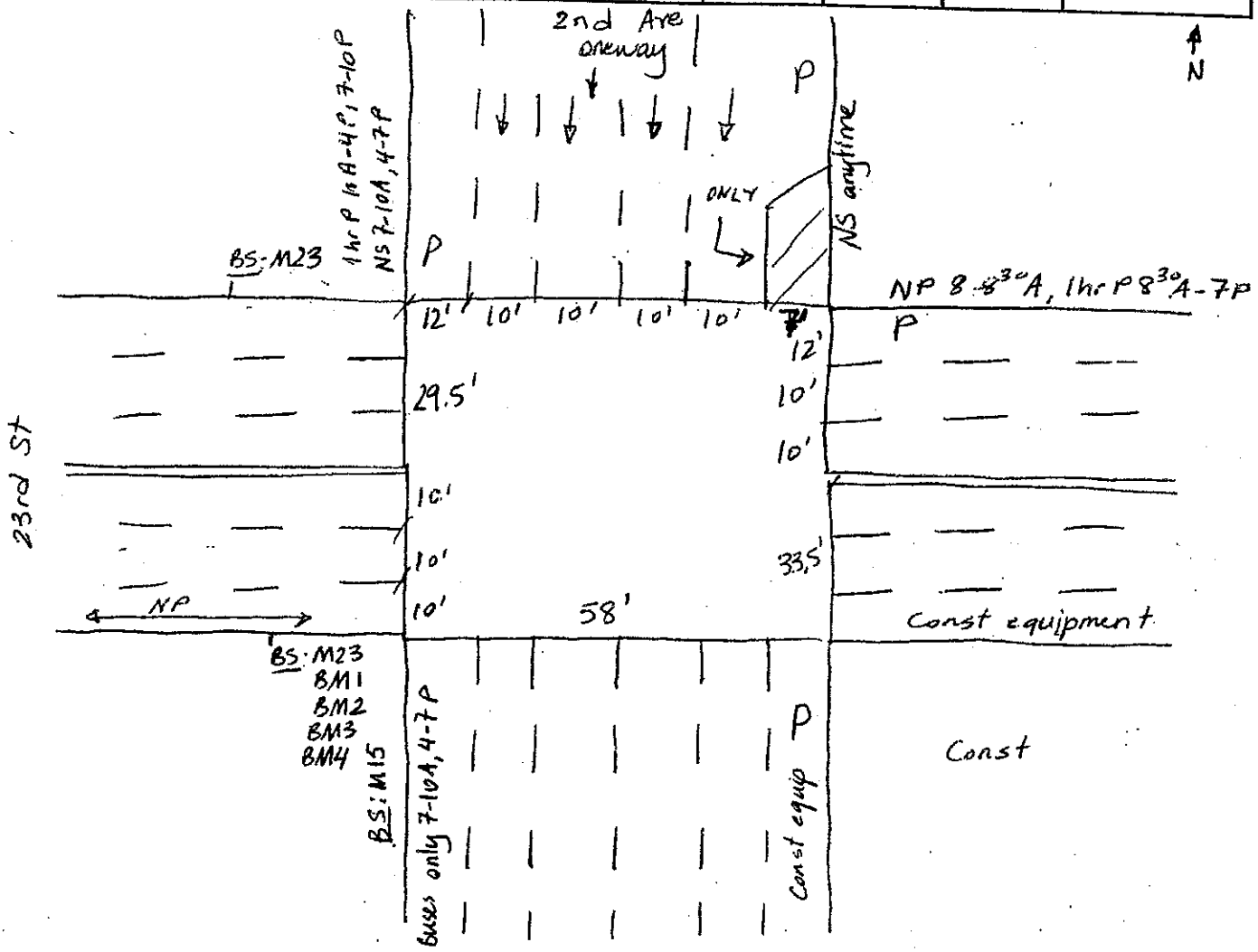
CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				
				SHT. NO.



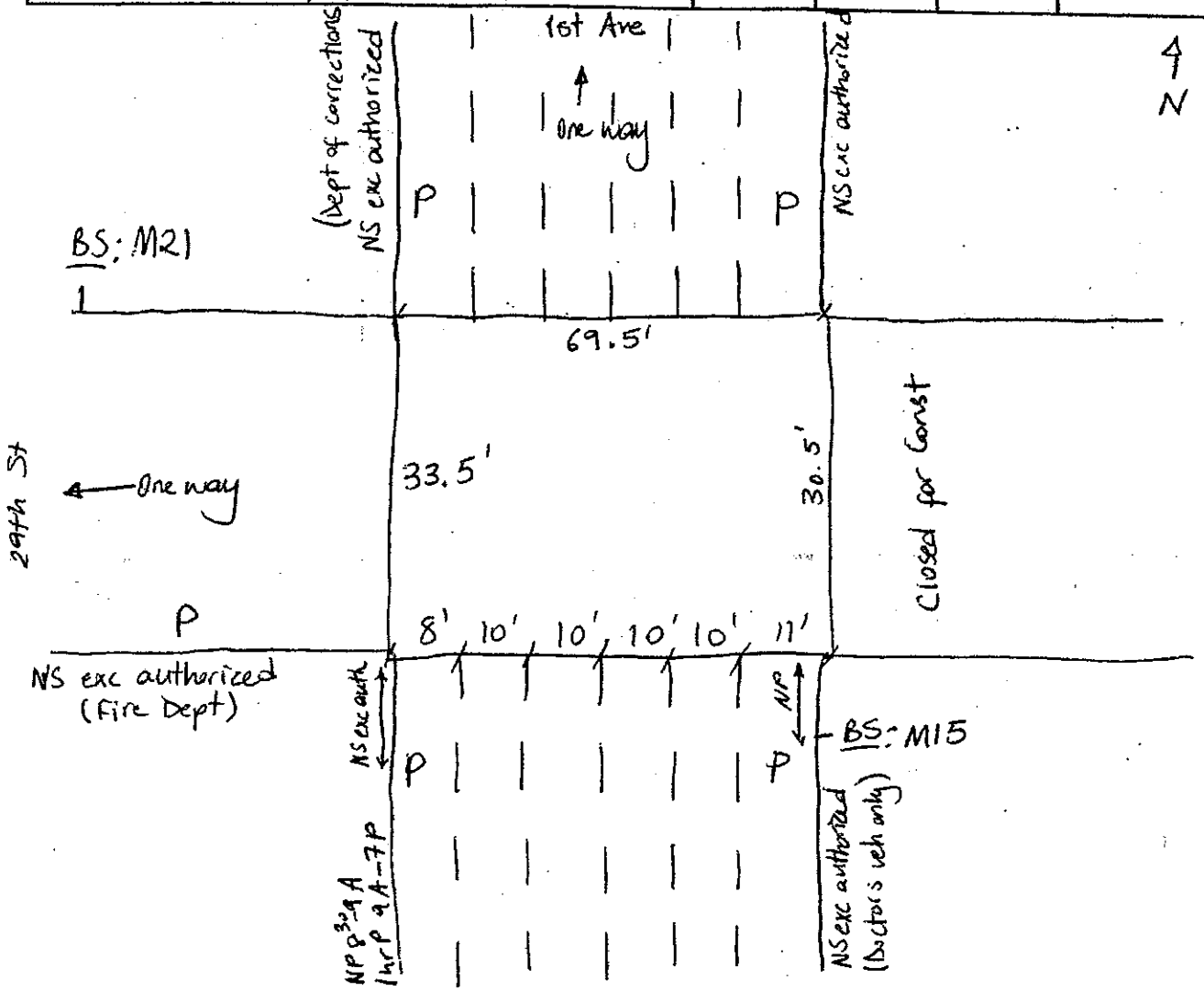
CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				SHT. NO.



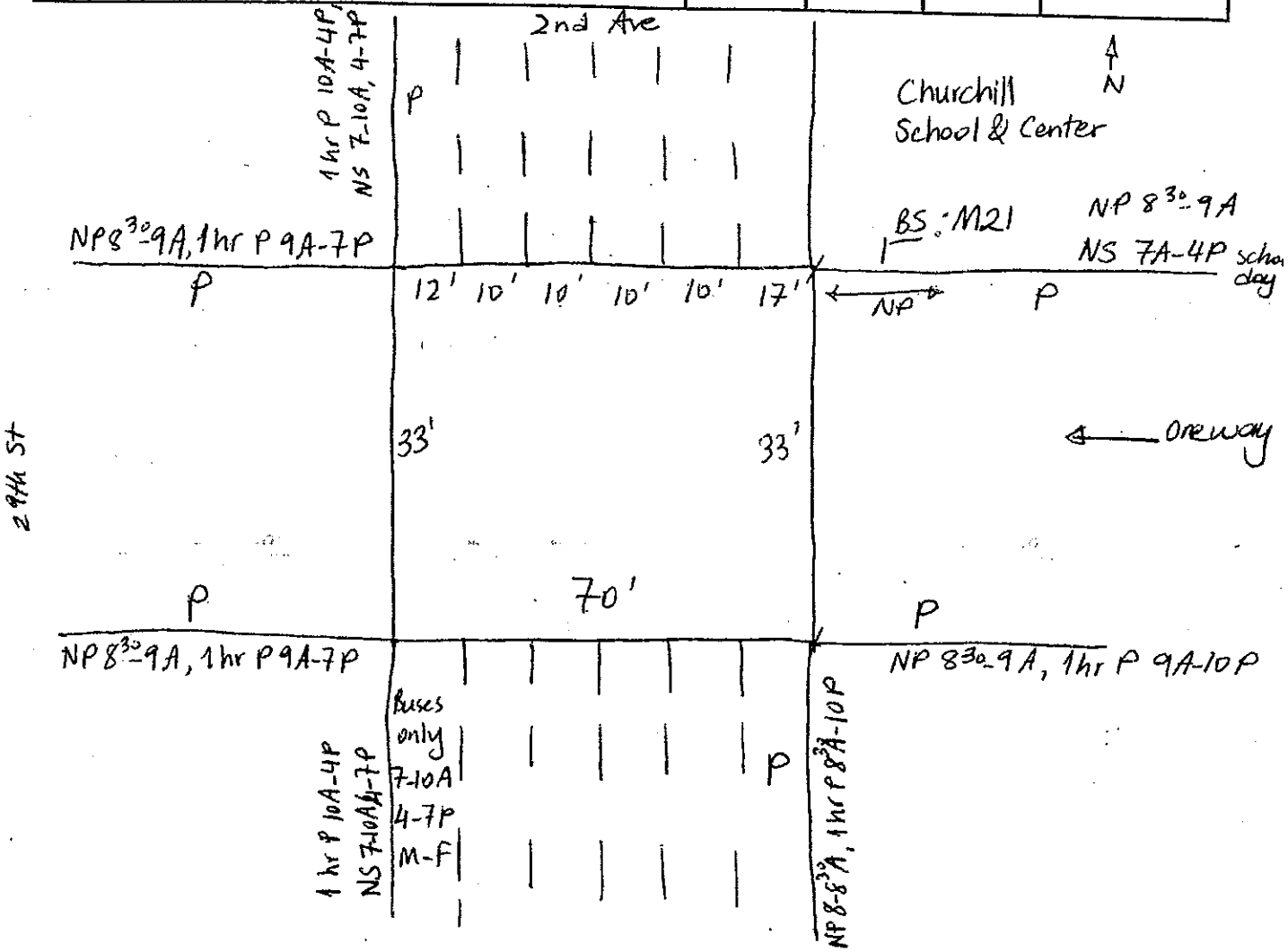
CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				
				SHT. NO.



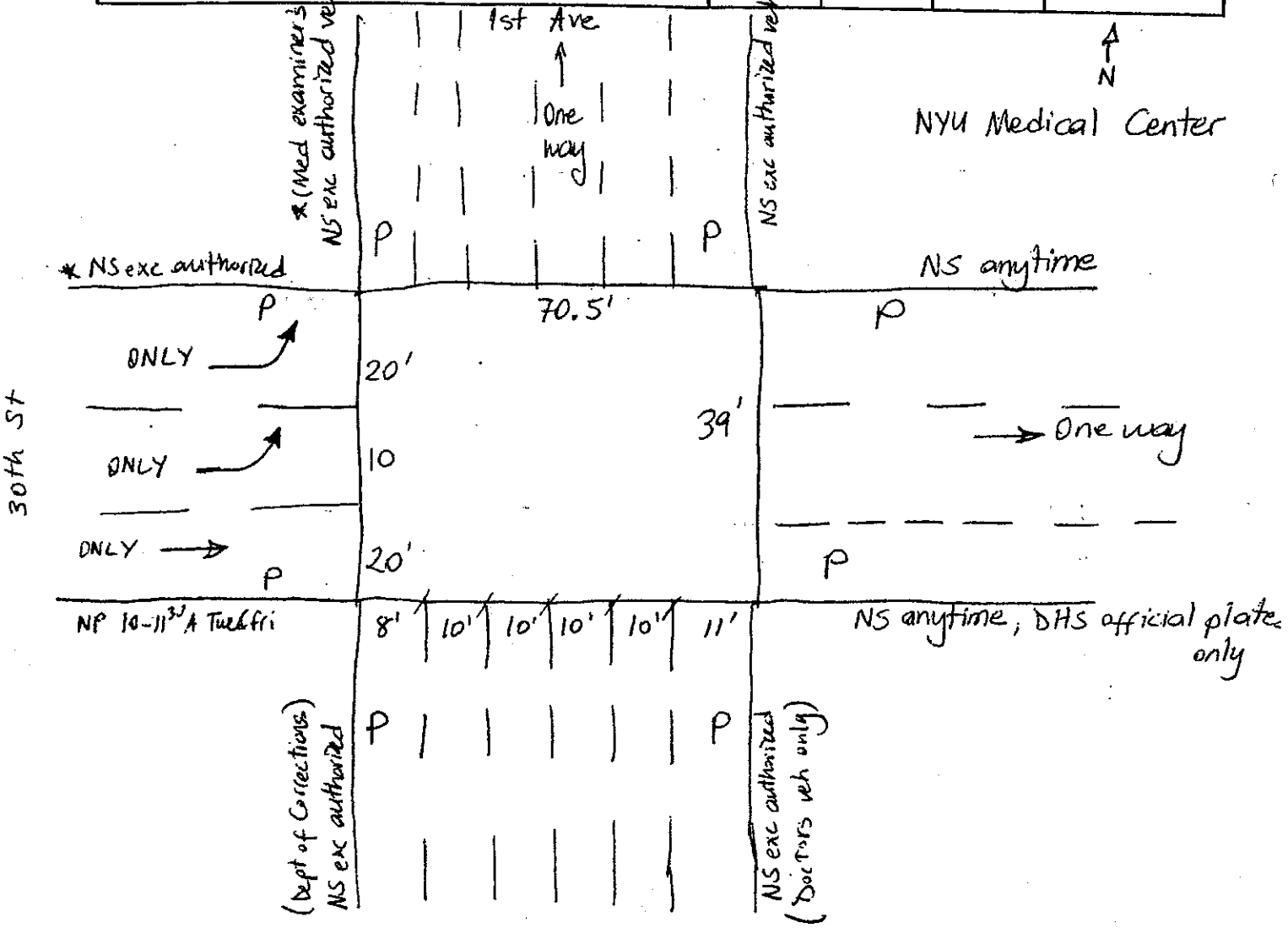
CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				SHT. NO.



