



CITY OF VANCOUVER

ADMINISTRATIVE REPORT

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TO: Vancouver City Council

FROM: Director of Facilities Design and Management in consultation with the
General Manager of Fire and Rescue Services,
Director of Planning, and
Director of Financial Planning and Treasury

SUBJECT: Replacement of Fire Hall #15

RECOMMENDATION

- A. *THAT Council approve the full replacement option for Fire Hall #15 (3003 East 22nd Avenue) with a purpose designed and built, post-disaster, three bay fire hall at a cost of \$8.41 million, source of funding to be:*
- *\$0.8 million from the Fire Hall #15 Capital Budget;*
 - *\$4.1 million in borrowing authority approved by the electorate as part of the 2006 -2008 Capital Plan;*
 - *\$3.51 million of Capital from Revenue (Inflation Adjustment) to be included in the 2007 Capital Budget.*

OR

CONSIDERATION

- B. *THAT Council approve retention of the existing Fire Hall #15 building on the current site at 3003 East 22nd Avenue for incorporation in a new three-bay fire facility as proposed in the 2006-2008 Capital Plan, at a cost of \$9.81 million; source of funding to be*
- *\$0.8 million from the Fire Hall #15 Capital Budget;*
 - *\$4.1 million in borrowing authority approved by the electorate as part of the 2006 -2008 Capital Plan;*

- *\$3.51 million of Capital from Revenue (Inflation Adjustment) to be included in the 2007 Capital Budget;*

AND THAT Council commit the balance of the funding totalling \$1.4 million from the 2006 - 2008 Capital Plan; source of the necessary funding reallocations to be identified with the 2007 Capital Budget.

AND FOR EITHER A OR B

- C. *THAT Council authorize the award of a consultant contract, up to the sum of \$859,000, for detailed design, preparation of contract documentation, tender review, and contract administration, for the construction of Fire Hall #15 to the firm of Hughes, Condon, Marler: Architects;*

AND THAT the Director of Legal Services be authorized to execute and deliver on the behalf of the City, all legal documents required to implement this contract;

AND THAT all such legal documents be on terms and conditions satisfactory to the General Manager of Corporate Services and Director of Legal Services, and further that no legal rights or obligations will be created or arise by Council's adoption of the recommendations in this report unless and until such legal documents are executed and delivered by the Director of Legal Services.

GENERAL MANAGER'S COMMENTS

Comments of the General Manager of Fire and Rescue Services

Vancouver Fire & Rescue Services views new-build construction as best in the long-term for a functioning fire hall. While retention may contribute to a sense of community history and perhaps be perceived by some in the community as a local landmark, it is not actually saving much of the original building. In fact, it is more of a re-creation than retention of the original hall. An attractively designed building of all-new construction that retains features of the existing building could also be a landmark of significance to the community as well as a neighbour-friendly and fully functional facility for its primary purpose.

Comments of the Director of Planning

Planning staff recognizes the difficult situation the replacement of Fire Hall #15 presents at this time. However, should Council approve the replacement option (Recommendation A) it is important to note the value of the existing building. Fire Hall #15 is the last remaining Edwardian fire hall still in use in the City and only one of two historic fire halls remaining in Vancouver. Its heritage value is derived not only from its uniqueness and rarity, but also from the building's landmark status within the neighbourhood. Fire Hall #15 is one of few remaining structures from the early days of the Renfrew Collingwood area. It sits on a high point in the neighbourhood, across from the Renfrew Community Centre and has a prominent place within the community's skyline. The building serves as a point of reference for the community not only geographically but also as a defining quality of the neighbourhood. In

addition to the building's historic value and its contribution to community building, it was evident throughout the public consultation process that this community values the building and is aware of the role it plays in their community's history. A new fire hall will address the funding issues but this community will feel a sense of loss over the demolition of the building.

CITY MANAGER'S COMMENTS

The City Manager RECOMMENDS approval of Recommendation A and C and DOES NOT SUPPORT the option presented in Consideration B.

