



City of Richmond
Planning and Development Department

Report to Development Permit Panel

To: Development Permit Panel
From: Brian J. Jackson, MCIP
Director of Development
Date: February 23, 2011
File: DP 08-432193
Re: **Application by Interface Architecture Inc. for a Development Permit at
12351 No. 2 Road**

Staff Recommendation

That a Development Permit be issued which would:

1. Permit the construction of a 44-unit townhouse development at 12351 No. 2 Road on a site zoned "Town Housing (ZT48) – Trites Area (Steveston) and South McLennan (City Centre)".

Brian J. Jackson, MCIP
Director of Development

SB:blg
Att.

Staff Report

Origin

Interface Architecture Inc. has applied to the City of Richmond for permission to develop a 44-unit townhouse development at 12351 No. 2 Road on a site zoned "Town Housing (ZT48) - Trites Area (Steveston) and South McLennan (City Centre)". The site was formerly an industrial site.

The site is being rezoned for this project under Bylaw 8449 (RZ 08-414348) from "Light Industrial (IL)" to "Town Housing (ZT48) - Trites Area (Steveston) and South McLennan (City Centre)" (formerly "Comprehensive Development District (CD/126)").

A Servicing Agreement was secured as a requirement of rezoning for the design and construction of: road widening and frontage improvements along No. 2 Road, a 3 m public walkway along the south and west edges of the development site in a public rights-of-passage (PROP) right-of-way (ROW), servicing pipe size upgrades to City requirements if needed, and signalization warrant study for No. 2 Road and Moncton Street. Capacity analyses submitted by the applicant confirmed that servicing pipe size upgrades are not required. The City has received a warrant study. Traffic signalization will occur as part of the Development Cost Charge (DCC) program when signalization is warranted in the future.

The site was formerly used for industrial activities and as a result, required soil remediation. A copy of the Ministry of Environment Certificate of Compliance for the site has been received.

Background

The subject application and associated Staff Report dated December 22, 2010 (**Appendix D**) were considered by the Development Permit Panel on February 16, 2011.

The Panel referred the application back to staff with the following recommendation:

That Development Permit DP 08-432193 for 12351 No. 2 Road be:

- (i) deferred to provide an opportunity for staff to submit (a) a written brief to the Development Permit Panel regarding the compliance of the project with the City's new Noise Regulation Bylaw, and (b) a statement from a mechanical engineer ensuring that mechanical ventilation meant no requirement to have the proposed townhouse unit windows open in summer months; and***
- (ii) be an agenda item at the Wednesday, March 2, 2011 meeting of the Development Permit Panel, to take place in the Council Chambers, Richmond City Hall, 6911 No. 3 Road.***

The purpose of this Report is to outline the measures taken by the applicant to respond to the concerns raised by the Panel.

Staff Comments

The proposed scheme attached to this Report complies with the intent of the applicable sections of the Official Community Plan (OCP) and is in compliance with the “Town Housing (ZT48) - Trites Area (Steveston) and South McLennan (City Centre)” zoning district.

Analysis

Industrial Interface

- As outlined in the Staff Report of December 22, 2010, registration of an Industrial Noise Sensitive Use Restrictive Covenant is a requirement of the Development Permit to ensure residents of the proposed townhouse development would enjoy appropriate indoor sound levels throughout the year, including the warmer summer months.
- The covenant requires compliance with indoor sound level standards determined by Canada Mortgage and Housing Corporation, and the ASHRAE 55-2004 industry standard for thermal comfort.
- The covenant requires that a registered professional confirm compliance of the design and construction of the dwelling units. This will ensure that the engineering design will be incorporated in the construction of the proposed development.
- Specific measures are noted on the Development Permit drawings and Development Applications staff will coordinate with Building Approvals staff to ensure these features are included in the Building Permit drawings and constructed in the development.

Compliance with the City's Noise Regulation Bylaw

- A letter from Brown Strachan Associates, the project acoustic engineer, of February 22, 2011 is attached (**Appendix A**). In the letter, Aaron Peterson confirms that the project design complies with the City's noise regulations as outlined in the Public Health Protection Bylaw No. 6989, and also complies with the new proposed Noise Regulation Bylaw presented to General Purposes Committee on February 7, 2011.
- As briefly referred to in the Staff Report of December 22, 2010, a detailed acoustic report, prepared by Brown Strachan Associates Consulting Engineers in Acoustics, was submitted to the City and has been placed in the Development Permit application file. The report is titled “13251 No. 2 Road – Acoustical Evaluation,” is dated September 14, 2010 and is sealed by Professional Engineer David Brown. The report outlines in detail the approach to provide appropriate indoor sound levels with windows closed by incorporating specified acoustic attenuation construction measures. These measures include: glazing upgrades for bedrooms facing industrial property to south with 6-11-4 thermal glazing (glass-airspace-glass in mm); and drywall upgrades for corner bedrooms facing industrial property to south with two layers of interior drywall on exterior walls (excluding closets). In addition, acoustic attenuation will be provided through thermal glazing, exterior wall assembly, exterior doors & weather-stripping required by the BC Building Code.

- The engineered design is based on outdoor design site noise levels of 69 dBA (or 75 dBC), including 68 dBA for possible commercial/industrial (this takes into account current noise levels and allowable noise levels under City's current noise bylaw for potentially multiple industrial units). The engineering design is conservative, based on an outdoor design site noise level (69 dBA) that is higher than the maximum daytime sound level permitted under both the current Public Health Protection Bylaw No. 6989 (65 dBA) and the draft Noise Regulation Bylaw (60 dBA). This means that the townhouse units will be appropriately quiet inside even if the exterior noise level is at the maximum allowable noise level under the existing or proposed noise regulations.
- As noted above, the required restrictive covenant will ensure that this engineering design will be incorporated in the construction of the proposed development.

Resident Comfort During Summer

- A letter from Stantec Consulting Ltd., the project mechanical engineer, of February 22, 2011 is attached (**Appendix B**). In the letter, professional engineer, Phil Rempel, confirms that mechanical ventilation will be included in the design proposal, providing thermal comfort for the residents to meet ASHRAE 55-2004 comfort conditions, so that the proposed townhouse unit windows will not be required to be open in summer months. Mechanical ventilation is specified for bedrooms of suites facing the industrial property to the south in blocks 4 to 9 (inclusive), which equates to 26 of the 44 townhouse units.
- As briefly referred to in the Staff Report of December 22, 2010, a detailed mechanical report prepared by Stantec Consulting Ltd. was submitted to the City and has been placed in the Development Permit application file. The report is titled "12351 No. 2 Road Richmond – Mechanical Ventilation System and ASHRAE 55-204 Compliance Approach," is dated December 17, 2010 and is sealed by professional engineer, N.P. Rempel. The report outlines in detail the approach to provide summer thermal comfort inside the bedrooms with windows closed by creating an outdoor breeze condition. Each bedroom will be provided with a quiet exhaust fan (no more than 1.5 sone & sized for 1 air change/hr), dehumidistat controller and quiet ceiling fan (no more than 0.5 sone & sized for 0.5 m/s).
- As noted above, the required restrictive covenant will ensure that this engineering design will be incorporated in the construction of the proposed development.

Conclusions

The applicant has satisfactorily addressed the Panel's comments regarding acoustic and thermal comfort for residents of the proposed development. All other design considerations were addressed in the Staff Report of December 22, 2010, including conditions of adjacency, site planning and urban design, architectural form and character, tree management, landscape design, sustainability, floodplain management, servicing capacity, and community benefits. The applicant has presented a development that fits into the Trites Sub-Area through a development that incorporates quality design, and extends the pedestrian circulation routes envisioned in the Steveston Area Plan. On this basis, staff recommend support of this Development Permit application.

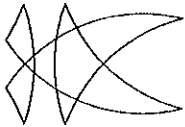


Sara Badyal, M. Arch, MCIP
Planner 2 (Urban Design)

SB:blg

See **Appendix C** for legal and development requirements prior to Development Permit approval.

- Appendix A Brown Strachan Associates letter dated February 22, 2011
- Appendix B Stantec Consulting Ltd. letter dated February 22, 2011
- Appendix C Development Permit Considerations
- Appendix D Staff Report dated December 22, 2010



Brown Strachan Associates
Consulting Engineers in Acoustics

PROJECT: F17.101

February 25, 2011

Interface Architecture Inc.
230 - 11590 Cambie Road
Richmond, BC V6X 3Z5

Attention: Mr. Ken Chow

Dear Mr. Ken Chow:

Re: 12351 No. 2 Road

Further to our acoustical report dated 14 September 2010, we confirm that the specified construction for 12351 No. 2 Road meets the City of Richmond design noise criteria, for both the existing and proposed Noise Bylaw requirements (appended).

The project is designed to meet Richmond's OCP interior sound level criteria (Section 9.3.14.A & B) based on the maximum exterior noise levels permitted under the existing City of Richmond Public Health Protection Bylaw No. 6989 (65/60 dBA, day/night).

For this area, the maximum exterior noise levels permitted under the proposed Noise Regulation Bylaw limit are 60/55 dBA (day/night). The proposed Bylaw also includes a 70/65 dBC exterior limit.

Our recommended design for this project meets Richmond's OCP interior noise level criteria for exterior levels up to 69 dBA and 75 dBC.

Please call if you have any questions.

Yours very truly,

BROWN STRACHAN ASSOCIATES

Aaron Peterson, B.A.Sc., EIT

AP/em/11Feb/Interface1.let



EXISTING
Bylaw No. 6989

- (f) the sound made by amplified music, whether pre-recorded or live, after 2:00 a.m. and before 8:00 a.m. on any day.

3.1.3 Security and Fire Alarms

3.1.3.1 A person must not cause, permit, or allow, a security or fire alarm:

- (a) to sound continuously or sporadically for a period of more than 2 hours; or
- (b) to continue to sound once the premises or vehicle is secure.

3.1.3.2 For the purposes of subsection 3.1.3.1, a person is deemed to have caused the sound even if the sounding of the alarm arose from malfunction of the said alarm.

3.1.3.3 In the event of a violation of subsection 3.1.3.1, an Inspector may stop the alarm from sounding by:

- (a) in the case of a house alarm, entering onto the property, including entering into any buildings on the property, and disabling the alarm by whatever means possible; and,
- (b) in the case of a vehicle alarm, by having the alarm disconnected and towing the vehicle, at the owner's expense, to a secure storage yard.

3.1.3.4 Neither the City, any City employee, nor any persons authorized by the City to enforce Subdivision Three may be found liable for any action taken in good faith, pursuant to this section.

3.1.4 Separate Violations Under Parts 3.1 and 3.2

3.1.4.1 A person may be found to be in violation of Part 3.1, despite having satisfied the requirements of Part 3.2.

PART 3.2: MEASURABLE NOISE LIMITS

3.2.1 Non-Continuous Sound

3.2.1.1 A person must not make, cause, or permit to be made, a non-continuous sound exceeding sound levels:

- (a) of 80 dBA or more during the daytime, or
- (b) of 75 dBA or more during the nighttime,

when received at a point of reception in the City.

3.2.2 Continuous Sound

3.2.2.1 A person must not make, cause, or permit to be made, a continuous sound exceeding sound levels:

EXISTING
Bylaw No. 6989

9.

- (a) of 65 dBA or more during the daytime, or
- (b) of 60 dBA or more during the nighttime,

MAXIMUM VALUES -
USED FOR DESIGN

when received at a point of reception outside a quiet zone.

3.2.2.2 A person must not make, cause or permit to be made a continuous sound exceeding sound levels:

- (a) of 55 dBA or more during the daytime, or
- (b) of 45 dBA or more during the nighttime,

when received at a point of reception within a quiet zone.

3.2.2.3 For the purposes of subsection 3.2.2.2, a quiet zone includes:

(a) those parcels of land in which the permitted uses, as specified in the Zoning Bylaw, are primarily residential;

(b) those parcels of land located in:

- (i) Assembly (ASY);
- (ii) Health Care (HC); and
- (iii) Marina (MA1)

in the Zoning Bylaw;

(c) (i) the northerly one-half of Minoru Park; and
(ii) the School & Institutional Use (SI) in which the Kiwanis Senior Citizens Housing Society at 6251 Minoru Boulevard is located; and

(d) any area governed by an existing Land Use Contract whose primary land use is:

- (i) residential; or
- (ii) such as is permitted in Assembly (ASY), Health Care (HC), or Marina (MA1) in the Zoning Bylaw.

3.2.3 Construction Noise

3.2.3.1 A person must not make, cause, or permit to be made, a sound level exceeding 80 dBA, resulting from construction or construction equipment:

- (a) during the daytime on weekdays and Saturdays; or
- (b) between the hours of 9:00 a.m. and 6:00 p.m. on Sundays and Statutory Holidays, when received at a point of reception in the City.

Schedule B

Summary of Permitted Sound Levels by Zone

		Sound Receiver Zone					
		Quiet		Intermediate		Activity	
		Day	Night	Day	Night	Day	Night
Sound Source Zone	Quiet	55 dBA, 70 dBC	45 dBA, 65 dBC outside, 55 dBC inside	55 dBA, 70 dBC	50 dBA, 65 dBC	60 dBA	60 dBA
	Inter-mediate	60 dBA, 70 dBC	50 dBA, 65 dBC	60 dBA, 70 dBC	55 dBA, 65 dBC outside, 55 dBC inside	65 dBA	65 dBA
	Activity	60 dBA	55 dBA	65 dBA	60 dBA	70 dBA	70 dBA



9.3.13 SECURITY

- a) Developments shall be designed to make all exterior public or semi-public spaces visible and defensible, so that residents can control their own surroundings;
- b) Fenestration in façades facing the internal roadways and open spaces should be carefully arranged to provide for internal unit privacy, yet convey a perception of "eyes on the street", enhancing safety and security for residents;
- c) Provide photo cell lights for all entries and garage doors to common parking structures and motion-detector lights for all areas hidden from view such as patio doors. Motion detectors should be mounted in a tamper-proof manner or in a vandal resistant location typically more than 3 m (9.8 ft.) above the adjacent floor or grade;
- d) Where structured parking is provided, gate tenant parking apart from that for visitors and consider incorporating gates on visitor parking areas;
- e) Pre-wire buildings for alarm systems and install phone jacks in all bedrooms. Consider incorporating TV monitors with multi-unit or individual unit enter-phones and "panic stations" in all residential units and shared parking areas.

9.3.14 ACOUSTICS

The intent is to minimize the impacts of aircraft noise and traffic noise to residential developments.

- a) Provide acoustic separation between dwelling units, particularly in family-oriented developments. Control sound transmission passively through unit design, e.g. avoid placing bedrooms of one unit adjoining the living room of the neighbouring unit; avoid hard-surfaced floor areas such as kitchens over bedrooms or other quiet rooms.

9.3.14.A Traffic Noise

- a) Traffic noise should be screened from residential units in order to maintain an acceptable ambient sound level of 35 dB for indoor spaces and 55 dB for outdoor private space;
- b) Where private outdoor space is adjacent to arterial roads, buildings should be set back 12m from the arterial, and other noise mitigating measures should be utilized, such as fencing, berming, and landscaping; OR provide special mitigation measures as determined by a registered professional trained in acoustics;

Interpreted to be criteria outlined in 9.3.14.B (appended), equivalent to CMHC design criteria in "Road and Rail Noise: Effects on Housing" (appended).



- c) Traffic noise for residential units facing major streets/arterials can also be mitigated by:
 - Careful site layout;
 - Orienting private outdoor spaces away from noisy streets;
 - Orienting the front entry and public part of the dwelling toward the street and locating quiet rooms such as bedrooms away from the street;
 - Recessing balconies and facing them with solid balustrades;
 - Finishing soffits with material which absorbs or baffles sound waves;
 - Providing extra insulation for walls of buildings adjacent to traffic;
 - Triple-glazing windows to reduce noise infiltration;
 - Using enclosed balconies or sunrooms facing the street as a buffer between living areas and the traffic.

