

REGULAR COUNCIL MEETING AGENDA

Monday, March 5, 2018 7:00 P.M. Council Chambers, Langley City Hall 20399 Douglas Crescent

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COMMUNITY SPOTLIGHTS



MINUTES OF A REGULAR COUNCIL MEETING

Monday, February 19, 2018 7:00 p.m. Council Chambers, Langley City Hall 20399 Douglas Crescent

Council Present: Mayor Schaffer

Councillor Arnold
Councillor Albrecht
Councillor Martin
Councillor Pachal
Councillor Storteboom
Councillor van den Broek

Staff Present: F. Cheung, Chief Administrative Officer

K. Hilton, Director of Recreation, Culture and Community

Services

D. Leite, Director of Corporate Services

G. Minchuk, Director of Development Services and Economic

Development

R. Thompson, Fire Chief K. Kenney, Corporate Officer

1. ADOPTION OF AGENDA

a. Adoption of the February 19, 2018 Regular Agenda

MOVED BY Councillor van den Broek SECONDED BY Councillor Martin

THAT the February 19, 2018 agenda be adopted as circulated

CARRIED

2. COMMITTEE OF THE WHOLE - Opportunity for Public Input

a. Development Permit No. 03-18 (Langley Mall)

Proposed new 288m² (3100 sq ft²) commercial building located at 5501 204th Street

Presentation from Bob Turner, Turner Architecture

Mr. Turner introduced the property owner, Dave Rogowsky, Director of Development, First Capital Realty.

Mr. Turner provided information on the project as follows:

- Location plan
- Site plan
- Floor plan
- Roof plan
- Elevations south and east
- Elevations north and west
- Sections
- Landscape concept plan
- Langley Mall planting plan, details, sections
- Exterior finishes

Mayor Schaffer called for public input on Development Permit No. 03-18. There was one speaker on the speakers list.

M. Parker, 5499 203rd Street, advised he lives across the street from Langley Mall and spoke against the development, citing concerns with:

- the potential for another business such as a drive-through to draw more people into the area at all hours of the night which is disruptive to residents;
- the potential for more traffic in the area;
- turning left on 203rd Street doesn't work;
- people openly doing drugs in the Mall parking lot.

He further stated:

- there are numerous existing opportunities to put a business in the existing mall, so a new building isn't needed;
- the area is going downhill; he wants to see businesses in the area that will enhance the community.

The Mayor called for further speakers on Development Permit No. 03-18. There were no speakers.

b. Bylaw 3045 - Road Closure Bylaw (199A Street)

Gerald Minchuk, Director of Development Services

Mr. Minchuk advised that the purpose of the bylaw is to remove the dedication of highway and to close a portion of the road located adjacent to 199A Street to facilitate the sale of the subject property which is deemed surplus to the City's needs and no longer required.

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Mayor Schaffer called for public input on Bylaw No. 3045. There were no speakers.

MOVED BY Councillor Martin SECONDED BY Councillor Pachal

THAT the Committee of the Whole rise and report.

CARRIED

3. ADOPTION OF THE MINUTES

a. Regular Meeting Minutes from February 5, 2018

MOVED BY Councillor van den Broek SECONDED BY Councillor Martin

THAT the minutes of the regular meeting held on February 5, 2018 be adopted as circulated.

CARRIED

4. BUSINESS ARISING FROM PUBLIC HEARING

a. Bylaw 3036 - Zoning Amendment Bylaw

Third reading of a bylaw to amend the Zoning Bylaw, 1996, No. 2100 to rezone the properties located at 19607, 19619, 19629, 19649, 19655 55A Avenue from RS-1 – Single Family Residential Zone to CD51 - Comprehensive Development Zone to accommodate a 33 unit, 3-storey townhouse development

MOVED BY Councillor Albrecht SECONDED BY Councillor Martin

THAT the bylaw cited as the "Zoning Bylaw 1996, No. 2100, Amendment No. 142, 2018, No. 3036" be read a third time.

BEFORE THE QUESTION WAS CALLED

The Mayor asked staff if they wished to provide a brief overview of the item. Staff advised that this bylaw is being considered for third reading following the public hearing and, concurrent with the re-zoning application, are also considering the form and character under Development Permit No.15-17.

Mr. Adab and staff responded to questions from Council members advising:

- a proposed pedestrian sidewalk running north/south will have no impact on the existing noise attenuation wall which will be retained;
- there are no concerns from a staff perspective with respect to size of the tandem parking or side by side parking configurations;
- City laneway standards are 6m; upon staff recommendation, the laneway adjacent to the sound attenuation wall on the west side of the development will be 8m to accommodate additional sidewalk in that area. There will be no parking available on the bib at the entrance to the garage as it isn't wide enough or long enough to accommodate vehicle parking. "No parking" signs will not be necessary in that lane as the width of the laneway won't accommodate on-street parking.

Council members provided comments as follows:

- Urged that the roof deck component of the development be followed through on;
- This development contributes to provision of family housing in the city as it provides a range of unit sizes;
- Suggestion that the bib area at the entrance to the garage be monitored to ensure people do not try to park there.

THE QUESTION WAS CALLED and same was

<u>CARRIED</u>

5. <u>BUSINESS ARISING FROM COMMITTEE OF THE WHOLE</u>

a. Development Permit No. 03-18 (Langley Mall)

5501-204th Street

MOVED BY Councillor Arnold SECONDED BY Councillor Albrecht

THAT Development Permit Application DP 03-18 to accommodate a new 288 m² (3,100 ft²) commercial building located at 5501-204th Street be approved subject to execution of a Development Servicing Agreement in compliance with the conditions outlined in the Director of Development Services & Economic Development report.

BEFORE THE QUESTION WAS CALLED

Councillor Arnold advised that the recommendation in the Advisory Planning Commission report on the agenda should be corrected to include the requirement that a traffic engineering assessment be undertaken to address the parking lot layout to improve vehicular and pedestrian safety as that was added as a condition of approval of the application by the Commission in its resolution contained in the February 14, 2018 APC

meeting minutes. He further advised that this was in particular reference to the entrance to the mall.

The Mayor asked for staff's comments on the APC's recommendation. Staff advised that the committee discussion focused on the inadequacy of the current parking lot layout with the thought that pedestrian and vehicular safety would be greatly improved with a proper layout and engineering analysis.

Council provided comments and staff responded to questions as follows:

- It is good that the parking lot layout will be addressed as it's problematic.
- The commercial building will not be a drive-through.
- The intent of the traffic study has not been completely scoped out yet but was mainly intended to address concerns with on-site parking as it relates to pedestrian and vehicular safety rather than perimeter road elements so it will not include traffic movements from 203 Street;
- As this is a pedestrian focused area, it is critical how the development interfaces with Douglas Crescent and it will be precedent setting for street frontage.
- The building design can accommodate either a front or back entrance on Douglas as required by the tenant and it is unlikely a blank wall would be put there. As well, the mechanical /electrical room can be located either on Douglas or towards the parking lot.
- The proponent will advise tenants of the importance of creating an engaging active pedestrian oriented streetscape along Douglas Crescent; however, whether or not that happens will be up to the tenant's requirements.
- The staff rationale for requiring that a traffic analysis be undertaken as a requirement for approval of this development permit is that this development will impose a greater burden on an already awkward onsite parking layout, and it would be greatly enhanced with a proper reconfiguration of the access point.
- The proponent will be responsible for implementing any traffic configuration improvements arising from the traffic study.
- The traffic analysis is expected to determine the optimal safe pedestrian and vehicular access and egress configuration.
- A restaurant and personal use service are expected to be the types of businesses going into the development.
- The proponent will only be responsible for traffic reconfiguration on its property, not off-site traffic configuration.
- Suggestion that the mall look at developing a more efficient overall site plan.
- Noise concerns and potential illegal activities after hours in the area should be reported to Bylaw Enforcement and to the RCMP.
- The aesthetics of the building are important to the community.

THE QUESTION WAS CALLED and the motion, as corrected, was CARRIED

The corrected motion reads in its entirety as follows:

"THAT Development Permit Application DP 03-18 to accommodate a new 288 m² (3,100 ft²) commercial building located at 5501-204th Street be approved subject to execution of a Development Servicing Agreement in compliance with the conditions outlined in the Director of Development Services & Economic Development report including conducting a Traffic Engineering Assessment to address the parking lot layout to improve vehicular and pedestrian safety."

b. Bylaw 3045 - Road Closure Bylaw (199A Street)

Final reading of a bylaw to close and remove the dedication of a portion of highway adjacent to 199A Street dedicated by Plan 33088

MOVED BY Councillor Albrecht SECONDED BY Councillor Martin

THAT the bylaw cited as "Road Closure Bylaw No. 3045, 2018" be read a final time.

CARRIED

6. DELEGATIONS

a. Tim Cheung and Simon Lau, Unifor 2002

Universal Pharmacare Program

Mr. Lau, representing Unifor 2002, requested Council support the Federation of Canadian Municipalities in calling on the federal government to work with the provinces for the creation of a public, National Pharmacare program to improve access and affordability of prescription drugs.

MOVED BY Councillor Martin SECONDED BY Councillor Albrecht

THAT Council send a letter to the Federation of Canadian Municipalities (FCM), the Minister of Health and to City of Langley MPs and MLAs in support of the 2016 FCM resolution regarding creation of a National Pharmacare program:

"WHEREAS, The City of Vancouver has recognized and has demonstrated over the past years its commitment to the importance of healthy citizens as the foundation of a healthy, engaged and economically vibrant community; and

WHEREAS, The over 3 million Canadians, including many in our local communities, don't take medicines prescribed by their doctors because they can't afford them; and

WHEREAS, Canada is currently the ONLY country with a national medicare program that does not have a national pharmacare program; and

WHEREAS, The risk of having no insurance for medicines is high among lower income Canadians which includes the service industry, precarious working and seasonal workers; and

WHEREAS, The studies show that adding a national pharmacare program to our national health care system would lower costs to businesses by over \$8 billion per year, providing Canadian companies competitive advantages in international trade; and

WHEREAS, The recent research confirms that these gains can be achieved with little or no increase in public investment; and

WHEREAS, Municipal government expenses for employee benefits would be significantly reduced by a national pharmacare program; and

WHEREAS, A national prescription drug formulary would support better quality prescribing, including reducing dangerous and inappropriate prescribing to Canadian seniors; and

WHEREAS, A National Pharmacare plan is a sound policy, both economically and socially, the City of Vancouver express its support for the creation of a National Pharmacare program as an extension of Canadian Medicare, since health and economic studies now show that such as policy would improve health in municipalities, give local businesses a competitive advantage in the global marketplace and lower costs for municipal government on taxpayers; therefore be it

RESOLVED, That FCM call on the federal government to work with the provinces and territories to develop and implement a National Pharmacare program."

CARRIED

7. COMMUNITY SPOTLIGHTS

a. Leanne Cassap, ICBC

Thanks for Support of Road Safety and Distracted Driving Campaigns

Ms. Cassap provided information on the provincial distracted driving campaign as follows:

- Operation Hang Up
- City of Langley eNewsletter & fleet vehicles
- Community education
- Social media & media support
- Reminders to friends, family, co-workers

Ms. Cassap presented a plaque to the City and the Lower Mainland District Integrated Road Safety Unit in recognition of their promotion of road safety within the city.

In response to a question from Council, Sgt. Davies, representing the Integrated Road Safety Unit advised that distracted driving activities other than cell phone use were subject to the same penalty as cell phone use but under another section of the Motor Vehicle Act.

8. MAYOR'S REPORT

a. Upcoming Meetings

Regular Council Meeting – March 5, 2018 Regular Council Meeting – March 19, 2018

b. Metro Vancouver - Councillor Storteboom

Langley City Council is up-to-date with the most recent Metro Vancouver Board in Brief Report as well as the most recent Chairman's Report.

Today's report is just to advise that Metro Vancouver has doubled the annual budget amount for its regional park land acquisition program in order to protect more natural areas across the region. As regional real estate values have increased significantly in recent years, Metro Vancouver's ability to acquire and protect important natural areas has become more challenging. For example, the assessed value for the recent purchase of a three-hectare portion of park land at Kanaka Creek in Maple Ridge increased in value by 44 percent between 2016 and 2017.

The increase to the park acquisition fund from \$3.77 million to \$7.54 million is devoted to meeting the need for the expansion of our regional park land for the use of current and future generations.

For more information about Metro Vancouver please consider going to the Metro Vancouver website, Metro's facebook page and/or the Metro Vancouver YouTube channel. I think that we can all agree that there's a lot of great information available online, at these sources.

Our next series of meetings is scheduled for Friday.

c. Library Happenings - Councillor Martin

The City of Langley Library is thrilled to have been nominated for a Fraser Valley Cultural Diversity Award in the "inclusive environment" category! The awards are given annually to local organizations who demonstrate cultural diversity in their work. Cultural diversity is defined as the inclusion of diverse people in a group, and it includes, but is not limited to age, abilities, ethnicity, gender, race, religion, sexual orientation and socioeconomic background. The City of Langley Library and FVRL as a whole deeply value and celebrate diversity as integral to an inclusive, vibrant community. We are so proud to be recognized with this nomination for the work we do every day to ensure that everyone in our community finds the library a welcoming and inclusive place to be. The awards will be handed out at the 15th annual ceremony, being held in Abbotsford on Friday, March 2.

Langley Heritage Society – Lobby Program

Wednesday, February 21, 1-4 pm

The Langley Heritage Society will be visiting to talk about their programs and services.

Play with KEVA Planks

Friday, February 23, 11-12:30 pm

Builders of all skill levels can explore a myriad of engineering techniques with KEVA Planks. All ages, from preschoolers on, are invited to drop in and discover this easy fun and innovative way to explore STEAM!

Langley Creative Writers Meet Up

Tuesday, February 20, 6:30-8:30 pm

This is an opportunity for creative writers to gather and share their work/ideas for feedback and encouragement. Please register online at https://www.meetup.com/Langley-Creative-Writers-Meet-Up/.

Art Critiques

Monday, February 26, 6:45-8:45 pm

Visual artists at every stage of their careers are invited to bring their artwork and receive constructive feedback from a professional artist, as well as the group. Sponsored by the Langley Arts Council.

Seniors Home Care series

Wednesdays, February 21, and 28, 4:30 - 6:30 pm

Please join us for the last two sessions of this four part series on seniors home care. These sessions will cover what to do if your loved ones develop dementia or Alzheimer's, and the connection between emotional and physical wellbeing. Refreshments provided.

d. Discover Langley City - Councillor Albrecht

Website Overview

Website stats continue to grow and with their first newsletter going out at the end of March, they expect it to continue as they share itineraries, hotel promotions, and upcoming event information. Discover Langley City will continue to focus on promoting their website through social media channels and in strategic partnership with the DLBA when appropriate.

Social Media

Social Media continues to be a top priority to build awareness of Discover Langley City and in January, they continued to increase their following. They're encouraging all tourism and local businesses to use the #discoverlangleycity hashtag to help promote our destination and their businesses as well.

Grand Opening Reception Launch

On January 25th Discover Langley City successfully launched their One Year Tactical Plan and operations overview to industry partners, City Council, the media, and valued guests. They received valuable feedback on the new brochure titled "Simple Escapes" and are excited to distribute it to hotels, the DLC/DLBA offices, and other supporting businesses at the end of February. They've received great interest in the new brochure from local media and know that visitors and locals will be excited when it's officially available to the public.

One Year Tactical Plan

For the remainder of 2018's first quarter, their top priorities are focused on marketing efforts: designing and creating content for their first newsletter, getting out into the community to build stakeholder relationships with all tourism partners, growing social media and website traction, and continuing plans for Discover Langley City's brand-new event to be held later this year.

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They are thrilled with the progress made so far and have received great feedback from our Destination Marketing Organization and tourism industry.

e. Development within the city – Mayor Schaffer

Mayor Schaffer referred to the City having issued over a \$100 million in building permits in 2017 which he indicated is phenomenal given the size of the city and spoke about recent development projects and that development will continue in the city in the future.

9. BYLAWS

a. Bylaw 3049 - Zoning Amendment Bylaw

First and second reading of a bylaw to amend the Zoning Bylaw to accommodate at 26 unit, 3 storey townhouse development located at 19608, 19618, 19630, and 19642 56 Avenue

MOVED BY Councillor Martin SECONDED BY Councillor Arnold

THAT the bylaw cited as the "Zoning Bylaw 1996, No. 2100 Amendment No. 143, 2018, No. 3049" be read a first time.

THAT the bylaw cited as the "Zoning Bylaw 1996, No. 2100 Amendment No. 143, 2018, No. 3049" be read a second time.

CARRIED

b. Bylaw 3050 - Zoning Amendment Bylaw

First and second reading of a bylaw to amend the Zoning Bylaw to accommodate a 3 storey, 64 unit townhouse complex located at 5453 198 Street, 19728, 19738, 19752, 19762, 19770, and 19780 55 Avenue

MOVED BY Councillor Storteboom SECONDED BY Councillor Albrecht

THAT the bylaw cited as the "Zoning Bylaw 1996, No. 2100 Amendment No. 144, 2018, No. 3050" be read a first time.

THAT the bylaw cited as the "Zoning Bylaw 1996, No. 2100 Amendment No. 144, 2018, No. 3050" be read a second time.

CARRIED

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c. Bylaw 3051 - 2018-2022 Financial Plan Bylaw

Final reading of a bylaw to adopt the 2018-2022 Financial Plan

MOVED BY Councillor Storteboom SECONDED BY Councillor Albrecht

THAT the bylaw cited as "Financial Plan 2018 - 2022 Bylaw, 2018, No. 3051" be read a final time.

CARRIED

d. Bylaw 3053 - Discharge Land Use Contract Bylaw

First and second reading of a bylaw to authorize the discharge of Land Use Contract No. 23-73 from the property located at 20217 44 Avenue to facilitate application for a secondary suite

MOVED BY Councillor Martin SECONDED BY Councillor van den Broek

THAT the bylaw cited as the "Discharge of Land Use Contract No. 23-73 Bylaw, 2018, No. 3053" be read a first time.

THAT the bylaw cited as the "Discharge of Land Use Contract No. 23-73 Bylaw, 2018, No. 3053" be read a second time.

CARRIED

10. COMMITTEE REPORTS

a. Crime Prevention Task Group - CPTED Brochure Distribution

MOVED BY Councillor Pachal SECONDED BY Councillor van den Broek

THAT the City continue to distribute the CPTED "An Investment in Security is an Investment in Your Business" brochure annually with the Business License Renewal Notice, as an ongoing crime prevention initiative.

CARRIED

11. ADMINISTRATIVE REPORTS

a. 2018 Community Grants

MOVED BY Councillor Martin SECONDED BY Councillor van den Broek

THAT City Council endorse the recommendation of the Community Grant Committee to award community grants totalling \$ 125,976.79 to the following organizations:

Alano Club of Langley	\$ 1,000.00
Bard in the Valley	\$ 11,174.56
Big Brothers Big Sisters of Langley	\$ 4,808.00
Boys and Girls Club of Langley	\$ 3,250.00
Brookswood Baptist Church – Homeless Feeding Program	\$ 203.67
Cerebral Palsy Association of BC	\$ 500.00
Children of the Street Society	\$ 1,000.00
Civix	\$ 1,000.00
DLBA – Arts Alive and Fork & Finger Events	\$ 11,000.00
DLBA – Start It Up Langley	\$ 5,000.00
Douglas Park Community School Society	\$ 2,550.00
Encompass Support Services Society – Best Babies	\$ 3,660.00
Fibromyalgia Well Spring Foundation	\$ 1,000.00
Fraser Region Community Justice Initiatives – Black Book	\$ 2,000.00
Fraser Valley Cultural Diversity Awards	\$ 500.00
Ishtar Transitional Housing Society	\$ 1,350.00
Kiwanis Fraser Valley Music Festival Society	\$ 5,000.00

Langley 4H District Council	\$	150.00
Langley Amateur Radio Association	\$	262.60
Langley Arts Council	\$	1,600.00
Langley Baseball	\$	8,000.00
Langley Cares Foundation – Langley Lodge	\$	7,500.00
Langley Community Farmers Market Society	\$	5,300.00
Langley Field Naturalists	\$	1,000.00
Langley Flippers Swim Club	\$	1,232.00
Langley Fundamental Secondary School - Dry Grad	\$	500.00
Langley Lawn Bowling Club	\$	6,000.00
Langley Literacy Association	\$	2,500.00
Langley Meals on Wheels	\$	1,009.40
Langley Pos-Abilities Society	\$	985.31
Langley Royal Canadian Legion – Remembrance Day	\$	2,400.00
Langley Scholarship Committee	\$	4,500.00
Langley Secondary School – Dry Grad	\$	500.00
Langley Senior Resources Society	\$	15,000.00
Langley Sponsorship Advertising	\$	2,000.00
Langley Ukulele Association	\$	1,650.00
Lower Fraser Valley Aboriginal Society	\$	2,500.00
Mountain Secondary School Dry Grad	\$	500.00
Parkinson Society BC – Langley Chapter		236.25
Pitch In Canada	\$	425.00

Pucks Powerplay Foundation		2,660.00
Seniors of Langley		270.00
Terry Fox Run	\$	800.00
Valley Therapeutic Equestrian Association		500.00
Youth Parliament		1,000.00
	\$ 125,976.79	

CARRIED

b. Community Emergency Preparedness Fund Grant Application

MOVED BY Councillor Martin SECONDED BY Councillor Albrecht

THAT City Council support the application for a \$25,000 grant from the Community Emergency Preparedness Fund and to management of any grant monies received.

CARRIED

c. Proposed "Substantial Change" of Cascades Casino

MOVED BY Councillor Martin SECONDED BY Councillor van den Broek

- 1. THAT the letter from BCLC dated January 15, 2018 regarding Cascade Casino's application for a proposed "Substantial Change" be received for information.
- 2. THAT City Council endorse the consultation process as outlined in the attached report relating to Cascades Casino's application for a proposed "Substantial Change" to their gaming facility pursuant to the *Gaming Control Act*.

CARRIED

12. **NEW AND UNFINISHED BUSINESS**

- Motions/Notices of Motion a.
- b. Correspondence
 - **Greater Langley Chamber of Commerce** 1. Chamber of Commerce Week - February 19 - 23, 2018
- **New Business** C.

13. **ADJOURNMENT**

<u>CARRIED</u>

MOVED BY Councillor Albrecht SECONDED BY Councillor Storteboom

That the meeting be adjourned at 8:34 pm.

MAYOR

CORPORATE OFFICER



MINUTES OF A PUBLIC HEARING MEETING

Monday, February 19, 2018 7:00 p.m. Council Chambers, Langley City Hall 20399 Douglas Crescent

Present: Mayor Schaffer

Councillor Arnold
Councillor Albrecht
Councillor Martin
Councillor Pachal
Councillor Storteboom
Councillor van den Broek

Staff Present: F. Cheung, Chief Administrative Officer

K. Hilton, Director of Recreation, Culture and Community

Services

D. Leite, Director of Corporate Services

G. Minchuk, Director of Development Services and Economic

Development

G. Flack, Deputy Director of Corporate Services

K. Kenney, Corporate Officer

1. CALL TO ORDER

Mayor Schaffer read a statement regarding the procedure to be followed for the Public Hearing.

The Corporate Officer advised that notification of the Public Hearing had been publicized in the following manner:

Notice was placed on the City Hall notice board on February 6th. Notices were mailed and hand delivered to properties within 100 metres of the subject properties and a newspaper advertisement was placed in the February 8th and 15th issues of the Langley Advance. No correspondence has been received.

2. BUSINESS

a. Bylaw 3036 - Zoning Amendment

To amend the Zoning Bylaw, 1996, No. 2100 to rezone the properties located at 19607, 19619, 19629, 19649, 19655 55A Avenue from RS-1 – Single Family Residential Zone to CD51 - Comprehensive Development Zone to accommodate a 33 unit, 3-Storey townhouse development.

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The Mayor invited Fred Adab, Fred Adab Architecture to speak to the proposed bylaw.

Mr. Adab provided information on the proposed development as follows:

- Project statistics
- Context photos
- Site plan
- Floor plans
- Bird's eye view rendering
- Elevation rendering
- Perspective view from 55A Ave. rendering
- 55A Ave. streetscape rendering
- · Exterior finishes and colour
- Sustainability and green measures
- Crime Prevention Through Environmental Design (CPTED)
- Landscape plan and details

The Mayor invited those in attendance who deem their interest in property affected by the proposed bylaw and development permit to present their comments.

There were no speakers.

3. MOTION TO CLOSE PUBLIC HEARING

MOVED BY Councillor Pachal SECONDED BY Councillor Arnold

THAT the public hearing close at 7:19 pm.

MAYOR	
CORPORATE OFFICER	

CARRIED

LANGLEY

MINUTES OF PUBLIC MEETING

Monday, February 26, 2018 7:00 p.m. Council Chambers, Langley City Hall 20399 Douglas Crescent

Council Present: Mayor Schaffer

Councillor Arnold
Councillor Albrecht
Councillor Martin
Councillor Pachal
Councillor Storteboom
Councillor van den Broek

Staff Present: F. Cheung, Chief Administrative Officer

D. Leite, Director of Corporate Services

G. Minchuk, Director of Development Services and Economic

Development

K. Kenney, Corporate Officer

1. <u>INTRODUCTIONS & FORMAT OF MEETING</u>

The Mayor advised that the purpose of the meeting was to provide an opportunity for residents to receive information and provide comments on Gateway Casinos & Entertainment Limited's proposal to relocate its existing bingo operations from the Playtime Langley facility in the Township of Langley to the former Summit Theatre location at Cascades Casino in Langley City.

The Mayor introduced representatives of Gateway Casinos & Entertainment Ltd. who were in attendance as follows:

Jag Nijjar, Chief Administrative Officer Randy Sears, Senior Vice President and Managing Director Shiera Stuart, Director, Government Relations

The Mayor introduced Jerry Williamson, Director Gaming Facilities & Development, British Columbia Lottery Corporation (BCLC) who was in attendance as BCLC's representative.

The Mayor then outlined the format for the meeting.

2. PRESENTATIONS

a. British Columbia Lottery Corporation

Jerry Williamson, Director Gaming Facilities & Development, British Columbia Lottery Corporation, provided a presentation on the facility development process, providing information on the following:

- Roles and responsibilities of BCLC, Gateway Casinos and the City with respect to Gateway Casino's proposal to add bingo as a gaming product at the Cascades Casino in the City of Langley;
- Definition of what is considered a "substantial change" under the Gaming Control Act and the requirements when undertaking a substantial change to a gaming facility;
- The requirement that the host municipality advise potentially affected local governments within 5 km of the gaming facility of the substantial change and provide an opportunity for comment;
- The requirement to obtain adequate community input from the community in which the substantial change will occur.

b. Gateway Casinos & Entertainment Ltd.

Shiera Stuart, Director, Government Relations, Randy Sears –Senior Vice President and Managing Director, Gateway Casinos & Entertainment Ltd., provided a presentation on the following:

- Background and overview of the proposal to relocate the bingo facility from the Township to the City;
- Expected incremental revenue from the relocation of the bingo facility to the City;
- Rationale for moving live entertainment from current theatre at Cascades Casino to convention space:
 - Room capacity issues
 - Age restriction
- The move won't affect current schedule of events;
- First event in the new space scheduled for May 17th;
- Existing bingo operations in the Playtime Langley facility in the Township will be moved to the former Summit theatre in the City.

3. PUBLIC INPUT

Glen Kupser, 103 – 5664 – 200th Street, Langley, currently frequents the bingo hall in the Township and also goes to the Cascades Casino in the City. He expressed concern that it is already difficult to find parking at the Cascades Casino on weekends; adding a larger live entertainment venue and bingo hall to the casino will create more parking issues. There needs to be adequate parking for seniors who can't always walk long distances and may not feel safe walking to and from the parkade at night.

Debbie Gothreau, 9208 159A Street, Surrey, frequents the bingo hall in the township three to five times a week. She expressed concern that many bingo players are elderly and/or handicapped and have difficulty walking long distances. She suggested there needs to be a shorter way for bingo players to get to the bingo hall through the casino. She also expressed concern that there didn't appear to be very many bingo terminals at the new site and the majority of bingo players are terminal players. Mr. Randy Sears, Senior Vice President and Managing Director, Gateway Casinos, confirmed there are 270 terminals on the main floor as well as booths for paper play.

Glen Kupser, 103 – 5664 – 200th Street, Langley, speaking a second time, asked what is being proposed for the upper deck. Mr. Sears advised that currently there are tables in that area which provides the potential for paper play.

The Mayor asked if there was anyone else who wished to ask a question or provide a comment. There were no further speakers.

4. **TERMINATION**

The meeting conclud	led at 7:22 pm.
MAYOR	
CORPORATE OFFICER	



EXPLANATORY MEMO

DISCHARGE OF LAND USE CONTACT NO. 23-73 BYLAW NO. 3053

The purpose of Bylaw No. 3053 is to authorize the discharge of Land Use Contract No. 23-73 from the property located at 20217 – 44 Avenue.

The owner has applied to have Land Use Contract No. 23-73 discharged from the title of the property to facilitate a Building Permit application for a secondary suite.

City Council has the authority to discharge a land use contract pursuant to Section 546 of the *Local Government Act*.

The City amended Zoning Bylaw 1996, No. 2100 in December 2006 to allow secondary suites. Current records indicate that 268 suites have been approved or are in the building permit application process for approval. In the same timeframe, 671 property owners discharged the land use contracts affecting their single family residential lots. There are 477 single family residential lots still affected by land use contracts in the City.



No. 23-73 BYLAW No. 3053

A Bylaw to authorize the discharge of Land Use Contract No. 23-73 from the specified property.

WHEREAS Land Use Contract No. 23-73 is registered against titles legally described in Schedule "A".

AND WHEREAS the registered owners of the Lands have applied to have Land Use Contract No. 23-73 discharged from title to the Lands.

AND WHEREAS Council has the authority to discharge a land use contract pursuant to section 546 of the *Local Government Act*,

NOW THEREFORE, the Council of the City of Langley, in open meeting assembled, enacts as follows:

- 1. The Land Use Contract registered in the Land Title Office under L80942 is hereby discharged against the title legally described in Schedule "A" which is attached and forms part of this bylaw.
- 2. The Mayor and Corporate Officer of the City of Langley are authorized to execute such documents on behalf of the City as may be necessary for the purpose aforesaid.

3. This Bylaw may be cited for all purposes as "Discharge of Land Use Contract No. 23-73 Bylaw, 2018, No. 3053".

READ A FIRST AND SECOND TIME this nineteenth day of February, 2018.

A PUBLIC HEARING, pursuant to Section 464 of the "Local Government Act" was held this -- day of --, 2018.

READ A THIRD TIME this -- day of --, 2018..

FINALLY ADOPTED this -- of --, 2018.

MAYOR	_
CORPORATE OFFICER	_

BYLAW 3053

SCHEDULE "A"

Civic Address: 20217 – 44 Avenue

Legal Description: Lot 278, Section 35, Township 7, New Westminster District,

Plan 49277

PID: 006-381-570 Applicant: A. Bains

Owner: A. Bains; R. Bains





ZONING BYLAW, 1996, NO. 2100 AMENDMENT NO. 144, 2018, BYLAW NO. 3050 DEVELOPMENT PERMIT APPLICATION DP 01-18

To consider a Rezoning Application and Development Permit Application by Atelier Pacific Architecture Inc. to accommodate a 3-storey, 64-unit townhouse development.

The subject property is currently zoned RM1 Multiple Residential Low Density Zone and RS1 Single Family Residential Zone in Zoning Bylaw No. 2100 and designated "Medium Density Residential" in the Official Community Plan. All lands designated "Medium Density Residential" are subject to a Development Permit to address building form and character.

Background Information:

Applicant: Atelier Pacific Architecture Inc.

Owner: 1103300 BC Ltd. and Provincial Rental

Housing Corporation

Civic Addresses: 19728, 19738, 19752, 19762, 19770, 19780,

55 Avenue and -5453-198th Street

Legal Description: Lots 4, 5, and 6, Section 3, Township 8, New

Westminster District, Plan 19625; Lots 5, 6, 7,

and 8, Section 3, Township 8, New Westminster District, Pan 12439

Site Area: 1.92 Acres (.78 Hectares)

Lot Coverage: 46.9%

Total Parking Required: 145 spaces (including 17 designated visitor

spaces)

Total Parking Provided: 145 spaces (including 17 designated visitor

spaces)

Existing Zoning: RS1 Single Family Residential Zone and RM1

Multiple Residential Low Density Zone

Proposed Zoning: CD53-Comprehensive Development Zone

OCP Designation: Medium Density Residential

Variances Requested: None Community Amenity Charges: \$128,000 Bylaw No. 3050



ZONING BYLAW, 1996, No. 2100 AMENDMENT No. 144

BYLAW NO. 3050

A Bylaw to amend City of Langley Zoning Bylaw, 1996, No. 2100 to add a new Comprehensive Development Zone (CD53) and to rezone the property located at 19728, 19738, 19752, 19762, 19770, 19780-55 Avenue and 5453-198th Street to the new zone.

WHEREAS the *Local Government Act* authorizes a local government to zone areas of a municipality and to make regulations pursuant to zoning;

NOW THEREFORE the Council of the City of Langley, in open meeting assembled, enacts as follows:

1. Title

This bylaw shall be cited as the "Zoning Bylaw 1996, No. 2100 Amendment No. 144, 2018, No. 3050".

2. Amendment

(1) Bylaw No. 2100, cited as the "Zoning Bylaw, 1996, No. 2100" is hereby amended by adding in Part VII Comprehensive Development Zones the following as the new Zone classification of Comprehensive Development – 53 (CD53) Zone: immediately after Comprehensive Development -52 (CD52) Zone:

"XX. CD53 COMPREHENSIVE DEVELOPMENT ZONE

1. Intent

This Zone is intended to accommodate and regulate a 3-storey, 64-unit townhouse development.

2. Permitted Uses

The Land, buildings and structures shall only be used for the following uses only:

(a) Multiple-Unit Residential; and

Bylaw No. 3050

- (b) Accessory uses limited to the following:
 - (i) *Home Occupations* excluding bed and breakfast and *child care* centre.

3. Site Dimensions

The following lot shall form the site and shall be zoned CD 53 Comprehensive Development Zone on the Zoning Map, City of Langley Zoning Bylaw, 1996, No. 2100, Schedule "A":

- (a) PID: 002-170-396 Lot 4, Section 3, Township 8, New Westminster District Plan 19625
- (b) PID: 000-558-303 Lot 5, Section 3, Township 8, New Westminster District Plan 19625
- (c) PID: 010-523-707 Lot 6, Section 3, Township 8, New Westminster District Plan 19625
- (d) PID: 009-702-687 Lot 5, Section 3, Township 8, New Westminster District Plan 12439
- (e) PID: 009-702-695 Lot 6, Section 3, Township 8, New Westminster District Plan 12439
- (f) PID: 005-770-904 Lot 7, Section 3, Township 8, New Westminster District Plan 12439
- (g) PID: 002-844-532 Lot 8, Section 3, Township 8, New Westminster District Plan 12439

(c) Siting and Size of Buildings and Structures and Site Coverage

The location, size and site coverage of the buildings and structures of the Development shall generally conform to the plans and specifications comprising 60 pages and dated December, 2017 prepared by Atelier Pacific Architecture Inc. and Vander der Zalm & Associates Landscape Architecture 1 copy of which is attached to Development Permit 15-17.

(d) Special Regulations

Special regulations shall comply with subsection 9 Special Regulations prescribed in the respective zones under different Parts of this bylaw.

(e) Other Regulations

In addition, land use regulations including the following are applicable:

- (i) General provisions on use are set out in Section I.D. of this bylaw;
- (ii) Building Permits shall be subject to the City of Langley Building and Plumbing Regulation Bylaw and the Development Cost Charge Bylaw; and
- (iii) Subdivisions shall be subject to the City of Langley Subdivision and Development Servicing Bylaw, and the *Land Title* Act."

READ A FIRST AND SECOND TIME this nineteenth day of February, 2018.

A PUBLIC HEARING, pursuant to Section 464 of the "Local Government Act" was held this -- day of --, 2018.

READ A THIRD TIME this -- day of, 2018.

FINALLY ADOPTED this -- day of, 2018.

Bylaw No. 3050



REZONING APPLICATION RZ 01-18 DEVELOPMENT PERMIT APPLICATION DP 01-18

Civic Address: 19728, 19738, 19752, 19770, 19780, 5453 – 198 Street

Legal Description: Lots 4, 5 & 6, Section 3, Township 8, New Westminster

District, Plan 19625; Lots 5, 6, 7, & 8 Section 3,

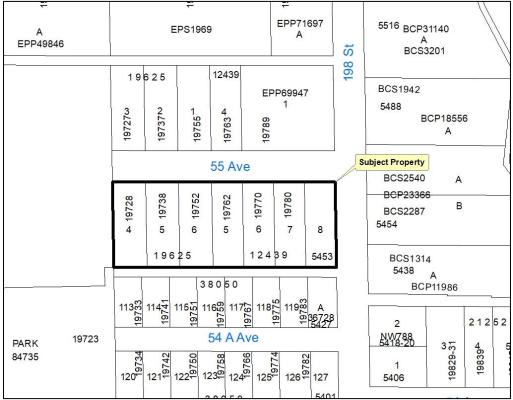
Township 8, New Westminster District, Plan 12439

Applicant: Atelier Pacific Architecture Inc. /

Waterstock Properties Limited Partnership

Owners: 1103300 B.C. Ltd.

Provincial Rental Housing Corporation





ADVISORY PLANNING COMMISSION REPORT

To: Advisory Planning Commission

Subject Rezoning Application RZ 01-18

Development Permit Application DP 01-18

From: Development Services & Economic

Development Department

Date: February 2, 2018

File #: 6620.00

Doc #:

COMMITTEE RECOMMENDATION:

THAT Rezoning Application RZ 01-18/ Development Permit Application DP 01-18 to accommodate a 3-storey 64 -unit townhouse complex located at 5453-198th Street, 19728, 19738, 19752, 19762, 19770, and 19780 -55 Avenue be approved subject to execution of a Development Servicing Agreement in compliance with the conditions outlined in the Director of Development Services & Economic Development report.

PURPOSE OF REPORT:

To consider a Rezoning Application and Development Permit Application by Atelier Pacific Architecture Inc. to accommodate a 64 unit townhouse development located at 5453-198th Street, 19728, 19738, 19752, 19762, 19770, and 19780 -55 Avenue.

POLICY:

The subject properties are zoned RM1 Multiple Residential Low Density Zone and RS 1 Single Family Residential Zone, and designated as Medium Density Residential in the Official Community Plan. All lands designated as Medium Density Residential are subject to a Development Permit to address form and character.



To: Advisory Planning Commission

Date: February 2, 2018

Subject: Rezoning Application RZ 01-18 Development Permit Application DP 01-18

Page 2

COMMENTS/ANALYSIS:

Background Information:

Applicant: Atelier Pacific Architecture Inc.

Owner: 1103300 B.C. Ltd.

Civic Addresses: 5453-198th Street, 19728, 19738, 19752,

19762, 19779,19880-55 Avenue

Legal Description: Lot 4, Lot 5, Lot 6, Section 3, Township 8,

New Westminster District Plan 19625, Lot 5, Lot 6, Lot 7, Lot 8, Section 3,

Township 8, New Westminster District Plan

12439.

Site Area: 1.92 Acres (.78 Hectares)

Lot Coverage: 46.9%

Total Parking Required:
145 spaces (including 17 visitor spaces)

Zone and RS 1 Single Family Residential

Zone

Proposed Zoning: CD 53 (Comprehensive Development

Zone)

OCP Designation: Medium Density Residential -70 Units/Acre

Variances Requested: None Community Amenity \$128,000

Charge:

Exterior Finishes: Brick, Hardie Paneling/Siding, Metal Rails

Permitted Density in OCP 116 Units (4 Stories)
Proposed Project Density 64 Units (3 Stories)

Engineering Requirements:

These requirements have been issued for a rezoning and development permit for a proposed **64 unit townhouse development**. These requirements may be subject to change upon receipt of a development application.

The City's Zoning Bylaw, 1996, #2100 has requirements concerning landscaping for buffer zones, parking, loading areas, and garbage / recycling areas, all of which apply to this Development.



To: Advisory Planning Commission

Date: February 2, 2018

Subject: Rezoning Application RZ 01-18 Development Permit Application DP 01-18

Page 3

A) The developer is responsible for the following work which shall be designed and approved by a Professional Engineer:

- 1. Implement erosion and sediment control measures designed and approved by a qualified professional in accordance with the City of Langley Watercourse Protection Bylaw #2518.
- 2. Conduct a water flow test and provide fire flow calculations by a Professional Engineer to determine if the existing water network is adequate for fire flows. Replacement of the existing watermain may be necessary to achieve the necessary pressure and flows to conform to Fire Underwriters Survey (FUS) "Water Supply for a Public Fire Protection, a Guide to Recommended Practice, 1995".
- 3. Additional C71P fire hydrants may be required to meet bylaw and firefighting requirements. Hydrant locations must approved by the City of Langley Fire Department.
- 4. Design and construct a half-width road on 55 Avenue along the property frontage to a City of Langley modified local road standard (curb to curb width 11.0m); including pavement, barrier curb and gutter, 1.5m wide sidewalk, boulevard, street lighting, street trees and storm drainage. Additionally, any widening of the pavement structure, required to meet the design road width, will need to be designed by a geotechnical engineer. A cash-in-lieu amount for the top lift of pavement will be paid to the City, amount to be calculated by the developer's engineer.
- 5. The full construction of the rear lane south of the site is required. Drainage infrastructure shall be provided to collect and convey runoff generated within the lane. A trailhead shall be provided at the west end of the lane and a connection to Brydon Park may be required.
- 6. Vehicular access to the site will be from the laneway south of the site. One access will be permitted from 55 Avenue. Access from the laneway south of the site will include a public right-of-way for vehicles to turn around in.
- 7. The condition of the existing pavement surrounding the site shall be assessed by a geotechnical engineer. Pavements shall be adequate for an expected road life of 20 years under the expected traffic conditions for the class of road. Road construction and asphalt overlay designs shall be based on the analysis of the results of Benkelman Beam tests and test holes carried out on the existing road which is to be upgraded. If the pavement is inadequate it shall be remediated, at developer's cost.
- 8. Removal of driveway crossings, new street trees, street lighting, curb and gutter, curb bulges, and 1.8m wide sidewalk is required along 198 Street.



To: Advisory Planning Commission

Date: February 2, 2018

Subject: Rezoning Application RZ 01-18 Development Permit Application DP 01-18

Page 4

Construction of speed humps and curb bulges along 198 Street will aid in traffic calming.

- 9. Existing street lighting along 55 Avenue and 198 Street shall be reviewed, by an approved lighting consultant, to ensure existing street lighting and lighting levels meet current City of Langley standards.
- 10. New water, sanitary and storm sewer service connections are required. The developer's engineer will determine the appropriate main tie in locations and size the connections for the necessary capacity. The capacity of the existing water and sewer mains should be assessed and any upgrades required to service the site shall be designed and installed at the Developer's expense. All existing services shall be capped at the main, at the Developer's expense, upon application for Demolition permit.
- 11. Undergrounding of the existing overhead Hydro and Telus is required along the 55 Avenue frontage.
- 12. A stormwater management plan for the site, including 55 Avenue and the lane, is required. Rainwater management measures used on site shall limit the release rate to mitigate flooding and environmental impacts as detailed in the Subdivision and Development Bylaw.
- 13.A Qualified Environmental Professional (QEP) must be engaged to complete an assessment of the proposed development to ensure compliance with the Riparian Area Regulations. The QEP shall propose measures to mitigate environmental impacts and compensate for lost habitat due to the infilling of the ditches along 55 Avenue and the lane, and must apply to DFO for approval.
- 14. The site layout shall be designed by a civil engineer to ensure that the parking and access layout meets minimum design standards, including setbacks from property lines. Appropriate turning templates should be used to prove parking stalls and drive-aisles are accessible by the design vehicle.

B) The developer is required to deposit the following bonding and connection fees:

- 1. A Security Deposit of 110% of the estimated offsite works construction costs of installing civil works, as approved by the Director of Engineering, Parks and Environment.
- Inspection and administration fees in accordance to the Subdivision Bylaw based on a percentage of the estimated construction costs. (See Schedule A – General Requirement - GR5.1 for details).



Date: February 2, 2018

Subject: Rezoning Application RZ 01-18 Development Permit Application DP 01-18

Page 5

3. A deposit for a storm, sanitary and water connection is required, which will be determined after detailed civil engineering drawings are submitted, sealed by a Professional Engineer.

4. A \$20,000 bond for the installation of a water meter to current standards.

C) The developer is required to adhere to the following conditions:

- 1. Underground hydro and telephone, and cable services to the development site are required.
- 2. All survey costs and registration of documents with the Land Titles Office are the responsibility of the developer/owner.
- 3. A water meter is required to be installed outside in a vault away from any structures in accordance to the City's water meter specifications at the developer's cost. A double detector check valve assembly is required to be installed outside away from any structure in a vault as per the City's specifications.
- 4. An approved backflow prevention assembly must be installed on the domestic water connection immediately upon entering the building to provide premise isolation.
- 5. A "Stormceptor" or equivalent oil separator is required to treat site surface drainage.
- 6. A complete set of "as-built" drawings sealed by a Professional Engineer shall be submitted to the City after completion of the works. Digital drawing files in .pdf and .dwg format shall also be submitted.
- 7. The selection, location and spacing of street trees and landscaping shall be in accordance with the City of Langley's Official Community Plan Bylaw, 2005, No. 2600 and Street Tree Program, November, 1999 manual.
- 8. Stormwater run-off generated on the site shall not impact adjacent properties, or roadways.
- Garbage and recycling enclosures shall be designed to meet Metro Vancouver's "Technical Specifications for Recycling and Garbage Amenities in Multi-family and Commercial Developments - June 2015 Update"



Date: February 2, 2018

Subject: Rezoning Application RZ 01-18 Development Permit Application DP 01-18

Page 6

Discussion:

The proposed site is located on the southeast corner of 55th Avenue and 198th Street and comprises 7 single family lots. The form of development proposes a three storey townhouse residential use with clusters of five- to six- unit blocks that have an appearance of row-house style residences, each with a direct access to grade at the front and the rear of the unit. Access to garages is from an internal strata road (with the exception of the lane units) with convenient visitor parking provided at grade.

The building design and site planning complement the adjacent multifamily developments Buildings are designed to front or have the appearance of fronting onto a public road through direct pedestrian access to the outside and through appropriate treatment of exteriors. The overall development accommodates varying unit types and sizes, including rooftop amenity decks for outdoor useable space, secured within each unit. Form of development is a compact townhouse cluster to allow for a densified urban environment, yet maintaining an individual identity for each home.

The architectural aesthetics of the proposed project takes its cues from the architectural style / language of the Pacific West Coast Urban. It uses a simple yet elegant repeating rowhouse building form topped by a roof trellises. The project uses 'noble finishing materials' throughout such as brick, hardie panels/siding and metal railings, and combined with a neutral West Coast colour palette.

The site is designated as Medium Density Residential in the Official Community Plan. This density allows for a 4 storey condominium development, with a density of 70 units per acre. This proposed development is 3 stories in height and has a proposed density of 33 units per acre. In addition, the subject application complies with the Official Community Plan's Development Permit Area Guidelines for Townhouse Developments.

The proposed development benefited from a Crime Prevention Through Environmental Design (CPTED) report by a qualified consultant whose recommendations are incorporated in the plans.



Date: February 2, 2018

Subject: Rezoning Application RZ 01-18 Development Permit Application DP 01-18

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Fire Department Comments:

Langley City Fire-Rescue Service has reviewed the attached plans and provided preliminary comments to the applicant. The department will review, and make further comment, as the project continues to the building permit design stage.

Advisory Planning Commission:

In accordance with Development Application Procedures Bylaw No. 2488, the subject applications will be reviewed by the Advisory Planning Commission at the February 14th, 2018 meeting. A copy of the APC minutes will be presented to Langley City Council at the February 19th Regular Council meeting.

BUDGET IMPLICATIONS:

In accordance with Bylaw No. 2482, the proposed development would contribute \$788,732.00 to City Development Cost Charge accounts and \$128,000.00 in Community Amenity Charges.

ALTERNATIVES:

1. Require changes to the applicant's proposal.

Track Mirehole

2. Deny application.

Prepared by:

Gerald Minchuk, MCIP

Director of Development Services & Economic Development

Concurrence: Concurrence:

Kara Jefford, P.Eng. Rory Thompson, Fire Chief

Manager of Engineering

Langley City
THE PLACE TO BE



MINUTES OF THE ADVISORY PLANNING COMMISSION MEETING

HELD IN LANGLEY CITY HALL CKF COMMUNITY BOARDROOM

WEDNESDAY, FEBRUARY 14, 2018 7:00 PM

Present: Councillor Jack Arnold, Chairman

Councillor Paul Albrecht, Vice-Chairman

John Beimers

Shelley Coburn, School District No. 35

Kimberley Lubinich

Corp. Steve McKeddie, Langley RCMP

Ron Madsen Dan Millsip Kim Mullin Jamie Schreder

Staff: Gerald Minchuk, Director of Development Services & Economic

Development

Absent: Trish Buhler

1) RECEIPT OF MINUTES

MOVED BY Commission Member Millsip SECONDED BY Commission Member Schreder

THAT the minutes for the January 10, 2018 Advisory Planning Commission meeting be received.

CARRIED

2) REZONING APPLICATION RZ 01-18/DEVELOPMENT PERMIT APPLICATION DP 01-18-5453-198TH STREET, 19728, 19738, 19752, 19762, 19779, 19880 -55 AVENUE -ATELIER PACIFIC ARCHITECTURE INC.

The Director Development Services & Economic Development provided a brief overview of the planning context for the proposed Rezoning/Development Permit applications, and introduced Brian, Shigetomi, Atelier Pacific Architecture Inc. and Jennifer Wall, Van der Zalm, Landscape Architects, who presented the proposed applications. Following discussion on building form and character, landscaping, incorporating, parking, sustainability features and CPTED security measures, it was:

MOVED BY Commission Member Beimers SECONDED BY Commission Member Mullin

That Rezoning Application RZ 01-18/Development Permit Application DP 01-18 to accommodate a 64 unit, 3-storey townhouse development located at 5453-198TH STREET, 19728, 19738, 19752, 19762, 19779, 19880 -55 AVENUE approved subject to execution of a Development Servicing Agreement and compliance with the conditions outlined in the Director of Development Services & Economic Development's report be approved.

CARRIED

3) REZONING APPLICATION RZ 02-18/DEVELOPMENT PERMIT APPLICATION DP 02-18- 19608, 19618, 19630, 19642 -56 AVENUE F. ADAB ARCHITECTS INC.

The Director Development Services & Economic Development provided a brief overview of the planning context for the proposed Rezoning/Development Permit applications, and introduced Fred Adab, F. Adab Architects Inc. and Merideth Mitchell, M2 Landscape Architects, who presented the proposed applications. Following discussion on building form and character, landscaping, incorporating, parking, sustainability features and CPTED security measures, it was:

MOVED BY Commission Member Mullin SECONDED BY Commission Member Schreder

That Rezoning Application RZ 02-18/Development Permit Application DP 02-18 to accommodate a 26 unit, 3-storey townhouse development located at 19608, 19618, 19630, 19642 -56th Avenue be approved subject to execution of a Development Servicing Agreement and compliance with the conditions outlined in the Director of Development Services & Economic Development's report be approved.

CARRIED

3) <u>DEVELOPMENT PERMIT APPLICATION DP 03-18- 5501-204TH</u> <u>STREET -TURNER ARCHITECTURE</u>

The Director Development Services & Economic Development provided a brief overview of the planning context for the proposed Development Permit application, and introduced Bob Turner, Turner Architecture, who presented the proposed development permit application. Following discussion on building form and character, landscaping, parking lot layout, and CPTED security measures, it was:

MOVED BY Commission Member Millsip SECONDED BY Commission Member Madsen

That Development Permit Application DP 03-18 to accommodate a new 288 m² commercial building located at 5501-204th Street be approved subject to execution of a Development Servicing Agreement and compliance with the conditions outlined in the Director of Development Services & Economic Development's report be approved, including conducting a Traffic Engineering Assessment to address the parking lot layout to improve vehicular and pedestrian safety.

CARRIED

4) Next Meeting:

Wednesday, March 14th, 2018

5) <u>ADJOURNMENT</u>

MOVED BY Commission Member Coburn SECONDED BY Commission Member Lubinich

THAT the meeting adjourn at 8:50 P.M.

CARRIED

ADVISORY PLANNING COMMISSION CHAIRMAN

DIRECTOR OF DEVELOPMENT SERVICES & ECONOMIC DEVELOPMENT

Certified Correct



THE TERRACES (PHASE-3) Proposed Townhouse Development

5453 - 198th Street and 19728,19738,19752,19762,19770,19780 - 55 Avenue, Langley, BC

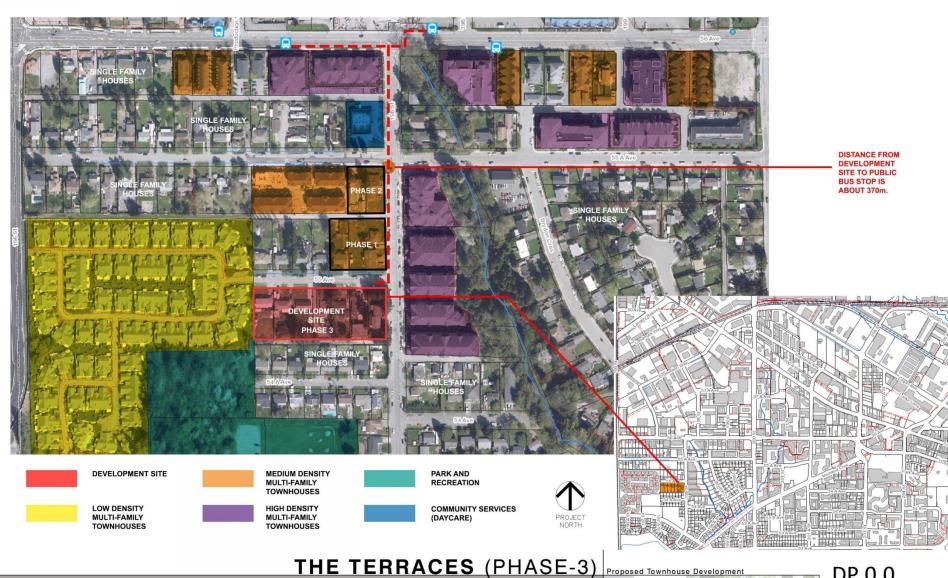
 $42_{\rm atelier\ pacific\ architecture\ inc.}$





COVER PAGE

CONTEXT PLAN & NEIGHBOURHOOD ANALYSIS



5453 - 198th Street and 19728,19738,19752,19762,19770,19780 - 55 Avenue, Langley, BC

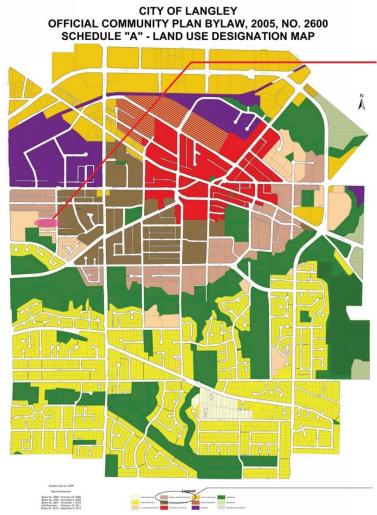
ATELIER PACIFIC ARCHITECTURE INC.