There are a number of factors that support this position:

- First, the primary objective is to provide a fully functional building from which the Fire Department can deliver its services. The replacement option provides for a purpose designed and constructed building that is respectful of the heritage features of the existing building without compromising operational functionality, design and construction costs and future maintenance.
- Second, because of the need to provide a facility that meets very specific design guidelines and is post-disaster, only the skin of the existing building and some interior finishes will be replicated; the entire interior of the building will be reconfigured. In short, the rehabilitated firehall will be little more than a replica of the existing building.
- Third, the proposal to fund the heritage cost premium through a transfer of density from this site is inconsistent with Council policy on density transfer, problematic in practice, has the potential to create difficulties in the density bank and provides significant funding risk that the City should not take.
- Fourth, these are very difficult times for the capital expenditure program and finding additional funding in the 2006 -2008 Capital Plan will mean further reallocation of funding from other projects. With the additional funding requirements of the recommended replacement option and other demands on the Capital Plan, the provision for inflation adjustment will be exhausted and Council will be faced with very difficult decisions about what capital maintenance or upgrading to defer in order to ensure the highest priorities are met.
- Finally, for this replacement, time is of the essence. The building has now been occupied well beyond its life and difficulties with the existing structure require the department to move to temporary quarters immediately, well before the detailed design and permitting process even begins, lengthening the time staff and equipment will have to be housed in a temporary fire hall.

The City Manager also notes that the delay in proceeding with this project required to understand and develop a detailed retention option is estimated to have increased the construction and soft costs of this project by up to \$1.6 million.

COUNCIL POLICY

Council approval is required for projects funded from the Capital Budget. Funding must be in place prior to proceeding with the development of capital projects.

PURPOSE

The purpose of this report is to seek Council approval of redevelopment option for Fire Hall #15, including confirmation of the necessary funding.

BACKGROUND

The existing Fire Hall #15 which is located at 3003 East 22nd Avenue is a two-bay, two-storey wood frame building constructed in 1913. The building was extensively renovated in the 1950s however, it has reached the end of its functional life and is a priority for replacement. At present, because of deteriorating conditions at the existing fire hall, Fire and Rescue Services staff and apparatus will be moved to a temporary site as soon as possible, pending completion of the new building.

Funding of \$4.9 million was provided over two capital plans for the replacement of the existing fire hall with a modern, post-disaster, three-bay fire facility which will meet the expanded program and operational needs of Vancouver Fire and Rescue Services (VFRS). At the time, there was no expectation that the existing building would be retained so this estimate was based on experience with replacement of other fire halls during recent capital plans. An adjacent residential lot at 3015 East 22nd avenue was purchased to increase the site area in anticipation of accommodating the new three-bay fire hall.

Although the existing building is not listed on the Vancouver Heritage Register (VHR), there has been interest in the 93-year-old fire hall. A detailed consultant assessment, or Statement of Significance (SOS), was undertaken. On May 16, 2005, the Vancouver Heritage Commission supported the SOS evaluation and recommended the existing building's inclusion in the 'B' category of the VHR.

On May 18th, 2006 staff recommended proceeding with the original plan to demolish or relocate the existing building and to develop a new fire facility on the current site with the incorporation of existing character elements in the new design, similar to other recent fire hall replacement projects. Council decided to postpone this matter up to 60 days and direct staff to allow public consultation on retention options and to report back on alternate locations and design options for a two-bay hall. At that time, the estimated cost to replace the building was \$6.1 million, already above the \$4.9 million in funding allocated in the Capital Plans.

As a result of this decision, design work was placed on hold to explore options for retention of the existing building on the current site. At the same time, a search for new site to construct a fire facility was carried on without any success. This relocation situation has not changed.

On July 20, 2006 staff reported the result of public consultation and presented several preliminary redevelopment options for Council's consideration. Council approved the following recommendation:

THAT Council approve retention of the existing Fire Hall No. 15 building on the current site at 3003 East 22nd Avenue for incorporation in a new fire facility; and

FURTHER THAT Staff to report back on final design and cost estimates for a replacement three-bay fire facility as proposed in the 2006-2008 Capital Plan (see option 4B in

Administrative Report Replacement of Fire Hall No. 15 - Public Consultation, Alternate Locations and Options dated July 2, 2006), at an additional cost estimated at \$2.8 million, source of funding to be the Inflation Adjustment allocation in the 2006 - 2008 Capital Plan with the following to be included:

- (a) providing space for fire prevention, accommodating this through height modification to acquire additional space; and*
- (b) Investigation of the potential for heritage bonusing with the intent to acquire funds to reduce capital cost to the City.*

During this period, the additional design work and inflationary increases in construction and other costs have increased the anticipated replacement cost to \$8.4 million. Heritage retention will increase that cost by \$1.4 million.

In March 2005, Council approved award of contract to Hughes, Condon, Marler: Architects for consultant services to develop the schematic design and cost estimates up to the Building Permit stage. This award was based on a competitive RFP selection process. Hughes, Condon, Marler: Architects also provided additional design services during development and assessment of the retention option.