Bylaw 7794
2004/11/23

9.3.14. B Aircraft Noise

- a) All Development Permit applications in areas identified in the Aircraft Noise Sensitive Development Map (see Section 5.4 Noise Management) shall require evidence in the form of a report and recommendations prepared by a person trained in acoustics and current techniques of noise measurement, demonstrating that the noise level in those portions of the dwelling units listed below shall not exceed the noise level set out in the corresponding right-hand column. The noise level utilized is an A-weighted 24-hour equivalent (leq) sound level and will be defined simply as noise level in decibels;

Portions of Dwelling Units (Decibels)	Noise Levels
Bedrooms	35
Living, dining, recreation rooms	40
Kitchen, bathrooms, hallways, utility rooms	45

- b) Skylights are discouraged in homes located within the area identified in the Aircraft Noise Sensitive Development Map;
- c) In addition to the above, a trained professional is to assist in the design of the private patios and balconies to minimize the noise levels with recommendations for building material selection and space planning.

9.3.15 UNIVERSALLY ACCESSIBLE HOUSING UNITS

The intent is to ensure that all people, including persons with disabilities, have opportunities and choices for housing in residential developments.

- a) Universally accessible residential designed units are encouraged in all multiple-family residential development.



Stantec Consulting Ltd.
500 - 34077 Gladys Avenue
Abbotsford BC V2S 2E8
Tel: (604) 855-7890
Fax: (604) 855-7891

Appendix B

Stantec

February 22, 2011
File: 112521095

City of Richmond
Planning-Urban Design
6911 No. 3 Road
Richmond BC, V6Y 2C1
FAX: 604-276-4063

Attention: Sara Badyal, M.Arch, IA.AIBC, MCIP

Dear Madam:

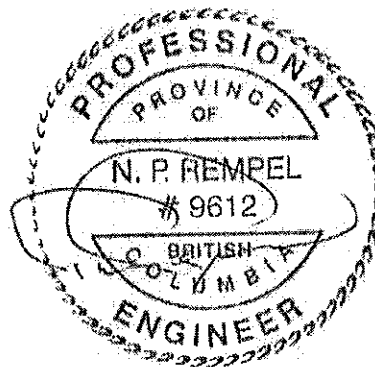
Reference: 12351 No. 2 Road, Richmond – Mechanical Ventilation and ASHRAE 55 Comfort Compliance

As requested, we confirm that the bedrooms of suites facing the industrial property to the south in blocks 4 to 9 (inclusive) will be provided with mechanical ventilation (individual exhaust fans) and the alternate approach to comfort conditions so that the rooms will meet ASHRAE 55-2004 comfort conditions without opening the windows in the summer months. A total of 26 of the 44 townhome units will be included. Please refer to our report of December 17, 2010, "Mechanical Ventilation System and ASHRAE 55-2004 Compliance Approach" for this address for reference to alternate approach methods.

Sincerely,

STANTEC CONSULTING LTD.

Phil Rempel, P.Eng
Principal
Tel: (604) 855-7890
Fax: (604) 855-7891



cc. Original- Westmark Development Group, #203-2631 Viking Way, Richmond, attn: Al Schmidt

Development Permit Considerations 12351 No. 2 Road ("the lands")

Prior to forwarding this application to Council for approval, the developer is required to complete the following:

2) Registration of an Industrial Noise Sensitive Use Restrictive Covenant on Title to ensure mitigation of industrial noise potential is incorporated into dwelling unit design and construction to achieve the following:

a) indoor sound level criteria (with doors and windows closed):

Portion of Dwelling Unit	Maximum Noise Levels (decibels)
Bedrooms	35 dB
Living, dining, and recreation rooms	40 dB
Kitchen, bath, hallways, and utility rooms	45 dB

b) indoor thermal comfort standard (with doors and windows closed throughout all seasons):
ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy"

3) Receipt of a Letter-of-Credit for landscaping in the amount of \$225,062.

Prior to future Building Permit* issuance, the developer is required to complete the following:

- Incorporation of accessibility measures in Building Permit drawings for two (2) convertible units in conformance with the Development Permit Plans.
- Incorporation of accessibility measures for aging in place in Building Permit drawings for all units in conformance with the Development Permit Plans.
- Submission of acoustic report, mechanical engineering report, and incorporation of identified noise attenuation construction measures to mitigate industrial noise potential from the neighbouring industrial sites.
- Submission of a construction traffic and parking management plan* to the satisfaction of the City's Transportation Division (<http://www.richmond.ca/services/tp/special.htm>).
- The applicant is required to obtain a Building Permit* for any construction hoarding associated with the proposed development. If construction hoarding is required to temporarily occupy a street, or any part thereof, or occupy the air space above a street or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit.

Note:

- * This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.
- All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.
- The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

[Signed copy in file]

Signed

Date



City of Richmond
Planning and Development Department

Appendix D

Report to Development Permit Panel

To: Development Permit Panel
From: Brian J. Jackson, MCIP
Director of Development
Date: December 22, 2010
File: DP 08-432193
Re: **Application by Interface Architecture Inc. for a Development Permit at
12351 No 2 Road**

Staff Recommendation

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Brian J. Jackson, MCIP
Director of Development

SB:blg
Att.

Staff Report

Origin

Interface Architecture Inc. has applied to the City of Richmond for permission to develop a 44-unit townhouse development at 12351 No. 2 Road on a site zoned "Town Housing (ZT48) - Trites Area (Steveston) and South McLennan (City Centre)". The site was formerly an industrial site.

The site is being rezoned for this project under Bylaw 8449 (RZ 08-414348) from "Light Industrial (IL)" to "Town Housing (ZT48) - Trites Area (Steveston) and South McLennan (City Centre)" (formerly "Comprehensive Development District (CD/126)").

A Servicing Agreement was secured as a requirement of rezoning for the design and construction of: road widening and frontage improvements along No. 2 Road, signalization warrant study for No. 2 Road and Moncton Street, which may lead to intersection improvements or contribution for future works, a 3 m public walkway along the south and west edges of the development site in a public rights-of-passage (PROP) right-of-way (ROW), and servicing pipe size upgrades to City requirements if needed.

The site was formerly used for industrial activities and as a result, required soil remediation. A copy of the Ministry of Environment Certificate of Compliance for the site has been received.

Development Information

Please refer to the attached Development Application Data Sheet (**Attachment 1**) for a comparison of the proposed development data with the relevant bylaw requirements.

Background

The site is located in the Trites Sub-Area (Steveston Area), which is in transition from industrial to residential (with discrete single-family, two-storey and three-storey townhouse areas). The Trites Sub-Area Land Use Map permits three-level townhouses on the subject site. The site is also subject to a 2.9 m GSC flood construction level. Development surrounding the site is as follows:

- To the north, is a 54-unit three-storey townhouse development at 12311 No. 2 Road (RZ 04-271083 & DP 05-290213), zoned "Town Housing (ZT48) - Trites Area (Steveston) and South McLennan (City Centre)";
- To the east, across No. 2 Road is farmland in the Agricultural Land Reserve (ALR), zoned "Agricultural District (AG1)";
- To the west, are two (2) industrial properties fronting onto Trites Road, zoned "Light Industrial (IL)". These properties are envisioned to be redeveloped through single-family subdivision in the future;
- To the south, is an active strata-titled industrial property at 12491 No. 2 Road, zoned "Light Industrial (IL)". This property is designated as interim industrial use and envisioned to become multi-family in the future; and

Rezoning and Public Hearing Results

During the rezoning process, staff identified the following design issues to be resolved at the Development Permit stage (design response included in '*bold italics*'):

- Architectural form and character – *Improved through enhanced detailing, articulation and unit layout;*
- Review of units providing opportunities for conversion to accommodate a resident in a wheelchair and/or aging in place – *Two (2) convertible units provided*

The Public Hearing for the rezoning of this site was held on January 19, 2009. At the Public Hearing, the following input was received (design response included in '*bold italics*'):

- An e-mail of support was received from a neighbouring resident; and
- Concern was expressed by a neighbour that the driveway shared by 12251 and 12311 No. 2 Road was proposed to be shared with the subject development, including truck traffic and safety concerns. *[The design includes a driveway to No. 2 Road. Cross-access has been secured over 12251, 12311 and 12351 No. 2 Road for emergency vehicles only. Bollards will be installed at the emergency vehicle cross-access to restrict resident traffic from crossing over onto the neighbouring property].*

Staff Comments

The proposed scheme attached to this report has satisfactorily addressed the significant urban design issues and other staff comments identified as part of the review of the subject Development Permit application. In addition, it complies with the intent of the applicable sections of the Official Community Plan (OCP) and is in compliance with the Town Housing (ZT48) - Trites Area (Steveston) and South McLennan (City Centre).

Advisory Design Panel Comments

The Advisory Design Panel was supportive of the proposed development conditional to the applicant taking their comments into consideration. An annotated copy of the relevant excerpt from the Advisory Design Panel Minutes from December 17, 2008 is attached for reference (**Attachment 2**). The design response from the applicant has been included immediately following the specific Design Panel comments and is identified in '*bold italics*'.

Agricultural Advisory Committee Comments

Without a quorum, members of the Agricultural Advisory Committee reviewed the Agricultural Land Reserve (ALR) buffer scheme for the 6 m front yard setback along No. 2 Road, on February 17, 2009. Those members present confirmed that the proposed buffer met appropriate OCP guidelines based on the staff review of the buffer. The project was circulated to all Committee members by e-mail and no concerns or objections were expressed, nor did members feel that a formal (quorum) review of the proposal by the AAC was necessary.

Analysis

Conditions of Adjacency

- The proposed development includes an appropriate interface to No. 2 Road, enhanced and animated with pedestrian-oriented front entries and landscaped front yards with a mix of evergreen and deciduous tree planting.
- The neighbouring town house development to the north has a side yard along the shared property line. The proposed development presents an appropriate response to this interface with a mix of private yard space, passive side yard setback, and drive aisles. Screening is provided with 1.8 m height privacy wood fencing.
- The development presents an appropriate interface to the Agricultural Land Reserve located directly to the east, across No. 2 Road. This adjacency is addressed with the 6 m front yard setback along No. 2 Road planted as a landscape buffer, including a mix of trees, shrubs, and continuous evergreen hedging. A restrictive covenant to protect the landscape buffer was a requirement of the rezoning. As noted above, members of the Agricultural Advisory Committee reviewed the design and found it acceptable for the intended purpose.
- The development presents appropriate temporary interfaces to the industrial developments to the south and west through generous setbacks of 6.2 m and more along the south edge, and 8.2 m and more along the west edge. These generous setback areas include a 3 m wide pedestrian corridor right-of-way, landscaped yard space, outdoor amenity space and drive aisle area. A restrictive covenant to protect the landscape treatment and advise residents of the potential impacts of adjacent industrial activities was a requirement of the rezoning.
- Registration of an Industrial Noise Sensitive Use Restrictive Covenant is a requirement of the Development Permit to ensure appropriate indoor sound level is provided in the town houses. The covenant requires that a professional engineer confirm the design and construction of the dwelling units meets appropriate specified standards.

Urban Design and Site Planning

- The proposed development achieves a scale, design, circulation, public pedestrian path, and internal road layout that addresses and improves the pattern and circulation network of the neighbourhood.
- A 3 m wide right-of-way is provided along the south and west edges of the site (with corner cut) to accommodate a pedestrian corridor connecting No. 2 Road with Moncton Street through the existing development to the north. Townhouse unit pedestrian entries with gated yards present a frontage character along the pedestrian corridors for design and CPTED purposes. The development site is providing half the width of the pedestrian corridor network, which will be widened to a minimum of 6 m through future development to the south and west. Registration of a right-of-way and construction of a 1.5 m paved path through a Servicing Agreement were secured through the rezoning.
- The centrally located outdoor amenity space provides a sense of openness, and a variety of experience along both the internal streetscape and the proposed east-west public pedestrian corridor. The outdoor amenity space includes children's play equipment and opportunities to plant larger growing tree species.
- The townhouse expression along the streetscape defines the edge of the public road and provides interest to the public realm. The proposed pedestrian-oriented town house massing expression has predominantly three-storey building height and a mix of building orientation to provide site planning interest on the deep and relatively narrow single lot development. For the same reason, the internal street curves from the centre of the site to the south edge.

This also provides a variety of experiences along the south and west public path. The long public pedestrian corridor is given a sense of openness at its midpoint from No. 2 Road by pulling the developments outdoor amenity space and internal drive aisle to this edge.

- The proposed site layout includes 44 townhouses in nine (9) separate three-storey buildings. The two (2) end unit townhouses flanking the entry along No. 2 Road have pedestrian-oriented front entries and landscaped front yards facing the streetscape.
- Townhouse unit entries and vehicle garage entries are located on opposite ends of 32 of the 44 town houses, reinforcing the pedestrian orientation of the proposed development.
- Vehicular access is from No. 2 Road. A secondary emergency vehicle access was secured through the rezoning of the subject and neighbouring developments to the north. Emergency vehicle cross-access is provided to and from the neighbouring townhouse developments to the north through a drive aisle connection. Bollards located at the connecting point ensure against daily use of this link.
- Transportation infrastructure improvements were secured through the rezoning and provided through a required Servicing Agreement for works including:
 - No. 2 Road frontage improvements: Works include, but are not limited to, road widening, curb and gutter, new 1.5 m concrete sidewalk at the property line, creation of minimum 1.6 m wide grass boulevard with street trees (7 cm cal. Scarlet Oak), street lighting, and pre-ducting for hydro/telephone.
 - Public Path: Construct a new 1.5 m concrete walkway (in new 3 m PROP ROW) at the property line edge, sloping toward the project, with 1.5 m edge planted with grass and low slow growing hedging as shown in landscape plan. The path way is to be built by the developer and hard surface maintained in the future by the City.
 - Traffic signal warrant analysis: Which may lead to intersection improvements or contribution for future works.
- Off-street parking for residents and visitors complies with the Zoning Bylaw requirements, including accessible parking. Visitor parking is located throughout the site. Off-street parking is accessed from the internal drive aisles.
- A covered enclosure is provided for garbage and recycling collection adjacent to visitor parking and near the central outdoor amenity area.
- Mailboxes are provided in a kiosk structure at the entry to the outdoor play area.

Architectural Form and Character

- The three-level townhouse building massing is consistent with the Official Community Plan's Trites Sub-Area Land Use Map (Steveston Area Plan) and is an appropriate continuation of townhouse development along No. 2 Road. The simple building massing is articulated with: porches, projecting bays, roof dormer elements with gable treatment, and a mix of building materials.
- The 44 town houses are provided in nine (9) three-storey buildings ranging in size from four (4) to six (6) unit clusters.
- The two (2) end unit town houses along the No. 2 Road streetscape feature frontage character with pedestrian-oriented entries with open porches.
- The proposed building materials are generally consistent with the Official Community Plan (OCP) guidelines, including: Vinyl horizontal siding, Hardie Plank fibre cement horizontal siding, Hardie Shingle fibre cement wall shingles, board and batten with Hardie Panel fibre cement board, painted wood trim, and asphalt shingles.
- The colour palette includes a range of taupe siding, brown shingles, highlighted with white trim elements and muted brown blue and green entry doors for accent colour.

- The impact of blank garage doors has been mitigated with a mix of door types, panel pattern and transom windows, pedestrian entries, and small planting areas. Natural light is provided into each of the garages through transom windows in the garage door.
- Two (2) convertible units are provided, designed with conversion for universal accessibility in mind. Conversion would require installation of a vertical lift to provide access to each level of the three-storey units. The floor framing allows for easy removal of the floor area for the potential shaft opening. A slab depression is provided for a pit. This unit also includes a layout for a kitchen and both bathrooms that is appropriate for wheelchair manoeuvring.
- All units include aging in place features, such as handrails, lever handles, and blocking in washroom walls for future grab bar installation.

Tree Management

- As noted in the rezoning staff report, there were no existing trees on the property on this formerly industrial site.
- The landscape design includes the planting of 98 new trees throughout the site, including a mix of deciduous and Evergreen species.