FEBRUARY 5, 2018

DP 0.0

CONTEXT PLAN **NEIGHBOURHOOD ANALYSIS** SCALE: N.T.S.

OFFICIAL COMMUNITY PLAN COMPLIANCES



PROPOSED SITE IS LOCATED ON THE MEDIUM DENSITY RESIDENTIAL AREA (SHOWN ON THE OFFICIAL COMMUNITY PLAN)

CITY OF LANGLEY OFFICIAL COMMUNITY PLAN BYLAW, 2005, NO. 2600

- THE PURPOSE OF THE OFFICIAL COMMUNITY PLAN IS TO GUIDE DECISION-MAKING BY OFFERING A LONG RANGE OUTLOOK ON THE CITY'S DEVELOPMENT.
- \cdot PROVIDES PROPERTY OWNERS AND DEVELOPERS WITH A REASONABLE DEGREE OF CERTAINTY CONCERNING LAND USE POLICIES AND FUTURE FORM AND CHARACTER OF DIFFERENT AREAS OF THE CITY.
- THE SUBJECT PROPERTY IS CURRENTLY DESIGNATED "MEDIUM DENSITY RESIDENTIAL" IN THE CITY'S OFFICIAL COMMUNITY PLAN.
- · MEDIUM DENSITY RESIDENTIAL ALLOWS A DENSITY OF 70 UNITS PER ACRE (173 UNITS PER HECT-ARE) AND A BUILDING HEIGHT OF 4 STOREYS.
- THEREFORE, BASED UPON THE LOT AREA OF 1.922 ACRES, 134.5 MULTIPLE FAMILY RESIDENTIAL UNITS WOULD COMPLY WITH THE EXISTING CITY OCP BYLAW DESIGNATION.
- · THE PROPOSED DEVELOPMENT CONSISTS OF 64 UNITS, A BUILDING HEIGHT OF 3 STOREYS.

	ALLOWED	PROPOSED
DENSITY	70 UNITS/ACRE	33.3 UNITS/ACRE
NUMBER OF UNIT	115.5 UNITS	64 UNITS
BUILDING HEIGHT	4 STOREY	3 STOREY



MEDIUM DENSITY RESIDENTIAL

THE TERRACES (PHASE-3)

5453 - 198th Street and 19728,19738,19752,19762,19770,19780 - 55 Avenue, Langley, BC

11

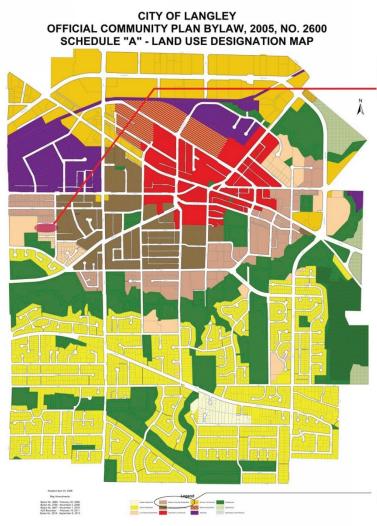
ATELIER PACIFIC ARCHITECTURE INC.
FEBRUARY 5, 2018

Proposed Townhouse Development

DP 0.0a

OFFICIAL COMMUNITY PLAN COMPLIANCE
SCALE: N.T.S.

OFFICIAL COMMUNITY PLAN COMPLIANCES



PROPOSED SITE IS LOCATED ON THE MEDIUM DENSITY RESIDENTIAL AREA (SHOWN ON THE OFFICIAL COMMUNITY PLAN)

CITY OF LANGLEY OFFICAL COMMUNITY PLAN BYLAW, 2005, NO. 2600

THE CITY'S OCP BYLAW STATES:

- "TOWNHOUSE UNITS SHOULD BE ORIENTED TOWARD PUBLIC ROADS"
- "VEHICLE ACCESS SHOULD BE PROVIDED FROM INTERNAL ROADS OR LANES"
- "AVOID PRESENTING GARAGE ENTRANCES TO PUBLIC ROADS WHERE POSSIBLE"
- THEREFORE, THE PROPOSED DEVELOPMENT COMPLIES WITH THE CITY OF LANGLEY'S OFFICIAL COMMUNITY PLAN BYLAW.

Proposed Townhouse Development

MEDIUM DENSITY RESIDENTIAL

THE TERRACES (PHASE-3)

5453 - 198th Street and 19728,19738,19752,19762,19770,19780 - 55 Avenue, Langley, BC

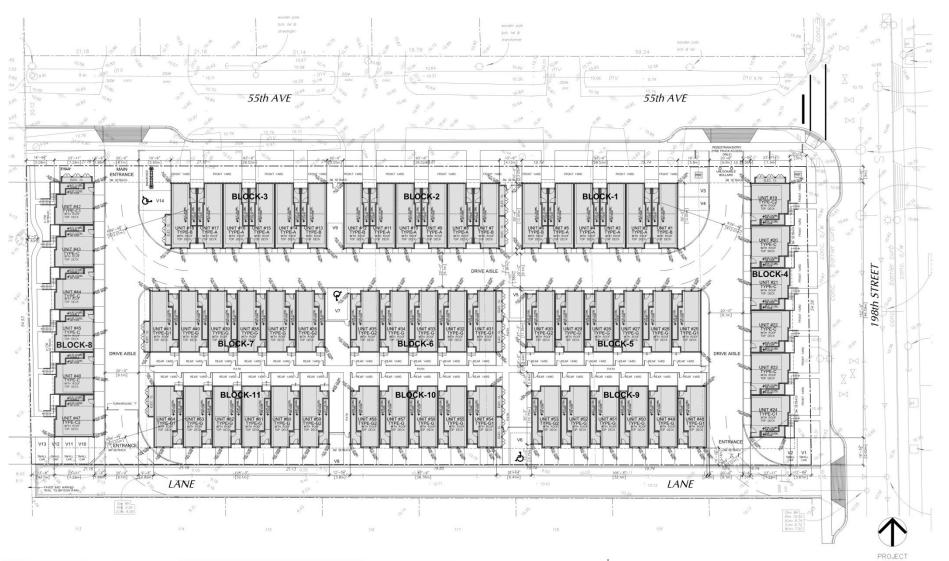
ATELIER PACIFIC ARCHITECTURE INC.

FEBRUARY 5, 2018



OFFICIAL COMMUNITY PLAN
COMPLIANCE
SCALE: N.T.S.

SITE PLAN



THE TERRACES (PHASE-3)

5453 - 198th Street and 19728, 19738, 19752, 19762, 19770,19780 - 55 Avenue, Langley, BC

46

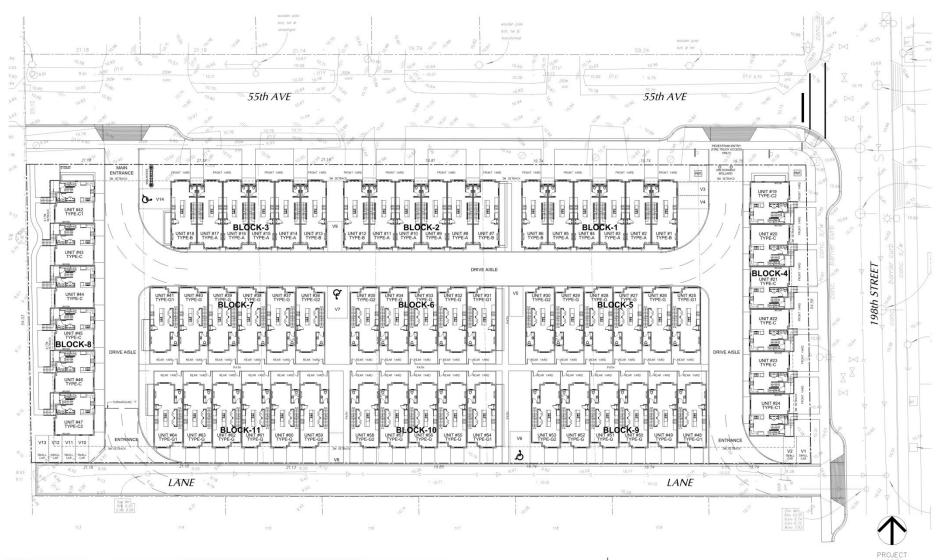
ATELIER PACIFIC ARCHITECTURE INC.

FEBRUARY 5, 2018

Proposed Townhouse Development DP 0.1

OVERALL SITE PLAN

SECOND FLOOR PLAN ON PROPERTY



THE TERRACES (PHASE-3)

5453 - 198th Street and 19728, 19738, 19752, 19762, 19770,19780 - 55 Avenue, Langley, BC

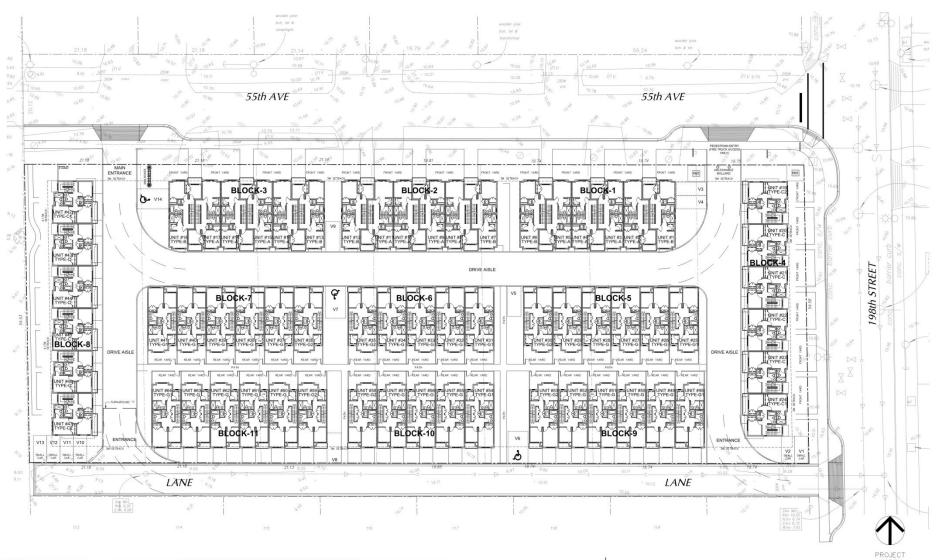
47

FEBRUARY 5, 2018

DP 1.2

SECOND FLOOR PLAN ON PROPERTY

THIRD FLOOR PLAN ON PROPERTY



THE TERRACES (PHASE-3)

5453 - 198th Street and 19728, 19738, 19752, 19762, 19770,19780 - 55 Avenue, Langley, BC

48

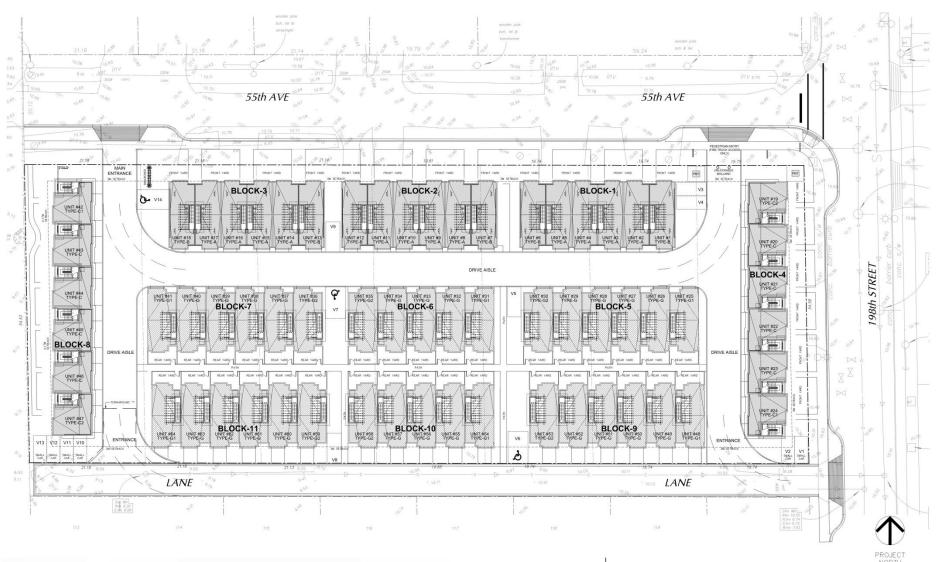
FEBRUARY 5, 2018



DP 1.3

THIRD FLOOR PLAN ON PROPERTY

ROOF DECK PLAN ON PROPERTY



THE TERRACES (PHASE-3)

5453 - 198th Street and 19728, 19738, 19752, 19762, 19770,19780 - 55 Avenue, Langley, BC

49

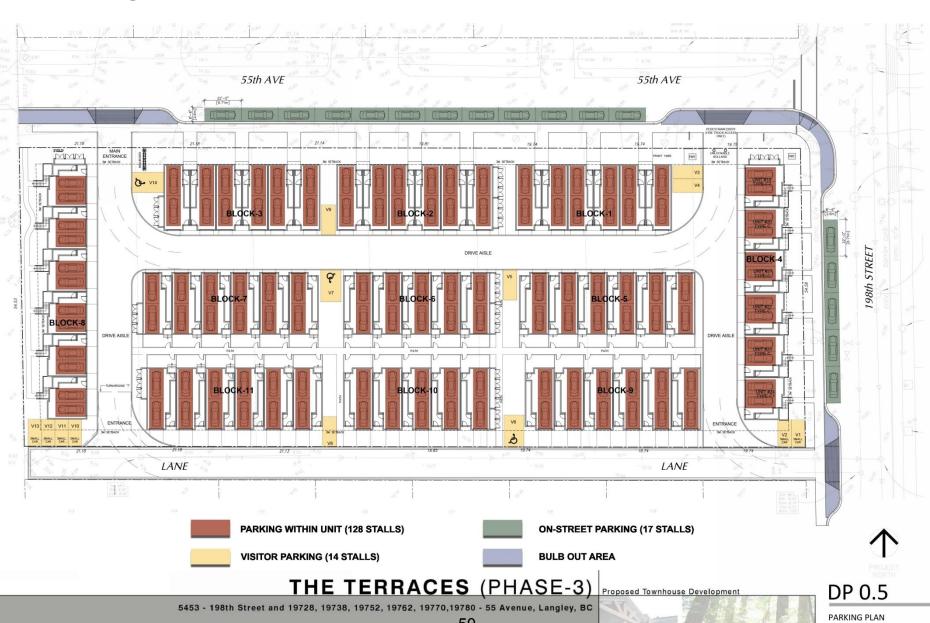
FEBRUARY 5, 2018



DP 1.4

ROOF DECK ON PROPERTY

PARKING PLAN



ATELIER PACIFIC ARCHITECTURE INC
FEBRUARY 05, 2018



SUSTAINABILITY FEATURES:

ON SITE:

- STORM WATER MANAGEMENT TO MITIGATE AGAINST FLOODING AND HABITAT DESTRUCTION;
- DESIGNED TO PREVENT GROUND WATER CONTAMINATION
- EXTERIOR LIGHTING TO BE LED DARK SKY COMPLIANT.
- LIGHT COLOR PAVING MATERIAL ON ROOF DECK TO REDUCE HEAT ISLAND AFFECT;
- DROUGHT TOLERANT PLANTS ARE PROPOSED TO MITIGATE IRRIGATION;
- IRRIGATION SYSTEM.

THE TERRACES (PHASE-3)

Proposed Townhouse Developme



SUSTAINABILITY FEATURES:

WITHIN UNITS:

- HEAT RECOVERY SYSTEM TO REDUCE ENERGY CONSUMPTION;
- DUAL FLUSH TOILETS;
- ENERGY STAR EFFICIENT APPLIANCES.
- ROUGH-INS IN GARAGE FOR ELECTRIC CAR

CONSTRUCTION:

- INCORPORATING CONSTRUCTION TECHNIQUES TO PROTECT AIR QUALITY TO REDUCE SITE DISTURBANCE;
- RECYCLE PLAN FOR WASTE BUILDING MATERIALS.

THE TERRACES (PHASE-3)

Proposed Townhouse Developme



CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN:

(REPORT BY: LIAHONA SECURITY CONSORTIUM INC.)

- HIGH QUALITY DESIGN TO IMPROVE EXISTING SITE CONDITION
- CREATE A SENSE OF OBSERVATION/NATURAL SURVEILLANCE AND TERRITORIALITY ON 198th STREET, 55th AVE., AND LANE:
- NATURAL SURVEILLANCE AND ACCESS CONTROL THROUGH EYES ON THE STREET BY WINDOW FACING YARDS, STREETS, INTERNAL DRIVEWAYS;
- GARAGE DOORS WILL BE OVERLOOKED FROM TOWNHOUSES AND THE PUBLIC REALM:
- LAMINATE WRAPPED UTILITY BOX TO RESIST GRAFFITI AND MAKE CLEAN UP EASIER;
- WOOD FENCE ON THE WEST SIDE OF THE PROPERTY TO DELINEATE PRIVATE PROPERTY AND DETER INTRUDERS:
- 1.2m HIGH FENCE AND GATE BETWEEN BUILDINGS TO DEFINE AND CONTROL ACCESS. **INTO YARDS:**
- ALL OUTDOOR SPACES TO BE PRIVATE, ABOVE GRADE AND CONTROLLED BY EACH UNIT;
- SPACE BELOW THE EXTERIOR STAIRS TO BE ENCLOSED.

THE TERRACES (PHASE-3) | Proposed Townhouse Developmen



MATERIAL & COLOUR SCHEME-A



FASCIA BOARD METAL RAILING CHARCOAL



IXL BRICK MIDNIGHT-MATTE BRICK



HARDIE PANEL (JAMES HARDIE) (COBBLES STONE)



HARDIE PANEL (JAMES HARDIE) (PEARL GRAY)



HARDIE SIDING WOODTONE MOUNTAIN CEDAR



ENTRY DOOR, GARAGE DOOR CEDAR (TO MATCH HARDIE SIDING COLOR)

THE TERRACES (PHASE-3)

5453 - 198th Street and 19728,19738,19752,19762,19770,19780 - 55 Avenue, Langley, BC

54

ATELIER PACIFIC ARCHITECTURE INC.

FEBRUARY 5, 2018



DP 0.6

COLOUR ELEVATION



MATERIAL & COLOUR SCHEME-B



FASCIA BOARD METAL RAILING CHARCOAL



CULTURED BRICK USED BRICK HIGH DESERT



HARDIE PANEL (JAMES HARDIE) (ARCTIC WHITE)



HARDIE PANEL (JAMES HARDIE) (AGED PEWTER)



HARDIE SIDING WOODTONE OLD CHERRY



GARAGE DOOR STAIN WOOD GRAIN DARK OAK

THE TERRACES (PHASE-3)

5453 - 198th Street and 19728.19738.19752.19762.19770.19780 - 55 Avenue, Langley, BC

ATELIER PACIFIC ARCHITECTURE INC.

FEBRUARY 5, 2018



DP 0.6b

COLOUR ELEVATION



MATERIAL & COLOUR SCHEME-A



METAL RAILING CHARCOAL



MIDNIGHT-MATTE BRICK



HARDIE PANEL (JAMES HARDIE) (COBBLES STONE)



HARDIE PANEL (JAMES HARDIE) (PEARL GRAY)



HARDIE SIDING WOODTONE MOUNTAIN CEDAR



ENTRY DOOR, GARAGE DOOR CEDAR (TO MATCH HARDIE SIDING COLOR)

THE TERRACES (PHASE-3)

5453 - 198th Street and 19728,19738,19752,19762,19770,19780 - 55 Avenue, Langley, BC

ATELIER PACIFIC ARCHITECTURE INC.

DECEMBER 15th, 2017



DP 0.7

COLOUR ELEVATION



MATERIAL & COLOUR SCHEME-B



FASCIA BOARD METAL RAILING CHARCOAL



CULTURED BRICK USED BRICK HIGH DESERT



HARDIE PANEL (JAMES HARDIE) (ARCTIC WHITE)



HARDIE PANEL (JAMES HARDIE) (AGED PEWTER)



HARDIE SIDING WOODTONE **OLD CHERRY**



ENTRY DOOR, GARAGE DOOR STAIN WOOD GRAIN DARK OAK

THE TERRACES (PHASE-3)

5453 - 198th Street and 19728,19738,19752,19762,19770,19780 - 55 Avenue, Langley, BC

ATELIER PACIFIC ARCHITECTURE INC.

FEBRUARY 5, 2018



DP 0.6c

COLOUR ELEVATION

PUBLIC INFORMATION MEETING

THE APPLICATION TOOK THE INITIATIVE TO HOST A PUBLIC INFORMATION MEETING TO INTRODUCE THE PROJECT TO THE NEIGHBOURS.

- RESIDENTS WITHIN 100m RADIUS WERE INVITED:
- THERE WAS GENERAL SUPPORT FOR THE DEVELOPMENT.

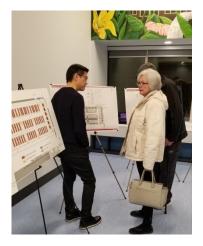
CONCERNS & COMMENTS:

ELIMINATE THE SOUTH END OF SINGLE-CAR ON STREET PARKING POCKET ON 55 AVENUE

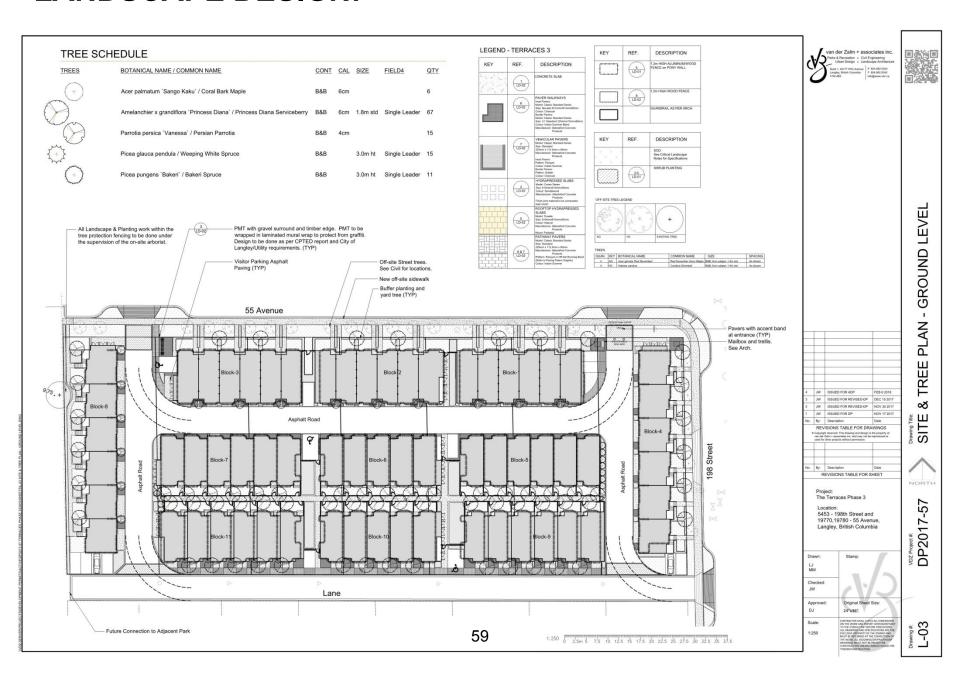
SOLUTION/ DISCUSSION:

 THE SINGLE CAR POCKET WILL BE ELMINATED. THE BULB-OUT WILL BE EXTENDED TO THE END OF 55 AVENUE.

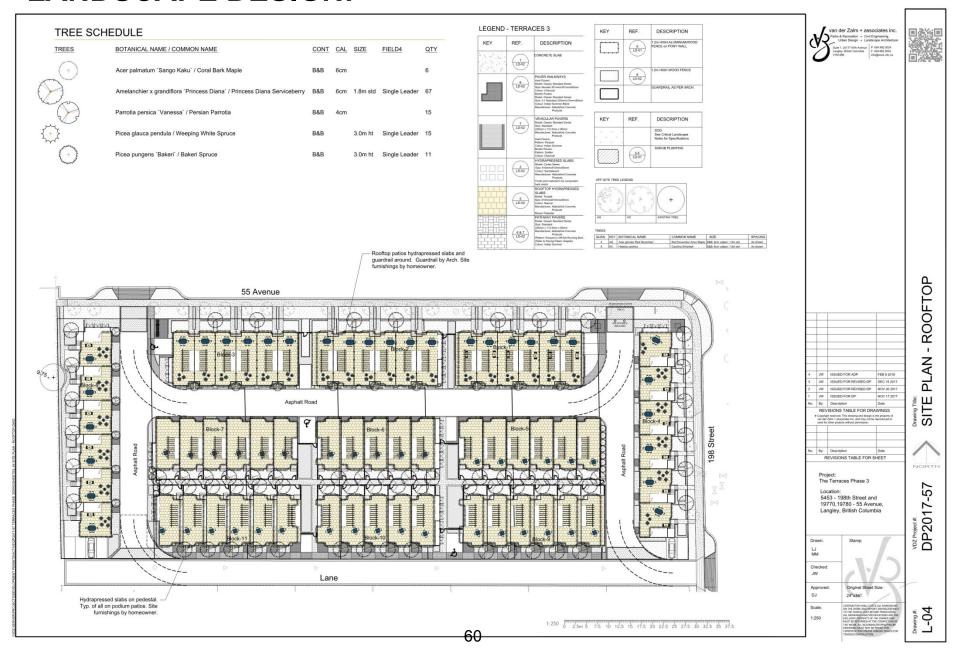




LANDSCAPE DESIGN:



LANDSCAPE DESIGN:



BRYDON PARK ACCESS

THE GREEN BELT BETWEEN THE END OF LANE AND 54A AVENUE IS A NUISANCE GATHERING SPACE THAT FACILITATES LOITERING, DRINKING AND DRUG USE.



Image #1 Hot Spot Activity



- IMPROVING/ UPGRADING THE PARK WILL BENEFIT THE NEARBY RESIDENTS.
- DEVELOPER WILL CONTRIBUTE TO THE CITY OF LANGLEY TO ENHANCE THE WESTERN HALF OF BRYDON PARK.



ZONING BYLAW, 1996, NO. 2100 AMENDMENT NO. 143, 2018, BYLAW NO. 3049 DEVELOPMENT PERMIT APPLICATION DP 02-18

To consider a Rezoning Application and Development Permit Application by F. Adab Architects Inc. to accommodate a 3-storey, 26-unit townhouse development.

The subject property is currently zoned RS1 Single Family Residential Zone in Zoning Bylaw No. 2100 and designated "Medium Density Residential" in the Official Community Plan. All lands designated "Medium Density Residential" are subject to a Development Permit to address building form and character.

Background Information:

Applicant: F. Adab Architects Inc.

Owners: R. Hans, G. Hans, G. Hans, J. Gill,

S. Gill

Civic Addresses: 19608, 19618, 19630, 19642-56th Ave. **Legal Description:** Lots 1 &2, Section 3, Township 8, New

Westminster District, Plan 9565; Lot 3, Section 3, Township 8, New Westminster District, Plan 9565 Except Plan BCP50413; Lot 63, Section 3, Township 8, New Westminster District, Plan

25734 Except Plan BCP50080

Site Area: $3,671.2\text{m}^2 (39,516.44 \text{ ft}^2)$

Lot Coverage: 44%

Total Parking Required:52 spaces (plus 5 designated visitor spaces)Total Parking Provided:52 spaces (plus 5 designated visitor spaces)Existing Zoning:RS1 Single Family Residential ZoneProposed Zoning:CD52-Comprehensive Development Zone

OCP Designation: Medium Density Residential

Variances Requested: None

Development Cost Charges: \$350,215.50 (includes 4 SF DCC Credits)



ZONING BYLAW, 1996, No. 2100 AMENDMENT No. 143

BYLAW NO. 3049

A Bylaw to amend City of Langley Zoning Bylaw, 1996, No. 2100 to add a new Comprehensive Development Zone (CD52) and to rezone the property located at 19608, 19618, 19630, 19642-56th Avenue to the new zone.

WHEREAS the *Local Government Act* authorizes a local government to zone areas of a municipality and to make regulations pursuant to zoning;

NOW THEREFORE the Council of the City of Langley, in open meeting assembled, enacts as follows:

1. Title

This bylaw shall be cited as the "Zoning Bylaw 1996, No. 2100 Amendment No. 143, 2018, No. 3049".

2. Amendment

(1) Bylaw No. 2100, cited as the "Zoning Bylaw, 1996, No. 2100" is hereby amended by adding in Part VII Comprehensive Development Zones the following as the new Zone classification of Comprehensive Development – 52 (CD52) Zone: immediately after Comprehensive Development -48 (CD51) Zone:

"WW". CD52 COMPREHENSIVE DEVELOPMENT ZONE

1. Intent

This Zone is intended to accommodate and regulate a 3-storey, 26-unit townhouse development.

2. Permitted Uses

The Land, buildings and structures shall only be used for the following uses only:

(a) Multiple-Unit Residential; and

- (b) Accessory uses limited to the following:
 - (i) *Home Occupations* excluding bed and breakfast and *child care centre*.

3. Site Dimensions

The following lot shall form the site and shall be zoned CD 52 Comprehensive Development Zone on the Zoning Map, City of Langley Zoning Bylaw, 1996, No. 2100, Schedule "A":

- (a) PID: 011-412-682 Lot 1, Section 3, Township 8, New Westminster District Plan 9565
- (b) PID: 011-412-704 Lot 2, Section3, Township 8, New Westminster District Plan 9565
- (c) PID: 011-412-712 Lot 3, Section 3, Township 8, New Westminster District Plan 9565 Except Plan BCP50413
- (d) PID: 004-492-498 Lot 63, Section 3, Township 8, New Westminster District Plan 25734 Except Plan BCP50080

(c) Siting and Size of Buildings and Structures and Site Coverage

The location, size and site coverage of the buildings and structures of the Development shall generally conform to the plans and specifications comprising 35 pages and dated November, 2017 prepared by F. Adab Architects Inc. and M2 Landscape Architecture 1 copy of which is attached to Development Permit 15-17.

(d) Special Regulations

Special regulations shall comply with subsection 9 Special Regulations prescribed in the respective zones under different Parts of this bylaw.

(e) Other Regulations

In addition, land use regulations including the following are applicable:

(i) General provisions on use are set out in Section I.D. of this bylaw;

- (ii) Building Permits shall be subject to the City of Langley Building and Plumbing Regulation Bylaw and the Development Cost Charge Bylaw; and
- (iii) Subdivisions shall be subject to the City of Langley Subdivision and Development Servicing Bylaw, and the *Land Title* Act."

READ A FIRST AND SECOND TIME this nineteenth day of February, 2018.

A PUBLIC HEARING, pursuant to Section 464 of the "Local Government Act" was held this -- day of --, 2018.

READ A THIRD TIME this -- day of --, 2018.

APPROVED PURSUANT TO SEC 52 (3)(a) OF THE TRANSPORTATION ACT this - day of --, 2018.

FINALLY ADOPTED this -- day of --, 2018.

MAYOR			
CORPORA	TE OF	FICER	?



REZONING APPLICATION RZ 02-18 DEVELOPMENT PERMIT APPLICATION DP 02-18

Civic Address: 19608, 19618, 19630, 19642 – 56 Avenue

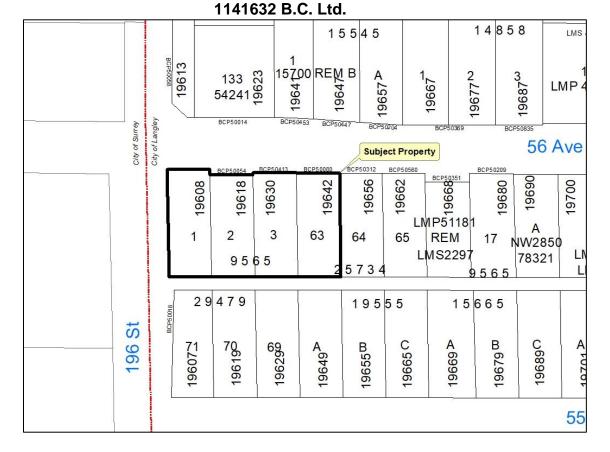
Legal Description: Lots 1 & 2, Section 3, Township 8, New Westminster

District, Plan 9565; Lot 3, Section 3, Township 8, New Westminster District, Plan 9565 Except Plan BCP50413; Lot 63, Section 3, Township 8, New Westminster District,

Plan 25734 Except Plan BCP50080

Applicant: M. Brar

Owner: R. Hans, G. Hans, G. Hans, G. Hans, J. Gill, S. Gill,





ADVISORY PLANNING COMMISSION REPORT

To: Advisory Planning Commission

Subject Rezoning Application RZ 02-18

Development Permit Application DP 02-18

File #: 6620.00

Doc #:

From: Development Services & Economic

Development Department

Date: February 2, 2018

COMMITTEE RECOMMENDATION:

THAT Rezoning Application RZ 02-18/Development Permit Application DP 02-18 to accommodate a 26-unit 3-storey townhouse development located at 19608, 19618, 19630, 19642 -56th Avenue be approved subject to execution of a Development Servicing Agreement in compliance with the conditions outlined in the Director of Development Services & Economic Development report.

PURPOSE OF REPORT:

To consider a Rezoning Application and Development Permit Application by Quadstar Development Ltd. to accommodate a 26-unit townhouse development.

POLICY:

The subject properties are currently zoned RS1 Single Family Residential Zone in Zoning Bylaw No. 2100 and designated as Medium Density Residential in the Official Community Plan. All lands designated Medium Density Residential are subject to a Development Permit to address building form and character.



Date: February 2, 2017

Subject: Rezoning Application RZ 02-18 Development Permit Application DP 02-18

Page 2

COMMENTS/ANALYSIS:

Background Information:

Applicant's Architect: F.Adab Architects Inc.

Owner: Quadstar Development Ltd.

Civic Addresses: 19608, 19618, 19630, 19642 -56th Avenue Legal Description: Lots 1 and Lot 2, Section 3, Township 8, New Westminster District Plan 9585, Lot 3,

Section 3, Township 8, New Westminster District Plan 9585, Except Plan BCP

50413, and Lot 63, Section 3, Township 8, New Westminster District Plan 25734,

Except Plan BCP 50080 39,516.44 ft² (3,671.2 m²)

Lot Coverage: 44%

Total Parking Required: 52 stalls, plus 5 visitor stalls **Total Parking Provided:** 52 stalls, plus 5 visitor stalls

Existing Zoning: RS1 Single Family Residential Zone CD52 Comprehensive Development Zone

OCP Designation: Medium Density Residential

Variances Requested: None

Development Cost \$350,215.50 (including 4 SF DCC credit)

Charges:

Site Area:

Community Amenity

Charge:

\$52,000

Engineering Requirements:

These requirements have been issued for a rezoning and development permit for a proposed **26 unit townhouse development**. These requirements may be subject to change upon receipt of a development application.

The City's Zoning Bylaw, 1996, #2100 has requirements concerning landscaping for buffer zones, parking, loading areas, and garbage / recycling areas, all of which apply to this Development.



Date: February 2, 2017

Subject: Rezoning Application RZ 02-18 Development Permit Application DP 02-18

Page 3

A) The developer is responsible for the following work which shall be designed and approved by a Professional Engineer:

- 1. Implement erosion and sediment control measures designed and approved by a qualified professional in accordance with the City of Langley Watercourse Protection Bylaw #2518.
- 2. Conduct a water flow test and provide fire flow calculations by a Professional Engineer to determine if the existing water network is adequate for fire flows. Replacement of the existing watermain may be necessary to achieve the necessary pressure and flows to conform to Fire Underwriters Survey (FUS) "Water Supply for a Public Fire Protection, a Guide to Recommended Practice, 1995".
- 3. Additional C71P fire hydrants may be required to meet bylaw and firefighting requirements. Hydrant locations must approved by the City of Langley Fire Department.
- 4. The condition of the existing pavement on 56 Avenue shall be assessed by a geotechnical engineer. Pavements shall be adequate for an expected road life of 20 years under the expected traffic conditions for the class of road. Road construction and asphalt overlay designs shall be based on the analysis of the results of Benkelman Beam tests and test holes carried out on the existing road which is to be upgraded. If the pavement is inadequate it shall be remediated, at the developer's cost.
- 5. Access to the site shall be limited to the laneway. All existing driveway crossings from 56 Avenue shall be removed.
- 6. A property dedication of 2.13m is required along 56 Avenue for future road widening. Property dedication along the west side of site to match existing ROW and corner truncation.
- 7. The full construction of the rear lane fronting the site is required. Drainage infrastructure shall be provided to collect and convey runoff generated by the lane. A temporary hammerhead turn around at the west side of the lane may be required.
- 8. New water, sanitary and storm sewer service connections are required. The developer's engineer will determine the appropriate main tie in locations and size the connections for the necessary capacity. The capacity of the existing water and sewer mains should be assessed and any upgrades required to service the site shall be designed and installed at the Developer's expense. All existing services shall be capped at the main, at the Developer's expense, upon application for Demolition permit.



Date: February 2, 2017

Subject: Rezoning Application RZ 02-18 Development Permit Application DP 02-18

Page 4

9. Undergrounding of the existing overhead Hydro and Telus is required along the 56 Avenue frontage.

- 10. A stormwater management plan for the site and the lane is required. Rainwater management measures used on site shall limit the release rate to mitigate flooding and environmental impacts as detailed in the Subdivision and Development Bylaw.
- 11. The site layout shall be designed by a civil engineer to ensure that the parking and access layout meets minimum design standards, including setbacks from property lines. Appropriate turning templates should be used to prove parking stalls and drive-aisles are accessible by the design vehicle.

B) The developer is required to deposit the following bonding and connection fees:

- 1. A Security Deposit of 110% of the estimated offsite works construction costs of installing civil works, as approved by the Director of Engineering, Parks and Environment.
- 2. Inspection and administration fees in accordance to the Subdivision Bylaw based on a percentage of the estimated construction costs. (See Schedule A General Requirement GR5.1 for details).
- 3. A deposit for a storm, sanitary and water connection is required, which will be determined after detailed civil engineering drawings are submitted, sealed by a Professional Engineer.
- 4. A \$20,000 bond for the installation of a water meter to current standards.

C) The developer is required to adhere to the following conditions:

- 1. Underground hydro and telephone, and cable services to the development site are required.
- 2. All survey costs and registration of documents with the Land Titles Office are the responsibility of the developer/owner.
- 3. A water meter is required to be installed outside in a vault away from any structures in accordance to the City's water meter specifications at the developer's cost. A double detector check valve assembly is required to be installed outside away from any structure in a vault as per the City's specifications.
- 4. An approved backflow prevention assembly must be installed on the domestic water connection immediately upon entering the building to provide premise isolation.



To: Advisory Planning Commission

Date: February 2, 2017

Subject: Rezoning Application RZ 02-18 Development Permit Application DP 02-18

Page 5

- 5. A "Stormceptor" or equivalent oil separator is required to treat site surface drainage.
- 6. A complete set of "as-built" drawings sealed by a Professional Engineer shall be submitted to the City after completion of the works. Digital drawing files in .pdf and .dwg format shall also be submitted.
- 7. The selection, location and spacing of street trees and landscaping shall be in accordance with the City of Langley's Official Community Plan Bylaw, 2005, No. 2600 and Street Tree Program, November, 1999 manual.
- 8. Stormwater run-off generated on the site shall not impact adjacent properties, or roadways.
- The development falls within the area requiring approval from the Ministry of Transportation and Infrastructure for rezoning. The developer agrees to comply with any requirements that the Ministry may impose on the development.
- 10. Garbage and recycling enclosures shall be designed to meet Metro Vancouver's "Technical Specifications for Recycling and Garbage Amenities in Multi-family and Commercial Developments - June 2015 Update"

Discussion:

The applicant is proposing to redevelop 4 lots at the south east corner of 196 Street and 56 Avenue with an attractive, 3-storey, 26-unit townhouse development. Vehicular access is provided form the rear lane and internal road, with pedestrian access provided from 56 Avenue.

The current un-constructed lane to the south that will be will be paved by this developer and the developer of the townhouse development to the south. This lane turns southward and will be connected to 55A Street. In addition, a 2.13 metre road dedication is required along 56th Avenue frontage.

Southern portion of the site faces a 6'.0" high concrete block along 196 Street. This wall is intended to create a sound buffer between 196 Street and the developments to the south. The site faces single family lots to the east which are all designated for future multi-family developments. The site faces commercial uses across the roads to the north and west.



To: Advisory Planning Commission

Date: February 2, 2017

Subject: Rezoning Application RZ 02-18 Development Permit Application DP 02-18

Page 6

The project's intent is to create a vibrant pedestrian friendly development with Identifiable entries and Individual canopies, and a sense of community. The development offers a variety of unit types and sizes. The average size of the two bedroom townhome is 1,350 ft² and the average size of a three bedroom townhouse is 1,500 ft².

The form and character of the townhouse development integrates a variety of exterior finishes, including brick, hardie siding/paneling, PVS Siding, providing a contemporary architectural expression. All units will have private roof top patios providing desired outdoor amenity space.

The site is designated as Medium Density Residential in the Official Community Plan. This density allows for a 4 storey condominium multiple family development, with a density of 70 units per acre. This proposed development is 3 stories in height, and has a proposed density of 28.6 units per acre. In addition, the subject application complies with the Official Community Plan's Development Permit Area Guidelines for Townhouse Developments.

The proposed development benefited from a Crime Prevention Through Environmental Design (CPTED) report by a qualified consultant whose recommendations are incorporated in the plans.

Fire Department Comments:

Langley City Fire-Rescue Service has reviewed the attached plans and provided preliminary comments to the applicant. The department will review, and make further comment, as the project continues to the building permit design stage.

Advisory Planning Commission:

In accordance with Development Application Procedures Bylaw No. 2488, the subject applications will be reviewed by the Advisory Planning Commission at the February 14th, 2018 meeting. A copy of the APC minutes will be presented to Langley City Council at the February 19th, 2018 Regular Council meeting.

BUDGET IMPLICATIONS:

In accordance with Bylaw No. 2482, the proposed development would contribute \$350,215.50 to Development Cost Charge accounts and \$52,000 in Community Amenity Charges.



To: Advisory Planning Commission

Date: February 2, 2017

Subject: Rezoning Application RZ 02-18 Development Permit Application DP 02-18

Page 7

ALTERNATIVES:

1. Require changes to the applicant's proposal.

2. Deny application.

Prepared	by:
----------	-----

Gerald Minchuk, MCIP

Director of Development Services & Economic Development

Concurrence: Concurrence:

Kara Jefford, P.Eng.

Manager of Engineering

Rory Thompson, Fire Chief

Attachment(s):





MINUTES OF THE ADVISORY PLANNING COMMISSION MEETING

HELD IN LANGLEY CITY HALL CKF COMMUNITY BOARDROOM

WEDNESDAY, FEBRUARY 14, 2018 7:00 PM

Present: Councillor Jack Arnold, Chairman

Councillor Paul Albrecht, Vice-Chairman

John Beimers

Shelley Coburn, School District No. 35

Kimberley Lubinich

Corp. Steve McKeddie, Langley RCMP

Ron Madsen Dan Millsip Kim Mullin Jamie Schreder

Staff: Gerald Minchuk, Director of Development Services & Economic

Development

Absent: Trish Buhler

1) RECEIPT OF MINUTES

MOVED BY Commission Member Millsip SECONDED BY Commission Member Schreder

THAT the minutes for the January 10, 2018 Advisory Planning Commission meeting be received.

CARRIED

2) REZONING APPLICATION RZ 01-18/DEVELOPMENT PERMIT APPLICATION DP 01-18-5453-198TH STREET, 19728, 19738, 19752, 19762, 19779, 19880 -55 AVENUE -ATELIER PACIFIC ARCHITECTURE INC.

The Director Development Services & Economic Development provided a brief overview of the planning context for the proposed Rezoning/Development Permit applications, and introduced Brian, Shigetomi, Atelier Pacific Architecture Inc. and Jennifer Wall, Van der Zalm, Landscape Architects, who presented the proposed applications. Following discussion on building form and character, landscaping, incorporating, parking, sustainability features and CPTED security measures, it was:

MOVED BY Commission Member Beimers SECONDED BY Commission Member Mullin

That Rezoning Application RZ 01-18/Development Permit Application DP 01-18 to accommodate a 64 unit, 3-storey townhouse development located at 5453-198TH STREET, 19728, 19738, 19752, 19762, 19779, 19880 -55 AVENUE approved subject to execution of a Development Servicing Agreement and compliance with the conditions outlined in the Director of Development Services & Economic Development's report be approved.

CARRIED

REZONING APPLICATION RZ 02-18/DEVELOPMENT PERMIT APPLICATION DP 02-18- 19608, 19618, 19630, 19642 -56 AVENUE F. ADAB ARCHITECTS INC.

The Director Development Services & Economic Development provided a brief overview of the planning context for the proposed Rezoning/Development Permit applications, and introduced Fred Adab, F. Adab Architects Inc. and Merideth Mitchell, M2 Landscape Architects, who presented the proposed applications. Following discussion on building form and character, landscaping, incorporating, parking, sustainability features and CPTED security measures, it was:

MOVED BY Commission Member Mullin SECONDED BY Commission Member Schreder

That Rezoning Application RZ 02-18/Development Permit Application DP 02-18 to accommodate a 26 unit, 3-storey townhouse development located at 19608, 19618, 19630, 19642 -56th Avenue be approved subject to execution of a Development Servicing Agreement and compliance with the conditions outlined in the Director of Development Services & Economic Development's report be approved.

CARRIED

3) <u>DEVELOPMENT PERMIT APPLICATION DP 03-18- 5501-204TH</u> <u>STREET -TURNER ARCHITECTURE</u>

The Director Development Services & Economic Development provided a brief overview of the planning context for the proposed Development Permit application, and introduced Bob Turner, Turner Architecture, who presented the proposed development permit application. Following discussion on building form and character, landscaping, parking lot layout, and CPTED security measures, it was:

MOVED BY Commission Member Millsip SECONDED BY Commission Member Madsen

That Development Permit Application DP 03-18 to accommodate a new 288 m² commercial building located at 5501-204th Street be approved subject to execution of a Development Servicing Agreement and compliance with the conditions outlined in the Director of Development Services & Economic Development's report be approved, including conducting a Traffic Engineering Assessment to address the parking lot layout to improve vehicular and pedestrian safety.

CARRIED

4) Next Meeting:

Wednesday, March 14th, 2018

5) ADJOURNMENT

MOVED BY Commission Member Coburn SECONDED BY Commission Member Lubinich

THAT the meeting adjourn at 8:50 P.M.

CARRIED

ADVISORY PLANNING COMMISSION CHAIRMAN

DIRECTOR OF DEVELOPMENT SERVICES & ECONOMIC DEVELOPMENT

Certified Correct

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642, 56 AVENUE, LANGLEY



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LIGHTING PLAN

LANDSCAPE DETAILS LANDSCAPE SPECIFICATION

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CONTACT LIST:

OWNER:

QUADSTAR DEVELOPMENT LTD.

1040 MADORE AVE COQUITLAM, B.C. V3K 3B8 TEL: 604 575 2214

ARCHITECT:

F. ADAB ARCHITECTS INC.

130 - 1000 ROOSEVELT CRESCENT NORTH VANCOUVER, B.C. V7P 3R4 TEL: 604 987 3003 FAX: 604 987 3033

SURVEYOR:

GREWAL & ASSOCIATES

204-15299 68 AVENUE SURREY, B.C. V3S 2C1 TEL: 604 597 8567

CIVIL ENGINEER:

CENTRAS ENGINEERING LTD

216-2630 CROYDON DR. SURREY, B.C. V3S 6T3 TEL: 604 782 6927

LANDSCAPE ARCHITECT:

M2 LANDSCAPING

220-26 LORNE MEWS. NEW WESTMINSTER, B.C. V3M 3L7 TEL: 604 553 0044

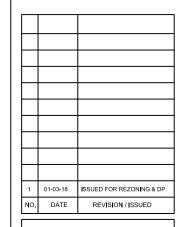
FAX: 604 553 0045



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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

PROJECT INDEX -**CONTACTS LIST**

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PROJECT STATISTICS

CIVIC ADDRESS:

19608, 56TH AVENUE, LANGLEY, BC. 19618, 56TH AVENUE, LANGLEY, BC. 19630, 56TH AVENUE, LANGLEY, BC.

19642, 56TH AVENUE, LANGLEY, BC.

LEGAL DESCRIPTION:

LOT 1, SECTION 3, TOWNSHIP 8, NWD PLAN 9565 LOT 2, SECTION 3, TOWNSHIP 8, NWD PLAN 9565

LOT 3, SECTION 3, TOWNSHIP 8, EXCEPT PLAN BCP50413, NWD PLAN 9565 LOT 63, SECTION 3, TOWNSHIP 8, EXCEPT PLAN BCP50080, NWD PLAN 25734

LOT AREA:

EXISTING: 39,516.44 SQ.FT.=3671.2 SQ.M.=0.91 ACRES

ZONING:

EXISTING: RS1 - SINGLE FAMILY RESIDENTIAL

PROPOSED: CD - COMPREHENSIVE DEVELOPMENT ZONE (CD) -

MEDIUM DENSITY RESIDENTIAL

LOT COVERAGE :

PROVIDED: 17,571 SF = 44%

FLOOR AREA:

PROVIDED: BLOCK 1: 11,865 SQ.FT. = 1102.3 SQ.M.

BLOCK 2: 13,691 SQ.FT. = 1271.94 SQ.M. BLOCK 3: 13,747 SQ.FT. = 1277.14 SQ.M. BLOCK 4: 11,819 SQ.FT. = 11098.02 SQ.M.

TOTAL: 51122 SQ.FT. = 4749.39 SQ.M.

FAR:

PROVIDED: 51122/39,516 = 1.29

BUILDING HEIGHT:

ALLOWED: 3 STORYS PROVIDED: 3 STORYS

SETBACKS:

PROVIDED: NORTH PL.: 14'-7" TO 15'-3"

WEST PL. : MIN. : 10'-5" MAX. : 28'-8"

SOUTH PL.: 19'-0" TO 19'-6"

EAST PL. : MIN. : 10'-0"

MAX.: 11'-0"

NO. OF UNITS: 26

DENSITY:

ALLOWED: 70 UNITS/ACRE PROPOSED: 28.6 UNIT / ACRE

PARKING:

REQUIRED: 2 STALLS / TOWNHOUSE: 52 STALLS

VISITORS : 0.2 / UNIT = 5

PROVIDED: 2 STALLS / TOWNHOUSE: 52 STALLS

VISITORS : 5





UNIT MIX									
UNIT TYPE	Α	As	A 1	В	B1	С	C1	Cs	TOTAL
NO OF BED RM.	2	2	3	3	4	2	3	2	-
NO OF UNIT	2	1	1	5	6	4	6	1	26
AREA (SQ.FT.)	1420	1546	1675	1460	1680	1260	1480	1348	-
TOTAL AREA (SQ.FT.)	2840	1546	1675	7300	10080	5040	8880	1348	38709

NO OF 2 BED RM.: 8 NO OF 3 BED RM.: 12 NO OF 4 BED RM.: 6



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NO.	DATE	REVISION / ISSUED

PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

STATISTICS CONTEXT PLAN

DATE:	NOV 2017	SHEET NO:
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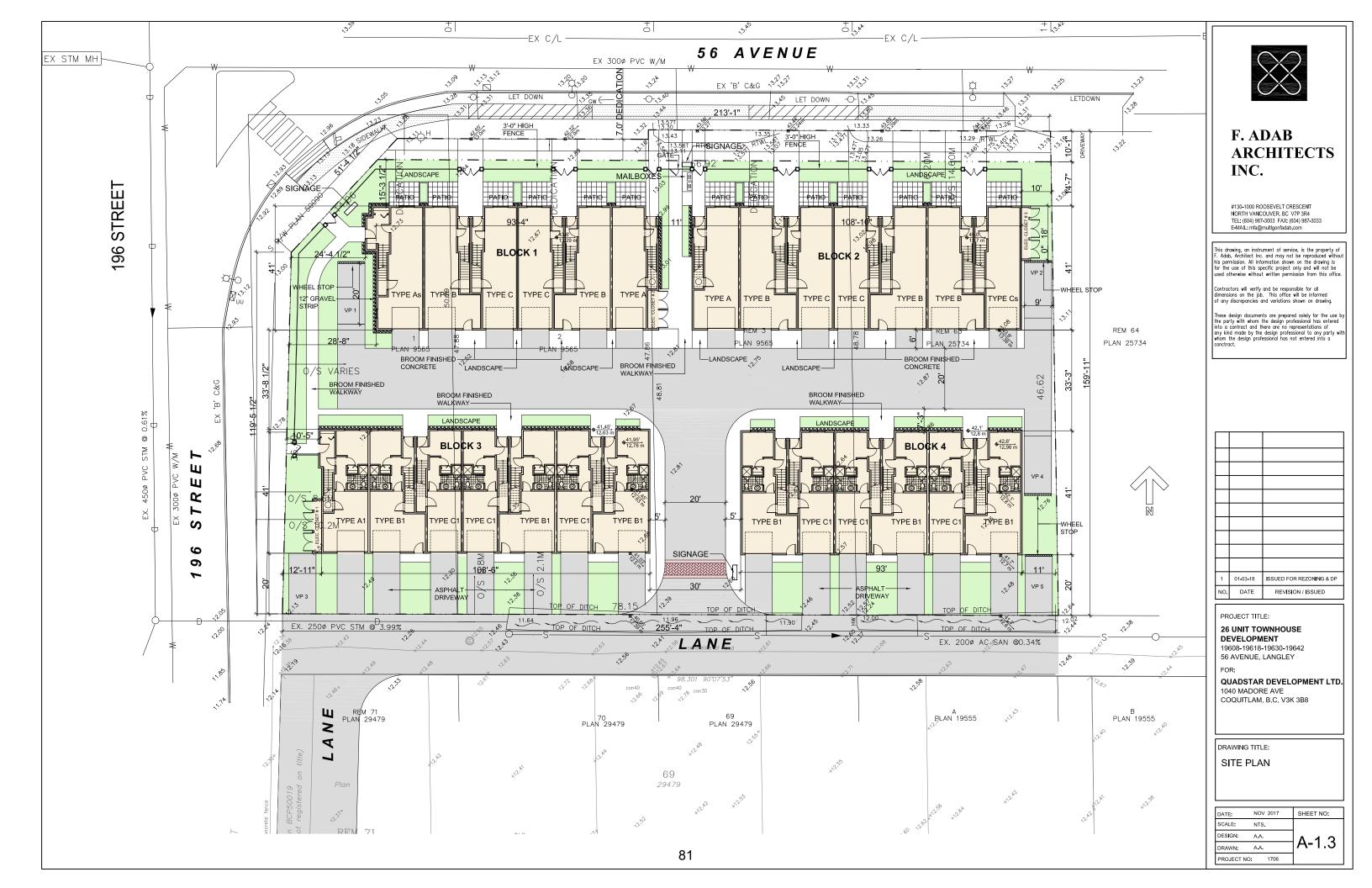
26 UNIT TOWNHOUSE **DEVELOPMENT** 19608-19618-19630-19642 56 AVENUE, LANGLEY

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

AERIAL MAP CONTEXT PHOTOS

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Design Rationale

Site Characteristics and Context

The proposal would occupy 4 lots at the south west corner of 196 Street and 56 Avenue. The total lot area of the site is 39,516 sq ft (3671 sq m) and has a slight slope down from north-east corner to south-west corner. Provision has been made for 2.14 meter road widening along 56 Avenue.

There is an unused gravel lane to the south that will be will be paved by this developer and the developer of the townhouse development to the south. This lane turns southward and will be connected to 55A Street.