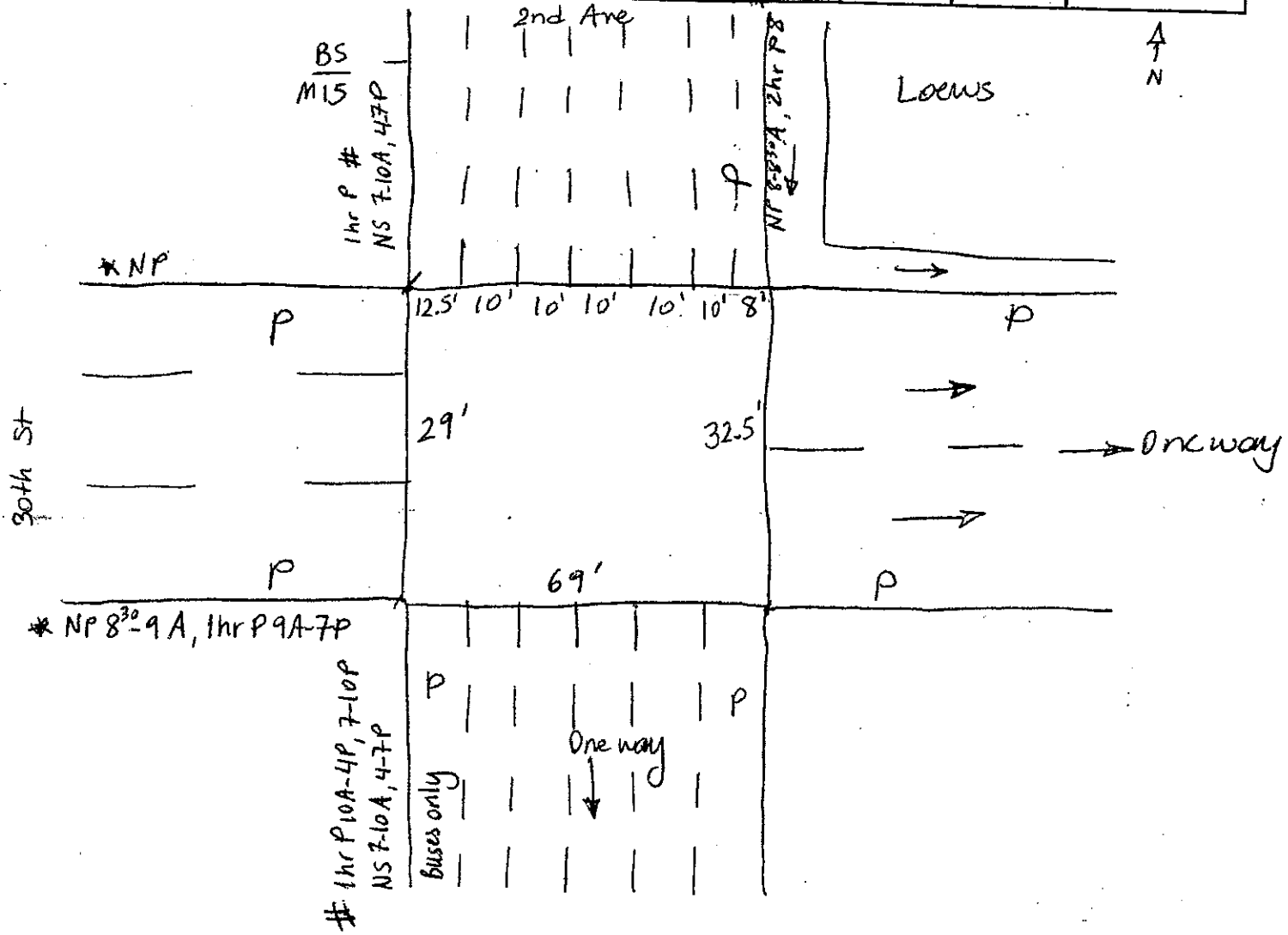
CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				
				SHT. NO.



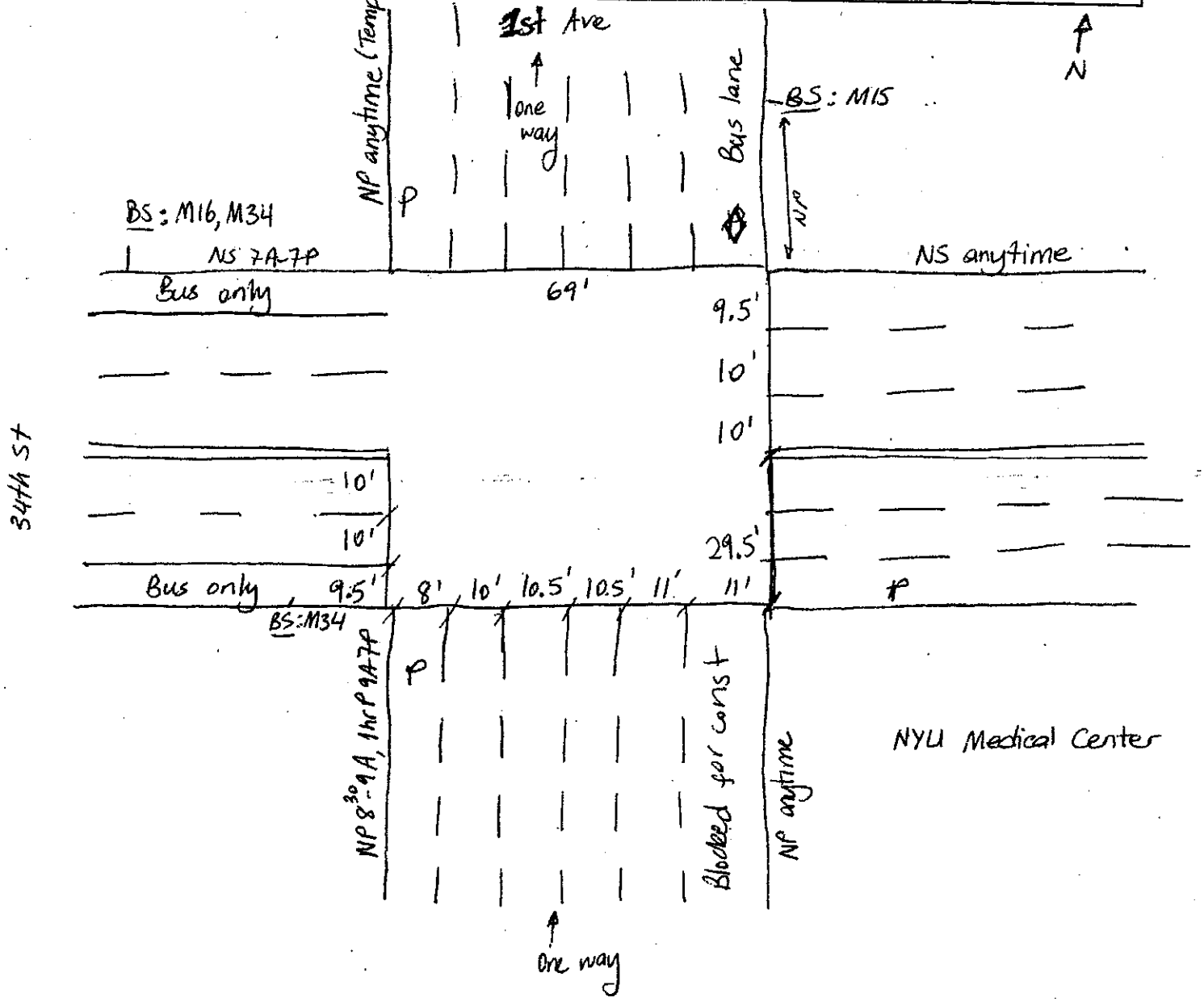
CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				SHT. NO.



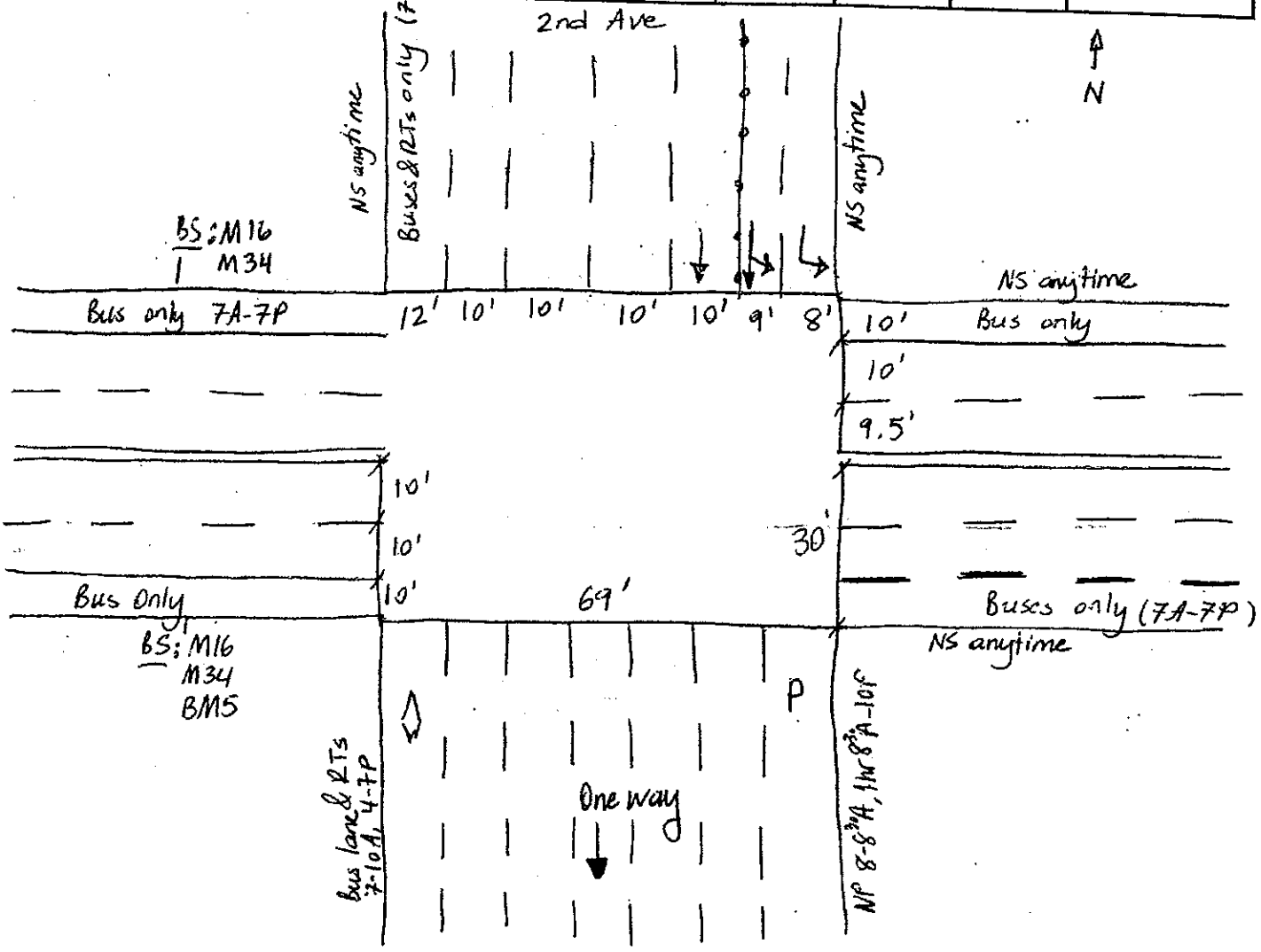
CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				SHT. NO.



CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				SHT. NO.

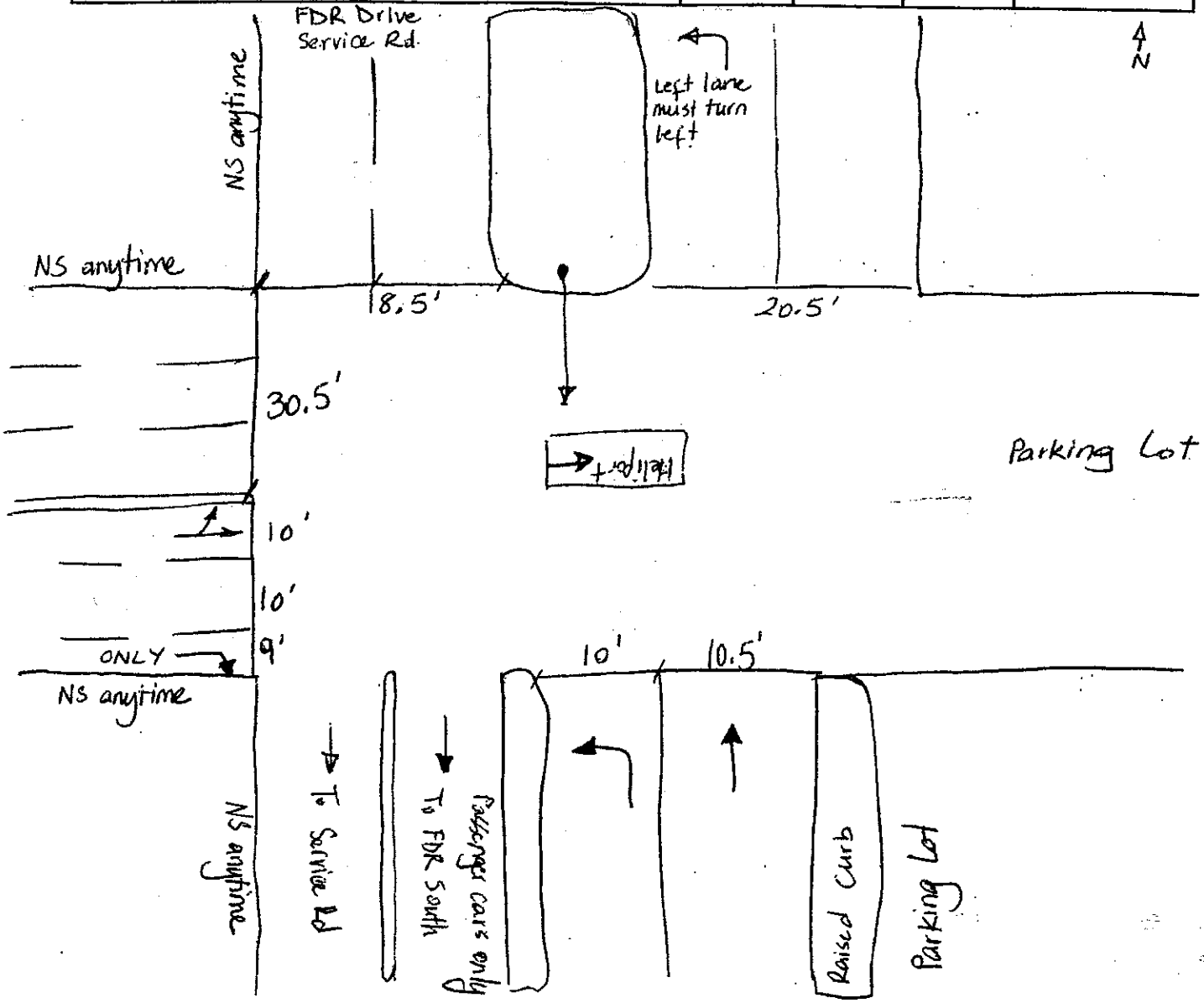


CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				SHT. NO.



SB 2nd Ave → operates w/ 4 T, 1RT (M5).

CLIENT	STV INCORPORATED			
PROJECT	MADE	CHK.	REV.	JOB NO.
SUBJECT				
34th St & FDR Drive				SHT. NO.



Appendix C-4

Highway Capacity Software (HCS) Analysis Summaries

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: FDR Drive N SR

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Volume	377	21	207	9	10	6	324	512	28			
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left		P	P
Thru		P			Thru	P	P	P
Right		P			Right	P	P	P
Peds	X				Peds		X	
WB Left	P	P			SB Left			
Thru	P	P			Thru			
Right	P	P			Right			
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	24.0				19.0	8.0	13.0
Yellow	3.0	3.0				3.0	0.0	3.0
All Red	2.0	2.0				2.0	0.0	2.0

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	238	891	0.91	0.27	71.3	E		
LTR	239	896	0.90	0.27	69.7	E	61.0	E
R	315	1182	0.71	0.27	42.9	D		
Westbound								
L	391	1841	0.03	0.39	17.5	B		
TR	693	1781	0.03	0.39	17.0	B	17.2	B
Northbound								
L	398	1236	0.91	0.32	48.0	D		
TR	637	1274	0.95	0.50	47.0	D	47.4	D
Southbound								

Intersection Delay = 52.3 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive N SR

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	377	21	207	9	10	6	324	512	28			
% Heavy Veh	16	16	16	0	0	0	27	27	27			
PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.89	0.89			
PK 15 Vol	102	6	56	3	3	2	91	144	8			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900	1900	1900	1900		1900	1900				
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			
Adj Flow	217	216	225	10	18		364	606				
%InSharedLn	47		0									
Prop LTs	1.000	0.892		1.000	0.000			0.000				
Prop RTs		0.000	1.000		0.389			0.051				
Peds	Bikes	100			80	0		80	0		0	
Buses	0	0	6	0	0		0	0				
%InProtPhase				0.0					0.0			

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Arriv. Type	3	3	3	3	3		5	3				
Unit Ext.	3.0	3.0	3.0	3.0	3.0		3.0	3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0	2.0	2.0	2.0		0.0	2.0				
Ext of g	2.0	2.0	2.0	2.0	2.0		8.0	2.0				
Ped Min g		3.9			3.7			3.7			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: FDR Drive S/ Avenue C

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Volume				9	10	6				98	257	82
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left		P	
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		24.0				19.0	24.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				10.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	491	1841	0.02	0.27	24.4	C		
TR	458	1718	0.04	0.27	24.6	C	24.5	C
Northbound								
Southbound								
L	364	1366	0.28	0.27	28.1	C		
TR	562	2663	0.63	0.21	37.5	D	35.4	D

Intersection Delay = 34.8 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive S/ Avenue C