DISCUSSION

During the last few months, staff have worked with the consultant team developing the design for the building, with the Fire Department and with the Heritage Planner to develop a redevelopment design that would retain and re-use the building. In order to determine the "heritage premium" required to retain the building, staff also continued work on a full replacement option. During those discussions, two changes to the proposed facility were made:

- (a) during the schematic design stage, design team worked closely with IT staff to examine if a proposed data centre could be accommodated in the new design. After clarifying the space and support system requirements for this component, it was determined that this was not a suitable location because of the impact the mechanical systems (backup power and air conditioning) would have on the neighbourhood;
- (b) providing parking for staff on this limited site was a difficult task. Moreover, with its increased functionality as a fire prevention office there will be increased parking demands from the public visiting the site. Underground and surface parking options were examined for both retention and full replacement schemes, however, it was decided that underground parking would minimize the visual impact of vehicles along the lane and the physical interruption of neighbouring residences. Although this option has a price premium of approximately \$200,000 staff determined this offered the best solution to the parking issue.

As a result of these changes, two options were further developed and form the basis for the decision documented in this report:

1. **Option 1 Full Replacement**, provides for a replacement of the existing facility with a new three bay fire hall designed to include heritage features where feasible. The building would be sited with the apparatus bays on the west side of the building

adjacent to Nootka Street and away from the residential neighbours, with the office space and dormitories on the east side of the property.

A replacement building would be a fully integrated building, constructed primarily of concrete and steel to a post disaster standard.

2. **Option 2 Retain and Add**, provides for retention and upgrading of the existing building shell in a new three bay facility. In this option, the apparatus bays would be located at the east side of the site, adjacent to neighbouring properties with the office space and dormitories in the replicated fire hall.

The approach to retaining the existing building is to replicate the original design and materials of the exterior and upgrade the structure to meet Fire Department and building code post-disaster requirements. The existing interior framing and detailing would be removed to facilitate the program requirements of the fire facility. The existing structure would be raised to provide adequate ceiling height in the basement and a structural foundation would be constructed. On the exterior, the roof structure will be removed and replaced and the skin of the building will be replaced to reflect the original design. A new entrance for staff similar in style to the original building will be added on the west elevation to increase the functional lay out of the main floor. The resulting building will be essentially two buildings constructed adjacent to each other, each with its own seismic requirements.

As with many heritage projects, the amount of retained historic material is regulated by the building code requirements as well as the need to create a viable project that provides for all program requirements of the Fire Department. This project is no different in this regard, as the amount of retained fabric is limited to the original structure. While from an urban design perspective, the 3-bay apparatus addition has been designed to fit comfortably on the site and works with the original building, the resultant building will only be a reflection of the original fire hall.

Cost estimates were developed for both of these schemes in order to establish the additional costs of retaining the heritage building as requested by Council. Both options include the requirements of a post-disaster design and LEED Gold certification.

The Options: Replace or Retain & Add

As the primary purpose of the building is as a fire hall, the highest priority is to meet the functional requirements of the Fire Department. There are a number of operational, design and maintenance considerations related to the options.

i) Fire Operational Considerations

Building Alignment and Placement of Apparatus Bays: The retention option (Option 2) has several limitations relating to the functionality of the fire hall and to traffic patterns of nearby residents. The original construction of the fire hall does not align with the fronts of the other buildings on the block. In order to minimize this misalignment, the design modifications require that the new apparatus bays be recessed back about 10 feet. This adjustment makes exiting from the bays more

difficult as the view of vehicle and pedestrian traffic to the west is obscured by the existing building until the apparatus is half-way from the bay doors to the sidewalk. In contrast, the replacement option (Option 1) has a setback similar to other structures on the block so no view impediments are created. It also places apparatus bays on the west side of the site close to the corner, a prominent location, with the residential portion of the hall adjacent to the existing house.

Under Option 2, fire trucks exiting at mid-block might be delayed by peak traffic. The replacement option (Option 1) would allow fire trucks to merge near the intersection as traffic would be stopped 2 meters from the crosswalk.

