

Item 7.3
Design Review Committee
February 13, 2014

TO: Chair and Members of Design Review Committee

Signed by

SUBMITTED BY: Brad Anguish, Director, Community and Recreation Services

DATE: January 30, 2014

SUBJECT: **Case 19079: Substantive Site Plan Approval – Mixed-Use
Development, 5445 Rainnie Drive, Halifax**

ORIGIN

Application by W.M.Fares Group

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, Part VIII, Planning & Development

RECOMMENDATION

It is recommended that the Design Review Committee:

1. Approve the qualitative elements of the substantive site plan approval application for a 8-storey mixed-use development at 5445 Rainnie Drive, Halifax, as shown in Attachment A; and
2. Accept the findings of the quantitative wind impact assessment found in Attachment E.

BACKGROUND

This application for substantive site plan approval by W.M.Fares Group, on behalf of the property owner, is for an 8-storey mixed use building at 5445 Rainnie Drive, Halifax, consisting of residential and commercial uses (Map 1). To enable the proposal to proceed to the permit and construction phases, the Design Review Committee (DRC) must consider the proposal relative to the Design Manual within the Downtown Halifax Land Use By-law (LUB).

Existing Context

The subject site is 1834.7 square metres (6,019.35 square feet) in area and located mid-block with direct frontage on Rainnie Drive. It is also located within close proximity to Gottingen Street, Brunswick Street, Duke Street and Sackville Street, which functions as a major commercial and transit corridors within Downtown Halifax.

The property used to be occupied by a 2-storey commercial office building that was leased to various businesses, including an insurance company. The building was recently demolished and the site is currently vacant. Further, the subject site is surrounded by a mix of uses with the Halifax Regional Police to the north and west, residential and commercial offices to the east, and Citadel Hill to the south (Map 1).

Project Description

The following highlights the major elements of the proposal (refer to Attachments A & B). The development is proposed to:

- be approximately 23 metres (75.5 feet) in height;
- comprise 1,291.5 square metres (13,900 square feet) of commercial floor area on the ground-floor level, and a total of 68 residential units within 6 floor and penthouse levels above ground-level;
- have direct pedestrian access to the commercial spaces and residential units from Rainnie Drive;
- have a landscaped rooftop, which is designed to include a patio area for tenants with trellis, a swimming pool, shrub planters and mechanical equipment;
- include canopies at street level to provide weather protection measures for pedestrians;
- utilize high quality materials for exterior cladding materials such as High Energy Performance (Low E Argon Solarban 70) glass, high quality ceramic tile panels, and metal panels; and
- provide bicycle parking facilities as per the requirements of the Downtown Halifax Land Use By-law (LUB).

Information about the approach to the design of the building has been provided by the project's architect and is included as Attachment B. Attachment C provides renderings for the project.

Regulatory Context

With regard to the Downtown Halifax Secondary Municipal Planning Strategy (DHSMPS) and the Downtown Halifax LUB, the following are relevant to note from a regulatory context:

- The site is located within the DH-1 Zone, the Cogswell Area (No. 8) Precinct;
- The maximum pre-bonus height and the maximum post-bonus height are 23 metres (75.5 feet) measured from the commencement of the top storey of the building and the mean grade of the

- finished ground adjoining the building between the building and the fronting street;
- The required streetwall setback on Rainnie Drive is between 0 to 1.5 metres (0 to 5 feet);
 - The minimum streetwall height is 11 metres while the maximum streetwall height is 18.5 metres (60.7 feet);
 - Above the Rainnie Street streetwall, the minimum setback is 3 metres;
 - From interior property lines, the minimum setback above the streetwall is 10% of the lot width (3 metres);
 - The ground floor of the building is required to have a floor-to-floor height of no less than 4.5 metres (14.76 feet);
 - Landscaped open space is required for predominantly residential buildings (more than 50% of the gross floor area is devoted to residential uses); and
 - Landscaping is required for flat rooftops.

Role of the Development Officer

In accordance with the Substantive Site Plan Approval process, as set out in the Downtown Halifax LUB, the Development Officer is responsible for determining if a proposal meets the land use and built form requirements of the LUB. The Development Officer has reviewed the application and determined it to be in conformance with these requirements.

Role of the Design Review Committee

The role of the Design Review Committee in this case is to determine if the proposal is in keeping with the design guidelines in the Design Manual.

DISCUSSION

Design Manual Guidelines

An evaluation of the proposed project against the applicable guidelines of the Design Manual is found in table format in Attachment D. The table indicates staff's advice as to whether the project complies with a particular guideline. In addition, it identifies circumstances where there are different possible interpretations of how the project relates to a guideline or where additional explanation is warranted. It is staff's opinion that the proposed development meets the guidelines of the Design Manual and no matters have been identified for further details.

Wind Impact Assessment

The LUB requires a quantitative wind assessment for developments greater than 20 metres in height. A Wind Impact Assessment was prepared by Ekistics Planning & Design for the proposed development (refer to Attachment E). The purpose of the assessment is to determine whether the site, and in particular the surrounding sidewalks, will create a safe and comfortable environment for pedestrians once the new building is constructed.

The assessment anticipates that the proposed development will have negligible change in thermal comfort for a person sitting, standing, walking or running within various zones of the building. The assessment indicates that the existence of several multi-storey buildings within the vicinity contributes in the disruption of street-level wind patterns, thus, the addition of the proposed development will have minor effect on the overall level of comfort for pedestrians.

Conclusion

Upon review of the proposal against the criteria of the Design Manual, staff recommends that the Design Review Committee:

- i) approve the qualitative elements of the substantive site plan approval application for the 8-storey mixed use building at 5445 Rainnie Drive, Halifax; and
- ii) Accept the finds of the quantitative wind impact assessment found in Attachment E.

FINANCIAL IMPLICATIONS

The HRM costs associated with processing this planning application can be accommodated within the approved 2013/14 operating budget for C310 Planning & Applications.

COMMUNITY ENGAGEMENT

The community engagement process is consistent with the intent of the HRM Community Engagement Strategy and the requirements of the Downtown Halifax LUB regarding substantive site plan approvals. The level of engagement was information sharing, achieved through the HRM website, the developer's website, public kiosks at HRM Customer Service Centres, and a public open house.

ENVIRONMENTAL IMPLICATIONS

No implications have been identified.

ALTERNATIVES

1. The Design Review Committee may choose to approve the qualitative elements of the substantive site plan approval application for the 8-storey mixed use building at 5445 Rainnie Drive, Halifax, as shown in Attachment A. This is the recommended course of action.
2. The Design Review Committee may choose to approve the application with conditions. This may necessitate further submissions by the applicant, as well as a supplementary report from staff.
3. The Design Review Committee may choose to deny the application. The Committee must provide reasons for this refusal, based on the specific guidelines of the Design Manual.

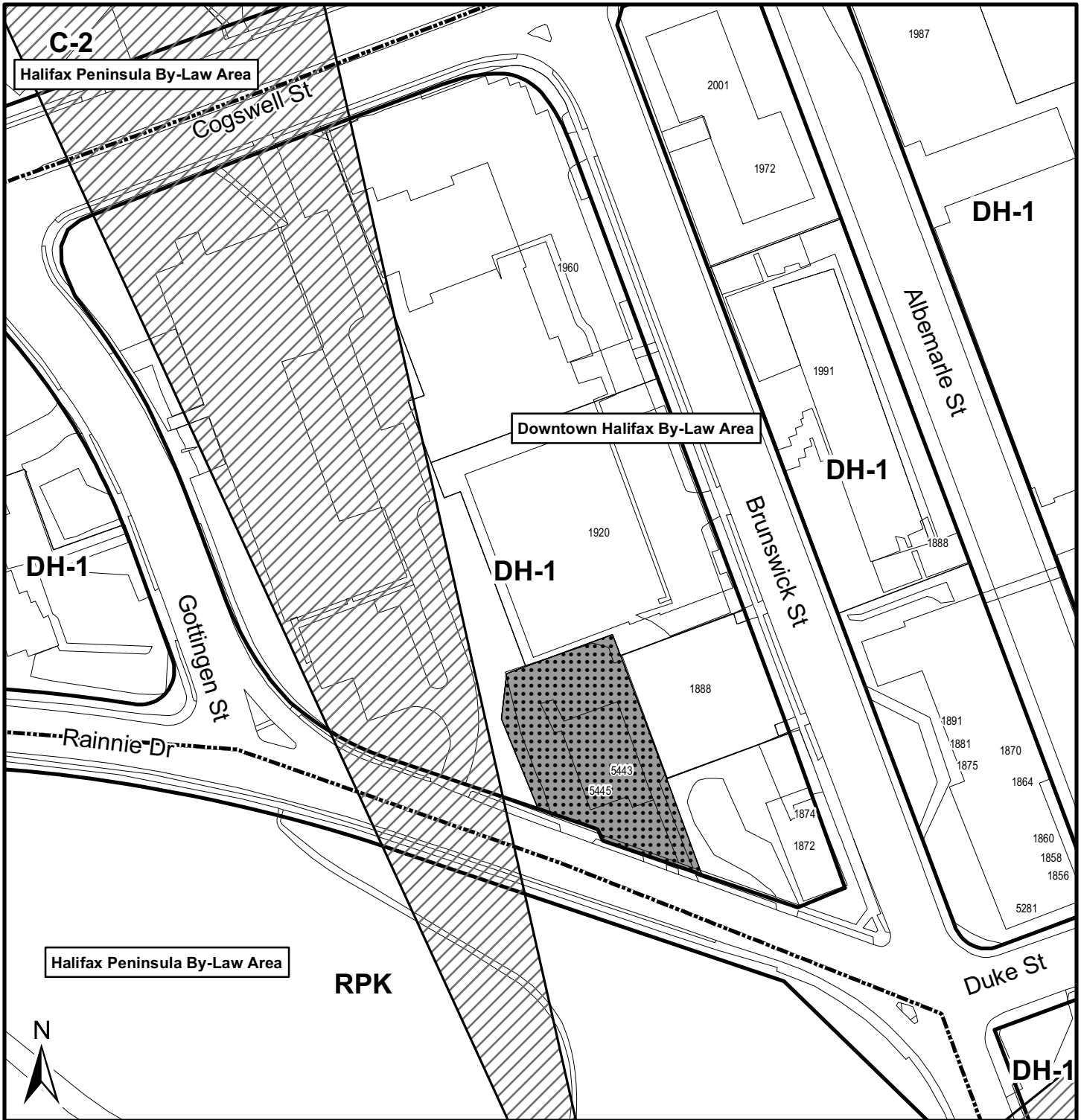
ATTACHMENTS

Map 1	Zoning
Attachment A	Site Plan Approval Plans
Attachment B	Design Rationale
Attachment C	Floor Plans and 3D Rendering
Attachment D	Design Manual Checklist – Case 19079
Attachment E	Quantitative Wind Impact Assessment
Attachment F	Lighting Schematics

A copy of this report can be obtained online at <http://www.halifax.ca/boardscom/DesignReviewCommittee-HRM.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210 or fax 490-4208.



Report Prepared by: Dali H. Salih, Planner, Development Approvals, 490-1948

Report Approved by:  Signed by
Kelly Dent, Manager of Development Approvals, 490-4800



Map 1 - Zoning

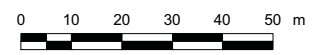
5443-5445 Rainnie Drive
Halifax

-  Subject property
-  View plane

Downtown Halifax Plan Area

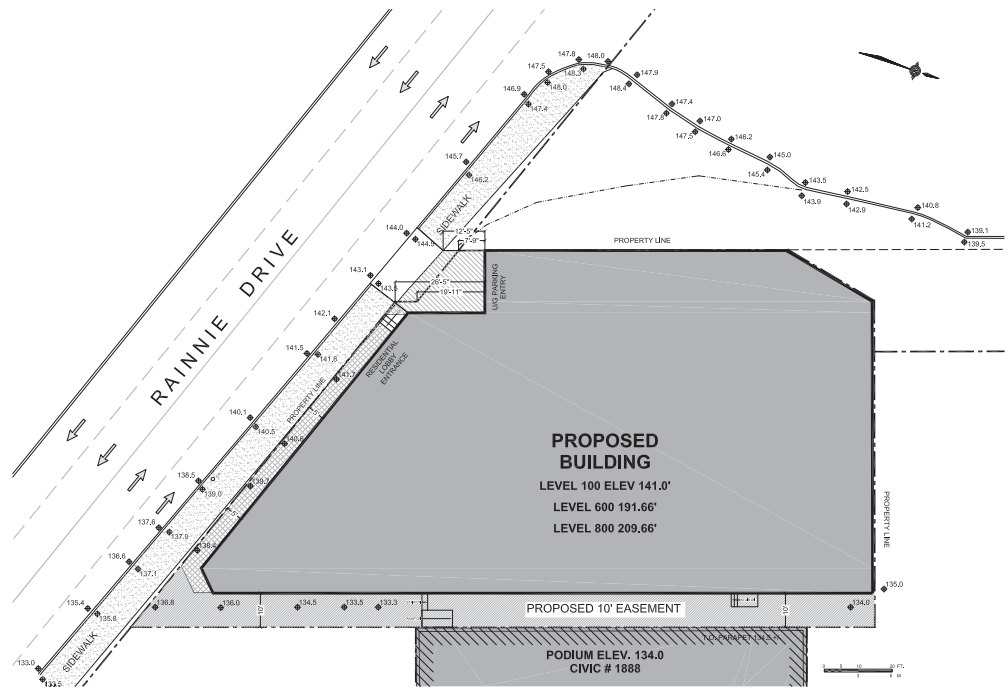
Zone

DH-1 Downtown Halifax 1



This map is an unofficial reproduction of a portion of the Zoning Map for the plan area indicated.

HRM does not guarantee the accuracy of any representation on this plan.