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				9	10	6				98	257	82
% Heavy Veh				0	0	0				11	11	11
PHF				0.89	0.89	0.89				0.96	0.96	0.96
PK 15 Vol				3	3	2				26	67	21
Hi Ln Vol												
% Grade					0						0	
Ideal Sat				1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	0	0		1	1	0	0	0	0	1	2	0
LGConfig					L	TR					L	TR	
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0	
Adj Flow				10	18					102	353	
%InSharedLn												
Prop LTs					0.000						0.000	
Prop RTs					0.389						0.241	
Peds Bikes	100				80	0	80				25	0
Buses				0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet				0.0	0.0					0.0	0.0	
Arriv. Type				3	3					3	3	
Unit Ext.				3.0	3.0					3.0	3.0	
I Factor					1.000						1.000	
Lost Time				2.0	2.0					2.0	2.0	
Ext of g				2.0	2.0					2.0	2.0	
Ped Min g		3.9			3.7			3.7			3.4	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	150	493			383	103	178	1106	182			
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P	P			NB	Left	P			
	Thru	P	P				Thru	P			
	Right						Right	P			
	Peds	X					Peds	X			
WB	Left					SB	Left				
	Thru	P					Thru				
	Right	P					Right				
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		20.0	7.0					36.0			
Yellow		3.0	3.0					3.0			
All Red		2.0	8.0					8.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	747	2370	0.89	0.36	42.0	D	42.0	D
Westbound								
TR	640	2882	0.80	0.22	43.1	D	43.1	D
Northbound								
LTR	1792	4479	0.85	0.40	29.9	C	29.9	C
Southbound								

Intersection Delay = 35.4 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	James C.
Agency/Co.:	STV Incorporated
Date Performed:	11/6/2008
Analysis Time Period:	7:45 - 8:45 AM
Intersection:	23rd St and 1st Ave
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2008 Existing

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	150	493			383	103	178	1106	182			
% Heavy Veh	20	20			44	44	21	21	21			
PHF	0.97	0.97			0.95	0.95	0.96	0.96	0.96			
PK 15 Vol	39	127			101	27	46	288	47			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist			X				X		X			
NumPark			5				3		3			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			
Adj Flow		663			511			1527				
%InSharedLn												
Prop LTs		0.234			0.000			0.121				
Prop RTs	0.000			0.211			0.124					
Peds Bikes				50	0		100	0		0		
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: CBD or Similar								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					3.5			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Volume		425	177	180	381					218	1433	200
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left		P			SB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		35.0				45.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1222	3141	0.62	0.39	24.4	C	24.4	C
Westbound								
DefL	191	491	1.02	0.39	96.8	F		
T	454	1167	0.90	0.39	49.8	D	64.9	E
Northbound								
Southbound								
L	555	1110	0.44	0.50	17.0	B		
TR	2285	4569	0.80	0.50	21.9	C	21.3	C

Intersection Delay = 29.7 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		425	177	180	381					218	1433	200
% Heavy Veh		27	27	21	21					20	20	20
PHF		0.80	0.80	0.93	0.93					0.89	0.89	0.89
PK 15 Vol		133	55	48	102					61	403	56
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist						X				X		X
NumPark						3				0		0
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0
Adj Flow		752		194	410					245	1835	
%InSharedLn												
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.294			0.000						0.123	
Peds Bikes		120	0					40			160	0
Buses		10		0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		3		3	3					3	3	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		2.0		2.0	2.0					2.0	2.0	
Ped Min g		4.0						3.5			4.3	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LT				
Volume					0	0	313	1618				
Lane Width					12.0			10.0				
RTOR Vol						0						

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru					Thru	P		
Right					Right			
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	431	1250	0.00	0.34	19.3	B		
Northbound								
LT	2702	4962	0.82	0.54	19.9	B	19.9	B
Southbound								

Intersection Delay = 19.9 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/6/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					0	0	313	1618				
% Heavy Veh					19	19	11	11				
PHF					0.79	0.79	0.87	0.87				
PK 15 Vol					0	0	90	465				
Hi Ln Vol												
% Grade					0			0				
Ideal Sat					1900			1900				
ParkExist				X		X	X		X			
NumPark				3		3	3		3			
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LT				
Lane Width					12.0			10.0				
RTOR Vol						0						
Adj Flow					0			2220				
%InSharedLn												
Prop LTs					0.000			0.162				
Prop RTs				0.000			0.000					
Peds Bikes				50	0					0		
Buses					0			10				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0				
Arriv. Type					3			3				
Unit Ext.					3.0			3.0				
I Factor					1.000			1.000				
Lost Time					2.0			2.0				
Ext of g					2.0			2.0				
Ped Min g					3.5						3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Volume				111	202						2028	144
Lane Width					16.0						10.0	
RTOR Vol												0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LT	526	1526	0.70	0.34	33.1	C	33.1	C
Northbound								
Southbound								
TR	3177	5836	0.75	0.54	17.5	B	17.5	B

Intersection Delay = 19.6 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				111	202						2028	144
% Heavy Veh				7	7						19	19
PHF				0.85	0.85						0.91	0.91
PK 15 Vol				33	59						557	40
Hi Ln Vol												
% Grade					0						0	
Ideal Sat					1900						1900	
ParkExist				X						X		
NumPark				3						3		
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Lane Width					16.0						10.0	
RTOR Vol												0
Adj Flow					369						2387	
%InSharedLn												
Prop LTs					0.355						0.000	
Prop RTs					0.000						0.066	
Peds Bikes	100										150	0
Buses					0						0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0						0.0	
Arriv. Type					3						3	
Unit Ext.					3.0						3.0	
I Factor					1.000						1.000	
Lost Time					2.0						2.0	
Ext of g					2.0						2.0	
Ped Min g		3.9									4.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	0	0	0	4	0	0	0	0
LGConfig	L	T						TR				
Volume	369	221						1498	120			
Lane Width	11.0	12.0						10.0				
RTOR Vol									0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left			
Thru	P				Thru	P		
Right					Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru					Thru			
Right					Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	29.0					45.0		
Yellow	3.0					3.0		
All Red	2.0					8.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	731	2269	0.58	0.32	28.8	C		
T	447	1388	0.57	0.32	30.5	C	29.4	C
Westbound								
Northbound								
TR	2480	4959	0.73	0.50	19.7	B	19.7	B
Southbound								

Intersection Delay = 22.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	James C.
Agency/Co.:	STV Incorporated
Date Performed:	11/6/2008
Analysis Time Period:	7:45 - 8:45 AM
Intersection:	30th St and 1st Ave
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2008 Existing

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	369	221						1498	120			
% Heavy Veh	9	9						11	11			
PHF	0.87	0.87						0.89	0.89			
PK 15 Vol	106	64						421	34			
Hi Ln Vol												
% Grade		0						0				
Ideal Sat	1900	1900						1900				
ParkExist	X		X				X		X			
NumPark	3		3				3		3			
No. Lanes	2	1	0	0	0	0	0	4	0	0	0	0
LGConfig	L	T						TR				
Lane Width	11.0	12.0						10.0				
RTOR Vol									0			
Adj Flow	424	254						1818				
%InSharedLn												
Prop LTs		0.000						0.000				
Prop RTs	0.000						0.074					
Peds				150			100		0			
Bikes												
Buses	0	0						0				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0				
Arriv. Type	3	3						3				
Unit Ext.	3.0	3.0						3.0				
I Factor		1.000						1.000				
Lost Time	2.0	2.0						2.0				
Ext of g	2.0	2.0						2.0				
Ped Min g					4.2			3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Volume		233	87							356	2084	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left					SB Left	P		
Thru					Thru	P		
Right					Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	31.0					49.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	494	1435	0.57	0.34	28.7	C	27.6	C
R	322	934	0.33	0.34	24.5	C		
Westbound								
Northbound								
Southbound								
LT	3254	5977	0.81	0.54	18.9	B	18.9	B

Intersection Delay = 20.0+ (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	James C.
Agency/Co.:	STV Incorporated
Date Performed:	11/7/2008
Analysis Time Period:	7:45 - 8:45 AM
Intersection:	30th St and 2nd Ave
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2008 Existing

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		233	87							356	2084	
% Heavy Veh		9	9							15	15	
PHF		0.83	0.83							0.93	0.93	
PK 15 Vol		70	26							96	560	
Hi Ln Vol												
% Grade		0									0	
Ideal Sat		1900	1900								1900	
ParkExist	X		X							X		
NumPark	3		3							3		
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									
Adj Flow		281	105								2624	
%InSharedLn												
Prop LTs		0.000									0.146	
Prop RTs		0.000	1.000								0.000	
Peds Bikes		100	0					125				
Buses		0	0								15	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0	0.0								0.0	
Arriv. Type		3	3								3	
Unit Ext.		3.0	3.0								3.0	
I Factor		1.000									1.000	
Lost Time		2.0	2.0								2.0	
Ext of g		2.0	2.0								2.0	
Ped Min g		3.9						4.0				

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 1st Ave
Area Type: All other areas
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	95	586			444	142	118	1157	211			
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	7.0	23.0				39.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	8.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	899	3033	0.91	0.39	41.1	D	41.1	D
Westbound								
TR	1059	4142	0.64	0.26	32.7	C	32.7	C
Northbound								
LTR	2348	5418	0.69	0.43	22.3	C	22.3	C
Southbound								

Intersection Delay = 29.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/6/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and 1st Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	95	586			444	142	118	1157	211			
% Heavy Veh	10	10			6	6	13	13	13			
PHF	0.83	0.83			0.87	0.87	0.92	0.92	0.92			
PK 15 Vol	29	177			128	41	32	314	57			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist							X		X			
NumPark							3		3			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			
Adj Flow		820			673			1615				
%InSharedLn												
Prop LTs		0.139			0.000			0.079				
Prop RTs	0.000			0.242			0.142					
Peds Bikes				200	0		100	0		0		
Buses		0			0			0				
%InProtPhase	50.0											
Duration	0.25		Area Type: All other areas									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 2nd Ave
Area Type: All other areas
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Volume		627	113	191	265					240	2295	84
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left	P	P			SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0	8.0				42.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	801	2774	1.00	0.29	64.8	E	64.8	E
Westbound								
DefL	285	1421	0.69	0.42	46.0	D		
T	687	1627	0.40	0.42	17.4	B	29.4	C
Northbound								
Southbound								
L	581	1244	0.47	0.47	16.1	B		
LTR	3126	6699	0.86	0.47	21.0	C	20.5	C

Intersection Delay = 29.9 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and 2nd Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		627	113	191	265					240	2295	84
% Heavy Veh		14	14	9	9					19	19	19
PHF		0.92	0.92	0.97	0.97					0.88	0.88	0.88
PK 15 Vol		170	31	49	68					68	652	24
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0
Adj Flow		805		197	273					273	2703	
%InSharedLn										0		
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.153			0.000						0.035	
Peds Bikes		250	0					50			200	0
Buses		0		0	0					0	0	
%InProtPhase				0.0								

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		4		4	4					4	4	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		3.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.5			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2008 Existing
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	241	5	584	3	11	12	373	255	11	3	1121	150
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	P				NB Left	P		
	Thru	P				Thru	P		
	Right	P				Right	P		
	Peds					Peds	X		
WB	Left	P				SB Left	P		
	Thru	P				Thru	P		
	Right	P				Right	P		
	Peds	X				Peds	X		
NB	Right					EB Right	P		
SB	Right					WB Right			
Green		22.0					13.0	40.0	
Yellow		3.0					3.0	3.0	
All Red		2.0					2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	276	1129	0.90	0.24	66.3	E		
T	398	1627	0.01	0.24	25.8	C	66.1	E
R	592	1333	1.02	0.44	66.3	E		
Westbound								
LT	507	2076	0.06	0.24	26.3	C	26.3	C
R	420	1718	0.06	0.24	26.4	C		
Northbound								
L	426	1541	0.98	0.64	56.4	E		
TR	1060	1645	0.28	0.64	7.6	A	36.1	D
Southbound								
LTR	1336	3007	1.00	0.44	50.5	D	50.5	D

Intersection Delay = 51.0 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	241	5	584	3	11	12	373	255	11	3	1121	150
% Heavy Veh	9	9	9	0	0	0	9	9	9	3	3	3
PHF	0.97	0.97	0.97	0.45	0.45	0.45	0.89	0.89	0.89	0.95	0.95	0.95
PK 15 Vol	62	2	151	2	6	7	105	72	3	1	295	39
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	248	5	602		31	27	419	299			1341	
%InSharedLn												
Prop LTs	1.000	0.000			0.226		1.000	0.000			0.002	
Prop RTs		0.000	1.000		0.000	1.000		0.040			0.118	
Peds Bikes		0			50	0		25	0		50	0
Buses	0	0	0		0	0	0	0			0	
%InProtPhase							0.0		0.0			
Duration	0.25		Area Type: All other areas									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	3	3			3	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: FDR Drive N SR

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Volume	295	20	337	4	9	4	279	400	18			
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left		P			NB Left		P	P	
	Thru		P			Thru	P	P	P	
	Right		P			Right	P	P	P	
	Peds	X				Peds		X		
WB	Left	P	P			SB Left				
	Thru	P	P			Thru				
	Right	P	P			Right				
	Peds	X	X			Peds	X			
NB	Right					EB Right				
SB	Right					WB Right				
Green		6.0	28.0				18.0	8.0	10.0	
Yellow		3.0	3.0				3.0	0.0	3.0	
All Red		2.0	2.0				2.0	0.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	284	914	0.77	0.31	46.6	D		
LTR	336	1079	0.66	0.31	36.8	D	39.4	D
R	381	1224	0.66	0.31	35.5	D		
Westbound								
L	446	1841	0.01	0.43	15.0	B		
TR	780	1799	0.02	0.43	14.6	B	14.7	B
Northbound								
L	365	1428	0.88	0.26	49.5	D		
TR	675	1482	0.71	0.46	26.1	C	35.4	D
Southbound								

Intersection Delay = 37.0 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive N SR

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	295	20	337	4	9	4	279	400	18			
% Heavy Veh	12	12	12	0	0	0	10	10	10			
PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.87	0.87			
PK 15 Vol	78	5	90	1	3	1	80	115	5			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900	1900	1900	1900		1900	1900				
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			
Adj Flow	220	223	251	5	15		321	481				
%InSharedLn	30		30									
Prop LTs	1.000	0.422		1.000	0.000			0.000				
Prop RTs		0.483	1.000		0.333			0.044				
Peds Bikes		100			100	0		50	0		0	
Buses	0	0	6	0	0		0	0				
%InProtPhase				0.0					0.0			

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Arriv. Type	3	3	3	3	3		5	3				
Unit Ext.	3.0	3.0	3.0	3.0	3.0		3.0	3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0	2.0	2.0	2.0		0.0	2.0				
Ext of g	2.0	2.0	2.0	2.0	2.0		5.0	2.0				
Ped Min g		3.9			3.9			3.5			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: FDR Drive S/ Avenue C

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Volume				4	9	4				67	251	228
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left		P	
Thru		P			Thru	P		
Right		P			Right	P		
Peds					Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		28.0				18.0	21.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				10.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	573	1841	0.01	0.31	21.4	C		
TR	573	1841	0.03	0.31	21.6	C	21.6	C
Northbound								
Southbound								
L	340	1458	0.22	0.23	29.4	C		
TR	533	2663	1.01	0.20	77.3	E	71.5	E

Intersection Delay = 69.9 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive S/ Avenue C

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				4	9	4				67	251	228
% Heavy Veh				0	0	0				4	4	4
PHF				0.87	0.87	0.87				0.89	0.89	0.89
PK 15 Vol				1	3	1				19	71	64
Hi Ln Vol												
% Grade					0						0	
Ideal Sat				1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0
Adj Flow				5	15					75	538	
%InSharedLn												
Prop LTs					0.000						0.000	
Prop RTs					0.333						0.476	
Peds Bikes	100				100		50				50	0
Buses				0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet				0.0	0.0					0.0	0.0	
Arriv. Type				3	3					3	3	
Unit Ext.				3.0	3.0					3.0	3.0	
I Factor					1.000						1.000	
Lost Time				2.0	2.0					2.0	2.0	
Ext of g				2.0	2.0					2.0	2.0	
Ped Min g		3.9			3.9			3.5			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	130	492			396	196	230	1200	160			
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	20.0	7.0				36.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	8.0				8.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	757	2465	0.86	0.36	38.8	D	38.8	D
Westbound								
TR	664	2986	1.06	0.22	87.0	F	87.0	F
Northbound								
LTR	1886	4714	0.86	0.40	30.1	C	30.1	C
Southbound								

Intersection Delay = 45.5 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/6/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	130	492			396	196	230	1200	160			
% Heavy Veh	14	14			26	26	14	14	14			
PHF	0.96	0.96			0.84	0.84	0.98	0.98	0.98			
PK 15 Vol	34	128			118	58	59	306	41			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist			X				X		X			
NumPark			5				5		5			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			
Adj Flow		648			704			1622				
%InSharedLn												
Prop LTs		0.208			0.000			0.145				
Prop RTs	0.000			0.331			0.100					
Peds				200	0		200	0		0		
Bikes												
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: CBD or Similar								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			4.6			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Volume		415	127	229	397					207	1836	227
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left		P			SB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		35.0				45.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1311	3372	0.44	0.39	21.4	C	21.4	C
Westbound								
DefL	232	597	1.06	0.39	103.4	F		
T	512	1317	0.83	0.39	39.6	D	62.9	E
Northbound								
Southbound								
L	600	1199	0.35	0.50	15.2	B		
TR	2563	5126	0.81	0.50	21.9	C	21.3	C