Landscape Design and Open Space Design

- On-site outdoor amenity space is provided in a central location, contributing to the internal streetscape and providing a sense of openness for the adjacent new public path. The generous 340 m² amenity area exceeds the OCP requirements for size, location, visual surveillance and access.
- Children's play equipment is provided in a fenced portion of the outdoor amenity area. The play equipment includes a variety of activities in a climbing structure.
- The generous open area also provides the opportunity to plant two (2) larger growing Tulip trees.
- The landscape plan includes communal, and semi-private landscaped spaces. In addition to the new trees noted above, the landscape design includes a variety of shrubs, perennial, ground cover, grasses and lawn planting.
- Fencing will include open rail wood fencing surrounding the play equipment area, along the public path, and surrounding individual yards. Gates will be provided to the play area, individual yards, and a communal entry gate from the public path. 1.8 m height wood privacy fencing will be provided along the interior north property line.
- Paving treatment includes a variety of materials to: mark the internal drive aisle entry, identify the area where the drive aisle changes alignment, enhance the general area of the outdoor amenity space, improve the internal streetscape, increase site permeability, and differentiate between pedestrian and vehicle areas. Materials include asphalt, concrete, exposed aggregate concrete, and permeable pavers.

Sustainability

The project will incorporate the following sustainable measures:

- Brownfield compact intensified residential land redevelopment
- Proximity to public transportation (along Moncton Street and No. 2 Road)
- Bicycle storage in each townhouse unit, to encourage cycling
- Enhanced pedestrian realm, including new public path, to encourage walking
- Enhanced on-site permeability (40%) in the form of soft landscaping and permeable pavers
- Energy efficient low E glazing to improve envelope performance by reducing solar heat gain

- Energy efficient appliances
- Insulated hot water tanks and piping, to reduce heat loss and energy consumption
- Water efficient fixtures

Industrial Interface

- As discussed above, the subject site is adjacent to active industrial properties to the west and south that are envisioned to be redeveloped with residential uses in the future. Although the interface is seen as temporary, it is important to address the adjacency for the comfort of the future residents.
- As noted above, a restrictive covenant was secured through the rezoning to advise future residents of the potential impacts of adjacent industrial activities to the west and south and to prevent the removal of the landscape treatments along the west and south edges of the site.
- As noted above, registration of an Industrial Noise Sensitive Use Restrictive Covenant is a requirement of the Development Permit to ensure the following appropriate indoor sound levels determined by CMHC and industry standard thermal comfort levels are provided in the townhouse units. The covenant requires that a registered professional confirm compliance of the project design and construction of the dwelling units.
 - a) indoor sound level criteria (with doors and windows closed):

Portion of Dwelling Unit	Maximum Noise Levels (decibels)
Bedrooms	35 dB
Living, dining, and recreation rooms	40 dB
Kitchen, bath, hallways, and utility rooms	45 dB

- b) indoor thermal comfort standard (with doors and windows closed throughout all seasons):
ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy"

- Acoustic and mechanical ventilation reports, prepared by professional engineers, were submitted for the subject development. The reports identified the need for special noise insulating construction measures in bedrooms adjacent to the south and west property lines to provide acoustic and thermal comfort for residents. Accordingly, all of these bedrooms will feature upgraded windows, quiet ceiling fan, quiet exhaust fan, and dehumidistat controller. In addition, corner bedrooms will also feature upgraded exterior walls.
- The required Industrial Noise Sensitive Use Restrictive Covenant for the subject development proposal is an improvement over some older covenants. The proposed covenant will include specifications for acceptable indoor noise levels, thermal comfort in the summer months, and the requirement to have construction measures designed and reviewed by registered professionals. The acceptable indoor noise levels are set for the different areas of the residential units, with bedrooms as the quietest rooms. Thermal comfort is needed for the summer months when residents would open their windows and lose the benefit of noise insulating construction measures.

Floodplain Management

- The proposal complies with Flood Plain Designation and Protection Bylaw No. 8204. The Bylaw requires minimum flood construction level of 2.9 m (geodetic).
- Registration of a flood indemnity covenant was secured through the rezoning.

Servicing Capacity

As noted in the rezoning staff report, the applicant has submitted an engineering capacity analysis for the sanitary sewer capacity and no upgrades have been identified.

Community Benefits

As outlined in the rezoning staff report, the proposal includes the following community benefits which were secured through the rezoning:

- Registration of a public pedestrian corridor 3 m wide right-of-way along the south and west property line, which includes a 1.5 m wide paved path. The pedestrian corridor is to be built by the developer through a Servicing Agreement, and hard surfaces maintained in the future by the City.
- The provision of \$0.60 per buildable ft² (e.g., \$36,053) to the City's Public Art fund.
- The provision of \$2.00 per buildable ft² (e.g., \$120,176) towards the City's Affordable Housing Strategy.
- The provision of \$74,000 in-lieu of on-site indoor amenity space for the 44-unit townhouse development as per the Official Community Plan (OCP) and Council policy.

Conclusions

The applicant has satisfactorily addressed staff and the Advisory Design Panel's comments regarding conditions of adjacency, site planning and urban design, architectural form and character, and landscape design during the Development Permit review process. The proposal for multi-family townhouse development, frontage improvements, and the continuation of the Trites Sub-Area public path system support the vision for this area. Staff recommends support of this Development Permit application.



Sara Badyal, MCIP
Planner 1
(604-276-4282)

SB:blg

See **Attachment 3** for legal and development requirements prior to Development Permit approval.

- Attachment 1: Development application data sheet
- Attachment 2: Advisory Design Panel annotated minutes excerpt
- Attachment 3: Development Permit considerations



City of Richmond

6911 No. 3 Road
 Richmond, BC V6Y 2C1
 www.richmond.ca
 604-276-4000

**Development Application
 Data Sheet**
 Development Applications Division

DP 08-432193

Attachment 1

Address: 12351 No 2 Road

Applicant: Interface Architecture Inc.

Owner: E. Mathers Holding Co Ltd

Planning Area(s): Trites Area (Steveston Area Plan)

	Existing	Proposed
Site Area:	8,090 m ²	Remains the same
Land Uses:	Formerly Industrial	Multi-Family Residential
OCP Designation:	ALR buffer along No. 2 Road	Complies
Area Plan Designation:	Three-Level Townhouses	Complies
Zoning:	Formerly LI	Currently ZT48
Number of Units:	Formerly 6 Industrial units	44 Townhouse units

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	0.69	0.69	None permitted
Lot Coverage – Building:	Max. 46%	37%	None
Lot Size:	Min. 4,050 m ²	8,090 m ²	None
Setback – Public Road:	Min. 6 m	6.3 m	None
Setback – Side Yard:	Min. 3 m	3.1 m	None
Setback – Rear Yard:	Min. 3 m	8.2 m	None
Height (m):	Max. 12 m & three-storey	12 m & three-storey	None
Off-street Parking: Resident	66	86	None
Visitor	9	10	
(Accessible)	(2)	(2)	
Off-street Parking Spaces – Total:	75	96	None
Small Car Parking Spaces:	Max. 50%	13% (12 spaces in 12 units)	None
Tandem Parking Spaces:	Permitted	67% (64 spaces in 32 units)	None
Bicycle Parking: Resident	55	62	None
Visitor	9	9	
Amenity Space – Indoor:	Min. 70 m ²	Cash in lieu	None
Amenity Space – Outdoor:	Min. 264 m ²	340 m ²	None

**Annotated Excerpt from the Minutes from
Advisory Design Panel**

Wednesday, December 17, 2008 – 4:00 p.m.

APPLICANT: Interface Architecture
PROPERTY: 12351 No. 2 Road

Panel Discussion

Comments from the Panel were as follows:

- public walkway near the chain-link fence is a concern;
- minimal planting at the back of the units; consider planting large rhododendrons instead of dwarf varieties;
- small strips of lawn, for example east of the visitor parking area and south of unit C to the left of the visitor area, could be replaced with shrubs;
- consider a more effective location of the trellises in the amenity area;
- amenity area could be made better by adding step stone pavers to the seating area which could be used as a walkway throughout the year;
- width of C units is awkward for wood construction; very minimal walls on the second level of C units has structural integrity consequence;
- A units' structure is weak due to the location of stairs and lack of garage walls; walls of A units do not line up vertically; consider narrowing the plans and lining up the walls; structural consultant can provide advice on the matter;
- consider shrinking the unit width by at least a foot to achieve the same quantity of units and decreased building length; this would also allow better spatial separation to mitigate the long lanes of rowhouses;
- efforts made on the exterior and architectural vocabulary are appreciated;
- some of the blocks could be stepped in plan to mitigate the overall length which would benefit the overall development;
- variation or breaks in the paving patterns could provide relief to the linear length of the internal drive aisle streetscape;
- development could benefit from a third colour palette; can be introduced as a sub-scheme in the overall development;
- stepping buildings, using an additional colour scheme or different gable treatment may provide some relief from the long and linear development;
- A1 units are a good alternate choice for adaptable units; there is potential for vertical installation of a lift;
- the den-washroom arrangement in A1 units could also be made in the B units to improve their design and enhance their adaptability; den can also be used as a home office;
- stair lifts accommodate some people with disabilities; internal vertical lifts are economical and can accommodate more people;
- good response to the serious challenge posed by the tall industrial building adjacent to the west property line like providing adequate landscaped areas in the backyards and moving them to the north as far as possible to get more daylight;
- consider adding more texture and detail to the upper floors of the north, south and east elevations of the buildings to add visual interest as these faces of the buildings are visible from the development to the north and will be visible from future development to the south;

shingle treatment could be used in gable ends or a finish change in the indented areas; added visual interest would relieve length of building visible from the generous spaces between the buildings to the north;

- units fronting the walkway need some front facade treatment to create pedestrian interest and to make the path an attractive place to be;
- consider not using exactly the same garage door in all buildings; try two different garage door styles; faces that front on to the driveway are nicely done; any articulation that can be made to the driveway would benefit the development; and pushing trees out into the driveway as far as possible would make the space more appealing.

Panel Decision

It was moved and seconded

That DP 08-432193 move forward to the Development Permit Panel, taking into consideration the following comments of the Advisory Design Panel:

[Applicant design response added in '*bold italics*']

1. consider full size rhododendrons in the rear yards rather than the dwarf variety – ***Incorporated;***
2. consider replacing small areas of lawns with shrubs – ***Incorporated;***
3. consider use of trellis in the amenity area and whether it is in the most appropriate location and configuration – ***Trellis relocated to bench in amenity area at the link to public path;***
4. consider adding more step stone pavers for a path to seating in the amenity area to provide year round access – ***Incorporated;***
5. consider the seismic requirements of the unit designs to ensure both cost-effectiveness and stability – ***Will incorporate through structural design;***
6. consider stepping the buildings that front onto the drive aisle – ***Have added articulation and raised porches to façades;***
7. consider breaking up drive aisle length by adding paving strips – ***Pavers added in consolidated areas to reinforce amenity area;***
8. consider three colour schemes – ***Considered. Two colour schemes incorporated due to limited colour selection for materials;***
9. consider A1 units as alternative adaptable units – ***Considered, but B layout preferred;***
10. consider using similar configuration of den and washroom in B units to A1 units – ***Considered, but B layout preferred.***

CARRIED

Development Permit Considerations 12351 No. 2 Road ("the lands")

Prior to forwarding this application to Council for approval, the developer is required to complete the following:

2) Registration of an Industrial Noise Sensitive Use Restrictive Covenant on Title to ensure mitigation of industrial noise potential is incorporated into dwelling unit design and construction to achieve the following:

a) indoor sound level criteria (with doors and windows closed):

Portion of Dwelling Unit	Maximum Noise Levels (decibels)
Bedrooms	35 dB
Living, dining, and recreation rooms	40 dB
Kitchen, bath, hallways, and utility rooms	45 dB

b) indoor thermal comfort standard (with doors and windows closed throughout all seasons):
ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy"

3) Receipt of a Letter-of-Credit for landscaping in the amount of \$225,062.

Prior to future Building Permit* issuance, the developer is required to complete the following:

- Incorporation of accessibility measures in Building Permit drawings for two (2) convertible units in conformance with the Development Permit Plans.
- Incorporation of accessibility measures for aging in place in Building Permit drawings for all units in conformance with the Development Permit Plans.
- Submission of acoustic report, mechanical engineering report, and incorporation of identified noise attenuation construction measures to mitigate industrial noise potential from the neighbouring industrial sites.
- Submission of a construction traffic and parking management plan* to the satisfaction of the City's Transportation Division (<http://www.richmond.ca/services/ttp/special.htm>).
- The applicant is required to obtain a Building Permit* for any construction hoarding associated with the proposed development. If construction hoarding is required to temporarily occupy a street, or any part thereof, or occupy the air space above a street or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit.

Note:

- * This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.
- All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.
- The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

[Signed copy in file]

Signed

Date



No. DP 08-432193

To the Holder: INTERFACE ARCHITECTURE INC.
Property Address: 12351 NO. 2 ROAD
Address: C/O MR. KEN CHOW
 INTERFACE ARCHITECTURE INC.
 #230 - 11590 CAMBIE ROAD
 RICHMOND, BC V6X 3Z5

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #11 attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of \$225,062. to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit

No. DP 08-432193

To the Holder: INTERFACE ARCHITECTURE INC.
Property Address: 12351 NO. 2 ROAD
Address: C/O MR. KEN CHOW
INTERFACE ARCHITECTURE INC.
#230 – 11590 CAMBIE ROAD
RICHMOND, BC V6X 3Z5

7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

This Permit is not a Building Permit.

AUTHORIZING RESOLUTION NO.
DAY OF

ISSUED BY THE COUNCIL THE

DELIVERED THIS DAY OF

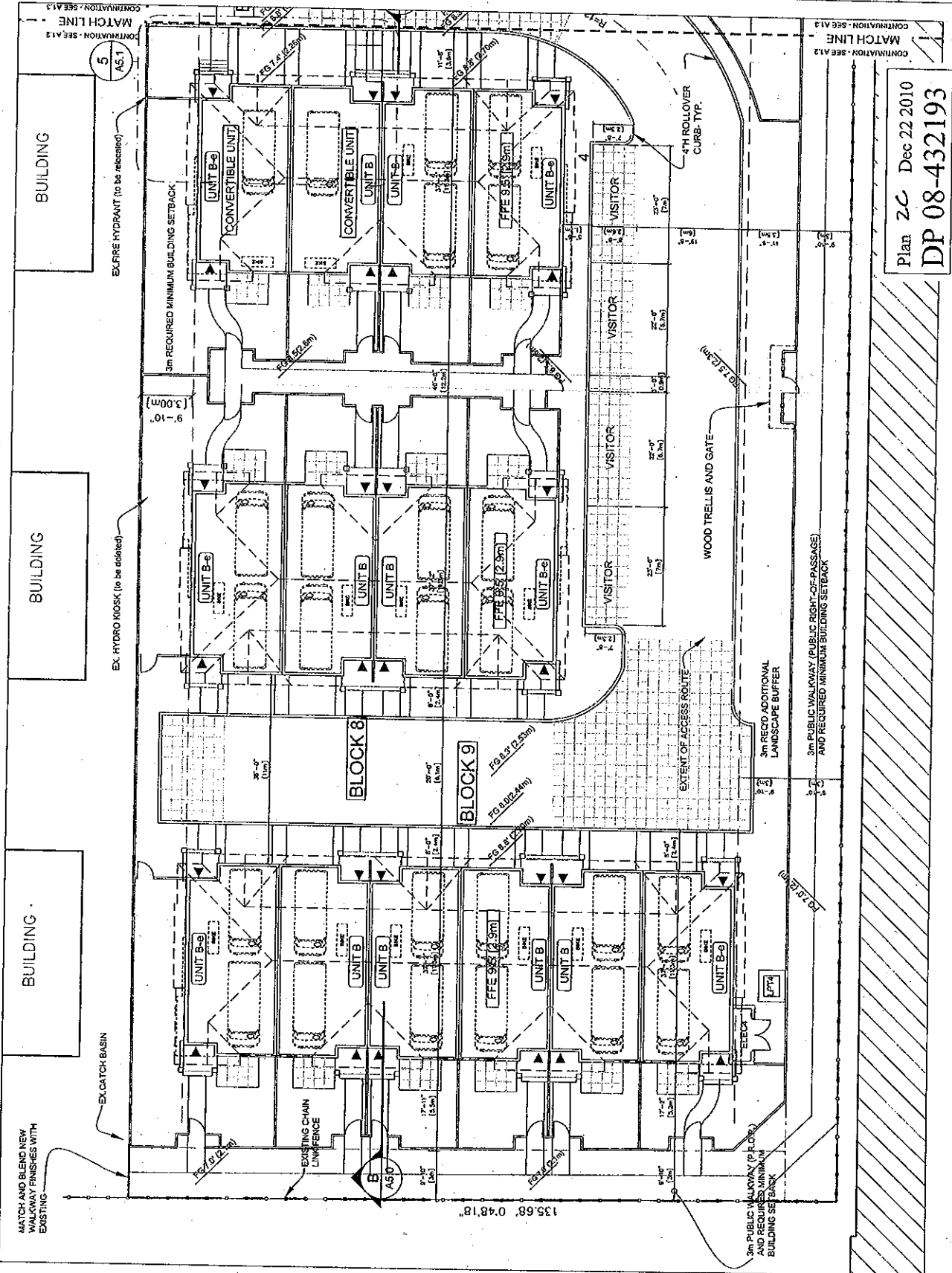
MAYOR

DATE	DESCRIPTION
Dec 21, 2010	Client Meeting
Oct 26, 2010	Architect Meeting
Apr 15, 2010	100% Submittal for 2010
June 7, 2010	100% Submittal for 2010
April 8, 2010	100% Submittal for 2010
CONTRACT	100% Submittal for 2010