Fire Drills, Maintenance and Testing: Standard fire fighting practice involves maintenance and testing of trucks and equipment twice each day. Under Option 2, these tests will take place in close proximity to the residential neighbour to the east, creating potential noise issues such as high-revving diesel engines. Option 1 will move this activity a minimum of 50 feet west from the nearest residence and across the street from Renfrew Community Centre. Also, with a new fire hall, all apparatus and hose maintenance will be obscured from the neighbour to the east by the hose tower.

ii) Approvals and Permitting

Both options will be required to proceed through a detailed design and permitting process that is expected to take six to eight months before construction can begin. However, if the heritage cost premium of the retention option is to be provided from the proposal to transfer density from the site, a rezoning will be required. This rezoning is expected to add up to four months to the process, further delaying completion and potentially the cost for the new facility.

Fire Hall #15 has been due for replacement for a number of years. During the redevelopment process the building has deteriorated to the point where the department is being forced to move into temporary quarters within three months until the new building is completed. Delays in replacement will impact lengthen the time that the hall personnel will occupy the temporary fire hall and the service adjustments that are required as a consequence.

iii) Design, Construction and LEED Gold Considerations

Regardless of the option chosen, the new fire hall will be designed and built to post disaster standards. For the replacement option, this will involve the construction of a fully integrated steel and concrete building. For the retention option, the building will incorporate some structural components of the existing wood building and a new building made primarily of steel and concrete. As only portions of the framing and shiplap materials from the existing wood structure will be retained, re-enforcement with steel elements will be required. The existing foundations will be removed and replaced with a new foundation.

In addition to the many design uncertainties that remain with attempting to replicate the original features of the building, while being LEED Gold compliant, the retention

scheme would, in many ways, represent a significant departure from the original building design. Examples of the outstanding issues and design compromises include:

- Under either option, the entire facility will be designed to maximize energy efficiency, however, in the retention option, the original apparatus doors will have to be replicated and to retain the heritage feature will compromise this objective.
- Challenges with replicating existing wood sash windows that will also be LEED Gold compliant.
- The existing, all-wood stairs would be eliminated with both design options.
- In order to be post-disaster compliant, the interior structure will be reduced to the original framing, raised off its foundation and then lowered onto a new foundation. When complete, none of the interior design in the retention scheme will resemble the original interior configuration.
- The old hose tower is at the rear of the existing hall. For practical purposes, a new functional tower will be added to the front of the rebuilt structure, thereby dominating the front landscape and will no longer be longer consistent with the original design.
- All exterior finishes will be new but made to look as if they were “of the period.”

iv) Maintenance

Under the replacement option, an all-new building would be built based on a single, consistent structural system. The whole building will be constructed with non-combustible materials, resulting in lower ongoing maintenance than that of the retention option which replicates the original exterior of wooden shingles on the roof and upper walls and wood siding on the lower walls. Not only are maintenance costs higher with exterior wood, it is not the preferred material for a post-disaster building.

FINANCIAL IMPLICATIONS

Estimated Project Costs

As noted above, cost estimates were developed for both the replacement and retention options and reflect anticipated inflationary cost increases through the construction period. These costs are summarized in the following table.

| Cost Component ¹ | Option 1 Replacement | Option 2: Retention |
|-----------------------------|-------------------------|------------------------|
| Land | \$365,000 | \$365,000 |
| Construction | \$6,554,200 | 7,740,300 |
| Site Development | 60,000 | 60,000 |
| Fit Out | 240,000 | 240,000 |
| Temporary Fire Hall | 200,000 | 200,000 |
| Design and Soft Costs | 991,800 | 1,204,300 |
| Total | \$8,411,000 | \$9,809,600 |

The cost differential assignable to the heritage retention option is \$1.4 million and arises from the requirement to deal with asbestos abatement, more carefully executed demolition, upgrading of retained building to post disaster standards, additional soft costs and additional construction delay cost escalation as a result of the required rezoning.

Funding for the Replacement Option

A total of \$4.9 million of funding for the replacement of Fire Hall #15 has been provided in the 2000 - 2002 and 2003 - 2005 Capital Plans. This leaves a funding shortfall of \$3.51 million for Option 1 and \$4.91 million for Option 2.

The 2006 - 2008 Capital Plan includes an allowance of \$8.0 million for inflationary adjustments during the plan. To date, Council has allocated \$2.0 million to the replacement of Trout Lake and Killarney Community Centres. It is recommended that the balance of the funding necessary to complete the replacement option (Option 1) be provided from this source. This will leave approximately \$2.5 million available for other projects that will be seeking funding from this source, the most significant being the Police Dog Squad Office/Kennel relocation (\$1.8 million) that will come forward in the near future.