Southern portion of the site faces a 6'.0" high concrete block along 196 Street. This wall is intended to create a sound buffer between 196 Street and the developments to the south. The site faces single family lots to the east which are all designated for multifamily developments. The site faces commercial uses across the roads to the north and west.

Our firm is involved in designing a similar townhouse development on the south side of the lane. This development occupies 5 single family lots and the total number of units is 33 units. This proposal and the townhouse development to the south have the same time line for construction.

Zoning, Orientation, Massing and Statistics

The proposal consists of four separate building blocks consisting of 28 units each with 2 car garages. The vehicular access is provided from the lane and pedestrian access provided from 56 Avenue.

Attempt has been made to create a vibrant environment introducing a pedestrian friendly development with Identifiable entries and Individual canopies, creating active engaging interest and fostering vitality

The units at the rear have additional room at grade and the average size of the two bedroom homes is 1,350 sq ft. and the three bedroom townhouse is 1,500. Sq ft.

The site is designated for multiple family residential developments in compliance with the RM3 zoning. This density allows for a 4 storey development with a density up to a maximum of 70 units per acre. This development has a proposed ratio of 20.16 unit per acre.

Visitor parkings are at grade and meet the zoning requirements.

Urban Design, Form and Character

The site is located at the intersection of two major streets and has a high visibility exposure. A large open space at the corner of the 56 Avenue and 196 Street is provided to lead the view into the courtyard and create a visually appealing architecture with enhanced quality character and rich landscaping.

The townhouses are arranged in a small clusters allowing for open spaces to be integrated into the development and creation of a central courtyard.

The units along 56 Avenue have direct pedestrian access to the road to respond to a streetscape and an urban concept that is anticipated for the neighborhood

The form and character introduces an articulated architectural expression with a contemporary vocabulary emohasizing on modern west coast architecture.

All units have private roof top decks acting as outdoor amenity as well as large balconies.

Buildings are modulated with repetitive vertical bay windows with intermediate colour contrast. Brick is introduces on all building blocks with emphasis given to the facades along the roads. Entries are identifiable with Individual canopies, posts and strong color expression.



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26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

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QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE

DESIGN RATIONALE: SITE CHARACTRISTICS

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PROJECT N	O: 1706	1

Livability, Energy Saving and Green Measures

Many green building strategies have been incorporated into the project design including the following items:

- 1. Variety of unit types and sizes are introduced for both small and large families with children
- 2. Where possible, operating windows are located on the opposite walls to draw ventilation across the occupied spaces and overhangs provided at the roof level.
- 3. The site is located in the urban fabric zone of the City and is close to the public transportation and amenities
- 4. Selection of the material is based on the use of low / non-toxic, low-maintenance, durable and sustainable products. Selection of materials is based on focusing on durability and sustainability with the use of building materials with high recycled content and from local sources. Low emission adhesives paint and flooring will also be used throughout the units
- 5. The building envelope, glazing, and mechanical system will be design based on the new code and incompliance with ASHRE 90, 2010
- 6. Water efficient fixtures, energy efficient appliances and drought tolerance plants will be used to minimize the use of potable water
- 7. All units have private patios at grade and decks on 2nd floor contributing to livability of the units and creating a family oriented environment

- 8. The water consumption strategy in enforced through the use of alternate solution for sprinkler system by utilizing the domestic cold water system instead of a separate sprinkler line.
- 9. Mechanical system is equipped with has heat recovery system 'HRV" for recycling the heat energy and domestic cold water line is used for sprinkler system.



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19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE

PROJECT NO: 1706

DESIGN RATIONALE: ENERGY SAVING AND GREEN MEASURES

DATE:	NOV 2017	SHEET NO:
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Crime Prevention Through Environmental Design. "CPTED"

Liahona Security has been hired by the developer and provided a CPTED report for the proposed development. Architectural and the landscape designs have incorporated the recommendations in their designs.

The rationale behind the CPTED strategy follows the principles introduced by Liahona Security and takes into account the standard measures as well as items specifically related to this proposal. These provisions are aimed to enhance safety and strengthen the perception of security.

The proposed CPTED measure fall into the following categories:

Provision of identifiable territoriality
Provision of natural surveillance
Defining the hierarchy of space
Provision of access and perimeter control

- Identifiable entries to the units with direct access to the street along with identifiable private and semi private patios along with the presence of the balconies on the 2nd floor creates a clear definition of hierarchy of space, a sense of territorial identity and sense of ownership
- The windows and the balconies along the 56 Avenue ensure the outdoor presence of the people, which provide "eyes on the street" and security for the private and public spaces
- Lights would be installed on both sides of the townhouse entries and garage doors illuminating the entire buildings and internal road. Outdoor lights are regulated by photo cell system

- The simplicity of the massing and it's orientation creates an open space environment visible from every angle with no enclave or semi enclosed spaces for strangers and wandering people
- The access control is achieved by ensuring visible entrances overlooked by windows and balconies as well as defining the entrance ways and controlling the point of access to the site
- Brick has been introduced at the base of the buildings representing a durable and high quality base free of graffiti
- Landscaping, plants, and fences are designed to comply with Liahona Security recommendations. The Strata Corporation should implement a maintenance manual.



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19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE

DESIGN RATIONALE : CPTED

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PROJECT NO	D: 1706	7



PERSPECTIVE VIEW FROM 56 AVENUE



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26 UNIT TOWNHOUSE

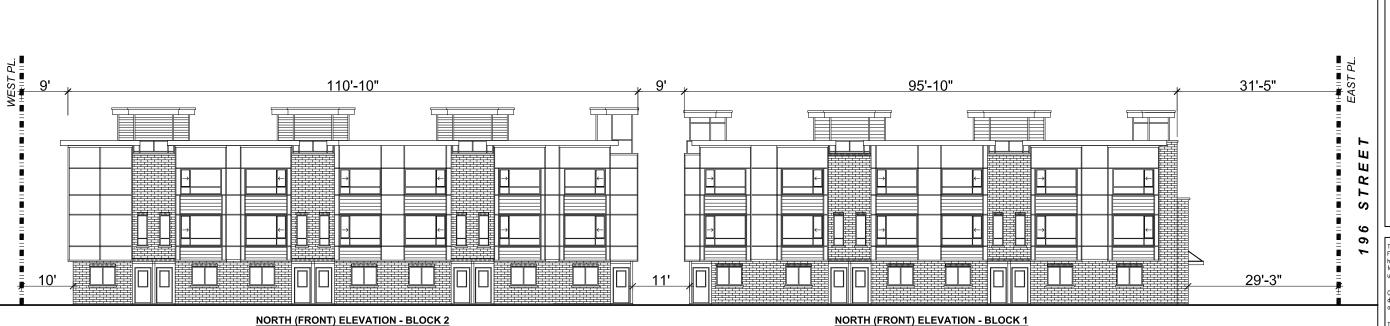
DEVELOPMENT 19608-19618-19630-19642 56 AVENUE, LANGLEY

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

PERSPECTIVE VIEW

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PROJECT N	O: 1706	



56 AVENUE STREETSCAPE

STREETSCAPE OF 196 STREET



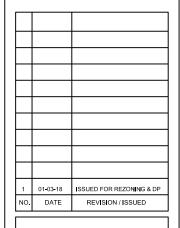
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19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

196 STREET & 56 AVENUE STREETSCAPES

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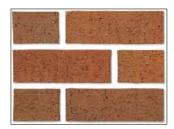
Exterior Finishes and Colours

The selection of the exterior finishes is based on enhanced durability / longevity of the construction materials as part of a sustainable approach.

Emphasis is given on rich urban elements with brick being the dominant exposing material. Prefabricated panels in two different tones and hardy siding are introduced throughout the facades. Vinyl siding is not used in any areas.

The colours are selected with emphasis on dark and light grey panels, off-white siding and the natural wood colour in selected areas.

Widows and railings are back resulting in further contrast between the exterior finishing materials.



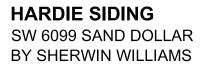
CHESTNUT - BY MUTUAL MATERIALS CO.



PVC SIDING
HAZEL OAK
REF #6 BY SAGIPER



HARDIE PANEL SW 9093 NEARLY BROWN -BY SHERWIN WILLIAMS





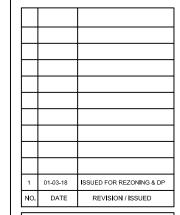
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COQUITLAM, B.C. V3K 3B8

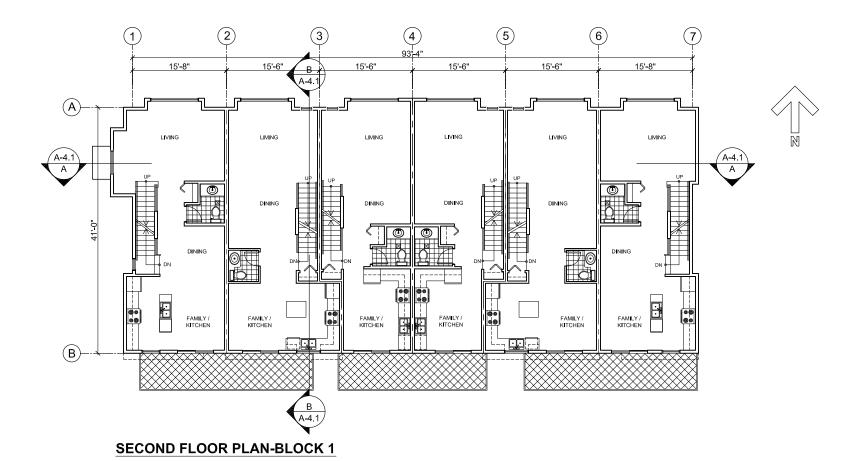
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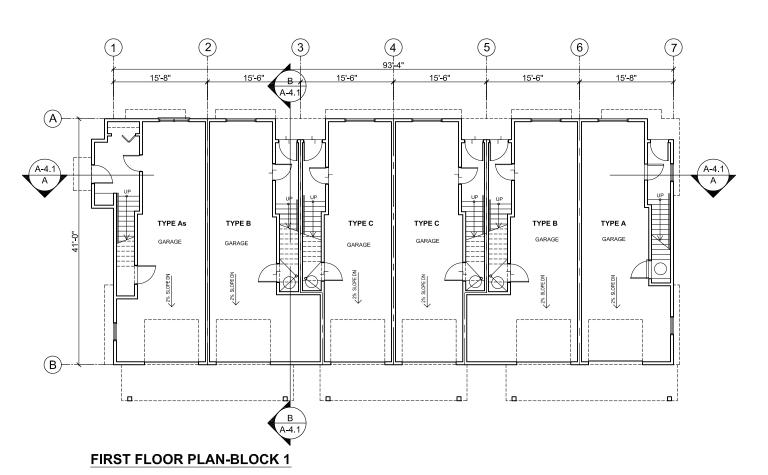
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BLOCK 4 FRONT ELEVATION







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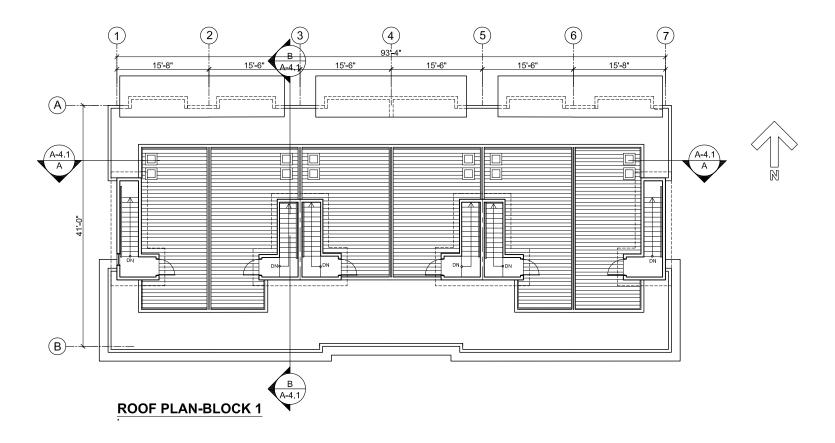
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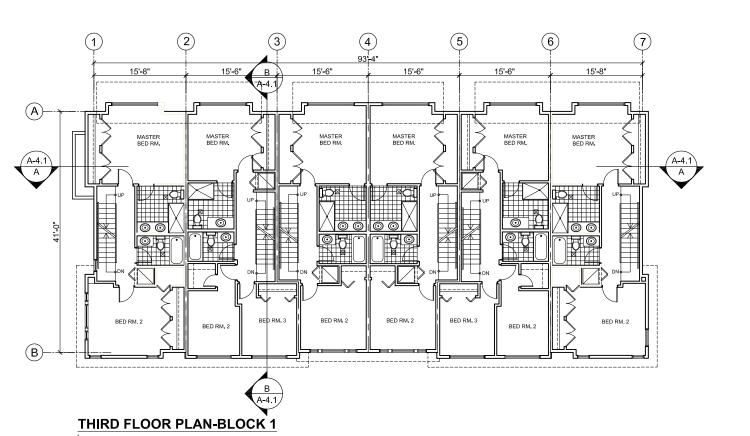
COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 1 FLOOR PLANS 1ST & 2ND FLOOR PLANS

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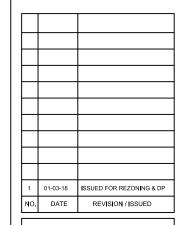


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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOF

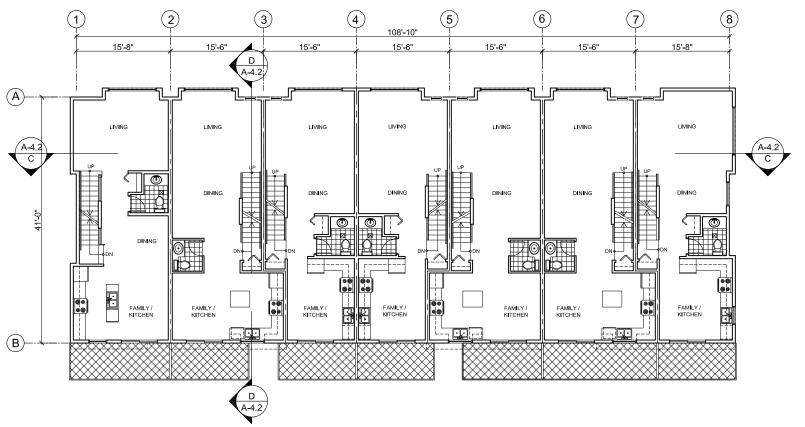
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

COQUITLAM, B.C. V3K 3B8

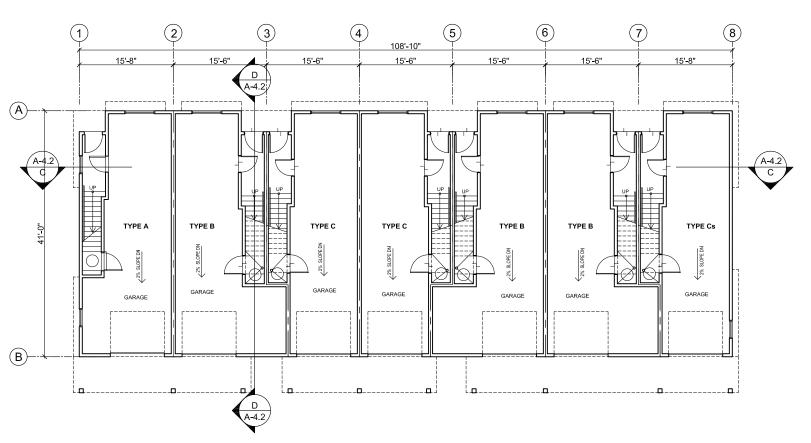
DRAWING TITLE:

BLOCK 1 FLOOR PLANS 3RD FLOOR & ROOF PLAN

DATE:	NOV 2017	SHEET NO:
SCALE:	1/16"=1'-0"	
DESIGN:	A.A.	
DRAWN:	A.A.]A-2.10
PROJECT	NO: 1706	



SECOND FLOOR PLAN - BLOCK 2



FIRST FLOOR PLAN - BLOCK 2



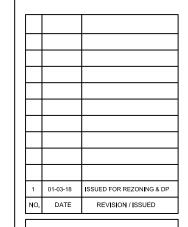
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multlgonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

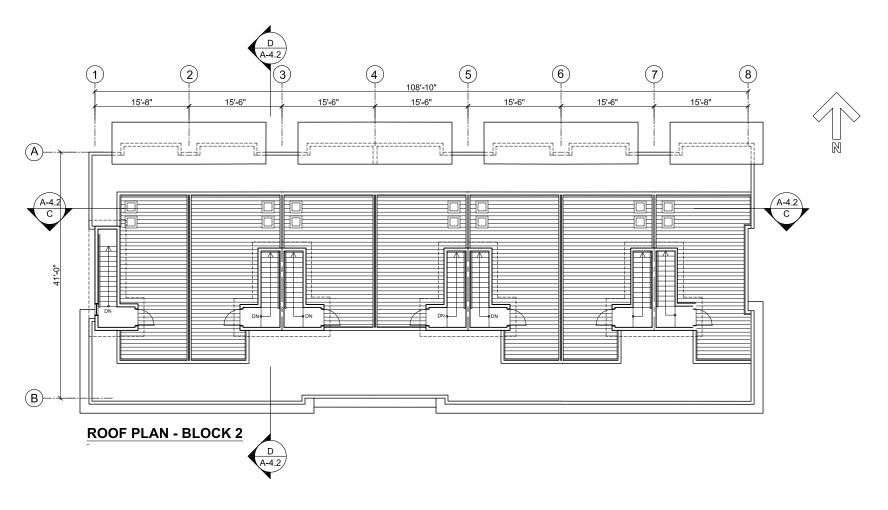
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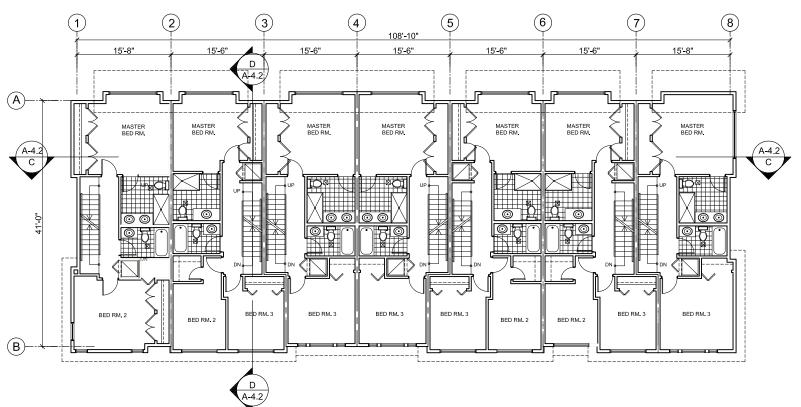
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 2 FLOOR PLAN 1ST & 2ND FLOOR PLANS

DATE:	NOV 2017	SHEET NO:
SCALE:	1/16"=1'-0"	
DESIGN:	A.A.	$\lceil A \cap A \rceil$
DRAWN:	A.A.	⊣A-2.2a
PROJECT NO	D: 1706	7 1





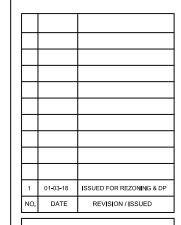


#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multlgonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT19608-19618-19630-19642

19608-19618-19630-196-56 AVENUE, LANGLEY

FOF

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

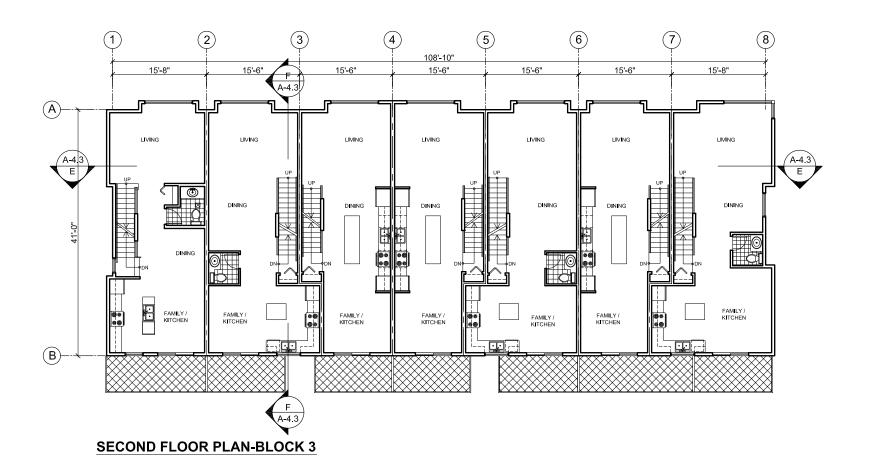
COQUITLAM, B.C. V3K 3B8

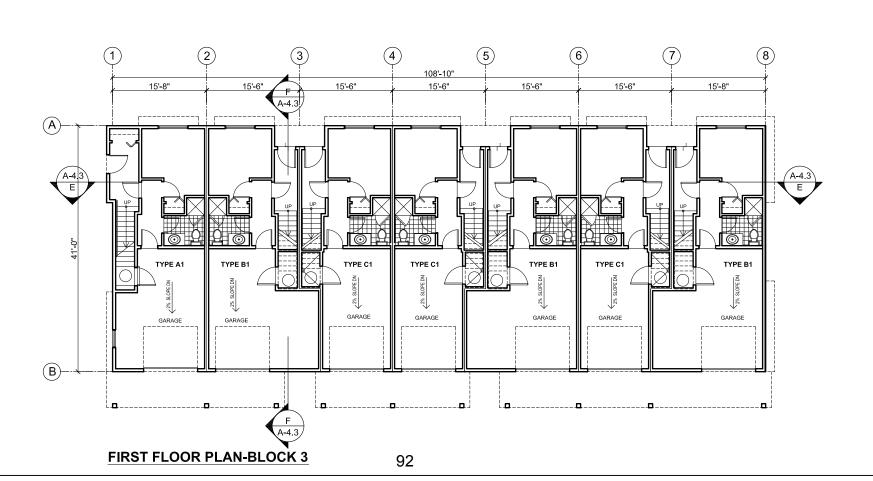
DRAWING TITLE:

BLOCK 2 FLOOR PLANS 3RD FLOOR & ROOF PLAN

DATE:	NOV 2017	SHEET NO:
SCALE:	1/16"=1'-0"	
DESIGN:	A.A.	$\begin{bmatrix} 1 & 2 & 2b \end{bmatrix}$
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THIRD FLOOR PLAN - BLOCK 2





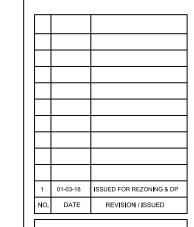


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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOF

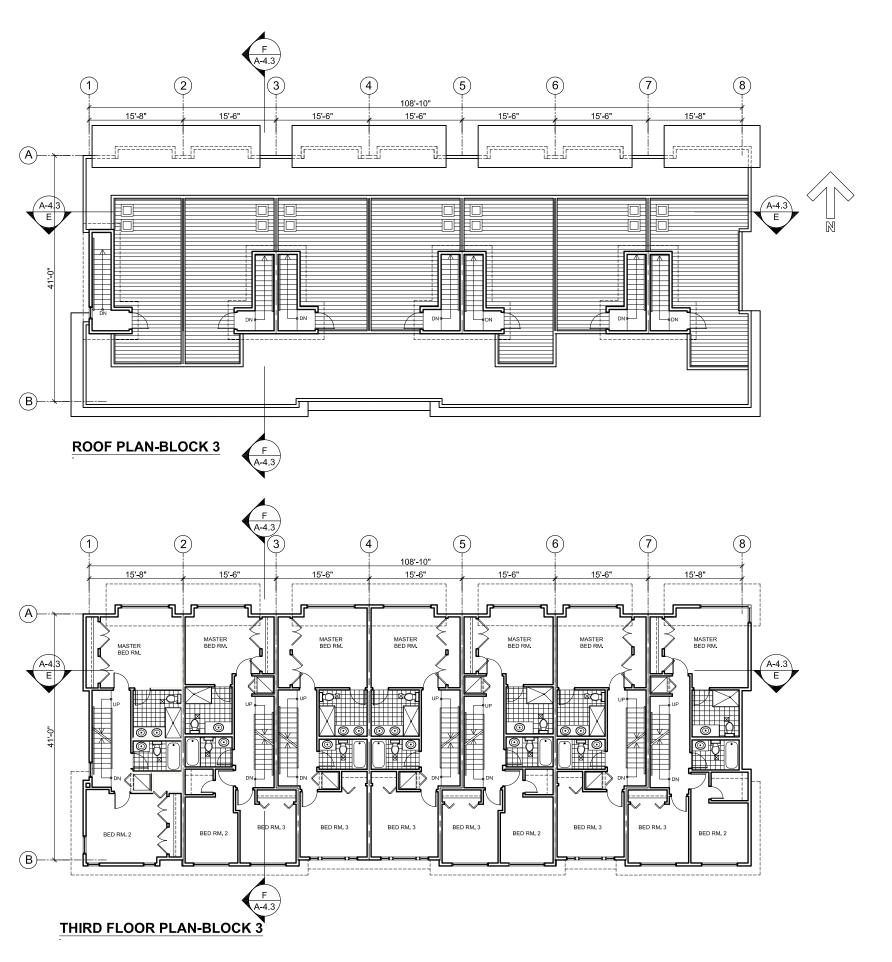
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 3 FLOOR PLANS 1ST & 2ND FLOOR PLANS

DATE:	NOV 2017	SHEET NO:
SCALE:	1/16"=1'-0"	
DESIGN:	A.A.	A 2 2 a
DRAWN:	A.A.	A-2.3a
PROJECT NO	1706	





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	1	01-03-18	ISSUED FOR REZONING & DP
	NO.	DATE	REVISION / ISSUED

PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOF

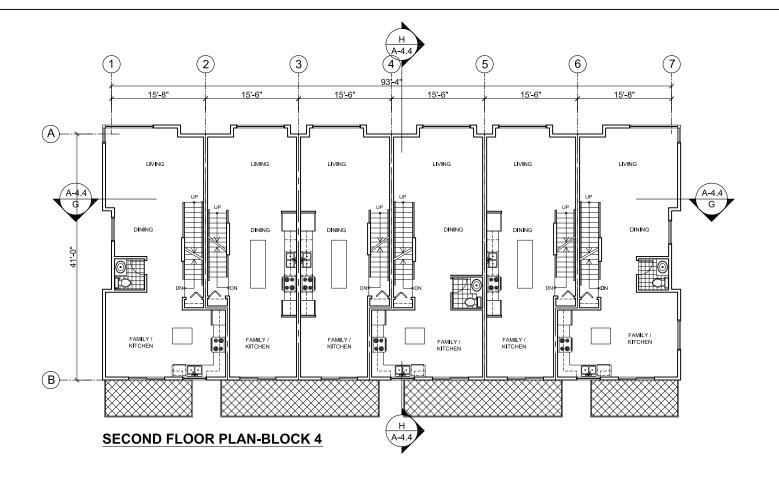
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

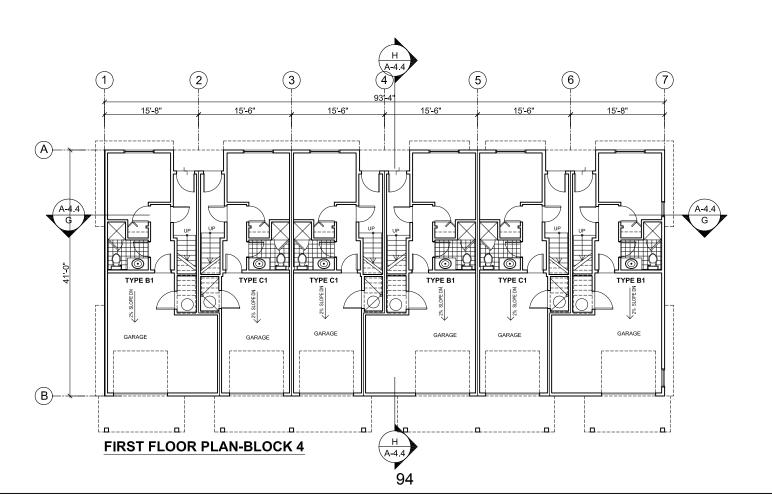
COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 3 FLOOR PLANS 3RD FLOOR & ROOF PLAN

DATE:	NOV 2017	SHEET NO:
SCALE:	1/16"=1'-0"	
DESIGN:	A.A.	$\int_{\Lambda} \int_{\Lambda} \int_{\Lambda$
DRAWN:	A.A.	7A-2.30
PROJECT N	O: 1706	7





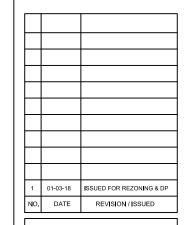


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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

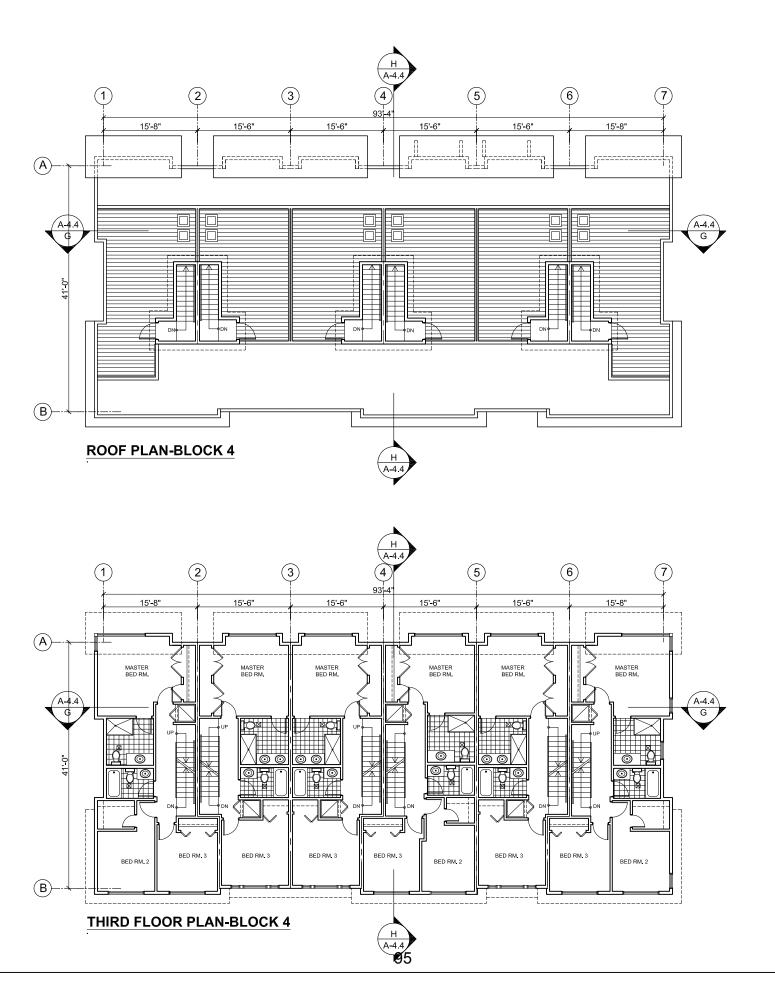
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 4 FLOOR PLANS
1ST & 2ND FLOOR PLANS

	DATE:	NOV 2017	SHEET NO:
1	SCALE:	1/16"=1'-0"	
	DESIGN:	A.A.	A 2 4
	DRAWN:	A.A.	A-2.4a
	PROJECT NO): 1706	



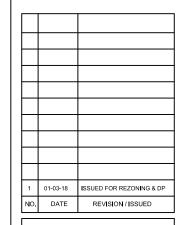


#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multlgonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT19608-19618-19630-19642

56 AVENUE, LANGLEY

FOF

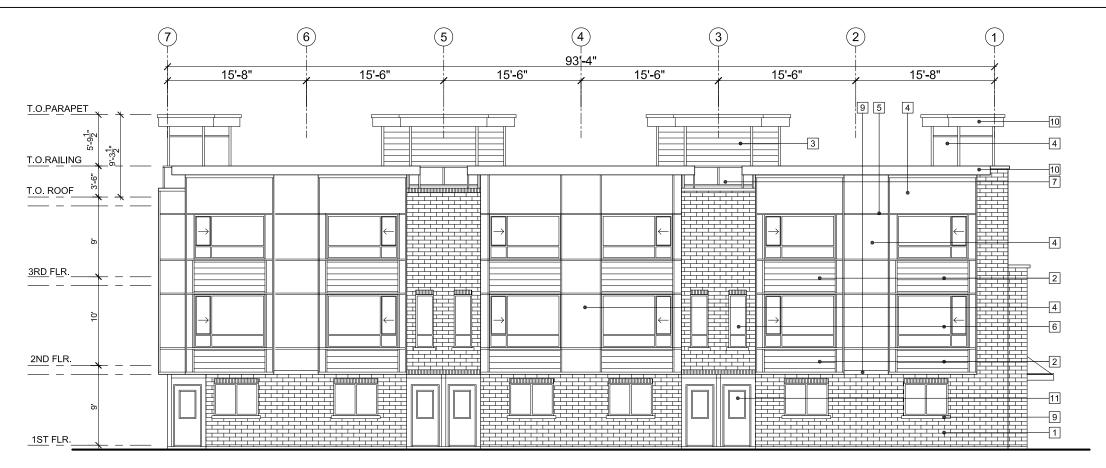
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

COQUITLAM, B.C. V3K 3B8

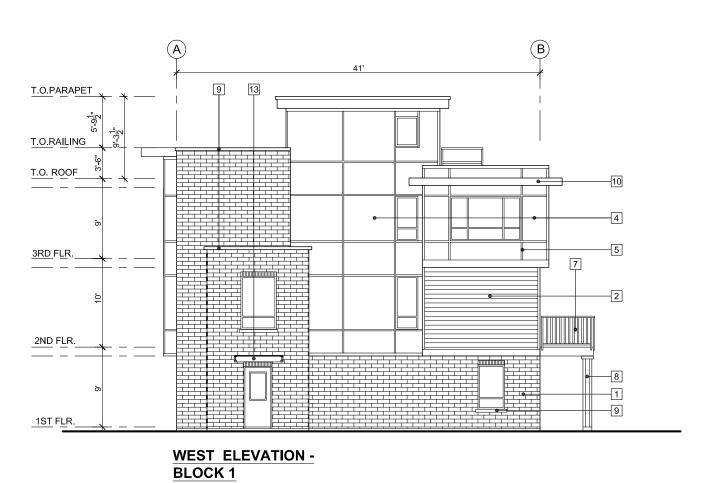
DRAWING TITLE:

BLOCK 4 FLOOR PLANS 3RD FLOOR & ROOF PLAN

	DATE:	NOV 2017	SHEET NO:
	SCALE:	1/16"=1'-0"	
	DESIGN:	A.A.	$\begin{bmatrix} 1 & 2 & 4 & 1 \end{bmatrix}$
	DRAWN:	A.A.]A-2.40
1	BBC IECT II	0 4700	¬ 1



NORTH (FRONT) ELEVATION - BLOCK 1



EXTERIOR FINISHES

1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 6099 SAND DOLLAR - BY SHERWIN WILLIAMS
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
5	TRIM BLACK
6	WINDOW VINYL -BLACK
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR
8	COLUMN SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE
10	ROOF OVERHANG SW 6103 TEA CHEST - BY SHERWIN WILLIAMS
11	ENTRY DOOR BLOCKS 1 & 2: SW 6244 - BY SHERWIN WILLIAMS
12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
13	CANOPY BLACK METAL FRAME CLEAR GLASS



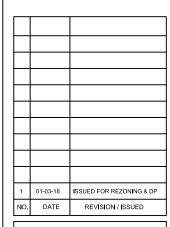
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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 1 NORTH AND WEST ELEVATIONS

DATE: NOV 2017 SHEET NO:

SCALE: NTS.

DESIGN: A.A.

DRAWN: A.A.

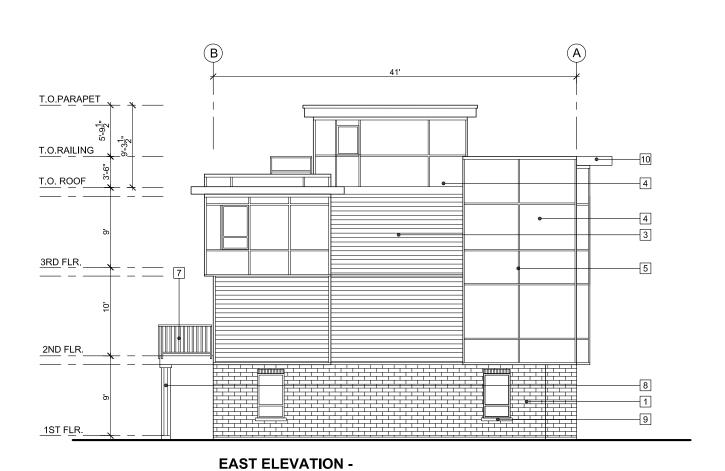
PROJECT NO: 1706

A-3.1a

96



SOUTH (REAR) ELEVATION - BLOCK 1



BLOCK 1

EXTERIOR FINISHES

1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 6099 SAND DOLLAR - BY SHERWIN WILLIAMS
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
5	TRIM BLACK
6	WINDOW VINYL -BLACK
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR
8	COLUMN SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE
10	ROOF OVERHANG SW 6103 TEA CHEST - BY SHERWIN WILLIAMS
11	ENTRY DOOR BLOCKS 1 & 2: SW 6244 - BY SHERWIN WILLIAMS
12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
13	CANOPY BLACK METAL FRAME CLEAR GLASS



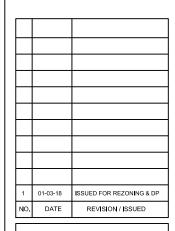
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multlgonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

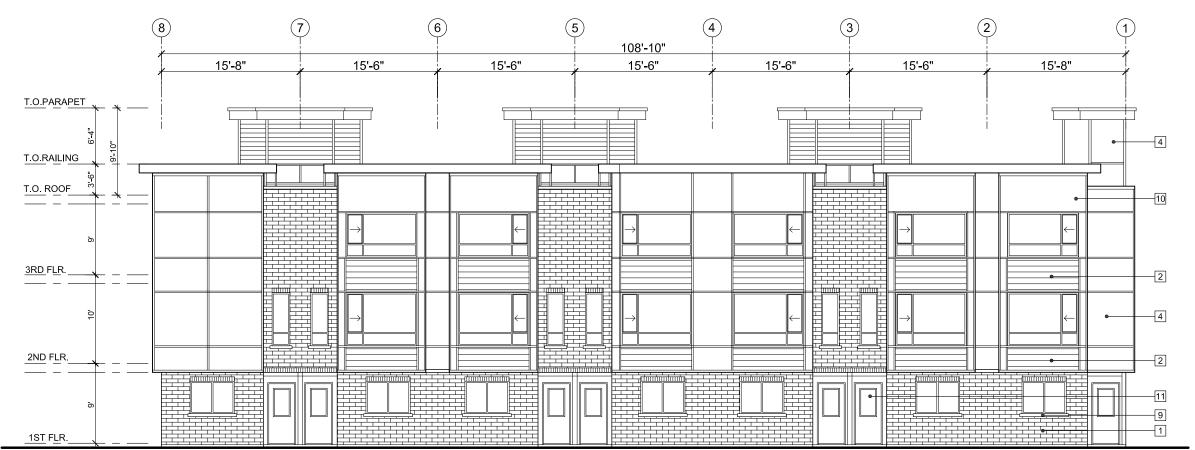
COQUITLAM, B.C. V3K 3B8

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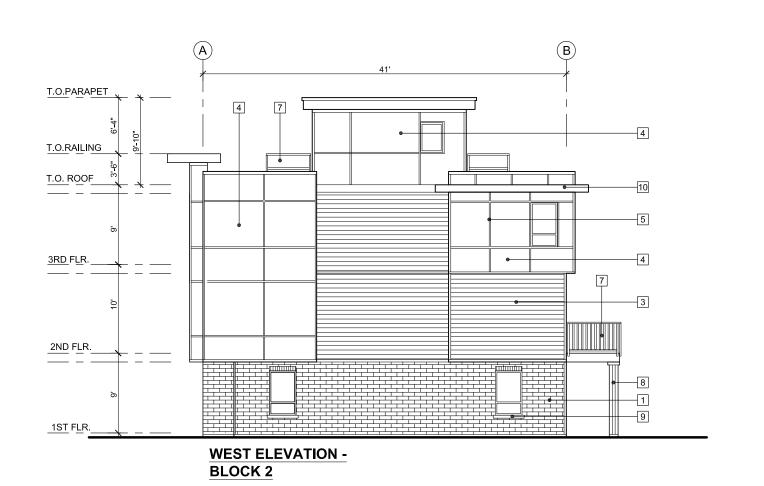
BLOCK 1 SOUTH AND EAST ELEVATIONS

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	A 2 1h
DRAWN:	A.A.	A-3.10
PROJECT NO:	1706	

97



NORTH (FRONT) ELEVATION - BLOCK 2



EXTERIOR FINISHES		
1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.	
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER	
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS	
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS	
5	TRIM BLACK	
6	WINDOW VINYL -BLACK	
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR	
8	COLUMN SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS	
9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE	
10	ROOF OVERHANG SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS	
11	ENTRY DOOR BLOCKS 1 & 2: SW 6244 - BY SHERWIN WILLIAMS	
12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS	
13	CANOPY BLACK METAL FRAME CLEAR GLASS	

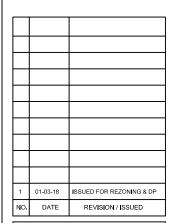


F. ADAB **ARCHITECTS** INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multlgonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE **DEVELOPMENT**19608-19618-19630-19642

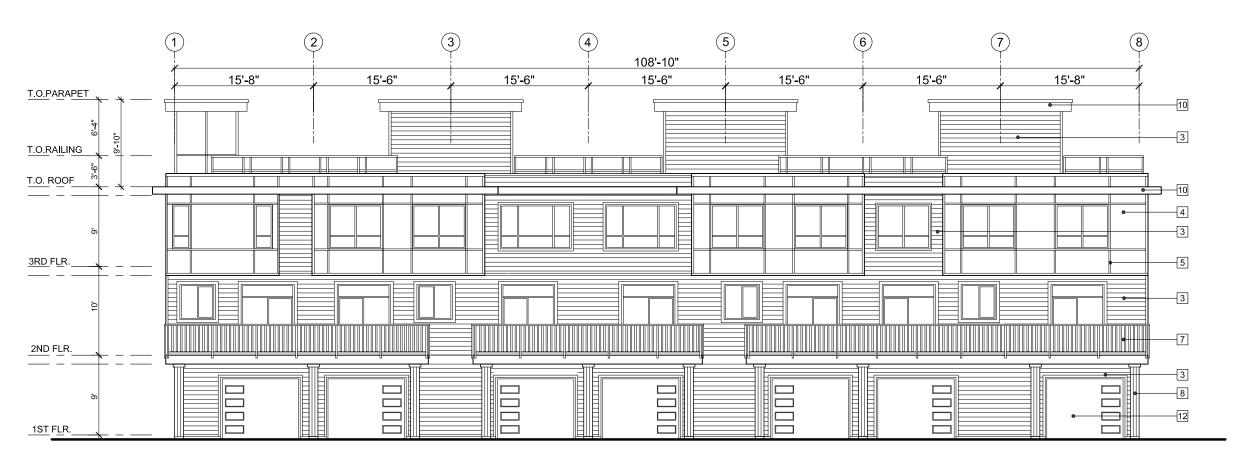
56 AVENUE, LANGLEY

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

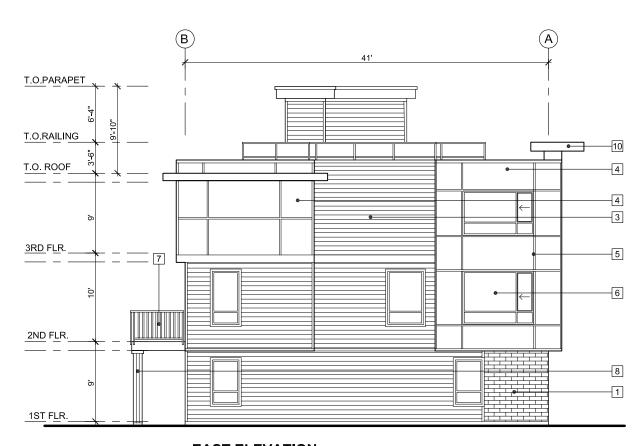
DRAWING TITLE:

BLOCK 2 NORTH AND WEST ELEVATIONS

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	A 2 22
DRAWN:	A.A.	A-3.2a
PROJECT NO); 1706	



SOUTH (REAR) ELEVATION - BLOCK 2



EAST ELEVATION - BLOCK 2

EXTERIOR FINISHES

1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
5	TRIM BLACK
6	WINDOW VINYL -BLACK
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR
8	COLUMN SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE
10	ROOF OVERHANG SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
11	ENTRY DOOR BLOCKS 1 & 2: SW 6244 - BY SHERWIN WILLIAMS
12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
13	CANOPY BLACK METAL FRAME CLEAR GLASS



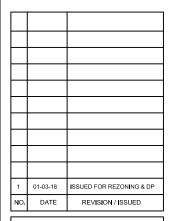
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multigonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

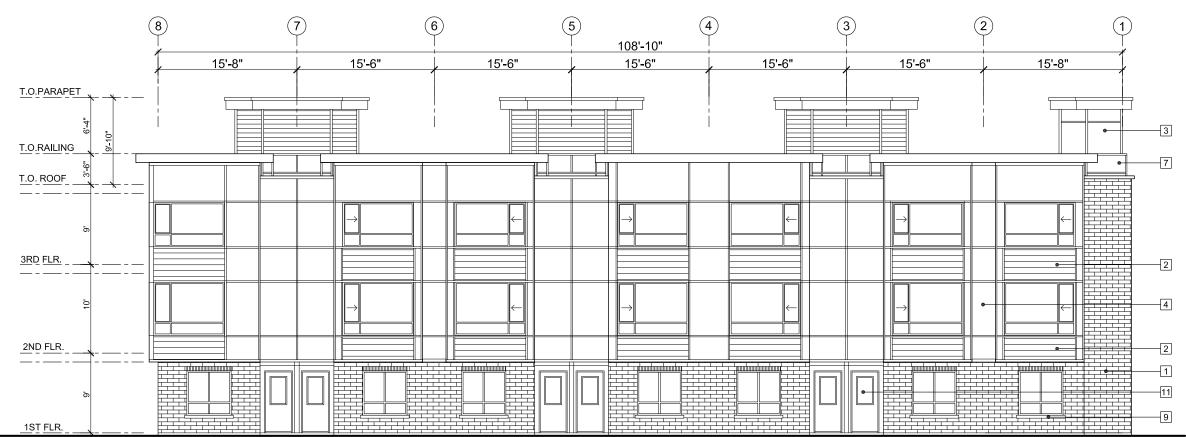
FOR:

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 2 SOUTH AND EAST ELEVATIONS

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	A 2 2 b
DRAWN:	A.A.	A-3.20
PROJECT NO	1706	



NORTH ELEVATION BLOCK 3



EXTERIOR FINISHES

	RIOR FINISHES
1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
5	TRIM BLACK
6	WINDOW VINYL -BLACK
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR
8	COLUMN SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE
10	ROOF OVERHANG SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
11	ENTRY DOOR BLOCKS 3 & 4: SW 7585 - BY SHERWIN WILLIAMS
12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
13	CANOPY BLACK METAL FRAME CLEAR GLASS



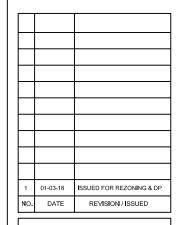
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multigonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT 19608-19618-19630-19642

56 AVENUE, LANGLEY

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

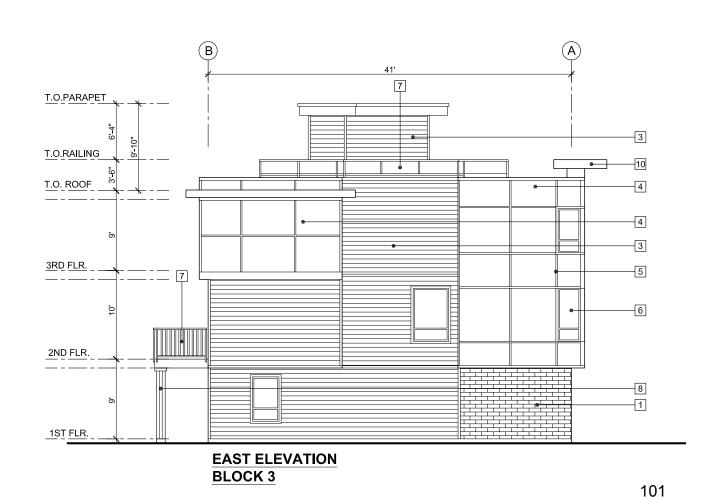
BLOCK 3 NORTH AND WEST ELEVATIONS

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	A 2 22
DRAWN:	A.A.	H-3.38
PROJECT NO	D: 1706	

100



SOUTH ELEVATION BLOCK 3



EXTERIOR FINISHES

	KIOK FINISHES
1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
5	TRIM BLACK
6	WINDOW VINYL -BLACK
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR
8	COLUMN SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE
10	ROOF OVERHANG SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
11	ENTRY DOOR BLOCKS 3 & 4: SW 7585 - BY SHERWIN WILLIAMS
12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
13	CANOPY BLACK METAL FRAME CLEAR GLASS



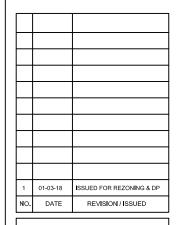
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multigonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT 19608-19618-19630-19642

56 AVENUE, LANGLEY

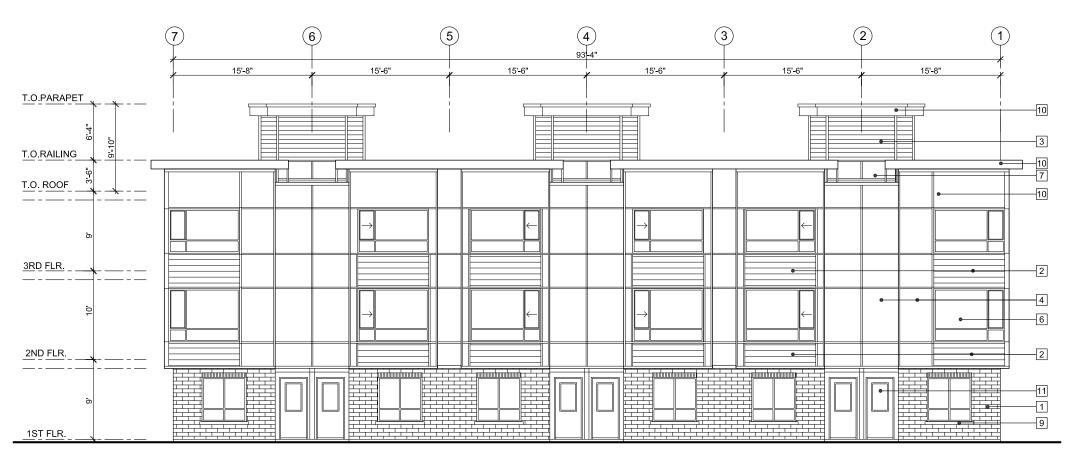
QUADSTAR DEVELOPMENT LTD.

1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

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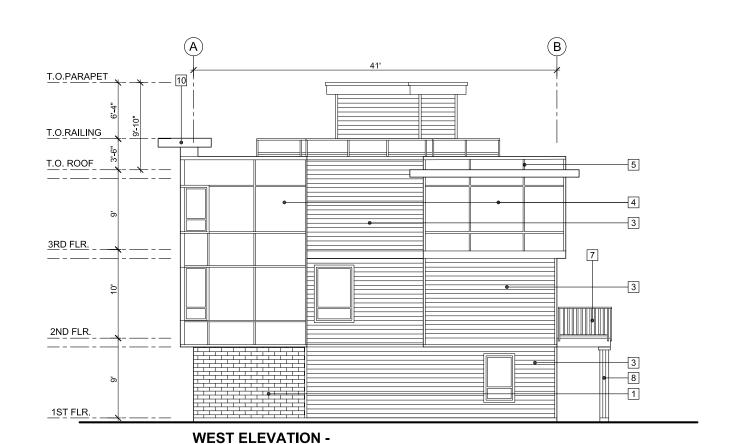
BLOCK 3 SOUTH AND EAST ELEVATIONS

	DATE:	NOV 2017	SHEET NO:
	SCALE:	NTS.	
	DESIGN:	A.A.	A 2 2h
	DRAWN:	A.A.	M-3.3D
- [PROJECT NO	1706	



NORTH ELEVATION - BLOCK 4

BLOCK 4



EXTERIOR FINISHES

	INORT INIONES
1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
5	TRIM BLACK
6	WINDOW VINYL -BLACK
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR
8	COLUMN SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE
10	ROOF OVERHANG SW 7516 KESTREL WHITE - BY SHERWIN WILLIAMS
11	ENTRY DOOR BLOCKS 3 & 4: SW 7585 - BY SHERWIN WILLIAMS
12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
13	CANOPY BLACK METAL FRAME CLEAR GLASS



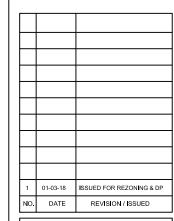
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC VTP 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multigonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT19608-19618-19630-19642

56 AVENUE, LANGLEY

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 4 NORTH AND WEST ELEVATIONS

DATE: NOV 2017 SHEET NO:

SCALE: NTS.

DESIGN: A.A.

DRAWN: A.A.