Intersection Delay = 29.2 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		415	127	229	397					207	1836	227
% Heavy Veh		17	17	6	6					7	7	7
PHF		0.93	0.93	0.93	0.93					0.99	0.99	0.99
PK 15 Vol		112	34	62	107					52	464	57
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist						X				X		X
NumPark						5				0		0
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0
Adj Flow		583		246	427					209	2084	
%InSharedLn												
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs	0.235				0.000					0.110		
Peds Bikes	250	0					100			200	0	
Buses		11		0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		3		3	3					3	3	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		2.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.9			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LT				
Volume					0	0	250	1583				
Lane Width					12.0			10.0				
RTOR Vol						0						

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru					Thru	P		
Right					Right			
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	470	1365	0.00	0.34	19.3	B		
Northbound								
LT	2806	5154	0.68	0.54	16.2	B	16.2	B
Southbound								

Intersection Delay = 16.2 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/6/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					0	0	250	1583				
% Heavy Veh					9	9	7	7				
PHF					0.92	0.92	0.96	0.96				
PK 15 Vol					0	0	65	412				
Hi Ln Vol												
% Grade					0			0				
Ideal Sat					1900			1900				
ParkExist				X		X	X		X			
NumPark				3		3	3		3			
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LT				
Lane Width					12.0			10.0				
RTOR Vol						0						
Adj Flow					0			1909				
%InSharedLn												
Prop LTs					0.000			0.136				
Prop RTs				0.000			0.000					
Peds Bikes				50	0					0		
Buses					0			10				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0				
Arriv. Type					3			3				
Unit Ext.					3.0			3.0				
I Factor					1.000			1.000				
Lost Time					2.0			2.0				
Ext of g					2.0			2.0				
Ped Min g					3.5						3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Volume				73	177						2112	212
Lane Width					16.0						10.0	
RTOR Vol												0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LT	514	1493	0.53	0.34	27.5	C	27.5	C
Northbound								
Southbound								
TR	3564	6546	0.69	0.54	16.1	B	16.1	B

Intersection Delay = 17.3 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				73	177						2112	212
% Heavy Veh				6	6						6	6
PHF				0.92	0.92						0.94	0.94
PK 15 Vol				20	48						562	56
Hi Ln Vol												
% Grade					0						0	
Ideal Sat					1900						1900	
ParkExist				X		X				X		
NumPark				5		5				5		
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Lane Width					16.0						10.0	
RTOR Vol												0
Adj Flow					271						2473	
%InSharedLn												
Prop LTs					0.292						0.000	
Prop RTs				0.000						0.091		
Peds Bikes	100									50		0
Buses					0						0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0						0.0	
Arriv. Type					3						3	
Unit Ext.					3.0						3.0	
I Factor					1.000						1.000	
Lost Time					2.0						2.0	
Ext of g					2.0						2.0	
Ped Min g		3.9									3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	0	0	0	4	0	0	0	0
LGConfig	L	T						TR				
Volume	365	252						1507	76			
Lane Width	11.0	12.0						10.0				
RTOR Vol									0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P							
Thru	P							
Right								
Peds	X							
WB Left								
Thru								
Right								
Peds	X							
NB Right								
SB Right								
NB Left								
Thru					P			
Right					P			
Peds					X			
SB Left								
Thru								
Right								
Peds					X			
EB Right								
WB Right								
Green	29.0				45.0			
Yellow	3.0				3.0			
All Red	2.0				8.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	725	2250	0.54	0.32	27.8	C		
T	469	1455	0.57	0.32	30.3	C	28.8	C
Westbound								
Northbound								
TR	2590	5179	0.64	0.50	17.7	B	17.7	B
Southbound								

Intersection Delay = 20.9 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/6/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	365	252						1507	76			
% Heavy Veh	4	4						7	7			
PHF	0.94	0.94						0.96	0.96			
PK 15 Vol	97	67						392	20			
Hi Ln Vol												
% Grade		0						0				
Ideal Sat	1900	1900						1900				
ParkExist	X		X				X		X			
NumPark	3		3				3		3			
No. Lanes	2	1	0	0	0	0	0	4	0	0	0	0
LGConfig	L	T						TR				
Lane Width	11.0	12.0						10.0				
RTOR Vol									0			
Adj Flow	388	268						1649				
%InSharedLn												
Prop LTs		0.000						0.000				
Prop RTs	0.000						0.048					
Peds Bikes				200			100		0			
Buses	0	0						0				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0						0.0				
Arriv. Type	3	3						3				
Unit Ext.	3.0	3.0						3.0				
I Factor		1.000						1.000				
Lost Time	2.0	2.0						2.0				
Ext of g	2.0	2.0						2.0				
Ped Min g				4.6				3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Volume		242	143							375	2181	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru					Thru	P		
Right					Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	512	1487	0.51	0.34	27.1	C	27.7	C
R	318	922	0.49	0.34	28.5	C		
Westbound								
Northbound								
Southbound								
LT	3511	6449	0.77	0.54	17.9	B	17.9	B

Intersection Delay = 19.2 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		242	143							375	2181	
% Heavy Veh		4	4							6	6	
PHF		0.92	0.92							0.94	0.94	
PK 15 Vol		66	39							100	580	
Hi Ln Vol												
% Grade		0									0	
Ideal Sat		1900	1900								1900	
ParkExist	X		X							X		
NumPark	5		5							5		
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									
Adj Flow		263	155								2719	
%InSharedLn												
Prop LTs		0.000									0.147	
Prop RTs		0.000	1.000								0.000	
Peds Bikes		150	0					100				
Buses		0	0								15	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0	0.0								0.0	
Arriv. Type		3	3								3	
Unit Ext.		3.0	3.0								3.0	
I Factor		1.000									1.000	
Lost Time		2.0	2.0								2.0	
Ext of g		2.0	2.0								2.0	
Ped Min g		4.2						3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/6/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 1st Ave
Area Type: All other areas
Jurisd:
Year : 2008 Existing
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	101	628			485	117	144	1389	232			
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	7.0	23.0			39.0			
Yellow	3.0	3.0			3.0			
All Red	2.0	8.0			2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	790	3101	1.03	0.39	66.1	E	66.1	E
Westbound								
TR	1050	4107	0.60	0.26	32.1	C	32.1	C
Northbound								
LTR	2449	5652	0.78	0.43	24.5	C	24.5	C
Southbound								

Intersection Delay = 35.9 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/6/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and 1st Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	101	628			485	117	144	1389	232			
% Heavy Veh	7	7			9	9	8	8	8			
PHF	0.90	0.90			0.95	0.95	0.92	0.92	0.92			
PK 15 Vol	28	174			128	31	39	377	63			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist							X		X			
NumPark							5		5			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			
Adj Flow		810			634			1919				
%InSharedLn												
Prop LTs		0.138			0.000			0.082				
Prop RTs		0.000			0.194			0.131				
Peds	Bikes				200	0		100	0		0	
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25		Area Type: All other areas									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2008 Existing
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Volume		518	120	171	241					372	1931	111
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left	P	P			SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0	8.0				42.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	743	2571	0.99	0.29	61.5	E	61.5	E
Westbound								
DefL	270	1312	0.68	0.42	44.6	D		
T	642	1520	0.40	0.42	17.6	B	28.8	C
Northbound								
Southbound								
L	587	1257	0.65	0.47	20.6	C		
LTR	3142	6733	0.67	0.47	16.3	B	17.0	B

Intersection Delay = 27.3 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		518	120	171	241					372	1931	111
% Heavy Veh		9	9	5	5					6	6	6
PHF		0.87	0.87	0.93	0.93					0.97	0.97	0.97
PK 15 Vol		149	34	46	65					96	498	29
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0
Adj Flow		733		184	259					384	2105	
%InSharedLn										0		
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs	0.188				0.000						0.054	
Peds Bikes	250	0					50			200	0	
Buses		0		0	0					0	0	
%InProtPhase				0.0								

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		4		4	4					4	4	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		3.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.5			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: James C.
Agency: STV Incorporated
Date: 11/7/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2008 Existing
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	305	4	550	6	9	6	443	213	6	4	1083	151
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P	P		
	Thru	P					Thru	P	P		
	Right	P					Right	P	P		
	Peds						Peds		X		
WB	Left	P				SB	Left		P		
	Thru	P					Thru		P		
	Right	P					Right		P		
	Peds	X					Peds		X		
NB	Right					EB	Right	P			
SB	Right					WB	Right				
Green		22.0						13.0	40.0		
Yellow		3.0						3.0	3.0		
All Red		2.0						2.0	2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	304	1188	1.06	0.26	100.6	F		
T	409	1673	0.01	0.24	25.8	C	68.0	E
R	609	1371	0.95	0.44	50.2	D		
Westbound								
LT	904	3700	0.02	0.24	25.8	C	25.9	C
R	420	1718	0.02	0.24	25.9	C		
Northbound								
L	450	1487	1.06	0.66	74.8	E		
TR	1025	1591	0.23	0.64	3.6	A	51.3	D
Southbound								
LTR	1422	3200	1.00	0.44	45.3	D	45.3	D

Intersection Delay = 53.2 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: James C.
Agency/Co.: STV Incorporated
Date Performed: 11/7/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2008 Existing
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	305	4	550	6	9	6	443	213	6	4	1083	151
% Heavy Veh	6	6	6	0	0	0	13	13	13	2	2	2
PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.93	0.93	0.93	0.87	0.87	0.87
PK 15 Vol	80	1	145	2	3	2	119	57	2	1	311	43
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	321	4	579		17	7	476	235			1424	
%InSharedLn												
Prop LTs	1.000	0.000			0.412		1.000	0.000			0.004	
Prop RTs		0.000	1.000		0.000	1.000		0.026			0.122	
Peds Bikes		0			50	0		25	0		50	0
Buses	0	0	0		0	0	0	0			0	
%InProtPhase							0.0		0.0			

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	4	4			4	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	3.0	2.0	2.0		2.0	2.0	3.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: FDR Drive N SR

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Volume	385	21	211	9	10	6	335	522	29			
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left		P	P
Thru		P			Thru	P	P	P
Right		P			Right	P	P	P
Peds	X				Peds		X	
WB Left	P	P			SB Left			
Thru	P	P			Thru			
Right	P	P			Right			
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	24.0				19.0	8.0	13.0
Yellow	3.0	3.0				3.0	0.0	3.0
All Red	2.0	2.0				2.0	0.0	2.0

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	238	891	0.93	0.27	75.4	E		
LTR	238	894	0.92	0.27	72.9	E	63.8	E
R	315	1182	0.73	0.27	43.7	D		
Westbound								
L	389	1841	0.03	0.39	17.5	B		
TR	693	1781	0.03	0.39	17.0	B	17.2	B
Northbound								
L	398	1236	0.94	0.32	53.4	D		
TR	637	1273	0.97	0.50	51.6	D	52.3	D
Southbound								

Intersection Delay = 56.2 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive N SR

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	385	21	211	9	10	6	335	522	29			
% Heavy Veh	16	16	16	0	0	0	27	27	27			
PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.89	0.89			
PK 15 Vol	105	6	57	3	3	2	94	147	8			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900	1900	1900	1900		1900	1900				
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			
Adj Flow	222	219	229	10	18		376	620				
%InSharedLn	47		0									
Prop LTs	1.000	0.897		1.000	0.000			0.000				
Prop RTs		0.000	1.000		0.389			0.053				
Peds Bikes		100			80	0		80	0		0	
Buses	0	0	6	0	0		0	0				
%InProtPhase				0.0					0.0			
Duration	0.25		Area Type: CBD or Similar									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Arriv. Type	3	3	3	3	3		5	3				
Unit Ext.	3.0	3.0	3.0	3.0	3.0		3.0	3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0	2.0	2.0	2.0		0.0	2.0				
Ext of g	2.0	2.0	2.0	2.0	2.0		8.0	2.0				
Ped Min g		3.9			3.7			3.7			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: FDR Drive S/ Avenue C

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Volume				9	10	6				100	264	84
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left		P	
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		24.0				19.0	24.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				10.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	491	1841	0.02	0.27	24.4	C		
TR	458	1718	0.04	0.27	24.6	C	24.5	C
Northbound								
Southbound								
L	364	1366	0.29	0.27	28.2	C		
TR	562	2662	0.65	0.21	38.1	D	35.9	D

Intersection Delay = 35.2 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive S/ Avenue C

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				9	10	6				100	264	84
% Heavy Veh				0	0	0				11	11	11
PHF				0.89	0.89	0.89				0.96	0.96	0.96
PK 15 Vol				3	3	2				26	69	22
Hi Ln Vol												
% Grade					0						0	
Ideal Sat				1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	0	0		1	1	0	0	0	0	1	2	0
LGConfig					L	TR					L	TR	
Lane Width				16.0	16.0					10.0	10.5		
RTOR Vol						0						0	
Adj Flow				10	18					104	363		
%InSharedLn													
Prop LTs					0.000						0.000		
Prop RTs					0.389						0.242		
Peds Bikes	100				80	0		80			25	0	
Buses				0	0					0	0		
%InProtPhase													

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet				0.0	0.0					0.0	0.0	
Arriv. Type				3	3					3	3	
Unit Ext.				3.0	3.0					3.0	3.0	
I Factor					1.000						1.000	
Lost Time				2.0	2.0					2.0	2.0	
Ext of g				2.0	2.0					2.0	2.0	
Ped Min g		3.9			3.7			3.7			3.4	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	155	503			391	109	182	1138	186			
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	P	P			NB Left	P		
	Thru	P	P			Thru	P		
	Right					Right	P		
	Peds	X				Peds	X		
WB	Left					SB Left			
	Thru	P				Thru			
	Right	P				Right			
	Peds	X				Peds	X		
NB	Right					EB Right			
SB	Right					WB Right			
Green		20.0	7.0			36.0			
Yellow		3.0	3.0			3.0			
All Red		2.0	8.0			8.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	745	2370	0.91	0.36	45.0	D	45.0	D
Westbound								
TR	639	2877	0.82	0.22	44.9	D	44.9	D
Northbound								
LTR	1792	4480	0.88	0.40	31.3	C	31.3	C
Southbound								

Intersection Delay = 37.2 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	155	503			391	109	182	1138	186			
% Heavy Veh	20	20			44	44	21	21	21			
PHF	0.97	0.97			0.95	0.95	0.96	0.96	0.96			
PK 15 Vol	40	130			103	29	47	296	48			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist			X				X		X			
NumPark			5				3		3			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			
Adj Flow		679			527			1569				
%InSharedLn												
Prop LTs		0.236			0.000			0.121				
Prop RTs	0.000			0.218			0.124					
Peds Bikes				50	0		100	0		0		
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: CBD or Similar								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					3.5			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Volume		436	181	184	389					222	1471	204
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left		P			SB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		35.0				45.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1222	3142	0.63	0.39	24.8	C	24.8	C
Westbound								
DefL	191	492	1.04	0.39	102.6	F		
T	454	1167	0.92	0.39	52.6	D	68.7	E
Northbound								
Southbound								
L	555	1110	0.45	0.50	17.1	B		
TR	2285	4570	0.82	0.50	22.6	C	22.0	C

Intersection Delay = 30.8 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		436	181	184	389					222	1471	204
% Heavy Veh		27	27	21	21					20	20	20
PHF		0.80	0.80	0.93	0.93					0.89	0.89	0.89
PK 15 Vol		136	57	49	105					62	413	57
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist						X				X		X
NumPark						3				0		0
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0
Adj Flow		771		198	418					249	1882	
%InSharedLn												
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.293			0.000						0.122	
Peds Bikes		120	0					40			160	0
Buses		10		0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		3		3	3					3	3	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		2.0		2.0	2.0					2.0	2.0	
Ped Min g		4.0						3.5			4.3	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Volume					3	0	319	1658	3			
Lane Width					12.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru					Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	431	1250	0.01	0.34	19.4	B	19.4	B
Northbound								
LTR	2700	4960	0.84	0.54	20.7	C	20.7	C
Southbound								

Intersection Delay = 20.7 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					3	0	319	1658	3			
% Heavy Veh					19	19	11	11	11			
PHF					0.79	0.79	0.87	0.87	0.87			
PK 15 Vol					1	0	92	476	1			
Hi Ln Vol												
% Grade					0			0				
Ideal Sat					1900			1900				
ParkExist				X		X	X		X			
NumPark				3		3	3		3			
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Lane Width					12.0			10.0				
RTOR Vol						0			0			
Adj Flow					4			2276				
%InSharedLn												
Prop LTs					0.000			0.161				
Prop RTs				0.000			0.001					
Peds Bikes				50	0		100	0		0		
Buses					0			10				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0				
Arriv. Type					3			3				
Unit Ext.					3.0			3.0				
I Factor					1.000			1.000				
Lost Time					2.0			2.0				
Ext of g					2.0			2.0				
Ped Min g					3.5			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Volume				116	207						2072	147
Lane Width					16.0						10.0	
RTOR Vol												0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LT	526	1526	0.72	0.34	34.1	C	34.1	C
Northbound								
Southbound								
TR	3177	5836	0.77	0.54	17.9	B	17.9	B