INTERFACE
 Suite 200
 11000 Cambridge Road
 Chicago, IL 60655
 Tel: 773.671.1122
 Fax: 773.671.1128
 www.interfacechicago.com

PROJECT	Proposed All-Link Tomorrow Development 2223 N. 2nd St. Chicago, IL
PROJECT NO.	0001
DATE	As noted
DATE	December 19, 2009
DESIGNED BY	BYC
CHECKED BY	BYC
SCALE	AS NOTED
DATE	December 19, 2009
PROJECT	Proposed All-Link Tomorrow Development 2223 N. 2nd St. Chicago, IL
PROJECT NO.	0001
DATE	As noted
DATE	December 19, 2009
DESIGNED BY	BYC
CHECKED BY	BYC
SCALE	AS NOTED
DATE	December 19, 2009

A1.3



Plan 2C Dec 22 2010
 DP 08-432193

MATCH AND BLEND NEW FINISHES WITH EXISTING

EX. HYDRO BLOCK (to be deleted)

EX. FIRE HYDRANT (to be relocated)

3m REQUIRED MINIMUM BUILDING SETBACK

3m PUBLIC WALKWAY (PUBLIC RIGHT-OF-PASSAGE) AND REQUIRED MINIMUM BUILDING SETBACK

3m RECD ADDITIONAL LANDSCAPE BUFFER

WOOD TRELLIS AND GATE

4\"/>

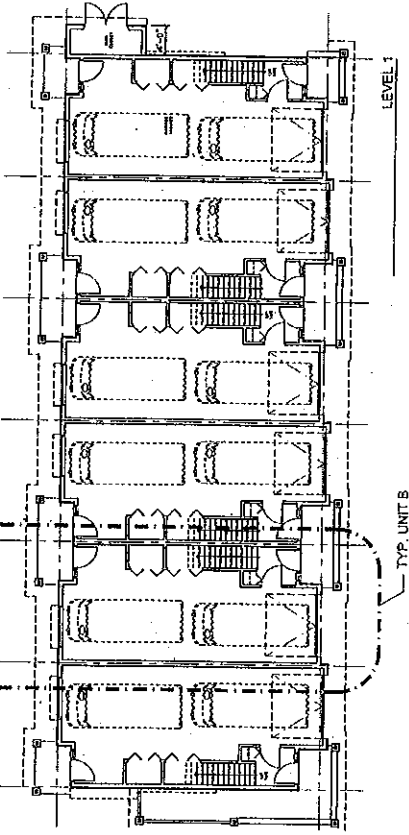
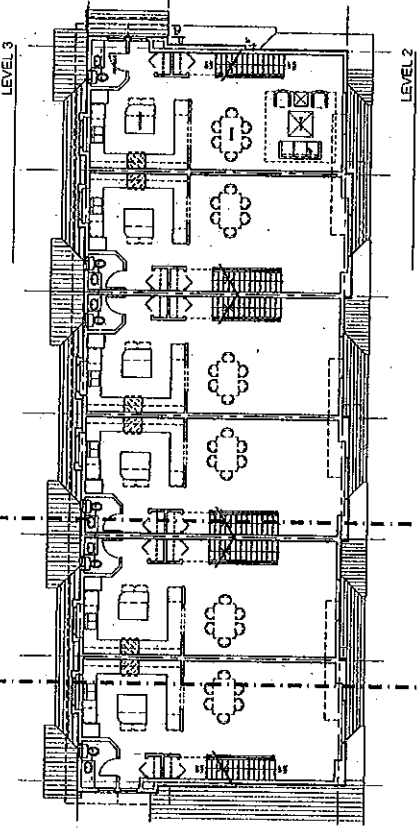
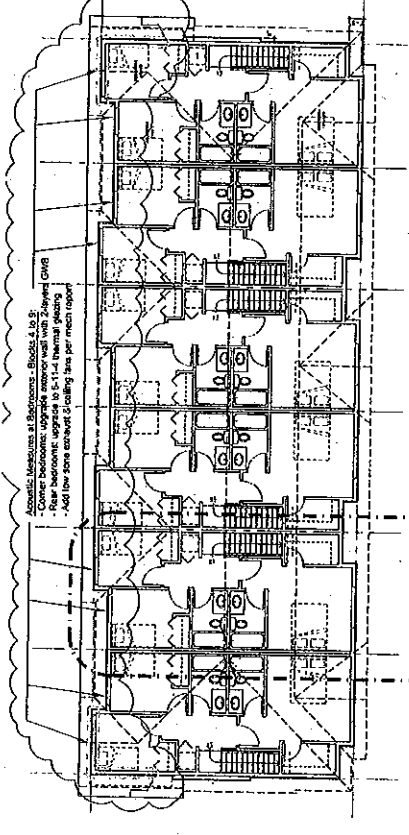
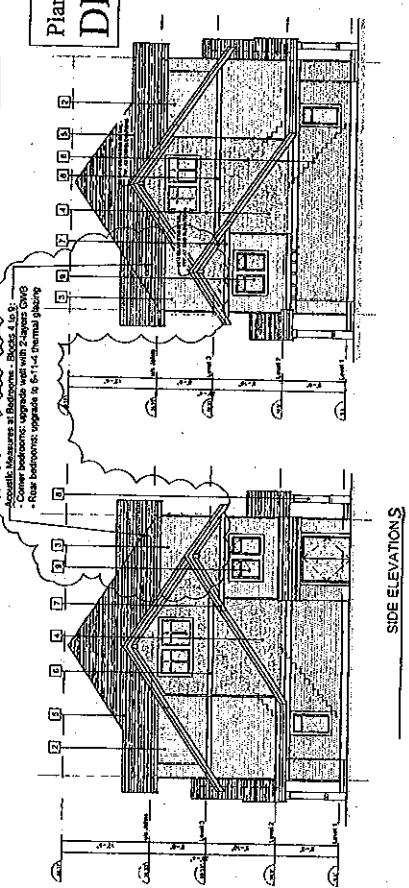
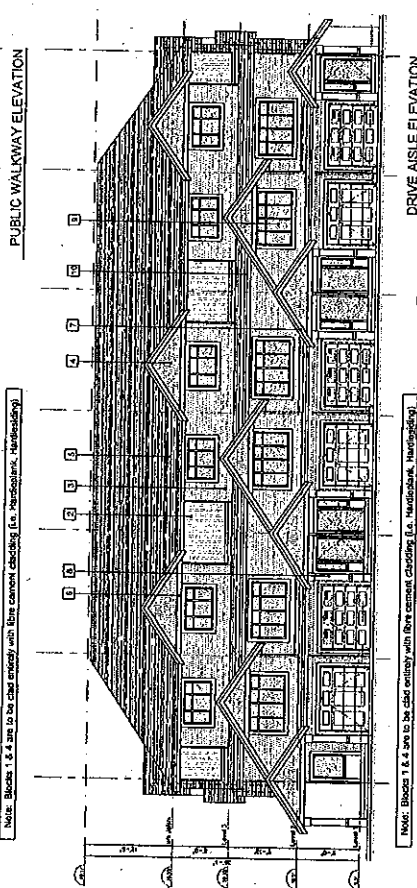
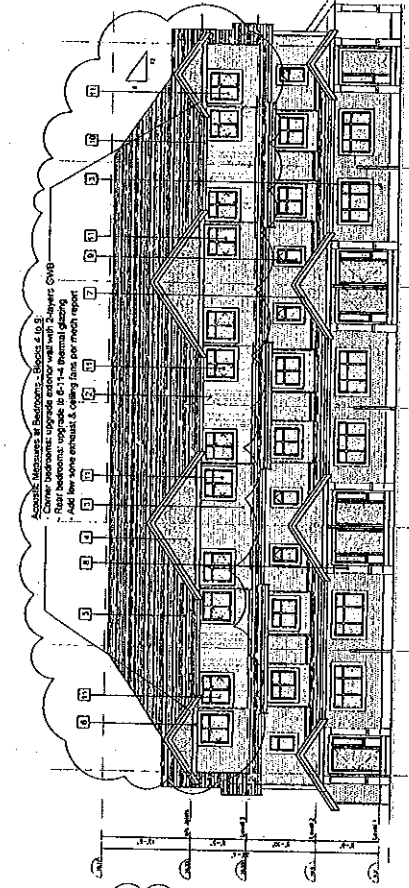
REVISIONS	
DATE	DESCRIPTION
Dec 21, 2010	Contract Documents
Oct 29, 2010	Architectural Program
Apr 21, 2010	Architectural Program
Jan 2, 2010	Architectural Program
Apr 8, 2010	Architectural Program
March 22, 2010	Architectural Program
Nov 18, 2009	Architectural Program
CONTRACT PARTY	
S.A.L.	

INTERFACE
 Suite 200
 10000 Old Market Road
 Richmond, VA 23234
 800-899-1144

Plan 4 Dec 22 2010
 DP 08-432193

PROJECT NO.	081
SCALE	1/8" = 1'-0"
DATE	December 22, 2010
DRAWN BY	JKC
CHECKED BY	JKC
PROJECT TITLE	
PLANS AND ELEVATIONS -BLOCKS 4, 5, 6 & 7	

A3.1



SEE PLAN #7 FOR BLOCK 4 NO. 2 ROAD ELEVATION

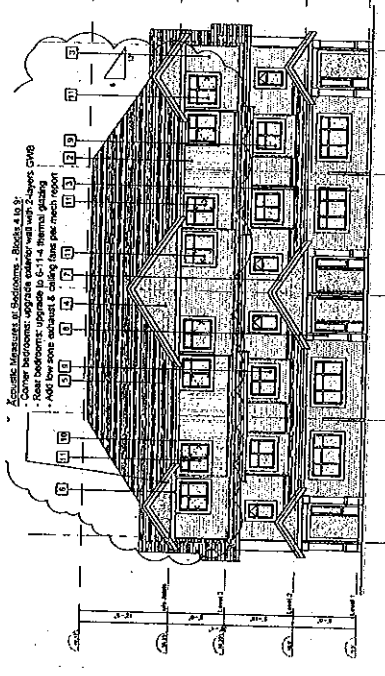
PROJECT NO.	0801
SCALE	1/8" = 1'-0"
DATE	December 16, 2008
DESIGNED BY	RYC
CHECKED BY	RYC
SHEET TITLE	PLANS AND ELEVATIONS - BLOCK 3
DRAWING	

DATE	DESCRIPTION
Dec 17, 2008	Submitted for Review
Dec 18, 2008	Approved
Jan 27, 2009	10% Review for DP Plan
June 7, 2009	10% Review for DP Plan
April 1, 2010	10% Review for DP Plan
June 12, 2010	10% Review for DP Plan
Nov 18, 2008	10% Review for DP Plan

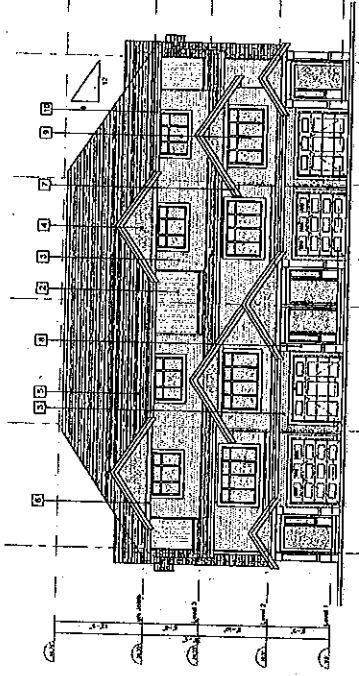
CONSULTANT	INTERFACE
11000 Campus Road	
Canada, ON M3S 2S5	
754 851 1102	
FAX 754 851 1108	
www.interfaceinc.com	

Plan 6 Dec 22 2010
DP 08-432193

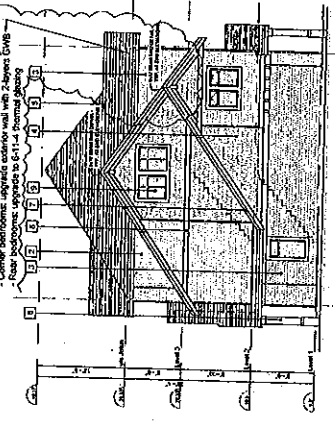
- EXTERIOR FINISHES**
- 1 HORIZONTAL VERTICAL Siding (Shingles & Panels)
 - 2 HORIZONTAL LAP Siding (Charmant 4" Lapboard)
 - 3 HORIZONTAL LAP Siding (Charmant 4" Lapboard)
 - 4 HORIZONTAL LAP Siding (Charmant 4" Lapboard)
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 - 98 HORIZONTAL LAP Siding (Charmant 4" Lapboard)
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 - 100 HORIZONTAL LAP Siding (Charmant 4" Lapboard)



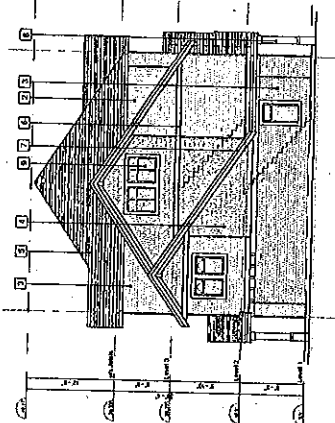
WALKWAY ELEVATION



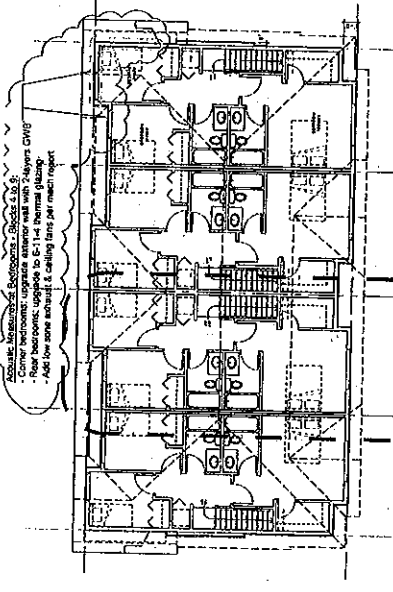
DRIVE AISLE ELEVATION



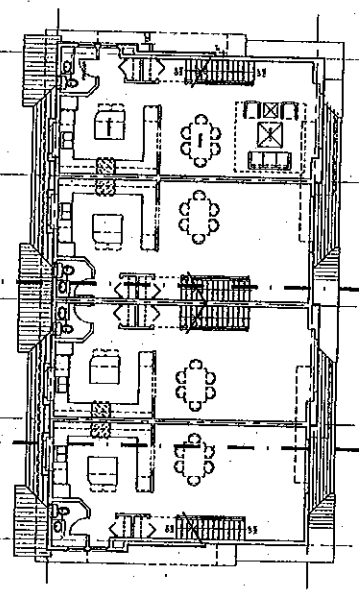
SIDE ELEVATION



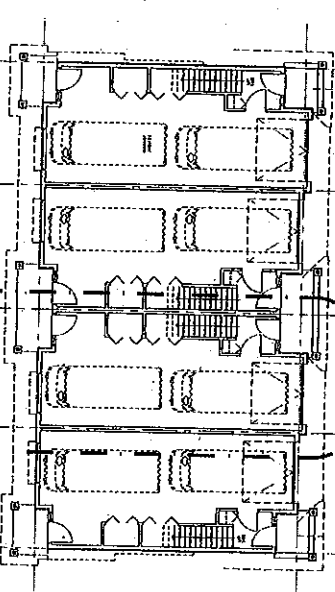
SIDE ELEVATION



LEVEL 3



LEVEL 2



LEVEL 1

TYP. UNIT B

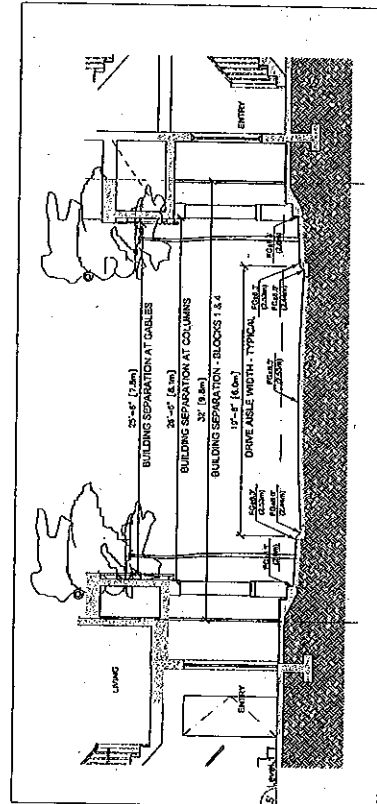
A3.3

REVISION	DATE	BY	DESCRIPTION
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3	Jan 17, 2011	JAC	Final Draw
4	Jan 17, 2011	JAC	Final Draw
5	Jan 17, 2011	JAC	Final Draw
6	Jan 17, 2011	JAC	Final Draw
7	Jan 17, 2011	JAC	Final Draw
8	Jan 17, 2011	JAC	Final Draw
9	Jan 17, 2011	JAC	Final Draw
10	Jan 17, 2011	JAC	Final Draw