1 SITE PLAN
1" = 20'-0"

Proposed
5445 Rainnie Dr
 References
 Owner



No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	18/11/13
	HRM SUBMISSION	20/01/14

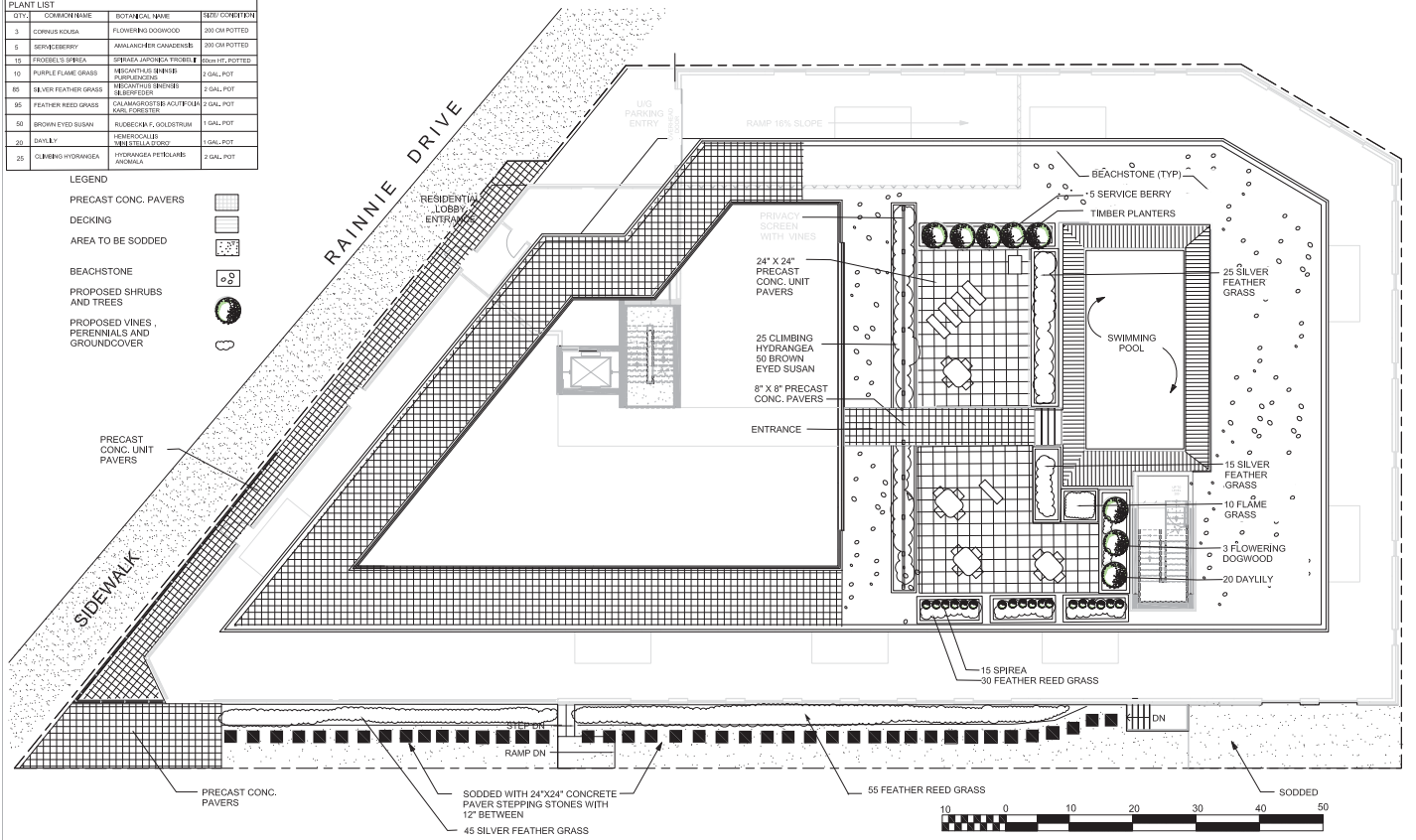
Stamp

Title
SITE PLAN

Scale	1" = 20'-0"	Date	March, 2013
Drawn by	STAFF	Sheet	SDP
Checked by	RM		
Project number	2013-06		

QTY.	COMMON NAME	BOTANICAL NAME	SOFT CONVERSION
3	CORNUS KOUSA	FLOWERING DOGWOOD	200 CM POTTED
5	SPIREA	ANANASHER CONDENSER	200 CM POTTED
10	SPYREA	SPYREA JAPONICA FOCIE	100 CM POTTED
10	PURPLE PLUME GRASS	MECANTHUS SPENDE	2 GAL POT
10	SILVER FEATHER GRASS	MECANTHUS SPENDE	2 GAL POT
95	FEATHER REED GRASS	CALAMAGROSTE ALUTIFORMIS	2 GAL POT
50	BROWN EYED SUSAN	ROGEBORNIA SOLIDUM	1 GAL POT
20	DAYLILY	HEMERICALLIS	1 GAL POT
25	CLIMBING HYDRANGEA	HYDRANGEA PETER PANNE ANONALA	2 GAL POT

- LEGEND**
- PRECAST CONC. PAVERS
 - DECKING
 - AREA TO BE SODDED
 - BEACHSTONE
 - PROPOSED SHRUBS AND TREES
 - PROPOSED VINES, PERENNIALS AND GROUNDCOVER



Proposed
5447 Rainnie Dr

References
Owner

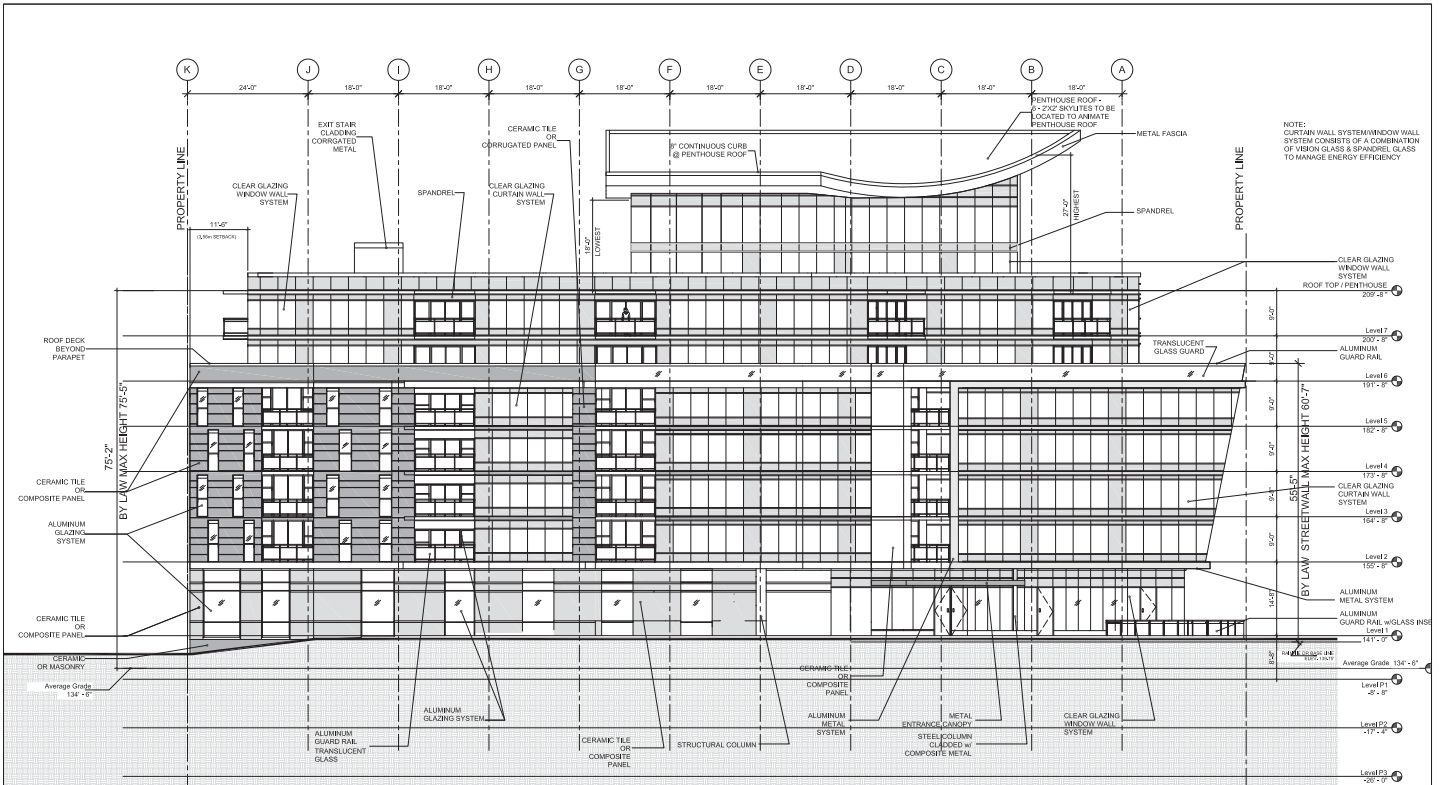
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Title
LANDSCAPE PLAN

Scale	AS NOTED	Date	JAN. 2014
Drawn by	LG	Sheet	L-101
Checked by	GR	Project number	
		2013-06	

Attachment A - Site Plan Approval Plans



Proposed
5445 Rainnie Dr

References
Owner



ARCHITECTS | ENGINEERS | PLANNERS

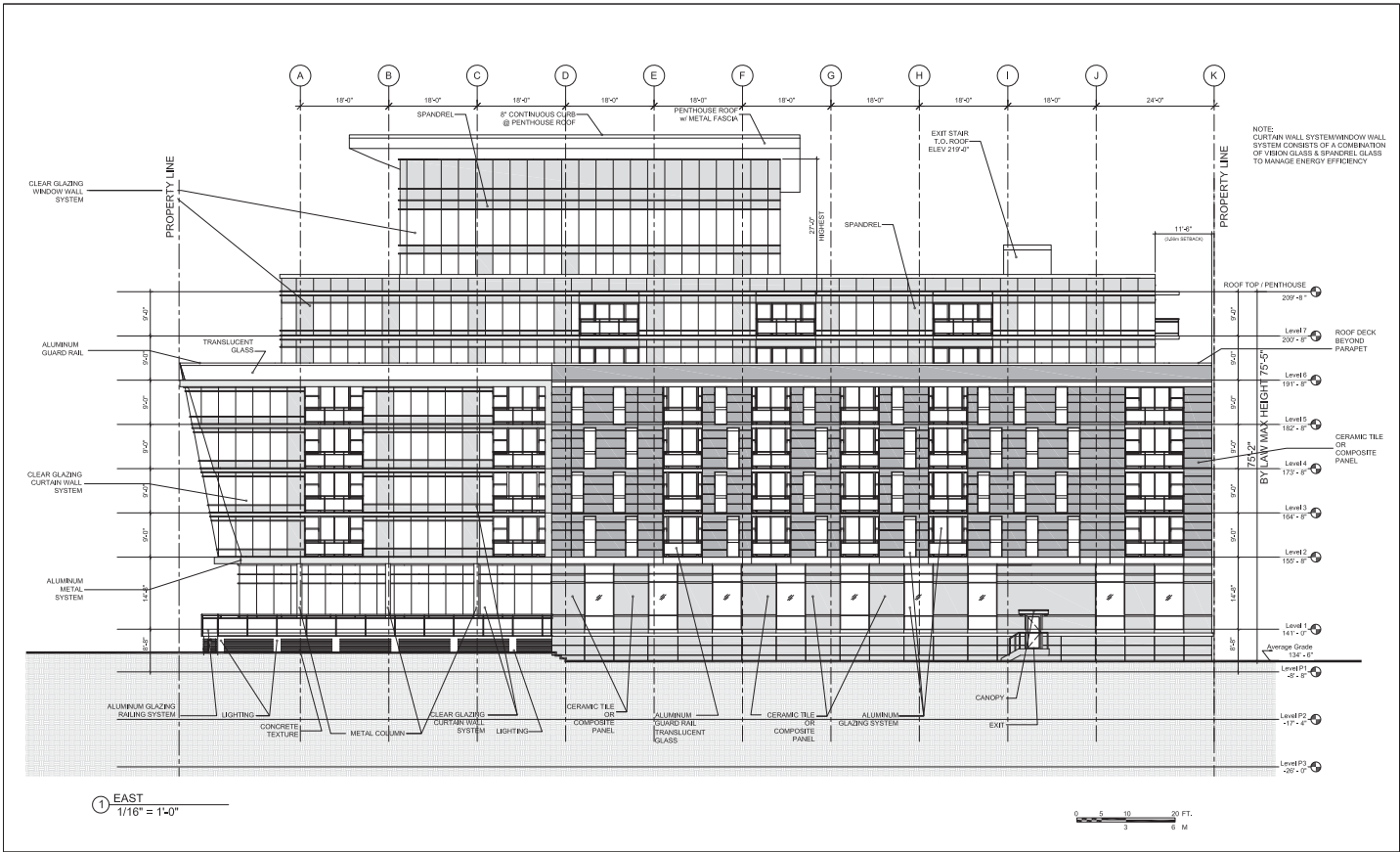
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B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	18/11/13
	HRM SUBMISSION	20/01/14

Stamp

Title
WEST ELEVATION

Scale	NTS	Date	January, 2014
Drawn by	STAFF	Sheet	A9
Checked by	RM		
Project number	2013-06		

Attachment A - Site Plan Approval Plans

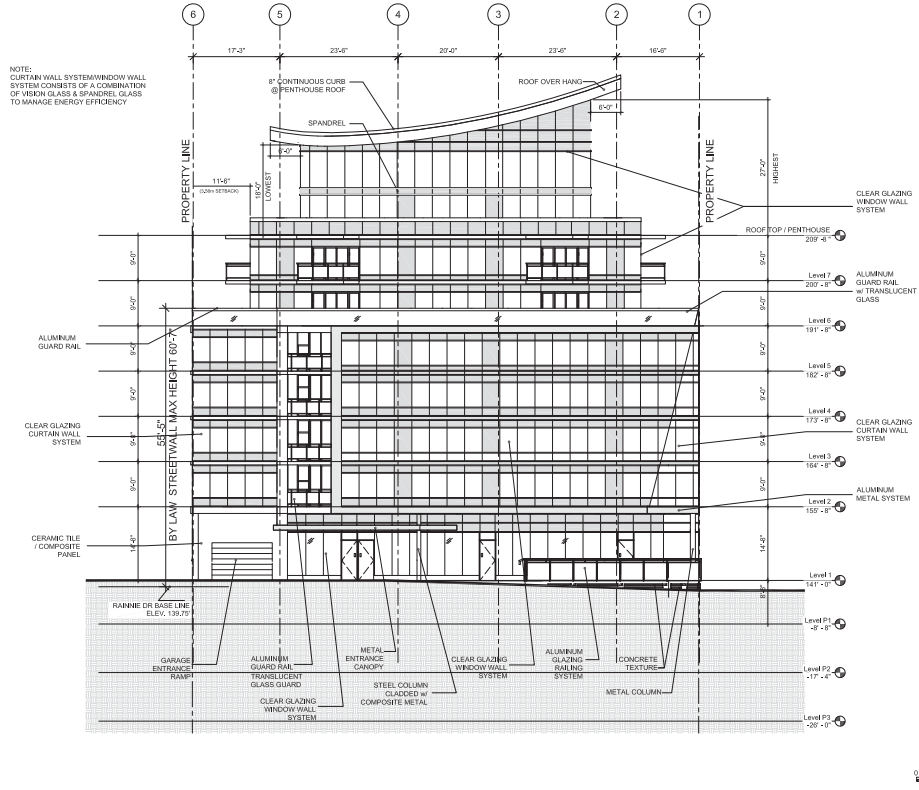


① EAST
1/16" = 1'-0"

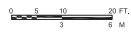
0 5 10 20 FT.
0 3 6 M

Proposed <p style="text-align: center; font-weight: bold;">5445 Rainnie Dr</p> References <p style="text-align: center;">Owner</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>SCHEDULE S-1</td> <td></td> </tr> <tr> <td>B</td> <td>DHLUB SUBMISSION</td> <td>30/08/13</td> </tr> <tr> <td>C</td> <td>HRM SUBMISSION</td> <td>18/11/13</td> </tr> <tr> <td></td> <td>HRM SUBMISSION</td> <td>20/01/14</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	No.	Description	Date	A	SCHEDULE S-1		B	DHLUB SUBMISSION	30/08/13	C	HRM SUBMISSION	18/11/13		HRM SUBMISSION	20/01/14																			Stamp	<p style="font-size: 2em; font-weight: bold;">EAST ELEVATION</p>	Scale Drawn by Checked by Project number	Date Sheet <p style="font-size: 2em; font-weight: bold;">A10</p> Project number
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	HRM SUBMISSION	20/01/14																																				
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Attachment A - Site Plan Approval Plans



1 SOUTH
1/16" = 1'-0"



Proposed

5445 Rainnie Dr

References

Owner

ARCHITECTS | ENGINEERS | PLANNERS

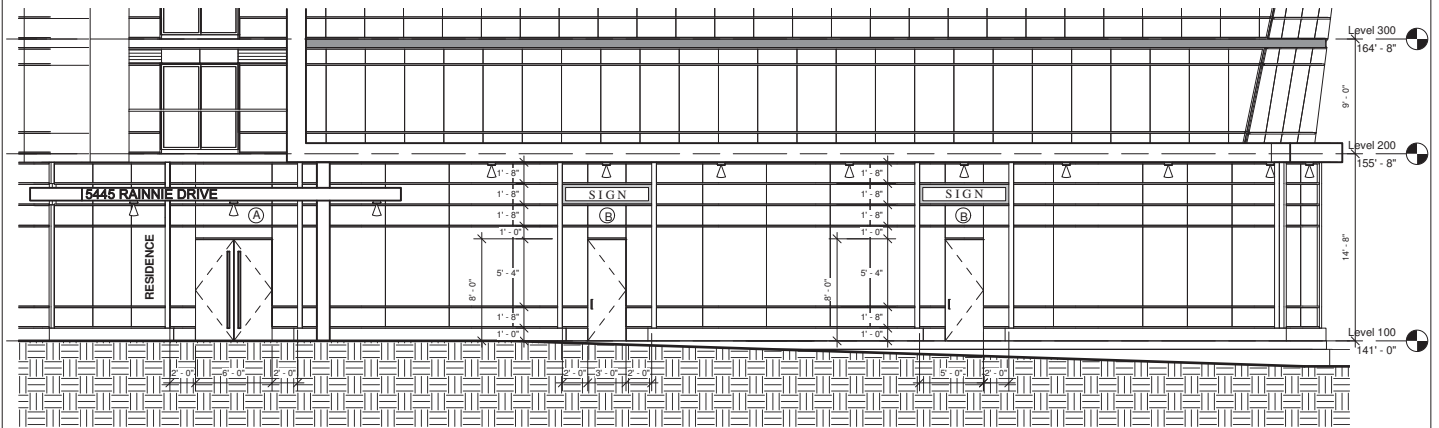
No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	18/11/13
	HRM SUBMISSION	20/01/14

Stamp

Title

SOUTH ELEVATION

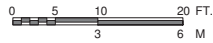
Scale	NTS	Date	January, 2014
Drawn by	STAFF	Sheet	A11
Checked by	RM		
Project number	2013-06		



- (A) Residential Main Entrance
- (B) Retail

Building Signage

1. Civic Number : 8"x8'-0"
Made of stainless steel to be fastened.
2. Residential Name: 8"x60"+-
Made of stainless steel mounted vertically on frames.
The developer will engage a marketing company to design a logo to be articulated with the building name.
3. Retail/Office: 1'-6"x7'-0" +-
Tenant (Retail/Office) sign will be stainless steel or equal - and designed by tenants marketing company.