PROJECT NO: 1706

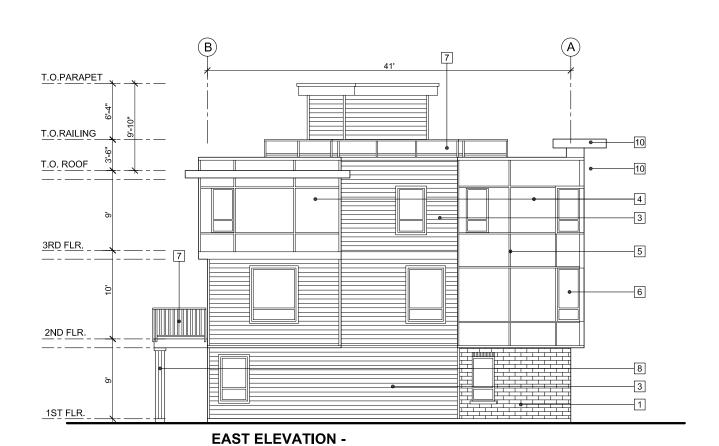
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102



SOUTH ELEVATION - BLOCK 4

BLOCK 4



EXTERIOR FINISHES

	NICKT INICHES
1	BRICK CHESTNUT - BY MUTUAL MATERIALS CO.
2	6" HORIZONTAL SIDING - PVC / HAZEL OAK REF #6 BY SAGIPER
3	6" HORIZONTAL HARDIE SIDING / BAND BOARD SW 7516 KESTREL WHITE - BY SHERWIN WILLIAM
4	HARDIE PANEL / BOARD SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
5	TRIM BLACK
6	WINDOW VINYL -BLACK
7	RAILING ALUMINUM - BLACK GLASS (SAFETY) - CLEAR
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9	WINDOW SILL - WALL CAP PRE-CAST CONCRETE
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12	GARAGE DOOR SW 9093 NEARLY BROWN - BY SHERWIN WILLIAMS
13	CANOPY BLACK METAL FRAME CLEAR GLASS



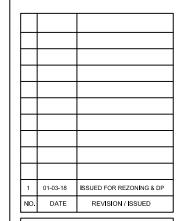
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC VTP 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multigonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

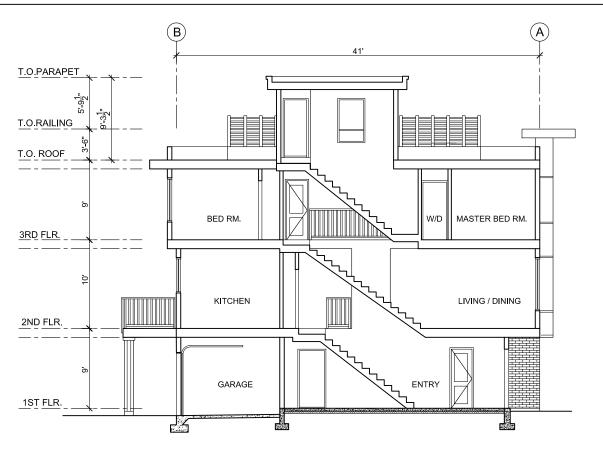
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

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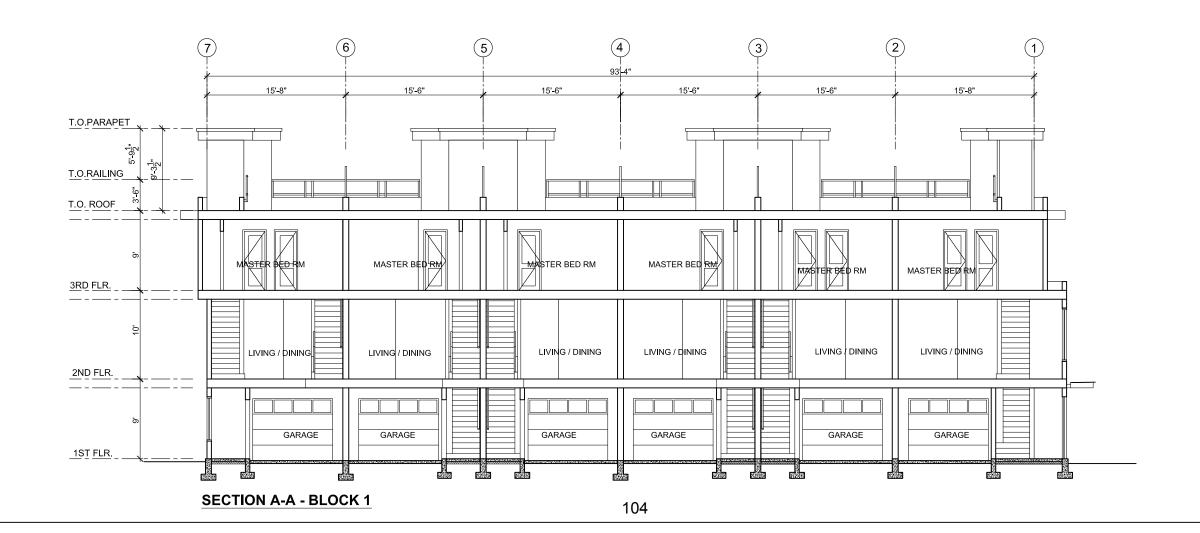
BLOCK 4 SOUTH AND EAST ELEVATIONS

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	$\begin{bmatrix} 1 & 2 & 4b \end{bmatrix}$
DRAWN:	A.A.	7 A- 3.4₽
PROJECT NO	D: 1706	1

103



SECTION B-B - BLOCK 1





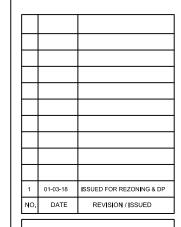
F. ADAB ARCHITECTS INC.

#130-1000 ROOSEVELT CRESCENT NORTH VANCOUVER, BC V7P 3R4 TEL: (604) 987-3003 FAX: (604) 987-3033 E-MAIL: mfa@multlgonfadab.com

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

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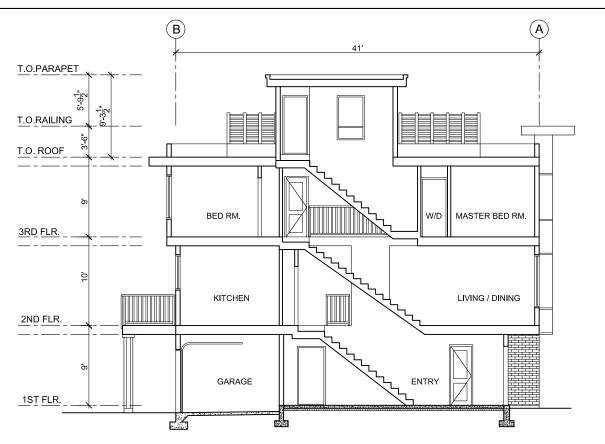
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE

COQUITLAM, B.C. V3K 3B8

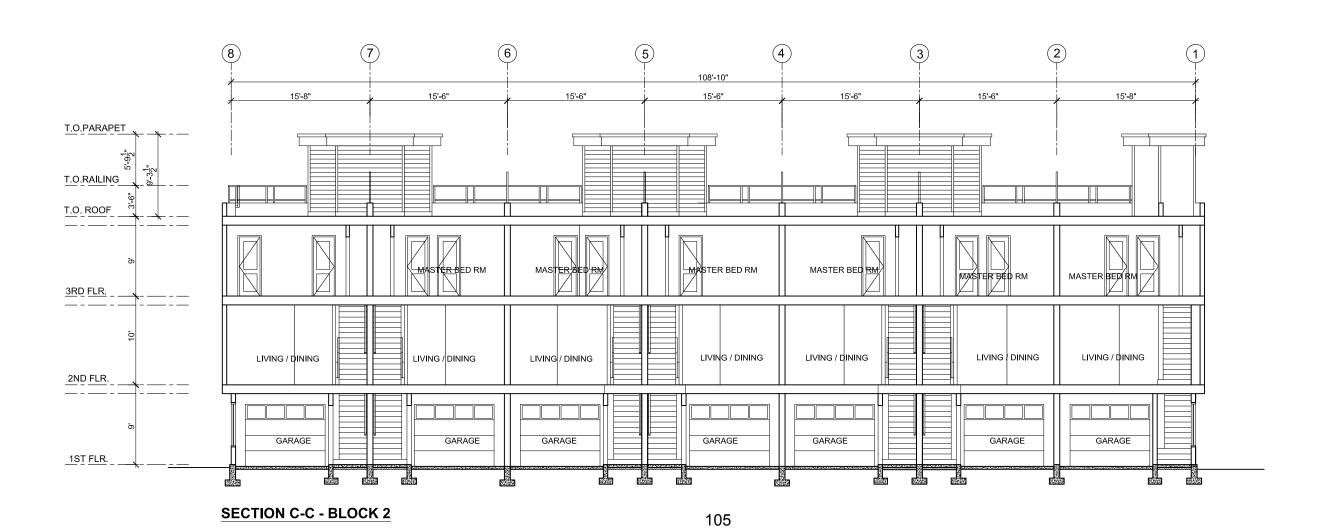
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BLOCK 1 SECTIONS A-A & B-B

1	DATE:	NOV 2017	SHEET NO:
	SCALE:	NTS.	
	DESIGN:	A.A.	A A A
	DRAWN:	A.A.	M-4 .1
1	DPO IECT NO	1706	



SECTION D-D - BLOCK 2





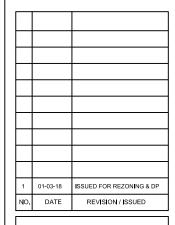
F. ADAB ARCHITECTS INC.

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

FOR:

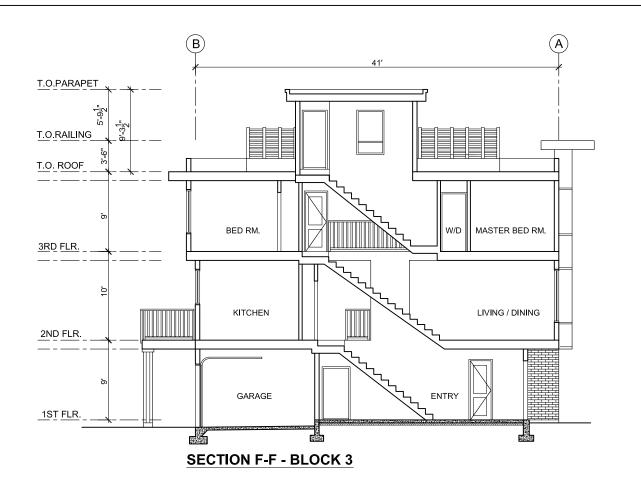
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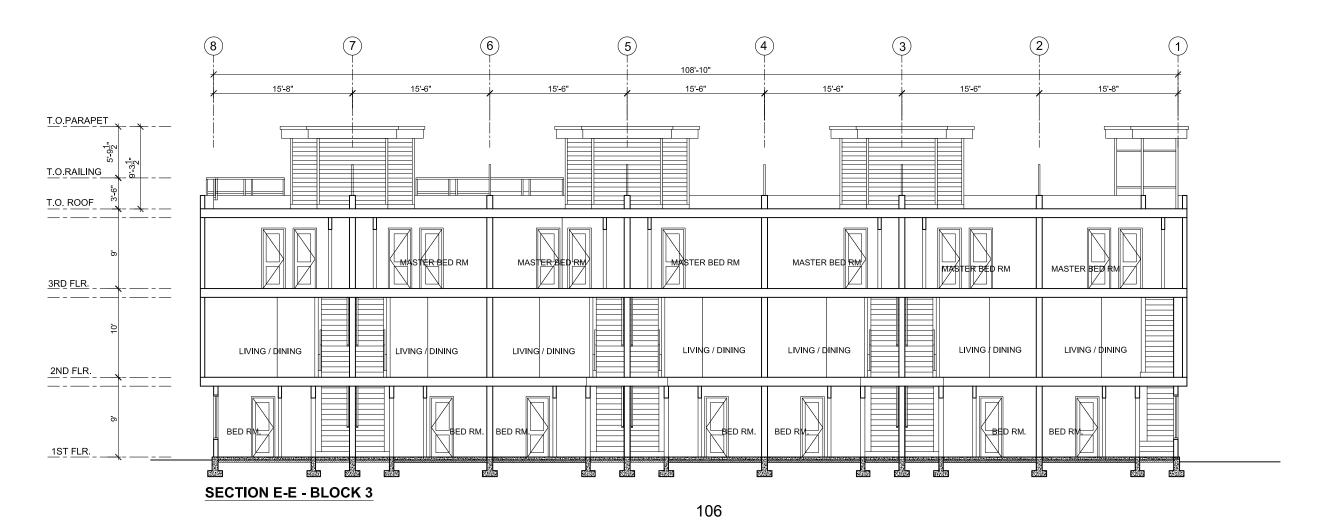
COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 2 SECTIONS C-C & D-D

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	A 4 9
DRAWN:	A.A.	
PROJECT NO	1706	





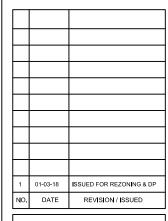


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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

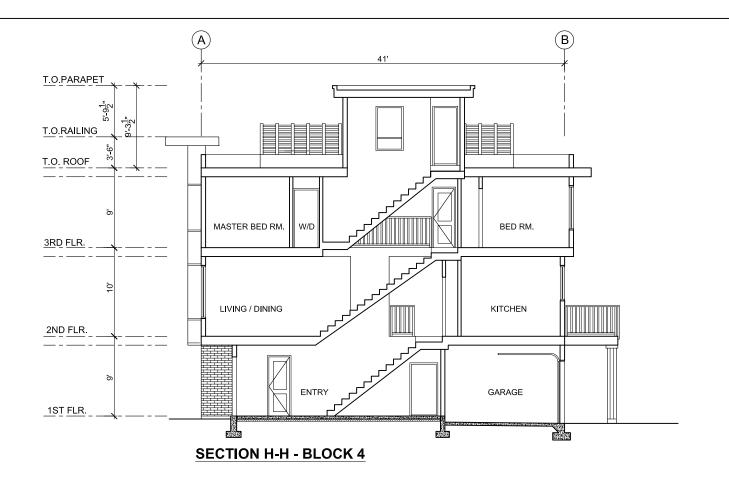
19608-19618-19630-19642 56 AVENUE, LANGLEY

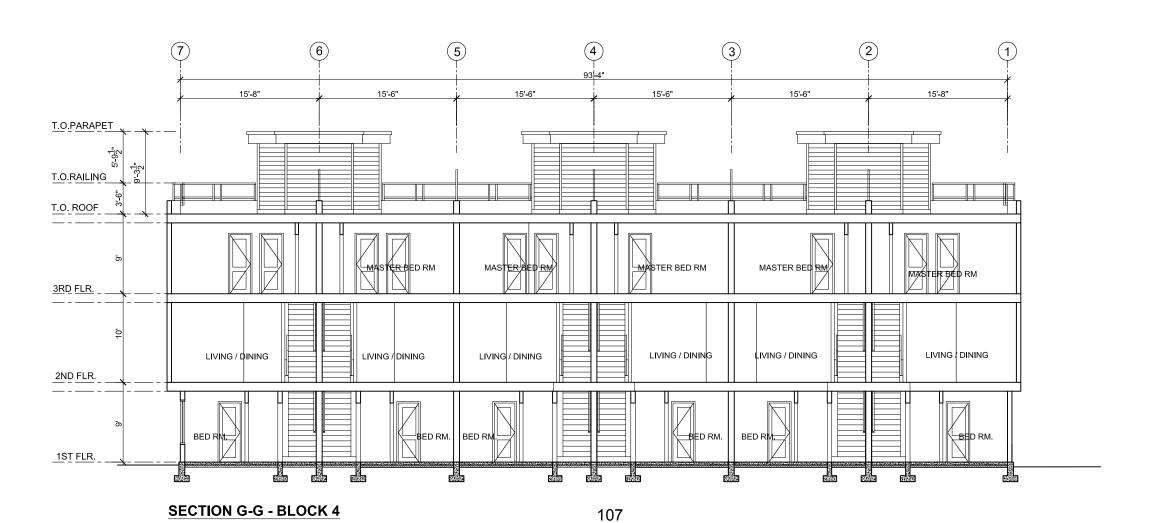
QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 3 SECTIONS E-E & F-F

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	A 4 2
DRAWN:	A.A.	A-4.3
PROJECT NO	D: 1706	







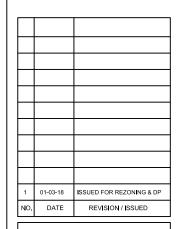
F. ADAB **ARCHITECTS** INC.

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PROJECT TITLE:

26 UNIT TOWNHOUSE DEVELOPMENT

19608-19618-19630-19642 56 AVENUE, LANGLEY

QUADSTAR DEVELOPMENT LTD. 1040 MADORE AVE COQUITLAM, B.C. V3K 3B8

DRAWING TITLE:

BLOCK 4 SECTIONS G-G & H-H

DATE:	NOV 2017	SHEET NO:
SCALE:	NTS.	
DESIGN:	A.A.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
DRAWN:	A.A.	H-4.4
PROJECT NO	: 1706	

TREE SCHEDULE M2 JOB NUMBER: 17087 PLANTED SIZE / REMARKS KEY QTY BOTANICAL NAME COMMON NAME CHAMAECYPARIS NOOTKATENSIS NOOTKA CYPRESS 2.5M HT; B&B CORNUS FLORIDA 'RUBRA' PINK FLOWERING DOGWOOD 6CM CAL; B&B LIQUIDAMBAR STYRACIFLUA 'ARNOLD' COLUMNAR SWEET GUM TCM CAL; I.8M STD; B&B PRUNUS X YEDOENSIS 'AKEBONO' AKEBONO CHERRY 6CM CAL; B&B; I.8OM STD JAPANESE SNOWBELL 3M; B&B STYRAX JAPONICUS NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER

CNTA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS, * SEARCH AND REVIEW: MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS: OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL, UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY.

ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY. PROVIDE CERTIFICATION UPON REQUEST.

9

56 AVENUE



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3	JAN.01.26	REV AS PER NEW SITE PLAN	BN
2	JAN.3.2018	REVISED PER CPTED REPORT	PM
-1	DEC.13.2017	PRELIMINARY PLAN	BN
NO.	DATE	REVISION DESCRIPTION	DR.

PROJECT:

26 TOWNHOUSE DEVELOPMENT

196 STREET & 56 AVENUE LANGLEY, BC

DRAWING TITLE:

LANDSCAPE PLAN

DATE:	DEC.13, 2017	DRAWING NUMBER:
SCALE:	3/32"=1'-0"	
DRAWN:	BN	
DESIGN:	BN	- w
CHK'D:	MLTM) OF

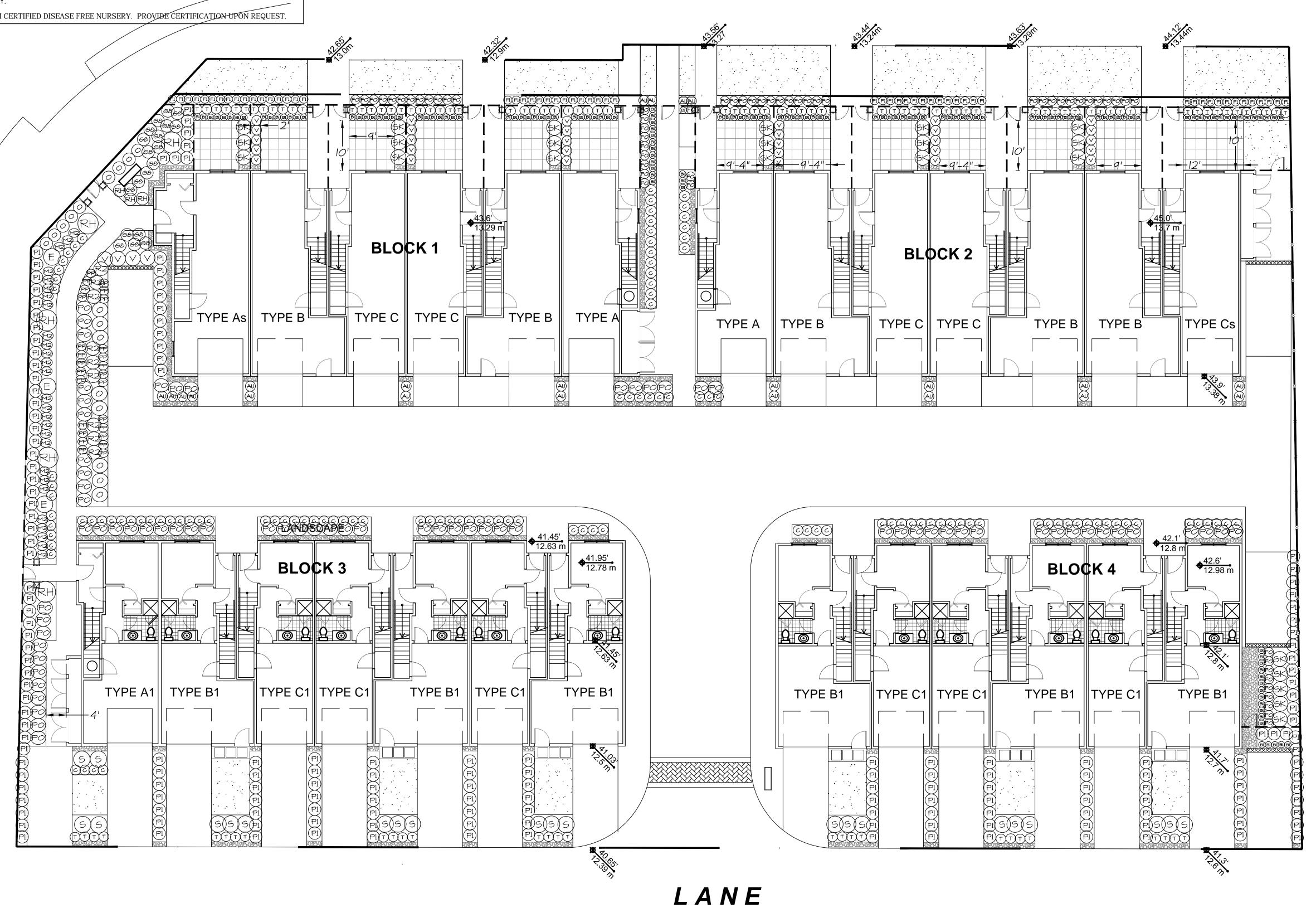
JOB NO. 17 087

56 AVENUE

APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BE LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY.

ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY. PROVIDE CERTIFICATION UPON REQUEST.

9



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3 JAN.OI.26 REV AS PER NEW SITE PLAN 2 JAN.3.2018 REVISED PER CPTED REPORT PMT
1 DEC.13.2017 PRELIMINARY PLAN BN NO. DATE REVISION DESCRIPTION

SEAL:

PROJECT:

26 TOWNHOUSE **DEVELOPMENT**

196 STREET & 56 AVENUE LANGLEY, BC

DRAWING TITLE:

SHRUB PLAN

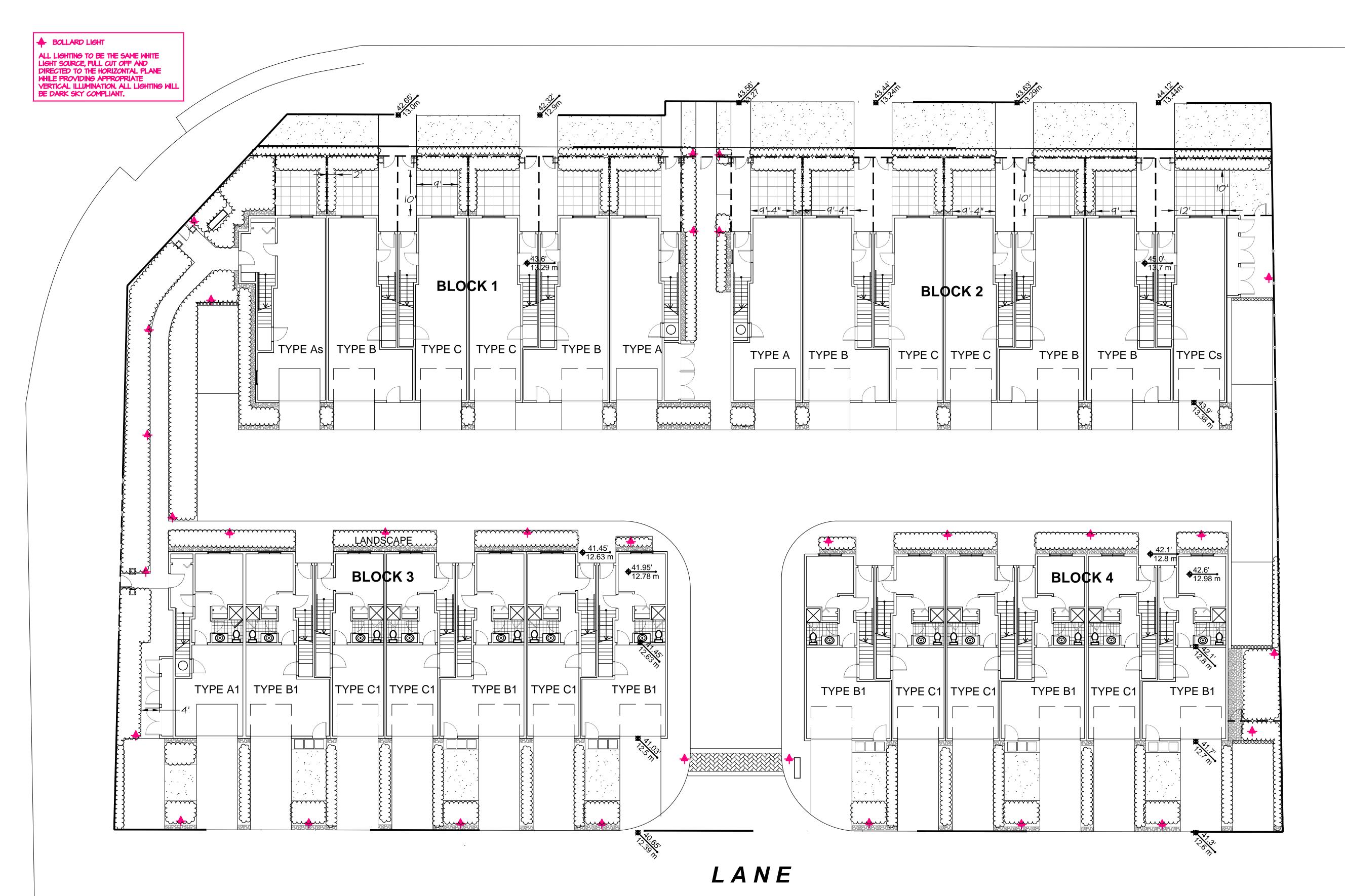
DEC.13, 2017 DRAWING NUMBER: SCALE: 3/32"=1'-0" DRAWN: *BN* DESIGN: BN CHK'D: MLTM

M2LA PROJECT NUMBER: 17087-05.zip

JOB NO. 17 087

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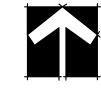
56 AVENUE



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3	JAN.01.26	REV AS PER NEW SITE PLAN	BN
2	JAN.3.2018	REVISED PER CPTED REPORT	PMT
1	DEC.13.2017	PRELIMINARY PLAN	BN
NO.	DATE	REVISION DESCRIPTION	DR.

SEAL:

PROJECT:

26 TOWNHOUSE DEVELOPMENT

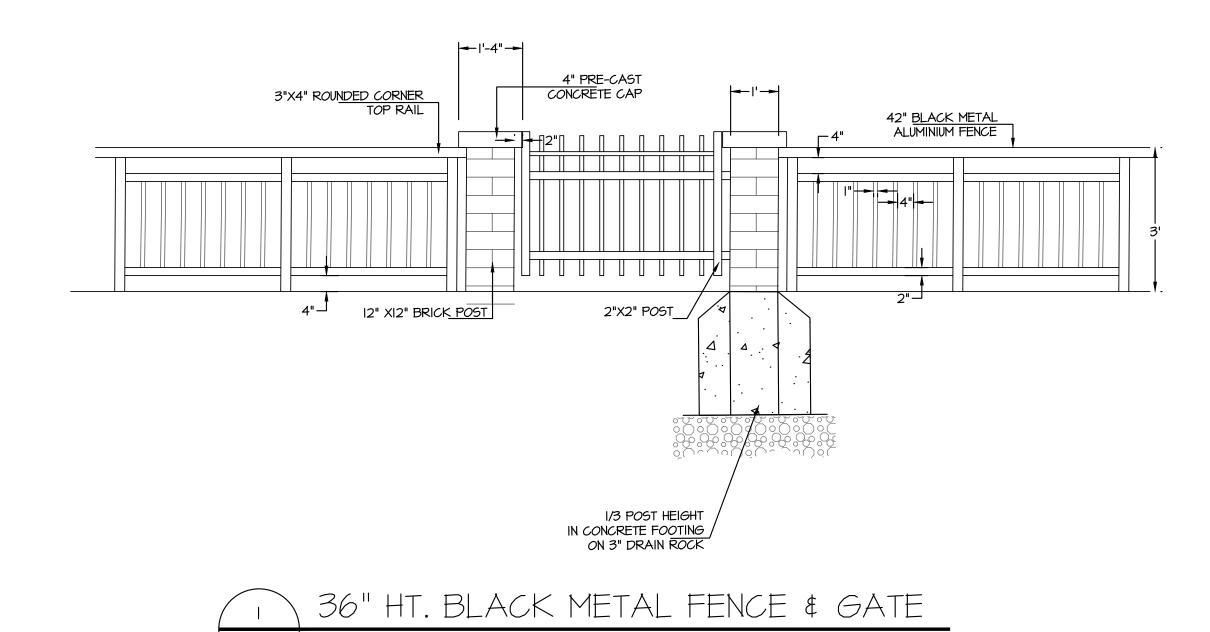
196 STREET & 56 AVENUE LANGLEY, BC

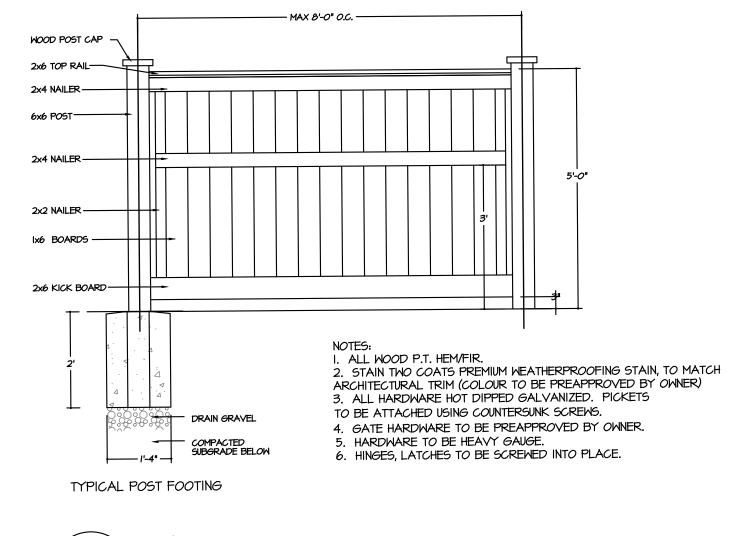
DRAWING TITLE:

LIGHTING PLAN

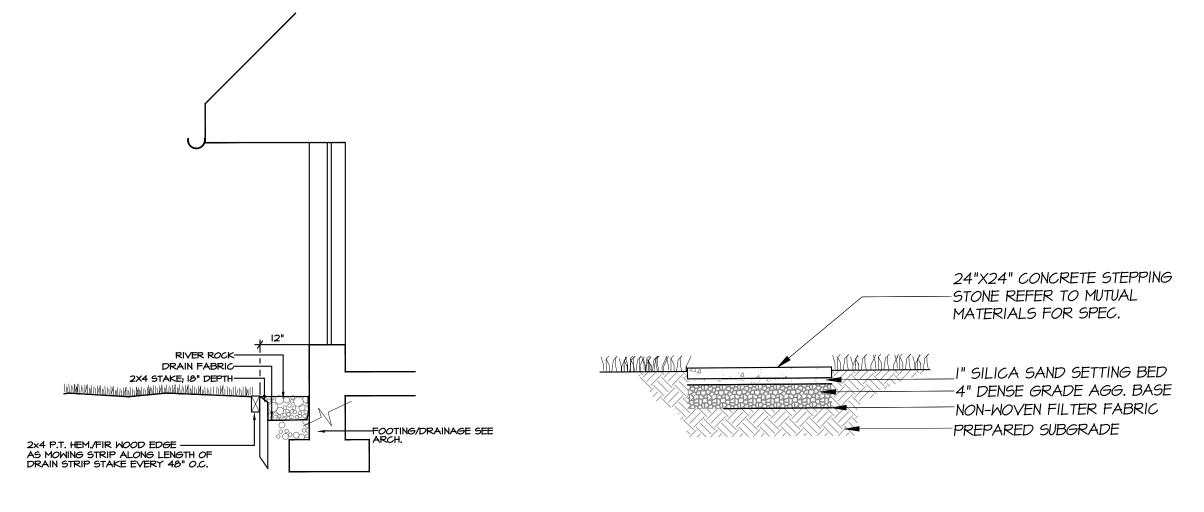
DEC.13, 2017 DRAWING NUMBER: SCALE: 3/32"=1'-0" DRAWN: *BN* DESIGN: *BN* CHK'D: MLTM

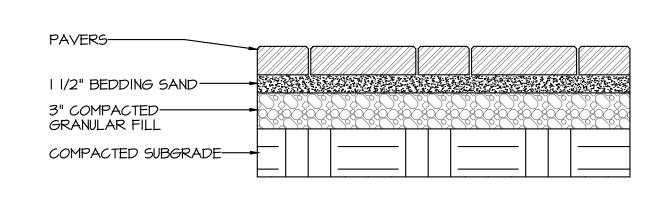
M2LA PROJECT NUMBER: JOB NO. 17 087





5' HT. WOOD PERIMETER FENCE SCALE : 1/2"= 1'-0"





PAVERS TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS USE HOLLAND PAVERS-COLOUR TO BE SELECTED ALL COMPACTION TO 98% PROCTOR DENSITY



SCALE : 1/2"= 1'-0"

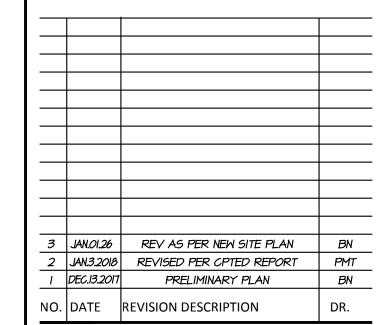




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SEAL:

PROJECT:

26 TOWNHOUSE **DEVELOPMENT**

196 STREET & 56 AVENUE LANGLEY, BC

DRAWING TITLE:

LANDSCAPE **DETAILS**

DATE: *DEC.13, 2017* DRAWING NUMBER: SCALE: AS SHOWN DRAWN: *BN*

DESIGN: *BN* CHK'D: MLTM

M2LA PROJECT NUMBER:

JOB NO. 17 087

17087-05.zip

PART ONE GENERAL REQUIREMENTS PART THREE SOFT LANDSCAPE DEVELOPMENT PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT 3.1 RETENTION OF EXISTING TREES 1.1 REFERENCES .8 Application Rate: .1 Prior to any work on site - protect individual trees or plant groupings indicated as retained on landscape plans as vegetation retention areas. .8.1 Seed Mixture: 136 kg/ha (125 lbs/acre) .1 CCDC Doc 2 LATEST EDITION .1.1 In some instances the Landscape Architect will tag trees or areas to remain. Discuss tree retention areas at a start-up meeting with the Landscape Architect. Comply with all articles in the General Conditions of Contract in conjunction with this section unless superseded by other Contract Documents .2 A physical barrier must be installed to delineate clearing boundaries. Refer to physical barrier detail. If detail not provided, comply with local municipal requireme .2 B.C. Landscape Standard, LATEST EDITION, prepared by the B.C. Society of Landscape Architects and the B.C. Landscape & Nursery Association, jointly. All work and materials shall meet standards as set out in the B.C. Landscape Standard unless superseded by this specification or as directed by Landscape Architect with written instruction. .3 No machine travel through or within vegetation retention areas or under crowns of trees to be retained is allowed. .3 MASTER MUNICIPAL SPECIFICATIONS & STANDARD DETAILS, LATEST EDITION, prepared by the Consulting Engineers of British Columbia, Roadbuilders and Heavy Construction .4 Do not stockpile soil, construction materials, or excavated materials within vegetation retention areas. .5 Do not park, fuel or service vehicles within vegetation retention areas. .4 STANDARD FOR LANDSCAPE IRRIGATION SYSTEM, LATEST EDITION: Prepared by the Irrigation Industry Association of British Columbia. .6 No debris fires, clearing fires or trash burning shall be permitted within vegetation retention areas. .5 MUNICIPAL BYLAWS AND ENGINEERING SPECIFICATIONS WHERE NOTED. .7 No excavations, drain or service trenches nor any other disruption shall be permitted within vegetation retention areas without a review of the proposed encroach 1.2 TESTING .1 A current (not more than one month) test for all growing medium to be used on this site is required. Provide and pay for testing by an independent testing facility .8 Do not cut branches or roots of retained trees without the approval of the Landscape Architect pre-approved by the Landscape Architect. Deliver growing medium test results to Landscape Architect for review and approval prior to placement. Refer to Section 3.4 Growing Medium Testing for procedure .9 Any damage to existing vegetation intended for preservation will be subject to evaluation by an I.S.A. Certified Arborist using the "Guide for Plant Appraisal", LATI .2 Owner reserves the right to test or re-test materials. Contractor responsible to pay for testing if materials do not meet specification. .9.1 Replacement planting of equivalent value to the disturbance will be required. The cost of the evaluation and of the replacement planting will be the responsibility General Contractor and or the person(s) responsible for the disturbance. .3 SUBMITTALS .1 Any alternate products differing from that contained in the contract documents must be pre-approved by the Landscape Architect. .10 In municipalities with specific tree retention/replacement bylaws ensure compliance to bylaws .2 Submittals to consist of product sample or manufacturer's product description. .11 In situations where required construction may disturb existing vegetation intended for preservation, contact Landscape Architect for review prior to commencing 1.4 SITE REVIEW .1 Under the terms of the Landscape Architect's Contract with the Owner and where the Landscape Architect is the designated reviewer, the Landscape Architect will observe .1 Ensure subgrade is prepared to conform to depths specified in Section 3.5, Growing Medium Supply, below. Where planting is indicated close to existing trees, prepared construction as is necessary in their opinion to confirm conformance to the plans and specifications. Contact Owners Representative to arrange for site observation at the suitable planting pockets for material indicated on the planting plan. Shape subgrade to eliminate free standing water and conform to the site grading and drainage planting p appropriate times. Allow two days notice. Observation schedule may include but will not be limited to the following: 1.1 Start Up Site Meeting, General Contract: Prior to any site disturbance, a meeting with the general contractor to review tree preservation issues, general landscape issues. .2 On slopes in excess of 3:1 trench subgrade across slope to 150mm (6") minimum at 1.5m (5 ft.) intervals minimum. .1.2 Start Up Site Meeting, Landscape Contract (if separate): At the start of work with Owner's Representative, Site Superintendent and Landscape Contractor; a meeting is to 3 Scarify the entire subgrade immediately prior to placing growing medium. Re-cultivate where vehicular traffic results in compaction during the construction proced be held to review expected work and to verify the acceptability of the subgrade and general site conditions to the Landscape Contractor. Provide growing medium test results Ensure that all planting areas are smoothly contoured after light compaction to finished grades .1.3 Progress Site Visits: To observe materials and workmanship as necessary through the course of the work. Review of different aspects of the work may be dealt with on Eliminate standing water from all finished grades. Provide a smooth, firm and even surface and conform to grades shown on the Landscape Drawings. Do not exce any single visit. Such elements may include: Site Layout, Rough Grading, Growing Medium - quality, depths, finish grading; Drainage and Drainage Materials; Lawns or Grass areas; maximum and minimum gradients defined by the B.C. Landscape Standard. Planting -plant material including negotiations with suppliers, nursery inspections, plant sizes, quality, quantity, planting practice and layout, tree support; Mulch; Irrigation Systems; Play Equipment; Site Furniture; and other elements of the site development where the Landscape Architect is the designated reviewer such as: Pedestrian Paving, .5 Construct swales true to line and grade, smooth and free of sags or high points. Minimum slope 2%, maximum side slopes 10%. Assure positive drainage to collection Fencing, Non-structural walls and slabs, Unit Paving. 1.4 Substantial Performance: Review of all work, accounting of all substitutions, deletions; plant counts, preparations of deficiency list, and recommendations for completion. .6 Slope not to exceed the following maximums: Rough Grass 3:1, Lawn 4:1, Landscape plantings 2:1. .1.5 Certificate of Completion: Upon the declaration of Substantial Performance, a recommendation for the issuance of the Certificate of Completion will be made to the Payment Certifier as defined in the contract. .7 Finished soil/mulch elevation at building to comply with municipal requirements. .1.6 Deficiency Review: Prior to the completion of the holdback period, check for completion of deficiencies. Once completed, a Schedule 'C' will be issed where required. .1.7 Warranty Review: Prior to the completion of the waranty period (+/- 11 months after issuance of the Certificate of Completion), review all waranty material and report .8 Inform Landscape Architect of completion of finish grade prior to placement of seed, sod, plants or mulch. recommendations for waranty replacement 3 LANDSCAPE DRAINAGE .5 WORKMANSHIP .1 Related Work: Growing medium and Finish Grading, Grass areas, Trees Shrubs and Groundcovers, Planters, Crib Walls. .1 Unless otherwise instructed in the Contract Documents, the preparation of the subgrade shall be the responsibility of the General Contractor. Placement of growing medium constitutes acceptance of the subgrade by the Landscape Contractor. Any subsequent corrections to the subgrade required are the responsibility of the Landscape Contractor. .2 Work Included: Site finish grading and surface drainage. Installation of any drainage systems detailed on landscape plans. Note: Catch basins shown on landscape coordination only, confirm scope of work prior to bid. .2 All work and superintendence shall be performed by personnel skilled in landscape contracting. In addition, all personnel applying herbicides and/or pesticides shall hold a 2.1 Coordinate all landscape drainage work with rest of site drainage, Refer to engineering drawings and specifications for connections and other drainage work. current license issued by the appropriate authorities. 2.2 Determine exact location of all existing utilities and structures and underground utilities prior to commencing work, which may not be located on drawings and conc so as to prevent interruption of service or damage to them. Protect existing structures and utility services and be responsible for damage caused. .3 A site visit is required to become familiar with site conditions before bidding and before start of work. .2.3 Planter drains on slab: Refer to Section 3.10, Installing Landscapes on Structures. .4 Confirm location of all services before proceeding with any work. .3.1 Do trenching and backfilling in accordance with engineering details and specifications. .5 Notify Landscape Architect of any discrepancies. Obtain approval from Landscape Architect prior to deviating from the plans. .3.2 Lay drains on prepared bed, true to line and grade with inverts smooth and free of sags or high points. Ensure barrel of each pipe is in contact with bed through .6 Take appropriate measures to avoid environmental damage. Do not dump any waste materials into water bodies. Conform with all federal, provincial and local statutes and .3.3 Commence laying pipe at outlet and proceed in upstream direction .3.4 Lay perforated pipes with perforations at 8pm and 4pm positions .3.5 Make joints tight in accordance with manufacturer's directions. .7 Collect and dispose of all debris and/or excess material from landscape operations. Keep paved surfaces clean and repair damage resulting from landscape work. Repairs 3.6 Do not allow water to flow through the pipes during construction except as approved by Engineer. are to be completed prior to final acceptance. 3.7 Make watertight connections to existing drains, new or existing manholes or catchbasins where indicated or as directed by Landscape Architect. .3.8 Plug upstream ends of pipe with watertight clean out caps. .8 Where new work connects with existing, and where existing work is altered, make good to match existing undisturbed condition. 3.9 Surround and cover pipe with drain rock in uniform 150mm layers to various depths as shown in details, minimum 100mm. .3.10 Cover drain rock with non-woven filter cloth lap all edges and seams minimum 150mm Assure positive drainage. .3.12 Back fill remainder of trench as indicated. .3.13 Protect subdrains from floatation during installation. .1 Guarantee all materials and workmanship for a minimum period of one full year from the date of Certificate of Completion. 4 GROWING MEDIUM TESTING .2 Refer to individual sections for specific warranties. .1 Submit representative sample of growing medium proposed for use on this project to an independent laboratory. Provide test results to Landscape Architect prior placing. Test results to include: PART TWO SCOPE OF WORK 1.1 Physical properties % content of gravel sand silt clay and organics .1.2 Acidity PH and quantities of lime or sulphur required to bring within specified range. .1.3 Nutrient levels of principle and trace elements and recommendations for required soil amendments. 2.1 SCOPE OF WORK .1.4 Carbon/Nitrogen level. .1 Other conditions of Contract may apply. Confirm Scope of Work at time of tender. .5 GROWING MEDIUM SUPPLY AND PLACEMENT .1 Supply all growing medium required for the performance of the Contract. Do not load, transport or spread growing medium when it is so wet that its structure is li .2 Work includes supply of all related items and performing all operations necessary to complete the work in accordance with the drawings and specifications and generally 2 Supply all growing medium admixtures as required by the soil test. Amended growing medium must meet the specification for growing medium as defined in Table On 1 Retention of Existing Trees where shown on drawings. .2 Finish Grading and Landscape Drainage. .2.1 Thoroughly mix required amendments into the full depth of the growing medium. 3 Supply and placement of growing mediun 2.2 Special mixes may be required for various situations. Refer to drawing notes for instructions. Testing of imported growing medium and/or site topsoil, 5 Supply and incorporation of additives to meet requirements of soil test and Table One. .3 Place the amended growing medium in all grass and planting areas. Spread growing medium in uniform layers not exceeding 6" (150mm), over unfrozen subgrade free .6 Preparation of planting beds, supply of plant material and planting .7 Preparation of rough grass areas, supply of materials and seeding 2.8 Preparation of lawn areas, supply of materials and sodding. .4 Minimum depths of growing medium placed and compacted to 80%: .2.9 Supply and placement of bark mulch. .4.1 On-grade: .2.10 Maintenance of planted and seeded/sodded areas until accepted by Owner. .4.1.1 Seeded and sodded lawn..... .2.11 SEPARATE PRICE: Establishment Maintenance, Section 3.11. .4.1.2 Mass planted shrubs & groundcovers......15" (400mm) .2.12 Other work: Work other than this list, not specified by Landscape Architec .4.1.3 Groundcover only areas, if defined on plan......9" (225mm)depth to conform to depth of rootball – width shall be at least twice the width of the root ball with saucer sh .4.1.4 Tree & large shrub pits..... .2 MATERIALS .4.2 On-Slab: .1 Growing Medium: Conform to BC Landscape Standard for definitions of imported and on-site topsoil. Refer to Table One below.9" (210mm) .4.2.1 Irrigated lawn.... TABLE ONE: PROPERTIES OF GROWING MEDIUM FOR LEVEL 2 GROOMED AND LEVEL 3 MODERATE AREAS .4.2.2 Groundcover areas.....12" (300mm) Canadian System of Soil Classification Textural Class: "Loamy Sand" to "Sandy Loam". .4.2.3 Lawn without automatic irrigation.....12" (300mm) .4.2.4 Shrub & groundcover areas..... Low Traffic Areas30" (760mm) over columns and/or edge of slab (verify column locations on-site for tree locations.) .4.2.5 Trees and specimen shrubs×....... Trees and Large Shrubs Lawn Areas and Planters .4.2.6 Depth noted includes 1" to 2" (25-50mm) sand over filter fabric Growing Medium Types 2L I 2H .4.2.7 Maximum 18" depth growing medium except where mounded for trees over column points. Percent Of Dry Weight of Total Growing Medium .5 Manually spread growing medium/planting soil around existing trees, shrubs and obstacles Coarse Gravel: 0 - 1% 0 - 1% 0 - 1% larger than 25mm .6 In perimeter seeded grass areas, feather growing medium out to nothing at edges and blend into existing grades. 0 - 5% 0 - 5% 0 - 5% larger than 2mm .7 Finished grades shall conform to the elevations shown on landscape and site plans Percent Of Dry Weight of Growing Medium Excluding Gravel .6 ROUGH GRASS AREA – SEEDING .1 General: Rough grass areas are noted on the drawings as "Rough Grass". Treat all areas defined as rough grass between all property lines of the project includin larger than 0.05mm 40 - 80% boulevards to edge of roads and lanes. smaller than 2.0mm Preparation of Surfaces: To B.C. Landscape Standard Class 3 Areas (Rough grass) Section 7.1.1.3 larger than 0.002mm 0 - 15% 10 - 25% 10 - 25% .2.1 Clean existing soil by mechanical means of debris over 50mm in any dimension. Roughly grade surfaces to allow for maintenance specified and for positive drainage smaller than 0.05mm 0 - 25% 0 - 15% 0 - 25% 3 Time of Seeding: Seed from early spring (generally April 1st) to late fall (September 15th) of each year. Further extensions may be obtained on concurrence of the smaller than 0.002mm Clay and Silt Combined maximum 35% maximum 15% maximum 35% 4 Seed Supply & Testing: All seed must be obtained from a recognized seed supplier and shall be No. 1 grass mixture delivered in containers bearing the following inf Organic Content (coast): 3 - 10% 3 - 5% 10 - 20% 3 - 5% 3 - 5% 15 - 20% 4.2 Percentage of each seed type Organic Content (interior): 6.0 - 7.0 6.0 - 7.04.5 - 6.5 Acidity (pH): Seed Mixture: All varieties shall be rated as strong performers in the Pacific Northwest and are subject to client approval. 70% Creeping Red Fescue Percolation shall be such that no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation. 20% Annual Rye 5% Saturn Perennial Rye .2 Fertilizer: An organic and/or inorganic compound containing Nitrogen (N), Phosphate (25), and Potash (soluble 2) in proportions required by soil test. 5% Kentucky Bluegrass For Wildflower Areas use a mixture of Wildflowers with Hard Fescues (Terralink Coastal Wildflowers) with Hard Fescue or pre-approved alternate. .3 Lime: Ground agricultural limestone. Meet requirements of the B.C. Landscape Standard. .6 Fertilizer: Mechanical seeding: Apply a complete synthetic slow-release fertilizer with maximum 35% water soluble nitrogen and a formulation ratio of 18-18-18 - 50 .4 Organic Additive: Commercial compost product to the requirements of the B.C. Landscape Standard, LATEST EDITION and pre-approved by the Landscape Architect. sulphur urea coated , 112 kg/ha(100lbs/acre) using a mechanical spreade Recommended suppliers: Yardworks, The Answer Garden Products, Fraser Richmond Soils & Fibre, Stream Organics Management. 7 Seeding: Apply seed at a rate of 112k/H (100lbs /acre) with a mechanical spreader. Incorporate seed into the top 1/4" (6mm) of soil and lightly compact. .5 Sand: Clean, washed pump sand to meet requirements of the B.C. Landscape Standard. .8 Acceptance: Provide adequete protection of the seeded areas until conditions of acceptance have been met. Comply with Section 3.7 Hydroseeding. .6 Composted Bark Mulch: 10mm (3/8") minus Fir/Hemlock bark chips and fines, free of chunks and sticks, dark brown in colour and free of all soil, stones, roots or other extraneous matter. Fresh orange in colour bark will be rejected. .1 May be used as an alternate to mechanical seeding in rough grass areas. .7 Herbicides and Pesticides: If used, must conform to all federal, provincial and local statutes. Appliers must hold current licenses issued by the appropriate authorities in .2 May not be used in areas of lawn unless pre-approved by the Landscape Architect prior to bidding .8 Filter Fabric: A non biodegradable blanket or other filtering membrane that will allow the passage of water but not fine soil particles. (Such as MIRAFI 140 NL, GEOLON N40 .17.4 Plant material which fails to survive shall be replaced in the next appropriate season as determined by the Landscape Architect. Preparation and Growing Medium OR AMOCO 4545 or alternate product pre-approved by the Landscape Architect.) .17.5 Repair tree guards, stakes, and guy wires, when necessar .3.1 In areas of Rough Grass: Comply with Section 3.6 Rough Grass. .17.6 Maintain areas relatively weed free. (Appearance level 2, B.C. Landscape Standard, Chapter 13). .3.2 Where approved for use in areas of lawn, comply with Section 3.8 Lawn Areas: Sodding. .9 Drainage Piping if required: Schedule 40 PVC nominal sizes. .17.7 Maintain mulch to specified depths. 4. Protection: Ensure that fertilizer in solution does not come in contact with the foliage of any trees, shrubs, or other susceptible vegetation. Do not spray seed or mulch on

objects not expected to grow grass. Protect existing site equipment, roadways, landscaping, reference points, monuments, markers and structures from damage. Where

.7 Equipment: Use industry standard hydraulic seeder/mulcher equipment with the tank volume certified by an identification plate or sticker affixed in plain view on the

equipment. The hydraulic seeder/mulcher shall be capable of sufficient agitation to mix the material into a homogenous slurry and to maintain the slurry in a homogenous state

5 Mulch shall consist of virgin wood fibre or recycled paper fibre designed for hydraulic seeding and dyed for ease of monitoring application. If using recycled paper material

contamination occurs, remove seeding slurry to satisfaction of and by means approved by the Landscape Architect

.6 Water: Shall be free of any impurities that may have an injurious effect on the success of seeding or may be harmful to the environment.

until it is applied. The discharge pumps and gun nozzles shall be capable of applying the materials uniformly over the designated area.

for wood fibre substitute use 135% (by weight). Conform to B.C. Landscape Standard for mulch requirements

.10 Drain Rock: Clean, round, inert, durable, and have a maximum size of 19mm and containing no material smaller than 10mm.

.14 Miscellaneous: Any other material necessary to complete the project as shown on the drawings and described herein.

nursery. Provide proof of certification.

.12 Sod: Refer to individual sections in this specification.