Intersection Delay = 20.1 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				116	207						2072	147
% Heavy Veh				7	7						19	19
PHF				0.85	0.85						0.91	0.91
PK 15 Vol				34	61						569	40
Hi Ln Vol												
% Grade					0						0	
Ideal Sat					1900						1900	
ParkExist				X						X		
NumPark				3						3		
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Lane Width					16.0						10.0	
RTOR Vol												0
Adj Flow					380						2439	
%InSharedLn												
Prop LTs					0.358						0.000	
Prop RTs					0.000						0.066	
Peds	Bikes	100									150	0
Buses					0						0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0						0.0	
Arriv. Type					3						3	
Unit Ext.					3.0						3.0	
I Factor					1.000						1.000	
Lost Time					2.0						2.0	
Ext of g					2.0						2.0	
Ped Min g		3.9									4.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Volume	378	261				20		1530	128			
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left			
Thru	P				Thru	P		
Right					Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru					Thru			
Right	P				Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	29.0					45.0		
Yellow	3.0					3.0		
All Red	2.0					8.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	731	2269	0.59	0.32	29.1	C		
T	447	1388	0.67	0.32	34.2	C	31.2	C
Westbound								
							21.9	C
R	253	786	0.09	0.32	21.9	C		
Northbound								
TR	2478	4955	0.75	0.50	20.2	C	20.2	C
Southbound								

Intersection Delay = 23.3 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	378	261				20		1530	128			
% Heavy Veh	9	9				62		11	11			
PHF	0.87	0.87				0.90		0.89	0.89			
PK 15 Vol	109	75				6		430	36			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900				1900		1900				
ParkExist	X		X				X		X			
NumPark	3		3				3		3			
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			
Adj Flow	434	300				22		1863				
%InSharedLn												
Prop LTs		0.000						0.000				
Prop RTs	0.000					1.000		0.077				
Peds Bikes				150	0			100	0			
Buses	0	0				0		0				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0				0.0		0.0				
Arriv. Type	3	3				3		3				
Unit Ext.	3.0	3.0				3.0		3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0				2.0		2.0				
Ext of g	2.0	2.0				2.0		2.0				
Ped Min g					4.2			3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Volume		256	89							383	2129	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru					Thru	P		
Right					Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	494	1435	0.62	0.34	30.5	C	28.9	C
R	322	934	0.33	0.34	24.6	C		
Westbound								
Northbound								
Southbound								
LT	3252	5973	0.83	0.54	19.7	B	19.7	B

Intersection Delay = 20.9 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		256	89							383	2129	
% Heavy Veh		9	9							15	15	
PHF		0.83	0.83							0.93	0.93	
PK 15 Vol		77	27							103	572	
Hi Ln Vol												
% Grade		0									0	
Ideal Sat		1900	1900								1900	
ParkExist	X		X							X		
NumPark	3		3							3		
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									
Adj Flow		308	107								2701	
%InSharedLn												
Prop LTs		0.000									0.153	
Prop RTs		0.000	1.000								0.000	
Peds Bikes		100	0					125				
Buses		0	0								15	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0	0.0								0.0	
Arriv. Type		3	3								3	
Unit Ext.		3.0	3.0								3.0	
I Factor		1.000									1.000	
Lost Time		2.0	2.0								2.0	
Ext of g		2.0	2.0								2.0	
Ped Min g		3.9						4.0				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 1st Ave
Area Type: All other areas
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	97	598			453	145	131	1182	216			
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	7.0	23.0				39.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	8.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	899	3034	0.93	0.39	43.7	D	43.7	D
Westbound								
TR	1058	4141	0.65	0.26	33.0	C	33.0	C
Northbound								
LTR	2347	5417	0.71	0.43	22.7	C	22.7	C
Southbound								

Intersection Delay = 30.4 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and 1st Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	97	598			453	145	131	1182	216			
% Heavy Veh	10	10			6	6	13	13	13			
PHF	0.83	0.83			0.87	0.87	0.92	0.92	0.92			
PK 15 Vol	29	180			130	42	36	321	59			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist							X		X			
NumPark							3		3			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			
Adj Flow		837			688			1662				
%InSharedLn												
Prop LTs		0.140			0.000			0.085				
Prop RTs		0.000			0.243			0.141				
Peds Bikes					200	0		100	0		0	
Buses		0			0			0				
%InProtPhase	50.0											

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 2nd Ave
Area Type: All other areas
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Volume		640	131	195	274					245	2344	86
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left	P	P			SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0	8.0				42.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	798	2761	1.05	0.29	77.6	E	77.6	E
Westbound								
DefL	286	1429	0.70	0.42	46.8	D		
T	687	1627	0.41	0.42	17.6	B	29.8	C
Northbound								
Southbound								
L	581	1244	0.48	0.47	16.2	B		
LTR	3126	6699	0.88	0.47	21.8	C	21.3	C

Intersection Delay = 33.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	NS
Agency/Co.:	STV Incorporated
Date Performed:	12/09/08
Analysis Time Period:	7:45 - 8:45 AM
Intersection:	34th St and 2nd Ave
Area Type:	All other areas
Jurisdiction:	
Analysis Year:	2012 No Build

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		640	131	195	274					245	2344	86
% Heavy Veh		14	14	9	9					19	19	19
PHF		0.92	0.92	0.97	0.97					0.88	0.88	0.88
PK 15 Vol		174	36	50	71					70	666	24
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0
Adj Flow		838		201	282					278	2762	
%InSharedLn										0		
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs	0.169				0.000						0.035	
Peds Bikes	250	0					50			200	0	
Buses		0		0	0					0	0	
%InProtPhase				0.0								

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		4		4	4					4	4	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		3.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.5			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/12/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2012 No Build
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	247	5	595	3	11	12	381	260	11	3	1142	153
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	P				NB Left	P	P	
	Thru	P				Thru	P	P	
	Right	P				Right	P	P	
	Peds					Peds		X	
WB	Left	P				SB Left		P	
	Thru	P				Thru		P	
	Right	P				Right		P	
	Peds	X				Peds		X	
NB	Right					EB Right	P		
SB	Right					WB Right			
Green		22.0					13.0	40.0	
Yellow		3.0					3.0	3.0	
All Red		2.0					2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	276	1129	0.92	0.24	70.9	E		
T	398	1627	0.01	0.24	25.8	C	71.0	E
R	592	1333	1.04	0.44	71.5	E		
Westbound								
LT	507	2076	0.06	0.24	26.3	C	26.3	C
R	420	1718	0.06	0.24	26.4	C		
Northbound								
L	426	1541	1.00	0.64	62.1	E		
TR	1060	1645	0.29	0.64	7.7	A	39.5	D
Southbound								
LTR	1336	3007	1.02	0.44	55.5	E	55.5	E

Intersection Delay = 55.5 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/12/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	247	5	595	3	11	12	381	260	11	3	1142	153
% Heavy Veh	9	9	9	0	0	0	9	9	9	3	3	3
PHF	0.97	0.97	0.97	0.45	0.45	0.45	0.89	0.89	0.89	0.95	0.95	0.95
PK 15 Vol	64	2	153	2	6	7	107	73	3	1	301	40
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	255	5	613		31	27	428	304			1366	
%InSharedLn												
Prop LTs	1.000	0.000			0.226		1.000	0.000			0.002	
Prop RTs		0.000	1.000		0.000	1.000		0.039			0.118	
Peds Bikes		0			50	0		25	0		50	0
Buses	0	0	0		0	0	0	0			0	
%InProtPhase							0.0		0.0			

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	3	3			3	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: FDR Drive N SR

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Volume	301	20	343	4	9	4	287	408	18			
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left		P			NB Left		P	P
	Thru		P			Thru	P	P	P
	Right		P			Right	P	P	P
	Peds	X				Peds		X	
WB	Left	P	P			SB Left			
	Thru	P	P			Thru			
	Right	P	P			Right			
	Peds	X	X			Peds	X		
NB	Right					EB Right			
SB	Right					WB Right			
Green		6.0	28.0				18.0	8.0	10.0
Yellow		3.0	3.0				3.0	0.0	3.0
All Red		2.0	2.0				2.0	0.0	2.0

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	284	914	0.79	0.31	47.9	D		
LTR	335	1076	0.67	0.31	37.4	D	40.3	D
R	381	1224	0.67	0.31	36.1	D		
Westbound								
L	443	1841	0.01	0.43	15.0	B		
TR	780	1799	0.02	0.43	14.6	B	14.7	B
Northbound								
L	365	1428	0.90	0.26	53.2	D		
TR	675	1482	0.73	0.46	26.6	C	37.3	D
Southbound								

Intersection Delay = 38.4 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive N SR

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	301	20	343	4	9	4	287	408	18			
% Heavy Veh	12	12	12	0	0	0	10	10	10			
PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.87	0.87			
PK 15 Vol	80	5	91	1	3	1	82	117	5			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900	1900	1900	1900		1900	1900				
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			
Adj Flow	224	226	256	5	15		330	490				
%InSharedLn	30		30									
Prop LTs	1.000	0.425		1.000	0.000			0.000				
Prop RTs		0.485	1.000		0.333			0.043				
Peds Bikes		100			100	0		50	0		0	
Buses	0	0	6	0	0		0	0				
%InProtPhase				0.0					0.0			

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Arriv. Type	3	3	3	3	3		5	3				
Unit Ext.	3.0	3.0	3.0	3.0	3.0		3.0	3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0	2.0	2.0	2.0		0.0	2.0				
Ext of g	2.0	2.0	2.0	2.0	2.0		5.0	2.0				
Ped Min g		3.9			3.9			3.5			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: FDR Drive S/ Avenue C

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Volume				4	9	4				68	260	232
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left		P	
Thru		P			Thru	P		
Right		P			Right	P		
Peds					Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		28.0				18.0	21.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				10.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	573	1841	0.01	0.31	21.4	C		
TR	573	1841	0.03	0.31	21.6	C	21.6	C
Northbound								
Southbound								
L	340	1458	0.22	0.23	29.4	C		
TR	533	2666	1.04	0.20	85.0	F	78.3	E

Intersection Delay = 76.6 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive S/ Avenue C

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				4	9	4				68	260	232
% Heavy Veh				0	0	0				4	4	4
PHF				0.87	0.87	0.87				0.89	0.89	0.89
PK 15 Vol				1	3	1				19	73	65
Hi Ln Vol												
% Grade					0						0	
Ideal Sat				1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	0	0		1	1	0	0	0	0	1	2	0
LGConfig					L	TR					L	TR	
Lane Width				16.0	16.0					10.0	10.5		
RTOR Vol						0						0	
Adj Flow				5	15					76	553		
%InSharedLn													
Prop LTs					0.000						0.000		
Prop RTs					0.333						0.472		
Peds Bikes	100				100			50			50	0	
Buses				0	0					0	0		
%InProtPhase													

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet				0.0	0.0					0.0	0.0	
Arriv. Type				3	3					3	3	
Unit Ext.				3.0	3.0					3.0	3.0	
I Factor					1.000						1.000	
Lost Time				2.0	2.0					2.0	2.0	
Ext of g				2.0	2.0					2.0	2.0	
Ped Min g		3.9			3.9			3.5			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	133	502			404	202	235	1237	163			
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left P			
Thru	P	P			Thru P			
Right					Right P			
Peds	X				Peds X			
WB Left					SB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds X			
NB Right					EB Right			
SB Right					WB Right			
Green	20.0	7.0			36.0			
Yellow	3.0	3.0			3.0			
All Red	2.0	8.0			8.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	753	2466	0.88	0.36	41.0	D	41.0	D
Westbound								
TR	663	2983	1.09	0.22	96.1	F	96.1	F
Northbound								
LTR	1886	4715	0.88	0.40	31.6	C	31.6	C
Southbound								

Intersection Delay = 48.9 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build .
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	133	502			404	202	235	1237	163			
% Heavy Veh	14	14			26	26	14	14	14			
PHF	0.96	0.96			0.84	0.84	0.98	0.98	0.98			
PK 15 Vol	35	131			120	60	60	316	42			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist			X				X		X			
NumPark			5				5		5			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			
Adj Flow		662			721			1668				
%InSharedLn												
Prop LTs		0.210			0.000			0.144				
Prop RTs		0.000			0.333			0.100				
Peds Bikes					200	0		200	0		0	
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: CBD or Similar								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			4.6			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Volume		424	129	233	405					211	1881	231
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left		P			SB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		35.0				45.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1312	3374	0.45	0.39	21.5	C	21.5	C
Westbound								
DefL	233	598	1.08	0.39	108.5	F		
T	512	1317	0.85	0.39	41.2	D	65.8	E
Northbound								
Southbound								
L	600	1199	0.35	0.50	15.3	B		
TR	2564	5127	0.83	0.50	22.6	C	21.9	C

Intersection Delay = 30.2 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		424	129	233	405					211	1881	231
% Heavy Veh		17	17	6	6					7	7	7
PHF		0.93	0.93	0.93	0.93					0.99	0.99	0.99
PK 15 Vol		114	35	63	109					53	475	58
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist						X				X		X
NumPark						5				0		0
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0
Adj Flow		595		251	435					213	2133	
%InSharedLn												
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.234			0.000						0.109	
Peds Bikes		250	0					100			200	0
Buses		11		0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		3		3	3					3	3	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		2.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.9			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Volume					3	0	255	1624	3			
Lane Width					12.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru					Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	470	1365	0.01	0.34	19.4	B	19.4	B
Northbound								
LTR	2805	5152	0.70	0.54	16.6	B	16.6	B
Southbound								

Intersection Delay = 16.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	NS
Agency/Co.:	STV Incorporated
Date Performed:	12/09/08
Analysis Time Period:	5:00 - 6:00 PM
Intersection:	29th St and 1st Ave
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2012 No Build

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					3	0	255	1624	3			
% Heavy Veh					9	9	7	7	7			
PHF					0.92	0.92	0.96	0.96	0.96			
PK 15 Vol					1	0	66	423	1			
Hi Ln Vol												
% Grade					0			0				
Ideal Sat					1900			1900				
ParkExist				X		X	X		X			
NumPark				3		3	3		3			
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Lane Width					12.0			10.0				
RTOR Vol						0			0			
Adj Flow					3			1961				
%InSharedLn												
Prop LTs					0.000			0.136				
Prop RTs				0.000			0.002					
Peds Bikes				50	0		100	0		0		
Buses					0			10				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0				
Arriv. Type					3			3				
Unit Ext.					3.0			3.0				
I Factor					1.000			1.000				
Lost Time					2.0			2.0				
Ext of g					2.0			2.0				
Ped Min g					3.5			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Volume				76	182						2157	217
Lane Width					16.0						10.0	
RTOR Vol												0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LT	514	1492	0.55	0.34	28.0	C	28.0	C
Northbound								
Southbound								
TR	3564	6546	0.71	0.54	16.4	B	16.4	B

Intersection Delay = 17.6 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				76	182						2157	217
% Heavy Veh				6	6						6	6
PHF				0.92	0.92						0.94	0.94
PK 15 Vol				21	49						574	58
Hi Ln Vol												
% Grade					0						0	
Ideal Sat					1900						1900	
ParkExist				X		X				X		
NumPark				5		5				5		
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Lane Width					16.0						10.0	
RTOR Vol												0
Adj Flow					281						2526	
%InSharedLn												
Prop LTs					0.295						0.000	
Prop RTs					0.000						0.091	
Peds Bikes	100									50		0
Buses					0						0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0						0.0	
Arriv. Type					3						3	
Unit Ext.					3.0						3.0	
I Factor					1.000						1.000	
Lost Time					2.0						2.0	
Ext of g					2.0						2.0	
Ped Min g		3.9									3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Volume	375	272				46		1545	79			
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left			
Thru	P				Thru	P		
Right					Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru					Thru			
Right	P				Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	29.0				45.0			
Yellow	3.0				3.0			
All Red	2.0				8.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	725	2250	0.55	0.32	28.1	C		
T	469	1455	0.62	0.32	31.8	C	29.6	C
Westbound								
							22.7	C
R	334	1038	0.15	0.32	22.7	C		
Northbound								
TR	2589	5178	0.65	0.50	18.0	B	18.0	B
Southbound								