Proposed

Rainnie Drive

References

No.	Description	Date
C	HRM SUBMISSION	20/01/14

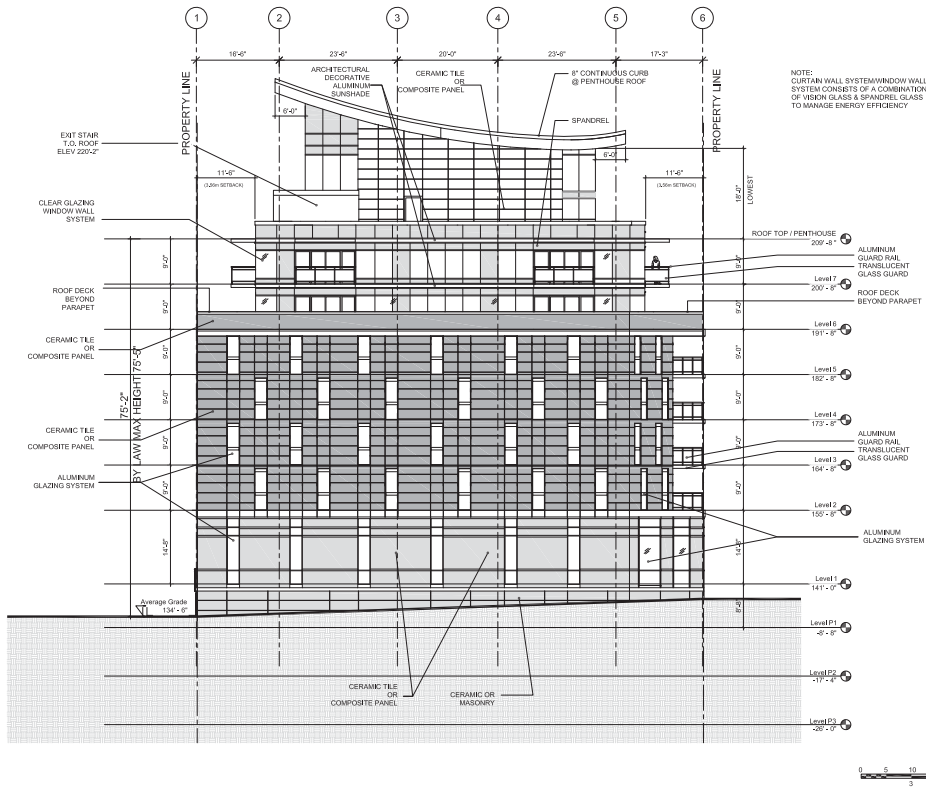
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Title

**Enlarged
Partial Front Elevation
- Entrances & Signages**

Scale	As indicated	Date	January 2014
Drawn by	Author	Sheet	A 11.1
Checked by	Checker		
Project number	2013-06		

Attachment A - Site Plan Approval Plans




NOTE: CURTAIN WALL SYSTEM/WINDOW WALL SYSTEM CONSISTS OF A COMBINATION OF VISION GLASS & SPANDREL GLASS TO MANAGE ENERGY EFFICIENCY

1 NORTH
1/16" = 1'-0"

Proposed
5445 Rainnie Dr

References
Owner



ARCHITECTS | ENGINEERS | PLANNERS

No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	18/11/13
	HRM SUBMISSION	20/01/14

Stamp

Title
NORTH ELEVATION

Scale	NTS	Date	January, 2014
Drawn by	STAFF	Sheet	A12
Checked by	RM		
Project number	2013-06		

**Design Rationale
5445 Rainnie Drive
Mixed Use Development
Halifax, Nova Scotia**

The subject site is located across from the historical Citadel Hill, with open views and good orientation from east to west, which provides a good redevelopment opportunity reinforcing the design guidelines which speaks to the connectivity between the North End and Downtown (**Design Manual 2.8 a**) and encourages intensification of underdeveloped existing sites (**DM 2.8 k**). The redevelopment of this site with a new, modern and well-articulated mixed-use building is called for under section **2.8e** of the Design Manual, and will complement the historic Halifax landmark, the Halifax Metro Center and the Police Department. With proximity to major health and academic institutional complexes, and surrounded by tremendous public open space, this development will help define the image of downtown as a livable, enriching and sustainable place to live work and play.

Halifax Downtown Land Use Bylaw Requirements:

Our proposal meets all of the DHLUB requirements including building setbacks, maximum height, street wall height and step backs, landscaping, rampart view planes, residential dwelling mix, wind impact, and street wall width. We are seeking no variances from the Design Review Committee.

Building Design Description

The proposed mixed-use project includes 3 levels of underground parking, 13,900 sq.ft. of commercial space at grade, and 68 residential units within 6 floors and a penthouse level. The roof top provides landscape and amenity space for the residents, in addition to a prominent and a visually interesting skyline feature.

The vision and architectural articulation of the building has been shaped by the existing topography of the land and street, its location across from Citadel Hill, the unobstructed views and orientation north-south and east- west, and by following the regulations and guidelines of Halifax Downtown LUB and Schedule S-1: (Design Manual).

The continuous and elevated slope along Rainnie Drive along with the substantial drop towards the back of the property facing north provides a natural opportunity to place the three parking levels below street level.

The 10'-0" wide utility easement created on the east side of the building provides an opportunity for a landscaped corridor with cobbled stone, and lighting.

The main **pedestrian entrances** on Level 100 serving both the Retail and Residential Lobby are at street level, and sheltered by the Residential Level 200. This is defined by the setback of the street wall facing Rainnie Drive, and therefore, in compliance with the Design Manual criteria of Pedestrian Oriented Commercial Use. The Residential main entrance is defined and accentuated by a light-weight aluminum canopy in addition to building signage which will be displayed in mounted backlit letters, and LED down lights to enhance visibility of the entrances and highlight architectural elements. The articulation of the commercial and residential entrances through the proposed signage, lighting, recesses, and the aluminum canopy is in accordance with **sections 3.3.3** of the Design Manual

The entrance to the **underground parking** is located on the west side away from the heavy traffic intersection on Rainnie and Brunswick Streets (**DM 3.5.1a**) and is next to a green area owned by the Police Department. In response to the Traffic consultant recommendation we have recessed the parking garage entrance and will be including traffic mirrors at the building permit stage to ensure visibility between pedestrians and vehicles existing the building (**DM 3.5.1b**).

The **accessibility from the public sidewalk** to the building (various entrances along the exterior hallway 5' width min.) has been made possible through a transition defined and limited by the rapid changes in elevations along the sidewalk which slopes from an elevation of 143.5 (land's upper corner) to 136 (land's lower corner), therefore, the barrier free transition happens at elev. 141'

Section 3.3.2 (a) of the design manual states that **building materials** should be chosen for their functional and aesthetic quality, and exterior finishes should exhibit quality of workmanship, sustainability and ease of maintenance.

We are proposing a combination of ceramic tile and curtain wall system facing street views and above the street wall to provide lasting, clean, and aesthetically pleasant building elevations. In addition to the high level of visual connectivity created at the street level, the clear vision glass will connect the building occupants with the city, offering stunning views of the city and the Halifax Citadel. At night, the light and activity at the residential levels and the terraces will activate the façade contributing to a strong visual presence to the streetscape. This, in addition to the proposed down-lighting in soffits of protected areas to illuminate the building perimeter

will characterise and animate the façade **(DM 3.5.4b)**.

The proposed glass is High Energy Performance Low E Argon Solarban 70. The total solar energy transmitted through Solarban 70 glass is almost 63% less than that transmitted by standard clear insulating glass. This provides for less summer heat; cooler interior; and helps reduce cooling energy costs. The insulating value of Solarban 70 is as much as 47% than standard clear insulating glass. It also reduces Ultraviolet Energy by 90% which helps protect interior furnishings and fabrics.

The proposed Ceramic Tile panels (12"x48") are intended to visually anchor the building. This high quality cladding product is known for its durability and ease of maintenance.

The building will utilise a CGC Hybrid Heat Pump System for its heating, cooling and air exchange. This Hybrid System takes a truly innovative approach to **energy efficiency** to produce one of the most advanced, yet technologically friendly systems available today **(DM Section 5)**. Because it uses the water loop simultaneously for both heating and cooling, it actually takes advantage of a buildings diversity. The heat that is removed from one zone during cooling can be used in a different zone for heating. Both heating and cooling predominantly take place at the optimum temperature for each operation. This transfer of energy through the loop as needed reduces energy input to an absolute minimum. An added benefit is that these operating temperatures allow greatly reduced flow rates when compared to other water loop systems. Smaller flow rates mean smaller pipes, boilers, fluid coolers and pumps and result in reduced pumping costs. Boilers will run on gas.

Precinct 8: Cogswell Area Section 2.8 - Design Criteria

a. Remove the interchange infrastructure and re-establish streets, blocks, and open spaces that are an extension and reinforcement of the historic downtown grid and that provide connectivity between the north end and downtown.

The redevelopment of this site with a mixed use commercial/residential building in accordance to the downtown Halifax Land Use Bylaws and the Design Guidelines furthers the intended connectivity between the North End and Downtown.

b. Encourage the historic downtown grid to be reinstated as redevelopment occurs.

The establishment of street level pedestrian oriented streetscape anticipates the redevelopment of the interchange

c. Allow high-rise, mixed-use development comprised of relatively large podiums with point towers so as to maintain views of the water.

Not applicable.

d. Focus pedestrian activities at sidewalk level through the provision of weather protected sidewalks using well-designed canopies and awnings.

The articulation of the streetwall provides continuous shelter for pedestrians along the building

e. Define the area with modern landmark buildings.

The proposed modern building will definitely add to the diverse and unique downtown building stock.

f. Redevelop larger existing sites such as Scotia Square and Purdy's Wharf with street-oriented infill.

Not applicable

g. Provide for public access and open space on the waterfront lands which shall include continuous public access at the water's edge and green space at the terminus of each east-west street extension (i.e. Cogswell).

Not Applicable

h. Require that development step down to the water's edge and to the existing low-rise neighbourhoods to the north.

Not Applicable

i. Enhance important vistas and focal points such as the view of the water.

The building with floor to ceiling glazing will have beautiful views of the harbour, framed views of the city and dramatic views of the Historic Citadel.

j. Ensure that there are pedestrian-oriented street level uses, particularly at water's edge and fronting open spaces.

This has been achieved through well-defined and separate residential and commercial entrances with special attention to signage, lighting, and weather protection.

k. Encourage intensification of underdeveloped existing sites such as the Trademart building and the police station.

This has been achieved by redeveloping the site which was utilised in the past as commercial use into commercial and residential use.

l. Consider this precinct as being an important location for new transit and parking facilities.
By introducing 68 new residential units in Precinct 8, we would be supporting new transit facilities.

m. Permit surface parking lots only when they are an accessory use and are in compliance with the Land Use By-Law and design guidelines.

Not applicable

Thank you for your consideration. We believe that the proposed building on Rainnie Drive with its well-defined building base, middle and top, pedestrian oriented streetscape, quality building materials, and a well-articulated skyline feature with a common landscaped rooftop area meets the design guidelines as stipulated in the DHLUB.

Roberto Menendez, M.Arch., MIDS
Director of Design Development
W M Fares Group

RAINNIE DRIVE

LEVEL	BACH.	1 BDRM	1 BDRM +DEN	2 BDRM	TOTAL
200	1	3	1	7	12
300	1	3	1	7	12
400	1	3	1	7	12
500	1	3	1	7	12
600	0	3	0	6	9
700	0	3	0	6	9
PENTHOUSE	0	0	0	2	2
TOTAL	4	17	5	42	68
	6%	25%	7%	62%	100%

LEVEL 100:

TOTAL -13816 sq.ft.
COMMERCIAL -13219 sq.ft.
RESIDENTIAL - 597 sq.ft.