.11 Plant Material: To the requirements of the B.C. Landscape Standard. Refer to 3.9, Plants and Planting. All plant material must be provided from a certified disease free

.13 Supplier and installers of segmental block walls to provide engineered drawings for all walls: signed and sealed drawings for all walls, individually, in excess of 1.2m, or

combinations of walls collectively in excess of 1.2m. Installations must be reviewed and signed off by Certified Professional Engineer; inloude cost of engineering services in

ients.	 8.1 Seed Mixture: 136 kg/ha (125 lbs/acre) 8.2 Fertilizer: 112 kg/ha (100 lbs/acre) 8.3 Coastal Wildflower Mix: Where specified, apply (31 lbs/acre) (1/4 lb.: 1 lb. of grass seed) 8.4 Notes: 8.4.1 At the time of Tender provide a complete chart of all components of the mix proposed including mulch, tackifier, water etc. Sloped sites require tackifier. 8.4.2 Fertilizer: 8.4.2.1 Rough Grass: If a soil analysis is available, comply with results. 8.4.2.2 Lawn: Where hydroseeding is approved, comply with soil analysis recommendations. 9 Accurately measure the quantities of each of the materials to be charged into the tank either by mass or by a commonly accepted system of mass-calibrated volume 			
chment by	measurements. After charging,	measure the quantities of each of the materials to be charged into the materials shall be added to the tank while it is being filled would no water or other material to the mixture. Do not leave slur slurry uniformly over the surface of the area to be hydroseeded	ith water, in the following sequence; seed, ry in the tank for more than four (4) hours	fertilizer. Thoroughly mix into a homogenous slurry. s.
	.11 Clean up: 1	Remove all materials and other debris resulting from seeding oper	rations from the job site.	
ATEST	intervals where	ce: Begin maintenance immediately after seeding and continue for e germination has failed. Protect seeded areas from damage with t in sufficient quantities to ensure deep penetration and at frequen	emporary wire or twine fences complete w	ith signage until grass area is taken over by the
ity of the	responsibility t .13 Acceptanc well establishe	o supply water at no extra cost to the Contract. e of the Rough Grass Areas: Proper germination of all specified o d, with no apparent dead or bare spots and shall be reasonably fr	grass species is the responsibility of the L ee of weeds (to B.C. Landscape Standard,	andscape Contractor. The grass shall be reasonably Section 13 Maintenance Level 4 (Open space). Sixty
9		stantial completion, areas meeting the conditions above will be tak , provided that the above conditions for acceptance are fulfilled.	en over by the Owner. Areas seeded in Fa	all will be accepted in Spring one month after start of
epare plan.	.1 General: Ti	reat all areas defined as lawn areas on the landscape plan betwee dium: Comply with Section 2.2.1, Growing Medium. Prior to sodding		•
edures.	Landscape Arch .3 Time of Soc	nitect. dding: Sod from April 1st to October 1st. Further extensions may	be obtained on concurrence of the Landsc	ape Architect.
ceed		c: Conform to all conditions of B.C. Landscape Standard, Section 8,		
ction points.		urfgrass by area: Refer to Table 2 below.		
Tion points.	TABLE 2 SPE	CIFIED TURFGRASS BY AREA Description	Quality Grade	Major Species
	CLASS 1 CLASS 2 CLASS 3 SPECIAL	Lawn, all areas noted on drawings as lawn in urban development sites including boulevard grass Grass – public parks, industrial and institutional sites Rough Grass	No. 1 Premium No. 2 Standard see hydroseeding	Kentucky Blue for sun, Fescues for shade same
e plans for		lime shall be as defined in Section 2.2.3, Materials. Apply at rates	·	
onduct work		's prior to sodding. Apply separately from lime. repare a smooth, firm, even surface for laying sod. Lay sod stagg	ered with sections closely butted without	overlanning or gans smooth and even with adjoining
		ightly. Water to obtain moisture penetration of 3" to 4" (7 – 10cm		
ghout full	from damage wi intervals neces until the turf h through the soo	e: Begin maintenance immediately after sodding and continue for the temporary wire or twine fences complete with signage until law sary to maintain sufficient growth. Keep grass cut at height of be as been taken over by Owner. Repair any damaged areas, re-graced base medium is impaired. e of Lawn Areas: The turf shall be reasonably well established, well be the stablished, we of Lawn Areas.	n is taken over by the Owner. Water to ob etween 1-1/2" (4cm) and 2" (5cm). Provide le as necessary. Aeration may be required	tain moisture penetration of 3" to 4" (7–10cm) at adequate protection of sodded areas against damage I if in the Landscape Architect's opinion, drainage
		ndard, Section 13 Maintenance Level 2 (Appearance). Use herbicide out at least twice, areas meeting the conditions above will be take		her conditions of contract forbid their use. After th
	3.9 PLANTS AND PL .1 Conform to	ANTING planting layout as shown on Landscape Plans.		
ior to	.2 Obtain appr	roval of Landscape Architect for layout and preparation of plantii	ng prior to commencement of planting oper	ations.
	.4 Time of Pla	of beds with smooth clean defined lines. anting: es, shrubs and groundcovers only during periods that are normal !	for such work as determined by local weat	her conditions when seasonal conditions are likely to
likely to be	ensure success .5 Standards:	ful adaptation of plants to their new location.		
One for the	.5.1 All plant of the control of the	material shall conform to the requirements of the B.C. Landscape B.C. Landscape Standard, Section 9, Plants and Planting and in Se o Plant Schedule for specific plant and container sizes and comply terial obtained from areas with less severe climatic conditions sha	ection 12, BCLNA Standard for Container Go with requirements.	
ree of	.6 Review: .6.1 Review at .7 Availability	the source of supply and/or collection point does not prevent su	bsequent rejection of any or all planting s	tock at the site.
	.7.2 Supply pr .8 Substitutio		ys of the award of the Contract.	
shaped	.8.2 Allow a m	itten approval of the Landscape Architect prior to making any sub inimum of 5 days prior to delivery for request to substitute. ions are subject to BC Landscape Standard – definition of Condition	•	approved substitutions will be rejected.
	.9.1 Plants sh above grade. .9.2 Plant all encountered.	all be true to name and of the height, calliper and size of root bal specified species in the location as shown on the landscape drawir of given planting location will only be allowed after review of the	ngs. Notify Landscape Architect if conflict	ing rock or underground/overhead services are
		n: d large shrubs: Excavate a saucer shaped tree pit to the depth of de the tree was grown at.	f the rootball and to at least twice the wid	Ith of the rootball. Assure that finished grade is at
	.11.1 Provide d to raise the roo	f Planting Holes: Irainage of planting pits where required. ie. on sloped conditions, b otball above impervious layer. Notify the Landscape Architect who		• • • • • • • • • • • • • • • • • • • •
ling all	.12.1 Plant all burlap from und wire.	nd Fertilizing Procedures: trees and shrubs with the roots placed in their natural growing p der the ball. Carefully remove containers without injuring the roo	tballs. After settled in place, cut twine. I	For wire baskets, clip and remove top three rows of
	grade. Leave n .12.3 Where p	lanting holes by gently firming the growing medium around the roo o air voids. When 2/3 of the topsoil has been placed, apply fertili lanting is indicated adjacent to existing trees, use special care to rees are in lawn areas, provide a clean cut mulched 900mm (3 ft.) o	zer as recommended by the required soil t avoid disturbance of the root system or n	est at the specified rates.
he Landscape		2"x2"x5' stakes, unless superseded by municipal requirements. Se	et stakes minimum 2 ft. in soil. Do not drive	e stake through rootball.
information:	.13.3 Tie with .13.4 Conifero .13.5 Trees 6	ne tree carefully vertical. pre-approved commercial, flat woven polypropylene fabric belt, m us Trees over 6 ft. height: Guy with three 2-strand wires (11 gau ft.+ on Wood or Concrete Decks: Guy as above using three deadm guy wires with visible flagging material.	ge). Drive three stakes equidistant around	I the tree completely below grade.
		ning to the minimum necessary to remove dead or injured branches cuts clean and cut to the branch collar leaving no stubs. Shape a		
- 50%	3 ft. (900mm) di	planting areas with an even layer of mulch to 2-1/2 - 3" (65 - 75) ameter circle around trees in lawn areas, leave a clean edge.	mm) depth. Confirm placement of mulch in a	areas labeled "Groundcover Area" on drawings. Mulch
	.16 Acceptanc .16.1 The esta	e: blishment of all plant material is the responsibility of the Landsca	ape Contractor.	
	.17.1 Maintain	erial Maintenance: all plant material for 60 days after landscape work has received ; a: Conform to B.C. Landscape Standard, Section 13.3.2 - Watering ;		
	.17.2.1 Water The Owner is re .17.3 Use appr	g: Conform to B.L. Landscape Standard, Section 13.3.2 - Watering of the soil moisture content esponsible to supply water at no extra cost to the Contract. Conforpriate measures to combat pests or diseases damaging plant material which fails to survive shall be replaced in the next appropr	t is kept to 50% to 100% of field capacity. Firm source of water prior to beginning wor Iterial. Comply with all local governing sta	k. tutes and guidelines for chemical control.

.18.1 Replace all unsatisfactory plant material except those designated "Specimen" for a period of one (1) year after the Certificate of Completion. Replace all unsatisfactory

.18.2 Those Plants, identified as hardy within one zone of the Canada Department of Agriculture tonal class for the area, specified by the Landscape Architect and installed by

18.3 A review may be requested during the latter part of the warranty growing season. All plant material showing well developed foliage, healthy growth and bud forming, will

plant material designated "Specimen" for a period of two (2) years after the Certificate of Completion. Replace all unsatisfactory trees and shrubs and continue to replace

these until the specified number is complete and satisfactory to the Landscape Architect. Such replacement shall be subject to the notification, inspection and approval as

the Landscape Contractor which are killed through below normal temperatures (below the average of the extreme minimum temperatures officially recorded in the area

specified for the original planting, and shall not constitute an extra to the Contract.

then be taken over.

concerned, in the last 10 years), will not be replaced without cost of replacement borne by the Owner.

the Certificate of Completion. .18.7 Deviation from the specifications may require extension of the Warranty Period as determined by the Landscape Architect. .2 Coordinate work with construction of planters and planter drainage. .8.5 Tree Support: Maintain stakes, guy wires and ties one full growing season. Check ties at least every two months to ensure that they are not causing a depression in the at no expense to the owner. Apply water to prevent packing or erosion of the soil. Apply water at a rate and duration so that the water content in the growing medium reaches

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT

.18.4 For all plant material, the Landscape Architect reserves the right to extend the Contractor's responsibility for another growing season if, in his opinion, leaf development and growth is not sufficient to ensure future satisfactory growth.

.18.5 Where the Owner is responsible for plant maintenance and has not provided adequate maintenance, the plant replacement section of the contract may be declared void. The Landscape Architect shall determine whether maintenance has been satisfactory using the B.C. Landscape Standard, Section 13, Maintenance as the guide. The required

maintenance standard is a minimum of Level Three - Medium. Refer to Section 3.11. Establishment Maintenance .18.6 The Landscape Contractor is responsible to replace any plant material or repair any construction included in the Contract that is damaged or stolen until the issuance of

3.10 INSTALLING LANDSCAPE ON STRUCTURES

.1 Verify that drainage and protection material is completely installed and acceptable before beginning work. Contact Landscape Architect for instructions if not in place.

.2.1 Verify that planter drains are in place and positive drainage to roof drains is present prior to placing any drain rock or soil.

.3 Provide clean out at all through-slab drain locations. Use 300mm min. dia. PVC Pipe filled with drain rock unless specific drawing detail shown.

.4 Install drain rock evenly to a minimum depth of 4" (100mm)or alternate sheet drain if specified. Install sheet drain as per manufacturer's recommendations.

.5 Cover drain rock (or alternate sheet drain if specified on drawing details) with filter fabric lapping 6" (150mm) at all edges. Obtain approval of drainage system prior to

.6 Place an even layer of 25 - 50mm clean washed pump sand over filter fabric.

.7 Place growing medium to depths specified in Section 3.5 above for various surface treatments. Refer to Drawing details for any light weight filler required to alter grade. Use Styrofoam block over drain rock shaped to provide smooth surface transition at edges. Butt each piece tightly together and cover with filter fabric to prevent soil from

3.11 ESTABLISHMENT MAINTENANCE (Provide a separate price for this section)

.1 Intent: The intent of "establishment" maintenance is to provide sufficient care to newly installed plant material for a relatively short period of time to ensure or increase the long term success of the planting. The objective is the adaptation of plants to a new site in order to obtain the desired effect from the planting while reducing the rate of failure and unnecessary work associated with improper establishment. Establishment of maintenance procedures apply to all new and retained vegetation including cultivated turforass areas and new trees and shrubs.

.2 Maintenance Period: Provide maintenance of installed landscaping for 12 months following substantial completion.

3 Related Standards and Legislation: B.C. Landscape Standard, latest edition; Fertilizer Code., B.C. Pesticide Control Act.

.4 Site Review: In addition to the inspections at substantial completion, at final progress draw application, and at the end of the guarantee period, there should be three other reviews during the 12 months attended by the Contractor and a designated representative of the Owner. Maintain a logbook and reporting procedures and submit to the

5 Scheduling: Prepare a schedule of anticipated visits and submit to designated representative at start-up. Maintenance operations shall be carried out predominately during the growing season between March 1st and November 30th, however visits at other times of the year may be required.

.6 Maintenance Level: Comply with B. C. Landscape Standard, Section 13, Table 7, Maintenance Level "Medium".

.7 Materials: Comply with Part Two of this specification. .7.1 Fertilizers: To the requirements of the B.C. Landscape Standard. Formulations and rates as required by soil testing.

.8.1 Watering: During the first growing season, water new plants at least every ten (10) days between April 1st and July 31st, and every twenty (20) days between August 1st and September 15th. Minimum 25 gallons per tree per application. During the second growing season, water new plants at least every twenty days between April 1 and July 31 and once between August 1st and September 31st. Apply water at a rate and duration such that the water content reaches field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity. Provide and irrigate with water in the event that any automatic irrigation system malfunctions or has not been completely installed. Scheduled applications of water shall be missed only when rainfall has penetrated the soil fully as required.

.8.2 Mulch: Maintain mulches in the original areas and to the original depths. .8.3 Weed Control: Remove all weeds from all areas at least once per month during the growing season by hoeing or cultivation to a maximum depth of 80mm, hand-pulling, or, if necessary, by the use of herbicides.

.8.4 Pest and Disease Control: Inspect all planted areas for pests and diseases periodically and at least every two months during the growing season by an experienced person. Carry out treatment for pests or diseases promptly and consistently for maximum effectiveness. Comply with all B.C. Pesticide Control Act and municipal requirements.

bark. Loosen, repair or replace ties as necessary. Remove all stakes guy wires and ties after the first growing season except where large trees require continuing support in the opinion of the Landscape Architect. All flagging of guy wires shall be visible and in good repair. .8.6 Pruning: Inspect all trees and shrubs at least every two months during the growing season; prune to remove all dead, weak or diseased wood. Maintain the natural shape

of the plant. Carry out clipping or shaping only if required in the maintenance contract for specific varieties or conditions .8.7 Fertilizing: Once during the twelve month period of establishment maintenance fertilize shrubs, trees and groundcovers according to soil analysis requirements.

.9.1 Watering: Use hoses and sprinklers, irrigation systems or other methods to apply water to Class 1 and Class 2 grassed areas (B.C. Landscape Standard, Section 7, Lawns and Grasses) such that the grass is maintained in a turgid condition. Supply and irrigate with water in the event of any irrigation system malfunction, or incomplete installation

field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity. .9.2 Weed, Insect and Disease Control: Inspect grass areas each time they are mowed for weeds, insect pests, and diseases and treat promptly when necessary by appropriate manual methods, or by the use of chemicals in compliance with the B.C.S.L.A./B.C.L.N.A. Landscape Standards latest edition. Kill broadleafed weeds in grassed areas by a general application of a suitable herbicide if the weed population exceeds 10 Broadleaf weeds or 50 annual weeds or weedy grasses per 40 square meters. This application shall reduce the weed population to zero.

.9.3 Fertilizing: According to soil analysis. .9.4 Liming According to soil analysis

.9.5 Mowing and Trimming – All areas: The first four cuts shall be a sharp rotary type mower. Excess grass clipping shall be removed after each cut. Mow all grassed areas with a sharp reel or rotary mower when the grass reaches a height of 60mm. Mow to a height of 40mm. Edge with a mechanical vertical cutting edger once per year in March. Remove all grass clippings after each cut.

.9.6 Aeration: Aeration not required in the first growing season. If necessary, in the second growing season, aerate in early May with a suitable mechanical corer. Core to a .9.7 Repairs: Re-grade, re-seed or re-sod when necessary to restore damaged or failing grass areas. Match the grass varieties in the surrounding area. Re-sod, if required,

DEC.13.2017

throughout the growing season. Re-seed between April 1st and April 15th or between September 1st and September 15th. Protect re-seeded areas and keep moist until the first

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#220 - 26 Lorne Mews New Westminster, British Columbia V3M 3L7 Tel: 604.553.0044 Fax: 604.553.0045 Email: office@m2la.com

3 JAN.OI.26 REV AS PER NEW SITE PLAN |JAN.3.2018| REVISED PER CPTED REPORT | PMT PRELIMINARY PLAN NO. DATE REVISION DESCRIPTION

SEAL:

PROJECT:

26 TOWNHOUSE **DEVELOPMENT**

196 STREET & 56 AVENUE LANGLEY. BC

DRAWING TITLE:

LANDSCAPE **SPECIFICATIONS**

DEC.13, 2017 DRAWING NUMBER DATE: SCALE: DRAWN: *BN* DESIGN: BN CHK'D: MLTM

M2LA PROJECT NUMBER:

17087-05.zip

JOB NO. 17 087

LANGLEY

CITY OF LANGLEY

REQUEST TO APPEAR AS A DELEGATION / COMMUNITY SPOTLIGHT

To appear before Council as a Delegation or Community Spotlight at a Council Meeting, please submit a written request to the Corporate Officer by 12:00 p.m. noon on the Wednesday prior to the scheduled Council Meeting. You may complete this form or provide a letter however please ensure the letter contains the information requested on this form. You can submit your request by email to pkusack@langleycity.ca, in person or by mail at City Hall (20399 Douglas Crescent, Langley BC V3A 4B3), or by fax at 604-514-2838. A staff member will contact you to confirm the meeting date at which you are scheduled to appear before Council.

Council meetings take place at 7:00 p.m. in the Council Chambers on the second floor of Langley City Hall. Delegations are defined as an individual, group of organization making a request of Council. A Community Spotlight is an individual, group or organization providing information or updates on an event or activity. Delegations are limited to a five (5) minute presentation and Community Spotlights are limited to a ten (10) minute presentation. You may speak on more than one (1) topic but you <u>must</u> keep your presentation within the prescribed time limit. Please attach any material that you wish Council to review in advance of the meeting to this form.

DATE: February 20, 2018 REQUESTED MEETING DATE: March 5, 2018

NAME: Sarah Ross, Director of System Planning

ORGANIZATION NAME: TransLink

ADDRESS: 287 Nelsons Court, New Westminster

TOPIC: Proposed Transit B-Line between Surrey and Langley

AUDIO/VISUAL NEEDS: yes

ACTION YOU WISH COUNCIL TO TAKE: None





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For Metro Vancouver meetings on Friday, February 23, 2018

Please note these are not the official minutes. Board in Brief is an informal summary. Material relating to any of the following items is available on request from Metro Vancouver. For more information, please contact Greg.Valou@metrovancouver.org or Kelly.Sinoski@metrovancouver.org

Metro Vancouver Regional District

Appointment of the 2018 Local Government Treaty Table Representatives to the **Katzie and Tsleil-Waututh Treaty Negotiations**

APPROVED

The Board made the following appointments:

- Councillor Barbara Steele, Surrey, local government treaty table representative to the Katzie negotiations for 2018
- Councillor Mary-Ann Booth, West Vancouver, local government treaty table representative to the Tsleil-Waututh negotiations for 2018

Appointment of Metro Vancouver's 2018 Representative to the UBCM Indigenous **Relations Committee**

APPROVED

The Board appointed Director Barbara Steele, Chair of Metro Vancouver's Aboriginal Relations Committee to the Union of British Columbia Municipalities' (UBCM) Indigenous Relations Committee for 2018.

Appointment of an Observer to the Fraser Valley Aboriginal Relations Committee Meetings for 2018

APPROVED

The Board appointed Councillor Bonita Zarillo, City of Coquitlam, as the Metro Vancouver Aboriginal Relations Committee observer to the Fraser Valley Aboriginal Relations Committee meetings for 2018.

Metro Vancouver's Representation at the 2018 National Aboriginal Day and **Related Events**

APPROVED

The Board approved Metro Vancouver's representation at the 2018 National Aboriginal Day event. Participation is consistent with the Aboriginal Relations Committee's terms of reference as well as the Board's plans and strategies.



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Quarterly Report on Reconciliation Activities

RECEIVED

The Board received for information a report that provides a quarterly update on reconciliation activities involving Metro Vancouver and local governments as per the Committee's recommendation and for members' information.

Metro Vancouver 2040: Shaping our Future Land Use Designation Amendment Request from the City of Surrey - Hazelmere

APPROVED

On October 23, 2017 the City of Surrey submitted a request to Metro Vancouver to amend the Metro 2040 land use designation map to accommodate a development proposal known as Hazelmere. The City proposed to create a 23.7 hectare (58.6 acre) non-contiguous expansion of the Metro 2040 Urban Containment Boundary, and to redesignate the component lands from Metro 2040 Rural to General Urban. The proposed amendment would allow for the development of a 145-lot urban single family residential subdivision, averaging a quarter-acre lot size, and extend the GVS&DD Fraser Sewerage Area to service the residential development into lands with a Rural regional land use designation.

In response to the City of Surrey's request to amend the regional land use designation for the Hazelmere site from Rural to General Urban and to extend the Urban Containment Boundary, the Board initiated the Metro 2040 minor amendment process and directed staff to prepare a bylaw to amend Metro 2040.

Follow Up to the Final Report on the North Shore Corridor Study Pilot: Marine -**Main Frequent Transit Corridor**

RECEIVED

RECEIVED

This report provides an overview of a recent multi-stakeholder study of potential transit service level options for the Marine-Main corridor. As a result of the consultant's analysis, the technical evaluation indicated that service with a blend of characteristics from B-Line Plus and BRT-Light was the best fit for the corridor given planning considerations, costs, and projected ridership demand.

The Board received the report for information and will send a letter to North Shore municipalities, TransLink, and the Squamish First Nation encouraging continued collaboration and consideration of early opportunities to phase in elements of a Bus Rapid Transit-Light service level along the Marine-Main corridor through B-Line implementation.

Shaping our Communities Engagement Initiative: Attitudes towards Agricultural and Industrial Land Use Survey Results

The Board received for information a report that conveys the results of the "Attitudes towards Agricultural and Industrial Land Use Survey," and has an update on the additional analysis conducted on the results of the "Shaping our Communities Engagement Initiative – Results of the Regional Survey on Residents Perspectives on What Makes Neighbourhoods Great."



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In 2017, two surveys were conducted as part of the Shaping our Communities Engagement Initiative. The first was on the topic of perceptions towards neighbourhood characteristics and transportation; results of this survey were presented to the Regional Planning Committee in July of 2017. The second survey was about public values towards, and awareness of, agricultural and industrial land use issues.

These survey results will be used to inform Metro Vancouver communication efforts and may be leveraged into future initiatives to educate the public about the benefits of protecting the supply of agricultural and industrial lands and the importance of the policies of Metro 2040. This report also contains a short update on the results of the first survey.

Agricultural Advisory Committee Terms of Reference – 2018 Update

APPROVED

The Board endorsed the updates to the Agricultural Advisory Committee Terms of Reference as described in the report. Several revisions to the AAC Terms of Reference are required to provide clarification on the terms of membership and overall management of the Committee.

2018 Regional District Sustainability Innovation Fund Applications

APPROVED

The Board approved the allocation from the Regional District Sustainability Innovation Fund for the following projects:

- LumiAir: Lighting your path to Clean Air: \$140,000 over two years starting in 2018. The purpose of the LumiAIR project is to develop a display that attracts the interest and engages the public in air quality, and use interactions to inform the public of air quality in their community in an innovative and engaging way.
- AirAware: Air Quality and Citizen Science: \$95,000 over two years starting in 2018. The purpose of the AirAware project is to conduct air quality monitoring using "next generation" air quality monitors by engaging the public ("citizen science" community) and partners, such as municipalities, health authorities and researchers, in their operation and deployment.

Visual Air Quality Management in the Lower Fraser Valley

RECEIVED

The Board received an update on visual air quality initiatives and a status report for the Lower Fraser Valley Visual Air Quality Pilot Project for the period 2015 to 2017, prepared by the inter-agency BC Visibility Coordinating Committee.

The Integrated Air Quality and Greenhouse Gas Management Plan provides direction to implement a visual air quality pilot project. This work has been led by the BC Visibility Coordinating Committee, cochaired by Metro Vancouver, and took a collaborative approach between air quality and health agencies in the Lower Fraser Valley. The Lower Fraser Valley Visual Air Quality Pilot Project is now nearing



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completion and has built on the strengths and existing initiatives from each agency and will create a framework through which an evidence-based visual air quality management program could be developed.

It is anticipated that recommendations from the BCVCC for visual air quality management in the Lower Fraser Valley will be presented to the Board in a future report and that actions to develop a visual air quality management program for Metro Vancouver could be considered in future updates to the regional air quality management plan.

Provincial School Tax Implications for Small Business

RECEIVED

The Board received for information the report dated February 7, 2018, titled "Provincial School Tax implications for Small Business" and will write a letter to the Province of British Columbia requesting that it set variable non-residential school tax rates by school district, with lower rates in areas with higher assessed values, as is done currently for residential school tax rates, to achieve an equitable alignment of non-residential school tax revenue and school expenditures across school districts.

Regional Prosperity Initiative (RPI) Update

RECEIVED

The Board received for information a report with an update on the progress of the Regional Prosperity Initiative (RPI). Next steps include the development of a business plan, securing funding from the provincial and federal governments and a set of founding investors, and incorporation as a not-for-profit society under the BC Societies Act. A proposal for incorporation will be presented to the Finance and Intergovernment Committee and MVRD Board for its consideration and approval.

Fraser Basin Council - Contribution Agreement

APPROVED

The Board approved a three-year Contribution Agreement with the Fraser Basin Council for an annual amount of \$300,000 for the term January 1, 2018 to December 31, 2020.

FBC is a charitable, non-profit organization that exists to advance sustainability within the Fraser Basin, including Metro Vancouver, and throughout British Columbia. FBC works by promoting and facilitating collaborative action among all orders of government, First Nations, the private sector and the public on a variety of sustainability initiatives.



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National Zero Waste Council 2017 Update

RECEIVED

This report provides an update on the 2017 activities and initiatives of the National Zero Waste Council.

The National Zero Waste Council was founded in 2013 in Metro Vancouver, in collaboration with the Federation of Canadian Municipalities, as a leadership initiative bringing together governments, businesses and non-governmental organizations to advance a waste prevention agenda in Canada. The National Zero Waste Council undertook an ambitious work plan for 2017 to advance a waste prevention agenda in Canada. This involved supporting four active working groups involved in advancing changes in product design and packaging, circular economy, reducing food waste and construction, renovation and demolition.

Delegations Received at Committee February 2018

RECEIVED

The Board received for information a report containing summaries of submissions received from the following delegates:

Regional Planning Committee:

- Mike Clay, Mayor, and Tim Savoie, City Manager, City of Port Moody
- Gary Pooni, President, and Blaire Chisholm, Vice President, BrookPooni
- Robin Silvester, President and CEO, Port of Vancouver
- Maggie Koka, Branch Manager, Aplin Martin, and Chief Harley Chappell, Semiahmoo First Nation
- Myles Lamont, TerraFauna Wildlife Consulting, Inc.

Climate Action Committee:

Jack Saddler, Professor, Faculty of Forestry, University of British Columbia

City of White Rock – "Metro Vancouver Regional District Security Issuing Bylaw No. 1258, 2018"

APPROVED

The MVRD Board gave consent to authorize a borrowing request from the City of White Rock in the amount of \$2,274,850 for Water Treatment Facility Design and Construction for inclusion in the Spring 2018 MFA long term debt issue.

The Board approved a bylaw to enter into an Agreement respecting financing between the Metro Vancouver Regional District and the Municipal Finance Authority of British Columbia. The Bylaw will be forwarded to the Inspector of Municipalities for Certificate of Approval.



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As set out in the Community Charter, the MVRD must adopt a security issuing bylaw in order to enable the City of White Rock to proceed with their borrowing request. In light of the joint and several liability of all member municipality debt, the review of borrowing requests is prudent given the role of the Regional District.

Metro Vancouver 2040: Shaping our Future Land Use Designation Amendment Request from the City of Port Moody – Flavelle Mill Site

APPROVED

On September 18, 2017, the City of Port Moody requested an amendment to Metro 2040 to amend the regional land use designation of the Flavelle site from Industrial to General Urban and remove the Special Study Area overlay for the site.

The Board initiated the Metro 2040 minor amendment process and directed staff to prepare a bylaw to amend Metro 2040, in response to the City of Port Moody's request.

Metro Vancouver Regional District - Parks

Regional Parks 2018 – 2022 Financial Plan - Rental House Program

RECEIVED

This report provides information on the additional \$190,000 budget allocation in the Regional Parks 2018-2022 Financial Plan to support the Regional Parks Rental House Program.

In October 2017, the Regional Parks Committee and Board requested staff to provide additional information on the Regional Parks Rental House Program. Regional Parks acquires buildings, including houses, through property acquisition, and when the land is not immediately required for park use, the houses are rented. Metro Vancouver is transitioning the management of the Rental House Program from staff within the MVHC to Regional Parks, beginning in 2018. The approved 2018 budget supports contracted property management services, maintenance and repair oversight, as well as the deconstruction or demolition of two rental houses in regional parks.

Deas Island Regional Park - Bat Monitoring

RECEIVED

This report provides the Regional Parks Committee and the MVRD Board with an update on bat monitoring at Deas Island Regional Park.

The 2017 Bat Monitoring Program at Deas Island Regional Park provided baseline information that will be used to assess bat colony population trends and inform resource management. No evidence of whitenose syndrome was found in the colony. The program forged new partnerships with the South Coast Bat Conservation Society, University of British Columbia and Provincial experts. The project also engaged 28 people in 340 hours of citizen science volunteer work at the park. Monitoring will continue in 2018. Park staff are also exploring opportunities to support and enhance bat habitat through the creation of new



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ponds and habitat areas to support bat feeding. The bat colony is highlighted with interpretive displays and programs at the annual Starry Night event. Permanent interpretive signage is also being considered for the site.

Regional Parks Service Amendment Bylaw No. 1260

APPROVED

The Board approved an amending bylaw for the withdrawal of the City of Abbotsford as a participant in the MVRD Regional Parks Service.

The Board gave first, second and third readings to the amending bylaw and directed staff to seek consent of at least 2/3 of the participants to amend the service area to remove Abbotsford as a participant in the regional park function, and following that, to forward the amending bylaw to the Inspector of Municipalities for approval.

Metro Vancouver Regional District Disposition of Eastern Portion of Aldergrove Regional Park Bylaw No. 1261, 2018

APPROVED

Aldergrove Regional Park straddles the border between the Township of Langley and the City of Abbotsford. In connection with the City of Abbotsford withdrawing from MVRD's Regional Parks Service, MVRD wishes to transfer for nominal value the eastern portion (approx. 127 ha) of Aldergrove Regional Park to the City of Abbotsford, free of any dedication to the public for the purpose of a park.

Metro Vancouver, the City of Abbotsford and the FVRD are working cooperatively to bring forward a new agreement in March that will recommend an interim arrangement between the parties with respect to the operation of the eastern portion of Aldergrove Regional Park.

The Board:

- Gave first, second and third readings to Metro Vancouver Regional District Disposition of Eastern Portion of Aldergrove Regional Park Bylaw
- Directed staff to carry out an alternative approval process to obtain elector approval for the Bylaw pursuant to section 269 of the Local Government Act;
- Established the deadline for receiving elector responses as April 6, 2018;
- Established elector response forms in the form attached to the report;
- Determined that the total number of electors of the area to which the approval process applies is 1,715,196; and
- Directed staff to report the results of the alternative elector approval process to the Board and, if approval has been obtained, bring the Bylaw forward for adoption by the Board.



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Greater Vancouver Sewage and Drainage District

2018 Liquid Waste Sustainability Innovation Fund Applications

APPROVED

The Board approved the allocation from the Liquid Waste Sustainability Innovation Fund for the following projects:

- Capture of wastewater contaminants of concern and beneficial use of residuals: \$450,000 over three years starting in 2018. The purpose of this project is to test methods of transforming wastewater solids into a valuable product that can capture contaminants from wastewater that are common in household products, and that may cause harm to fish and other aquatic life.
- Intelligent Water Systems Making Use of Sensors and Big Data Analytics: \$200,000 over two years starting in 2018.

2017 Multi-Family Waste Composition Study Findings

RECEIVED

The Board received for information a report with an updated estimate of waste composition, disposal rates and recycling rates for the multifamily sector.

Based on the 100 samples analyzed in this study, multi-family residents dispose of 212 kg per capita of garbage, recycle 82 kg per capita of paper, containers and glass, and recycle 35 kg per capita of organic material. Organics in multi-family garbage has decreased 20% from 100 kg per capita in 2013 to 80 kg per capita in 2017. Of all organics generated by buildings in this study, 64% was disposed of in the garbage, and 36% was placed in the appropriate organics receptacle.

Award of Contract from RFP No. 17-082 Contingency Disposal Services - Standing Offer Agreements and Approval of Contract Extensions for the Interim **Contingency Disposal of Municipal Solid Waste**

APPROVED

The amount of waste that can be managed in the Metro Vancouver/City of Vancouver disposal system is restricted based on the capacity of the Waste-to-Energy Facility and the Vancouver Landfill. Metro Vancouver initiated two procurement processes in 2017 to provide contingency disposal: an initial RFP for interim services and a request for standing offers for three-year agreements. Two proposals were received for both procurement processes.

The Board authorized:

- A contract extension to Waste Management of Canada Corporation of up to \$1,500,000;
- A contract extension to Republic Services of British Columbia, Inc. of up to \$1,500,000;
- Award of a standing offer contract to Waste Management Disposal Services of Oregon Incorporated at a value of up to \$25,000,000 (exclusive of taxes) over a three-year term;



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Award of a standing offer contract to Republic Services of British Columbia, Inc. at a value of up to \$21,000,000 (exclusive of taxes) over a three-year term.

Contribution Agreement – Recycling Council of British Columbia

APPROVED

The Recycling Council of British Columbia is a non-profit organization that provides BC residents with information about the recycling and safe disposal options available in their communities, through the Recycling Hotline and website.

The Board approved a three-year contribution agreement, effective January 1, 2018 to December 31, 2020, with the Recycling Council of British Columbia for an amount of \$65,000 in 2018, \$66,500 in 2019, and \$68,000 in 2020.

Regional Single-Use Item Reduction Strategy Research and Consultation

APPROVED

The Board agreed to start consultations on a regional single-use item reduction strategy.

In October 2017, the Board agreed to proceed with work to determine regional actions to reduce waste from single-use items. Further research and stakeholder consultation are planned throughout 2018 to develop a regional single-use item reduction strategy.

Significant reduction of single-use items across the region will require a suite of actions, including possible educational, behavioral change and regulatory components over the shorter and longer terms. Staff anticipate reporting back to the Board on a regional strategy for consideration in late 2018 or early 2019.

Creation of GVS&DD's Sewerage and Drainage Areas Boundaries Bylaw, No. 310, **APPROVED** 2018

Under Section 31 of the Greater Vancouver Sewerage and Drainage Act, the GVS&DD may establish or amend the boundaries of the sewerage and drainage areas required to carry out its objectives.

The Board approved a Bylaw to fix the boundaries of the sewerage and drainage areas in specific areas of the region. The bylaw may be amended by the Board from time to time, and a copy of the plans are filed with the Land Title and Survey Authority of BC.



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GVS&DD's Sewerage and Drainage Areas Boundaries Amending Bylaw No. 311, 2018 - Fraser Sewerage Area - 7672 Progress Way, Delta

APPROVED

In response to a request from the City of Delta, the Board amended the Fraser Sewerage Area to include the property located at 7672 Progress Way. On November 24, 2017, the MVRD Board resolved that the request was consistent with the provisions of Metro 2040. GVS&DD analysis has shown there is a negligible impact on the regional sewerage system and there are no financial impacts to the GVS&DD.

Generator Levy Proposed Revisions and Regulatory Framework Update

APPROVED

On November 23, 2017, the Board approved a new Generator Levy, effective January 1, 2018.

Some stakeholders expressed concern that applying the Generator Levy to mixed municipal solid waste delivered to a qualified private facility that recovers resources or produces fuel from the mixed municipal solid waste could create a barrier to the potential future development of such facilities. Currently, if mixed municipal solid waste is delivered to a licensed private facility, the hauler is required to pay the Generator Levy to Metro Vancouver. Residual waste from the private facility may also be subject to the Generator Levy if the residual is delivered to a Regional Facility because the Generator Levy is a component of the overall Tipping Fee.

The Board approved amending the Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 306, 2017 to ensure the Generator Levy is paid only once for municipal solid waste from residential and commercial/institutional sources delivered to a private facility licensed by Metro Vancouver that recovers resources or produces fuel from that waste. This includes Metro Vancouver providing a rebate for residual waste from a qualified private facility delivered to a regional facility.

Development Cost Charge Rate Amending Bylaw No. 305, 2017 Adoption

APPROVED

In 2014, the Board initiated a complete review of its Development Cost Charge (DCC) program, which included updating the program policy framework and the proposed growth project requirements. The review resulted in recommendations for adjustments to the DCC rates, which had not changed in almost 20 years. The new rates as calculated represent the best estimate to properly finance the growth capital program.

The Board passed and finally adopted a bylaw to update the Development Cost Charge program policy framework. Greater Vancouver Sewerage and Drainage District Development Cost Charge Amending Bylaw No. 305, 2017.

The Board had previously given three readings to the bylaw and it was subsequently forwarded to the Inspector of Municipalities for approval. The certificate of Statutory Approval was signed on February 16, 2018.



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Greater Vancouver Water District

2018 Water Sustainability Innovation Fund Applications

APPROVED

The Board approved the allocation from the Water Sustainability Innovation Fund for the following projects:

- Residential Indoor and Outdoor End Uses of Water: \$380,000 over two years starting in 2019. The Residential Indoor and Outdoor End Uses of Water Study seeks to provide a detailed understanding of how water is used indoors by each fixture and appliance. Additionally, it seeks to provide a detailed analysis of outdoor water use, particularly the frequency and quantity of water applied to lawns and gardens.
- Greywater Reuse and Rainwater Harvesting Demonstration: \$350,000 over two years starting in 2019. This project seeks to investigate the feasibility of reusing greywater and rainwater harvesting systems through demonstration-scale trials installed in selected buildings within the region. While greywater reuse and rainwater harvesting treatment systems are available from specialized manufacturers, this project will focus on navigating regulatory requirements and operational challenges.

Watershed Education Program Update

RECEIVED

The Board received an update of 2017 activities associated with the Watershed Education Program.

Watershed Education Programs reach over 5,000 residents of Metro Vancouver annually with the aim of providing all citizens with the opportunity to see where their water comes from, understand the value of this resource, recognize their connection to it, develop a sense of pride and confidence in the water supply and become champions for sustainability.

Tour participants and educators are asked for feedback following their Watershed experience. The majority of respondents rate the tours as extremely effective at capturing their interests. They say that their perspective on their water supply changed, and that they would use water differently in the future.



REPORT TO COUNCIL

To: Mayor Schaffer and Councillors

Subject Langley Urban Agriculture Demonstration Report #: 18-14

Project

From: Roy M. Beddow, MCIP, RPP Doc #:

Deputy Director of Development Services &

Economic Development

Date: February 22, 2018

RECOMMENDATION:

1. THAT Council receive the Langley Urban Agriculture Demonstration Project plan and report prepared by Kwantlen Polytechnic University's Institute for Sustainable Food Systems;

THAT Council direct staff to investigate the business case for future phases of the project including funding partners, community resources and neighbourhood support.

PURPOSE:

To consider a proposal from Kwantlen Polytechnic University for the development of an urban agriculture project in the BC Hydro Right-of-Way between 200 Street and 204 Street.

POLICY:

The subject property is designated "Institutional" in Schedule "A" – Land Use Designation Map of "Official Community Plan Bylaw, 2005, No. 2600" and is zoned P1 Public Institutional/Recreation Zone in "Zoning Bylaw, 1996, No. 2100".

The City's *Sustainability Framework* identifies "Exploring partnership opportunities for developing urban farms within the City – Example: within the BC Hydro Right-of-Way" in the "Health, Safety and Well-Being" focus area.



Date: February 19, 2018

Subject: Langley Urban Agriculture Demonstration Project

Page 2

COMMENTS/ANALYSIS:

1. Background

The concept of using this portion of the BC Hydro Right-of-Way for urban agriculture was first identified in the City's 2009-2011 Corporate Strategic Plan which listed as a goal, "Explore the possibility of creating an urban farm at the BC Hydro Right-of-Way". In May 2010 the Institute for Sustainable Horticulture at Kwantlen Polytechnic University shared an illustrative site development concept plan with City staff and in 2011 submitted a Project Proposal including work plan for a "Langley Urban Agriculture Demonstration Project" (LUADP). City staff and KPU used the preliminary plans to seek funding sources for the project and in 2016 made application through Metro Vancouver's Sustainability Innovation Fund. The application was successful and Metro Vancouver provided \$50,000 for the preparation of a detailed urban agriculture plan. Under the terms of the funding agreement, KPU in partnership with the City of Langley will deliver a site development plan and a project report with construction and operating budgets and process and lessons for application in other municipalities in the region.

The objectives of the project were to:

- demonstrate leadership in sustainability,
- transform underutilized city owned lands,
- establish urban agriculture in a utility corridor.
- enhance food system resiliency,
- contribute to local food production,
- broaden the local economy,
- provide recreational opportunities,
- provide educational opportunities,
- leverage partnerships with academic institutions, and
- share process, practices and findings with other local governments in the region.

2. Oversight and Participants

The project partners established an internal stakeholder group to lead the project made up of representatives from Metro Vancouver, KPU, the City of Langley and BC Hydro. This planning team consulted with an "Interagency Group", external stakeholders, neighbourhood residents and the broader public throughout the process. The tables below summarize the participants in the process.

Internal Stakeholders (Project Planning Team)

Staff from:

- Metro Vancouver
- KPU Institute for Sustainable Food Systems



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- City of Langley
- BC Hydro

Interagency Group

Staff from:

- BC Ministry of Agriculture
- Agricultural Land Commission
- Fraser Health Authority
- School District No. 35
- Township of Langley
- City of Surrey
- Kwantlen First Nation

External Stakeholders

Partial List:

- Langley Environmental Partners
- Nicomekl Enhancement Society
- Langley Field Naturalists
- BC Food Systems Network
- Langley Sustainable Agriculture Foundation
- SFU Urban Studies
- UBC Land and Food Systems
- Farm Folk City Folk
- Langley Food Bank
- Langley Community Farmers Market

Neighbourhood Residents

Communication:

- 673 Households in adjacent areas mailed invitations to open houses
- 38 Residents participated in project email list

General Public

Communication:

- Media Release
- Newspaper Advertisements
- Website
- Social Media



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3. Process

Kwantlen Polytechnic University conducted soil sampling and analysis in January 2017. A project launch meeting with internal stakeholders was held on February 16, 2017. Having established a project website in April 2017, the team hosted an initial community open house on May 10, 2017. The meeting was well attended and the input received was compiled and analyzed in the following weeks. Throughout the summer, the project team developed three conceptual plan options for the site which were then presented to the public at a second community open house on September 19, 2017. The second open house was also well attended and the project team used the public input on the three conceptual plans to identify the preferred elements and refinements to be incorporated into a final plan. A draft of the final plan and accompanying report complete with management plans and budgets was presented for discussion at a Council Working Session meeting on February 19, 2018.

The table below highlights the key meetings and project milestones:

February 16, 2017	Internal Stakeholder Meeting # 1	
	 Project launch meeting 	
March 29, 2017	Internal Stakeholder Meeting # 2	
	 Review BC Hydro ROW restrictions 	
	Discuss UA amenities	
April 20, 2017	Interagency Meeting	
	 intergovernmental consultation 	
May 8, 2017	City Council Working Session	
	 introduction to project & work plan 	
	 review findings of soil testing 	
May 10. 2017	Community Open House #1	
	(Alice Brown Elementary School)	
	 introduce project to neighbourhood residents 	
	and the general public	
	 introduce concept of urban agriculture (UA) and 	
	provide information about UA amenities	
	 seek input on suitable UA amenities for site and 	
	any other comments from public	
June 29, 2017	Internal Stakeholder Meeting #3	
	Review public input	
	Evaluate UA amenities	
August 29, 2017	Internal Stakeholder Meeting #4	
	 Review three conceptual plans 	



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September 19, 2017	Community Open House #2		
	(Alice Brown Elementary School)		
	 Present three conceptual plan options for public 		
	feedback		
October 25, 2017	Internal Stakeholder Meeting #5		
	Review public input		
	 Identify components for final plan based on 		
	feedback on three options from COH #2		
February 19, 2018	City Council Working Session		
	 Update on process and consultation 		
	Feedback on draft plan and next steps		
March 5, 2018	Regular City Council Meeting		
	 Presentation of plan and project report 		

4. Public Input

The principal sources of public input on the Langley Urban Agriculture Demonstration Project were the two community open houses noted previously. In addition, City and KPU staff received written correspondence (by mail and email) and telephone calls from a number of residents. In general, while the public supported some specific elements of the conceptual plans presented such as, maintaining and improving the existing trail network and enhancing and restoring environmentally sensitive areas and wildlife habitat, a number of concerns were expressed about developing the site for urban agriculture, including:

- Why was this site chosen for urban agriculture?
- Use serves those not living in neighbourhood
- Increased traffic and non-resident parking in neighbourhood
- Disruption to neighbourhood peace and quiet
- Loss of privacy
- Increased potential for crime and homelessness
- Safety concerns around powerlines (particularly for children)
- Pest infestation, particularly rats
- Poor aesthetics (shabby structures and garden plots)
- Nuisance from agricultural operations dust, odours, pesticide use
- Loss of wildlife habitat

A majority of those who provided input during the consultation process did not support the use of the site for urban agriculture. The respondents who provided input on preferred amenities for the site generally favoured:

- Low intensity cultivation in limited areas
- Education-themed amenities



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Maintaining or enhancing the trail network

- Maintaining emphasis on passive recreational use
- Protecting and enhancing wildlife habitat

Restoring riparian and other environmentally sensitive areas

5. Site Plan

The site plan provided by KPU is comprised of three urban agricultural production amenities:

The Farm: Organic vegetable production plots, cut flower

gardens and farm hub with storage, water supply and

other infrastructure

The Classroom: Outdoor classroom with demonstration plots and

raised beds for instruction

The Orchard: Production and demonstration areas of dwarf trees

and shrubs for fruits, nuts and berries

The production amenities form the heart of the plan but non-production amenities occupy the largest portion of the site area. Non-production amenities consist of:

Buffer Planting Areas: Areas of natural planting for separating activities or

transitioning between uses. Buffer planting areas separate areas of public use from private residential

properties.

Habitat Areas: Riparian (Muckle Creek and Pleasantdale Creek) and

wetland areas for restoration and enhancement.

Pollinator Corridor: Landscaped strips along pathways designed and

planted to support wild pollinators including birds,

bees, butterflies and other insects.

The amenities in the plan are supported by site servicing and infrastructure including:

Vehicular Access: A single right-in, right-out access at 200 Street

Parking: A gravel parking area for a maximum 15 spaces near

the 200 Street entrance to the site

Toilets: Pit toilets are proposed to be located in close

proximity to the farm hub

Pathways: All existing pathways on the site will be maintained

with some additional connections provided within the

site

Fencing: To be provided as required for delineating and

protecting crops from wildlife damage



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Water: A water connection will be provided near the 202

Street right-of-way to provide for drip irrigation of

cultivated areas

Electrical: An electricity connection will be provided to service

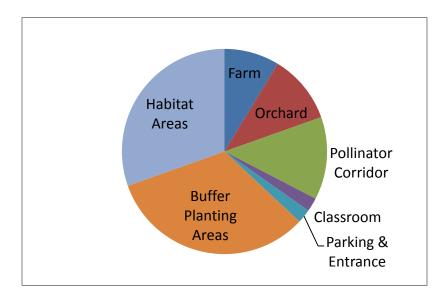
the Farm Hub

Signage: Wayfinding, identification and educational signage will

be provided to support site operations

The site plan strikes a balance between food production, recreation, habitat protection and neighbourhood integration reflecting the sustainability objectives of the project, the characteristics of the site (including the BC Hydro restrictions) and the public consultation process. In order to minimize the impact of farm operations and infrastructure on the surrounding area, the final plan allocates a relatively small area for agricultural production. The majority of the site area is comprised of habitat areas and planted buffer areas as shown in the following table and chart.

Component/Use	Area (acres)	% Total
Farm	2.0	8.7
Orchard	2.5	10.9
Pollinator Corridor	3.0	13.0
Classroom	0.5	2.2
Parking & Entrance	0.5	2.2
Buffer Planting Areas	7.5	32.6
Habitat Areas	7.0	30.4
Total	23.0	100.0





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In staff's view, the LUADP plan offers an attractive vision for incorporating food production and education within the BC Hydro Right-of-Way while restoring or enhancing wildlife habitat, maintaining trail connections and minimizing impacts on neighbouring properties.

6. Management Plan

The LUADP report recommends the establishment of a non-profit society "to manage and coordinate day-to-day operations on the site...." The non-profit society would be governed by a steering committee made up of representatives from the community, the City of Langley, BC Hydro, School District No. 35 and a farm manager (a paid position to be created). The society would oversee the operation of the site through a site use agreement.

The management plan includes preliminary budgets for the construction and operation of the project as follows:

Capital Expenses	
Site Servicing	\$716,000
The Farm	\$61,000
The Classroom	\$34,750
The Classroom	\$32,700
Pollinator Garden	\$26,700
Buffer Planting & Habitat Restoration	\$110,075
Total	\$981,225

Operating Expenses	
General Maintenance	\$17,000
Staffing	\$60,000
Farm Operations	\$9,000
Orchard Operations	\$2,000
Classroom Operations	\$7,500
Total	\$95,500

The report also suggests annual revenue for the project from grants, donations and farm product sales.



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Next Steps

The Langley Urban Agriculture Demonstration Project provides a detailed plan for how the BC Hydro Right-of-Way can be developed for urban agriculture. However, there is no funding in place to implement the plan or move forward with any subsequent phases. A significant fundraising initiative is therefore a prerequisite for advancing the project.

In addition to financial support, LUADP also requires strong community support in order to be successful. Community support from organizations and individuals is necessary to operate the project on a sustainable basis. While much can be achieved with volunteers and partnerships, a strong relationship with residents and property owners in the adjacent neighbourhoods is also vital. The public engagement process revealed significant opposition to the project within the adjacent neighbourhoods.

In order to consider the viability of moving forward with the project, it is recommended that a business case analysis be undertaken to assess:

- a) The availability of partners for capital and operational funding;
- b) The level of volunteer support for management and operations from non-profit agencies and individuals in the community;
- c) The potential for gaining neighbourhood support.

BUDGET IMPLICATIONS:

The recommended business case analysis will require City staff time to complete. Where budget may be required to retain assistance from outside consultants, staff will bring forward a report accordingly for that purpose.

ALTERNATIVES:

- 1. Receive the Langley Urban Agriculture Demonstration Project plan and report for information.
- 2. Receive the Langley Urban Agriculture Demonstration Project plan and report and direct staff to seek external funding sources for implementation of the plan.



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- 3. Receive the Langley Urban Agriculture Demonstration Project plan and report and consider funding future phases of the plan as part of the 2019 budget deliberations.
- 4. Receive the Langley Urban Agriculture Demonstration Project plan and report and consider incorporating urban agriculture elements as part of a future park planning process for the BC Hydro Right-of-Way.

Respectfully Submitted,

Roy M. Beddow, MCIP, RPP

Deputy Director of Development Services

& Economic Development

Attachment(s):

1. Langley Urban Agriculture Demonstration Project (Plan and Report)

CHIEF ADMINISTRATIVE OFFICER'S COMMENTS:

I support the recommendation.

Francis Cheung, P. Eng. Chief Administrative Officer

Langley City
THE PLACE TO BE



Langley Urban Agriculture Demonstration Project

Final Project Report and Site Plan
February 2018

Report Prepared By:



Project Partners::





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Acknowledgments

Report Prepared By: Emily Hansen

Contributors: Dr. Kent Mullinix Dr. Wallapak Polasub

The Langley Urban Agriculture Demonstration Project (LUADP) is a planning and design collaboration between the City of Langley, Metro Vancouver and the Institute for Sustainable Food Systems (ISFS) at Kwantlen Polytechnic University. The project aims to bring urban agriculture, and related elements to a 23 acre (9 ha) BC Hydro transmission right-of-way (ROW) in the City of Langley. The detailed planning phase has been funded by Metro Vancouver, through the Sustainability Innovation Fund.

This report has been prepared by the ISFS. Thank you to the following individuals for their contributions to the project.

Roy Beddow, City of Langley
Jaspal Marwah, Metro Vancouver
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Aimee Taylor, Kwantlen Polytechnic University

Cover Photo: Arinahabich, Adobe Stock Images

Project Partners:



Institute for Sustainable Food Systems

The Institute for Sustainable Food Systems (ISFS) is an applied research and extension unit at Kwantlen Polytechnic University that investigates and supports regional food systems as key elements of sustainable communities. ISFS focuses predominantly on British Columbia but also works with research partners in other parts of Canada. ISFS provided technical expertise and led development of this plan.



Metro Vancouver is a federation of 21 municipalities, one Electoral Area and one Treaty First Nation that collaboratively plans for and delivers regional-scale services. Its core services are drinking water, wastewater treatment and solid waste management. Metro Vancouver also regulates air quality, plans for urban growth, manages a regional parks system and provides affordable housing. The regional district is governed by a Board of Directors of elected officials from each local authority. Metro Vancouver provided funding for the detailed planning phase, through the Sustainability Innovation Fund.



The City of Langley is located within Metro Vancouver, and is designated as a Regional City Centres. It is situated on the southwest mainland coast of British Columbia, Canada. The City of Langley is neighboured in the north, east and south, by the Township of Langley and the City of Surrey in the west.

The City of Langley is the municipal partner on this project, as well as the owner of the land where the LUADP is being proposed. The city recognizes the potential for urban agriculture to contribute to goals in the City's sustainability framework, and be a show piece for the community.

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Executive Summary

The Langley Urban Agriculture Demonstration Project (LUADP) is a detailed planning and design project for municipally supported urban agriculture project on a site within a BC Hydro transmission right-of-way (hydro ROW) in the City of Langley. This report documents the planning process, outlines the integration of ecological, educational and agricultural amenities on the site, and makes recommendations for implementation and long-term management.

The proposed site plan features small scale food production, producing both annual and perennial crops for distribution into the surrounding community. Significant areas

dedicated to ecological restoration, including native plantings, habitat areas, and a pollinator corridor are also featured. Education is supported by an outdoor classroom, microproduction plots, and a demonstration orchard.

The site plan aims to create a community space that maintains passive recreation functions, connects to the City's existing network of parks and open space, and successfully integrates urban agriculture.

Traditional, community-driven urban agriculture projects have experienced success and failure worldwide. Growing interest and support from municipal partners will play a vital role in supporting these initiatives moving forward.

This report outlines considerations for a successful urban agriculture project in the City of Langley. The findings and outcomes of this project can also be a guide for other communities in Metro Vancouver undertaking similar projects.

A. Background

This report documents work to date on the Langley Urban Agriculture Demonstration Project (LUADP). The idea of urban agriculture was first proposed in 2010. The City of Langley, and academic partners recognized the potential of the project to achieve goals in the City's Sustainability Framework.

At that time an initial concept plan for the site was developed, and partners moved forward to seek funding to support further planning and development phases. The remainder of this report documents the detailed planning phase.

1. Introduction

Urban agriculture is the activity of producing, processing and distributing food and other agricultural products on land in urban areas. The concept is often employed to address social and environmental sustainability in cities.

Despite the growing popularity of urban agriculture, and the local food movement, there are fundamental challenges, such as access to land, facing the advancement of urban agriculture in most communities.

The LUADP can address the issue of access to land by developing a model for the urban agriculture on publicly owned land. The land is also located within a BC Hydro transmission right-of-way which means that the project could become a model for similar projects in other Metro Vancouver municipalities.

2. Site Assessment

Urban agriculture projects involves consideration of a number of factors. Site assessment focuses on three main areas, gathering information that will help determine if the site is suitable for urban agriculture.

- Soil Analysis
- Context Analysis
- Site Analysis

Soil testing on the LUADP revealed no significant pollutants or heavy metal contamination, and it was recommended that the project team proceed with developing a concept plan.

Context and site analysis revealed potential opportunities and challenges for developing urban agriculture in this location. The City is supportive of urban agriculture and recognizes the potential for the site to support cultural, recreational and educational programming.

There are also opportunities for urban agriculture to align with goals in the City's Sustainability Framework, as well as contributing to ongoing park enhancements, and social connectivity. There is also a commitments at the local government level to exploring new opportunities for urban agriculture in the City.

The project also aligns with the Metro 2040 Regional growth plan and with the Regional food System Strategy drafted by Metro Vancouver in 2011.

The site is well used for passive recreation, and valued by surrounding residents for the natural character, and wildlife habitat. Current use patterns will have a significant impact on how the site can be programmed for urban agriculture.

Assessment revealed challenges that could impact planning and implementation such as community buy in, soil quality and possible conflict with existing uses.

3. Urban Agriculture in Hydro Right-of-ways

Agriculture is considered a compatible us in hydro transmission right-of-ways. However, there are few examples of urban agriculture projects in these areas which means there is further investigation required to understand how UA projects can be designed and managed within hydro ROWs.

In addition to compatibility of site features and programming there are a variety of public safety issue to consider. Exposure to electric and magnetic fields (EMF) is often a concern when developing community amenities in, or near hydro transmission lines. Humans are exposed to EMF everywhere there is electrical current flowing. Research, conducted around the world, has not found significant cause and effect

relationships between exposure to EMF. In most jurisdictions community amenity development in hydro ROWs proceeds, and the precautionary principle is employed.

This section summarizes the ongoing health related research into electric and magnetic field exposure and connects specifically to recommendations for public amenity design which include locating features away from overhead wires, and public education.

4. Planning and Design Process

Urban agriculture projects can involve lengthy consultation and public outreach processes, which are important in order to secure community buy in, and identify strategic project partners.