Intersection Delay = 21.4 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	375	272				46		1545	79			
% Heavy Veh	4	4				16		7	7			
PHF	0.94	0.94				0.90		0.96	0.96			
PK 15 Vol	100	72				13		402	21			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900				1900		1900				
ParkExist	X		X				X		X			
NumPark	3		3				3		3			
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			
Adj Flow	399	289				51		1691				
%InSharedLn												
Prop LTs		0.000						0.000				
Prop RTs	0.000					1.000	0.048					
Peds Bikes				200	0		100	0				
Buses	0	0				0		0				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0				0.0		0.0				
Arriv. Type	3	3				3		3				
Unit Ext.	3.0	3.0				3.0		3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0				2.0		2.0				
Ext of g	2.0	2.0				2.0		2.0				
Ped Min g					4.6			3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/08/09
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Volume		254	146							393	2227	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru					Thru	P		
Right					Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	512	1487	0.54	0.34	27.8	C	28.2	C
R	318	922	0.50	0.34	28.9	C		
Westbound								
Northbound								
Southbound								
LT	3509	6446	0.79	0.54	18.4	B	18.4	B

Intersection Delay = 19.7 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/08/09
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		254	146							393	2227	
% Heavy Veh		4	4							6	6	
PHF		0.92	0.92							0.94	0.94	
PK 15 Vol		69	40							105	592	
Hi Ln Vol												
% Grade		0									0	
Ideal Sat		1900	1900								1900	
ParkExist	X		X							X		
NumPark	5		5							5		
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									
Adj Flow		276	159								2787	
%InSharedLn												
Prop LTs		0.000									0.150	
Prop RTs		0.000	1.000								0.000	
Peds Bikes		150	0					100				
Buses		0	0								15	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0	0.0								0.0	
Arriv. Type		3	3								3	
Unit Ext.		3.0	3.0								3.0	
I Factor		1.000									1.000	
Lost Time		2.0	2.0								2.0	
Ext of g		2.0	2.0								2.0	
Ped Min g		4.2						3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 1st Ave
Area Type: All other areas
Jurisd:
Year : 2012 No Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	103	641			495	119	163	1420	251			
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P	P			NB	Left	P			
	Thru	P	P				Thru	P			
	Right						Right	P			
	Peds		X				Peds	X			
WB	Left					SB	Left				
	Thru		P				Thru				
	Right		P				Right				
	Peds		X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		7.0	23.0					39.0			
Yellow		3.0	3.0					3.0			
All Red		2.0	8.0					2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	785	3102	1.05	0.39	74.2	E	74.2	E
Westbound								
TR	1050	4108	0.62	0.26	32.3	C	32.3	C
Northbound								
LTR	2445	5643	0.82	0.43	25.5	C	25.5	C
Southbound								

Intersection Delay = 38.4 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and 1st Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	103	641			495	119	163	1420	251			
% Heavy Veh	7	7			9	9	8	8	8			
PHF	0.90	0.90			0.95	0.95	0.92	0.92	0.92			
PK 15 Vol	29	178			130	31	44	386	68			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist							X		X			
NumPark							5		5			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			
Adj Flow		826			646			1993				
%InSharedLn												
Prop LTs		0.138			0.000			0.089				
Prop RTs		0.000			0.193			0.137				
Peds					200	0		100	0		0	
Bikes												
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: All other areas								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 No Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Volume		529	128	174	248					379	1973	113
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left	P	P			SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0	8.0				42.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	741	2564	1.02	0.29	69.7	E	69.7	E
Westbound								
DefL	270	1317	0.69	0.42	45.8	D		
T	642	1520	0.42	0.42	17.8	B	29.4	C
Northbound								
Southbound								
L	587	1257	0.67	0.47	21.0	C		
LTR	3142	6733	0.68	0.47	16.5	B	17.2	B

Intersection Delay = 29.3 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		529	128	174	248					379	1973	113
% Heavy Veh		9	9	5	5					6	6	6
PHF		0.87	0.87	0.93	0.93					0.97	0.97	0.97
PK 15 Vol		152	37	47	67					98	509	29
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0
Adj Flow		755		187	267					391	2150	
%InSharedLn										0		
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.195			0.000						0.054	
Peds	Bikes	250	0					50			200	0
Buses		0		0	0					0	0	
%InProtPhase					0.0							

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		4		4	4					4	4	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		3.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.5			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/12/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2012 No Build
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	326	4	562	6	9	6	452	218	6	4	1104	154
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P	P	
Thru	P				Thru	P	P	
Right	P				Right	P	P	
Peds					Peds		X	
WB Left	P				SB Left		P	
Thru	P				Thru		P	
Right	P				Right		P	
Peds	X				Peds		X	
NB Right					EB Right	P		
SB Right					WB Right			
Green	22.0					13.0	40.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	304	1188	1.13	0.26	124.3	F		
T	409	1673	0.01	0.24	25.8	C	80.0-	E
R	609	1371	0.97	0.44	54.7	D		
Westbound								
LT	904	3700	0.02	0.24	25.8	C	25.9	C
R	420	1718	0.02	0.24	25.9	C		
Northbound								
L	450	1487	1.08	0.66	82.2	F		
TR	1025	1591	0.23	0.64	3.6	A	56.2	E
Southbound								
LTR	1422	3200	1.02	0.44	50.2	D	50.2	D

Intersection Delay = 60.3 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/12/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 No Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	326	4	562	6	9	6	452	218	6	4	1104	154
% Heavy Veh	6	6	6	0	0	0	13	13	13	2	2	2
PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.93	0.93	0.93	0.87	0.87	0.87
PK 15 Vol	86	1	148	2	3	2	122	59	2	1	317	44
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	343	4	592		17	7	486	240			1451	
%InSharedLn												
Prop LTs	1.000	0.000			0.412		1.000	0.000			0.003	
Prop RTs		0.000	1.000		0.000	1.000		0.025			0.122	
Peds Bikes	0				50	0		25	0		50	0
Buses	0	0	0		0	0	0	0			0	
%InProtPhase							0.0		0.0			

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	4	4			4	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	3.0	2.0	2.0		2.0	2.0	3.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: FDR Drive N SR

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Volume	385	21	211	9	10	6	340	522	29			
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left		P	P
Thru		P			Thru	P	P	P
Right		P			Right	P	P	P
Peds	X				Peds		X	
WB Left	P	P			SB Left			
Thru	P	P			Thru			
Right	P	P			Right			
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	24.0				19.0	8.0	13.0
Yellow	3.0	3.0				3.0	0.0	3.0
All Red	2.0	2.0				2.0	0.0	2.0

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	238	891	0.93	0.27	75.4	E		
LTR	238	894	0.92	0.27	72.9	E	63.8	E
R	315	1182	0.73	0.27	43.7	D		
Westbound								
L	389	1841	0.03	0.39	17.5	B		
TR	693	1781	0.03	0.39	17.0	B	17.2	B
Northbound								
L	398	1236	0.96	0.32	56.5	E		
TR	637	1273	0.97	0.50	51.6	D	53.5	D
Southbound								

Intersection Delay = 56.9 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive N SR

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	385	21	211	9	10	6	340	522	29			
% Heavy Veh	16	16	16	0	0	0	27	27	27			
PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.89	0.89			
PK 15 Vol	105	6	57	3	3	2	96	147	8			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900	1900	1900	1900		1900	1900				
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			
Adj Flow	222	219	229	10	18		382	620				
%InSharedLn	47		0									
Prop LTs	1.000	0.897		1.000	0.000			0.000				
Prop RTs		0.000	1.000		0.389			0.053				
Peds Bikes		100			80	0		80	0		0	
Buses	0	0	6	0	0		0	0				
%InProtPhase				0.0					0.0			
Duration	0.25		Area Type: CBD or Similar									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Arriv. Type	3	3	3	3	3		5	3				
Unit Ext.	3.0	3.0	3.0	3.0	3.0		3.0	3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0	2.0	2.0	2.0		0.0	2.0				
Ext of g	2.0	2.0	2.0	2.0	2.0		8.0	2.0				
Ped Min g		3.9			3.7			3.7			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: FDR Drive S/ Avenue C

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Volume				9	10	6				100	266	84
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left		P	
Thru		P			Thru	P		
Right		P			Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		24.0				19.0	24.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				10.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	491	1841	0.02	0.27	24.4	C		
TR	458	1718	0.04	0.27	24.6	C	24.5	C
Northbound								
Southbound								
L	364	1366	0.29	0.27	28.2	C		
TR	562	2663	0.65	0.21	38.2	D	36.0	D

Intersection Delay = 35.3 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	NS
Agency/Co.:	STV Incorporated
Date Performed:	12/09/08
Analysis Time Period:	7:45 - 8:45 AM
Intersection:	23rd St and FDR Dr S/ Ave C
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2012 Build

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive S/ Avenue C

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				9	10	6				100	266	84
% Heavy Veh				0	0	0				11	11	11
PHF				0.89	0.89	0.89				0.96	0.96	0.96
PK 15 Vol				3	3	2				26	69	22
Hi Ln Vol												
% Grade					0						0	
Ideal Sat				1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	0	0		1	1	0	0	0	0	1	2	0
LGConfig					L	TR					L	TR	
Lane Width				16.0	16.0					10.0	10.5		
RTOR Vol						0						0	
Adj Flow				10	18					104	365		
%InSharedLn													
Prop LTs						0.000						0.000	
Prop RTs					0.389						0.241		
Peds Bikes	100				80	0	80				25	0	
Buses				0	0					0	0		
%InProtPhase													

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet				0.0	0.0					0.0	0.0	
Arriv. Type				3	3					3	3	
Unit Ext.				3.0	3.0					3.0	3.0	
I Factor					1.000						1.000	
Lost Time				2.0	2.0					2.0	2.0	
Ext of g				2.0	2.0					2.0	2.0	
Ped Min g		3.9			3.7			3.7			3.4	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	164	503			391	114	182	1204	186			
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	20.0	7.0				36.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	8.0				8.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	742	2368	0.93	0.36	47.3	D	47.3	D
Westbound								
TR	638	2873	0.83	0.22	45.6	D	45.6	D
Northbound								
LTR	1794	4486	0.91	0.40	34.2	C	34.2	C
Southbound								

Intersection Delay = 39.4 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	164	503			391	114	182	1204	186			
% Heavy Veh	20	20			44	44	21	21	21			
PHF	0.97	0.97			0.95	0.95	0.96	0.96	0.96			
PK 15 Vol	42	130			103	30	47	314	48			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist			X				X		X			
NumPark			5				3		3			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			
Adj Flow		688			532			1638				
%InSharedLn												
Prop LTs		0.246			0.000			0.116				
Prop RTs		0.000			0.226			0.118				
Peds Bikes					50	0		100	0		0	
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: CBD or Similar								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					3.5			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Volume		445	181	184	389					222	1513	210
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left		P			SB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		35.0				45.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1223	3145	0.64	0.39	24.9	C	24.9	C
Westbound								
DefL	191	492	1.04	0.39	102.6	F		
T	454	1167	0.92	0.39	52.6	D	68.7	E
Northbound								
Southbound								
L	555	1110	0.45	0.50	17.1	B		
TR	2285	4570	0.85	0.50	23.6	C	22.9	C

Intersection Delay = 31.2 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		445	181	184	389					222	1513	210
%Heavy Veh		27	27	21	21					20	20	20
PHF		0.80	0.80	0.93	0.93					0.89	0.89	0.89
PK 15 Vol		139	57	49	105					62	425	59
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist						X				X		X
NumPark						3				0		0
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0
Adj Flow		782		198	418					249	1936	
%InSharedLn												
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.289			0.000						0.122	
Peds Bikes		120	0					40			160	0
Buses		10		0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		3		3	3					3	3	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		2.0		2.0	2.0					2.0	2.0	
Ped Min g		4.0						3.5			4.3	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Volume					15	8	319	1718	23			
Lane Width					12.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru					Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	404	1174	0.07	0.34	20.2	C	20.2	C
Northbound								
LTR	2695	4950	0.88	0.54	22.4	C	22.4	C
Southbound								

Intersection Delay = 22.3 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					15	8	319	1718	23			
% Heavy Veh					19	19	11	11	11			
PHF					0.79	0.79	0.87	0.87	0.87			
PK 15 Vol					5	3	92	494	7			
Hi Ln Vol												
% Grade					0			0				
Ideal Sat					1900			1900				
ParkExist				X		X	X		X			
NumPark				3		3	3		3			
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Lane Width					12.0			10.0				
RTOR Vol						0			0			
Adj Flow					29			2368				
%InSharedLn												
Prop LTs					0.000			0.155				
Prop RTs					0.345			0.011				
Peds Bikes					50	0		100	0		0	
Buses					0			10				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0				
Arriv. Type					3			3				
Unit Ext.					3.0			3.0				
I Factor					1.000			1.000				
Lost Time					2.0			2.0				
Ext of g					2.0			2.0				
Ped Min g					3.5			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Volume				123	212						2100	147
Lane Width					16.0						10.0	
RTOR Vol												0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LT	525	1524	0.75	0.34	35.6	D	35.6	D
Northbound								
Southbound								
TR	3178	5837	0.78	0.54	18.1	B	18.1	B

Intersection Delay = 20.5 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	NS
Agency/Co.:	STV Incorporated
Date Performed:	12/09/08
Analysis Time Period:	7:45 - 8:45 AM
Intersection:	29th St and 2nd Ave
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2012 Build

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				123	212						2100	147
% Heavy Veh				7	7						19	19
PHF				0.85	0.85						0.91	0.91
PK 15 Vol				36	62						577	40
Hi Ln Vol												
% Grade					0						0	
Ideal Sat					1900						1900	
ParkExist				X						X		
NumPark				3						3		
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Lane Width					16.0						10.0	
RTOR Vol												0
Adj Flow					394						2470	
%InSharedLn												
Prop LTs					0.368						0.000	
Prop RTs				0.000						0.066		
Peds Bikes	100									150	0	
Buses					0						0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0						0.0	
Arriv. Type					3						3	
Unit Ext.					3.0						3.0	
I Factor					1.000						1.000	
Lost Time					2.0						2.0	
Ext of g					2.0						2.0	
Ped Min g		3.9									4.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Volume	394	305				50		1563	163			
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left			
Thru	P				Thru	P		
Right					Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru					Thru			
Right	P				Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	29.0					45.0		
Yellow	3.0					3.0		
All Red	2.0					8.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	731	2269	0.62	0.32	29.8	C		
T	447	1388	0.79	0.32	40.7	D	34.5	C
Westbound								
							24.3	C
R	253	786	0.22	0.32	24.3	C		
Northbound								
TR	2467	4934	0.79	0.50	21.1	C	21.1	C
Southbound								

Intersection Delay = 25.0 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	394	305				50		1563	163			
% Heavy Veh	9	9				62		11	11			
PHF	0.87	0.87				0.90		0.89	0.89			
PK 15 Vol	113	88				14		439	46			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900				1900		1900				
ParkExist	X		X				X		X			
NumPark	3		3				3		3			
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			
Adj Flow	453	351				56		1939				
%InSharedLn												
Prop LTs		0.000						0.000				
Prop RTs	0.000					1.000	0.094					
Peds Bikes				150	0		100		0			
Buses	0	0				0		0				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0				0.0		0.0				
Arriv. Type	3	3				3		3				
Unit Ext.	3.0	3.0				3.0		3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0				2.0		2.0				
Ext of g	2.0	2.0				2.0		2.0				
Ped Min g					4.2			3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Volume		267	89							432	2157	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left					SB Left	P		
Thru					Thru	P		
Right					Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	494	1435	0.65	0.34	31.5	C	29.8	C
R	322	934	0.33	0.34	24.6	C		
Westbound								
Northbound								
Southbound								
LT	3246	5962	0.86	0.54	20.7	C	20.7	C

Intersection Delay = 21.9 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		267	89							432	2157	
% Heavy Veh		9	9							15	15	
PHF		0.83	0.83							0.93	0.93	
PK 15 Vol		80	27							116	580	
Hi Ln Vol												
% Grade		0									0	
Ideal Sat		1900	1900								1900	
ParkExist	X		X							X		
NumPark	3		3							3		
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									
Adj Flow		322	107								2784	
%InSharedLn												
Prop LTs		0.000									0.167	
Prop RTs		0.000	1.000								0.000	
Peds Bikes		100	0					125				
Buses		0	0								15	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0	0.0								0.0	
Arriv. Type		3	3								3	
Unit Ext.		3.0	3.0								3.0	
I Factor		1.000									1.000	
Lost Time		2.0	2.0								2.0	
Ext of g		2.0	2.0								2.0	
Ped Min g		3.9						4.0				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 1st Ave
Area Type: All other areas
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	97	598			482	145	137	1219	223			
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	P	P			NB Left	P		
	Thru	P	P			Thru	P		
	Right					Right	P		
	Peds		X			Peds	X		
WB	Left					SB Left			
	Thru		P			Thru			
	Right		P			Right			
	Peds		X			Peds	X		
NB	Right					EB Right			
SB	Right					WB Right			
Green		7.0	23.0			39.0			
Yellow		3.0	3.0			3.0			
All Red		2.0	8.0			2.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	900	3034	0.93	0.39	43.5	D	43.5	D
Westbound								
TR	1063	4160	0.68	0.26	33.7	C	33.7	C
Northbound								
LTR	2347	5417	0.73	0.43	23.2	C	23.2	C
Southbound								