SUMMARY:

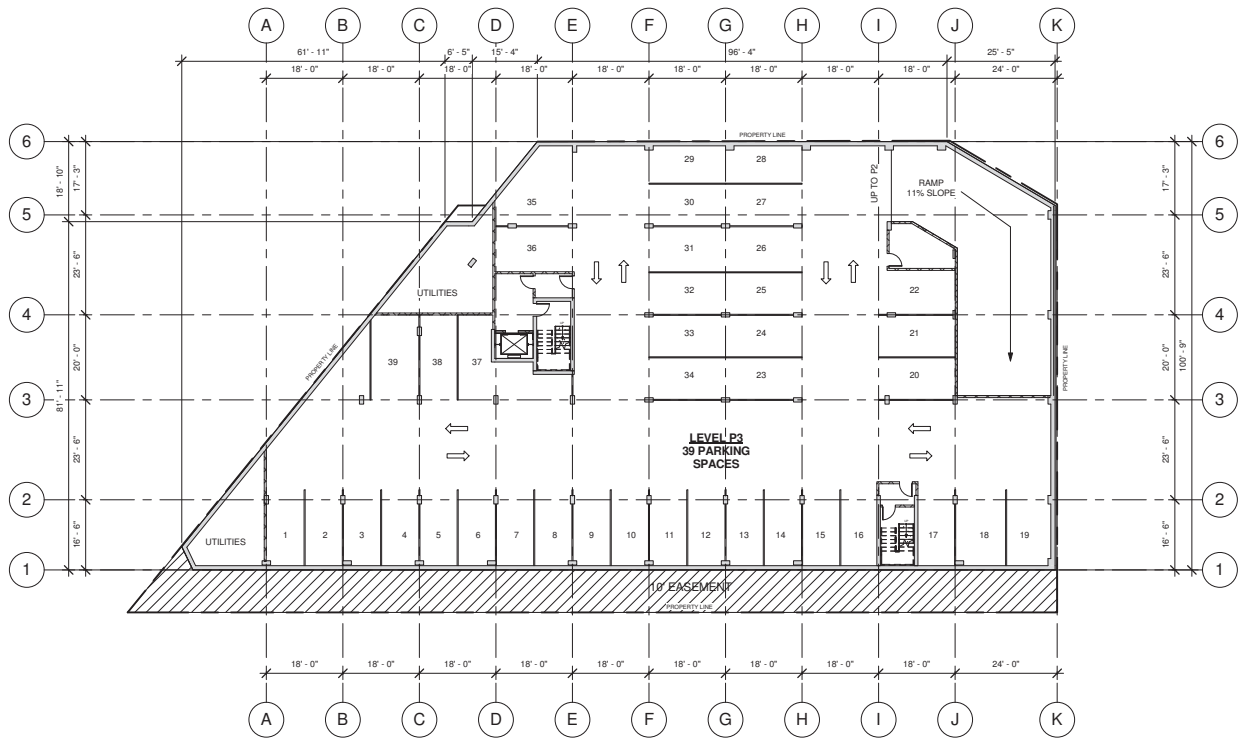
LOT AREA - 18969 sq.ft.
COMMERCIAL AREA - 13905 sq.ft.
ROOF AREA - 12100 sq.ft.
TOTAL 2 BEDROOM UNITS 42
TOTAL 1 BEDROOM UNITS 22
TOTAL BACHELOR UNITS 4
TOTAL # OF UNITS = 68

PARKING: TOTAL = 105 spaces

P1 30 spaces
P2 36 spaces
P3 39 spaces

Proposed 5445 Rainnie Dr References Owner	<table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>SCHEDULE S-1</td> <td></td> </tr> <tr> <td>B</td> <td>DHUB SUBMISSION</td> <td>30/08/13</td> </tr> <tr> <td>B</td> <td>HRM SUBMISSION</td> <td>30/08/13</td> </tr> <tr> <td>C</td> <td>HRM SUBMISSION</td> <td>20/01/14</td> </tr> </tbody> </table>	No.	Description	Date	A	SCHEDULE S-1		B	DHUB SUBMISSION	30/08/13	B	HRM SUBMISSION	30/08/13	C	HRM SUBMISSION	20/01/14	Stamp	Title Project Data	Scale 1/4" = 1'-0"	Date January, 2014
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Drawn by STAFF	Sheet A0																			
				Checked by RM																
				Project number 2013-06																





1 Floor Plan - Level P3
1/16" = 1'-0"



Proposed
5445 Rainnie Dr

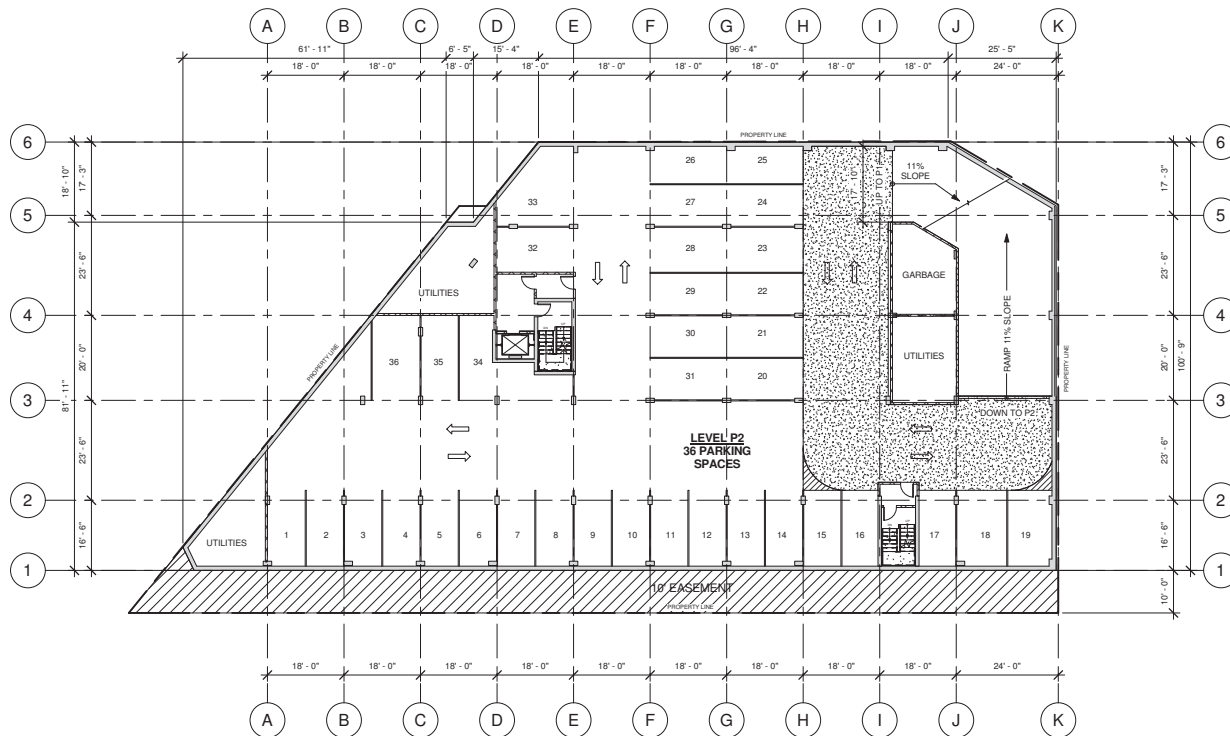
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	HRM SUBMISSION	20/01/14

Stamp

Title
Underground Parking Plan Level P3

Scale 1/16" = 1'-0"	Date January, 2014
Drawn by STAFF	Sheet
Checked by RM	A1
Project number 2013-06	



1 Floor Plan - Level P2
1/16" = 1'-0"



Proposed
5445 Rainnie Dr
References
Owner

WM FARES GROUP
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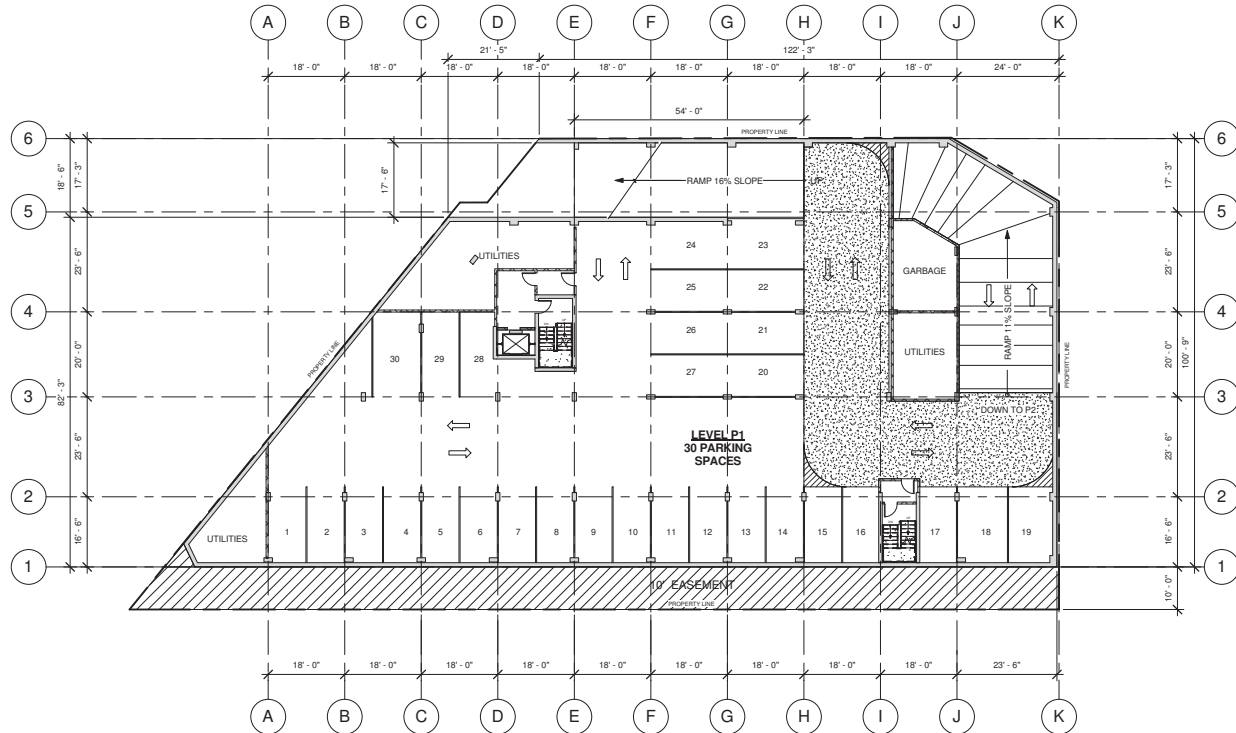
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B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	30/08/13
	HRM SUBMISSION	20/01/14

Stamp

Title

Underground Parking Plan Level P2

Scale	1/16" = 1'-0"	Date	January, 2014
Drawn by	STAFF	Sheet	A2
Checked by	RM		
Project number	2013-06		



1 Floor Plan - Level P1
1/16" = 1'-0"



Proposed
5445 Rainnie Dr
References
Owner

No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	30/08/13
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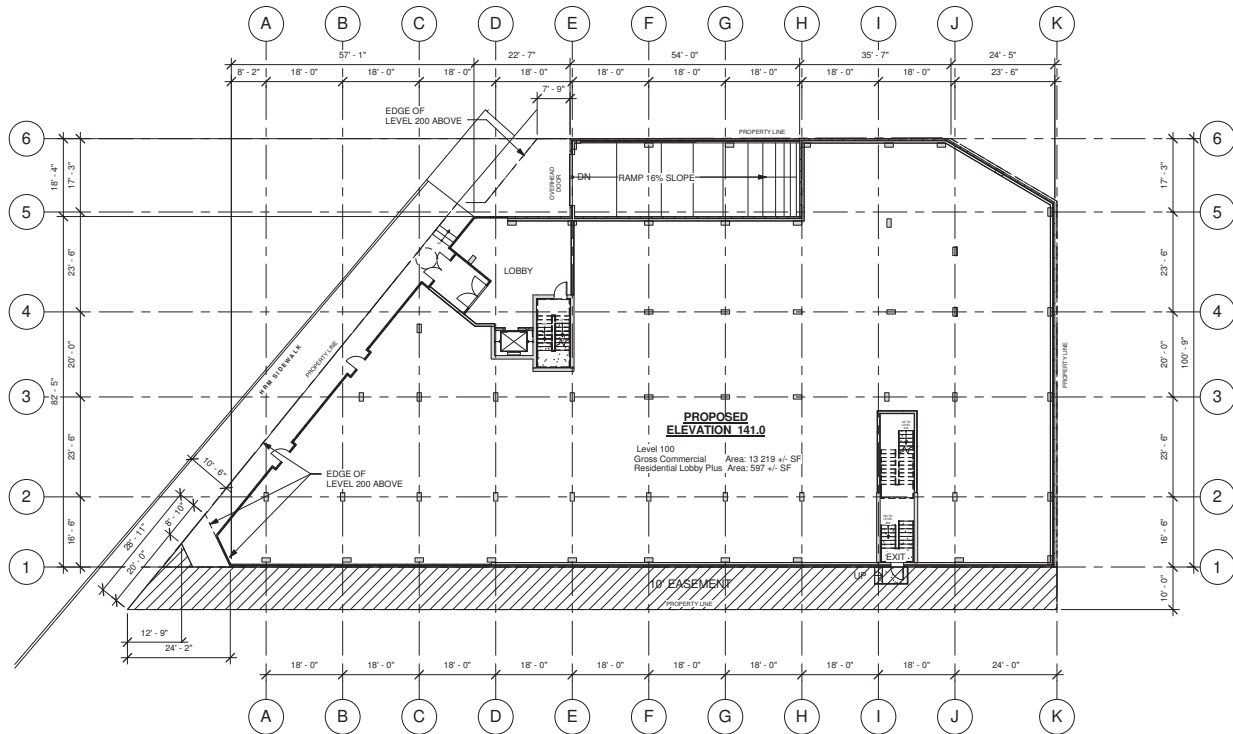
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Title
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Scale 1/16" = 1'-0"	Date January, 2014
Drawn by STAFF	Sheet
Checked by RM	A3
Project number 2013-06	



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1 Floor Plan - Level 100
1/16" = 1'-0"

Note: For enlarged/detailed front main entrances and elevation refer to sheets # A4.1 and A11.1



Proposed
5445 Rainnie Dr

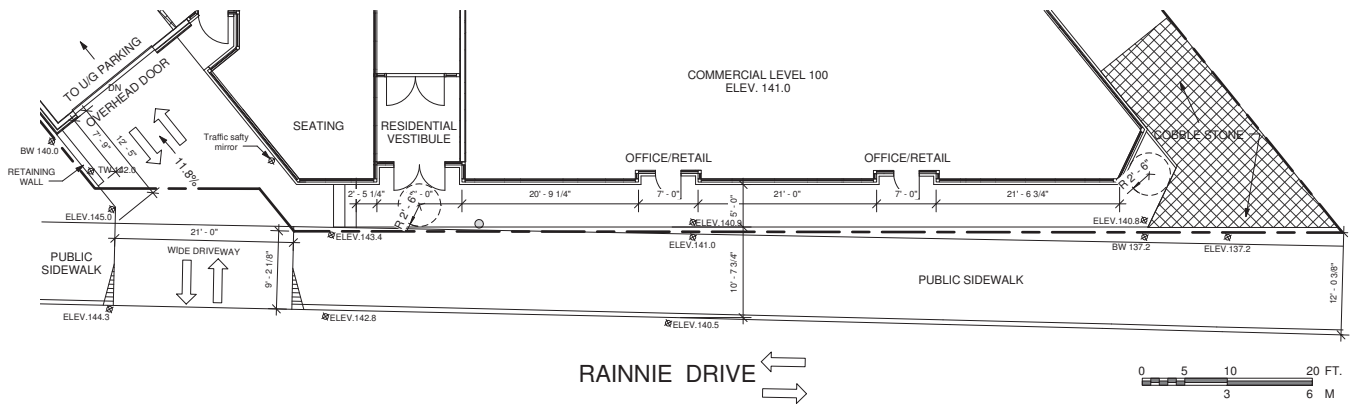
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	HRM SUBMISSION	20/01/14

Stamp

Title
Floor Plan Level 100

Scale 1/16" = 1'-0"	Date January, 2014
Drawn by STAFF	Sheet
Checked by RM	A4
Project number 2013-06	



1 Front Entrances - Plan Detail

1/8" = 1'-0"

Proposed
Rainnie Drive
References



No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	30/08/13
	HRM SUBMISSION	20/01/14