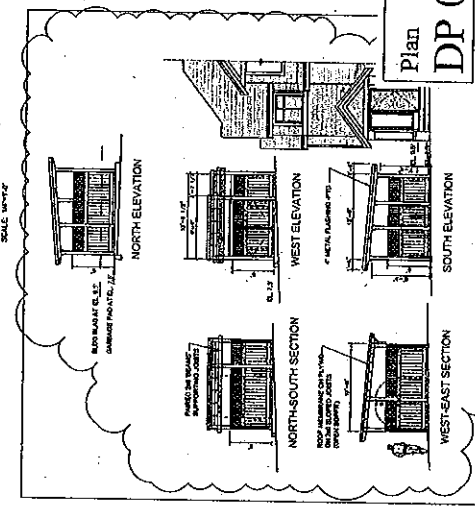
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INTERFACE:
 Plan 8 Jan 17 2011
 DP 08-432193

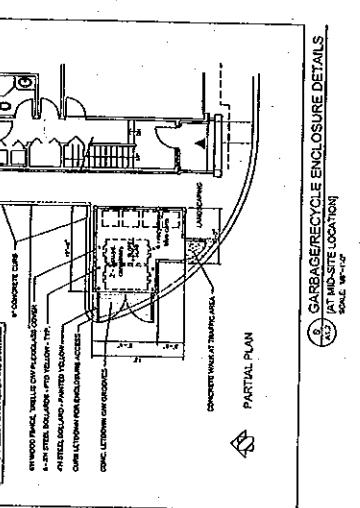
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10	Jan 17, 2011	JAC	Final Draw



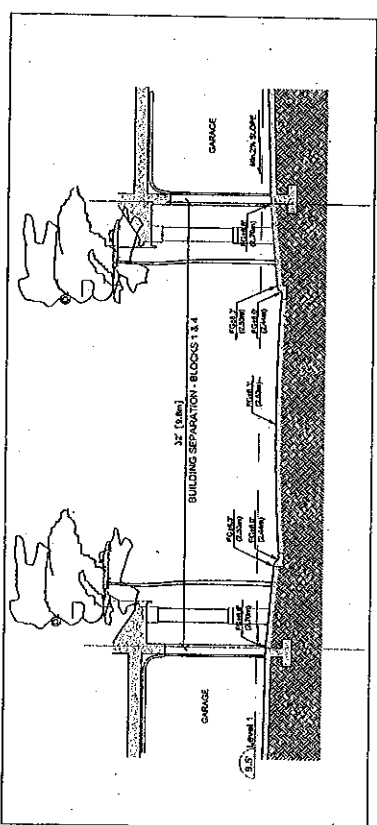
1 PARTIAL SITE SECTION 1
 AT FRONTING GARAGES
 SCALE: 1/8"=1'-0"



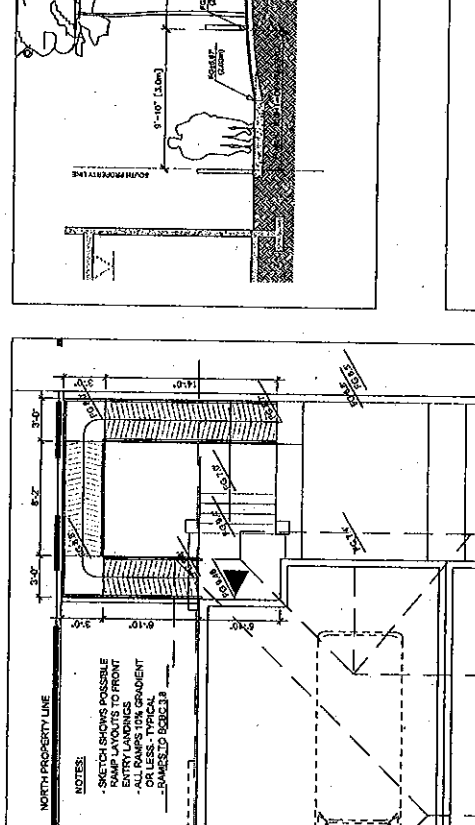
2 PARTIAL SITE SECTION 2
 AT FRONTING ENTRIES
 SCALE: 1/8"=1'-0"



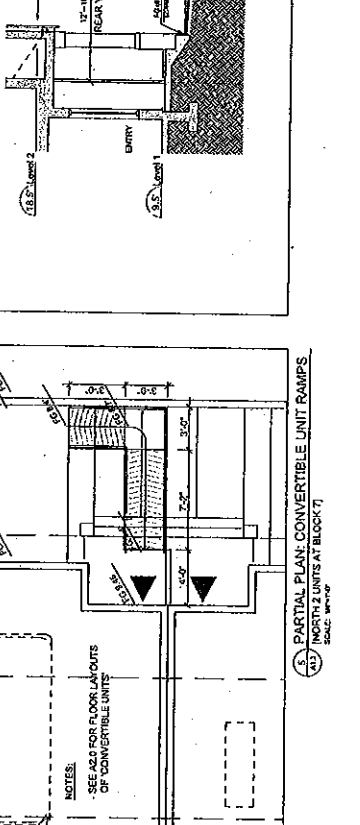
3 PARTIAL PLAN: CONVERTIBLE UNIT RAMP
 NORTH 2 UNITS AT BLOCK 7
 SCALE: 1/8"=1'-0"



4 PARTIAL SITE SECTION 3
 AT PEDESTRIAN WALKWAY
 SCALE: 1/8"=1'-0"



5 PARTIAL SITE SECTION 4
 AT REAR YARDS
 SCALE: 1/8"=1'-0"



6 GARBAGE/RECYCLE ENCLOSURE DETAILS
 AT REAR YARDS
 SCALE: 1/8"=1'-0"

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INTERFACE:
 Plan 8 Jan 17 2011
 DP 08-432193

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9	Jan 17, 2011	JAC	Final Draw
10	Jan 17, 2011	JAC	Final Draw

A5.1

REVISION	
Rev. 11, 2010	General Notes
Rev. 08, 2010	Approved: [Signature]
Rev. 07, 2010	Approved: [Signature]
Rev. 06, 2010	Approved: [Signature]
Rev. 05, 2010	Approved: [Signature]
Rev. 04, 2010	Approved: [Signature]
Rev. 03, 2010	Approved: [Signature]
Rev. 02, 2010	Approved: [Signature]
Rev. 01, 2010	Approved: [Signature]

CONTRACTOR

DATE

PROJECT

PROPOSED 44-UNIT
TOWNHOUSE DEVELOPMENT
12244 No. 2 Street
Riverside, B.C.

2 604 831 1188
www.interfacebc.com

INTERFACE

1000-1000 Street
Richmond, B.C.
Canada V6V 3Z5

7171 15th Street
Riverside, B.C.

DATE

PROJECT

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PROJECT

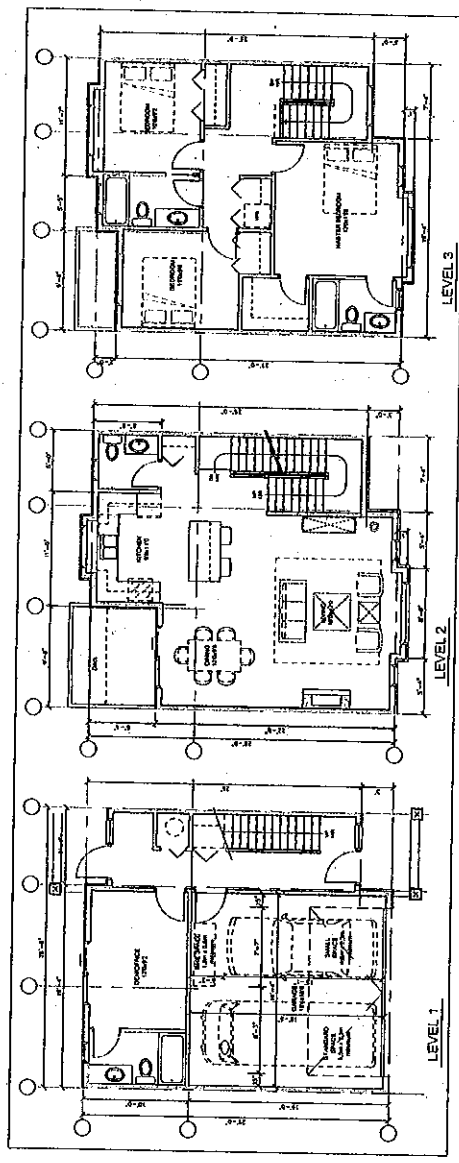
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12244 No. 2 Street
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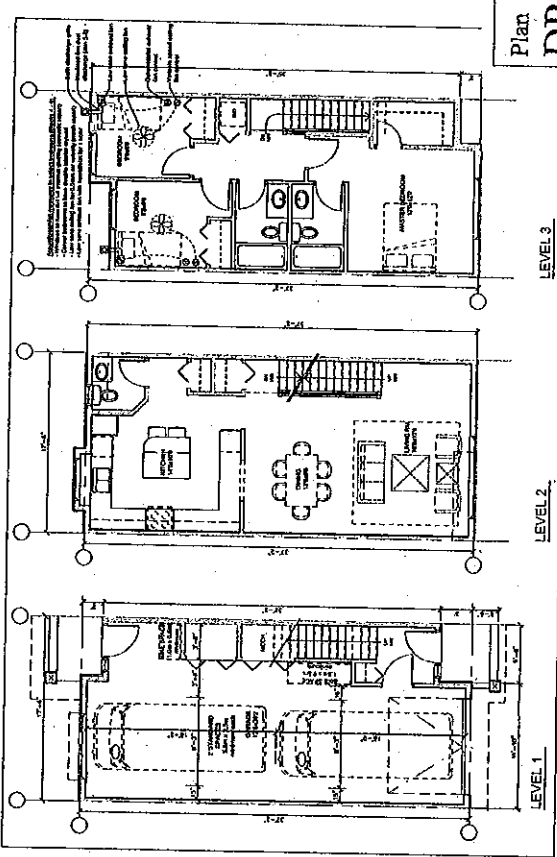
INTERFACE

1000-1000 Street
Richmond, B.C.
Canada V6V 3Z5

7171 15th Street
Riverside, B.C.



UNIT A - PLANS
SCALE: 1/4" = 1'-0"



UNIT B - PLANS
SCALE: 1/4" = 1'-0"

ALL ROOMS	LARGE TOGGLE-TYPE ELECTRICAL SWITCHES
LEVEL-TYPE DOOR HANDLES	
MINIMUM THRESHOLD HEIGHTS (LESS THAN 1/2") WHERE POSSIBLE	
WALLS TO MATCH IN COLOURS OF FLOOR FINISHES WHERE POSSIBLE	
WALLS TO MATCH IN COLOURS OF FLOOR FINISHES WHERE POSSIBLE	
INTERMEDIATE STAIR LAMP DIMENSIONS WHERE POSSIBLE	
LEAST STEEP RISE/RUN DIMENSIONS WHERE POSSIBLE	
WALL BLOCCING FOR FUTURE CABLE BAY INSTALLATION AT BALCONY, TOILET	
LEVEL HANDLE TIPS AND FINISHES	
2" x 2" SLURRING DOORS WHERE POSSIBLE	
LEVEL HANDLE TIPS AND FINISHES	
MIN. 30" x 30" TILES	

AGING-IN-PLACE FEATURES

ALL UNITS	
FRANKLIN PARKER TO REPLACE SURFACE BLINDS AND SUBSEQUENT STORM WATER LEAD	
DEVELOPMENT OF EXISTING BROWNFIELD SITE	
ACCESS TO NEARBY BUS ROUTES	
BICYCLE INTERIOR STORAGE IN EVERY UNIT	
LOWE CLADDING THROUGHOUT FOR IMPROVED WINDOW U-VALUE	
SPRINKLER WINDING FOR EFFICIENT FRONT-TO-BACK CROSS-VENTILATION	
QUALITY FINISHES (APPLIANCES, KITCHEN, LAUNDRY)	
QUALITY FINISHES (APPLIANCES, KITCHEN, LAUNDRY)	
INSULATED HOT WATER TANKS PROTECTING THE WATER HEATER	
INSULATED HOT WATER TANKS PROTECTING THE WATER HEATER	
PROVIDE OUTDOOR BREZZE CONDITION AS AN ALTERNATIVE TO AIR CONDITIONING (SEE REG. 2006)	

SUSTAINABILITY FEATURES

ALL UNITS AND SITE DEVELOPMENT	
INDUSTRIAL LOTS TO THE SOUTH AND WEST CAN POTENTIALLY GENERATE EXCESSIVE NOISE	
ACOUSTIC REPORT IDENTIFIES UNITS ADJACENT TO THESE LOTS TO REQUIRE ACCESSORY MEASURES	
ADDITIONAL MEASURES TO ADDRESS WINDOW CLOSED CONDITIONS AND MAINTAIN COMFORT	
MEASURES TO ADDRESS WINDOW CLOSED CONDITIONS AND MAINTAIN COMFORT	
EXTENDED WALLS AT CORNER BEDROOMS TO AVOID CORNER EFFECTS TO ATTENUATE NOISE	
PROVIDE 1" x 4" x 1" LOW SMOKE EXHAUST FAN WITH OPERANDUM AND LOCKING CEILING FAN	