Participants from local and regional agencies, with possible interests in an urban agriculture project were engaged by the project team. Participants recognized community buy-in would be a significant factor in project success. Additional issues that could face this type of project including regulatory challenges, funding, servicing and evaluation.

The City of Langley then hosted community open houses to reach out to the public, and specifically to those living in the surrounding neighbourhood. At the first of two open houses the focus was to introduce the project, provide background information about urban agriculture, and get initial feedback.

The public voiced a number of concerns worrying that urban agriculture in this location.

- Why was this site chosen for urban agriculture?
- Use serves those not living in neighbourhood
- Increased traffic and non-resident parking in neighbourhood
- Disruption to neighbourhood peace and quiet
- Loss of privacy
- Increased potential for crime and homelessness
- Safety concerns around powerlines (particularly for children)
- Pest infestation, particularly rats
- Poor aesthetics (shabby structures and

- garden plots)
- Nuisance from agricultural operations dust, odours, pesticide use
- Loss of wildlife habitat

Many of those who attended the open houses suggested that this was not an appropriate site for urban agriculture, and did not support the project. Those who did provide feedback generally favoured:

- Limiting the scale of urban agriculture
- Education focused amenities
- Maintaining and enhancing the trail network
- Maintain emphasis on passive recreation
- Protecting and enhancing wildlife habitat
- Restoring riparian and other environmentally sensitive areas

5. Site Plan

The plan for the LUADP site takes a balanced approach to urban agriculture, education, environmental restoration, and passive recreation.

The plan outlines the details of the site design highlighting three primary components: servicing and infrastructure, non-production amenities and production amenities.

Non-Production Amenities:

- Buffer Planting Areas
- Habitat Areas
- Pollinator Corridor

Production Amenities:

- The Farm
- The Classroom
- The Orchard

6. Management

Managing programming and production on the site will involve a coordination between stakeholders including and newly created Non-Profit Society, the City of Langley (as land owner), and BC Hydro. Engagement with community partners, the public will also be necessary to support programming, and site activities.

Operations of the site primarily consider how the production amenities will function, successfully meeting project goals and the needs of the community. Food production will be small scale and encouraging the public to participate as much as possible. Fruits and vegetables grown on the site can be distributed into the community in a variety of ways. The following methods can be explored:

- Community cultivation
- Food banks and gleaning programs
- Institutional procurement
- Farm gate sales
- Farmer's Markets

Both paid staff, and community volunteers will be required to support operations and programming on the site.

Coordination between stakeholders will be facilitated through the development of a site use agreement. The agreement will cover a number of topic and help to ensure that the expectations of all stakeholders are clear, and met.

Based on the type and scale of amenities, preliminary budgets have also been presented:

Total Capital Costs for LUADP:

\$ 981,225.00

Total Annual Operating Costs for the LUADP:

\$ 95,500.00

Operational expenses should be covered by a combination of grants, donations, and farm product sales.

7. Implementation

Developing a site for urban agriculture involves capital investments to develop the features and the infrastructure that supports urban agriculture. A phased approach is recommended that can be flexible to the availability of funding and resources. Beginning with a predevelopment phase which involves establishing the management framework for the project and raising funds to begin development of the site. This is followed by four site development phases:

- Phase 1: Infrastructure and Site Servicing
- Phase 2: Amenity Development
- Phase 3: Habitat Restoration
- Phase 4: Naturalization

8. Conclusion

Urban agriculture is a concept being embraced for the potential to address local level sustainability, and help build a more resilient food system. As land prices escalate, and available land for these project is increasingly scarce there is a need for creative and collaborative solutions for food production within urban boundaries.

The concept plan for the LUADP demonstrates a strategy for implementing urban agriculture on publicly owned land. It also provides an adaptable model for practicing urban agriculture in land located within hydro ROWs in other communities.

With the prepared concept plan, the next important steps include identifying community partners, and determining the level of volunteer support and community engagement. The concept plan will be presented to potential partners during recruitment.

Fundraising is also an important next step and a number of potential funding sources have been identified, including:

- Organizational grants
- Government grants
- Municipally supported grants
- Private sector partnerships
- Institutional partnerships

Both local and regional level partners recognized the potential for food production on currently unprogrammed public land. Hydro ROWs represent a type of available land where the potential for food production should be further explored through the LUADP. The plan represents a tangible plan for implementing urban agriculture in hydro transmission right-ofways, and other publicly owned utility corridors.

Additionally, the learnings from this process can be applied to development of similar projects in other municipalities across Metro Vancouver. This page is intentionally blank.



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A.Project Background

a. Early Concept Development–2010

In 2010, the City of Langley (the City) initiated an exploratory project with academic partners to develop a detailed plan and cost structure of a Municipally Supported Urban Agriculture (MSUA) demonstration project. This project was supported by municipal leaders because of the potential to contribute to goals in the City's Sustainability Framework. These contributions could include:

Energy, Climate Change and Air Quality

 Decrease greenhouse gas emissions by reducing transportation demands through providing local food provisions

Health, Safety and Well-Being

- Development of local food systems and support for local farmers and local food distribution
- Partnership opportunities for developing urban farms within the City

Local Economy

 Strengthening and diversifying the local economy and creating local jobs

Natural Areas, Parks and Recreation

- Establishing more community gardens
- Creating stewardship programs for parks and natural areas
- Developing and maintaining green ways

Solid Waste

• Developing composting programs

Water

 Reduce load on the storm water system through demonstration gardens, rain barrel programs, and education

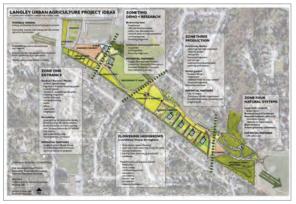


Figure 1: Langley Municipally Supported Urban Agriculture Early Concept Plan-2010. Prepared by the Institute for Sustainable Horticulture (KPU) and the Centre for Advanced Landscape Planning (UBC).

With sustainability in mind the project moved forward with the Institute for Sustainable Horticulture, sustainable food systems working group (now the Institute for Sustainable Food Systems) at Kwantlen Polytechnic University and the Collaborative Applied Landscape Planning (CALP) team at the University of British Columbia as partners.

In the initial concept for the site in 2010 the area divided into four distinct zones described below:

- Zone 1: The Entrance, is an area for public interaction and to host a farmers market, as well as for demonstration of sustainable accessibility features such as permeable parking areas, and bike parking.
- Zone 2: Demo and Research, will be an area dedicated to plots for research and demonstrations of organic gardening.
- **Zone 3:** Production, is where community gardens and market gardens will be located and incubator farm space made available.
- **Zone 4:** Natural Systems, will be an area that will increase the biodiversity of the local area and provide ecosystem services.

b. LUADP Detailed Planning-2017

The 2010 early concept development recommended a 12 month detailed project planning phase to develop a feasible concept plan for urban agriculture on this publicly owned site located within a hydro transmission right-of-way (hydro ROW).

The Langley Urban Agriculture Demonstration Project (LUADP) Detailed Planning Phase was initiated in 2016 with planning work beginning in January 2017. This phase was funded through Metro Vancouver's Sustainability Innovation Fund. With support from both local and regional governments the LUADP aims to:

- Create a functional community space within and existing hydro ROW
- Be a pilot project for similar hydro ROW development project in the region
- Increase opportunities for urban food production
- Create educational opportunities for the community around agriculture
- Improve and enhance the utilization of publicly owned land

Principles

The project principles were developed collaboratively by project partners in consultation with key stakeholders. Guiding principles for this project include:

- Prioritize food production and education
- Ensure community fit and compatibility
- Educate the public about the integration of agriculture, energy, environment and community
- Develop a replicable process for planning and designing urban agriculture projects in hydro right-of-ways in the region.

Time Line

The original time line proposed 12 months for site assessment, consultation and outreach, planning and design, reporting on the projects findings.

The project time line was extended to accommodate additional consultation and a second Open House, held in September of 2017.

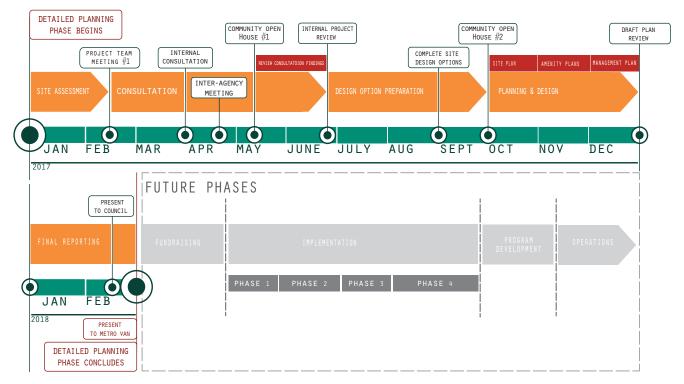


Figure 2: Time line for the LUADP Detailed Planning Phase, beginning in January 2017

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1. Introduction

1.1. Understanding Urban Agriculture

Urban agriculture (UA) is becoming a key strategy for addressing environmental and social sustainability in communities around the world. Although, producing food in urban communities is not a modern idea, few cities have the necessary physical and social infrastructure to support agriculture, and other food system activities. Urban agriculture requires access to biophysical resources (i.e. land, soil, water, nutrients) as well as socio-political resources (i.e. labour, financing, and community buy-in) some of which may not be readily available within urban boundaries. New creative solutions are therefore required that can create UA

What is Urban Agriculture?

Urban agriculture is the activity of producing, processing and distributing food and other agricultural products on land in urban areas. These systems are often closely connected to social, economic and ecological systems in cities.

projects that are meaningful, and sustainable.

A scan of projects from around the world demonstrated a variety of positive outcomes, in addition to providing access to healthy, fresh food. UA projects are often described as occupying space at the nexus of farming and community development, integrating social, educational and environmental goals into productive landscapes.¹

Access to land is necessary for all UA projects, and can be a one of the most significant challenges for the development of community based and entrepreneurial farming initiatives in cities. In most jurisdictions, including Metro Vancouver, urban land is increasingly expensive meaning access to land for urban food production can be beyond the reach of those who are interested in initiating new projects. In addition to the challenge of affordability, the amount of land available for food production is also



Black Creek Community Farm is a community project that supports low income and immigrant populations in Toronto. Leveraging existing resources and knowledge the project was jointly founded by Everdale Environmental Learning Center, FoodShare and African Food Basket. They were able to access land through a lease agreement with the Toronto Region Conservation Authority (TRCA) for the 8 acre urban farm.²



Loutet Farm is a ½ acre market garden and ⅓ acre school garden located on publicly owned land, in a residential community in North Vancouver. Planning for the farm took two years and involved public consultation and was supported by UBC's School of Architecture and Landscape Architecture's. Funding was granted to support equipment, infrastructure, and wages for our staff. Donations from local businesses helped with the installation of fencing and irrigation. The project is now managed by the North Vancouver Neighbourhood House and the Edible Garden Project. ³

decreasing in urban areas due to rapid urbanization, and the contamination of urban soils.

Land access and affordability continue to complicate efforts to initiate and sustain urban agriculture. As a result, food system and social development advocates are working to support creative approaches to land access, new strategic partnerships through precedent setting pilot projects.

Those advocating for urban agriculture recognize that it is not realistic to rely on urban agriculture to support the full range of food system activities (i.e. production, processing, distribution, and waste management) in every community. It is also not a realistic expectation to assume that urban farms can fully support the food needs of urban populations. However, under the right environmental and social conditions UA

projects provide a variety of benefits to urban communities and regions.

Urban agriculture can create employment opportunities, stimulate the local economy, create a sense of community, increase urban biodiversity, contribute to community food security and promote healthy lifestyles. Exploring new models for urban agriculture may also contribute to the development of resilient, local and regional food systems by providing public education opportunities and increasing access to fresh local produce for growing urban populations.

1.2. Municipally Supported Urban Agriculture

Those initiating and supporting urban agriculture projects can include individuals, environmental organizations, neighbourhood groups, faith based organizations, non-profits and private sector corporations. It is also becoming increasingly important for local governments to become involved in project development and management because they can draw on existing resources and institutional capacity. This has been shown to contribute to project resilience and sustainability. ⁴

Local governments can support UA projects by providing access to land, leveraging funding, creating enabling policy and zoning regulations, providing access to services (i.e. water and sewage), and identifying strategic locations for urban agriculture within communities. Involvement of local governments in UA projects can also help align project outcomes with the long and short term goals for municipalities around sustainability, economic development, and social development.

In recent North American history most urban agriculture initiatives have been started through community based, grassroots efforts to address issues at the neighbourhood scale. A deeper understanding of the factors that contribute to the success of UA projects shows that planning

for food production in urban communities is most successful when incorporated into planning and policy making at the municipal scale.⁵ While continuing to support the bottom up grassroots movements in urban agriculture it is recognized that institutionalization through local government support may improve coordination and lead to increased project resilience, and local level sustainability.

Despite the benefits for urban agriculture demonstrated when local government is supportive there may still be opposition from urban residents who think that municipal funding and capacity should not be directed towards supporting UA projects. Turning the tide of public perception will continue to be a



The McQuestion Urban Farm was built primarily to address food insecurity in a low income community. The project was municipally supported and involved collaboration with the McQuesten Neighbourhood group, the City of Hamilton, Social Policy and Research Council, academic institutions and private sector design companies. The farm now provides volunteer opportunities, and fosters strong bonds amongst residents. The farm will be run with significant input from the public on how to manage farm operations and programming. The City has provided access to land, made adjustments to their Official Community Plan, and providing staff support through the planning and development phases.6

significant challenges in moving these projects forward and could impact the availability of land, funding and other resources in the future.

Securing the necessary resources for urban agriculture in modern cities can be a challenge. Addressing this requires unique and creative approaches in planning, design and long term management. Identifying opportunities to access land within urban boundaries, and establishing frameworks of support that include local government are both necessary in order to increase the available for urban agriculture.

The critical work of reconnecting urban communities with their food system is a complex undertaking. Innovative UA projects have demonstrated the transformative power of connecting urban populations with agriculture, and the local food system.

1.3. The Langley Urban Agriculture Demonstration Project

The Langley Urban Agriculture Demonstration Project (LUADP) is a unique project which aims to advance of urban agriculture, through development of a concept plan for a site in the City of Langley. It is recognized that this project may be potential to advance goals in the City of Langley's Sustainability Framework, in addition to other positive outcomes. The LUADP may also help to advance urban agriculture and local food programming in the City by creating awareness and building local capacity.

As a municipal partner, the City of Langley has been supportive of the project. Working with BC Hydro to create a model of urban agriculture that can work within the unique context of hydro ROWs also presents opportunities to explore new models for urban food production, and could also make more land available for urban agriculture across Metro Vancouver.

2. Site Assessment

The site chosen for the Langley Urban Agriculture Demonstration Project is located within a BC Hydro transmission right-of-way (hydro ROW). This is a statutory hydro ROW which means the land is owned by the City of Langley, and regulated by BC Hydro.

This hydro ROW occupies 23 acres (9 ha) of land, and is embedded within an established residential neighbourhood in the City of Langley. The following section outlines the unique biophysical, social, and cultural characteristics of the site. This analysis will they help to determine if the site is suitable for urban agriculture, and what type of amenities would be best given the community context, and site characteristics. This site assessment includes three different areas of analysis:

Soil Analysis

Soil analysis and testing is a key first step in any UA project. This is necessary to determine if working on the site and consuming produce is safe. Soil tests can also provide baseline data about the physical and chemical properties of soil that impact food production, including pH levels and organic matter.

Context Analysis

Context analysis looks at the area surrounding a proposed project site considering how a project will fit into an existing neighbourhood. This also includes all relevant planning and policy contexts

Site Analysis

Site analysis looks at the specific characteristics of the site that may or may not support urban agriculture. This includes biophysical, social and ecological characteristics, as well as current uses.



View looking west from within the right-of-way. Image Source: Emily Hansen



View of BC Hydro transmission towers within right-of-way. Image Source: Emily Hansen

2.1. Soil Analysis

When UA projects are proposed there are frequent public concerns about health risks associated with consuming food produced in cities where there may be unknown contaminants in the soil. Land use history, as well as adjacent land uses can have an impact on the quality of the soil and should be considered in assessing the suitability of the urban sites for food production. Although contamination can sometimes be detected by a visual inspection of the site, soil tests are needed to ensure safety, and determine soil quality.

Toronto Public Health has developed a resource to help community groups, and others, to conduct and analyze soil tests in an effort to make more land available for food production within the City. This resource helps groups to: (1) assess the level of risk of contamination of a proposed urban agriculture site, (2) test the soil, and (3) determine strategies and protocol for addressing any concerns indicated from site assessment and soil testing.⁸

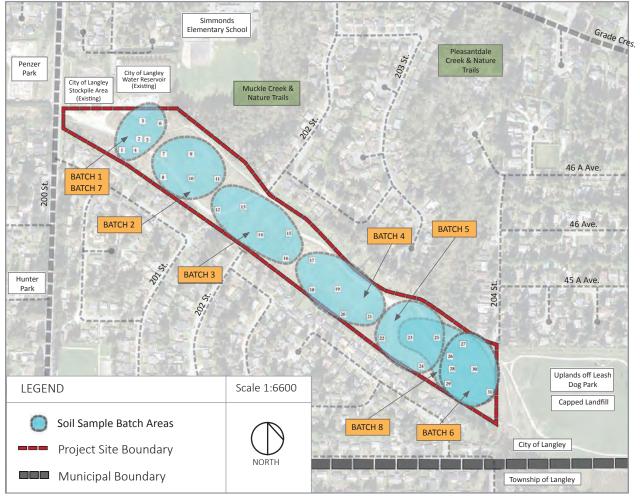
Table one shows that there is a medium level of concern for sites located within hydro ROWs. Heavy metal contamination on these sites could come from construction and maintenance of transmission towers, or other infrastructure. There is also the risk of pollutants from the use of herbicides that may be used to manage vegetation within the hydro ROW. Although the use of chemical herbicides for vegetation management is not a common practice in all jurisdictions, it is important to test for chemical contamination for all proposed sites within hydro ROWs.

RISK LEVEL	PAST OR ADJACENT USES
Low	Residential
	Parkland
	Farmland
	School or Childcare Centre
Medium	Risk managed park
	Conventional orchard
	Infill Area (not natural soil)
	Hydro corridor
	Commercial area
	Remediated industrial land
	Former landfill
	30m from a rail line or major arterial road
High	Gas station
	Dry cleaner
	Printing shop
	Auto body shop
	Industrial area
	Rail line of rail yard

Table 1: Risk Assessment Tool for Urban Agriculture. Adapted From City of Toronto Public Health.

BATCH#	COMPOSITE BATCH SAMPLES						
1	LH 1 (20-30cm)	LH 2 (20-30cm)	LH 3 (20-30cm)	LH 4 (20-30cm)	LH 5 (20-30cm)	LH 6 (20-30cm)	
2	LH 7 (20-30cm)	LH 8 (20-30cm)	LH 9 (20-30cm)	LH 10 (20-30cm)	LH 11 (20-30cm)		
3	LH 12 (20-30cm)	LH 13 (20-30cm)	LH 14 (20-30cm)	LH 15 (20-30cm)	LH 16 (20-30cm)		
4	LH 17 (20-30cm)	LH 18 (20-30cm)	LH 19 (20-30cm)	LH 20 (20-30cm)	LH 21 (20-30cm)		
5	LH 22 (20-30cm)	LH 23 (20-30cm)	LH 24 (20-30cm)	LH 25 (20-30cm)			
6	LH 26 (20-30cm)	LH 27 (20-30cm)	LH 28 (20-30cm)	LH 29 (20-30cm)	LH 30 (20-30cm)	LH 31 (20-30cm)	
7	LH 1 (deep)	LH 2 (deep)	LH 3 (deep)	LH 4 (deep)	LH 5 (deep)	LH 6 (deep)	
8	LH 23 (deep)	LH 25 (deep)	LH 26 (deep)	LH 27 (deep)	LH 29 (deep)	LH 30 (deep)	LH 31 (deep)

Table 2: Composite Batches Submitted for Soil Testing.



Map 1: Soil Sample Sites and Composite Batch Areas.

2.1.1. Soil Sampling Protocol

A soil sampling protocol was developed by a soil scientist from Kwantlen Polytechnic University. In total, 31 sample sites were chosen within the ROW area. All sampling was conducted by Kwantlen Polytechnic University Sustainable Agriculture students under the supervision of staff at the Institute for Sustainable Food Systems and KPU Faculty.

Samples were taken between 20 and 30 centimeters below the surface at all of the 31 sites. Samples were also taken between 60 and 70 centimeters (deep) below the surface at sites where there was increased concern of possible contamination, such as areas adjacent to the capped land fill (now Uplands off Leash Dog Park) and in areas where dumping and excavation has occurred. In total, 44 samples were collected and then grouped

into composite batches to be submitted to a commercial laboratory for analysis. Table 2 shows how soil samples were grouped in order to create composite batches. Map 1 (above) shows the approximate location of each sample site and how samples were grouped into batches.

2.1.2. Soil Test Results

Soil tests will determine if there are any possible chemical or heavy metal contaminants on the site. They also provide information about the physical and chemical properties of the soil that impact food production.

Testing for soil properties including; soil carbon, organic matter, and pH levels will establish a baseline for amendments. However, these properties are not a primary consideration in determining if the site can be used for urban agriculture.

Soil samples were analyzed by CARO Analytical Services in Richmond, British Columbia. An analysis of any possible chemical and heavy metal contamination was the focus of testing. Most labs testing is conducted based on a detectable threshold for both pollutants and heavy metal contaminants, which is directly related to impacts on human health.

The results of soil tests can then be compared to acceptable levels for agricultural production based on Canadian Environmental Quality Guidelines available from the Canadian Council of Ministers of the Environment (CCME). The CCME also has guidelines for other land uses such as recreation or residential. These are both understandably higher than the limits for food production.

Pollutants

No detrimental pollutants were found in the soil samples from the site. This is promising because chemical contaminants can be more challenging to remove from the soil, which may limit the opportunities for food production.

Heavy Metal Contaminants

Heavy metals naturally occur in soils, however in urban environments heavy metals have the potential to reach elevated levels from increased urban and industrial activity. The Canadian Environmental Quality Guidelines from the CCME were consulted to determine if heavy metals in the soil exceeded the safe thresholds for agriculture. Table 3 compares heavy metals that are of concern for agricultural sites with the results from LUADP samples. The heavy metal levels are relatively consistent across the site and with the exception of Cobalt detected in Batch 4, do not exceed the allowable limits for agriculture. However, this slight elevation detected does not pose a significant concern.

Soil Properties

Soil properties such as organic matter and pH are variable across the site. Based on the development of the site as a hydro ROW it is also likely that there is significant compaction of soil from construction and maintenance activities. For urban agriculture projects soil properties can be improved though a variety of practices, such as adding compost, mulch and incorporating cover crops.

Metals of Concern for Agriculture	Acceptable for Agriculture mg/kg (Source:CCME)	Batch 1 (mg/kg)	Batch 2 (mg/kg)	Batch 3 (mg/kg)	Batch 4 (mg/kg)	Batch 5 (mg/kg)	Batch 6 (mg/kg)	Batch 7 (mg/kg)	Batch 8 (mg/kg)
Arsenic	12	4.6	4.6	4.7	6.9	5.2	6.3	4.1	5.5
Cadmium	14.	0.21	0.14	0.16	0.38	0.13	0.17	0.12	0.16
Cobalt	40	36	36.5	32.1	43.5	38.1	34.4	31.6	37.8
Chromium	64	9.2	9.4	8.9	10.8	9.7	8.7	8.2	9.4
Copper	63	23.4	25.3	23.6	41.6	27.3	27.4	22.3	28.5
Mercury	6.6	0.05	0.05	0.08	0.07	0.04	<0.04	<0.04	0.04
Molybdenum	5	1.1	1	0.7	2	1.3	1.3	0.8	1.2
Nickel	45	32.6	33.7	29.3	32.6	30.8	30.6	28.5	30.9
Lead	70	13.7	13.3	16.9	46.6	14.9	11.4	9.6	13.2
Selenium	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vanadium	130	56.2	55.6	50.3	58.6	50.4	50.4	49.6	53.6
Zinc	200	70	52	59	123	59	52	45	59

Table 3: Heavy metal contaminants and acceptable levels for agricultural sites compared to LUADP Results.



2.1.3. Recommendations for Healthy Soils

Based on the findings from soil testing it was determined that there is no significant chemical or heavy metal contamination, and that site will support urban agriculture. These recommendations have been made to ensure that there are no risks to public safety and so that crop production can be successful.

- Conduct additional soil tests where in ground food production is planned, particularly in areas where annual vegetables will be cultivated
- Support ongoing soil testing (every 3 years) of soil to monitor soil quality and health
- Use organic farming methods to build soil fertility over time
- Rotate crops annually, and throughout the season
- Include nitrogen fixing legumes in crop rotations
- Compost crop residue on site and apply to production areas as required
- Incorporate compost from trusted organic sources on a regular basis (if not made)
- Choose plants and crop varieties suited to the climatic and soil conditions of the site
- Consult with a soil expert to determine what amendments may be required to improve the fertility in cropping areas
- Plant a diversity of crops in both annual and perennial production areas
- Protect and enhance wildlife habitat by including naturalized plantings both around and within production areas

2.2. Context Analysis

The City of Langley is a rapidly growing, urban municipality located in the Metro Vancouver Region. The community is divided into six established residential neighbourhoods based around existing elementary school catchment areas, including: Douglas, Nicomekl, Blacklock, Uplands, Simmonds, and Alice Brown.

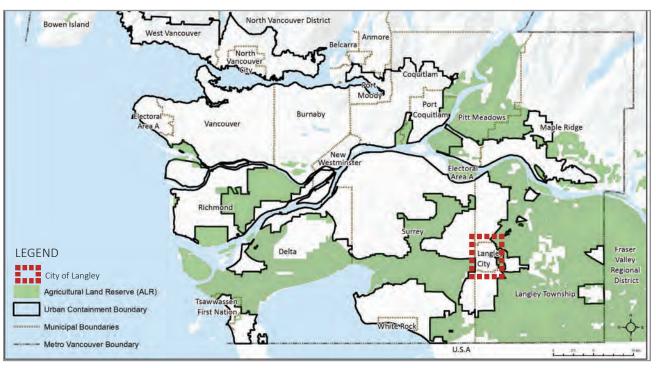
As a member government of the Metro Vancouver Regional District, most of the City of Langley is designated as a Regional City Centre in Metro Vancouver 2040: Shaping Our Future (Metro 2040). The City is growing at around 16% per year, and forecasted to double its population by 2026.¹⁰ With this growth on the horizon, the City's Sustainability Framework aims to create complete, compact communities that incorporate parks and green spaces, good transit and a walkable urban environment. In the City centre, development will focus on multi-family residential, commercial and industrial buildings to accommodate residential and business growth. This goal is balanced with an equal priority on maintaining quality of life in the already established residential neighbourhoods to the south of downtown, and managing improvements to parks, roads and infrastructure. 11 Given the proximity of the project site to the Township of Langley and the City of Surrey, it is anticipated there could be strong opportunities for potential municipal and community partnerships between these communities.

The project site is also located in close proximity to several schools including; Alice Brown Elementary, Simmonds Elementary, Uplands Elementary and H.D Stafford Middle School. This presents opportunities to create dedicated space within the project site to support education, collaboration and engagement with the different schools.

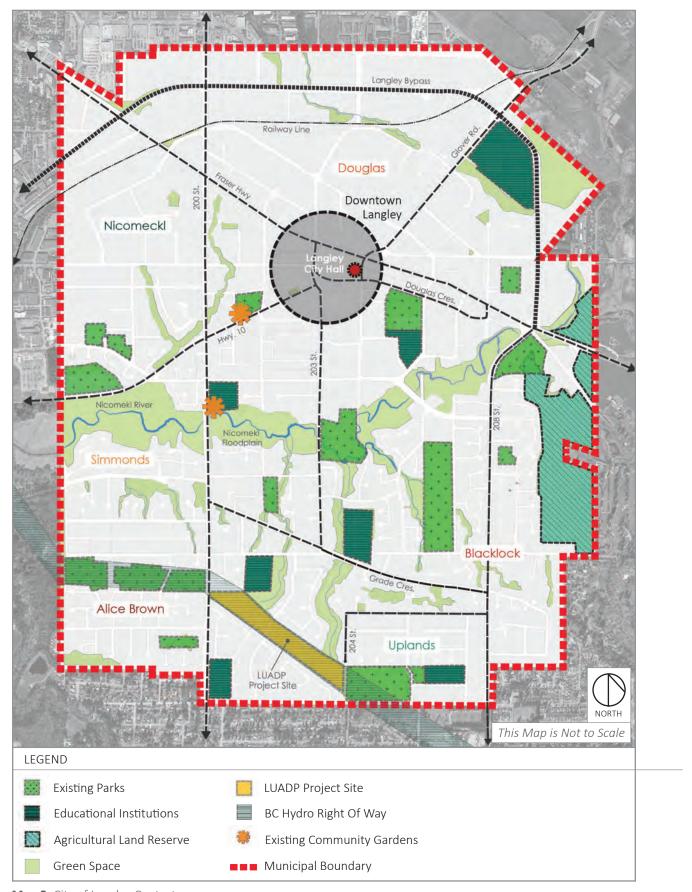
Metro Vancouver Context

Metro Vancouver contains a significant amount of land in the Agricultural Land Reserve (ALR), located outside the Metro 2040 Urban Containment Boundary. ¹²

Although urban municipalities, like the City of Langley, have little ALR land they can be ideal locations to explore the opportunities of urban agriculture addressing urban food security, and contributing to building sustainable communities in the region.



Map 2: Metro Vancouver Context.



Map 3: City of Langley Context.

2.2.1. Policy Context

Compared to other municipalities in the Metro Vancouver region, as well as in the Fraser Valley, the City of Langley has limited land area within the Agricultural Land Reserve (ALR) (approx. 16 ha) with the majority of it used for recreation at the Newlands Golf and Country Club. ¹³

The 10 year Parks, Recreation and Culture Master Plan for the City of Langley identifies a variety of strategies for increased accessibility, sustainability and usability for parks and recreational programming. The plan indicates goals of more urban agriculture projects as well as, planting more trees and native plants while supporting community groups and environmental education. The Parks and Recreation Master Plan also recognizes the potential to support ongoing volunteerism by improving coordination systems through improved software.

The City of Langley's Social Plan, prepared in 2007, recognized a number of priorities where the City should take action on social service issues in the community. The LUADP has the potential to address identified social service gaps related to green space, community based health services, and connecting diverse communities. The plan also contains specific recommendations for identifying sites for community gardens, better utilize existing parks, providing healthy meals in schools, and integration of diverse communities through volunteerism. ¹⁶

Regionally, the LUADP is aligned with Metro Vancouver's regional growth strategy (Metro 2040) goals to develop complete communities. ¹⁷ The project could also concretely help advance some of the strategies and initiatives identified in Metro Vancouver's Regional Food System Strategy and Action Plan related to food literacy, helping new farmers gain access to land, direct marketing opportunities, supporting k-12 education and broad support for urban agriculture. ¹⁸

2.2.2. Parks and Open Space

The City of Langley is a small municipality, but despite its size and urban character one that boast over 300 acres of parks and open space (a total of 12% of the municipalities land area). These parks support a wide range of recreational and cultural activities that contribute significantly to livability and quality of life for residents.

Recent upgrades to the City's downtown core demonstrate a priority to improve accessibility and social connection through public realm improvements. Recent proposals for park enhancements demonstrate the City's commitment to developing high quality parks with amenities to serve a variety of users. Penzer and Buckley Parks (located within the same hydro ROW area west of 200 St.) incorporate a dynamic range of program elements and aim to create a defining feature in the community. Currently these parks feature a bike park, newly installed "action park", and passive recreation areas. The approved plan would also add community gardens, sports fields, public art, trails and enhanced open space. Development of the LUADP site is an opportunity to connect with this existing community amenity space within the BC Hydro ROW creating a public amenity corridor to serve a diverse community of users from across the City.

To the east of the site is the Uplands Off-Leash Dog Park which was established on the site of a capped landfill.



Completed in the Summer of 2016 the Penzer Action Park has been developed in the BC Hydro Right-of-Way West of the LUADP site. The park has been successful and is well used by residents. Image Source: City of Langley

In partnership with the Langley Environmental Partners Society, the City of Langley currently supports two community gardens at Linwood Park and Nicomekl Elementary School. There is a waiting list for participation in community gardening at Linwood Park, which is located in close proximity to higher density residential developments including townhouses and condominiums.

The network of parks and open space in the City of Langley represents creates community wide connectivity through recreational trails and natural corridors. The LUADP is ideally situated to become part of this green corridor network and to enhance urban agriculture programming in the City. The site is connected to the Nicomekl River through natural corridors and walking trails along Pleasantdale and Muckle Creeks and to existing parkland to the east and west along the hydro ROW. Maintaining pedestrian connectivity while enhancing the natural corridors that support wildlife and biodiversity will be high priorities for the project.

2.3. Site Analysis

The hydro ROW at the proposed location contains two 500 kV transmission lines and one 230 kV line. These bulk transmission lines bring power from the Columbia and Peace generating stations to the main load centers in the Lower Mainland and Vancouver Island.

In addition to hydro transmission infrastructure, there are also City assets on and adjacent to the site, including a water reservoir, stockpile area and pump station for the capped landfill located to the east. As the site is developed it is important to maintain access to all infrastructure elements for maintenance crews.

Currently, vegetation on the site includes shrubs and turf areas with limited biodiversity. Himalayan Blackberry (*Rubus armeniacus*) and Scotch Broom (*Cytisus scoparius*), both invasive species in the region are spread throughout the site are also growing throughout the site.

These species are commonly found in areas disturbed by development including; roadsides, right-of-ways, and pastures.¹⁹ BC Hydro has worked with local conservation groups including the Langley Environmental Partners Society to manage invasive plant species in hydro ROWs in order to enhance habitat and wild biodiversity and reduce the use of herbicides for weed and invasive plant control. ²⁰

2.3.1. Current Uses

Community feedback received during Community Open Houses provided information about how the site is currently used. According to residents the site is well-used for passive recreation, and valued for its "undeveloped" and "natural" character.

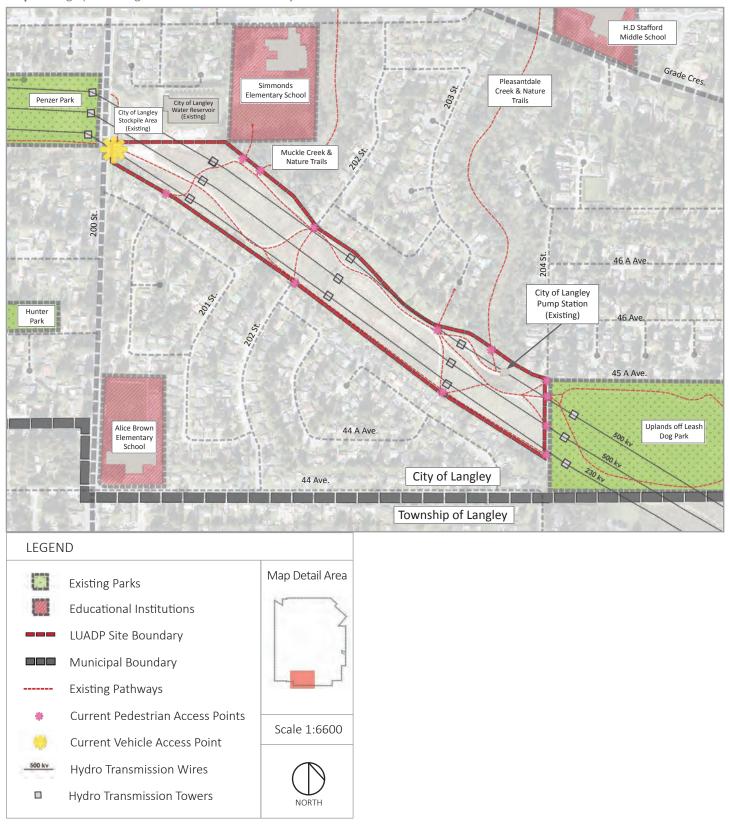
Current uses include walking, dog walking, cycling, nature viewing, and some sledding in the winter. Residents indicated that they used the site regularly, even daily for these activities. They also value the site as a natural area providing local residents and surrounding property owners with a variety of benefits. These include peace and quiet, sense of privacy in backyards, habitat for wildlife, and a feeling of being close to nature. Some residents also forage for blackberries.

The site is accessible to pedestrians at many points in the surrounding neighbourhood and through the nature trails that run along Muckle and Pleasantdale Creeks North of the site. There are also direct pedestrian connection to the site from the grounds of Simmonds Elementary.

There is currently one vehicle access point off 200 St. used by maintenance vehicles only. An existing right-of-way for 202 St. crosses the site but is not currently open to through traffic. It was communicated strongly by neighbourhood residents that this ROW should remain a pedestrian access point only, and not be opened to vehicles.

A City of Langley stockpile area is located inside the gate off 200 St. A City owned reservoir is also located in this area and is accessed by Engineering crews when required. BC Hydro vehicles have access to the site for infrastructure maintenance when necessary.

Map 4: Langley Urban Agriculture Demonstration Project Site Context



2.4. Opportunities and Challenges

Based on assessment of the site and surrounding context in the City of Langley opportunities and challenges have been identified for the LUADP:

Opportunities:

- Urban agriculture aligns with City of Langley Sustainability Framework, and other municipal policies
- Local policy is supportive of urban agriculture and environmental restoration on public land
- Regional policies support local governments in the pursuit of urban agriculture initiatives
- Soil test revealed no significant concern of contamination on the site
- Soil quality is adequate for agricultural production, with the potential to improve
- Land is publicly owned
- Site is located near schools & could provide educational benefits to local students
- Site is a key link to the existing parks and open space network in the City
- Site is connected to other community amenities by walking trails
- BC Hydro support development of compatible uses in hydro ROW areas
- Plans for amenity development in Penzer and Buckley Parks have recently been approved
- The project could enhance the existing green corridor network

Challenges:

- Site is located in a residential neighbourhood, which may not be supportive of urban agriculture
- Soil may be compacted and degraded due to construction and utility maintenance
- Site is currently well used by the surrounding neighbours, and valued as an unprogrammed space
- Site is currently vegetated with aggressive varieties of invasive plant species

3. Urban Agriculture in Hydro Right-of-Ways

Accessing land within urban boundaries that is appropriate for food production and related activities is one of the most significant hurdles for urban agriculture. Land in and around urban areas is becoming more expensive and food production is often seen as low value land use when compared to the economic returns from residential or commercial development. In response to this fundamental challenge facing urban agriculture, there is a need for creative solutions that can contribute to urban food security, and create new opportunities for education and community development.

Utility right-of-way (ROW) areas (including Hydro transmission ROW and road easements) represent an opportunity for food production that is yet to be fully explored in urban areas. More specifically hydro ROWs present a unique opportunity because the land may be publicly owned. However, there is a need to more carefully consider the unique design and management strategies for creating effective agriculturally focused projects that are compatible with existing hydro ROW uses.

In rural areas agriculture is routinely practiced within hydro ROWs. This includes livestock grazing and crop production, and most regular farming practices such as the use of heavy machinery and mechanical irrigation.²³ In an urban context farming in hydro ROWs is less common. However, these areas are increasingly supporting for community amenity development, which includes small scale food production. Urban hydro ROWs present opportunities to explore a variety of UA models including community farming, community orchards, school farms, demonstration gardens,

or incubator farms. Community gardens, and pollinator pastures have already shown to be successful in hydro ROWs in many communities.

Hydro ROW Urban Agriculture Examples

Urban agriculture is a compatible use in hydro ROWs, however there are few projects to draw inspiration from. The following project precedents are functioning UA projects in hydro ROWs. They demonstrate different approaches to collaboration with utility companies, and engaging communities.



Stanford Avalon Community Garden, Los Angeles CA

This garden occupies is a 30 km corridor in the Watts neighbourhood in South LA and contains 206 garden plots. Opening in 2006, Stanford Avalon has provided community members with access to healthy food, and community development opportunities. In addition to being located within a hydro ROW the site is bisected by a freeway, and a railway line. ²⁴ Despite its often precarious location the project has made positive contributions to health and social connectivity. There have also been studies showing that the gardens have contributed positively to ecosystem health in the dense urban community.





Flemingdon Park Market Garden, Toronto ON

The Flemingdon Park Market Garden is a proposed project on land within a Hydro One ROW. The City of Toronto Parks and Recreation Department is arranging to sign a lease with a community organization and will be permitting farming on the site. While the project is still per-construction, the space offers a lot of potential. The land is an open field where the soil has been tested and deemed healthy for agriculture. The project will be comanaged by FoodShare, a reputable non-profit focused on promoting healthy food and social equity. The plans have been prepared through community consultation by SHIFT Landscape Architecture.

3.1. BC Hydro Compatible Use Guidelines

Compatible use guidelines are created by utility companies, including BC Hydro to guide the development and maintenance of projects within or adjacent to hydro ROWs. Determining how hydro ROWs can be developed requires review of these guidelines as well as the statutory right of way agreement registered against the specific property. ²⁶ In British Columbia, all compatible uses in hydro ROWs are subject to final approval from BC Hydro Properties Division.

Based on available information and initial consultation with BC Hydro there are a number of physical and programmatic elements related to urban agriculture that could be restricted, or subject to alternative design based on safety requirements. These elements include:

- Construction of temporary structures
- Fencing
- Significant changes to grade and drainage
- Type and layout of irrigation systems
- Type of equipment and machinery used on site
- Height of vegetation
- Type of building materials used
- Type and location of electrical servicing
- Public access and programming

When planning for any community amenity development in a hydro ROW there are two primary considerations for site design and use. The first is clearance from utility works and infrastructure. This refers to the horizontal distance from utility infrastructure on a site such as towers or cables.

The second is line clearance which refers to the vertical distance from overhead wires of any infrastructure or vegetation within the ROW. Clearance from overhead wires must also consider the potential for wires to sag in hot weather, and any changes in grade across the site. It is recommended that all vegetation and structures adhere to specific height requirements, and additional clearance be given where wires may sag and a decrease of this clearance may occur.

3.2. Electric and Magnetic Fields and Human Health

Electric and magnetic fields (EMF) are invisible fields of energy that are present anywhere electricity flows. Since the 20th century there has been a steady increase in man-made sources of EMF. They are emitted from a variety of sources, including hydro transmission lines, cell phones, telecommunications infrastructure, building wiring, and household appliances. ²⁷

Although often named together as EMF, electric and magnetic fields represent two distinct components of electricity. Most of the studies that examine the human health impacts focus on magnetic field exposure (measured in milligluass mG). The strength of magnetic fields can fluctuate throughout the day as energy demand shifts. ²⁸ Table 4, adapted from a BC Hydro online publication "Understanding Electromagnetic Fields" gives the magnetic field strength of the two different transmission line types that are located on the LUADP site. This also demonstrate the rapid decrease in field strength when moving away from overhead wires.

Table 5 offers additional information about the magnetic field strengths from common household sources demonstrating the pervasiveness of EMF in the everyday environment.

Scientific research about the health impacts of EMF exposure is ongoing and a variety of health outcomes have been examined. Health authorities such as the World Health

Transmission Line Voltage	Under Transmission Lines	Edge of Right-of Way (~20m)	Outside Right- of-Way (30m)
230kv	38mG	28mG	8mG
500kv	81mG	51mG	33mG

Table 4: Transmission Tower Voltage and Associated EMF Levels.

Household Sources of EMF	At the Source (5-10cm)	~1m from Source
Hair Dryer	300mG	0.1-6mG
Dish Washer	20mG	1mG
Washing Machine	20mG	0.1-2mG
Power Saw	200mG	4mG
Vacuum	300mG	1-10mG

Table 5: EMF Levels of Common Household Appliances. Source: United States Environmental Protection Agency.

Organization (WHO) and Health Canada review this research and have concluded that there is no cause – effect relationship between exposure to magnetic fields and impacts to human health.²⁹ The research into health effects from EMF exposure mostly surround long term and occupational exposure with a focus on studying the effects on people who work in environments where exposure is extremely high.

The World Health Organization is responsible for aggregating research on the health effects of EMF exposure and have concluded that there are no substantive health concerns related to EMF at levels generally encountered in the public domain. Additional conclusions of research to date has led to the classification of EMF by the International Agency for Research on Cancer (IARC) as a "possible carcinogen to humans" the weakest of three categories used to assess potential carcinogens.³⁰ This classification is due to a lack of concrete evidence about how EMF could cause cancer and the type of exposure that would be considered harmful.

BC Hydro also recognizes that despite conclusions made by these organizations, there are some member of the public who remain concerned about the health implications of EMF exposure. BC Hydro, along with other health authorities, continue to monitor and review the scientific developments related to EMF.³¹

3.2.1. EMF Exposure in Public Amenity Design

With an increasing scarcity of open space in urban areas there are a growing number of examples of the use of hydro ROW as community spaces, both formally and informally. These developments include: urban allotment gardens, playgrounds, sports fields, recreational trails and wildlife habitat. With these projects there are often additional measures taken to protect the health and safety of the public due to the close proximity of hydro transmission lines and infrastructure, and concerns about exposure to EMF.

When hydro ROW areas are considered for community amenity development, utility companies work closely with municipalities and

developers to protect public safety. This includes ensuring that designs adhere to compatible use guidelines, and that information is available to the public addressing EMF exposure and public safety.

Guidelines for mitigating exposure to EMF in public spaces are set and monitored nationally, however Health Canada does not consider any precautionary measures to be necessary with regard to daily EMF exposure.³² In other countries, and some local Canadian jurisdictions prudent avoidance as a variation on the precautionary principle has been adopted to limit exposure to EMF when establishing community amenities in hydro ROWs.33 This means taking low or no-cost actions to reduce exposure such as public education, EMF monitoring, and increasing ground clearance between amenities areas and overhead wires with the right-of-way. In the absence of national guidelines in Canada, local level policies may be developed, and adopted to help guide amenity development in hydro ROWs.

Health and public safety are a primary concern when working in and around hydro right-of-ways and is an important consideration when designing community amenities in these locations. Adhering to all safety guidelines developed by hydro companies, and supporting ongoing public education regarding the safety of working in and around hydro transmission infrastructure will be important in the development of urban agriculture project in hydro ROW sites.

3.3. Developing a Model for Urban Agriculture in Hydro ROWs

BC Hydro, and other utility companies, are supportive of compatible uses in hydro right-of-ways and have approved a variety of different community amenities in other areas. Agriculture is one of a variety of compatible uses for hydro transmission right-of-ways, but is subject to a variety of design and programmatic restrictions in order to protect public safety, and maintain

access to utility infrastructure. Hydro ROWs occupy significant tracts of land in communities. In proposing the LUADP it was recognized that accessing this land for urban agriculture could help make significant contributions to advancing urban agriculture in the City of Langley, and across the Metro Vancouver region.

Urban agriculture can be more intensive than agriculture practiced in rural areas because of the integration of educational activities and other community programming. Creating a model that is compatible with hydro right-of-way restrictions is possible, but will require cooperation from a variety of stakeholders, including utility companies and local governments.

4. Planning & Design Process

4.1. Consultation & Public Outreach

Urban agriculture must be designed to be integrated into existing communities. If done effectively, there is significant potential for these projects to have a positive impact on a factors, such as: social cohesion, environmental sustainability, health and livability. However, when the concept is unfamiliar, projects may be perceived to negatively impact those who are living in close proximity to a proposed site, or because they appear to be costly or unsightly.

Ensuring that a project fits in well with the community, and that it provides the amenities needed in that community requires open dialogue with stakeholders and the public throughout the planning process.

The primary aim for consultation and public outreach during the LUADP was to share information with stakeholder, members of the public, and potential project partners.

4.1.1. Inter-agency Meeting

Prior to conducting public open houses, an inter-agency meeting was convened by Metro Vancouver. The purpose of this meeting was to engage with local and regional stakeholders to discuss potential synergies, and redundancies, as well as some anticipated challenges and opportunities for the LUADP. This meeting included participants from within the City of Langley, from neighbouring municipalities and from agencies with possible interests in urban agriculture.

The participants at this meeting reviewed the work done so far and made suggestions about what some of the key considerations may be going forward. One of the main takeaways from this meeting is that there is potential for

the LUADP to act as a model, informing similar projects in the region. Many participants also agreed that community buy in would likely be a key factor for success, and that the response from the community should be carefully considered in planning for the LUADP.

Participants also shared experiences identifying additional challenges that could impact the success of the LUADP, and other similar projects in Metro Vancouver. These challenges are:

- Zoning, bylaws and local land use policies
- Agricultural land reserve policy
- Public safety
- Site aesthetics and cleanliness
- Access to funding for planning, implementation and management
- Access to water, and other servicing
- Project evaluation

Inter-agency Meeting Attendees:

Heather McNell	Metro Vancouver
Jaspal Marwah	Metro Vancouver
Roy Beddow	City of Langley
Kim Hilton	City of Langley

Kent MullinixInstitute for Sustainable Food SystemsEmily HansenInstitute for Sustainable Food Systems

Rasadi Cortes BC Hydro
Carla Stewart City of Surrey

Teresa Kaszony Township of Langley

Michelle Truong Fraser Health

Kamelli Mark Agricultural Land Commission
Kelsey-Rae Russell Agricultural Land Commission

Lenny Yun Langley School District

4.1.2. Community Open Houses

Outreach with the public, especially resident living in close proximity to the project site was a priority. Community Open Houses were held to communicate the progress of the planning process with the public. These events focused on sharing information and collecting feedback from frequent users and those living in the neighbourhood.

Community Open House #1

The first Community Open House was held in Langley on May 10th, 2017 from 6-8pm at Alice Brown Elementary School. The majority of participants who attended were residents living nearby the proposed project site, who received notification by mail from the City. It is estimated that 80 people visited the open house and 54 solicited, written responses were collected at the event. Additional feedback was submitted to the City via email from those unable to attend the open house.

The initial public meeting had three primary objectives, which were to:

- 1. Introduce the project to the public
- 2. Explain urban agriculture and the wide variety of amenities and project types, and
- 3. Get feedback from the public about what type of urban agriculture would fit on this site.

A summary of this feedback was prepared and released after the open house. This feedback is summarized below:

- The site is well used as is by neighbours
- Existing values include community safety, natural space, privacy, and recreation
- Increased traffic in the neighbourhood and access to the site are major concerns
- Open and unprogrammed space is considered an asset in the neighbourhood
- Increased pest infestation, particular rats, in homes and private yards could be an outcome
- Activity on this site will disrupt rather than enhance the neighbourhood
- Urban Agriculture will primarily benefit those not living in the immediate area

Community Open House #2

A second community open house was added to the detailed planning phase after significant opposition to the project was expressed by those who attended the first open house. The event was held on September 19th, 2017, at Alice Brown Elementary School. Representatives from the City of Langley and the Institute for Sustainable Food Systems at KPU were in attendance.

The purpose was to present the public with three possible high level design options for implementing urban agriculture. Feedback collected from this event directly informed the development of a final site plan .It is estimated that 80 people attended the open house and 66 feedback forms were collected during the event. A summary of the responses below:

- 69% of respondents were not in favour of development of the site for urban agriculture
- 12% of this group would be in favour of environmental restoration or parkland development on this site, but not urban agriculture
- 29% of respondents provided feedback on the three conceptual urban agriculture options. Amenities that focused on education and building supportive relationships with neighbourhood schools were preferred.
- **12% of respondents** indicated they would be in favour of urban agriculture in a different location.

4.1.3. Consultation & Public Outreach Summary

Planning for urban agriculture can be a lengthy process, involving consultation with stakeholders, special interest groups as well as members of the public. Engaging with potential stakeholders prior to the development of UA projects is a critical step because their success relies on community buy in, and capacity building at the local level.

Public outreach for the LUADP focused on sharing information with the public through community open houses, and direct email communications with members of the public. All supporting information and feedback summaries were made available on the City's website.

The LUADP faced a number of challenges in engaging with the public with two issues having significant impacts on the outcomes of the planning process. The first issue was around the general understanding of urban agriculture and what it would mean to bring it to this hydro ROW.

A second issue was the rationale behind choosing this particular site for the implementation of a UA project in the City of Langley. Much of the concern from the public appeared to stem from preconceptions about urban agriculture, with a focus on the potential negative impacts on residents in the surrounding neighbourhood.

Challenges around communicating how UA amenities could be designed to fit into an established residential neighbourhood, and the rationale for why a UA plan was being developed for this site both impacted the perceptions of the project in the public sphere. Although the project team held open houses and made efforts to keep the public up to date throughout the planning process it was difficult to collect feedback about an urban agriculture plan. The majority of residents who attended community open houses and provided feedback via email wished to see the site left in its current state, and did not support urban agriculture in this location.





Participants review project information and design options at Community Open House #2 held at Alice Brown Elementary School on September, 2017. Image Source: Roy Beddow, City of Langley

Members of the public who provided feedback about urban agriculture generally favoured:

- Limiting the scale of urban agriculture
- Education focused amenities
- Maintaining and enhancing the trail network
- Maintain emphasis on passive recreation
- Protecting and enhancing wildlife habitat
- Restoring riparian and other environmentally sensitive areas

4.2. Amenity Selection

Choosing appropriate amenities for the LUADP site involved assessment of site characteristics and current uses, listening to the community, and consultation with stakeholders. Ad hoc conversations with potential community partners also informed amenity selection.

The amenity selection process involved 3 steps, each of which employed a unique set of criteria in order to develop a list of appropriate amenities, from a large pool of possible site features. Figure 3 illustrates the three steps in the amenity selection process, the process, the criteria for each and the outcomes.

Step 1: Project Scan & Compatibility Assessment

The first step examined a list of UA amenities that was created by scanning existing projects from around the world, and looking at the

different components. This included amenities that focused on food production, distribution, education, environmental restoration, and community development. This "amenity long list" was then assessed based on community fit and hydro right-of-way compatibility. The following guiding questions helped in this assessment:

- What amenities are not compatible with Hydro ROW compatibility restrictions?
- What amenities may not fit based on site characteristics (considering: accessibility, soil characteristics, natural features, existing infrastructure), and can't be mitigated through amenity design?
- What amenities may create conflicts with the surrounding community and current site uses which can't be mitigated through amenity design?

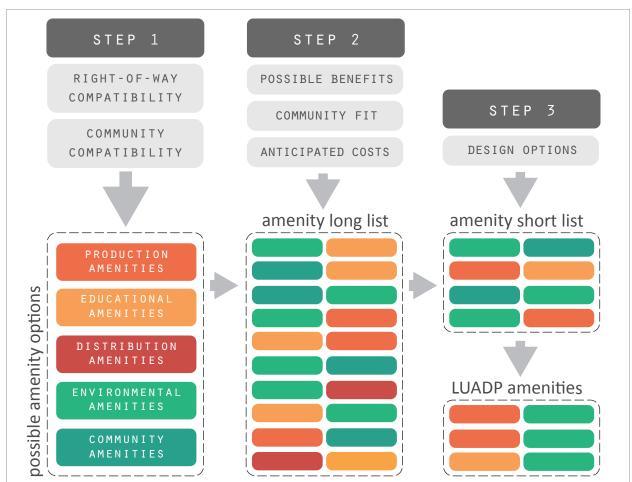


Figure 3: Amenity Selection Process Flow Chart.