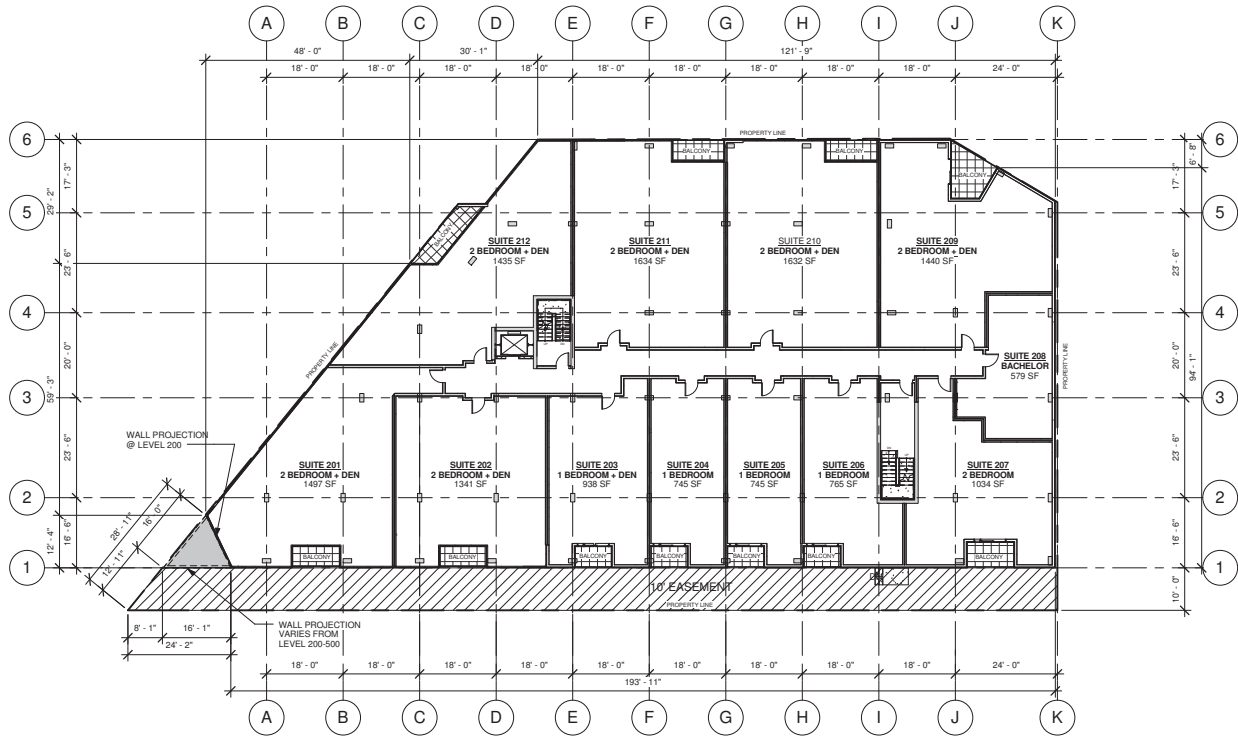
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Title
Enlarged Partial Front Plan - Entrance

Scale
1/8" = 1'-0"

Scale	1/8" = 1'-0"	Date	January 2014
Drawn by	Author	Sheet	A 4.1
Checked by	Checker		
Project number	2013-06		

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1 Floor Plan - Level 200
1/16" = 1'-0"

Proposed
5445 Rainnie Dr

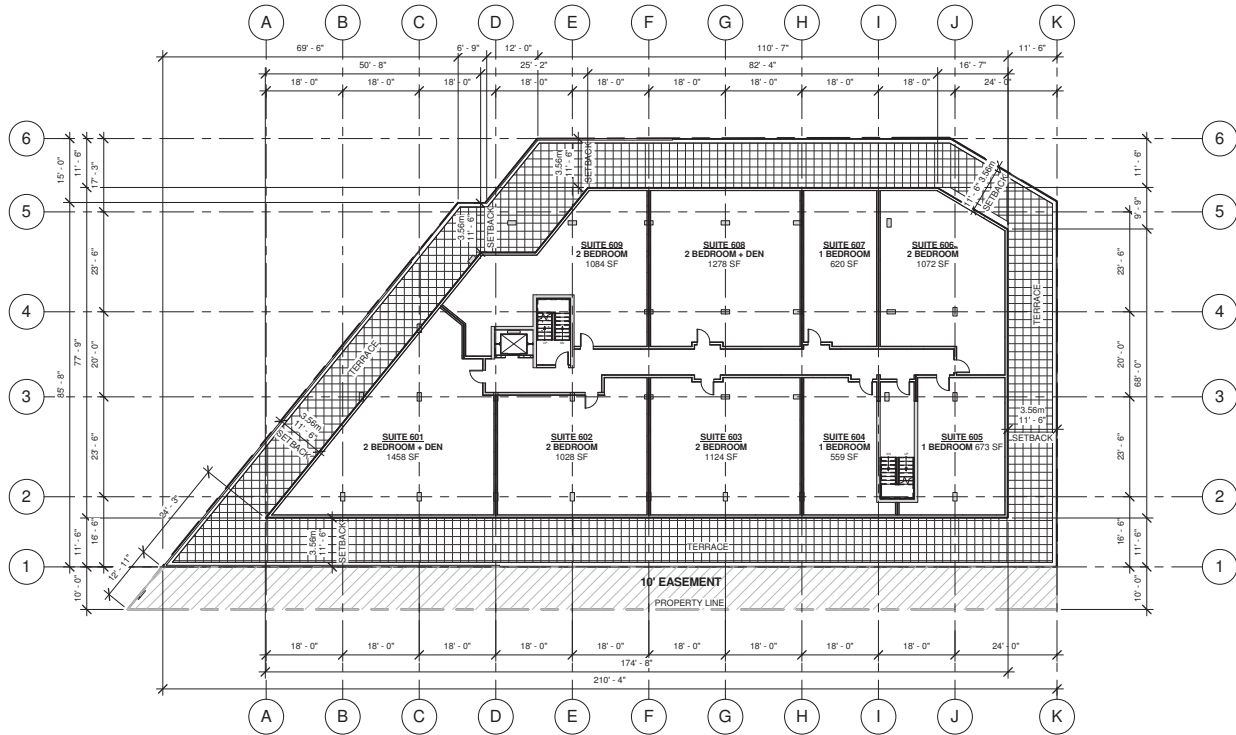
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C	HRM SUBMISSION	30/08/13
	HRM SUBMISSION	20/01/14

Stamp

Title
Floor Plan Level 200-500

Scale 1/16" = 1'-0"	Date January, 2014
Drawn by STAFF	Sheet
Checked by RM	A5
Project number 2013-06	



1 Floor Plan - Level 600
1/16" = 1'-0"



Proposed
5445 Rainnie Dr
References
Owner

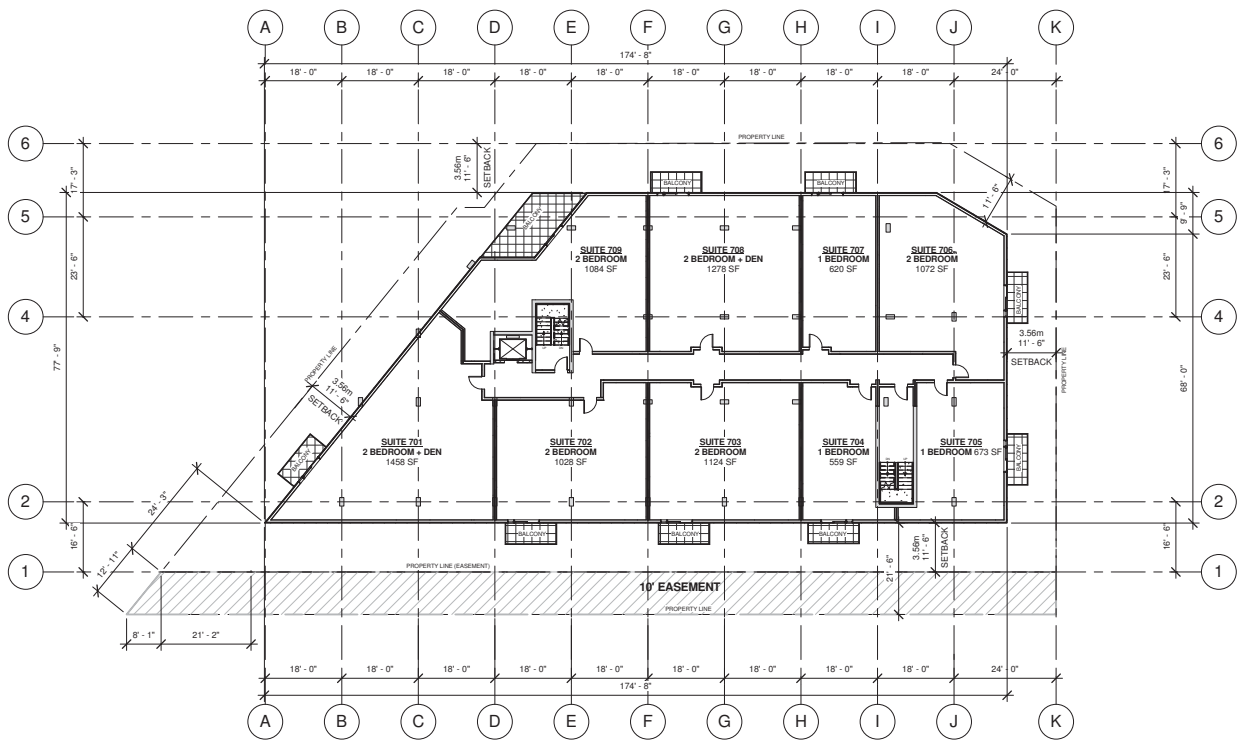
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C	HRM SUBMISSION	30/08/13
	HRM SUBMISSION	20/01/14

Stamp

Title
Floor Plan Level 600

Scale 1/16" = 1'-0"	Date January, 2014
Drawn by STAFF	Sheet
Checked by RM	A6
Project number 2013-06	


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① Floor Plan - Level 700
1/16" = 1'-0"

Proposed
5445 Rainnie Dr

References
Owner



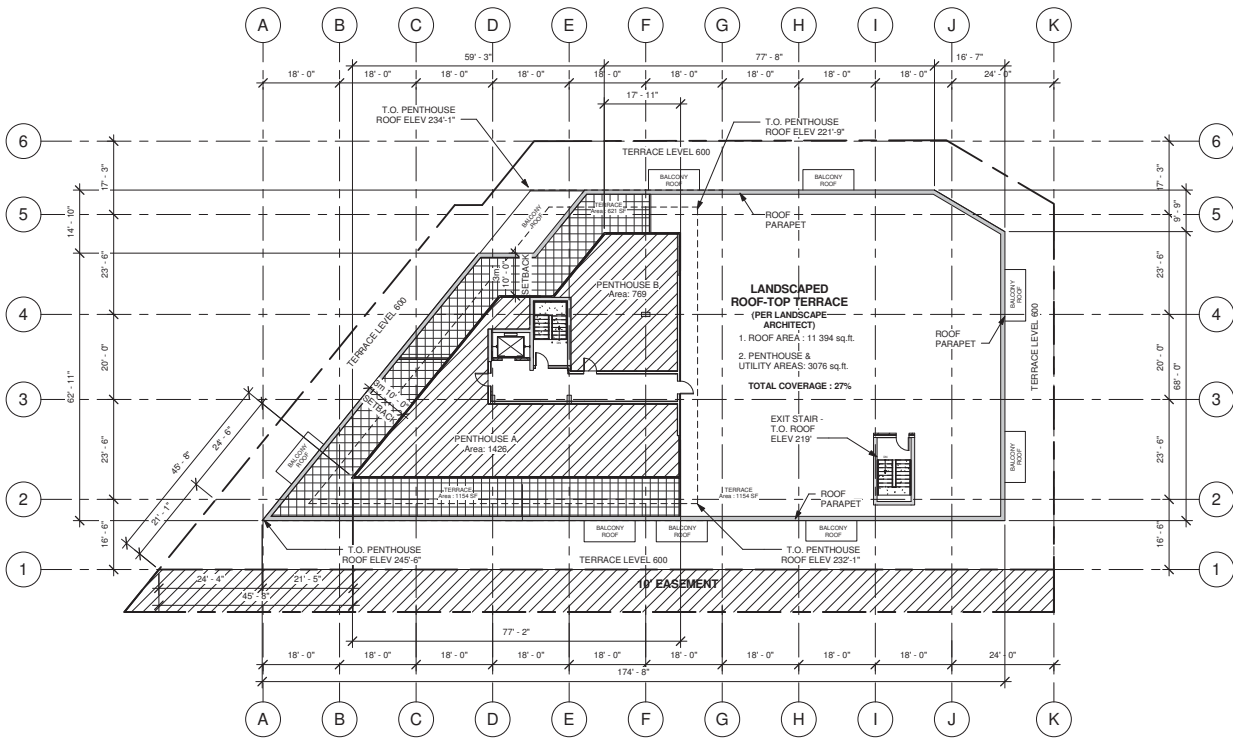
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No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	30/08/13
	HRM SUBMISSION	20/01/14

Stamp


Title
Floor Plan Level 700

Scale 1/16" = 1'-0"	Date January, 2014
Drawn by STAFF	Sheet A7
Checked by RM	
Project number 2013-06	



1 Floor Plan - Level Penthouse
 1/16" = 1'-0"



Proposed 5445 Rainnie Dr References Owner 	<table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>SCHEDULE S-1</td> <td></td> </tr> <tr> <td>B</td> <td>DHUB SUBMISSION</td> <td>30/08/13</td> </tr> <tr> <td>C</td> <td>HRM SUBMISSION</td> <td>30/08/13</td> </tr> <tr> <td></td> <td>HRM SUBMISSION</td> <td>20/01/14</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	No.	Description	Date	A	SCHEDULE S-1		B	DHUB SUBMISSION	30/08/13	C	HRM SUBMISSION	30/08/13		HRM SUBMISSION	20/01/14																																		Stamp 	Title Floor Plan Penthouse	Scale 1/16" = 1'-0"	Date January, 2014
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Attachment D – Design Manual Checklist – Case 19079

Section	Guideline	Complies	Discussion	N/A
2	Downtown Precinct Guide lines (<i>refer to Map 2 for Precinct Boundaries</i>)			
2.8	Precinct 8: Cogswell Area			
2.8a	Remove the interchange infrastructure and re-establish streets, blocks, and open spaces that are an extension and reinforcement of the historic downtown grid and that provide connectivity between the north end and downtown.			●
2.8b	Encourage the historic downtown grid to be reinstated as redevelopment occurs.			●
2.8c	Allow high-rise, mixed-use development comprised of relatively large podiums with point towers so as to maintain views of the water.	●		
2.8d	Focus pedestrian activities at sidewalk level through the provision of weather protected sidewalks using well-designed canopies and awnings.	●		
2.8e	Define the area with modern landmark buildings.	●		
2.8f	Redevelop larger existing sites such as Scotia Square and Purdy's Wharf with street-oriented infill.			●
2.8g	Provide for public access and open space on the waterfront lands which shall include continuous public access at the water's edge and green space at the terminus of each east-west street extension (i.e. Cogswell).			●
2.8h	Require that development step down to the water's edge and to the existing low-rise neighbourhoods to the north.			●
2.8i	Enhance important vistas and focal points such as the view of the water.	●		
2.8j	Ensure that there are pedestrian-oriented street level uses, particularly at water's edge and fronting open spaces.	●		
2.8k	Encourage intensification of underdeveloped existing sites such as the Trademart building and the police station.	●		
2.8l	Consider this precinct as being an important location for new transit and parking facilities.	●		

Attachment D – Design Manual Checklist – Case 19079

Section	Guideline	Complies	Discussion	N/A
2.8m	Permit surface parking lots only when they are an accessory use and are in compliance with the Land Use By-Law and design guidelines.			●
2.8n	Architectural and open space design shall respond to the significant grade changes in this area. Refer to Section 3.2.5 of the Design Manual for further guidance.	●		
3	General Design Guidelines			
3.1	The Streetwall			
3.1.1	Pedestrian-Oriented Commercial On certain downtown streets pedestrian-oriented commercial uses are required to ensure a critical mass of activities that engage and animate the sidewalk These streets will be defined by streetwalls with continuous retail uses and are shown on Map 3 of the Land Use By-law. All retail frontages should be encouraged to reinforce the ‘main street’ qualities associated with the historic downtown, including:			
3.1.1a	The articulation of narrow shop fronts, characterized by close placement to the sidewalk.	●		
3.1.1b	High levels of transparency (non-reflective and non-tinted glazing on a minimum of 75% of the first floor elevation).	●		
3.1.1c	Frequent entries.	●		
3.1.1d	Protection of pedestrians from the elements with awnings and canopies is required along the pedestrian-oriented commercial frontages shown on Map 3, and is encouraged elsewhere throughout the downtown.	●		
3.1.1e	Patios and other spill-out activity is permitted and encouraged where adequate width for pedestrian passage is maintained.	●		
3.1.1f	Where non-commercial uses are proposed at grade in those areas where permitted, they should be designed such that future conversion to retail or commercial uses is possible.			●
3.1.2	Streetwall Setback (<i>refer to Map 6</i>)			
3.1.2a	Minimal to no Setback (0-1.5m): Corresponds to the	●		