ACOUSTIC / COMFORT MEASURES

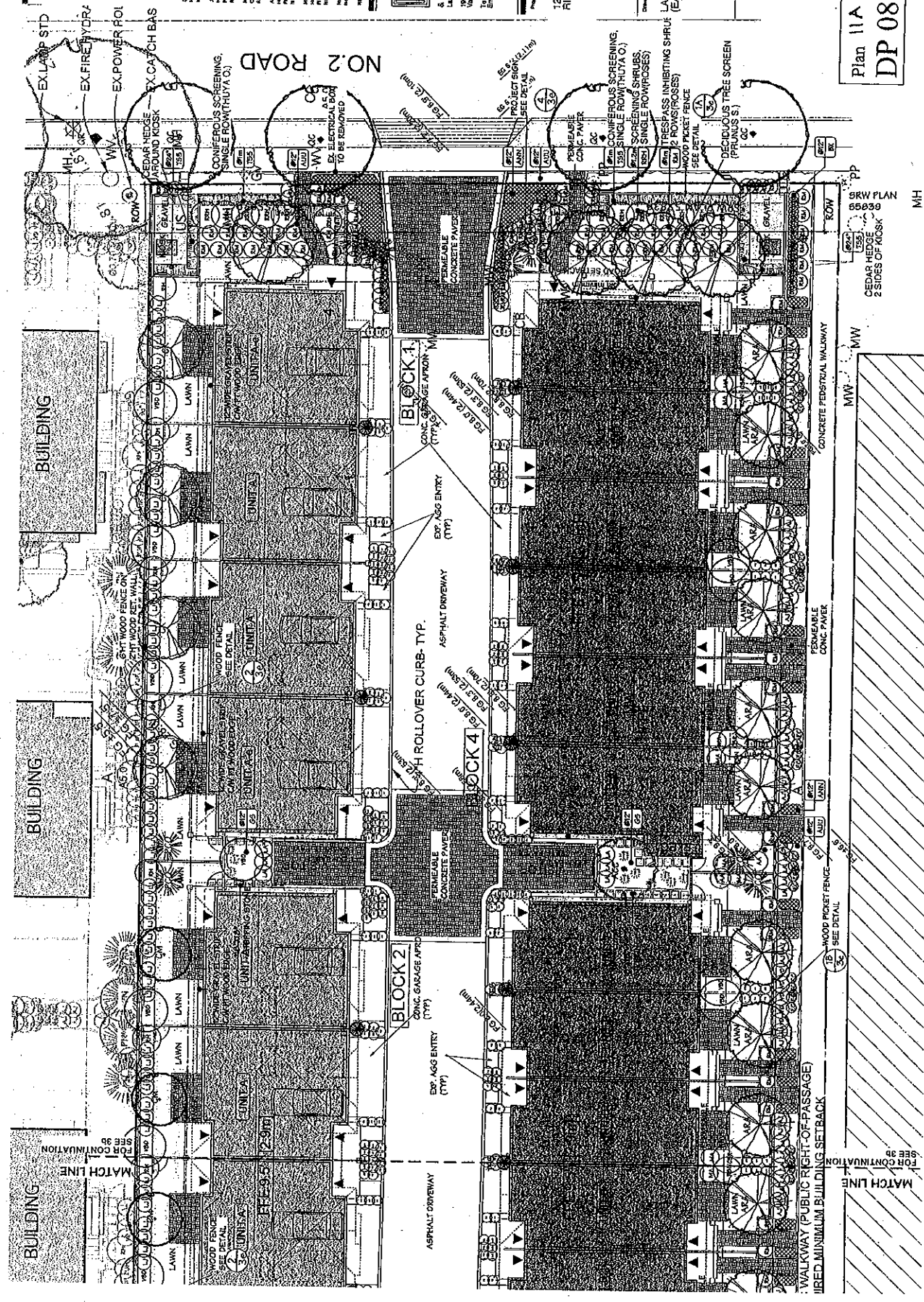
BEDROOMS IN UNITS ADJACENT TO INDUSTRIAL LOTS

UNIT TYPE	FLOOR AREA	STAR DESCRIPTION	GROUND LEVEL			SECOND LEVEL			THIRD LEVEL			ORIGINAL UNIT TOTALS		
			FLOOR AREA	STAR DESCRIPTION	STAR DESCRIPTION	FLOOR AREA	STAR DESCRIPTION	FLOOR AREA	STAR DESCRIPTION	FLOOR AREA	STAR DESCRIPTION	FLOOR AREA	STAR DESCRIPTION	
A	724 sq ft	19 sq ft	385 sq ft	385 sq ft	694 sq ft	694 sq ft	742 sq ft	742 sq ft	64 sq ft	64 sq ft	2,129 sq ft	2,129 sq ft	140 sq ft	140 sq ft
A+	726 sq ft	19 sq ft	385 sq ft	385 sq ft	694 sq ft	694 sq ft	742 sq ft	742 sq ft	64 sq ft	64 sq ft	2,129 sq ft	2,129 sq ft	140 sq ft	140 sq ft
B	622 sq ft	19 sq ft	45 sq ft	45 sq ft	554 sq ft	554 sq ft	631 sq ft	631 sq ft	49 sq ft	49 sq ft	1,825 sq ft	1,825 sq ft	113 sq ft	113 sq ft
B+	622 sq ft	19 sq ft	45 sq ft	45 sq ft	554 sq ft	554 sq ft	631 sq ft	631 sq ft	49 sq ft	49 sq ft	1,825 sq ft	1,825 sq ft	113 sq ft	113 sq ft
CONTRACTOR														

UNIT SUMMARY

A2.0

Plan 7 Dec 22 2010
DP 08-432193



Date: 12/20/10
 Project: 12851 NO.2 RD.
 Client: ITO & ASSOCIATES
 Designer: [Name]
 Checker: [Name]
 Approver: [Name]
 Scale: 1/8" = 1'-0"
 Plot No.: [Number]
 Revision: [Number]
 Notes: [List of notes]

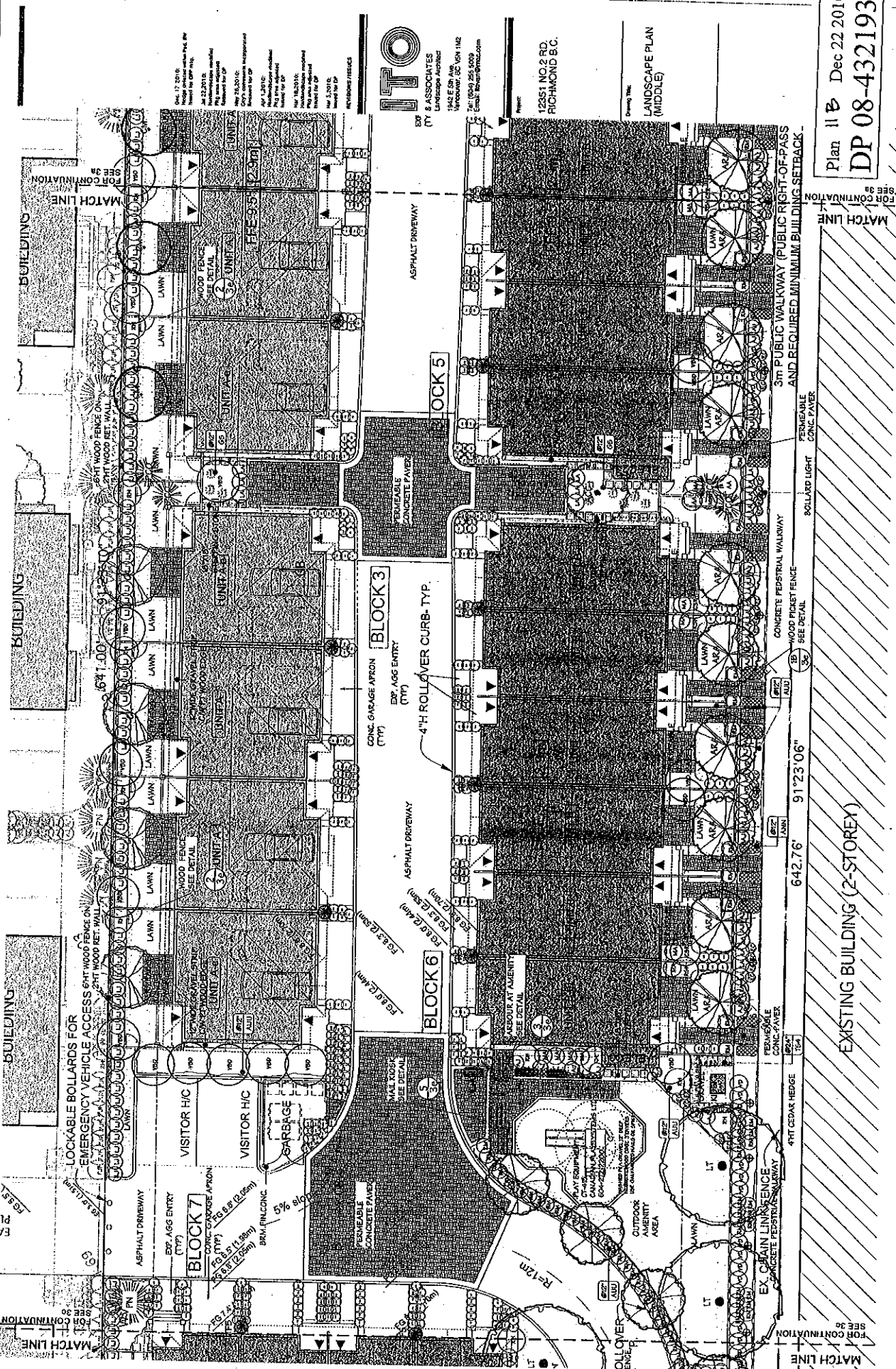
ITO
 & ASSOCIATES
 Landscape Architects
 12851 NO.2 RD.
 RICHMOND B.C.
 Tel: (604) 253-8000
 Email: ITO@ITO.ca

12851 NO.2 RD.
 RICHMOND B.C.
 Project: [Number]
 Drawing Title: LANDSCAPE PLAN (EAST)
 Date: 12/20/10
 Plan 11A Dec 22 2010
 DP 08-432193

LANDSCAPE PLAN
(MIDDLE)

ITO
 ITO & ASSOCIATES
 Landscape Architects
 22551 NO. 2 RD.
 RICHMOND B.C.
 V6V 1A2
 Tel: (604) 263-5090
 Email: info@ito.ca

EXF (TY) & ASSOCIATES
 22551 NO. 2 RD.
 RICHMOND B.C.
 V6V 1A2
 Tel: (604) 263-5090
 Email: info@ito.ca



MATCH LINE

LOCKABLE BOLLARDS FOR EMERGENCY VEHICLE ACCESS (SEE WOOD FENCE ON 3PT WOOD SET-NAIL) SEE 3A

674'1.00'

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONC. GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 5

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

MATCH LINE

FOR CONTINUATION SEE 3C

LOCK 6

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 3

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

642.76'

91'23"06"

CONCRETE PAVEMENT

WOOD PAVEMENT

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD PAVEMENT

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD PAVEMENT

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD PAVEMENT

EXF AGG ENTRY (TYP)

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EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD PAVEMENT

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD PAVEMENT

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD PAVEMENT

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

MATCH LINE

FOR CONTINUATION SEE 3B

LOCK 7

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 4

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

MATCH LINE

FOR CONTINUATION SEE 3A

LOCK 8

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 2

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

MATCH LINE

FOR CONTINUATION SEE 3A

LOCK 9

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 1

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

MATCH LINE

FOR CONTINUATION SEE 3A

LOCK 10

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 11

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

MATCH LINE

FOR CONTINUATION SEE 3A

LOCK 12

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 13

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

MATCH LINE

FOR CONTINUATION SEE 3A

LOCK 14

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 15

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

MATCH LINE

FOR CONTINUATION SEE 3A

LOCK 16

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

4" ROLL-OVER CURB-TYP.

ASPHALT DRIVEWAY

CONCRETE GARAGE APRON (TYP) EXF AGG ENTRY (TYP)

LOCK 17

CONCRETE PAVEMENT

WOOD FENCE

BRM

EXF AGG ENTRY (TYP)

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

CONCRETE PAVEMENT

WOOD FENCE

BRM

PLANT LIST

PROJECT ADDRESS 12351 NO.2 RD., RICHMOND

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ACC	2	ACER ORNATUM	WINE MAPLE	2.5m HT. B&B 3 STRUC-PIN
AP	3	ACER PALMATUM	JAPANESE MAPLE	2.0m HT. B&B
AK	2	ACER SACCABINUM	WAXLEAF MAPLE	8.0m CAL. B&B 1.8m STD.
CK	4	CORNUS ALTA	AMERICAN DOGWOOD	5.0m CAL. B&B 1.8m STD.
CH	4	CORNUS MAS	CORRELIAN CHERRY	5.0m CAL. B&B 1.8m STD.
CI	4	CORNUS MAS	CORRELIAN CHERRY	10.0m CAL. B&B 1.8m STD.
HL	12	MORUS ALBA	MULBERRY	2.0m HT. B&B
POD	5	PRUNUS SPINOSA	PRICKLY ROSE	3.0m HT. B&B
PN	4	PRUNUS NEGUNDA	BLACK CHERRY	11.0m CAL. B&B 1.8m STD.
PL	11	PRUNUS SPINOSA	PRICKLY ROSE	3.0m HT. B&B
PK	1	PRUNUS SPINOSA	PRICKLY ROSE	11.0m CAL. B&B 1.8m STD.
QC	4	QUERCUS COCCINEA	SCARLET OAK	3.0m HT. B&B
TR	1	TILIA	FRANKLIN TREE	11.0m CAL. B&B 1.8m STD.
TS2	11	TILIA OCCIDENTALIS SWARZD	EMERALD CEDAR	1.5m HT.
TS5	49	TILIA OCCIDENTALIS SWARZD	EMERALD CEDAR	1.5m HT.

SHRUBS

AI	4	AMELANCHIER ALBERA	SASKATOON BERRY	#3 POT
AJ	62	AZALEA JAPONICA	DOGWOOD	#2 POT
BX	20	BUXUS SEMPERVIRENS	COMMON DOGWOOD	#2 POT
CR	7	CORNUS STOLONIFERA	RED OSIER DOGWOOD	#2 POT
LA	61	LEUCOTHAEA AXILLARS	WINTER HEATHER	#2 POT
LI	236	LIGUSTRUM JAPONICUM 'TIDIANUM'	CHINA SPICE	#3 POT
PA	45	PAONIA ACQUILINUM	OREGON GRAPE	#3 POT
PK	2	PRUNUS SPINOSA	PRICKLY ROSE	1.0m HT.
RSN	7	RIBES SAUCONUM	RED FLOWERS CURRANT	#1 POT
RM	232	ROSA MEDLAND	HEMPLEAND ROSE	#1 POT
RM	1	ROSA MEDLAND	HEMPLEAND ROSE	#2 POT
VO	99	VERONICA LAURUM	WINTER HEATHER	#2 POT
VBO	28	VERONICA X BOURNANTENSE 'DAWN'	DAWN VERONICA	2.5m HT.

GROUND COVERS

AJU	160	ARCTOSTAPHYLOS LVA URSI	KNUKNUCK	#5/3 POT
AL	15	ALLEGRA	SAJAL	#5/3 POT
PA	155	PERISCARPA AFRICA	Flowers Flower	#5/3 POT

VINES

CR	4	CAMPIDR MARIANA	TRUMPET VINE	#1 POT STAKED
----	---	-----------------	--------------	---------------

PERENNIALS/ANNUALS/FERNS/GRASSES/AQUATIC PLANTS

CA	15	CAREX MOORCAMP 'ALICE-VARESCITA'	CAREX	#1 POT
CA	30	CAREX MOORCAMP 'ALICE-VARESCITA'	CAREX	#1 POT
H5	30	HELIOPSIS SCOPULORUBRA	BLUE FIST GRASS	#1 POT
LVA	288	LAVANDULA ANGSTRIATA	ENGLISH LAVENDER	#1 POT
PLA	15	POLYSTICHUM MUNITUM	WESTERN SWAMP FERN	#1 POT

ANN

ANN	620	ANNUALS**		#5/3 POT
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NOTES

** DENOTES SPECIES AND VARIETY TO BE APPROVED BY THE LANDSCAPE ARCHITECT.
 ALL MATERIALS AND EXECUTION SHALL BE IN ACCORDANCE TO THE MOST RECENT
 BRITISH COLUMBIA LANDSCAPE STANDARDS.
 PLANTS IN THIS PLANT LIST ARE SPECIFIED ACCORDING TO THE CITY STANDARDS
 FOR NURSERY STOCK AND THE QUALITY STANDARDS FOR CONTAINER GROWN PLANTS.
 ALL PLANT QUANTITY DISCREPANCIES BETWEEN PLAN AND PLANT LIST SHALL BE
 REPORTED TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO SUBMITTING BIDS.
 ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE FULL
 YEAR AFTER THE DATE OF SUBSTANTIAL PERFORMANCE. SUBSTANTIAL PERFORMANCE
 IS DEFINED AS THE DATE WHEN 50% OF THE CONTRACT HAS BEEN COMPLETED TO THE SATISFACTION
 OF THE LANDSCAPE ARCHITECT.
 THE CONTRACTOR SHALL MAINTAIN ACCORDANCE TO THE LANDSCAPE
 STANDARDS UNTIL THE WORK IS TURNED OVER TO THE OWNER.