Funding the Incremental Cost of Retention (Option 2)

In order to proceed with the redevelopment of Fire Hall #15, Council must provide the full funding package. The recommended option is funded, with difficulty, from existing capital sources, leaving the requirement for the \$1.4 million of retention costs to be identified.

On July 20, 2006, Council directed staff to investigate the potential for raising the necessary additional costs through a heritage bonus arrangement. This would be achieved converting heritage premium costs into saleable density through the *Transfer of Density Program* which allows density to be transferred between any zoning districts through the rezoning process. However to comply with the policy, Fire Hall #15 would have to be paired with a larger rezoning in the immediate area that was capable of receiving the bonus density from the fire hall site. At this time, there are no pending rezoning applications in this area and no surety that the required funding could be raised in the near future to pay for the new fire hall.

A second option would be to make an exception to the current policy and allow the bonus density to be transferred into the downtown area "density bank". Currently, density trading within the density bank is valued at an average of \$50 per square foot, suggesting the \$1,400,000 of added retention costs for Fire Hall #15 would convert to 28,000 square feet of density for transfer.

There have been examples where Council varied the transfer policy to provide funding for a heritage building. For example, 3838 Cypress Street, where the conservation costs were converted to density and sold within the downtown area. In addition, Council was also prepared to consider varying the transfer policy for a commercial building on 4th Avenue and Bayswater in an effort to save the building. In that instance another solution was reached through finding a suitable site to relocate the building and a buyer committed to restoring the structure. However, the policy has not been varied for a public building.

Should Council wish to proceed with the retention option by providing an exception to the *Transfer of Density Policy*, a process for expediting the sale of the bonus density would have to be used. However, even the most aggressive schedule that could be considered will not make the density available for sale until completion of the rezoning process, leaving the project with a significant degree of funding risk.

The analysis of staff has identified a number of issues about the viability of using transferable density for Fire Hall #15. They include:

- the additional time for the rezoning process which could add three to four months to the schedule for completing a new facility;
- the added time needed to create and sell the density and the interim funding issues that arise for the replacement;
- the inconsistencies it raises in regards to Council's policies for funding Capital projects;
- the impact of the City's intrusion into the density bank which is essentially a tool for private sector developers;
- the potential risk that the value of density on the market may be less than what it was calculated to be at the time of its inception. Private property owners are aware of this risk and make decisions accordingly; however given the City's need to eliminate the risk to public resources, this risk may be seen as unacceptable.

The Density Bank is stable and density has been trading at \$50 to \$60 per square foot. With Council approvals to date, approximately 1.5 million square feet will be available in the density bank during the period in which the Fire Hall #15 bonus density would be on the market. While adding 28,000 square feet to cover the conservation costs of the fire hall won't have a measurable effect onto the bank, staff are concerned about the risk it brings to the project funding package. Therefore, should Council wish to provide the funding necessary to retain the building, staff recommend covering the shortfall costs through a reallocation of existing capital within the 2006-2008 Capital Plan. Approval of Consideration B would commit funding from the 2006 - 2008 Capital Plan to cover these costs and instruct staff to report back on which projects would be eliminated from the plan to provide the funding.

CONCLUSION

Fire Hall #15 is now 93 year old and is a high priority for replacement. Not only is the building beyond its economic life, it no longer meets the functional requirements of the Fire Department. While funding of \$4.9 million was provided in the 2003 - 2005 and 2006 - 2008 Capital Plans, the anticipated cost has risen to \$8.41 million for the replacement option and to \$9.81 million for the heritage retention option. Fire Department and Facilities Design and Management staff recommend that the best option is to replace the existing building with a purpose built, post disaster building that incorporates heritage features of the existing building where possible. Planning Staff favour an option that will retain the existing building as part of a new fire facility at a cost premium of \$1.4 million, which will require allocation of additional funding from the 2006 - 2008 Capital Plan.