Attachment D – Design Manual Checklist – Case 19079

Section	Guideline	Complies	Discussion	N/A
	traditional retail streets and business core of the downtown. Except at corners or where an entire block length is being redeveloped, new buildings should be consistent with the setback of the adjacent existing buildings.			
3.1.2b	Setbacks vary (0-4m): Corresponds to streets where setbacks are not consistent and often associated with non-commercial and residential uses or house-form building types. New buildings should provide a setback that is no greater or lesser than the adjacent existing buildings.			●
3.1.2c	Institutional and Parkfront Setbacks (4m+): Corresponds to the generous landscaped setbacks generally associated with civic landmarks and institutional uses. Similar setbacks designed as landscaped or hardscaped public amenity areas may be considered where new public uses or cultural attractions are proposed along any downtown street. Also corresponds to building frontages on key urban parks and squares where an opportunity exists to provide a broader sidewalk to enable special streetscape treatments and spill out activity such as sidewalk patios.			●
3.1.3	Streetwall Height To ensure a comfortable human-scaled street enclosure, streetwall height should generally be no less than 11 metres and generally no greater than a height proportional (1:1) to the width of the street as measured from building face to building face. Accordingly, maximum streetwall heights are defined and correspond to the varying widths of downtown streets – generally 15.5m, 17m or 18.5m. Consistent with the principle of creating strong edges to major public open spaces, a streetwall height of 21.5m is permitted around the perimeter of Cornwallis Park. Maximum Streetwall Heights are shown on Map 7 of the Land Use By-law.	●		
3.2	Pedestrian Streetscapes			
3.2.1	Design of the Streetwall			
3.2.1a	The streetwall should contribute to the fine grained character of the streetscape by articulating the façade in a vertical rhythm that is consistent with the prevailing character of narrow buildings and storefronts.	●		

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Section	Guideline	Complies	Discussion	N/A
3.2.1b	The streetwall should generally be built to occupy 100% of a property’s frontage along streets.	●		
3.2.1c	Generally, streetwall heights should be proportional to the width of the right-of-way, a 1:1 ratio between streetwall height and right of way width. Above the maximum streetwall height, further building heights are subject to upper storey setbacks.	●		
3.2.1d	In areas of contiguous heritage resources, streetwall height should be consistent with heritage buildings.			●
3.2.1e	Streetwalls should be designed to have the highest possible material quality and detail.	●		
3.2.1f	Streetwalls should have many windows and doors to provide ‘eyes on the street’ and a sense of animation and engagement.	●		
3.2.1g	Along pedestrian frontages at grade level, blank walls shall not be permitted, nor shall any mechanical or utility functions (vents, trash vestibules, propane vestibules, etc.) be permitted.	●		
3.2.2	Building Orientation and Placement			
3.2.2a	All buildings should orient to, and be placed at, the street edge with clearly defined primary entry points that directly access the sidewalk.	●		
3.2.2b	Alternatively, buildings may be sited to define the edge of an on-site public open space, for example, plazas, promenades, or eroded building corners resulting in the creation of public space (see diagram at right). Such treatments are also appropriate for Prominent Visual Terminus sites identified on Map 9 of the Land Use By-law.			●
3.2.2c	Sideyard setbacks are not permitted in the Central Blocks defined on Map 8 of the Land Use Bylaw, except where required for through-block pedestrian connections or vehicular access.			●
3.2.3	Retail Uses			
3.2.3a	All mandatory retail frontages (Map 3 of Land Use By-law) should have retail uses at-grade with a minimum 75% glazing to achieve maximum visual transparency	●		

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Section	Guideline	Complies	Discussion	N/A
	and animation.			
3.2.3b	Weather protection for pedestrians through the use of well-designed awnings and canopies is required along mandatory retail frontages (Map 3) and is strongly encouraged in all other areas.	●		
3.2.3c	Where retail uses are not currently viable, the grade-level condition should be designed to easily accommodate conversion to retail at a later date.			●
3.2.3d	Minimize the transition zone between retail and the public realm. Locate retail immediately adjacent to, and accessible from, the sidewalk.	●		
3.2.3e	Avoid deep columns or large building projections that hide retail display and signage from view.	●		
3.2.3f	Ensure retail entrances are located at or near grade. Avoid split level, raised or sunken retail entrances. Where a changing grade along a building frontage may result in exceedingly raised or sunken entries it may be necessary to step the elevation of the main floor slab to meet the grade changes.	●		
3.2.3g	Commercial signage should be well designed and of high material quality to add diversity and interest to retail streets, while not being overwhelming.	●		
3.2.4	Residential Uses			
3.2.4a	Individually accessed residential units (i.e. town homes) should have front doors on the street, with appropriate front yard privacy measures such as setbacks and landscaping. Front entrances and first floor slabs should be raised above grade level for privacy, and should be accessed through means such as steps, stoops and porches.			●
3.2.4b	Residential units accessed by a common entrance and lobby may have the entrance and lobby elevated or located at grade-level, and the entrance should be clearly recognizable from the exterior through appropriate architectural treatment.	●		
3.2.4c	Projects that feature a combination of individually accessed units in the building base with common	●		

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Section	Guideline	Complies	Discussion	N/A
	entrance or lobby-accessed units in the upper building, are encouraged.			
3.2.4d	Units with multiple bedrooms (2 and 3 bedroom units) should be provided that have immediately accessible outdoor amenity space. The amenity space may be at-grade or on the landscaped roof of a podium.	●		
3.2.4e	Units provided to meet housing affordability requirements shall be uniformly distributed throughout the development and shall be visually indistinguishable from market-rate units through the use of identical levels of design and material quality.			●
3.2.4f	Residential uses introduced adjacent to pre-existing or concurrently developed eating and drinking establishments should incorporate acoustic dampening building materials to mitigate unwanted sound transmission.	●		
3.2.5	Sloping Conditions			
3.2.5a	Maintain active uses at-grade, related to the sidewalk, stepping with the slope. Avoid levels that are distant from grade.	●		
3.2.5b	Provide a high quality architectural expression along facades. Consider additional detailing, ornamentation or public art to enhance the experience.	●		
3.2.5c	Provide windows, doors and other design articulation along facades; blank walls are not permitted.	●		
3.2.5d	Articulate the façade to express internal floor or ceiling lines; blank walls are not permitted.	●		
3.2.5e	Wrap retail display windows a minimum of 4.5 metres around the corner along sloping streets, where retail is present on the sloping street.			●
3.2.5f	Wherever possible, provide pedestrian entrances on sloping streets. If buildings are fully accessible at other entrances, consider small flights of steps or ramps up or down internally to facilitate entrances on the slope.	●		
3.2.5g	Flexibility in streetwall heights is required in order to transition from facades at a lower elevations to facades at higher elevations on the intersecting streets. Vertical	●		

Attachment D – Design Manual Checklist – Case 19079

Section	Guideline	Complies	Discussion	N/A
	corner elements (corner towers) can facilitate such transitions, as can offset or “broken” cornice lines at the top of streetwalls on sloping streets.			
3.2.6	<p>Elevated Pedestrian Walkways <i>The intent of these guidelines is to focus pedestrian activity and at the sidewalk level in support of sidewalk level retail establishments, and overall public realm vibrancy. However pedways may be appropriate or necessary in some case.</i></p>			
3.2.6a	Not be constructed in a north-south direction such that they block views up and down the east-west streets in the downtown.			●
3.2.6b	Not be more than a single storey in height.			●
3.2.6c	Strive to have as low a profile as possible.			●
3.2.6d	Be constructed of highly transparent materials.			●
3.2.6e	Be of exceptionally high design and material quality.			●
3.2.7	Other Uses			
3.2.7a	Non-commercial uses at-grade should animate the street with frequent entries and windows.			●
3.3	Building Design			
3.3.1	Building Articulation			
3.3.1a	<p>To encourage continuity in the streetscape and to ensure vertical breaks in the façade, buildings shall be designed to reinforce the following key elements through the use of setbacks, extrusions, textures, materials, detailing, etc.:</p> <ul style="list-style-type: none"> ● Base: Within the first four storeys, a base should be clearly defined and positively contribute to the quality of the pedestrian environment through animation, transparency, articulation and material quality. ● Middle: The body of the building above the base should contribute to the physical and visual quality of the overall streetscape. ● Top: The roof condition should be distinguished from the rest of the building and designed to contribute to the visual quality of the skyline. 	●		

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Section	Guideline	Complies	Discussion	N/A
3.3.1b	Buildings should seek to contribute to a mix and variety of high quality architecture while remaining respectful of downtown's context and tradition.	●		
3.3.1c	To provide architectural variety and visual interest, other opportunities to articulate the massing should be encouraged, including vertical and horizontal recesses or projections, datum lines, and changes in material, texture or colour.	●		
3.3.1d	Street facing facades should have the highest design quality; however, all publicly viewed facades at the side and rear should have a consistent design expression.	●		
3.3.2	Materials			
3.3.2a	Building materials should be chosen for their functional and aesthetic quality, and exterior finishes should exhibit quality of workmanship, sustainability and ease of maintenance.	●		
3.3.2b	Too varied a range of building materials is discouraged in favour of achieving a unified building image.	●		
3.3.2c	Materials used for the front façade should be carried around the building where any facades are exposed to public view at the side or rear.	●		
3.3.2d	Changes in material should generally not occur at building corners.	●		
3.3.2e	Building materials recommended for new construction include brick, stone, wood, glass, in-situ concrete and pre-cast concrete.	●		
3.3.2f	In general, the appearance of building materials should be true to their nature and should not mimic other materials.	●		
3.3.2g	Stucco and stucco-like finishes shall not be used as a principle exterior wall material.	●		
3.3.2h	Vinyl siding, plastic, plywood, concrete block, EIFS (exterior insulation and finish systems where stucco is applied to rigid insulation), and metal siding utilizing exposed fasteners are prohibited.	●		

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Section	Guideline	Complies	Discussion	N/A
3.3.2i	Darkly tinted or mirrored glass is prohibited. Clear glass is preferable to light tints. Glare reduction coatings are preferred.	●		
3.3.2j	Unpainted or unstained wood, including pressure treated wood, is prohibited as a building material for permanent decks, balconies, patios, vernadas, porches, railings and other similar architectural embellishments, except that this guidelines shall not apply to seasonal sidewalk cafes.	●		
3.3.3	Entrances			
3.3.3a	Emphasize entrances with such architectural expressions as height, massing, projection, shadow, punctuation, change in roof line, change in materials, etc.	●		
3.3.3b	Ensure main building entrances are covered with a canopy, awning, recess or similar device to provide pedestrian weather protection.	●		
3.3.3c	Modest exceptions to setback and stepback requirements are possible to achieve these goals.			●
3.3.4	Roof Line and Roofscapes			
3.3.4a	Buildings above six storeys (mid and high-rise) contribute more to the skyline of individual precincts and the entire downtown, so their roof massing and profile must include sculpting, towers, night lighting or other unique features.	●		
3.3.4b	The expression of the building ‘top’ (see previous) and roof, while clearly distinguished from the building ‘middle’, should incorporate elements of the middle and base such as pilasters, materials, massing forms or datum lines.	●		
3.3.4c	Landscaping treatment of all flat rooftops is required. Special attention shall be given to landscaping rooftops in precincts 3, 5, 6 and 9, which abut Citadel Hill and are therefore pre-eminently visible. The incorporation of living “green roofs” is strongly encouraged.	●		
3.3.4d	Ensure all rooftop mechanical equipment is screened from view by integrating it into the architectural design of the building and the expression of the building ‘top’. Mechanical rooms and elevator and stairway head-	●		

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Section	Guideline	Complies	Discussion	N/A
	houses should be incorporated into a single well-designed roof top structure. Sculptural and architectural elements are encouraged to add visual interest.			
3.3.4e	Low-rise flat roofed buildings should provide screened mechanical equipment. Screening materials should be consistent with the main building design. Sculptural and architectural elements are encouraged for visual interest as the roofs of such structures have very high visibility.			●
3.3.4f	The street-side design treatment of a parapet should be carried over to the back-side of the parapet for a complete, finished look where they will be visible from other buildings and other high vantage points.	●		
3.4	Civic Character			
3.4.1	Prominent Frontages and View Termini			
3.4.1a	Prominent Visual Terminus Sites: These sites identify existing or potential buildings and sites that terminate important view corridors and that can strengthen visual connectivity across downtown. On these sites distinctive architectural treatments such as spires, turrets, belvederes, porticos, arcades, or archways should be provided. Design elements (vertical elements, porticos, entries, etc.) should be aligned to the view axis. Prominent Visual Terminus Sites are shown on Map 9 in the Land Use By-law.			●
3.4.1b	Prominent Civic Frontage: These frontages identify highly visible building sites that front onto important public open spaces such as the Citadel and Cornwallis Park, as well as important symbolic or ceremonial visual and physical connections such as the waterfront boardwalks, the proposed Grand Promenade linking the waterfront to the Town Clock, and other eastwest streets that connect the downtown to the waterfront. Prominent Civic Frontages are shown on Map 1 in Appendix A of the Design Manual.			●
3.4.2	Corner Sites			
3.4.2a	Provision of a change in the building massing at the corner, in relation to the streetwall.			●
3.4.2b	Provision of distinctive architectural treatments such as			●

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Section	Guideline	Complies	Discussion	N/A
	spires, turrets, belvederes, porticos, arcades, or archways.			
3.4.2c	Developments on all corner sites must provide a frontal design to both street frontages.			●
3.4.2d	Alternatively, buildings may be sited to define the edge of an on-site public open space, for example, plazas, promenades, or eroded building corners resulting in the creation of public space.			●
3.4.3	Civic Buildings			
3.4.3e	Civic buildings entail a greater public use and function, and therefore should be prominent and recognizable, and be designed to reflect the importance of their civic role.			●
3.4.3f	Provide distinctive architectural treatments such as spires, turrets, belvederes, porticos, arcades, or archways.			●
3.4.3g	Ensure entrances are large and clearly visible. Provide a building name and other directional and wayfinding signage.			●
3.4.3h	Very important public buildings should have unique landmark design. Such buildings include transit terminals, museums, libraries, court houses, performing arts venues, etc.			●
3.5	Parking Services and Utilities			
3.5.1	Vehicular Access, Circulation, Loading and Utilities			
3.5.1a	Locate parking underground or internal to the building (preferred), or to the rear of buildings.	●		
3.5.1b	Ensure vehicular and service access has a minimal impact on the streetscape, by minimizing the width of the frontage it occupies, and by designing integrated access portals and garages.	●		
3.5.1c	Locate loading, storage, utilities, areas for delivery and trash pick up out of view from public streets and spaces, and residential uses.			●
3.5.1d	Where access and service areas must be visible from or shared with public space, provide high quality materials and features that can include continuous paving treatments, landscaping and well designed doors and			●