AMENITY	RATIONALE FOR EXCLUSION
Accessibility Garden	 accessibility to the site for people with disabilities is limited alternative location for accessible gardens should be considered
Community Composting	 municipal compost collection is available, community composting not a priority odour, and rodent issues are a concern could also attract unwanted wildlife may attract too much traffic to the site
Container Farm	 may be unnecessary infrastructure with added cost in this location increased maintenance costs and limit flexibility in production areas
Community Gathering Plaza	 BC Hydro does not encourage large gatherings in hydro corridors large gatherings on the site have greater potential to conflict with surrounding community and private property
Farmer's Market	 BC Hydro does not encourage large gatherings of people in hydro corridors Langley already has an established farmers' market vehicular and pedestrian traffic would be an issue during market hours
Livestock	 current regulations do not allow urban livestock in the City of Langley odour, noise, and attracting rodents are all potential issues potential conflict from wildlife predation
Stormwater Management Features	 significant changes to site grade and drainage may be restricted by BC Hydro stream daylighting and open water may conflict with hydro uses and is costly there is existing underground storm water infrastructure on the site

Table 6: Amenities Eliminated from Consideration After Step 1 in the Amenity Selection Process

Step 2: Assessment & Amenity Short List

Step 2 in the amenity selection process involved assessment of the remaining amenities using the criteria considering the potential to fulfill project outcomes, with the anticipated costs and possible conflicts.

- Perceived Benefits: These criteria consider the alignment of each amenity with the goals and desired outcomes for and urban agriculture project.
- Community Conflicts: These criteria were derived from public feedback considering the undesirable outcomes of each amenity. The values of residents were also considered in the assessment of potential community conflicts.
- Anticipated Costs: These criteria considered the capital costs, operational costs, and infrastructure requirements.

AMENITY	RATIONALE FOR EXCLUSION
Children's Garden	 Programming elements would be similar to School Garden, and Outdoor Classroom, possible redundancy Amenities for children located
	nearby in Penzer and Buckley Parks
Community Garden	People living in surrounding neighbourhood have access to private yards for gardening
	Primary users may come from higher density neighbourhoods, which could increase traffic in the area
Incubator Farm/ Training Farm	BC Hydro may restrict the type of infrastructure required to support small scale, farming businesses
	Number of people and intensity of farming would increase, causing potential community conflict
	Oversight of a number of independent users would add cost
Indigenous Garden	This amenity cannot be developed without identifying a First Nations community partner

Table 7: Amenities Eliminated from Consideration after Step 2 in the Amenity Selection Process.

Step 3: Design Options

The final amenity selection step involved developing three high level design options. These design options could show how these amenities could scaled to fit the site and demonstrating alternative visions for the LUADP site. Three design options were presented to the public for feedback at Community Open House #2.

This step would give community members and the project team an opportunity to see how the short listed amenities could be scaled to fit on the site, and how they could interact with the surrounding community.

Option #1: THE CLASSROOM

This design option focuses on education with a school garden and outdoor classroom as core amenities. This option would provide opportunities to link curriculum activities in local schools with the real life experiences in food production. There would also be an emphasis on community education with learning about the food system and related environmental issues. Close partnerships with local schools would be necessary to make this option successful. In this case the emphasis on community education, and program would be limited.



Illustration 1: Sketch of flexible seating and raised beds in Outdoor Classroom.

Option #2: THE ORCHARD

This design option would develop a perennial food producing landscape that is seamlessly integrated with community use and habitat creation. The orchard would feature three distinct production areas including a tree fruit orchard, berry patch, and a food forest. These three areas are connected to naturalized areas on the site and intertwine

with new and existing pathways. The perennial landscape would be designed to be productive while also enhancing the atmosphere and quality of the space as a community amenity. This option would be less intensive in terms of production, and activity than both the orchard and the farm.



Illustration 2: Sketch of Food Forest with a variety of perennial crops for community cultivation.

Option #3: THE FARM

This design option would aim to maximize the potential for food production on the site while maintaining current uses and limiting impacts on the surrounding neighbourhood. Production areas would focus on human scale agriculture and feature both perennial and annual cropping systems. The farm would integrate community use of the site with food crop production and environmental restoration. This design option would be modeled to mimic small scale, diversified farming systems and be managed through community cooperation, and an managing organization dedicated to urban agriculture in the City of Langley.



Illustration 3: Sketch of the Farm Hub and surrounding annual production plots.

4.3. Designing the LUADP

After completing consultation, public outreach and the various amenity selection steps the project team was able to determine the amenities that would best fit the site and community context.

Based on community feedback and internal amenity selections steps priorities were identified that would guide final concept design for the LUADP.

Recreation & Access

The site is currently well used for passive recreation. It is a priority to allow these uses to continue as the site is developed to support urban agriculture. Maintaining all existing paths and access points creates a framework for building new urban agriculture amenities on the site.

Small Scale Organic Food Production

Limiting the scale of urban agriculture in order to limit disruption in the neighbourhood, and encourage engagement and participation from the public. This was considered the best option for exploring food production on the site because of the potential for community participation, and enhancing the environment as a byproduct of food production. There is potential for this model to better respond to, and grow with the community.

Education & Demonstration

The potential to provide community education and teach people about small scale agriculture and the food system will add significant value to the community. Since many people living nearby the site have private yard space that may be suitable for producing food supporting these efforts is a priority.

Wildlife Habitat

The site currently supports a variety of wildlife species and acts as a link to the City's green corridor network. It is a priority to maintain this function while also enhancing the quality of the habitat areas on site

Community Connections

The potential for supporting existing community programming and activities was also considered in preparation of the final plan. Drawing on existing resources, and addressing gaps in programming could lead to greater community integration and success of the project over the long term.

Developing a Model

Finally, it was important to create a plan that fully explored the potential for urban agriculture on this site, while working within the design constraints of hydro ROW compatibility and community fit. This plan may now serve as a model for other communities who are interested in moving urban agriculture forward in their communities in a meaningful way.

With these guiding principles in mind, and the outcomes from consultation and amenity selection, the final design was prepared for the LUADP site. The resulting plan aims to strike a balance between small scale food production and the protection and enhancement of environmental assets. This maintains the activities already enjoyed by residents such as walking, cycling, and wildlife viewing. It will also create new, unique opportunities for active participation with small scale food production in public space.

5. Site Plan

The site plan developed for the Langley Urban Agriculture Demonstration Project provides a design and management strategy that would brings agriculture to the City of Langley. The plan takes a balanced approach to urban agriculture, education, environmental restoration, and passive recreation.

LUADP Vision

The vision for the LUADP is to create a functional community amenity with a shared focus on **food production, education** and **environmental restoration**. The plan is motivated by a commitment to small scale, organic, community based food production and demonstration. The LUADP aims to integrate farming, community life and the environment, through an innovative approach to urban agriculture within an existing residential neighbourhood.

LUADP Goals

The goals of the LUADP represent specific outcomes of the project, and where possible contribute to community development and sustainability in the City of Langley:

- Increase the production of local, healthy food
- Demonstrate small scale, organic food production
- Educate people of all ages
- Improve food literacy
- Increase biodiversity and have positive impact on the environment
- Utilize publicly owned land for community development and social innovation
- Support community connection through engagement with food production and environmental restoration

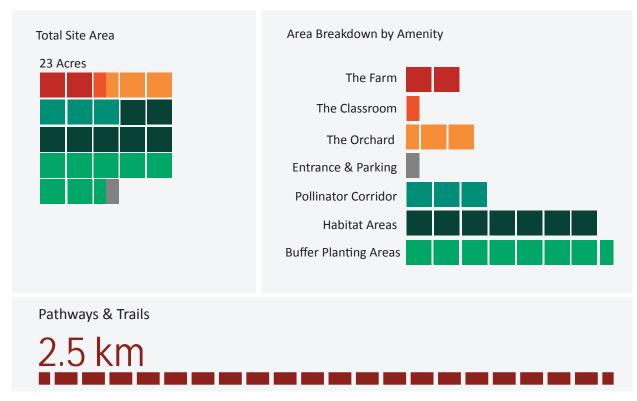


Figure 4: Langley Urban Agriculture Demonstration Project amenity area breakdown

5.1. Site Servicing & Infrastructure

Proposing UA amenities on vacant land can pose challenges when it comes to providing the resources and infrastructure needed to grow food successfully. Within hydro ROWs there are additional challenges to navigate in order to support urban agriculture due to possible conflicts with hydro utility equipment.

This section outlines the components that will support agricultural activities and programming. This includes adding new infrastructure, creating access to water and hydro, as well as maintaining and enhancing existing pathways.

5.1.1. Parking

Parking is required for those regularly working on the site throughout the growing season as well as for visitors and volunteers who come to the site more occasionally. A gravel parking area will be located just off the 200 St. entrance and will be designed to accommodate no more than 15 vehicles. A locked gate will restrict vehicles from entering the site during "off hours". No private vehicles will be permitted in the site beyond the parking area. Access to these areas will remain restricted to site maintenance and BC Hydro vehicles.

Bike parking should also be provided near the site entry and parking area as well as in locations close to amenity areas.

5.1.2. Electricity Hook Up and Lighting

Creating a viable community amenity with a significant food production component may also requires connection to the electrical grid. Electrical servicing at the Farm Hub may be needed to power lights, tools and possible cold storage facilities. A detailed electrical plan and cost of servicing should be prepared through a collaboration between BC Hydro and the City of Langley.

As a site that is accessible to the public for passive recreation lighting may also need to be installed along pathways and in parking areas as a public safety measure.

5.1.3. Toilets

Toilets must be provided on the site for those who are working in production areas or visiting the site for education or recreational activities.

A pit toilet design, commonly used in parks, is the most appropriate for this site to avoid the additional costs of establishing a sewer connection. A pit toilet consists of a dug, and lined pit, typically 1-2m deep, with a shelter constructed above. In British Columbia Leko Precast Ltd. is a supplier of pit toilets, including shelter, vault (pit) and all interior fixtures. The pit toilet will be located in an area where it can be easily accessible and does not conflict with other uses or the surrounding neighbourhood. A handwashing station should also be provided at in the pit toilet area.

5.1.4. Pathways

The LUADP site in embedded in a residential neighbourhood and facilitates passive recreation as a primary use. Users are able to access the site through the surrounding neighbourhood and from nature trails along Muckle and Pleasantdale Creeks. Maintaining existing access, connectivity and circulation on the site are both high priority.

All existing pathways will be maintained including the main pathway running the length of the site that is used by BC Hydro maintenance vehicles, including full sized line trucks. In addition to the existing pathways new pathways will be created connecting new amenities.

5.1.5. Water Access

Access to a clean and abundant source of water is necessary for urban agriculture projects. In many cases connecting to municipal water sources is ideal because it provides a source of potable water that can be used to irrigate crops, clean produce, and for sanitation (i.e. hand washing). For the LUADP a connection to municipal water will be made at the 202 St. ROW. It is recommended that the City of Langley install a 50 mm central water hook up at this point for the LUADP at an estimated cost of \$10,000.00.

Overhead, or sprinkler irrigation is restricted

in hydro ROWs. Additionally, metal pipes and fixtures can create potential induction and shock risks. The LUADP should install drip irrigation. These systems are commonly used for small scale, farming operations because of their relatively low cost, and efficiency. Components of these systems are primarily made of plastic, and are therefore compatible for use in a hydro ROWs.

The intensity of irrigation will vary depending on weather conditions and on the types of crops grown. There must be a clear agreement with the City of Langley regarding water use and any possible restrictions that might impact agricultural operations.

Once production areas are established an evaluation of water use should be conducted to better understand how much water is required for food production and other uses. This information can be referenced to create a plan for decreasing water use on the site over time. Installing water meters for various production areas will provide the necessary information for drafting this agreement.

5.1.6. Signage

Developing the LUADP creates a variety of opportunities for learning about small scale agriculture, food systems, and the environment. Incorporating unique and effective signage will provide information for visitors about the agricultural and ecological systems at work on the site. Signage is also a key component in establishing a unique identity for the project as a hub for urban agriculture, and education in the community and the region. There are three types of signage that should be incorporated to enhance the experience of the LUADP and ensure the safety and security of visitors. These signage types include wayfinding, amenity identification, and educational.

Designing and creating signage for the site can present a unique opportunity for engaging with community partners and with the public, and to foster community identity. The need for multilingual signage should be assessed as signage should design to be accessible to all those living in the community.

Wayfinding Signage is primarily directional, indicating where different amenities are located. It can also show visitors how the site fits into the broader community context.

Amenity Identification Signage can show the unique features of the site as well as their function (education, production, environmental) and the connection to other site amenities.

Educational Signage provides in depth information about the systems at work on the site. It emphasizes the relationship between ecological and agricultural elements as well as the significance of establishing opportunities for food production with a BC Hydro ROW area.



Wayfinding Signage at Black Creek Community Farm features a site map as well as important information about the project, its purpose, and sponsors. Image Source: The Toronto Star



Educational Signage at Public Produce Garden in Kamloops, BC provides information about when and how to harvest various crops.
Image Source: Kamloops Public Produce



Map 5: Langley Urban Agriculture Demonstration Project Site Plan.

5.2. Non-Production Amenities

Non-Production amenities include all those amenity areas that support but do not directly contribute to food production, or education. These areas feature habitat enhancement, native plantings and are advancing the vision and goals of the project.

Non-Production Amenities:

- Buffer Planting Areas
- Habitat Areas
- Pollinator Corridor

Opportunities:

- Increased biodiversity
- Enhanced wildlife habitat
- Provisioning ecosystem services
- Maintaining privacy for surrounding properties
- Maintaining natural character of the site
- Providing pollinator habitat and facilitating pollinator education
- Removing and reducing the spread of invasive species

5.2.1. Buffer Planting Areas

Buffer planting areas perform important functions for the site and for the surrounding community. They maintain the "naturalized" character of the site, and provide a peaceful natural setting in the city. They also create physical buffers between active and passive areas of the site and between public space and private space.

Once buffer plantings are established the most intense management and maintenance will be required in the first 2-3 years to irrigate new plantings and control weeds. Overtime these areas will naturalize and require less maintenance, however controlling invasive species on the site will be an ongoing task.

Plant material for buffer planting areas, and all non-production amenity, is available through a local sources including NATS Nursery Ltd. and Cedar Rim Nursery Ltd.

5.2.2. Habitat Areas

With an extensive network of parks and open space in the City there is an abundance of wildlife, many of which can be seen on the site. This includes: birds, rabbits, mice, coyotes, and deer.³⁵ Community members value this space as a natural refuge within the city and cited "wildlife viewing" as an important activity to support.

Riparian areas and a wetland area will be incorporated into the design of the LUADP to enhance the habitat value of the site and support local wildlife populations. Habitat areas will feature native plants and be developed to mimic native habitat that may have been lost in development of the hydro ROW, and control the spread of invasive species. They will also contribute a variety of ecosystem services that contribute to agricultural productivity, and to human health

On the LUADP site areas designated for habitat enhancement may not be suitable for urban agriculture due to slope, proximity to ecologically sensitive areas, and poor drainage.

Existing Muckle and Pleasantdale Creek riparian areas that connect to the north edge of the site are recognized ecologically sensitive.³⁶ These waterways connect the site to the Nicomekl River greenway that bisects the City. Riparian areas are transition areas between land and rivers or streams. The vegetation in these areas usually grows well in wet conditions and is critical for protecting water quality by reducing erosion, and filtering pollutants.

Wetland areas are also can also provide increase infiltration of rainwater, reducing runoff in addition to providing refuge for birds and insects.

Urban agriculture sites, especially those developed in dense urban areas, have demonstrated the potential for achieving a number of positive ecological outcomes. With a focus on small scale food production, and both annual and perennial crops these sites can support a wide variety of local wildlife.

5.2.3. Pollinator Corridor

The pollinator corridor is specifically designed to attract and support a diversity of wild pollinators including; bees, butterflies, birds, and insects. These garden areas would be planted with a mix of native and non-native species.

The first year of maintenance is critical when establishing the pollinator corridor. Regular irrigation and hand weeding will be required to ensure that plants are successfully established and not out competed by invasive species.³⁷ Once established, maintenance will be relatively low and the corridor will contribute a variety of ecosystem services, while also being aesthetically pleasing.

The Langley Environmental Partners Society (LEPS) have worked with the City of Langley on "pollinator pastures" and corridors in other areas. This type of work is also ongoing in other Metro Vancouver municipalities. Existing projects and resources could provide support



This pollinator habitat was created on a 2.6 acre park beneath hydro transmission lines in the City of Richmond. Researchers and students from Emily Carr University of Art + Design collaborated on the project as did local seed house West Coast Seeds. Emily Carr contributed public art and site features including a "bee hotel". Local schools also contributed by growing 600 sunflower seed that were planted in the pasture in 2015. The pollinator pasture replaced 120 pine trees planted in the ROW years earlier and has become a low-maintenance landscape treatment. 38

in the development of a corridor, or "pollinator pasture" within a hydro ROWs.

Pollinator hedgerows will also be integrated into crop production areas to encourage pollination of crops. This will also help to create an extensive network of pollinator and wildlife habitat across the site.

Table 8 shows a sample of native and nonnative plants that could be incorporated into the pollinator corridor and hedgerows. These plants have a diversity of flowering times and colours, and will be easily maintained with the vegetation height restrictions of hydro ROWs.

Variety	Height
Native Plants	
Red Columbine (Aquilegia canadensis)	0.6m
Pacific Bleeding Heart (Decenter Formosa)	0.4-0.6m
Pacific Aster (Symphyotrichum chilense)	1.5m
Fireweed (Chamaenerion angustifolium)	0.5-2.5m
Nootka Rose (<i>Rosa nutkana</i>)	0.6-3m
Wild Strawberry (Fragaria vesca)	0.2m
Western Yarrow (Achillea millefolium)	1m
Little Larkspur (Delphinium bicolor)	1m
Non-Native Plants	
Dwarf Wild Rose (Rosa acicularis)	0.5m
Dwarf Sunflower (Helianthus annuus)	0.6-1m
Butterfly Bush Milkweed (Asclepias tuberosa)	0.7m
Black Eyed Susan (Rudbeckia hirta)	0.1-0.4m
Miniature Lupine (Lupinus bicolor)	0.0.4m
Wild Bergamont (Monarda fistulosa)	1-2m

Table 8: Pollinator Corridor and Hedgerow Sample Plant List.

5.3. Production Amenities

Production amenities include all those amenity areas that contribute directly to food production and education on the LUADP site.

Production Amenities:

- The Farm
- The Classroom
- The Orchard

5.3.1. The Farm

The Farm is a core production amenity proposed for the LUADP with systems and infrastructure that also support other food production and educational amenities on the site. Production will be small scale with about 1 acre in annual vegetable production using organic methods.³⁹

Production elements include, annual cropping areas, public produce gardens, and cut flower gardens. The Farm also features infrastructure for small scale food production, including irrigation, equipment storage, composting, and a produce washing area.

Opportunities:

- Demonstrating small scale, organic vegetable production for urban areas
- Demonstrating the potential for food production on similar sites
- Improving access to healthy, fresh, local food
- Improving food literacy by connecting urban residents to agriculture and food systems
- Facilitating community education
- Volunteer opportunities for youth and community members
- Employment in the local food and community development sectors
- Social capital building
- Enhancing soil fertility and ecological health



Illustration 4: View of Farm Hub, walking trails and habitat area.

The Farm Hub

The Farm Hub will have the infrastructure required to support food production on the site. A small, non-permanent building will be used to store tools, equipment and produce. An outdoor produce washing area will be located adjacent to the hub building. Based on restrictions for non-permanent structures within hydro ROWs the building should not exceed 3.6m in height and have a floor area no larger than 36m².⁴⁰ Construction should not use of metallic materials. Water access will be required at this location for sanitation and produce washing.

There may be a need to periodically access space for meetings and other site planning activities. Schools, community centres or municipally owned building are all possible locations.

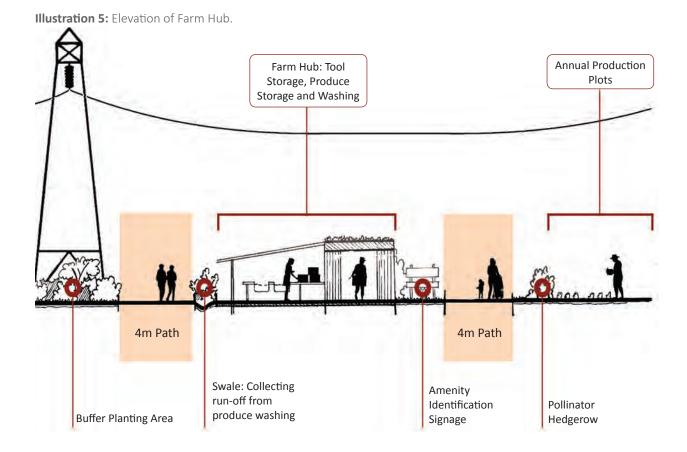
Produce storage needs will depend on what types of crops are grown and how they are distributed into the community. The space required should be determined when a more detailed crop plan, and distribution plan has been finalized. Some cold storage is likely to be needed.



Farm Shed at Loutet Farm in North Vancouver, BC.



Farm Shed at Jones Valley Teaching Farm in Birmingham, Alabama is used for storage and doubles as a produce stand.



Annual Cropping Areas

Annual Cropping Areas are dedicated to growing annual vegetables using organic production methods. These areas will be designed with the infrastructure necessary to grow a variety of annual crops. This plan does not include recommendations on the types of crops that should be cultivated as this will be determined by the farm manager based on site conditions and community need. The crop plan should be revisited annually to ensure that it can be adapted to the unique context of the LUADP. The amount of food produced on the site annually will also be dependent on a variety of factors such as the crops that are grown and the intensity of cultivation.

Production beds will be standardized as much as possible measuring 1m (3.2 ft.) in width with 0.5m (1.6 ft.) pathways between each bed. There will be some flexibility in this configuration as it may be necessary to provide wider pathways in areas where children or volunteers are gardening.

Public Produce Gardens

In order to maximize the level community engagement on the site Public Produce Gardens will be specifically designed for cultivation and harvest by the public. These areas will be distinct from annual cropping areas, feature additional signage instructing people on what, when and how to harvest. The types of crops planted here may also be different. Some considerations for public produce gardens include:

- Plant short season crops that are easy to harvest such as: lettuce, radishes, kale
- Plant crops in succession to there is continual harvest throughout the growing season
- Create trellises for climbing crops (i.e. beans and pea) to make harvest easier
- Avoid crops that are highly susceptible to pests and disease
- Avoid crops that take up a lot of space and are challenging to harvest (i.e. winter squash, tomatoes)
- Create wider paths between production beds



Illustration 6: View of Annual cropping areas and pathways

Cut Flower Gardens

Cut Flower Gardens will increase the biodiversity on the site while also adding aesthetic value for to the farm area and to the site overall. Cut flowers can also provide an additional source of revenue for urban farms, while also being a crop that can be easily harvested by the public. Cut flower beds will vary in size and can be integrated into food crop production areas.

Tools and Equipment

Production areas on the LUADP can be primarily managed using hand tools with limited mechanization. Focusing on hand tools for field work will also increase the accessibility for volunteers, especially children, to participate in farming activities.

A walk behind tractor with various implements (rototiller, bed shaper, mower etc.) will be appropriate for the scale of production but should only be operated by individuals who are properly trained. In some special cases a tractor may be required for larger scale field work or site maintenance. Agreements for equipment sharing or rental should be arranged in cases where large machinery is required.

Staff and volunteers can easily move between production areas on foot, using wheelbarrows to carry tools and produce.

Composting

A compost area should be located near the Farm Hub so it can be more easily accessed and maintained. A three compartment composting system is recommended based on the scale and restrictions on the LUADP. This type of composting system is commonly used for small scale urban farming. It is estimated that with three composting compartments each 3m x 3m this system will be able to process 3000-4000kg of garden waste every 6 months, producing about 3000 kg of finished compost per year. 41

Composting is an important consideration for farming at any scale. Composting garden waste limits the loss of nutrients and adds organic matter, micro-nutrients and beneficial microorganisms to the soil. Urban Agriculture faces unique challenges when it comes to effectively managing waste and making compost. UA sites may not have space to make enough compost to meet their needs. Unpleasant odours are often of concern, however if managed properly, a compost pile, especially one that does not contain any fatty material (i.e. oils) or animal products (i.e. animal manure, meat products, or dairy) should



Farmer using a walk behind tractor to cultivate small scale vegetable production beds.



Three Bin Composting System can be designed using inexpensive and easily accessible materials.

5.3.2. The Classroom

The Classroom will an area dedicated to educational programming. There are different elements that will have the flexibility to serve a variety of user groups. Micro-production plots, and raised beds provide dedicated garden space for learning and demonstration. Connecting directly to curriculum programming through local schools, will animate this amenity and support ongoing programming and maintenance.

The LUADP site is located in close proximity (walking distance) to several schools such as Simmonds Elementary, Alice Brown Elementary and H.D Stafford Middle School. This presents an opportunity to link to existing outdoor education, and sustainability curriculum, and to develop additional farm based programming in partnership with local students and teachers. Local schools, and the school board should be approached as potential strategic partners for the LUADP.

Opportunities:

- Hands on learning for students of all ages
- Support existing outdoor education and sustainability programs in local schools
- Improve food literacy amongst students, and in the community
- Collaboration between schools and students of different ages
- Summer programming including camps and youth internships
- Increase access to healthy, local food to be consumed in schools
- Facilitating community education



Illustration 7: View of Micro production plots and tool storage in classroom area.



Located in Birmingham Alabama, Jones Valley Teaching farm now operates 7 teaching farm sites. Instructors align programming with curriculum in math, science, social studies and English. With a variety of school yard sites students have the opportunity to engage with farm based learning through high school in some cases. The sites feature a variety of amenities, including: annual vegetable production, raised beds, outdoor classrooms, tool storage and sensory gardens. 42

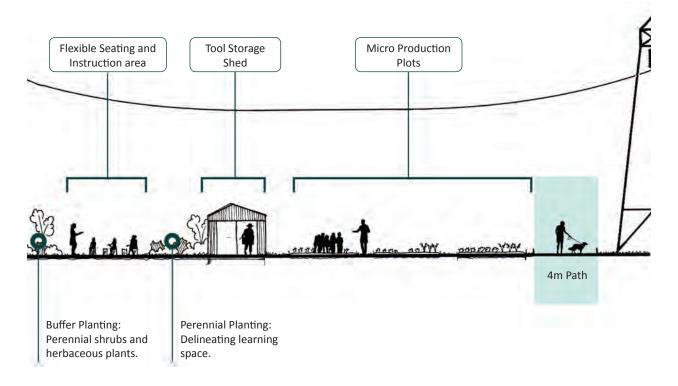
Micro Production Plots

Micro production plots will provide space for students to engage in crop production at a scale that is more conducive to experimentation and learning. These garden areas would be planned and cultivated by students. A separate tool shed should be located close to these beds to keep tools and equipment separate from the other production areas.

These plots will be used regularly by students during the school year, from September – June. It will be important to design and plan with this consideration in mind. Some strategies for establishing micro-production plots that can support classroom curriculum include:

- Provide classes or student groups with 3.5-4m2 of garden space each
- Allow classes to personalize their garden space
- Plant long season crops in spring that will be ready for harvest in the fall
- Plant spring crops early (and indoors) so they can be planted and harvested early

Illustration 8: Elevation of Classroom Area



Raised Beds

Raised beds serve a variety of purposes in UA projects. They can increase accessibility, provide areas for teaching and demonstration, increase drainage, or deal with contaminated/ marginal soils.

Raised beds can be made using a variety of materials, many of which are inexpensive and easily accessible. Commonly used materials include: metal, concrete blocks, bricks, and naturally rot resistant woods like cedar or redwood. In the context of the LUADP, non-pressure treated cedar is an ideal choice for the construction of raised beds.

When constructing raised beds on top of existing soil the ideal depth of the bed is between 0.2 m and 0.3 m. The distance to the center of the bed should be no more than 0.4 m, and this distance may need to be slightly smaller if the beds are primarily being used by children. The distance between the raised beds should be between 0.6 m and 1 m to accommodate groups of students. 43



Wooden Raised Beds at a Community Garden in Toronto.



Children participating in gardening activities in raised beds at the McQueston Urban Farm in Hamilton, Ontario.

Flexible Seating

A limited amount of flexible seating should be provided to accommodate groups of up to 15-20 students. In addition to fixed seating open spaces can also provide opportunities for group instruction and hands on learning.

The most appropriate material for seating and other site furnishings for the LUADP is wood. Tree stumps and logs that are embedded in the ground, so they can not be moved are ideal in this case.



Students sitting on cut stumps in an outdoor classroom area at the Washington D.C Youth Garden.

5.3.3. The Orchard

The Orchard is all areas for the production of locally suited perennial crop varieties. This includes tree fruits, nuts and small fruits (i.e. berries). In order to adhere to BC Hydro compatibility restrictions perennial crops, like all other vegetation, should be maintained at a maximum height of 3m. Tree crops should be purchased on dwarf root stock to make pruning and management easier.

The Orchard areas will be carefully managed for production but also have the potential to support high levels of biodiversity, create wildlife habitat and enhance community amenity space. The community orchard model has been implemented in different communities as a way to connect efforts to improve and animate public space while also addressing food security and other sustainability challenges. On the LUADP site orchard areas are open and accessible to the public for walking, and harvesting.

Opportunities:

- Demonstrating perennial crop production for urban areas
- Facilitating community education in perennial crop production, and orcharding
- Increased biodiversity
- Enhanced wildlife habitat
- Gleaning of fruit, nuts and berries
- Increasing the availability of locally suited orchard stock



Illustration 9: View of Production Orchard, pollinator corridor, and existing pathway.

Demonstration Orchard

The demonstration orchard is an area for education and experimentation in perennial crop production at the small, urban scale. This area differs from the block planting scheme in the production orchards and features a more diverse mix of perennial crop varieties. This area will also be a place to experiment with unusual varieties and to test the hardiness of varieties for the climate and site conditions.

Production Orchards

The production orchard areas located around the site contribute to production diversity, and facilitate community cultivation. Fruit trees should be on dwarf root stock to make it easier to maintain the mature trees in accordance with the maximum height requirements within the hydro ROW. Small fruit varieties will also be incorporated and should also be maintained to a maximum height of 3m.

Tree and small fruit crops will come into full production in 3-5 years with some production as the orchard is being established. In addition



Copley Community Orchard is an urban orchard located in Vancouver, British Columbia. It is a place to celebrate the benefits of growing fruit trees, berry bushes and other perennial plants, educating people on their cultivation, and creating a beautiful and productive space accessible to all. In June, city council approved a \$15,000 grant to EYA for the project, as part of \$110,000 in community urban agriculture and neighbourhood food security grants. 44

to the production of perennial food crops the orchard can host workshops to educate the public on how to care for a variety of edible trees and shrubs.

These production areas will be managed by production staff and community volunteers. Local schools could also be recruited to volunteer in perennial production areas.

Table 9 provides a list of different perennial crops that could be grown on the site. Based on the space allocated for perennial crops, numbers represent the maximum number of plants that could be cultivated on the site.

Variety	Number of Plants
Fruit Trees	
Apples	60
Apricots	20
Cherries	45
Peaches	10
Pears	20
Plums	25
Nut Trees	
Hazelnuts	10
Heartnuts	5
Walnuts	5
Total Number of Trees	200
Total Number of Trees Small Fruits	200
	200
Small Fruits	
Small Fruits Blackberries	80
Small Fruits Blackberries Blueberries	80 60
Small Fruits Blackberries Blueberries Currants	80 60 18
Small Fruits Blackberries Blueberries Currants Gooseberries	80 60 18 18
Small Fruits Blackberries Blueberries Currants Gooseberries Haskaps	80 60 18 18 40
Small Fruits Blackberries Blueberries Currants Gooseberries Haskaps Raspberries	80 60 18 18 40 80

Table 9: Perennial crop varieties and number of plants for the LUADP site.



6. LUADP Management Plan

For UA projects, consideration of day to day operations, and long term management is critical. A management plan for urban agriculture should acknowledge input from multiple stakeholders, and draw on existing community capacity and directly addressing local needs.

Management Questions to Consider:

- Who will be the primary stakeholders involved in management of the project?
- How will these stakeholders work together to manage the project over the long term?
- What resources (biological, physical, social, etc.) are required to support the project?
- How will site elements interact with existing community programming and activities?

6.1. Stakeholders

UA projects can be managed by individuals, non-profit organizations, or a combination of stakeholders. Given this diversity, the governance structure of UA projects varies based on the stakeholders involved, and on the amount of community capacity available.

For the LUADP, main project stakeholders include: Non-Profit Society (operations and amenity management), the City of Langley (land owner), and BC Hydro (utility manager). The governance model proposed focuses on building a supportive relationship between these groups while creating additional capacity within the community to animate and support the project over the long term.

6.1.1. Non-Profit Society

A new Non-Profit Society (the Society) should be created to manage and coordinate day to day operations on the site including all food production components. Managing a site with productive agriculture elements requires skilled individuals with knowledge about small scale food production, and the capacity to engage with the community around agricultural and environmental issues. The Society must also have strong ties to the community, and will be governed by a volunteer steering committee. This committee will have representation from the agricultural sector, from government, and from the community.

The Non-Profit Society will be responsible for:

- Developing a Site Use Agreement in collaboration with other management stakeholders
- Ensuring conditions of the site agreement are adhered to by all visitors and community partners
- Hiring farming and programming staff
- Managing all agricultural components
- Creating annual reports that include reporting on public engagement, financing, production and community impact
- Maintain open channels of communication with the public about farming activities and programming on the site
- Allocating space to local schools or community groups for production and ensuring that these areas are well maintained
- Recruiting and managing volunteers
- Coordinating programming on site with individuals and community groups, including local schools
- Offering educational tours of the site for community members, groups and visitors from across Metro Vancouver



Beacon Food Forest, Seattle WA

The Beacon Food Forest is located in the Beacon Hill Neighbourhood of Seattle. The goal of the Beacon Food Forest is to bring the diverse community together through a permaculture approach to urban farming. The approach to management is also unique. The project sits on land that is publicly owned, and a volunteer group that has now become a registered non-profit society. Some administration support is also provided by City of Seattle staff through the P-Patch Community Garden Program. 45

Non-Profit Society Steering Committee

The Steering Committee should meet regularly to discuss the project, make decisions about operations and programming and address any challenges or grievances from the community. The Committee will also develop an action driven charter which outlines the Steering Committee's mission, responsibilities, scope of influence, and deliverables.

Steering Committee Membership include:

- 1 Local government representative
- 1 Farm Manager
- 2 Community representatives
- 1 BC Hydro representative
- Community partner representatives

6.1.2. City of Langley

The City of Langley will continue to work closely with other management stakeholders offering servicing, and programming support. In addition to a dedicated City liaison on the Steering Committee, various municipal departments could also be engaged management and operations of the LUADP, depending on the nature of the support work needed.

The City of Langley will be responsible for:

- Develop a Site Use Agreement in collaboration with other management stakeholders
- Provide non-agricultural site maintenance support (i.e. pathway maintenance, mowing)
- Install and maintain water servicing
- Assist in dealing with site use or community conflicts
- Review operational budgets
- Assist in securing financing to support ongoing work when possible
- Provide support for programming including; advertising, staff and resources when needed
- Help recruit and coordinate volunteers through establishes community networks
- Help promote events and activities taking place in the site

6.1.3. BC Hydro

BC Hydro participates in the development of compatible uses for hydro ROWs in order to maintain access to utility work, and protect public safety. The role of the BC Hydro will be an advisory one, consulting on all operational decisions and long term management of the LUADP.

BC Hydro will be responsible for:

- Review and approve final detailed plans for site development with conditions as required
- Provide a compatible use agreement consenting to uses within the ROW area
- Review and approve any proposed changes to the approved plans (new programming and activities).
- Consult with the Society on proposed changes or major works on the site

6.1.4. Community Partnerships

UA projects are strongly focused on community development and public education requiring significant human resources often drawing on existing community capacity. The likelihood for success can be increased in many cases by leverage existing community resources in a variety of forms, including: financing, knowledge, and labour. It can also be advantageous to connect to ongoing work in the community, to ensure that the project can be impactful and not take away from the impact of other initiatives.

The City of Langley is a small municipality with an active citizenry. Ongoing social programs, public education efforts and sustainability initiatives all present opportunities for integration with the LUADP. This section outlines ongoing work that could support development and activation of the LUADP site, and recognizes potential community partners.

Langley Environmental Partners Society (LEPS)

With a mandate to support environmental sustainability through public education and partnerships, LEPS should be approached as potential partners partner for the LUADP both in implementation phases and long term management. ⁴⁶

In the City of Langley there are existing community garden projects managed in partnership with the City, Langley Environmental Partners Society (LEPS), and by local schools. LEPS also manages a Demonstration Garden at the Derek Doubleday Arboretum nearby in Langley Township where educational programs focus on backyard gardening and environmental sustainability. ⁴⁷ Assets that LEPS could bring to the LUADP include:

- Experience doing restoration work in riparian areas and hydro ROWs
- Ongoing work engaging the public, and youth in environmental work
- Experience managing community gardens in the City and Langley Township
- Experience establishing pollinator gardens with the City, and BC Hydro
- Ongoing work and active programming throughout the community

Local Schools and School District (SD35)

Local schools present another potential resource for collaboration on the LUADP. Connecting with schools could expand educational programming as well as providing additional volunteer labour to support food production. The project site is located within walking distance of local schools, including: Simmonds Elementary, Alice Brown Elementary and H.D. Stafford Middle School. It is also accessible to other SD 35 schools in both the City and Township of Langley. Assets that local school could bring to the LUADP include:

- Existing outdoor education programming
- Access and coordinate youth volunteers for implementation and maintenance
- Connect to sustainability and health related initiatives in Langley Schools i.e. Healthy Schools Program, Green Team

Other potential project partners:

Environmental:

- Evergreen BC
- Environmental Youth Alliance
- Langley Field Naturalists
- Pollinator Partnership Canada
- Pollination Ecology Lab at SFU
- Nickomekl Enhancement Society
- Local First Nations

Education:

- Farm to School BC
- Fresh Roots Urban Farm

Health and Nutrition:

- Fraser Health
- Langley Community Harvest Program (managed by LEPS)
- Langley Food Bank
- First Nations Health Authority

Food and Agriculture:

- Farm Folk City Folk
- KPU Sustainable Agriculture
- KPU Farm School Programs
- Langley Community Farmers
 Market
- Langley Sustainable Agriculture Foundation

6.1.5. Engaging the Public

The public also has an important role to play in supporting the development and management of the LUADP. Active and ongoing public engagement is critical to ensure that the project continues to fit the community context and meet local needs.

Members of the Public will be able to engage with the LUADP through:

- Ongoing volunteer opportunities
- Sitting on the project Steering Committee
- Purchasing food grown on the site from the farm gate or the farmers' market
- Participating in "workbees" and community cultivation events
- Harvesting from public produce gardens
- Passive recreation on the LUADP site



Community volunteers plant and mulch new fruit trees at the Copley Community Orchard site in East Vancouver.

6.1.6. Governance Model

The most appropriate governance model for urban agriculture projects should be determined by the capacity of stakeholders, and local context. In most cases managing and regulating UA projects falls locally meaning that local governments are often involved in some capacity, but are not required to manage day-to-day operations. Provincial, or higher level agencies may be involved in addressing public health issues connected to urban agriculture, but are often not engaged in UA projects.

A governance model should express and refine a shared vision for the project, while also enhancing the long term plans for implementation and management. ⁴⁸ The stakeholders involved should also be able to aggregate resources and act to advance the projects mandate. With no available blueprint for managing urban agriculture it can be helpful to look to other successful projects for guidance or to draw on existing capacity and expertise in the community.

In the case of the LUADP, the Non-Profit Society will be the entity in charge of managing day-to-day operations. Success will also require engagement with community partners, local government, and the public.

Figure 5 shows the governance model for the LUADP demonstrating the level of coordination required amongst stakeholders and partners. The arrows demonstrate the flow of resources connected to the project, which can be either funds, expertise, in-kind support, or services. Stakeholders with "advisory" roles will be involved in high level decision making, determining project direction, and providing feedback. On the "operational" side, stakeholders will be directly involved in site operations, and program development on the project site. Funders and community partners that will support the project have yet to be confirmed.

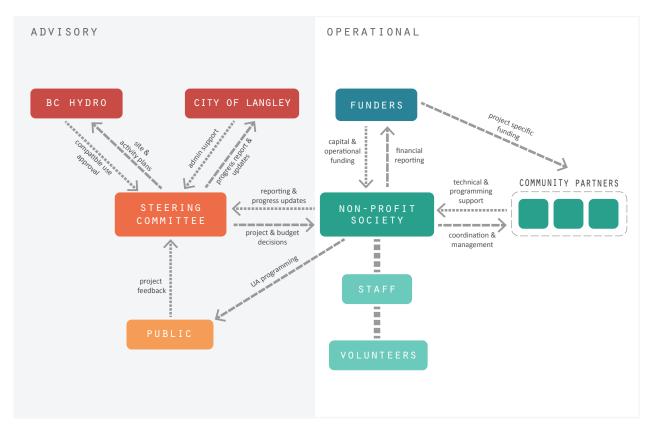


Figure 5: Proposed Governance model for the LUADP.

6.2. Operations

The operational strategy for the site aims to develop amenity plans while preserving accessibility and recreational uses. Planning for daily operations must involve the consideration of the scale of production, distribution of farm products, and management of personnel.

6.2.1. Scale of Production

The LUADP has been designed to balance food production and educational amenities with diverse habitat areas, and opportunities for passive recreation. With this approach, the scale of food production on the site is limited and these amenities have been concentrated around central infrastructure, including equipment storage and water access.

In total there is about 1 acre of annual crop cultivation space on the LUADP site. In addition, these are also 2.5 acres of the site



Public Produce is growing in popularity as a community development model where edible plants; like fruit, nut and vegetable crops are grown in public spaces and are freely accessible to the public. Kamloops Public Produce was planted on an abandoned downtown lot with a small public health grant. The project has engaged a variety of users. Municipal staff, public institutions, school and private citizens became engaged in knowledge sharing in order to better understand how to collectively care for edible landscapes. The success of this pilot project have inspired other projects as well as ongoing research into better understanding the food security and health impacts of public produce. ⁴⁹

have been designated for perennial crops including fruits, nuts and berries. Based on community need it may be possible to increase the scale of production over time, however the site will operate more efficiently if main production elements remain small in scale and concentrated around required infrastructure.

Urban agriculture projects may limit the scale of production in order to achieve other outcomes, such as elevating the quality of public space, social cohesion, environmental restoration and public education. The following principles will guide the development of this production model on the LUADP site.

- Manage production areas using organic production methods in accordance with Canadian Organic Standard
- Choose crop varieties that reflect the needs of the community, including culturally appropriate foods if applicable
- Promote the harvest of ripe fruit on a regular basis through signage and community bulletins
- Provide ongoing educational opportunities for the public to learn about production techniques used on site
- Ensure that food production activities contribute to biological diversity and support a healthy environment
- Collect regular feedback from site users about food production on the site

6.2.2. Distribution

UA projects can be successful farming enterprises because they are located close to residential populations. Based on this proximity urban farms can access a variety of distribution channels for selling their farm products.

Different Options described in this section can be explored by the LUADP and decisions about what is produced and how products are distributed should be evaluated on an ongoing basis. It is recommended that the LUADP experiment with a combination of distribution methods of farm products throughout the growing season.

The main products produced on the LUADP site will be fruits and vegetables produced in spring, summer and fall seasons. Production will support the community with a supply of healthy, locally produced food and the sale of farm products will also financially support farm operations by reinvesting revenue into the project.

Community Cultivation

Making arrangements with community volunteers to work in exchange for access to farm products is a good way to encourage community engagement and to ensure that what is grown on the farm is accessible to and used by people living in the community. For the LUADP these opportunities should be coordinated by the Society. It is also important that these opportunities are open and accessible to all members of the public, not just immediate neighbours. This type of exchange could be arranged on an individual volunteer basis or through community work events (i.e. "workbees"). Community work events are often useful when there is a significant amount of work to do in a short period of time (i.e. transplanting, or crop harvest).

Community cultivation can also be facilitated by planting areas that are specifically designed to be freely accessible to the public. This is a more informal way to engage the public, and can encourage people to learn more about local food production. Establishing an area dedicated to community cultivation requires clear signage and ongoing communication with the public in order to ensure that crops are harvested at the right time and without causing damage to the site or other crops.

Food Banks and Gleaning Programs

As a community asset the LUADP has the potential to support ongoing community programming related to improving access to locally produced, healthy food. In addition to other distribution channels the scale of production on the site could also support community harvesting for food banks and other community service organizations. Harvesting for local food bank would be coordinated by the Urban Agriculture Society with labour provided by staff and community volunteers.

Gleaning programs also represent another strategy for harvesting and distribution that engages local volunteers and ensures that food makes its way into the local community. These programs are commonly established to harvest perennial food crops in urban areas that may otherwise go unpicked. In the case of the LUADP This would involve recruiting volunteers to ensure that production areas are kept clean and tidy and that all edible food can be harvested and used in the community.

Community Connection

Langley Environmental Partners Society manages a Community Harvest Gleaning program where volunteers identify and harvest fruit from trees and bushes around the community which would otherwise be left to fall. The infrastructure and interest in this program could also support community harvesting on the LUADP site, especially in orchard and perennial production areas. Similar gleaning projects operate in communities in Metro Vancouver. ⁵⁰

Institutional Procurement

Local public institutions present another opportunity for distribution of farm products from the LUADP into the community that could support outcomes related to health and education. Establishing supportive relationships with institutions, including local schools, could provide hands on learning opportunities for students and help get healthy, local food into schools.



Fresh Roots Urban Farm, Vancouver BC

Fresh Roots Urban Farm Society has developed a model of school yard market gardening that supports food literacy and education. Their model has also created a direct line to local organic produce for public school students. This relationship allows students to learn about a variety of other environmental issues through development of hands on, practical farming curriculum.⁵¹

Farm Gate Sales

UA projects are embedded in existing communities and often provide unique opportunities to improve access to fresh local food for residents. "Farm gate" sales represent an opportunity to distribute products to the people living in communities close to where the farm is located. Selling products directly from the farm site also provides a unique opportunity for local people to visit the site, meet the farmers and make a direct connection between the food they eat and the land where

it is grown, which is a driving force behind the growth of the local food movement.

Traffic and parking will both be important considerations when people are coming to the farm site to buy produce. It is recommended that clear open hours be posted and followed to minimize disturbance of the surrounding community.

Farmer's Markets

Farmer's markets can provide an opportunity for farm products to be sold directly to consumers generating weekly revenue that can be reinvested to support ongoing farm operations. Farmer's markets provide a good opportunity for small scale and community based farming because the barrier to entry is relatively low, and there is an existing customer base to tap into. There are also opportunities to build support and awareness for the project outside of the immediate neighbourhood and connect to the existing local food scene in the City of Langley and surrounding areas. Transportation and staffing can be challenges associated with pursuing farmers' markets as a distribution channel which could limit the potential for the LUADP to participate.

Community Connection

The Langley Community Farmers' Market is already established in the community taking place year round (once a month during winter months). This existing farmer's market in the community presents an opportunity to tap into an existing market generating revenue and support for the project. ⁵²

6.2.3. Human Resources

As a community amenity, the LUADP will be a place for the public to experience and participate in small scale, organic farming. This will requires considerable human resources including paid staff with small scale, organic farming experience. Support from volunteers will also be required to maintain the site and manage production areas.

Paid Staff

The non-profit society will be responsible for hiring staff that will manage site operations and help to facilitate educational programing. In addition to operational staff operations it is also recommended that the LUADP be supported by a volunteer and programming coordination that can allow for public engagement to be managed separately from agricultural operations.

The following paid positions should be secured to manage operations on the LUADP:

- Farm Manager 1 FTE (Feb-Nov)
- Farm Hands 1 FTE (Apr-Nov) could be divided into 2 PT positions
- Student Interns 0.5 FTE (June-Aug)
- Volunteer and Programming coordinator
 .25 FTE (year round)



Volunteers and staff work together to harvest beans at the Cutting Veg in Sutton, Ontario.

Volunteers

There will be a variety of volunteer opportunities available through the LUADP that will make significant contributions to the success of the project and integration into the community. However, working with volunteers requires special considerations to ensure that the work is fulfilling (so people want to come back), and that volunteer contributions have a positive impact on the management and operations of the site. Volunteers with farming experience will be an asset to the project but will not be required.

The LUADP will create several different volunteer opportunities, including:

- Steering Committee Members
- Youth volunteers
- Ongoing/regular volunteers
- Group volunteering and "work bees"
- Workshares (working in exchange for farm products)

Although significant human resources are required to support UA projects the number of people actively farming on the site is usually limited due to the scale of production, knowledge local capacity.

6.3. Management

Long term management is often a significant concern when food production is proposed for public spaces. It is common for public sector partners to be concerned that maintenance will fall on the shoulders of often already overburdened municipal departments.

Members of the public also worry that additional pressure on municipal staff may lead to an increased tax burden. Site aesthetics and impact on property values and existing activities are also common. These concerns are all legitimate, however there is ongoing work to acknowledge and work through these challenges creating beautiful and productive public spaces.

6.3.1. Site Use Agreement

When UA projects are initiated, formal agreements between project stakeholders is critical. These agreements should consider the type of production taking place on the site, and also allow for the full range of activities and programming associated with project that may include: production, education, processing, and even distribution of products.

The site use agreement for the LUADP will be created through multi-stakeholder collaboration, and will be subject to regular review by these stakeholders. The agreement should clearly address the following topic areas, answer the guiding questions, and meet the objectives of all stakeholders:

Land Tenure

- How long can the land be used for UA?
- Is any remuneration required for use of the land, and or services provided on that land?
- Are there any conditions attached to this agreement for using the land?

Electric and magnetic Fields Monitoring

- Should EMF levels be monitored over time?
- Who is responsible for measuring and monitoring EMF levels?
- What kind of public education is necessary regarding EMF levels and public health?

Ongoing Soil Health Monitoring

- Where should additional soil testing be conducted prior to site development?
- How often should soil test be conducted?
- Who is responsible for soil testing, and monitoring soil health?

Site Aesthetics

- What aesthetic are the aesthetic and cleanliness standards for the LUADP?
- Who is responsible for monitoring and enforcing these standards?
- How and where can people communicate issues with site aesthetics, or maintenance?

Public Access and Security

- Are there any areas of the site where public access is restricted?
- Where can vehicles access the site, and where are they permitted on the site?
- What are the protocols for securing infrastructure and asset on the site?
- How will theft and vandalism be dealt with?

Production Activities and Techniques

- Are there any exceptions to the organic production practices used on the site?
- What are the guiding principles for the use of organic production methods?
- What types of tools and equipment are permitted for use on the site?
- Is there any restrictions on when farming activities or the use are machinery is not permitted?

6.3.2. Management Objectives

Successfully managing the LUADP will require coordination with a variety of stakeholders, including members of the public. The City will be a key stakeholder, but may or may not be directly involved in daily management and operations of the site. BC Hydro is also a key stakeholder, and should be consulted in the development of a site use agreement, and any significant operational changes. Decisions made about infrastructure and operations on the site should be filtered through the site use agreement and may need to be approved by the BC Hydro Properties Division before they can be implemented.

Management objectives provide guidelines for how the project should be managed based on the unique characteristics of the site and community. The objectives also communicate the most important considerations in management considerations and outline some key actions for how these objectives can be achieved. Management objectives are summarized in Table 10, on the next page.

MANAGEMENT OBJECTIVES	ACTIONS
1. Enhance biodiversity and habitat value across the site.	 Remove invasive species and replace with native and non-invasive plant varieties Maintain naturalized perennial plantings and hedgerows within production areas Use organic techniques in all production areas
2. Protect soil resources and build soil fertility over time.	 Practice crop rotations in all annual production areas Incorporate cover crops into crop rotations in all annual production areas Experiment with cover cropping and mulching in perennial production areas, and develop a strategy for building soil fertility that is suited to the site Compost garden waste and crop residue, on site and apply to production areas as needed Create naturalized perennial plantings and hedgerows within production areas
3. Enhance and maintain the aesthetic appeal of the site in accordance with neighbourhood and community standards.	 Ensure that all tools and equipment are put away and secured when site work is complete Do not store any broken or discarded tools equipment of production materials on the site Keep grass and vegetation around fields, buildings and fences trimmed and pruned Consider the view of the site from surrounding properties. Make sure that these views are not impeded or unattractive Encourage the public, especially surrounding residents to participate in establishing maintenance standards for the site
4. Contribute to environmental sustainability in the City of Langley.	 Measure and aim to reduce the amount of water used in crop irrigation on site Increase biodiversity by planting of native and non-invasive species on the site Increase the availability and access to locally produced food for local residents
5. Manage and decrease rodent issues on site and in surrounding areas.	 Turn compost piles on a regular basis Harvest ripe produce in a timely manner and remove any produce that falls on the ground from fields and orchards Collect and compost windfall from orchard areas to deter rodents Coordinate with the city to dispose of organic materials that cannot be composted on site
6. Ensure the safety for all users throughout the year.	 Prune perennial crops and buffer planting areas to maintain sight lines Monitor the conditions of all pathways of site and address any issues through resurfacing or other maintenance Make information and resources available about the research related to electromagnetic field exposure Create a volunteer orientation to be completed by all those who engage in production activities on the site Post clear signage to control parking and traffic in the area for those using the site
7. Maintain buffers areas around BC Hydro transmission towers, power lines and infrastructure.	 Consult with BC Hydro regarding safety measures when maintained vegetation areas within 10m of hydro towers Use vegetation as a physical barrier between site activities and BC Hydro utility infrastructure
8. Build supportive relationship with the public.	 Post clear and attractive signage on the site outlining what is happening on the site and how people can engage Clearly communicate how members of the public can share their feedback about the project Develop an online location that can be regularly updated with activities and events

Table 10: Management Objectives for the LUADP

6.4. Budget and Financing Summary

For urban agriculture, maintenance and operational costs can be higher, however there are also opportunities to generate revenue from the sale of farm products. This revenue varies depending on the scale of production (i.e. how much food is produced), the type of programming on the site, and the methods of distribution. In most cases regardless of how much money is made form the sale of farm products subsidies are typically needed to support staffing, site maintenance, and programming.

Budget Summary Breakdown

Capital expenses represent all of the upfront costs related to developing the physical infrastructure on the site including; site servicing, built infrastructure, perennial plant material and signage. The capital expenses for UA projects may be covered by charitable grants, government funding (various levels), community fundraising, private partnerships or a combination of these sources. Many projects are also successful in securing donated services and materials in exchange for recognition of the supporting businesses and organizations. Table 11 summarizes the capital expenses for the site based on amenity area breakdown.

Operational expenses represent the ongoing costs associated with maintaining and operating the site as a UA project. This includes staffing, tool and equipment maintenance, production infrastructure and programming costs. Operational budgets can often seem high because labour is a significant expenditure for UA projects when staff is required to manage production, and other public engagement on the site. Although some projects may require significant human resources costs can be mitigated by recruiting volunteers to provide labour. UA projects are know to have a high degree of volunteerism, which in many cases decreases total operational expenditures. Table 12 summarizes the estimated operational expenses once all amenities are developed and operational.

The LUADP should be operated as a not-for-profit project with funds generated from the sales of farm products invested back into farm operations and community programming.

Additional funding for staffing, farm operations, and maintenance will need to be secured from other sources including municipal funding, grants and private donations. The financing strategy for the LUADP should be reviewed by stakeholders annually. Table 13 shows potential funding sources for project operations. Complete amenity budgets can be found in Appendix D following this document.

CAPITAL EXPENSES	
Site Servicing	\$ 716,000.00
The Farm	\$ 61, 000.00
The Classroom	\$ 32,700.00
The Orchard	\$ 34,750.00
Pollinator Garden	\$ 26,700.00
Buffer Planting & Habitat Restoration	\$ 110,075.00
Total Capital Expenses	\$ 981,225.00

Table 11: Capital expenses summary for the LUADP.