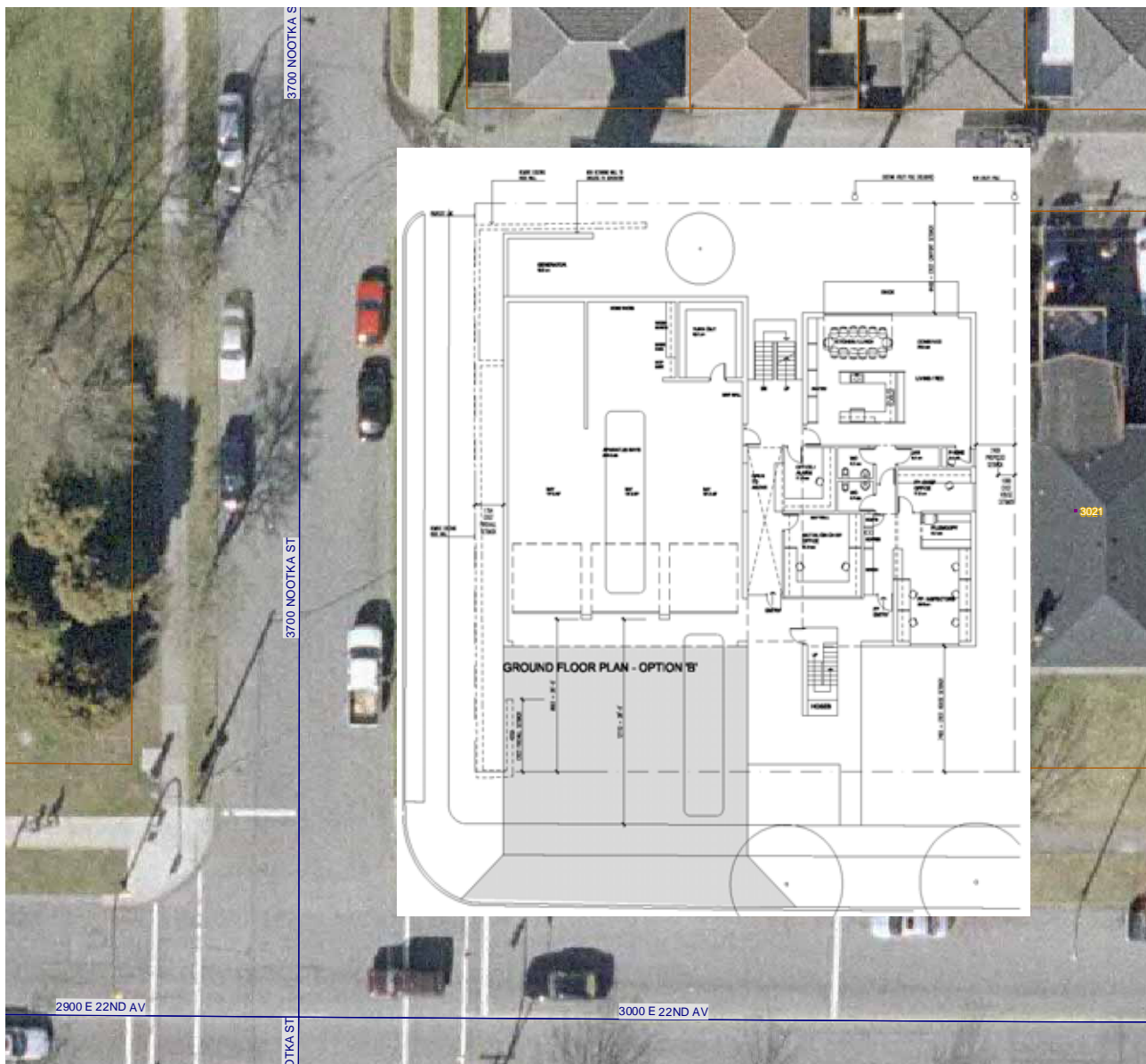
Based on the work provided to date and their familiarity with the objectives and technical considerations of this project, Hughes, Condon, Marler: Architects should be engaged to provide the remaining consultant services for the development and delivery of this project.

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Option 1: Full Replacement Option

Removal of existing building and replacement with a purpose built facility, including:

1. three apparatus bays on the west side of a new building;
2. office and dormitory facility on the east side of the property adjacent to the residential property to the east;
 - fire prevention and battalion chief offices and kitchen/living space for fire suppression group on main floor;
 - living quarters for fire suppression staff on upper floor;
3. new basement space for training rooms, mechanical and storage;
4. nine underground parking spaces for suppression staff.



Option 2: Retention and Addition Option

Retention of existing building at corner of East 2nd Avenue and Nootka Street with Facility includes:

1. three apparatus bays in a new building added on the east side, adjacent to existing residential property;
2. existing structure rebuilt to accommodate:
 - fire prevention and battalion chief offices and kitchen/living space for fire suppression group on main floor;
 - living quarters for fire suppression staff on upper floor
3. new basement space for training rooms, mechanical and storage
4. nine underground parking spaces for suppression staff