Attachment D – Design Manual Checklist – Case 19079

Section	Guideline	Complies	Discussion	N/A
	entries.			
3.5.1e	Coordinate and integrate utilities, mechanical equipment and meters with the design of the building, for example, using consolidated rooftop structures or internal utility rooms.	●		
3.5.1f	Locate heating, venting and air conditioning vents away from public streets. Locate utility hook-ups and equipment (i.e. gas meters) away from public streets and to the sides and rear of buildings, or in underground vaults.	●		
3.5.2	Parking Structures			
3.5.2a	Where multi-storey parking facilities are to be integrated into new developments they should be visually obscured from abutting streets by wrapping them with 'sleeves' of active uses.			●
3.5.2b	Animated at-grade uses should occupy the street frontage, predominantly retail, with 75% transparency.			●
3.5.2c	At-grade parking access and servicing access to retail stores should be provided to the rear and concealed from the street.			●
3.5.2d	Provide articulated bays in the façade to create fine-grained storefront appearance.			●
3.5.2e	Provide pedestrian amenities such as awnings, canopies, and sheltered entries.			●
3.5.2f	Provide façade treatment that conceals the parking levels and that gives the visual appearance of a multi-storey building articulated with 'window' openings.			●
3.5.2g	Design of parking structures such that they can be repurposed to other uses (i.e. level floor slabs) is encouraged.			●
3.5.2h	Provide cap treatment (at roof or cornice line) that disguises views of rooftop parking and mechanical equipment.			●
3.5.2i	Utilize high quality materials that are compatible with existing downtown buildings.			●

Attachment D – Design Manual Checklist – Case 19079

Section	Guideline	Complies	Discussion	N/A
3.5.2j	Locate pedestrian access to parking at street edges, with direct access. Ensure stairs to parking levels are highly visible from the street on all levels.			●
3.5.2k	Ensure all interior and exterior spaces are well lit, inclusive of parking areas, vehicular circulation aisles, ramps, pedestrian accesses, and all entrances.			●
3.5.2l	Maintain continuous public access to parking at all hours and in all seasons.			●
3.5.2m	Minimize the width and height of vehicular access points to the greatest practical extent.			●
3.5.2n	Provide clear sightlines for vehicles and pedestrians at sidewalks, by setting back columns and walls, and providing durable low maintenance mirrors.			●
3.5.2o	Bicycle parking must be provided in visible at grade locations, and be weather-protected.			●
3.5.3	Surface Parking			
3.5.3a	Surface lots shall be located out of sight behind buildings or inside city blocks rather than adjacent to streets or at corners.			●
3.5.3b	Surface lots shall only be moderate in size (10-20 cars) for the handicapped and visitors, and must include bicycle parking opportunities.			●
3.5.3c	Surface parking shall be designed to include internal landscaping or hardscaping on islands at the ends of each parking aisle, clearly marked pedestrian access and paths, lighting and be concealed with landscaped buffers or other mitigating design measures.			●
3.5.3d	In addition to landscaping, a variety of hardscaping materials should be used to add visual texture and reduce apparent parking lot scale. Landscaping should be low maintenance.			●
3.5.4	Lighting			
3.5.4a	Consider a variety of lighting opportunities inclusive of street lighting, pedestrian lighting, building up- or down-lighting, internal building lighting, internal and external signage illumination (including street	●		

Attachment D – Design Manual Checklist – Case 19079

Section	Guideline	Complies	Discussion	N/A
	addressing), and decorative or display lighting.			
3.5.4b	Illuminate landmark buildings and elements, such as towers or distinctive roof profiles.	●		
3.5.4c	Encourage subtle night-lighting of retail display windows.			●
3.5.4d	Ensure there is no light trespass onto adjacent residential areas by the use of shielded “full cutoff fixtures.	●		
3.5.4e	Lighting shall not create glare for pedestrians or motorists by presenting unshielded lighting elements in view.			●
3.5.4f	Signs	●		
3.5.5	Integrate signs into the design of building facades by placing them within architectural bay, friezes or datum lines, including coordinated proportion, materials and colour.			
3.5.5a	Signs should not obscure windows, cornices or other architectural elements.	●		
3.5.5b	Sign scale should reinforce the pedestrian scale of the downtown, through location at or near grade level for viewing from sidewalks.	●		
3.5.5c	Large freestanding signs (such as pylons), signs on top of rooftops, and large scale advertising (such as billboards) are prohibited.	●		
3.5.5d	Signs on heritage buildings should be consistent with traditional sign placement such as on a sign band, window lettering, or within architectural orders.	●		
3.5.5e	Street addressing shall be clearly visible for every building.			●
3.5.5f	The material used in signage shall be durable and of high quality, and should relate to the materials and design language of the building.	●		
3.5.5g		●		

Friday, 17 May, 2013

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 Planning Applications
 Planning & Development Services
 PO Box 1749
 Halifax, NS, B3J 3A5

Landscape Architecture

Environmental Planning

Urban Design

Engineering

Attn: Mr Richard Harvey, LPP

Re: Proposed Rainnie Dr. Site Wind Impact Qualitative Assessment

Dear Richard,

The proposed 7-storey mixed-use development project near the corner of Rainnie Dr. and Brunswick Street sits just northeast of the historic Citadel Hill. To the north of the site is the Cogswell precinct and Cogswell Interchange. Development here ranges from single-family residential to sporadic high rise apartment towers up to 49 metres in height. To the east and south lie the Historic Properties district and upper central downtown. This area contains a range of mid and high rise building types ranging from 22 to 49 metres in height and marks the entry into the Halifax downtown corridor. At the intersection to the immediate southeast of the site, is another landmark, the Halifax Metro Centre, which, along with the World Trade & Convention Centre, consist of a contiguous 3-storey building footprint the occupies an entire city block.

The following assessment looks to interpret the probable impacts to existing wind speed and turbulence on surrounding properties and sidewalks as a result of the proposed Rainnie Drive development. To that end wind data recorded at the local Shearwater Airport between 1953 and 2000 was assembled and analyzed using Windrose PRO 2.3 to understand the intensity, frequency, and direction of winds at the Rainnie Drive site. The resulting diagram (Fig 1.) shows that the highest and most frequent wind speeds come **from** the west and south. The relative distribution of higher wind speeds are somewhat constant from the north, north-west, and south-west. High winds from the north-east, east, and south-east are substantially infrequent when compared to other directions. This has visible implications for development on the site as is shown in Fig 2.

Urban Windbreak Impacts

The surrounding buildings shown on Fig 2 (red numbers represent # of stories) already create significant wind implications on this site. Because the study site is already surrounded by taller buildings on the north and massive land

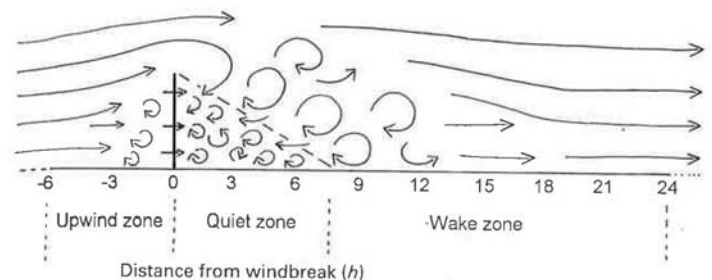


Fig. 6.4. Zones with altered airflow caused by a windbreak. Vertical dimension is magnified for illustration. Vertical line indicates windbreak; h = height of windbreak. Large eddies = strong turbulence. Uninterrupted airflow in the open is to the left of the upwind zone, and to the right of the wake zone. Widths of zones are approximate. Based on several sources.

Figure 1. Wind Rose for Shearwater Airport. Diagram shows winds in the FROM direction.

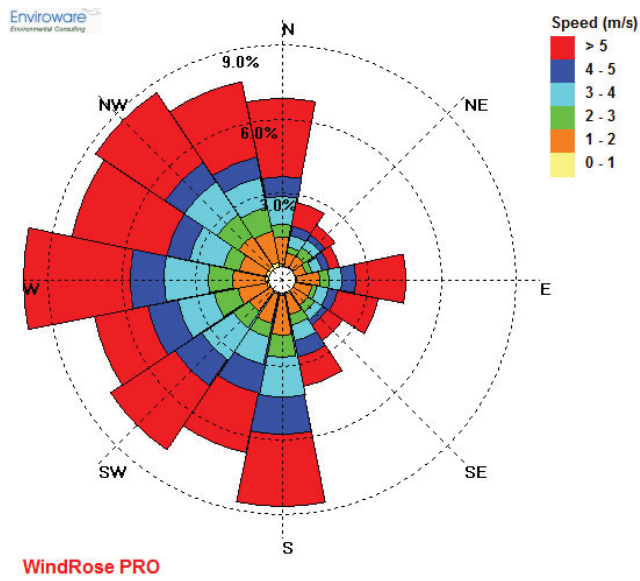
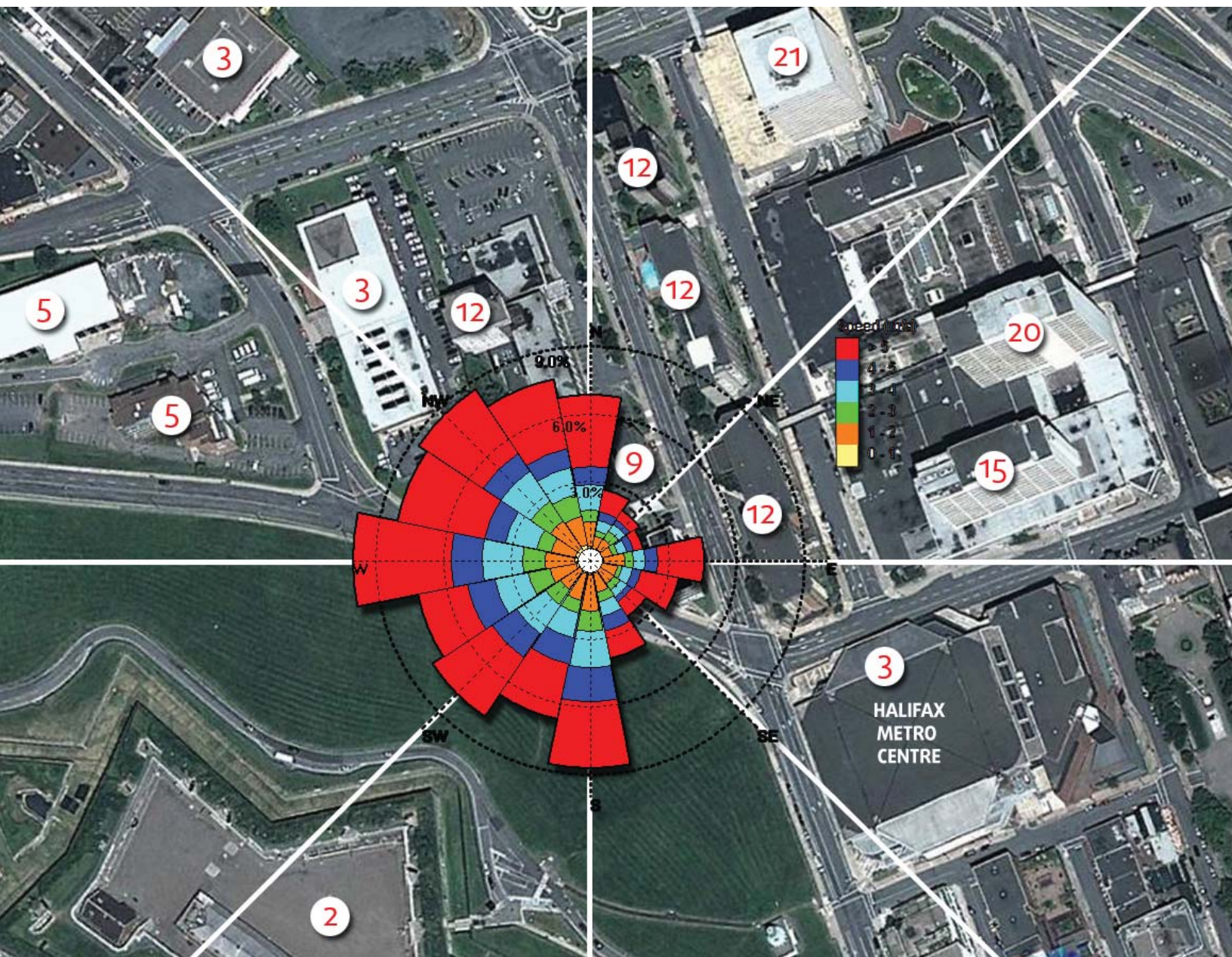


Figure 2. Wind Rose overlain on top of the proposed development site. Red #'s denote # storeys



berming on the southwest side (the direction of prevailing winds in winter and summer), the area is well within the wake zone of these existing entities. Wake zones for zero porosity structures can extend 8-30 times the height of a structure. So, a 10-storey building can generate reduced wind speeds between 800 and 3,000 feet on the lee side. Beyond the wake zone, there are typically more gusts and eddies as a result of more turbulent air. On the trailing edges of the building, wind strikes the building and concentrates the flow, accelerating the wind speed near the trailing fringes and on the windward side. As the ground levels of the proposed Rainnie Dr. building are already within the wake zone of neighbouring tall structures, it is doubtful that any wind changes will occur at the sidewalk on the windward side. Wind speed will likely be reduced on the leeward side of the building toward the Halifax Citadel Hotel most of the year, and along Rainnie Dr. during the winter months.

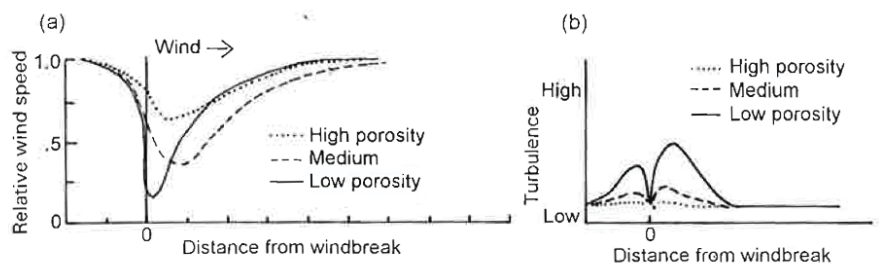


Fig. 6.5. Effect of windbreak porosity on **streamline and turbulent airflows**. (a) Streamline airflow based on treebelts of different foliage densities; wind measurements at 1.4 m height. From Heisler & DeWalle (1988) with permission of Elsevier Science Publishers. (b) Generalized expected turbulence pattern based on Robinette (1972), Rosenberg *et al.* (1983), Heisler & DeWalle (1988), McNaughton (1988).

While wind turbulence is often increased by structures, wind speed is reduced on the leeward side (down-wind) and increased around the trailing fringes of the building down-wind. Low porous or no porous structures such as buildings will reduce wind speeds immediately adjacent to the structure on the windward side (as shown in the above graph). Wind speed is also reduced on the leeward side but generally reaches original approach speeds at an average distance of 4 times the structure height.

COMFA Model (Brown and Gillespie, 1995)

Dr. Robert Brown of the University of Guelph developed the COMFA model to model human thermal comfort as a result of a number of variables including wind speed. Human thermal comfort is more pronounced during low-activity situations like sitting than during high-activity situations like running. The model is explained in the attached paper by Brown and LeBlanc (2003). Mr. LeBlanc was also the co-author with Dr. Brown in the 2008 ed. "Landscape Architectural Graphic Standards", Microclimate Chapter. This model is the basis for the theoretical assessment of human thermal comfort changes as a result of the building explained below.