Intersection Delay = 30.7 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and 1st Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	97	598			482	145	137	1219	223			
% Heavy Veh	10	10			6	6	13	13	13			
PHF	0.83	0.83			0.87	0.87	0.92	0.92	0.92			
PK 15 Vol	29	180			139	42	37	331	61			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist							X		X			
NumPark							3		3			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			
Adj Flow		837			721			1716				
%InSharedLn												
Prop LTs		0.140			0.000			0.087				
Prop RTs		0.000			0.232			0.141				
Peds	Bikes				200	0		100	0		0	
Buses		0			0			0				
%InProtPhase	50.0											

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 2nd Ave
Area Type: All other areas
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Volume		640	132	224	282					245	2363	86
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0

Duration 0:25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left	P	P			SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0	8.0				42.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	797	2760	1.05	0.29	78.5	E	78.5	E
Westbound								
DefL	286	1429	0.81	0.42	55.5	E		
T	687	1627	0.42	0.42	17.8	B	34.5	C
Northbound								
Southbound								
L	581	1244	0.48	0.47	16.2	B		
LTR	3126	6699	0.89	0.47	22.1	C	21.6	C

Intersection Delay = 33.9 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and 2nd Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		640	132	224	282					245	2363	86
% Heavy Veh		14	14	9	9					19	19	19
PHF		0.92	0.92	0.97	0.97					0.88	0.88	0.88
PK 15 Vol		174	36	58	73					70	671	24
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0
Adj Flow		839		231	291					278	2783	
%InSharedLn										0		
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.170			0.000						0.035	
Peds Bikes		250	0					50			200	0
Buses		0		0	0					0	0	
%InProtPhase				0.0								

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		4		4	4					4	4	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		3.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.5			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/12/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2012 Build
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	254	5	595	3	11	12	381	260	11	3	1142	182
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P	P	
Thru	P				Thru	P	P	
Right	P				Right	P	P	
Peds					Peds		X	
WB Left	P				SB Left		P	
Thru	P				Thru		P	
Right	P				Right		P	
Peds	X				Peds		X	
NB Right					EB Right	P		
SB Right					WB Right			
Green	22.0					13.0	40.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	276	1129	0.95	0.24	76.0	E		
T	398	1627	0.01	0.24	25.8	C	72.6	E
R	592	1333	1.04	0.44	71.5	E		
Westbound								
LT	507	2076	0.06	0.24	26.3	C	26.3	C
R	420	1718	0.06	0.24	26.4	C		
Northbound								
L	426	1541	1.00	0.64	62.4	E		
TR	1060	1645	0.29	0.64	7.7	A	39.7	D
Southbound								
LTR	1332	2996	1.05	0.44	63.5	E	63.5	E

Intersection Delay = 59.7 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/12/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	254	5	595	3	11	12	381	260	11	3	1142	182
% Heavy Veh	9	9	9	0	0	0	9	9	9	3	3	3
PHF	0.97	0.97	0.97	0.45	0.45	0.45	0.89	0.89	0.89	0.95	0.95	0.95
PK 15 Vol	65	2	153	2	6	7	107	73	3	1	301	48
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	262	5	613		31	27	428	304			1397	
%InSharedLn												
Prop LTs	1.000	0.000			0.226		1.000	0.000			0.002	
Prop RTs		0.000	1.000		0.000	1.000		0.039			0.137	
Peds Bikes		0			50	0		25	0		50	0
Buses	0	0	0		0	0	0	0			0	
%InProtPhase							0.0		0.0			
Duration	0.25		Area Type: All other areas									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	3	3			3	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: FDR Drive N SR

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Volume	301	20	343	4	9	4	290	408	18			
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		P			NB Left		P	P
Thru		P			Thru	P	P	P
Right		P			Right	P	P	P
Peds	X				Peds		X	
WB Left	P	P			SB Left			
Thru	P	P			Thru			
Right	P	P			Right			
Peds	X	X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	28.0				18.0	8.0	10.0
Yellow	3.0	3.0				3.0	0.0	3.0
All Red	2.0	2.0				2.0	0.0	2.0

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	284	914	0.79	0.31	47.9	D		
LTR	335	1076	0.67	0.31	37.4	D	40.3	D
R	381	1224	0.67	0.31	36.1	D		
Westbound								
L	443	1841	0.01	0.43	15.0	B		
TR	780	1799	0.02	0.43	14.6	B	14.7	B
Northbound								
L	365	1428	0.91	0.26	54.5	D		
TR	675	1482	0.73	0.46	26.6	C	37.9	D
Southbound								

Intersection Delay = 38.7 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and FDR Dr N SR
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive N SR

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	301	20	343	4	9	4	290	408	18			
% Heavy Veh	12	12	12	0	0	0	10	10	10			
PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.87	0.87	0.87			
PK 15 Vol	80	5	91	1	3	1	83	117	5			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900	1900	1900	1900		1900	1900				
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	0	1	1	0	0	0	0
LGConfig	L	LTR	R	L	TR		L	TR				
Lane Width	10.5	10.5	11.0	16.0	16.0		11.0	11.0				
RTOR Vol			0			0			0			
Adj Flow	224	226	256	5	15		333	490				
%InSharedLn	30		30									
Prop LTs	1.000	0.425		1.000	0.000			0.000				
Prop RTs		0.485	1.000		0.333			0.043				
Peds Bikes		100			100	0		50	0		0	
Buses	0	0	6	0	0		0	0				
%InProtPhase				0.0					0.0			

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0		0.0	0.0				
Arriv. Type	3	3	3	3	3		5	3				
Unit Ext.	3.0	3.0	3.0	3.0	3.0		3.0	3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0	2.0	2.0	2.0		0.0	2.0				
Ext of g	2.0	2.0	2.0	2.0	2.0		5.0	2.0				
Ped Min g		3.9			3.9			3.5			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: FDR Drive S/ Avenue C

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Volume				4	9	4				68	265	232
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left		P	
Thru		P			Thru	P		
Right		P			Right	P		
Peds					Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		28.0				18.0	21.0	
Yellow		3.0				3.0	3.0	
All Red		2.0				10.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	573	1841	0.01	0.31	21.4	C		
TR	573	1841	0.03	0.31	21.6	C	21.6	C
Northbound								
Southbound								
L	340	1458	0.22	0.23	29.4	C		
TR	534	2669	1.05	0.20	87.8	F	80.8	F

Intersection Delay = 79.0 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and FDR Dr S/ Ave C
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: FDR Drive S/ Avenue C

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				4	9	4				68	265	232
% Heavy Veh				0	0	0				4	4	4
PHF				0.87	0.87	0.87				0.89	0.89	0.89
PK 15 Vol				1	3	1				19	74	65
Hi Ln Vol												
% Grade					0						0	
Ideal Sat				1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	0	0	1	1	0	0	0	0	1	2	0
LGConfig				L	TR					L	TR	
Lane Width				16.0	16.0					10.0	10.5	
RTOR Vol						0						0
Adj Flow				5	15					76	559	
%InSharedLn												
Prop LTs					0.000						0.000	
Prop RTs					0.333						0.467	
Peds Bikes	100				100		50				50	0
Buses				0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet				0.0	0.0					0.0	0.0	
Arriv. Type				3	3					3	3	
Unit Ext.				3.0	3.0					3.0	3.0	
I Factor					1.000						1.000	
Lost Time				2.0	2.0					2.0	2.0	
Ext of g				2.0	2.0					2.0	2.0	
Ped Min g		3.9			3.9			3.5			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	136	502			404	205	235	1259	163			
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	P	P			NB Left	P		
	Thru	P	P			Thru	P		
	Right					Right	P		
	Peds	X				Peds	X		
WB	Left					SB Left			
	Thru	P				Thru			
	Right	P				Right			
	Peds	X				Peds	X		
NB	Right					EB Right			
SB	Right					WB Right			
Green		20.0	7.0				36.0		
Yellow		3.0	3.0				3.0		
All Red		2.0	8.0				8.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	751	2465	0.89	0.36	41.7	D	41.7	D
Westbound								
TR	662	2979	1.10	0.22	98.8	F	98.8	F
Northbound								
LTR	1887	4718	0.90	0.40	32.4	C	32.4	C
Southbound								

Intersection Delay = 50.0 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	NS
Agency/Co.:	STV Incorporated
Date Performed:	12/09/08
Analysis Time Period:	5:00 - 6:00 PM
Intersection:	23rd St and 1st Ave
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2012 Build

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	136	502			404	205	235	1259	163			
% Heavy Veh	14	14			26	26	14	14	14			
PHF	0.96	0.96			0.84	0.84	0.98	0.98	0.98			
PK 15 Vol	35	131			120	61	60	321	42			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist			X				X		X			
NumPark			5				5		5			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.5			10.0			10.0				
RTOR Vol						0			0			
Adj Flow		665			725			1691				
%InSharedLn												
Prop LTs		0.214			0.000			0.142				
Prop RTs		0.000			0.337			0.098				
Peds Bikes					200	0		200	0		0	
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: CBD or Similar								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			4.6			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street

Inter.: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Volume		427	129	233	405					211	1918	236
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
WB Left		P			SB Left	P		
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		35.0				45.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	1313	3375	0.46	0.39	21.6	C	21.6	C
Westbound								
DefL	233	598	1.08	0.39	108.5	F		
T	512	1317	0.85	0.39	41.2	D	65.8	E
Northbound								
Southbound								
L	600	1199	0.35	0.50	15.3	B		
TR	2564	5127	0.85	0.50	23.3	C	22.6	C

Intersection Delay = 30.5 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 23rd St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 23rd Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		427	129	233	405					211	1918	236
% Heavy Veh		17	17	6	6					7	7	7
PHF		0.93	0.93	0.93	0.93					0.99	0.99	0.99
PK 15 Vol		115	35	63	109					53	484	60
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist						X				X		X
NumPark						5				0		0
No. Lanes	0	3	0	0	2	0	0	0	0	1	4	0
LGConfig		TR		DefL	T					L	TR	
Lane Width		10.0		10.0	10.0					10.0	10.0	
RTOR Vol			0									0
Adj Flow		598		251	435					213	2175	
%InSharedLn												
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs	0.232				0.000					0.109		
Peds Bikes	250	0					100			200	0	
Buses		11		0	0					0	0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		3		3	3					3	3	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		2.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.9			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Volume					16	0	255	1639	16			
Lane Width					12.0			10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left	P		
Thru					Thru	P		
Right					Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right		P			Right			
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
TR	470	1365	0.04	0.34	19.7	B	19.7	B
Northbound								
LTR	2801	5144	0.71	0.54	16.8	B	16.8	B
Southbound								

Intersection Delay = 16.8 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 29th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume					16	0	255	1639	16			
% Heavy Veh					9	9	7	7	7			
PHF					0.92	0.92	0.96	0.96	0.96			
PK 15 Vol					4	0	66	427	4			
Hi Ln Vol												
% Grade					0			0				
Ideal Sat					1900			1900				
ParkExist				X		X	X		X			
NumPark				3		3	3		3			
No. Lanes	0	0	0	0	1	0	0	4	0	0	0	0
LGConfig					TR			LTR				
Lane Width					12.0			10.0				
RTOR Vol						0			0			
Adj Flow					17			1990				
%InSharedLn												
Prop LTs					0.000			0.134				
Prop RTs				0.000			0.009					
Peds Bikes				50	0		100	0		0		
Buses					0			10				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0			0.0				
Arriv. Type					3			3				
Unit Ext.					3.0			3.0				
I Factor					1.000			1.000				
Lost Time					2.0			2.0				
Ext of g					2.0			2.0				
Ped Min g					3.5			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street

Inter.: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Volume				86	185						2180	217
Lane Width					16.0						10.0	
RTOR Vol												0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru			
Right					Right			
Peds		X			Peds	X		
WB Left		P			SB Left			
Thru		P			Thru	P		
Right					Right	P		
Peds		X			Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		31.0				49.0		
Yellow		3.0				3.0		
All Red		2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
LT	513	1488	0.57	0.34	28.7	C	28.7	C
Northbound								
Southbound								
TR	3564	6547	0.72	0.54	16.6	B	16.6	B

Intersection Delay = 17.8 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 29th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 29th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume				86	185						2180	217
% Heavy Veh				6	6						6	6
PHF				0.92	0.92						0.94	0.94
PK 15 Vol				23	50						580	58
Hi Ln Vol												
% Grade					0						0	
Ideal Sat					1900						1900	
ParkExist				X		X				X		
NumPark				5		5				5		
No. Lanes	0	0	0	0	1	0	0	0	0	0	5	0
LGConfig					LT						TR	
Lane Width					16.0						10.0	
RTOR Vol												0
Adj Flow					294						2550	
%InSharedLn												
Prop LTs					0.316						0.000	
Prop RTs					0.000						0.091	
Peds Bikes	100									50		0
Buses					0						0	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet					0.0						0.0	
Arriv. Type					3						3	
Unit Ext.					3.0						3.0	
I Factor					1.000						1.000	
Lost Time					2.0						2.0	
Ext of g					2.0						2.0	
Ped Min g		3.9									3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Volume	397	303				75		1550	89			
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left			
Thru	P				Thru	P		
Right					Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru					Thru			
Right	P				Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	29.0				45.0			
Yellow	3.0				3.0			
All Red	2.0				8.0			

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	725	2250	0.58	0.32	28.8	C		
T	469	1455	0.69	0.32	34.5	C	31.3	C
Westbound								
							24.2	C
R	334	1038	0.25	0.32	24.2	C		
Northbound								
TR	2585	5170	0.66	0.50	18.1	B	18.1	B
Southbound								

Intersection Delay = 22.2 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 30th St and 1st Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	397	303				75		1550	89			
% Heavy Veh	4	4				16		7	7			
PHF	0.94	0.94				0.90		0.96	0.96			
PK 15 Vol	106	81				21		404	23			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat	1900	1900				1900		1900				
ParkExist	X		X				X		X			
NumPark	3		3				3		3			
No. Lanes	2	1	0	0	0	1	0	4	0	0	0	0
LGConfig	L	T				R		TR				
Lane Width	11.0	12.0				12.0		10.0				
RTOR Vol						0			0			
Adj Flow	422	322				83		1708				
%InSharedLn												
Prop LTs		0.000						0.000				
Prop RTs	0.000					1.000	0.054					
Peds Bikes				200	0		100	0				
Buses	0	0				0		0				
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0				0.0		0.0				
Arriv. Type	3	3				3		3				
Unit Ext.	3.0	3.0				3.0		3.0				
I Factor		1.000			1.000			1.000				
Lost Time	2.0	2.0				2.0		2.0				
Ext of g	2.0	2.0				2.0		2.0				
Ped Min g					4.6			3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/08/09
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street

Inter.: 30th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Volume		258	146							442	2250	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left					SB Left	P		
Thru					Thru	P		
Right					Right			
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	31.0					49.0		
Yellow	3.0					3.0		
All Red	2.0					2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
T	512	1487	0.55	0.34	28.0	C	28.3	C
R	318	922	0.50	0.34	28.9	C		
Westbound								
Northbound								
Southbound								
LT	3502	6433	0.82	0.54	19.1	B	19.1	B

Intersection Delay = 20.3 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst:	NS
Agency/Co.:	STV Incorporated
Date Performed:	12/08/09
Analysis Time Period:	5:00 - 6:00 PM
Intersection:	30th St and 2nd Ave
Area Type:	CBD or Similar
Jurisdiction:	
Analysis Year:	2012 Build

Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 30th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		258	146							442	2250	
% Heavy Veh		4	4							6	6	
PHF		0.92	0.92							0.94	0.94	
PK 15 Vol		70	40							118	598	
Hi Ln Vol												
% Grade		0									0	
Ideal Sat		1900	1900								1900	
ParkExist	X		X							X		
NumPark	5		5							5		
No. Lanes	0	1	1	0	0	0	0	0	0	0	5	0
LGConfig		T	R								LT	
Lane Width		13.0	8.0								10.0	
RTOR Vol			0									
Adj Flow		280	159								2864	
%InSharedLn												
Prop LTs		0.000									0.164	
Prop RTs		0.000	1.000								0.000	
Peds Bikes		150	0					100				
Buses		0	0								15	
%InProtPhase												

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0	0.0								0.0	
Arriv. Type		3	3								3	
Unit Ext.		3.0	3.0								3.0	
I Factor		1.000									1.000	
Lost Time		2.0	2.0								2.0	
Ext of g		2.0	2.0								2.0	
Ped Min g		4.2						3.9				