Dec 17 2010
 Heavy water mark Pen, Ink
 or 8232016
 Pkg size indicated
 Based on DP
 12351 NO.2 RD., RICHMOND
 10.0m CAL. B&B 1.8m STD.
 2.0m HT. B&B
 3.0m HT. B&B
 Apr 12 2010
 Heavy water mark Pen, Ink
 or 8232016
 Pkg size indicated
 Based on DP
 12351 NO.2 RD., RICHMOND
 11.0m CAL. B&B 1.8m STD.
 3.0m HT. B&B
 May 18 2010
 Heavy water mark Pen, Ink
 or 8232016
 Pkg size indicated
 Based on DP
 12351 NO.2 RD., RICHMOND
 1.5m HT.
 May 18 2010
 Heavy water mark Pen, Ink
 or 8232016
 Pkg size indicated
 Based on DP
 12351 NO.2 RD., RICHMOND
 1.5m HT.

12351 NO.2 RD., RICHMOND B.C.



8 ASSOCIATES
 LANDSCAPE ARCHITECTS
 1805 LE GLE AVENUE
 VICTORIA, BC V8M 1K2
 TEL: (250) 255-5009
 EMAIL: ITO@ITOINC.COM

12351 NO.2 RD., RICHMOND B.C.

12351 NO.2 RD., RICHMOND B.C.

12351 NO.2 RD., RICHMOND B.C.

12351 NO.2 RD., RICHMOND B.C.

Plan 11 DP Dec 22 2010
 DP 08-432193

3d of 9

Dec. 17, 2010
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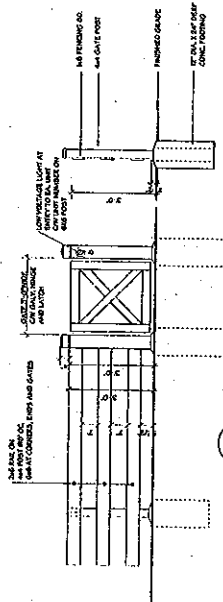
ITO
 & ASSOCIATES
 LANDSCAPE ARCHITECT
 1945 E 5th Ave.
 Vancouver, BC V5M 1W2
 Tel: (604) 255-5009
 Email: info@itome.com

Project:
 12851 NO.2 RD.
 RICHMOND B.C.

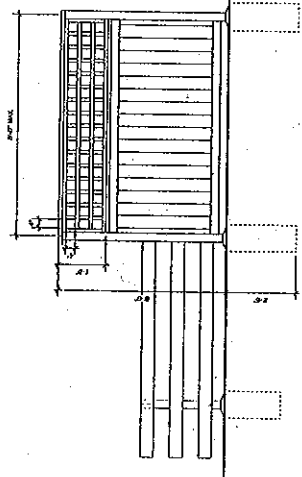
Details:
 DETAILS

Plan 11E Dec 22 2010
 DP 08-432193

3e of 9

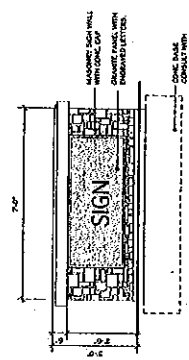


1 3' WOOD FENCE
 SCALE: 1/8" = 1'-0"

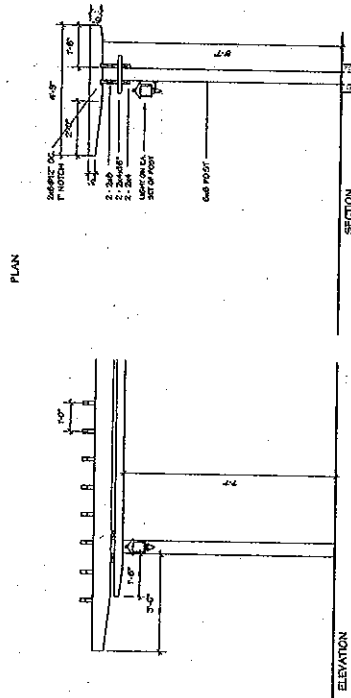


2 6HT WOOD FENCE
 SCALE: 1/8" = 1'-0"

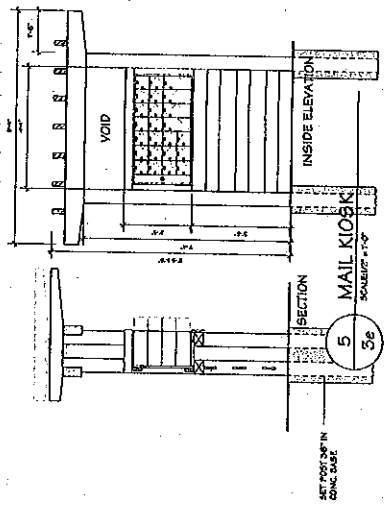
NOTE:
 ALL WOOD SHALL BE PRESSURE TREATED FOR GRUB.
 ALL WOOD SHALL BE STAINED WITH 2 COATS OF AN OIL-BASED STAIN. COLOR TO BE COORDINATED WITH THE LANDSCAPE ARCHITECT'S LANSAPPE ADJUSTED FROM TO APPLICATION.
 ALL NAILS AND OTHER METAL COMPONENTS SHALL BE GALVANIZED.
 ALL GRIDS SHALL BE PROVIDED WITH METAL LATCH ASSEMBLIES.



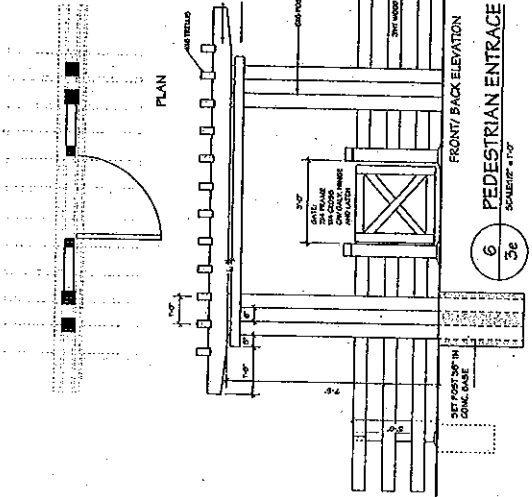
4 PROJECT SIGN
 SCALE: 1/8" = 1'-0"



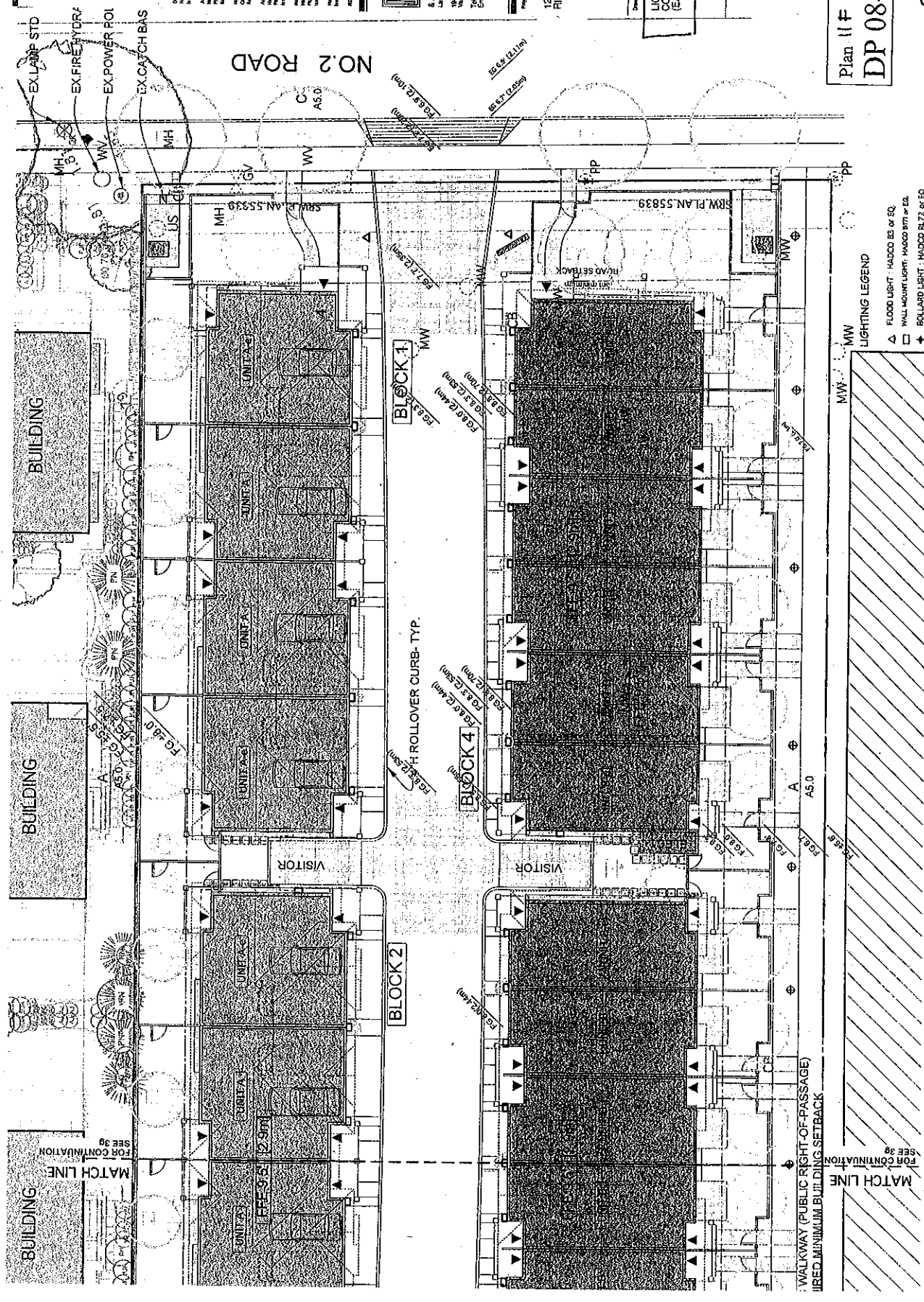
3 ARBOUR DETAIL
 SCALE: 3/8" = 1'-0"



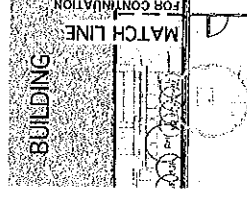
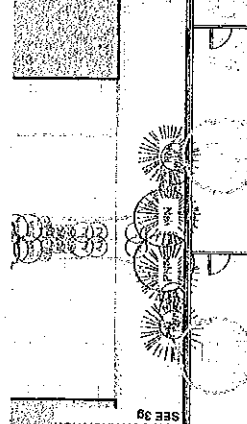
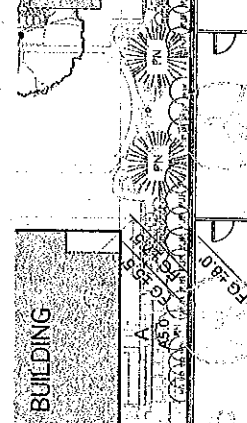
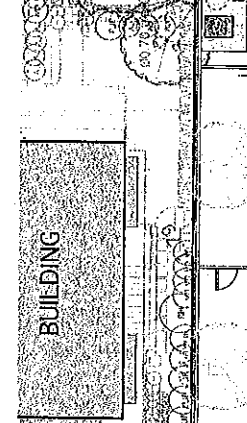
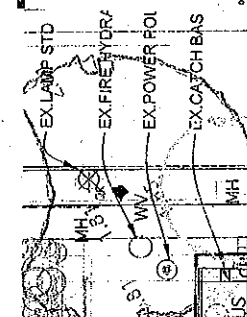
5 MAIL KIOSK
 SCALE: 1/8" = 1'-0"



6 PEDESTRIAN ENTRANCE
 SCALE: 1/8" = 1'-0"



NO. 2 ROAD



Dec. 17, 2010
 12851 NO. 2 RD.
 RICHMOND B.C.
 ITO
 & ASSOCIATES
 LANDSCAPE ARCHITECTS
 1430 E. 5TH AVE. VAN. V6K 1K4
 TEL: (604) 273-5500
 FAX: (604) 273-5501
 Email: tomas@ito.com

LIGHTING
 CONCEPT PLAN
 (EAST)

Plan 11F Dec 22 2010
 DP 08-432193

LIGHTING LEGEND
 FLOOD LIGHT - HADCO BS of EQ
 WALL MOUNT LIGHT - HADCO BT7 of EQ
 BOLLARD LIGHT - HADCO RL72 of EQ

WALKWAY (PUBLIC RIGHT-OF-PASSAGE)
 WITH MINIMUM BUILDING SETBACK

MATCH LINE

MATCH LINE

FOR CONTINUATION SEE 39

FOR CONTINUATION SEE 39

UNIT 1

UNIT 2

UNIT 3

UNIT 4

UNIT 5

UNIT 6

UNIT 7

UNIT 8

UNIT 9

UNIT 10

UNIT 11

UNIT 12

UNIT 13

UNIT 14

UNIT 15

UNIT 16

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UNIT 191

UNIT 192

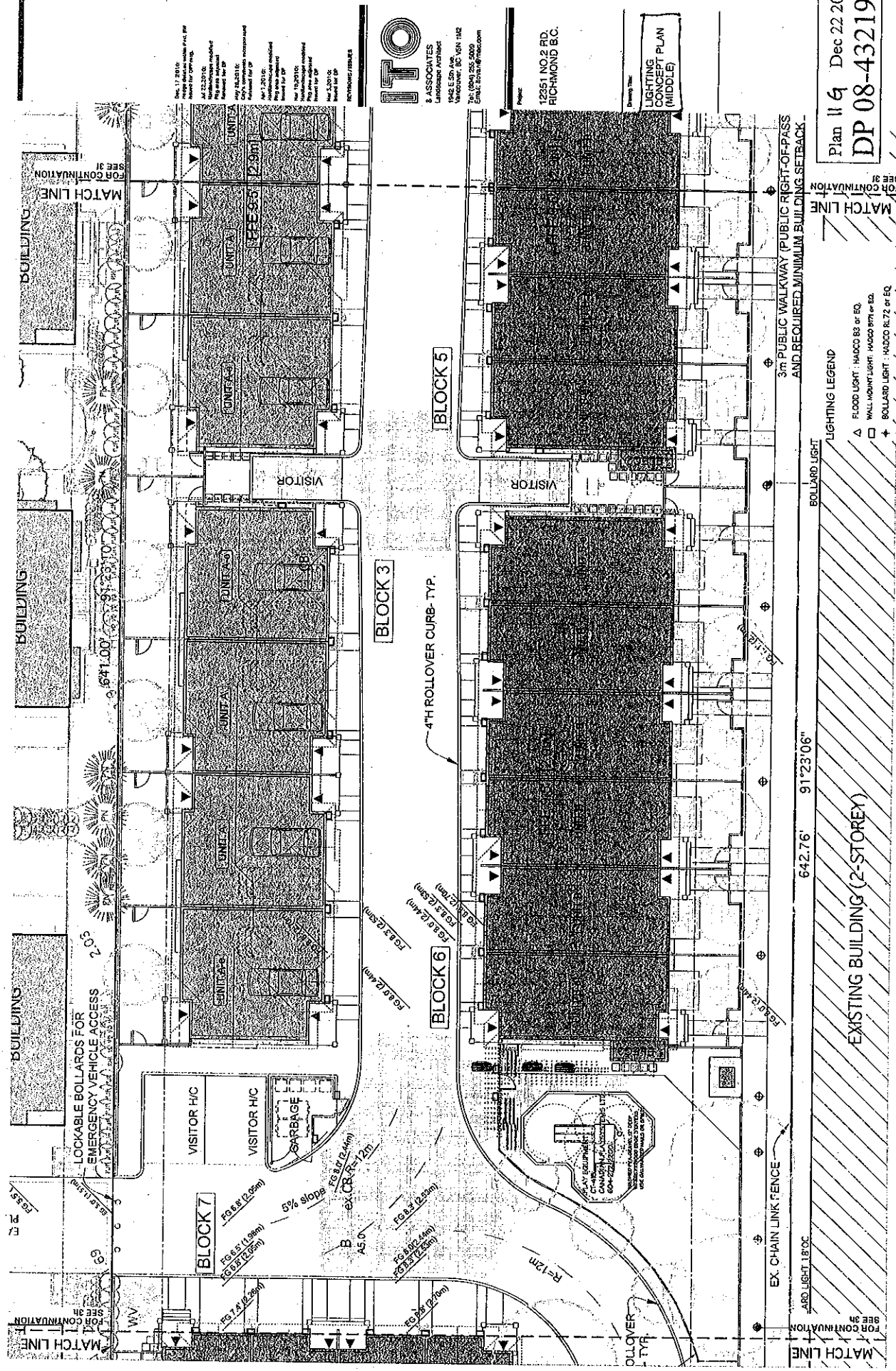
UNIT 193

UNIT 194

UNIT 195

UNIT 196

UNIT 197



Dec 17 2010
 142 E 5th Ave
 Vancouver, BC V6N 1M2
 Tel: (604) 252-5000
 Email: info@ito.ca