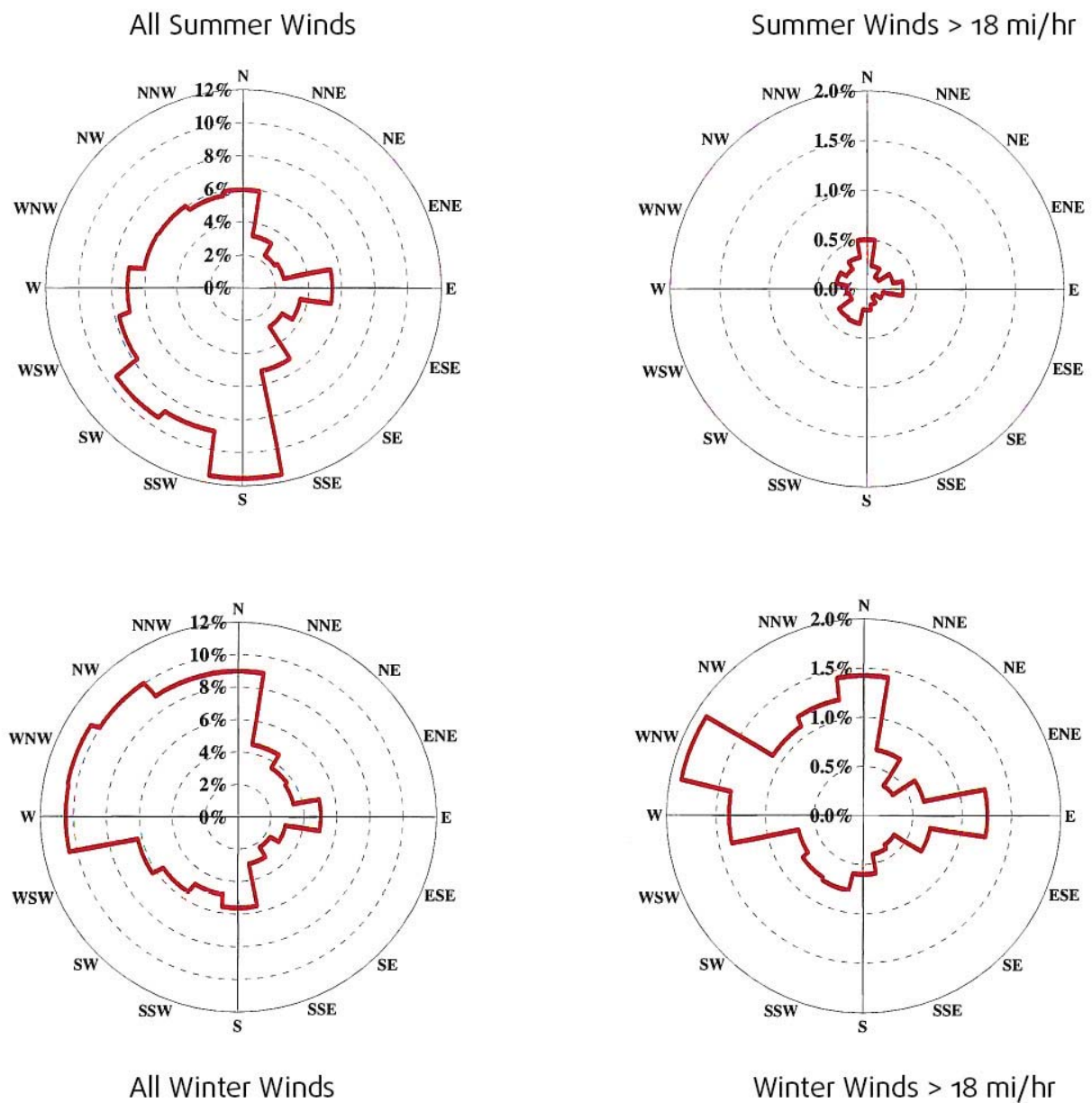
Seasonal Wind Impacts

Looking at the seasonal wind impacts (Fig 3.), during the summer the majority of winds come from the southwest quadrant, approximately 46%, with the remaining spread amongst the other 3 ordinal directions: roughly 20% from the southeast, 24% from the northwest, and a mere 10% originating out of the northeast quadrant. Overall, the winds are mild, with just over two percent of all winds reaching speeds over 18 miles

per hour (+/- 29 kph). **Summer** winds are likely to be reduced at the sidewalk on Rainnie Dr. just south of the development where large wake zone flows from Citadel Hill flow into the front facade of the building. With the Citadel Hotel (12-storey) buildings being constructed on the north side of the Rainnie building, it is doubtful that there will be an increase in wind speed to the north on Cogswell in the summer as a result of the proposed building because of the predominant impact of the Citadel Hotel. The proposed building may also slightly elevate summer wind wake zones on either side of the building as wind is accelerated up and around the structure. The indentations on the front facade have been purposely designed to reduce these impacts. There will be very little wind impacts on properties to the west of the site in the summer and a slight elevation of wind speed between the new development and the property to the east of the site.

Figure 3. Seasonal Wind Direction for Shearwater Airport

Shearwater, NS. 1953-2000



In the **winter** the prevailing winds shift to a northwest dominated occurrence. Approximately 48% of all winds come from the northwest. Winter winds are also stronger, with around fifteen percent of all winds reaching speeds above 18 miles per hour. The new structure could elevate the wind speeds along the toe of Citadel Hill and at the fringes of Brunswick Street, however the impact would be minimal. During high wind conditions (>18mph), only the winds from the west-northwest (that occur 1.5% of the time) will impact pedestrians on the Rainnie St. sidewalk. During these times, wind speeds could increase up to 20% from existing conditions as wind is forced and accelerated around the building.

It should be noted that the building's upper stepback should reduce wind speed in the direct vicinity of the sidewalks. Down-gusts from the upper storeys will hit the upper raised terraces, reducing the wind speed at the sidewalk but causing slightly more turbulence.

Wind Comfort Assessment

Changes in wind speed as a result of buildings vary depending on wind direction and building design. On the upwind side of the building (north and west) there can be more turbulent wind but little change in wind speed if the building is vertically stepped. On the downwind side of the building (south and east), wind speed is often reduced up to eight times the height of the building in what is often referred to as the "quiet zone". On the east side of the new building, 'streamlines' can occur where the wind is accelerated through the openings between buildings. The taller the buildings, the greater the potential for increased wind speed. The area where this will impact as a result of the new building will be a small undeveloped zone to the south of the Citadel Hotel when winds prevail from the south (about 10% of the time during the summer) and from the north during the winter (about 9%) of the time. Even during these infrequent times, wind speeds will likely not increase more than 10% at the street or sidewalk level due to staggered building footprints, vertical stepping, and existing vegetation. This eastern corridor is also reserved for maintenance access only and will remain as such with the proposed building. There are no proposed access points along this corridor.

The areas most likely to be impacted by the new building due to increased turbulence and small eddies will be the sidewalk along Rainnie Dr. during the summer. This will only occur during prevailing south wind directions (12% of the time). Even with these minor increases we do not anticipate any more 'uncomfortable' conditions than those that already exist. The building should not create any additional 'uncomfortable' conditions more than 1% of the time. Around other areas of the building, there will be no measurable change in wind speed as a result of the development. There will be no measurable change in discomfort for people walking on any of the sidewalks surrounding the development, and no measurable change in comfort for people sitting around the development with the exception of the eastern corridor. Here, as discussed, streamlines may occur on occasion in the summer months, but the impact will be minimal. The front entrance may experience occasional small eddies when prevailing winds come from south which may make standing at this location uncomfortable (the increase in discomfort as a result of the building will be less than 1% of the time).

Summary

As a result of this development, the noticeable impacts of wind speed will be along Rainnie Dr. where speeds will be mostly reduced during the winter months except near the trailing edge of the building where there will be a slight increase in wind speed. However, the building will likewise create a small zone of lower wind speeds along the front facade during the summer months. The 7-storey building is not anticipated to have any measurable change in human thermal comfort for a person sitting, standing, walking or running within the anticipated wake zones of the building. The existence of several multi-story buildings in the adjacent areas along with Citadel Hill, currently disrupt street level wind patterns so much that the addition of the 7-storey Rainnie Dr. building will have little effect on the overall human thermal comfort of the neighbourhood. Changes to neighbourhood wind patterns may see slight increases in mild localized seasonal breeze turbulence but little, changes in wind speed.

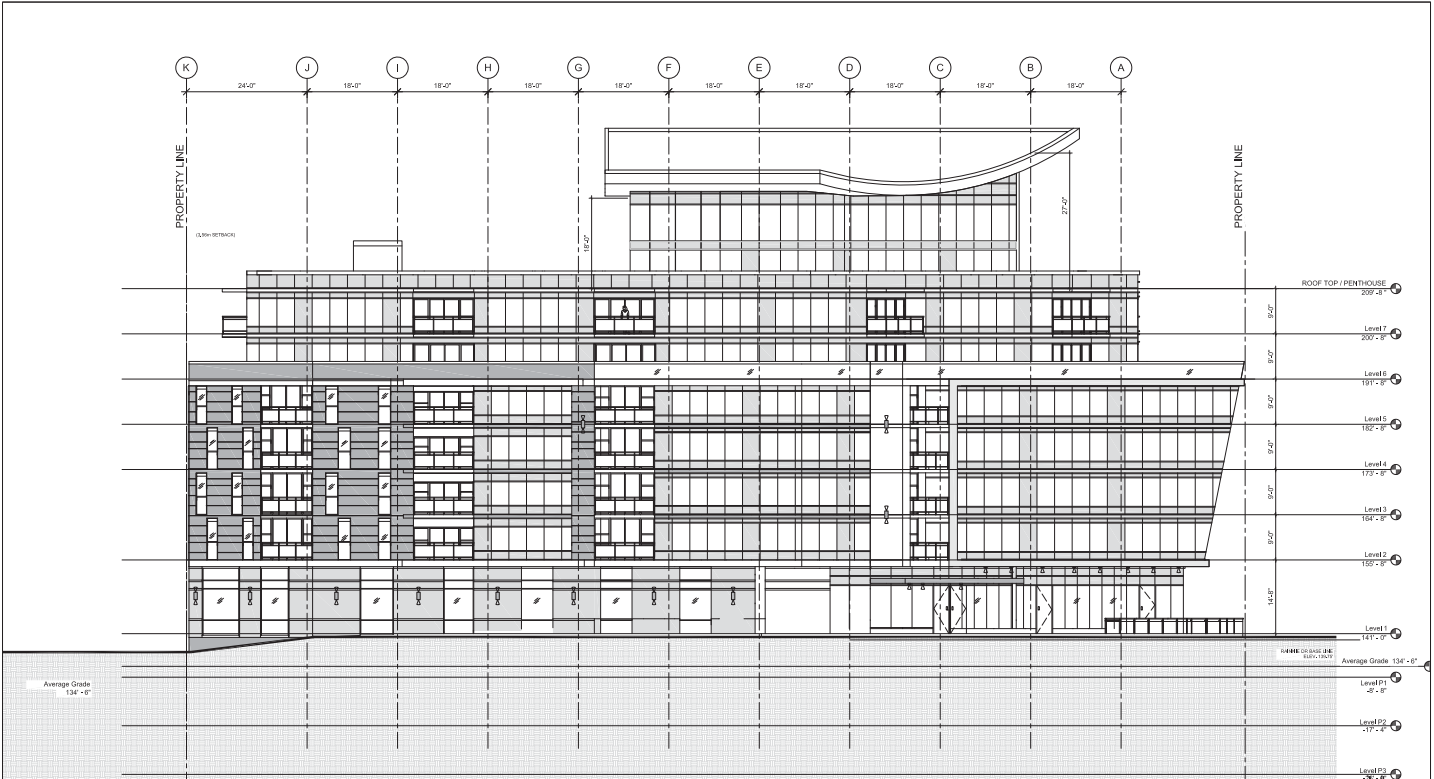
If you have any questions please contact me at your convenience.

Sincerely,


Signed by

Robert LeBlanc, president
Ekistics Planning & Design

Attachment F - Lighting Schematics



① WEST
1/16" = 1'-0"

- Recessed Pot Lighting
- Sconce Lighting A
- Sconce Lighting B

Proposed
5445 Rainnie Dr
References
Owner

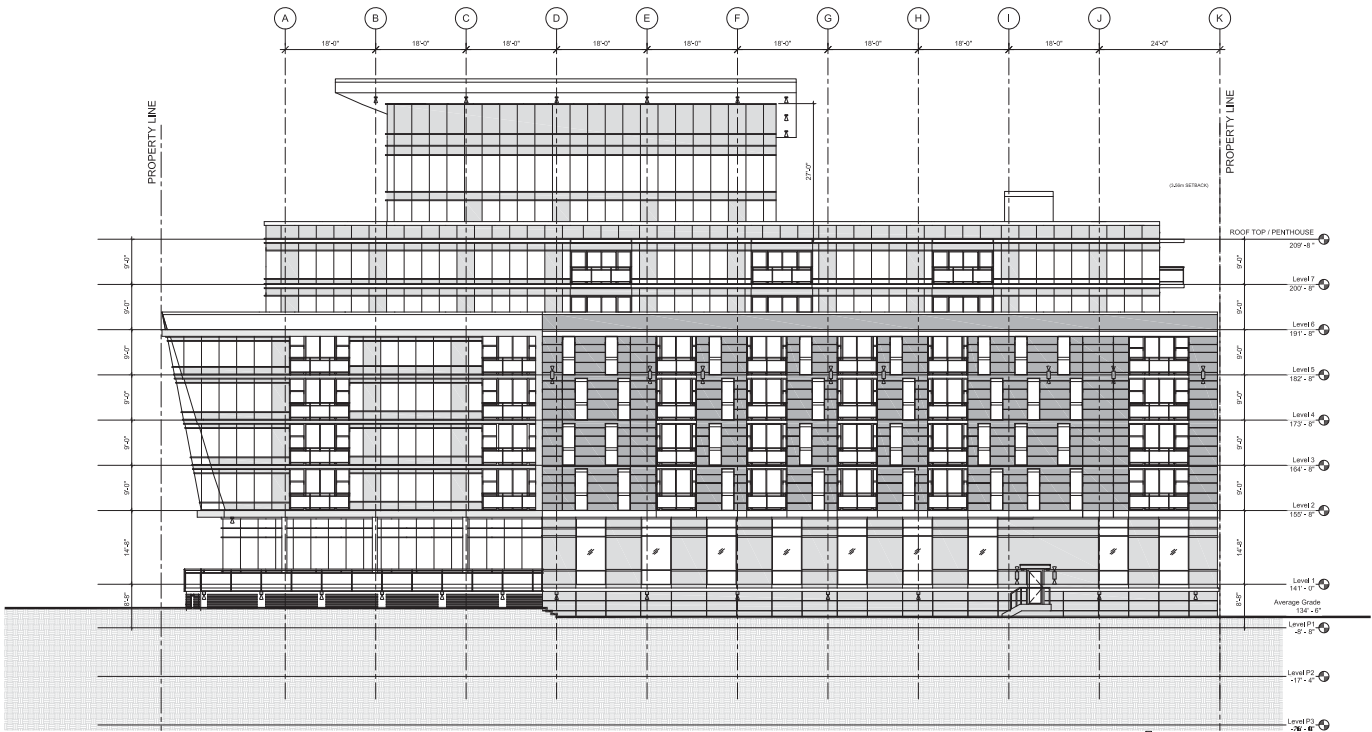
No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
C	HRM SUBMISSION	18/11/13
	HRM SUBMISSION	20/01/14

Stamp

Title
**Exterior Lighting
West Elevation**

Scale	NTS	Date	January, 2014
Drawn by	STAFF	Sheet	A13
Checked by	RM		
Project number	2013-06		





① EAST
1/16" = 1'-0"

- Recessed Pot Lighting
- Sconce Lighting A
- Sconce Lighting B

Proposed
5445 Rainnie Dr

References
Owner

No.	Description	Date
A	SCHEDULE S-1	
B	DHLUB SUBMISSION	30/08/13
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	HRM SUBMISSION	20/01/14

Stamp

Title
**Exterior Lighting
East Elevation**

Scale	NTS	Date	January, 2014
Drawn by	STAFF	Sheet	A14
Checked by	RM		
Project number	2013-06		