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 1st Ave
Area Type: All other areas
Jurisd:
Year : 2012 Build
N/S St: First Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Volume	103	641			500	119	165	1448	255			
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	P	P			NB Left	P		
	Thru	P	P			Thru	P		
	Right					Right	P		
	Peds		X			Peds	X		
WB	Left					SB Left			
	Thru		P			Thru			
	Right		P			Right			
	Peds		X			Peds	X		
NB	Right					EB Right			
SB	Right					WB Right			
Green		7.0	23.0				39.0		
Yellow		3.0	3.0				3.0		
All Red		2.0	8.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LT	783	3102	1.05	0.39	75.1	E	75.1	E
Westbound								
TR	1050	4110	0.62	0.26	32.4	C	32.4	C
Northbound								
LTR	2446	5644	0.83	0.43	26.0	C	26.0	C
Southbound								

Intersection Delay = 38.8 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and 1st Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: First Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	103	641			500	119	165	1448	255			
% Heavy Veh	7	7			9	9	8	8	8			
PHF	0.90	0.90			0.95	0.95	0.92	0.92	0.92			
PK 15 Vol	29	178			132	31	45	393	69			
Hi Ln Vol												
% Grade		0			0			0				
Ideal Sat		1900			1900			1900				
ParkExist							X		X			
NumPark							5		5			
No. Lanes	0	2	0	0	3	0	0	4	0	0	0	0
LGConfig		LT			TR			LTR				
Lane Width		10.0			10.0			10.5				
RTOR Vol						0			0			
Adj Flow		826			651			2030				
%InSharedLn												
Prop LTs		0.138			0.000			0.088				
Prop RTs		0.000			0.192			0.136				
Peds Bikes					200	0		100	0		0	
Buses		0			0			0				
%InProtPhase	0.0											
Duration	0.25			Area Type: All other areas								

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0			0.0			0.0				
Arriv. Type		3			3			3				
Unit Ext.		3.0			3.0			3.0				
I Factor		1.000			1.000			1.000				
Lost Time		2.0			2.0			2.0				
Ext of g		2.0			2.0			2.0				
Ped Min g					4.6			3.9			3.2	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 2nd Ave
Area Type: CBD or Similar
Jurisd:
Year : 2012 Build
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Volume		529	130	187	250					379	2007	113
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: CBD or Similar

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left	P	P			SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0	8.0				42.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	740	2562	1.02	0.29	70.8	E	70.8	E
Westbound								
DefL	270	1317	0.74	0.42	49.6	D		
T	642	1520	0.42	0.42	17.9	B	31.5	C
Northbound								
Southbound								
L	587	1257	0.67	0.47	21.0	C		
LTR	3143	6735	0.70	0.47	16.7	B	17.4	B

Intersection Delay = 29.8 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and 2nd Ave
Area Type: CBD or Similar
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		529	130	187	250					379	2007	113
% Heavy Veh		9	9	5	5					6	6	6
PHF		0.87	0.87	0.93	0.93					0.97	0.97	0.97
PK 15 Vol		152	37	50	67					98	517	29
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0
Adj Flow		757		201	269					391	2185	
%InSharedLn										0		
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs	0.197				0.000					0.053		
Peds Bikes	250	0					50			200	0	
Buses		0		0	0					0	0	
%InProtPhase				0.0								

Duration 0.25 Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		4		4	4					4	4	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		3.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.5			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/12/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2012 Build
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	330	4	562	6	9	6	452	218	6	4	1104	159
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P	P	
Thru	P				Thru	P	P	
Right	P				Right	P	P	
Peds					Peds		X	
WB Left	P				SB Left		P	
Thru	P				Thru		P	
Right	P				Right		P	
Peds	X				Peds		X	
NB Right					EB Right	P		
SB Right					WB Right			
Green	22.0					13.0	40.0	
Yellow	3.0					3.0	3.0	
All Red	2.0					2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	304	1188	1.14	0.26	129.0	F		
T	409	1673	0.01	0.24	25.8	C	81.9	F
R	609	1371	0.97	0.44	54.7	D		
Westbound								
LT	904	3700	0.02	0.24	25.8	C	25.9	C
R	420	1718	0.02	0.24	25.9	C		
Northbound								
L	450	1487	1.08	0.66	82.3	F		
TR	1025	1591	0.23	0.64	3.6	A	56.3	E
Southbound								
LTR	1421	3197	1.03	0.44	51.6	D	51.6	D

Intersection Delay = 61.6 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/12/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	330	4	562	6	9	6	452	218	6	4	1104	159
% Heavy Veh	6	6	6	0	0	0	13	13	13	2	2	2
PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.93	0.93	0.93	0.87	0.87	0.87
PK 15 Vol	87	1	148	2	3	2	122	59	2	1	317	46
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	347	4	592		17	7	486	240			1457	
%InSharedLn												
Prop LTs	1.000	0.000			0.412		1.000	0.000			0.003	
Prop RTs		0.000	1.000		0.000	1.000		0.025			0.126	
Peds Bikes	0				50	0		25	0		50	0
Buses	0	0	0		0	0	0	0			0	
%InProtPhase							0.0		0.0			

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	4	4			4	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	3.0	2.0	2.0		2.0	2.0	3.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/12/2008
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2012 Build Mitigation
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	254	5	595	3	11	12	381	260	11	3	1142	182
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left	P	P	
Thru	P	P			Thru	P	P	
Right	P	P			Right	P	P	
Peds					Peds		X	
WB Left		P			SB Left		P	
Thru		P			Thru		P	
Right		P			Right		P	
Peds		X			Peds		X	
NB Right					EB Right	P		
SB Right					WB Right			
Green	7.0	14.0				14.0	41.0	
Yellow	0.0	3.0				3.0	3.0	
All Red	0.0	2.0				1.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	325	1410	0.81	0.29	49.3	D		
T	380	1627	0.01	0.23	26.6	C	64.6	E
R	592	1333	1.04	0.44	71.5	E		
Westbound								
LT	320	2054	0.10	0.16	33.2	C	33.3	C
R	257	1654	0.11	0.16	33.4	C		
Northbound								
L	448	1541	0.96	0.67	49.5	D		
TR	1078	1645	0.28	0.66	7.2	A	31.9	C
Southbound								
LTR	1365	2996	1.02	0.46	55.0-	D	55.0-	D

Intersection Delay = 51.8 (sec/veh) Intersection LOS = D

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/12/2008
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build Mitigation
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	254	5	595	3	11	12	381	260	11	3	1142	182
% Heavy Veh	9	9	9	0	0	0	9	9	9	3	3	3
PHF	0.97	0.97	0.97	0.45	0.45	0.45	0.89	0.89	0.89	0.95	0.95	0.95
PK 15 Vol	65	2	153	2	6	7	107	73	3	1	301	48
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	1	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	262	5	613		31	27	428	304			1397	
%InSharedLn												
Prop LTs	1.000	0.000			0.226		1.000	0.000			0.002	
Prop RTs		0.000	1.000		0.000	1.000		0.039			0.137	
Peds	0				50	0		25	0		50	0
Bikes												
Buses	0	0	0		0	0	0	0			0	
%InProtPhase	0.0						0.0		0.0			

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	3	3			3	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/09/08
Period: 7:45 - 8:45 AM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and 2nd Ave
Area Type: All other areas
Jurisd:
Year : 2012 Build Mitigation
N/S St: Second Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Volume		640	132	224	282					245	2363	86
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right			
Peds	X				Peds	X		
WB Left	P	P			SB Left	P		
Thru	P	P			Thru	P		
Right					Right	P		
Peds	X				Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	25.0	9.0				41.0		
Yellow	3.0	3.0				3.0		
All Red	2.0	2.0				2.0		

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	797	2760	1.05	0.29	78.5	E	78.5	E
Westbound								
DefL	302	1429	0.76	0.43	50.1	D		
T	705	1627	0.41	0.43	16.9	B	31.6	C
Northbound								
Southbound								
L	566	1243	0.49	0.46	17.3	B		
LTR	3052	6699	0.91	0.46	24.3	C	23.7	C

Intersection Delay = 35.0- (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/09/08
Analysis Time Period: 7:45 - 8:45 AM
Intersection: 34th St and 2nd Ave
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build Mitigation
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: Second Avenue

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume		640	132	224	282					245	2363	86
% Heavy Veh		14	14	9	9					19	19	19
PHF		0.92	0.92	0.97	0.97					0.88	0.88	0.88
PK 15 Vol		174	36	58	73					70	671	24
Hi Ln Vol												
% Grade		0			0						0	
Ideal Sat		1900		1900	1900					1900	1900	
ParkExist												
NumPark												
No. Lanes	0	2	0	0	2	0	0	0	0	1	5	0
LGConfig		TR		DefL	T					L	LTR	
Lane Width		10.0		9.5	10.0					8.0	10.0	
RTOR Vol			0									0
Adj Flow		839		231	291					278	2783	
%InSharedLn										0		
Prop LTs		0.000		1.000	0.000						0.000	
Prop RTs		0.170			0.000						0.035	
Peds Bikes		250	0					50			200	0
Buses		0		0	0					0	0	
%InProtPhase				0.0								

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0	0.0					0.0	0.0	
Arriv. Type		4		4	4					4	4	
Unit Ext.		3.0		3.0	3.0					3.0	3.0	
I Factor		1.000			1.000						1.000	
Lost Time		2.0		2.0	2.0					2.0	2.0	
Ext of g		3.0		2.0	2.0					2.0	2.0	
Ped Min g		4.9						3.5			4.6	

HCS+: Signalized Intersections Release 5.3

Analyst: NS
Agency: STV Incorporated
Date: 12/12/2008
Period: 5:00 - 6:00 PM
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street

Inter.: 34th St and FDR Dr SR
Area Type: All other areas
Jurisd:
Year : 2012 Build Mitigation
N/S St: FDR Drive Service Road

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Volume	330	4	562	6	9	6	452	218	6	4	1104	159
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P	P			NB Left	P	P	
Thru	P	P			Thru	P	P	
Right	P	P			Right	P	P	
Peds					Peds		X	
WB Left		P			SB Left		P	
Thru		P			Thru		P	
Right		P			Right		P	
Peds		X			Peds		X	
NB Right					EB Right	P		
SB Right					WB Right			
Green	6.0	16.0				13.0	40.0	
Yellow		3.0				3.0	3.0	
All Red	0.0	2.0				2.0	2.0	

Cycle Length: 90.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
DefL	353	1160	0.98	0.31	74.7	E		
T	409	1673	0.01	0.24	25.8	C	61.9	E
R	609	1371	0.97	0.44	54.7	D		
Westbound								
LT	651	3664	0.03	0.18	30.6	C	30.7	C
R	298	1676	0.02	0.18	30.7	C		
Northbound								
L	450	1487	1.08	0.66	82.3	F		
TR	1025	1591	0.23	0.64	3.6	A	56.3	E
Southbound								
LTR	1421	3197	1.03	0.44	51.6	D	51.6	D

Intersection Delay = 55.6 (sec/veh) Intersection LOS = E

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: NS
Agency/Co.: STV Incorporated
Date Performed: 12/12/2008
Analysis Time Period: 5:00 - 6:00 PM
Intersection: 34th St and FDR Dr SR
Area Type: All other areas
Jurisdiction:
Analysis Year: 2012 Build Mitigation
Project ID: Former Bellevue Psych Building Redevelopment
E/W St: 34th Street N/S St: FDR Drive Service Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	330	4	562	6	9	6	452	218	6	4	1104	159
% Heavy Veh	6	6	6	0	0	0	13	13	13	2	2	2
PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.93	0.93	0.93	0.87	0.87	0.87
PK 15 Vol	87	1	148	2	3	2	122	59	2	1	317	46
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900		1900	1900	1900	1900			1900	
ParkExist												
NumPark												
No. Lanes	0	2	1	0	2	1	1	1	0	0	2	0
LGConfig	DefL	T	R		LT	R	L	TR			LTR	
Lane Width	10.0	10.0	9.0		16.0	16.0	10.0	10.5			9.5	
RTOR Vol			0			0			0			0
Adj Flow	347	4	592		17	7	486	240			1457	
%InSharedLn												
Prop LTs	1.000	0.000			0.412		1.000	0.000			0.003	
Prop RTs		0.000	1.000		0.000	1.000		0.025			0.126	
Peds Bikes	0				50	0		25	0		50	0
Buses	0	0	0		0	0	0	0			0	
%InProtPhase	0.0						0.0		0.0			
Duration	0.25		Area Type: All other areas									

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0		0.0	0.0	0.0	0.0			0.0	
Arriv. Type	3	3	3		3	3	4	4			4	
Unit Ext.	3.0	3.0	3.0		3.0	3.0	3.0	3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0		2.0	2.0	2.0	2.0			2.0	
Ext of g	3.0	2.0	2.0		2.0	2.0	3.0	2.0			2.0	
Ped Min g		3.2			3.5			3.4			3.5	

Appendix C-5

No Build Projects Trip Generation

Former Bellevue Psych Building Redevelopment
No Build Projects Trip Generation Rates and Assumptions

Land Use	Residential	
Size/Units	130 DUs	90 DUs
Trip Generation	(1) 8.075 per DU	
Temporal Distribution	(1)	
AM	9.1%	
PM	10.7%	
Modal Splits	(2)	(3)
Auto	8.0%	7.0%
Taxi	9.0%	6.0%
Subway	23.0%	41.0%
Commuter Rail	2.0%	1.0%
Bus	12.0%	16.0%
Walk	44.0%	28.0%
Other	2.0%	1.0%
Directional Distribution	(4) In	Out
AM	15%	85%
PM	70%	30%
Vehicle Occupancy	(5)	
Auto	1.20	
Taxi	1.40	
Truck Trip Generation	(5) 0.03 per DU	
AM	12.2%	
PM	1.0%	
AM/PM	In 50%	Out 50%

Notes:
(1) *CEQR Technical Manual* (2001)
(2) 2000 Census for New York County Tract 70 journey-to-work data
(3) 2000 Census for New York County Tract 66 journey-to-work data
(4) Pushkarev & Zupan, *Urban Space for Pedestrians* (1975)
(5) First Avenue Properties SFEIS (2008)

Former Bellevue Psych Building Redevelopment
No Build Projects Person Trips by Mode

No Build Residential Dvelopments	Auto		Taxi		Subway		Rail		Bus		Walk		Total	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM PEAK HOUR														
305 E 33rd Street	1	7	1	7	3	19	0	2	2	10	6	36	14	81
E 25th Street btw First & Second Avenues	1	4	1	3	4	23	0	1	2	9	3	16	10	56
PM PEAK HOUR														
305 E 33rd Street	6	3	7	3	18	8	2	1	9	4	35	15	77	33
E 25th Street btw First & Second Avenues	4	2	3	1	22	10	1	0	9	4	15	7	54	23
Total	12	15	12	15	48	59	3	3	21	27	59	73	155	193

Former Bellevue Psych Building Redevelopment
No Build Projects Vehicle Trips by Mode

No Build Residential Dvelopments	Auto		Taxi		Delivery		Total	
	In	Out	In	Out	In	Out	In	Out
AM PEAK HOUR								
305 E 33rd Street	1	6	6	6	0	0	7	12
E 25th Street btw First & Second Avenues	1	3	2	2	0	0	3	5
Total	2	9	8	8	0	0	10	17
PM PEAK HOUR								
305 E 33rd Street	5	2	5	5	0	0	10	7
E 25th Street btw First & Second Avenues	3	1	2	2	0	0	5	3
Total	8	3	7	7	0	0	15	10

Former Bellevue Psych Building Redevelopment
No Build Condition (ESRP) Person Trips by Mode

New Employees 1,468 employees
In Staff Housing (walk only) 220 employees

Person Trips	Auto		Taxi		Subway		Bus		Walk		Other		Total	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	50	3	11	1	285	15	61	3	217	11	17	1	641	34
PM	6	47	1	10	33	267	7	57	25	204	17	1	89	586
Total	56	50	12	11	317	282	68	61	243	215	33	2	731	620

Former Bellevue Psych Building Redevelopment
No Build Condition (ESRP) Vehicle Trips by Type

New Employees	1,468 employees
In Staff Housing (walk only)	220 employees

Person Trips	Auto		Taxi		Truck		Total	
	In	Out	In	Out	In	Out	In	Out
AM	42	2	8	8	18	18	68	28
PM	5	39	7	7	10	10	22	56
Total	47	41	15	15	27	27	89	84

Former Bellevue Psych Building Redevelopment
Homeless Shelter Trip Generation Rates and Assumptions

Land Use	Homeless Shelter	
# Employees	150	
Trip Generation	2.0 (1) per employee	
Temporal Distribution	(1)	
AM	33.3%	
PM	0.0%	
Modal Splits	(2)	
Auto	26.0%	
Mass Transit	56.0%	
Other	18.0%	
Directional Distribution	In	Out
AM	50%	50%
PM	0%	0%
Vehicle Occupancy	(3)	
Auto	1.65	
Truck Trip Generation	4.00 (4) per day	
AM	10.0%	
PM	0.0%	

Notes:
(1) Assumes one trip in and one trip out per employee
(2) 2000 Census for New York County Tract 62 reverse-journey-to-work data
(3) Pushkarev & Zupan, *Urban Space for Pedestrians* (1975)
(4) Based on information provided by the Department of Homeless Services