ITO
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 Email: info@ito.ca

12351 NO. 2 RD.
 RICHMOND B.C.

Lighting
 CONCEPT PLAN
 (MIDDLE)

Plan 114 Dec 22 2010
 DP 08-432193

3m PUBLIC WALKWAY (PUBLIC RIGHT-OF-PASS AND REQUIRED MINIMUM BUILDING SETBACK)

LOCKABLE BOLLARDS FOR EMERGENCY VEHICLE ACCESS

EXISTING BUILDING (2-STORY)

EX. CHAIN LINK FENCE

ARD. LIGHT 1.8' OC

5% slope

LOCKER

FOR CONTINUATION

FOR CONTINUATION

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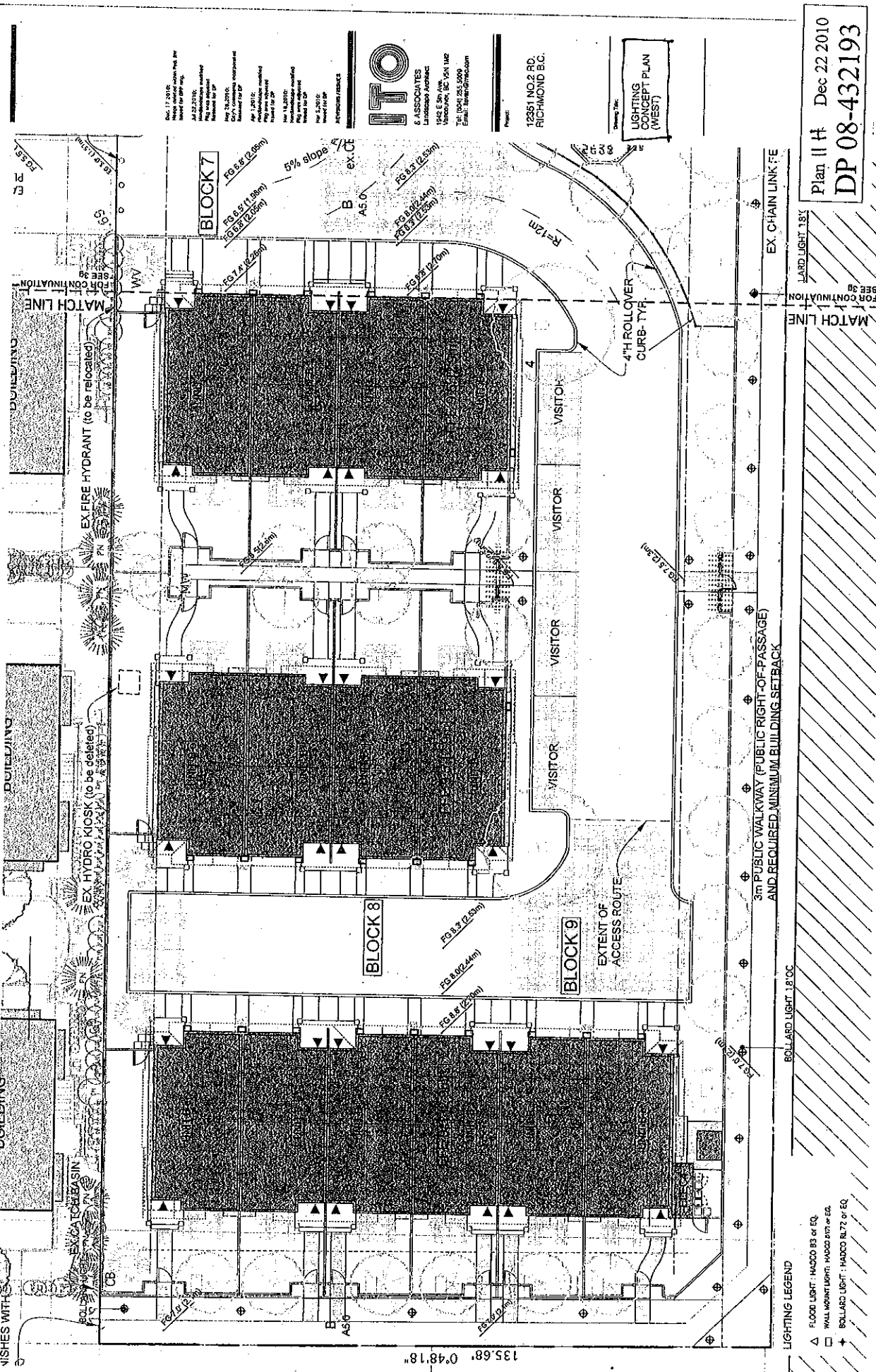
FOR CONTINUATION

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FOR CONTINUATION



Plan II H Dec 22 2010
 DP 08-432193

3h of 9

Dec 17 2010
 12351 INDIA RD.
 RICHMOND BC.
 ITO ASSOCIATES
 1345 E 5th Ave. Suite 200
 Victoria BC V8N 1M2
 Tel: (250) 255-5909
 Email: info@ito.ca

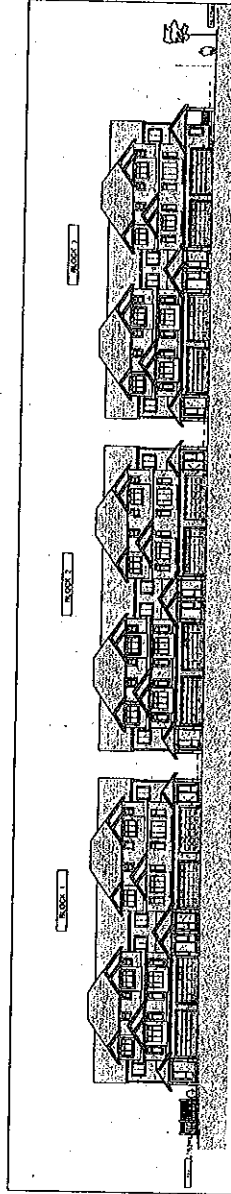


LIGHTING
 CONCEPT PLAN
 (WEST)

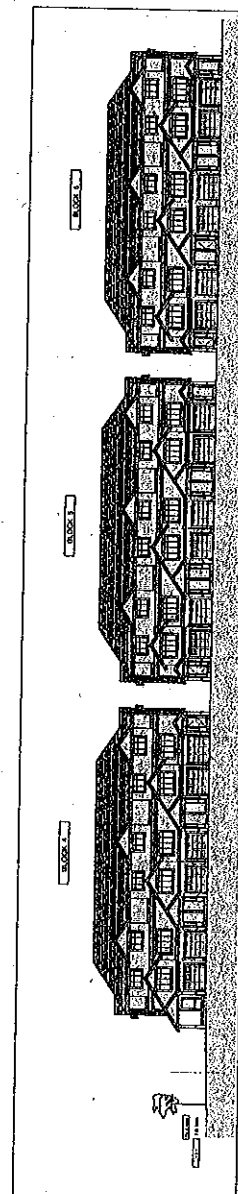
- LIGHTING LEGEND
- ▲ FLOOD LIGHT: HADCO B3 or EQ
 - WALL MOUNT LIGHT: HADCO B17 or EQ
 - ⊕ BOLLARD LIGHT: HADCO BL72 or EQ

135.68' 0'48.18"

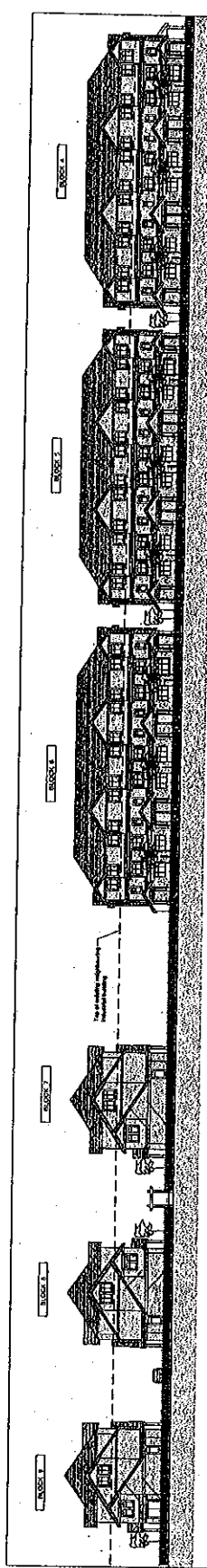
SEE PLAN # 7 FOR
NO. 2 ROAD STREETSCAPE
ELEVATIONS



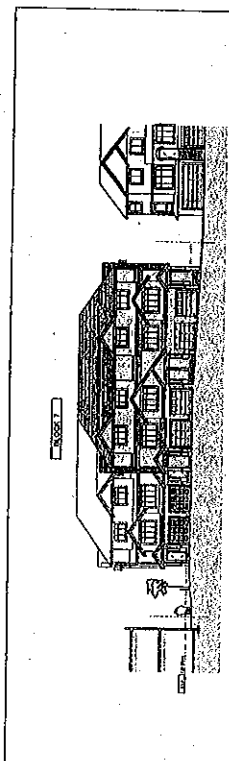
Streetscape 2 - Blocks 1, 2, 3
SCALE 1/8\"/>



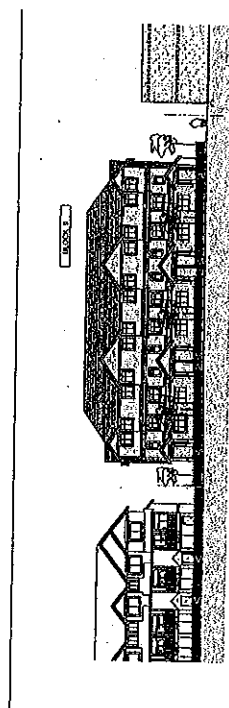
Streetscape 3 - Blocks 4, 5, 6
SCALE 1/8\"/>



Streetscape 4 - Blocks 4, 5, 6 and Blocks 7, 8, 9 from PROP
SCALE 1/8\"/>



Streetscape 5 - Block 7
SCALE 1/8\"/>



Streetscape 6 - Block 9 from PROP
SCALE 1/8\"/>

REV	DATE	DESCRIPTION
01	06/21/2010	AMENDMENTS TO PERMITS FOR
02	07/27/2010	PERMITS FOR
03	08/27/2010	PERMITS FOR
04	10/14/2010	PERMITS FOR
05	11/22/2010	PERMITS FOR
06	01/27/2011	PERMITS FOR
07	03/22/2011	PERMITS FOR
08	05/17/2011	PERMITS FOR
09	07/13/2011	PERMITS FOR
10	09/08/2011	PERMITS FOR
11	11/02/2011	PERMITS FOR
12	01/09/2012	PERMITS FOR

DATE	DESCRIPTION
06/21/2010	AMENDMENTS TO PERMITS FOR
07/27/2010	PERMITS FOR
08/27/2010	PERMITS FOR
10/14/2010	PERMITS FOR
11/22/2010	PERMITS FOR
01/27/2011	PERMITS FOR
03/22/2011	PERMITS FOR
05/17/2011	PERMITS FOR
07/13/2011	PERMITS FOR
09/08/2011	PERMITS FOR
11/02/2011	PERMITS FOR
01/09/2012	PERMITS FOR

DATE	DESCRIPTION
06/21/2010	AMENDMENTS TO PERMITS FOR
07/27/2010	PERMITS FOR
08/27/2010	PERMITS FOR
10/14/2010	PERMITS FOR
11/22/2010	PERMITS FOR
01/27/2011	PERMITS FOR
03/22/2011	PERMITS FOR
05/17/2011	PERMITS FOR
07/13/2011	PERMITS FOR
09/08/2011	PERMITS FOR
11/02/2011	PERMITS FOR
01/09/2012	PERMITS FOR

INTERFACE
 Suite 200
 4400 Old Orchard Road
 Richmond, BC
 Canada V6X 2E7
 7 604 871 1182
 www.interfaceinc.com

PROJECT
 Proposed 44-Unit
 Townhome Development

Reference Plan Dec 22 2010
DP 08-432193

DATE	DESCRIPTION
06/21/2010	AMENDMENTS TO PERMITS FOR
07/27/2010	PERMITS FOR
08/27/2010	PERMITS FOR
10/14/2010	PERMITS FOR
11/22/2010	PERMITS FOR
01/27/2011	PERMITS FOR
03/22/2011	PERMITS FOR
05/17/2011	PERMITS FOR
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09/08/2011	PERMITS FOR
11/02/2011	PERMITS FOR
01/09/2012	PERMITS FOR

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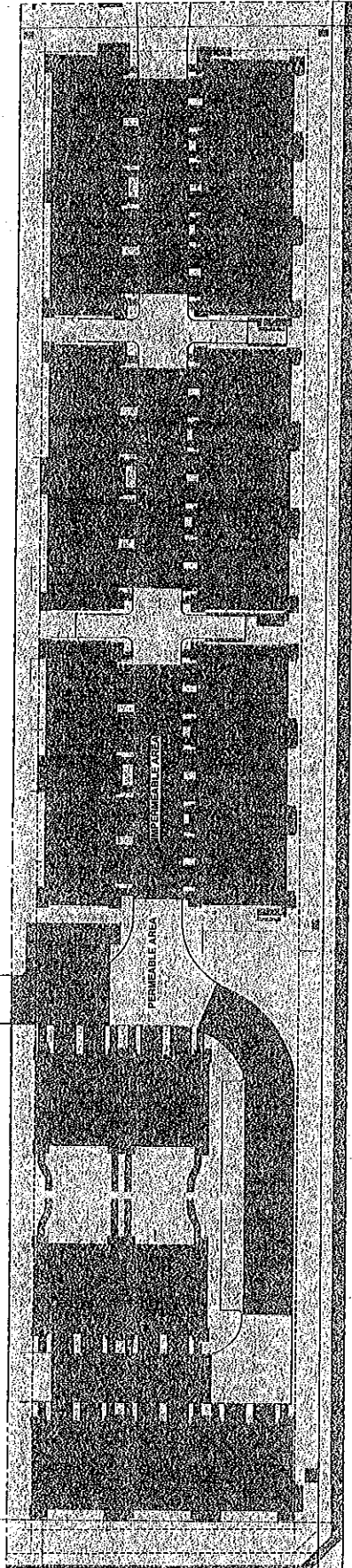
Dec 17 2010: Initial P&I set
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 Jul 22 2010:
 P&I set complete including
 20% impervious area
 Reference for DP
 May 18 2010:
 P&I set complete including
 20% impervious area
 Reference for DP
 Apr 13 2010:
 P&I set complete including
 20% impervious area
 Reference for DP
 Apr 12 2010:
 P&I set complete including
 20% impervious area
 Reference for DP
 Apr 5 2010:
 P&I set complete including
 20% impervious area
 Reference for DP
 Apr 1 2010:
 P&I set complete including
 20% impervious area
 Reference for DP



ITO
 & ASSOCIATES
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 Phone: 604-681-1111
 Email: info@ito.ca

Project:
 12351 NO.2 RD,
 RICHMOND B.C.

Drawing No:
 IMPERMEABLE
 AREA



IMPERMEABLE CALCULATION

TOTAL AREA: 67,144 SQ FT
 IMPERMEABLE AREA: 52,964 SQ FT
 PERCENT IMPERMEABLE: 78.9%

Reference Plan Dec 22 2010
 DP 08-432193