OPERATIONAL EXPENSES	
General Maintenance	\$ 17,000.00
Staffing	\$ 60,000.00
Farm Operations	\$ 9,000.00
Classroom Operations	\$ 7,500.00
Orchard Operations (approximate)	\$ 2,000.00
Total Operational Expenses	\$95,500.00

Table 12: Operational expenses for the LUADP.

POTENTIAL REVENUE SOURCES	
Grants	\$50,000.00
Donations (Funds and Materials)	\$ 20,000.00
Farm Product Sales	\$ 30,000.00
Total Annual Revenue	\$ 100,000.00

Table 13: Possible Revenue Sources for the LUADP.

7. Implementation Plan

Implementation of the LUADP is contingent on approval by City Council, and continuing to adhere to BC Hydro compatible use and safety guidelines.

Implementation should begin in the early spring with the pre-development phase. The majority of site development will take place over the summer and fall in order to prepare production areas for planting the following spring. The amount of time dedicated to site development may differ depending on available resources.

Budget summaries provide a cost breakdown for each phase. This includes major feature and infrastructure development as well as a portion of site development costs.

7.1. Pre-development Phase

During the pre-development phase priorities are to set up the management frameworks to support the LUADP. This includes convening the Non-Profit Society Steering Committee. Once steering committee members are identified this group will work to engage management stakeholders in the development of a Site Use Agreement.

This phase will also involve developing a strategy for continued engagement with community partners and the public. At this time engaging with strategic community partners (i.e. LEPS, schools, and other partners) may be useful to better understand which elements they can support.

Activity Summary:

- Convene Steering Committee
- Develop Site Use Agreement
- Engage with the public to share development and programming plans
- Engage with potential community partners and identify existing resources

7.2 Site Development Phases

The following implementation phases have been divided to demonstrate how the site may be developed over time depending on available funding and resources.

Phase 1: Infrastructure & Site Servicing

This initial phase of site development is focuses on setting up servicing on the site and establishing the entrance and parking area. This will include installing a municipal water connection and the pit toilet facilities.

Phase 1 Activity Summary:

- Establish Site Entry and Parking
- Install municipal water connection
- Resurface existing pathways and create new pathways
- Install pit toilet

Phase 2: Amenity Development

The second phase will focus on development of the areas where programming on the site will take place, as well as any necessary infrastructure to support food production. This will include delineation of annual production areas, building farm hub and outdoor classroom areas.

This phase involves the development of all annual production areas, and supporting infrastructure. Once this phase is complete it would be possible for food production to begin. The remaining phases are primarily focused on environmental restoration, and habitat enhancement.

Phase 2 Activity Summary:

- Build Farm Hub and storage area
- Establish classroom infrastructure
- Delineate all annual production areas
- Cultivate annual production areas and plant cover crops

Phase 3: Habitat Restoration

The third phase will focus on planting habitat areas, including the pollinator corridor. This stage provides a good opportunity to engage with the community recruiting volunteers and students to help with planting. It also represents a good opportunity to initiate the planting of perennial crops.

Activity Summary:

- Plant habitat areas
- Plant pollinator corridor
- Prepare orchard areas (add compost etc.)

Phase 4: Site Naturalization

The final development phase will focus on ecological restoration and planting perennial crops in orchard areas. During this phase the areas designated as buffer plantings will be prepared and planted with a variety of native species that are appropriate for growing within hydro ROWs.

There is opportunity in this phase to engage volunteers, school groups, and the general public in planting perennial plant material in the orchard and buffer planting areas.

This phase can be completed at once or divide into additional phases depending on available funding resources.

Activity Summary:

- Plant orchard areas
- Plant buffer areas

PHASE 1: BUDGET SUMMARY	
Site Preparation	\$ 60,000.00
New Pathways & Resurfacing	\$ 100,000.00
Municipal Water Connection	\$ 10,000.00
Pit Toilet	\$ 40,000.00
Entry Signage & Planting	\$ 10,000.00
Parking Area	\$ 50,000.00
_	
TOTAL COST FOR PHASE 1	\$ 270,000.00
PHASE 2: BUDGET SUMMARY	
Site Preparation	\$ 45,000.00
The Farm	\$ 61,000.00
The Classroom	\$ 32,700.00
Hedgerows	\$ 4,450.00
Signage	\$ 30,000.00
Soil Testing	\$ 6,000.00
Consultants	\$ 75,000.00
TOTAL COST FOR PHASE 2	\$ 254,150.00
PHASE 3: BUDGET SUMMARY	
Site Preparation	\$ 127,500.00
The Orchard (site preparation)	\$ 11,750.00
Pollinator Corridor	\$ 22,250.00
Habitat Areas	\$ 50,275.00
TOTAL COST FOR PHASE 3	\$ 211,775.00
PHASE 4: BUDGET SUMMARY	
Site Preparation	\$ 162,500.00
The Orchard (Perennial crop material)	\$ 23,000.00
Buffer Planting Area	\$ 49,800.00
TOTAL COST FOR PHASE 4	\$ 235,300.00
TOTAL CAPITAL COST	\$ 981,225.00

Table 14: Phase development cost breakdown for capital costs for the LUADP



8. Conclusion

The Langley Urban Agriculture Demonstration project was initiated to explore the potential for urban agriculture on public land that was located within a BC Hydro transmission ROW in the City of Langley. The land was first identified as a potential site that could support food production and related activities by the City, and partners at Kwantlen Polytechnic University in 2010. This was followed by development of an initial concept drawing that included diverse mix on urban agriculture, environmental, and community amenities. There was little activity on the project until 2016 when funding was secured from Metro Vancouver to complete the detailed planning phase to create a site plan,

cost structure and management and operational plans for the project. Metro Vancouver supported the project recognizing the potential to create a model for urban agriculture in utility ROWs that could be relevant for municipalities across the Metro Vancouver Region.

The resulting plan takes a balanced approach weaving together environmental enhancements, educational opportunities and food production into a dynamic and functional community space.

Urban agriculture is often not seen as a part of the food system because there are a number of constraints that can limit both the scale and productivity of agriculture in urban areas. Although it is true that urban agriculture, as we know it today, is not likely to be the singular solution for feeding growing urban populations, it has and will continue to make significant contributions to food system sustainability more broadly, and to livability in urban communities. Some of these contributions which directly apply to the LUADP are:

Addressing Food Illiteracy: By bringing agriculture into urban communities urban dwellers can connect with their food source, and better understand the important relationship with the food system. Urban agriculture provided participants with a farm-to-fork experience that may enrich their understanding how food is grown, and the importance of protecting land and resources that support food production.

Health: Urban agriculture provides access to fresh, locally grown food in urban communities. Growing food, and the activities associated with it also provide opportunities, for people to get outside encouraging active lifestyles.

Social Connections: Urban agriculture sites support different programming opportunities for urban residents of all ages and socioeconomic classes. In many cases these projects encourage mixing, and may improve community cohesion, and decrease social isolation.

Encourage Self-Sufficiency: Providing support for urban agriculture creates opportunities for people to learn about food production. They can see production models at work and this may help support people in growing more of their own food - encouraging self sufficiency.

Activate Public Space: Urban agriculture projects support a variety of activities in addition to food production. These diverse activities can activate public spaces that may not be well used. The daily operations on urban agriculture sites may also encourage positive community building activities to take place

Environmental Sustainability: Bringing diverse productive and non-productive landscapes

to urban environments can help to address many different environmental sustainability challenges. These include improved soil health, decreased run off and flooding, increased biodiversity, and enhanced wildlife habitat.

8.1. Next Steps

Upon completion of this report implementation of the LUADP is subject to approval by Langley City Council. In addition to endorsement of the plan it is necessary to establish community partners who can help support programming and operations and to secure funding for implementation, program development and operations.

8.1.1. Establishing Partnerships

Partnerships are critical in the development of UA projects. Partners can assist in accessing funding, provide programming support, or offer advice as the project develops. With a concept developed for the LUADP a key next step in the process will be connecting with potential community partners who may be willing to fund, and support operations over the long-term.

Key project themes include: food and agriculture, health and nutrition, environment and education. Partners with mandates that support any of these themes could be valuable collaborators for the LUADP moving forward.

8.1.2. Funding Recommendations

Consistent funding is required to support UA projects. For projects that do not generate revenue, or can't be supported by the revenue generated there are a variety of alternative funding sources that can be explored.

Grants

Grants are a common financing option for community projects and there are many that can go to support local food projects, including urban agriculture. In order to be eligible for some grants it is necessary to be a registered non-profit group, therefore establishing the

non-profit society will be necessary before pursuing this kind of funding. Grant writing is an activity that requires a significant amount of time and energy and it is likely that City staff, and community partners, will be required to support this work, especially in the initial stages of fundraising for the LUADP.

UA projects can be eligible for a variety of grants, including those relates to community development, local food, agriculture, education, health and nutrition, and urban sustainability. In addition to these themes, the LUADP could access funding related to habitat and environmental restoration, community amenity development, and recreation. Grants can support both capital investments, and ongoing operations depending on the stipulations from the funder.

Municipally Supported Grants

In addition to accessing organizational and government grants that support non-profit groups, the LUADP is well suited to also access funding for municipally supported projects. Accessing this type of funding will require the LUADP to apply in partnership with the City of Langley.

Private Sector Sponsorship

Private sector companies should also be considered as valuable partners and that UA projects can appeal to both the charitable and business objectives of private companies. UA projects may also be able to secure donations of materials and services from local businesses that support capital development and operations. It may also be possible to get materials at a discounted cost which could benefit the project by lowering operating costs. The examples provided in this report show some existing opportunities for private sector sponsorship that the LUADP may be eligible for, additional corporate grants and donations may be available locally, or regionally.

Institutional Partnerships

Partnering with local schools as well as postsecondary institutions could also be a way to access funding that can support ongoing programming efforts of urban agriculture projects. Local schools may be able to provide access to education specific funding while also supporting the development and facilitation of educational programs on the site.

Post-secondary institutions may also provide access to funding for research and program development that can support the project in better serving the needs of the community, and the local food sector.

Table 15 provides a list of potential grant funding sources for the LUADP. These options represent a diversity of funding choices that could support site development, operations, programming, and staffing.

FUNDER	FUNDING DESCRIPTION	GRANT TYPE/AMOUNT
Organizational Grants	3	
Van City Credit Union	Very supportive of community development and sustainability projects. They currently fund a variety of urban agriculture initiatives, and food system research in the lower mainland.	 has a variety of granting programs that can support different initiative and projects
Real Estate Foundation of BC	Supportive of projects sustainable land use and local food systems. Supportive of projects which demonstrate strong partnerships, and community impact over the long term.	provides 50% of cash portion of budgetsnon-capital funding
Recreation Foundation of British Columbia	Provides funding to advance parks, recreation and culture, and the environment in BC.	under \$10,000supporting recreation programming
The Hamber Foundation	Provides grants for projects that advance recreation, culture and health.	project based funding
Tides Canada	Supporting social innovation projects that aim to improve the environment, and contribute to sustainable and livable communities; including sustainable food systems	 supports projects that align with their core value and focus areas
United Way	Provides a variety of grants to support community development projects in the Lower mainland.	project specific funding
Government Grants		
Metro Vancouver Agri- Awareness Grant	Provides funding to community organizations that focus on education the public about local food and agriculture.	project specific funding
Canada Summer Jobs	This is a youth employment experience that provides wage subsidies for hiring youth for summer employment	wage subsidies
Agriculture Youth Green Jobs	This program provides wage subsidy funding specifically for youth in the agricultural sector	wage subsidies
Municipally Supporte	d Grants	
FCM – Municipalities for Climate Innovation	Provides funding, training and resources to help municipalities respond to climate change	support for programming and training
Community Recreation Program	Provides funding for capital funding projects that help to make communities healthier through the development of recreation infrastructure	small grants for recreation focused projects
Private Sector Sponso	orship	
Mountain Equipment Coop	Support projects that increase access to outdoor activities, and teach responsible outdoor recreation and environmental stewardship.	 grants up to \$20,000 focused on education an raising awareness
Nature's Path	Gardens for Good - Gardens for Good supports community food production projects.	• \$15,000 grants
West Coast Seeds	Offering seed donations to community groups and educational projects.	seed donations

Table 15: Possible grant funding opportunities for the LUADP.

	Project Links	Site Specs	Partnerships	Project Description	Unique Amenities	Governance
http://21acres.ong/ 21 acres	21 acre		Centre for Sustainable Living, Puget Sound Food Hub, University of Washington Bothell, Cascadia College, Washington State University, Veterans Conservation Corps, City of Seattle	A Certified Organic urban farm in the heart of Seattle, founded in 2006. The idea emerged from a search for a new farmers market location. Offers food and farm- based programs, workshops, events and tours that encourage food production, small-scale food economies, environmental preservation and climate resilience.	₹ 12 E	
http://www.playworks.ca/ assiniboine-park-nature- playground			Assinitoine Park Conservancy	A space that brings cognitive, creative and active play together. Features like the sand and waterlein by are a jested play are, alreaded fords, middled instruments, and a garden inspired by the fedastic childhood board game of Stakes and Jadders each embody multiple elements of play; physical, intellectual and interactive.	Play structures, food gardens, nature play area, trails, instive plant, water play area.	The playground was designed and built by a private contractor and is maintained by the City of Winnipeg.
http://beaconfoodforest.o 7 acres	7 acres		Seatle Public Utilities (landowner), Seatle Pents and Merchanians Arelferson Park). Seatle engine under Reinsanger land, Seatle enginbourhoog grants provided funding for planning Bits in anaged through the Pathat community gardening program. Community Gardenic coordination through Petti (clyt staff position, community/dry lalson). Non-profits (Clyt Fruit)	The goal of the Beacon Food Forest is to bring the richty diverse community to obgether by volentifie a Penaludia proposal to urban farming and land stewardship. The Beacon Food Forest combines aspects of native habitat lend stewardship. The Beacon Food Forest combines aspects of native habitat rehabilistic many with eable forestage principle. Belf stands to 2009 as a result of a permaculture course final project, the final design reseated by a landscape and hetch had massive community support and input. BFF is located in the Beacon Hill keighbourhood in Jefferson Park.	Food forest, berry parch, not grove, community garden using the parch model for families to grow their own food, cathering Plaza, Kid's Area, living gateway.	Local residents conceived the idea for BFF then all concorded Seather boild cultiless clinadowner) and Perfes and Recreation (managage defer sone Part, Initial funding area from Seattle Neighbourhood sgrant. Ongoing funding is grant based, much which comes from neighbourhood gardt programs sprowded by the felt, 5FU has been a support the partner.
compost/			Sing Harbour Cultural Centre & Botanical Carden, Cueros Bathalia Carden, Lower Eastsde Ecology, Center, Brooklyn Botanical Garden, Earth Matter. NYC Sanitation	The NVC Compost Project hosted by Big Reuse is part of a community-scale composing network that works to rebuild out soils by producing hew Yorkers with the knowledge, skills, and opportunities they need to produce and use compost locally. They host food scrap drop-offs, provide outreach and education about composting through stewardship events, and produce high-quality compost.	Compost colection sites, compost piles	Hosted by the Big Reuse which is a materials recycling organization. Most hose partnerships with other organizations in the City and with the city's sanitation department.
http://www.blackcreekfar 8 acres, m.ca/	8 acres,	8 acres, farmhouse and woodland	Everdate, African Food Basket and Food Share, Jane Firch Community and Family Centre	Black Creek Community Farm (BCCf) founded by Everdale Environmental Learning Center, Food State and African Food Basker has operated as a start-up focused on improving food security, reducing social also lation, and improving employment and education outcome. Working firm that also provides youth workshops, training programs, and community events.	Heritage farmhouse, farmhand, forest and Black Creek There, gerenbuck, outdoor classroom, bale oven, beelives, maistroom growing, bood rorest, trails, certified organic vegetable production	Conneded and managed by a collective of organizations BCCF each with a bocus on organizations BCCF each with a bocus on particular programming aspects. Everdial (production and administ) food bather (food flordmulty and cultural development). As the community and cultural development is on our entity for management, relying less on outside organizations. These organizations and others still arrange programming on the still arrange programming on the produced for the community and cold through farmers market and a CA.
https://arocha.ca/where- 2 acres we- work/brooksdale/brooksd ale-csa/.	2 acres		A Rocha Ganada, Brooksdale Environmental Learning Centre	Community Shared Agriculture (CSA) project at the Brooksdale Environmental Centre in Surrey, BC.	CSA, community kitchen, market garden, ecological restoration	The fami spart of a larger environmental Conservation project led by Ackola, which is a national environmental organization. X fillent farmers, interns and volunteers to the Dulk of the field work. CSA members pay for weekly produce boxes.
then Jawas seleminated for a cres second the second for the second	62 acres		Salt Spring Island Farmland Trust, Community Services	The Burgove Valley Community Farm, is a sixty are parcel of farm land in the Agricultural Land Reserve. This property has been continuously farmed since 1887 and was granted to the Farmland Trust for the benefit of the community in sectionage for a zoning amenting via 2013. The farmland Trust board in collaboration with farmers and families has brought all 62 acres back frint of thill should not incleasing my of produce production. Community Services is also operating farm on the property and growing an abundance of frest, healthy produce for many people in their programs who would not obtavishe have access to local produce. The Shaw Family Community Gardens is providing small garden spaces for 70 Salt Spring Island families and individuals to grow their own food.	Poultry production, gardic, market veggles, chicken tractor, community gardens	farmland Trust secured the property and the BOD continues to have a role in freedoment of the property. Currently 6 different private farming enter prises on the land and community gardens.
https://www.cityofchicag_Southside epss/cionen/dam/city/d_waant tots epss/ciup/sustainable_De_Mand welopment/publications/d_ burhooxis/GreenHealthyN burhooxis/GreenHealthyN eighborhoods PC. Low Re	Southside vacant lots land	Southside Clicago Neighbourhoods, vacant lots , 100 acres of city owned land	Department of Housing and Economic Development, Chy Planning, Growing Power (Milwaukee)	Long-term plan to turn a community filled with vacant lots into a community built and and angle fulled. But of the consortium's plan is to use the 2-outh sides's strong rail system to distribute Chicago-grown food to the rest of the nation. Part of grean and healthy neighbourhoods (GHN) revitalization plan. Ongoing work, with redevelopment happening in pockets.	3 mile long neighbourhood trail called Englewood Live loger of development). You half show ere job training farms already exist in the district. A fourth half-acre educational farm run by the Center for Urban Transformation and Angelic Organics Learning Center.	Planning and development of Us, elements are happening at the unicipal level and integrating organizations and involviousls with productions skills are deperience to resilier the project, for example Growing Power (headquarters in Milwaukee) is a partner.
http://www.cfcg.ca/conta 7 acres	7 acres			A7 acre farm site located within Colony Farm Regional Park that is operated by 250 members. There are 550 individual plots as well as a berry border, small orchard, too sheds, a pagoda, lawns, a food bank garden and area for community group plots.	Demo plots, composting facilities	Use of the land is governed by Metro Government by Metro Organic are required to use organic actives. Community gardeners work the land.

Project Name	Location	Project Links	Site Specs	Partnerships	Project Description	Unique Amenities	Governance
Columbia Centre for Urban Agriculture	Columbia. MO	http://columbiaurbanag.o.	1.3 Acres		Urban farm started in 2010. Two-thirds of an acre is devoted solely to commercial vegetable production. The purpose of the Urban farm is to break down the common notion that where we live should be geographically and intentionally distant from where our food is produced.	Community composting, chickens, demonstration garden in	inklated by Individuals and managed as a non-profit. Ogganization also builds other triban gardens and has a norgam as empower people to start gardens in unused backyards.
Copley Community Orchard Vancouver, BC	Vancouver, BC	http://www.copley.comm unityorchard.com/	~ 1 acre	Environmental Youth Alliance, City of Vancouver, Vancouver Parks and Recreation, Or Green Streets, Trees Canada and the Vancouver Foundation, Community Studio	Copley Community Orchard is an urban orchard located in Vancouver, British Columbia. It is a place to celebrate the benefits of growing fruit trees, berry bushes unique fruit trees, berry bushes and fruiting shrubs. and other perennial plants, educating people on their cultivation, and creating a beautiful and productive space accessible to all.		The Environmental Youth Alliance initiated the project and they contracted community participation in the early planning and elegip stages. Community support is a key in ongoing potention as well as participation in the contraction of the co
Dowling Community Garden	Dowling, MN	http://www.dowlingcom munitygarden.org/pages/ projects.htm	190 plots, 4 raised accessible 5'x12' beds, garden shed, 20x 5'gallon barrels for water, on-site composting		Community Garden project that has both ground level plots and accessible raked beds. Promote sustainable gardening projects, share produce with community or garnations (food shelves and meal programs), disseminate gardening information through website and newsletter.	Wheelchair accessible gardens, on-site composting.	Volunteer run, plots utilized by members
Downsview Park "Cultivation Campus"	Toronto, ON	https://www.freshcityfar 6 ms.com/our-farms	6 acres (another resource said 1.5 ha) Urban Fams (federal	Harvest (seed producer), Fresh City Ontario Beekeerpers Cooperative, site is Iy owned.	"Cultivation Campus" – is a space meant for both food production and education. Planned to include garders, greenhouses, a hordicultural centre and space for a wide range of educational programs.	Commercial production, incubator plots, beehives	fresh City farms inc. is the organization currently managing the ties. Cool Cycles, a non-profit organization, was a key partner in development of the cultivation campus. Private enterprises operate on the land and market through fresh city farms and independently.
Fairview Gardens	Goleta, CA	http://www.fairviewgarde_12.5 acres		Centre for Urban Agriculture, Land Trust for T	The conservation assement was designed to protect the land in perspetuity. Unlike most 'open space' assements, our is based on active use, requiring that the land must always remain a working organic farm and that the education work must continue under the non-profit organication, officially named the center for Urban Agriculture. The farm continues to produce an explosion of fresh fruits and wegetables. Its assured presence in the heart of a growing urban center provides a way for people to redain their lost correction to the land and to one of the most important and intimate acts: securing the food that they and their children eat.	Farm Stand, Fruit trees,	Conservations essented protects the land from development, based on active use and organized activations in programming by the Centre for Urban Agricular en on-profit. A DOD and advisory board support the farm springers and apprentices are hired for farm operations.
FarmStart McVean Farm	Brampton, ON	http://www.famstart.ca/ k programs/start-up- fams/our-fams/finear- urbar-faming	45 acres	Familiarity. Toronto Region Conservation Authority	The McVean Start-Up farm in Brampton is the first of it's kind in Canada and has become a vident model model for others to learn from across the country. McVean is a whenter committe of viable mear-uhan, ecological agriculture and an opportunity for mew farmers from urban and near-utban areas to begin to grow food for their communities. This 45-acre facility is owned by the Toronto and Region Conservation and leased to FarmStart on a long-term lease.	Greenhouses, incubator plots, farm stand	The land is managed by one-profit Famistrand elessed from the Toronto Region Conservation Authority, Educational programs planned and administered by Famistran. There are also includator plots where fammers lease land from Famistart and operate independent businesses
arm	Vancouver, BC	http://freshroots.ca/	Two quarter-acre schoolyard market gardens at Vanfech Secondary and in David Thompson Secondary	Vancouver School Board, Grant funding (Vancouver Foundation, Van City, Real Estate Foundation)			Production and educational programming managed by Fresh Rotos and school addressing and epostable trough partnerships with Vancouver District School Board and individual institutions
Gabriola Commons	Gabriola Island, BC	http://www.gabriolacom mons.ca/	26 acres	Mide kland Co-op Coastal and support and funding form: Community Coeff Librious Spirit rural, Naminno Community Foundation, the Gabrida Recreation Society, the Gabrida Recreation Society, and the Vancouver the Culb. Gabrinegy Society, and the Vancouver the Culb. Gabrinegy Society, and the Vancouver the Culb.	The Gabriola Commons is a place where statianability, community and agriculture meet, fearuring 26 acres of present in rail and assets are and encoyetens with agrillicant blodwersity, The property includes connecting pathways, open vistas, meditative spaces, vibrant community gardens, learning and meeting facilities for the use and enjoyment of the public.	Community Kitchen, Community gathering space, land held in Public Trust.	Managed by a council made up of representatives from different hierest groups. Their coordination meetings are open to the public. Legal ownership is held by the Gabriola Commons foundation, a charitable non-profit society.
Gree nline (proposed)	Toronto, ON	http://www.workshoparc hitecture.adprojects/publ icspaces/p2.thml https://www.facebook.co m/GreenLineTO?fref=ts https://greenlinetoronto. wordpress.com/	Skn lydro corridor	Park People, Workstop Architecture, City of 1 Toronto, Hydro One	The project began with an international ideas competition that saked artists and designers to contribute to an overall vision for the public use of a Sim long has public event across mid-town Toronto. They displayed a selection of the 77 metries at a public event and workshop, may 2013 attended by overall operally, three counciliors and the local MPP and MPP. There is no proposed food production element but recreation, conservation and public green space are all central.		This proper was conceived as part of a elegist competition but upon in implementation would be managed by the city as part of the public open space network.

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Prairie Crossing Farm	Grayslake, IL	http://libertyprairie.org/pl/laess/prairie-crossing. farm/	100 acre farm, part of >600 acre community	Private Development	The Prainte Crossing Farm is owned by the Uberty Praint Foundation which operates from headquarters in the Vellow Farmhouse. The Prainte Crossing Farms frome to educational programs, a Farm Business Development Center, multiple independently operated farm businesses, and more Prainte Crossing is a 667-acre from the constitution for agreed. Influence in 1987 by a group of neighbours who fromed Parinte Holdings Corporation and purchased in 1987 by a group of neighbours will comed Parinte Holdings Corporation and purchased the land. The resulting 359 clustered single-family homes and 36 condominums.	incubator plots, community garden plots	This project is managed as a private operation, owned and managed by the Liberty Prairie Foundation.
Prinzessinnengärten	Berlin, GR	http://prinzessinnengarte n.net/about/			Nomadisch Grün (Nomadic Green) launched Prinzessinnengärten (Princess gardens) as a pilot project in the summer of 2009 at Monfraplatz in Berlin Keucuberg, a site which had been a wasteland for over half a century. Along with friends, activitis and neighbours, the group cleared away rubbsh and built transportable organic vegetable piots.	Mobile growing boxes made from recycled and repurposed materials	Founders established a non-profit org (Womadic Green) and initiated the project from there, it is now run through that group which has the aim to start similar projects elsewhere
R-Urban - AgroCite	Colombes, FR	http://r- urban.net/en/projects/agr ocite/			AgroCité is designed to introduce and support the dynamics of urban agriculture and provide support for the cultural and educational activities related to the R. URBAN project, currently emerging in the city of Colombes.	experimental urban farm, shared garden for residents, educational garden, greenhouse, rainwater collection infrastructure, alternative energy projects, shared bread oven	Part of the larger R-Urban design and development project is to establish projects that can be managed by residents in the long run
Santropol Roulant	Montreal, QC	http://santropoiroulant.or g/en/	Semevile (3 acres), McGill Edible Campus, Roulant Rooftop	Mrčiil University	The Roulant's agriculture program aims to build a food system that is healthy, just, and sustainable. Use intensive organic practices we produce food that nourishes all other programs and members of our community. Per-turban from is production-focused and runs a CSA program. The urban gardens feed into the meals on wheels program and are sold at a community pop-up market. They have been a strong preserve in Nontrelal for 20+ yrs and could be a useful example of well established urban ag programs.	Volunteer project incubator, worm composting, apiculture, interrehips, meals on wheels distribution, CSA, farmers market	Santropol Roulant is an established non- profit with deep roots. Us projects aim to integrate collective community decision making and horizontal management to ensure projects and programming meet community need
Scarborough Centre Butterfly Trail	Scarborough, ON	https://parkpeople.ca/arc hives/7394	3.5km	City of Toronto	Hydro corridor redesigned as a walking/biking trail planted with butterfly and pollinator attracting plants.	pollinator corridor	Initially funded by the Weston Family Parks Challenge grant.
SerenbeFarms	Atlanta, Georgia	https://serenbefarms.com/ / http://serenbe.com/	25 acres (8 acres cultivated)		Serenbe Farms is a small diversified certified organic farm located in the Serenbe community and surrounded by the rural oasis of the Chattahoochee Hill Country,	CSA program	The farm is on lands at the Serenbe community and managed independently by farm managers. Food is sold through a CSA
Sole Food Farms	Vancouver, BC	http://solefoodfarms.com/	4 farms (total of about 5 acres) including an urban orchard	Unted We Can, Real Estate Foundation, Van City	Sole Food transforms vacant urban land into farms that grow food available at its mer's natures, local restaurants, and relatioutlets. Sole roots mission is to empower individuals with limited resources by providing jobs and agricultural refaining. During the bast seven years, Sole Food Street Farms has transformed acree of vicants and contaminated urban land into street farms that grow artisan-quality fruits and vegetables.	urban orchard, urban garden plots	Sole Food Farm, which operates as a non- profit social initiative, manages 4 farm sites around Vancouver selling food at farmers markets, and to restaurants.
Stanford Avalon Community Garden	Los Angeles, CA	http://www.urbansemillas.com/Stanford Avalon Farm.html	180 plots	Los Angeles Community Garden Council	Community of 120 farmers producing food in an urban community garden.		The farmers manage the gardens under the Los Angeles Community Garden Council.
Strathcona Community Garden	Vancouver, BC	http://strathconagardens. ca/	3.34 acres		Urban garden started in 1985 by local residents. The garden has approximately 200 ecco pavillon, greenhouse, storage shress/nusery, bee plots for residents to grow organic food. Several raised bees are available for those live, espaire area, orchard, herb garden, wildlife habitat, with physical /mobility limitations.	eco-pavilion, greenhouse, storage sheds/nursery, bee hive, espailer area, orchard, herb garden, wildife habitat, children's play area, garden plots	The Strathcona Community Gardeners Society manages the gardens and the gardens are volunteer tended.
The Battery Urban Farm	New York, NY	http://www.thebattery.or 1 g/projects/battery-urban- farm/.	1 acre	The Battery Corservancy, Environmental Club at Millernlum High School	The Battery Urban Farm is an educational farm where New York City's students, residents, and visitors feam about sustainable farming techniques, the Joys of tasting new foods, and their role as environmental stewards.	forest farm with fruit trees, berries, mush rooms, flowers for pollinators, and examples of medicinal plants.	Stated as an initiative of the Battery Conservancy and local high school students. Now managed by farming and educational staff (4ppl)
The Sharing Farm	Richmond, BC	http://www.sharingfarm.c a/about/	4 acres		Small food production project that grows food for families in need. Also provide formal and informal educations programs that teach new generations of urban farmers and backgard gardeners. Mental health and addiction groups have been blended into the volunteer program as a form of horticultural therapy.		Managed as a production and educational resource for the community by the Sharing Farm Society, Staff are lifed to carry out programming, which includes the large and very popular garlifestival. Community members run the farm.
The Stop Community Food Centre ® Wychwood Barns	Toronto, ON	http://thestop.org/progra ms/fight-hunger/urban- agriculture/.	Primary site located at the Wychwood Barns, 8000 square feet	Community Food Centres Canada	The community garden at Earlscourt Park focuses on building skills, confidence, comections, and sparking convexistions about where and how food is produced. They partner with the Sagata y program from Na-Ne-Res (Native Men's Residence) to animate the garden at Hillcrest Park. This partnership provides the men of the Apaenmowineen Having Confidence in Oneself) program the The sites together yield over 4,000bs of fresh, organic produce for every year, and engage community members of all ages in learning how to use environmentally-friendly methods to grow produce.	Community gardens, a greenhouse & compost demonstration centre, a sheltered garden, and a medicine garden. They operate a garden-sharing program called Yes in My Back Yard (YM/BY).	Page 3
The Urban Farm at Stapleton	Denver, CO	http://theurbanfarm.org/			The Urban Farm is an educational campus that teaches its participants about animal husbandry (equine, poultry) and horticulture in an intimate farm setting.	equine activities, children's programming, garden plots	Managed by a BOD

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Troy Gardens/Troy Community Farm	Maddison, WI	http://www.communitygr oundworks.org/what-we- do/troy.community-farm	31 acres, 5 acres in cultivation	Madison Area Land Trust, Urban Open Space Foundation	Growing certified organic food on Madison's northside since 2001, they are the city's first urban farm. Grow vegetables, herbs, and flowers.	market garden, land trust	Managed as an integral piece of the Troy Gardens development. The farm operates a CSA, hives staff and engages in training new farmers
UBCFarm	Vancouver, BC	http://ubclarm.ubc.ca/fool d-production/	24 hetiares	University of British Columbia, Faculty of Land and Food Systems	The Centre for Sustainable Food Systems at the UBC Farm is a unique research Flower farm, indigenous gardens, ch centre that integrates the production farm in both teaching and earling. The farm programming, orchard, composting mostic for clubrated within a 90-year old costal hemiod. Forcet that comprise a mostic for clubrated annual crop fields, perennal hedgerows, fruit orchards and educated agradens. Beyond the research fields, the UBC Farm deforted agreems and herits.	ildren's	The farm is managed as an educational resource and supports the land based education in sustainable food and farming.
Un plant de tomate à la fois Montreal OC	s Montreal QC	https://plantdetomate.co <u>m/</u>		Dawson Community Centre, Riverview we literantary School and Community Learning Centre, South West United Mission.	Un plant de tomate à la fois s a collaborative, community-based initiative focused on improving led acases so tres lipoduce and encouraging healthy eating within the Denantchal-Crawfood relighbourhood of Verdiun. There are school and collective gardens (everyone gardens the same plot and shares the harvest as opposed to Individual plot in community gardens). Gardens are roof top, in containers and in the ground. There is more of a teaching and community engagement focus here rather than a production focus.	4 garden sites, roof top, container, in-ground. Collective gardening, where everyone works together and shares the harvest.	Managed by the organization in partnership with community organizations and articipating schools. The project was initiated as a partnership between multiple community orgs.
Urban Edge Farm	Providence, RI	https://www.southsideciti. Gorg/urbanedge.	50 acres (35 acres cultivated)	Southside Community Land Trust	Urban Edge Farm is a model farm demonstrating environmentally sound land stewardship and farming practices. The farm hosts new farmers who collaboratively manage the farm's operation and maintenance. The farm also offers opportunities for wolunteers to work alongside the farmers and hosts farm-telated public events. The food grown by farmers at Urban Edge farm feeds Community Supported Agriculture (CSA) shareholders, Farmer' Warket customers, and drivers at local restaurants, soup kitchens and food pantries.	incubator plots, conservation, CSA	A project of the Southside Community land Trust, which helped secure the farmland, 7 independent businesses operate from the 50 acres of land.
Washington Youth Garden	Washington, DC	http://www.washingtonyoluthgarden.org/	http://www.washingtoovol acre, located on the grounds of the U.S.National Arboretum USNational Arboretum	U.S National Arboretum	Washington Youth Garden was established in 1971 by D.C. Department of Paris and Receasion WWW was resteled to teach durferen horizontaria skills and and Receasion WWW was resteled to teach other horizontaria skills and no environmental awareness, as well as file skills such as team building and personal responsibility. It was one of from may youth gardens created in the rea and is one of monly three onlight is with gardens files skill generating today. Write receives in-kind support from USAN which include hard, soil amendments, office and greenhouse space, equipment use and horizottural expertitse.	demonstration garden	Established on city owned land the site is now managed primarity as an educational arrange of the site is located on the grounds of the USNA.
West Seattle Bee Garden	Seattle, WA	http://www.westseattleb_feegarden.com/t	Able to host 30-35 participants at a time.	Puget Sound Beekeepers Association	The Bee garden was created as an educational site for learning about pollinators.	educational information, outdoor dassroom	Managed as an educational resource through partnerships with the Puget Sound Beekeepers Association
Wood Street Urban Farm and Honore Street Farms	Chicago, IL	http://growinghomeinc.or	http://growingtomein.cor 87 acres of growing space (2 g/our/arms/ adjacent farms)	Growing Home	The Wood Street Urban Farmwas fully operational by 2009, a four-year process that convinced City lawmakers to amend the zoning ordinance and formally allow then formaling in Chicago. In 2011, Growing Home started another farm adjacent to the Wood Street Farm. Together, the Wood Street and Honore Street Farms are the center of their programming, in each of these cases, the City tested, cleaned and prepared the sites and installed water and fencing.	unheated hoop-houses	This is an initiative of Growing Home which manages many different urban growing projects in Chicago. It also acts a a hub for the work of other famming, job training and food access non-profits.
Woodlawn Highschool Urban Farm	Birmingham, AB	http://whsurbanfarm.org/.	http://whsurbanfarm.org/2 acres+ infrastructure and amenities Jones V	Jones Valley Teaching Farm	2 acre farm built and managed by high school students. Integrated science and farm business educational components.	In addition to two acres of inground production space, in WHS Urban Farm includes a state-of-the-art greenhouse, it classroom, office, and produce processing and storage facilities.	An initiative of the Jones Valley Teaching farm
Zenger Farm	Portland, OR	https://zengerfarm.org/	16 acres	City of Portland, Friends of Zenger Farm, David Douglas School District	City of Portland, Friends of Zenger Farm, David The Urban Grange, built with \$2.3 million in donations, has 6,600 square feet of Douglas School District dissroup dissroom, for the and metric gaper. A commercial kitcher is available frastrup food businesses and community events. The Urban Grange is part community center, part conduit to proper nutrition and a vibrant local food system.	Market garden, orchard, vermiculture, chickens, beehives	Land was purchased by the City of Portland and is now managed as a public space with a 50 year lease. Zenger Farm managed for production, environmental programming and community activity.

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Greensgrow	Phillidelphia, PA	http://www.greensgrow.o	3/4 acre			Livestock (pigs, chickens, ducks, bees), composting toilet, is food business incubator, urban farm CSA, hydroponics, greenhouses, community litchen	Greensgrow has a BOD and farming, educational and administrative staff.
Groundswell Centre for Local Food & Farming	Ithaca, NY	http://groundswellcenter.	8 acres	Located on the grounds of Ecovillage Ithaca, Cornell University extension and small farms program	Groundswelfs Incubator Farm is the first of its who in New York State, creating pathways to ownership for aspiring farmers from manginalized communities. They provide land, estupment, training and mentoring for three years, so that participants can launch their farm businesses with minimal investment and risk.		Land owned by Ecovillage Ithaca. Supported through grants and donations.
Grow Calgary	Calgary, AB	http://www.growcalgary.c	11 acres	Food Access Agencies in Calgary (ie: foodbanks)	Canada's largest urban agricultural farm. Grow fresh produce for Compassionate Food Access Agencies in Calgary.		Grow Calgary, grows produce for Food Banks in Calgary, Non-profit organization founded and run by Paul Hughes.
Haliburton Organic Farm Society	Victoria, BC	http://haliburtonfarm.org	9.3 acre, zoned as new rural demonstration farm zone, 6 separate farm businesses on property	District of Saanich	Haliburton Community Organic Farm is a publicly-conned farm within the Agricultural Land Reserve (ALR). The farm was saved from development by a group of concerned citizers and the District of Sandid, who purchased the land. The Farm is now being developed as a community and educational certified organic farm. New "demonstration farm" sone was created to facilitate the development of this project.	Greenhouses, native plant nursery, walking trail, wetland The occlety is managed by a BOD with 7 independently operating businesses are operating on.	The coclety is managed by a BOD with 7 independently operating businesses are operating on.
Highfields Centre for Composting	Hardwick, VT	http://www.highfieldscom. posting.org/	Compost demonstration site located in Greensboro, VT		Providing technical educational resources on composting, soil security, and heat recovery systems to the farming community.	Heat recovery systems testing (bio-heat)	Highfields has a BOD and staff that oversee technical operations, outreach and administration. There is also a significant research component managed by staff.
Hives For Humanity	Vancouver, BC	http://hivesforhumanity.c	200 hives dispersed throughout Vancouver and Delta	partner with local schools, businesses, non- profits, and bee organizations	Hives for Humanity is a non-profit organization that installs and manages beehives in throughout Vancouver and Delta. They also run educational programming around apticulture.		Has a BOD. Receive grant funding from a variety of organizations.
Intervale Conter and Intervale Community Farm	Burlington, VM	HED/Waww intercale crg/ 133 acres (total) HED/Waww intercale crg/ What-we-do/farms. POSEam/	(135 acres (total)	Vermont Foodbank, Intervale Center	The Intervale Centre Leases land, equipment, genebrouses, integration and storage facilities to small independent farms. Each year, these farms produce eggs, meat, and flowers on 135 acres of land and contribute about 60 full-time, particular and seasonal loss to the Burdison economy. The Intervaled center currently leases land to 7 mentor farms. These farms serve as established because businesses land to 7 mentor farms. These farms serve as established center businesses that provide mentorship to the incubator farms and leadership in the agricultural community. Also operate a "gleaning" project that distributes extra produce to those in need.	ircubator plots, mentor farms (more established), "geaning" service.	intervier community farm is a consumer cooperative, managed by GA members. Land is subleased from the intervale Center, which also lesses and to other independent behalvesses. There are 3 full-time, year round employees.
Jones Valley Teaching Farm	Birmingham, AB	http://ivf.org/	One city block	School boards and individual schools.	Farm used to teach pre-k - 12 year old students about food, farming and the culinary arts. It § "a food-based education model noted in academic standards."	outdoor dassroom, garden shed	The farm is managed by the organization and staffed to work directly with neighbouring schools.
Just Food Start Up Farm	Ottawa, ON	http://lustfood.ca/lust- food-farm/	each new farmer is provided 1/4 acre of land	Farmworks with Operation Come Home; Karen Community Farm with KLEO (Karen Learning and Education Opportunities Support Group);	The incubator farm teaches and supports start-up farmers by allotting each of them a X acre plot in which they can produce regetables and fruit for either Community Supported Agriculture or for sale at Local Farmer's markets. In return, Just Foods provides a communal wash station and cooler for sorting and temporally storing the produce. They also provide basic support necessary in accessing water and electricity.	wash station and cooler	Just Food is an Ottawa based food security organization which is responsible for managing the incubator farm. Each member farmer then runs their own independent business.
Lafayette Greens	Detroit, MI	https://www.asla.org/201 2awards/073.html	.425 acre		The garden is a showcase for urban growing techniques from blo-intensive methods, oneing to per nanagement, SNN faming and the french forbact randition of the kitchen garden planted for its beauty as well as its productivity. It was designed to encourage public participation through interactive demonstration and intuitive design.	raised beds, plaza, seating, interactive children's gorden.	Developed through corporate sponsorship.
Langley Demonstration Garden at the Dereck Doubleday Arboretum	Langley, BC	http://www.leps.bc.ca/de monstration-garden/		Langley Environmental Partners Society (LEPS)	The Langely otherwastration Garden is an educational facility operated in partnership up the Two Month of Langely. The Garden was established in 1992 to demostrate sustainable gardening techniques. In 2013 it moved to a new permanent bocation inside the Derek Doubleday Arboretum. The garden is staffed weekdays May to August, and is open to the public year round.		Garden operations and educational programming aare managed by LEPS.
Lens pe Edible Esta te	Manhattan, NY	http://www.frtzhaeg.com /gardeo/nthatves/edble sstates/tenape.html		uthority,	This garden is cotacted in the middle of Manhattan in front of a community center that currently serves the 2,000 residents. The garden includes the native dible plants and mounded plantings of beans, com, and squashs that the lennage people plants and mounded plantings of beans, com, and squashs that the lennage people plants are from formal in that very foration. The Lengape garden is surrounded by detailed signage that talls the story of each plant, the food of produces, how the Lengape aspet in thref cited and the natural history of the site. It is not intended to ledd the current local residents, but rather to provide visible evidence of both the general fact that our food comes out of the forth and the story of the special fact that our food comes out of the dirth and special cenamiles of the sources of food for the previous residents of the island. It is a demonstration garden, part experimental laboratory and part	First nations garden, educational signage, native plants	On land owned by the Hudson Guild a New York public housing agency.
Living City Farm	Vaughn, ON	http://tour.thelbungcity.a mpus.com/site/living-city_ farm	4.8 acres. The Living City Campus is the Largest Environmental Education Centre in Canada.	ority,	The Living City Farm demonstrates sustainable and diverse farming practices and produces a vertile of order for sold control order of produce for local markets. Stated list 10 m north of Toronto, this farm reconnects traditional agricultural practices in rural areas markets. Nature trains after force from the Toronto is also an entropolate margin of the Gith. Fordice is sold at local farmers markets. Nature trails at the Kortight Centre pass alongside the fields and greentouse, providing visitors with opportunities to experience a working farm greentouse, providing visitors with opportunities to experience a working farm firsthand. Educational tours, and sustainable agriculture-themed programs and activities are offered, including a children's garden.	market garden, educational programming, walking trails, conservation project, hertiage orchard, greenhouse.	Using City farm is operated by Akachi Farms On that downey by TRC. This a private retreprise but educational opportunities are part of the larger mandate of the Living City Campus

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Loutet Farm	North Vancouver, BC	North Vancouver, http://ediblegardenprojee. BC tcom/buret-farm/story/		North Store Neighbourhood House, the City of North Vancouver and the University of British Columbia	North Shore Neighbourhood House, the City of Loutet Farm's goal is to operate an economically viable urban farm within a North Vancouver and the University of British residential mea. Until generated through its safe of the produce are directed back into the operations of the farm while creating valuable green-collarious for the farm while creating valuable green-collarious for north shore residents. In addition, the Loutet Farm offers a range of workshops and hands on learning opportunities focused on sustainable food production for both adults and children.	Operated in underutilized public parkland	Managed by the Edible Garden Project
McQueston Urban Farm F	Hamilton, ON	http://mcquestenurbanfar m.wkstle.com/grow	http://mcuesteruchanfari 3 acres, adjacent to a school in mwisste.com/grow residential neghbourhood residential neghbourhood	City funded (city owned land), partnerships with non-profit and deducational institutions, Hamilton Victory Cardens, Hamilton Community Foundation	As part of an initiative to increase food security in the McQuesten area, a plan to create an urbant arm in the geers space behind the formers. It helers stool is being developed. These urban farms address the issue of securing a nutritious and sustainable food source for the community, but it will also create a positive change in the neighborhrood by providing volunteer opportunities for cititens of all ages, adding economic value for the community, and fostering strong bonds amongst residents in McQuesten.	community gathering space, a native plant walk a pond and farm fields producing crops to be sold at the Ottawa Street famers Market and a small market orisite for locals.	The farm is managed as a social enterprise and effect on partnership from schools in the community. Staff are hired and community volunteers are relied on to do farming work.
E.	Toronto, ON	http://www.nameres.org/ medicine-wheel-garden/	Connected to the Na-Me-Res Residence supported housing for aboriginal men	No-Me-Res Residences, The Stop Community Food Certre	The planning of the Medicine Wheel Garden began in the winter of 2012. In the spring of 7012, cost from the Backeles such tolge were positioned to give the garden direction and identity. Vegetables, herbs, and medicinal plants were introduced with the guidance of medicine wheel teachings. The Medicine Wheel Garden officially opered on August 13, 2013. The Medicine Wheel Garden officially opered on August 13, 2013. The Medicine Wheel Garden officially opered on August 13, 2013. The Medicine Truly a one-d-a kind sarces Park is Toront's first Aboriginal community garden. Truly a one-d-a kind sarces fastee, it has given the men of the Appermovaineen program an opportunity to learn more about gardening and Aboriginal medicinal plants.	medicine wheel, thereputic gardening	This project was initiated through the stop community food centre.
Middlesbrough Urban N Farming Project	Middlesbrough, UK	http://www.ryerson.ca/ca Cty wide rrotcity/board_pages/city/ middlesbrough.html	City wide	Bohn & Viljoen Architects, town council	Middlestrough became a living experiment for urban design ideas that integrated frood production. The design forests involved in apping placed for food production in the city, As part of the initiative containings of various stees were distributed to the public to help them get growing. The city now has active food growing culture through community gardens, community orchards, school gardens.	multiple, separated growing plots across city	This was a massive city wide design in initiative to create more space for food production in the city. The municipality supported the design process and offers resources and knowledge directly to
Mole Hill	Vancouver, BC	https://www.mole-hill.ca/	https://www.mole-hili.cz/ I ctry block, 26 homes, 170 housing units	Vancity, Heritage Legacy Fund of BC	Housing restoration project and community food production initiative Mole Hill Redevelopes saw the restoration of 2 character homes into 170 affordable units along with the landscaping creation of storm water management systems, a community garden and orchard and a landscape laneway open space.	I laneway, storm water management, edible	Municipalty facilitated development which is now maintained by residents under the Mole Hill Community Housing Society.
Nelson Food Cupboard	Nelson BC	http://foodcupboard.org/	9000 sq ft. (donated land)	Columbia Basin Trust, Community Food Centres Canada and others who donated infrastructure and supplies	The Food Cupboard Garde is a little urban farm where wegetables are grown for Weison Food Cupboard customers. There is fous on growing produce locally and teaching production skills to community members. Nelson Food Cupboard Society is a food security and access organization.		This garden is managed by the Nelson Food Cupboard Society.
-	Seattle WA	http://www.seattle.gov/n eighbourhoods/programs- and-services/p-patch- community- gardening/about-the-p- patch-program	88 community gardening sites around Seattle, 14.9 acres of the land and in addition steward 18.8 acres for the public for a total of 32 acres	Neighbourhood groups (including Beacon Food Forest)	http://www.seatile.gov/n 88 community gardening sites Neighbourhood groups (including Beacon Food The P-Patch Community Gardening Program, a program of the City of Seattle Department of Neighbourhood Strong Seattle L143 Seattle L143 Seattle L143 Seattle Program and seattle L143 Seattle Program and and in addition steward 188 seatces community. In the public for a total of 32 acres to the land for a total of 32 acres and the City Common planning and maintenance framework has been established.	multiple urban garden plots	The P-patch program is administered by the City of Seattle which makes space available for individual gardeners across the city.
PLOT Community Garden S	Surrey, BC	http://theplot.ca/.		City of Surrey, People's Food Security Bureau	A group of community members have gained access to dity-owned and in Surrey to create a door foroutcup, declaration and land art installanton DLOT is a collectively cultivated space worked by coordinators and volunteers. The group has a one year lease on the land which was extended for the 2017 growing season.	First Nations medicine wheel, collective plots, public art, beekeeping	Founded by community members and curriented by voluntiers on land that has been leased from the city on a year to year basis.

Appendix B: Public Feedback Forms

Public Feedback Form for Community Openhouse #1

Langley Urban Agriculture Demonstration Project - Community Open House #1

Participant Survey
Do you live in the City of Langley?
If not, where do you live?
How did you hear about this project?
Do you live within walking and/or biking distance of the project site? Walking Biking
Do you actively use the site currently?
If so, how do you use it? If not, why not?
What interests you most about this project?
What do you think are the biggest challenges for urban agriculture on this site?
What do you think are the biggest opportunities for urban agriculture on this site?
Based on the amenity list presented at the Open House, which amenities would you most like to see incorporated into this site? Why?
Do you have any remaining questions? About urban agriculture? About the Langley Urban Agriculture Demonstration project?
To receive project updates and invitations to any further community open house events, please leave your email below:

Thank you for taking the time to share your feedback with us! If you have any additional comments please use the back of this form.

Public Feedback Form for Community Openhouse #2	
Langley Urban Agriculture Demonstration Project Community Open House #2	Langley Urban Agriculture Demonstration Project Community Open House #2
QUESTIONS TO CONSIDER	QUESTIONS TO CONSIDER
Do you live in the City of Langley? Yes No	Do you live in the City of Langley? Yes 🔲 No 🔲
If you would like to receive future correspondence about this project please provide your email address.	If you would like to receive future correspondence about this project please provide your email address.
Of the OPTIONS, which do you prefer?	Of the OPTIONS, which do you prefer?
#1 THE CLASSROOM	■ #1 THE CLASSROOM
#2 THE ORCHARD	■ #2 THE ORCHARD
☐ #3 THE FARM	☐ #3 THE FARM
Why do you prefer this OPTION?	Why do you prefer this OPTION?
2. What modifications would you make to the OPTIONS?	2. What modifications would you make to the OPTIONS?
3. What challenges do you think could arise with the proposed OPTIONS?	3. What challenges do you think could arise with the proposed OPTIONS?
4. What additional comments do you have?	4. What additional comments do you have?
*Please use the back of this sheet if you need more space	*Please use the back of this sheet if you need more snace

Appendix C: Public Feedback

Public Feedback from Community Open house #1

Page 1 of 4

Do you live in the City of Langley?	Walking distance?	How did you hear about the project?	Current use?	What most interests you?	Challenges?	Opportunities?	Amenities?	Remaining Questions? Final thoughts?
Υ	Y (back onto)	letter in mail	occasionally walk dog	putting area to good use	parking who has access	people able to grow food for themselves, personal interaction with others	walking and sitting areas	
Υ	Y	letter in mail	walking	making use of vacant city owned land	traffic and parking	to make better use of vacant land	not sure	waiting for more info to come
Υ	Y	letter in mail	walk dogs, walk though on way to shopping		noise and traffic, would prefer natural park, not people centred	bee farming and orchard trees	pollinator garden community garden demonstration garden	not in favour of this proposal at this time
Υ	Υ	letter in mail	access through	traffic problems	parking	for rats to multiply	None	no
Y	Y	letter in mail	walking	development of all weather trails	car access	civic open space to be enjoyed by all	Interested in all amenities proposed, suggest opening up pleasentdale creek, clean up salmon stream	
Υ	Y	local paper	walking	money and extra traffic this will make	traffic	none	none	good to have urban ag, not here. Who will attract all the rodents?
Υ	Y	letter in mail	walking. Biking		whose paying for it? maintaining it?			
Υ	Υ	letter in mail	walk though		who's paying for it parking and traffic			
Y	Υ	letter in mail and local paper	walking	sounds like a goof use of land	what happens to wildlife? Vandalism - secured at night? Homeless camping parking water	some people get to enjoy gardening who may live in apartments	classroom. School garden, accessibility garden	will keep and interest in this project
Υ	Y	letter in mail	taking walks to brookswood	Would like to see this located further out, Campbell valley park (poor location)	parking water supply		waste management, don't want something that attracts more rats	
Υ	Υ	letter in mail	walking	who is paying?	maintenance. Ownership	not sure about opportunities yet, looking forward to more details	clear walking paths	who will have access? How will access be granted? Who is paying for this?
Y	Y	letter in mail	walking	202 st push through waste trucks material loading fire revert back if fails who will pay	keeping residents involved	education	keep as is	
Υ	Υ	letter in mail	biking	nothing	don't like it	none		
Υ	Y	letter in mail	bike commute walking bird watching blackberry picking sledding	sustainable agriculture	security at night (lots of shady stuff going down) parking, traffic powelines opening 202 to traffic	lots of space, decent exposure	community farm training farm demo farm	Are there other sites?
N (brookswood)	Υ	letter in mail	no	all of it!	vandalism	getting people of all ages outdoors, away from devices and screens	all of them, highly educational	Hurry up!
Y	Y	years ago through work and school	walking	all great, education, food, sustainability, demonstration, template for hydro ROW	soil quality and drainage from old dump	education	children's garden community orchard ecological habitat outdoor classroom school garden pollinator garden training farm	concerned about animals because not patrolled at night
Y	Y	letter in mail	walking biking running	utilizing land that is sitting stagnant and neglected	attitudes	education, community connection, beautification, sharing	accessibility garden community garden training outdoor classroom school garden	
Y	Y	letter in mail	walking, grandchildren ride bikes		access to water parking security who policies it?		-	Neighbour impacted will be up in arms concerned about property values what keeps people from coming and going all night long

Do you live in the City of Langley?	Walking distance?	How did you hear about the project?	Current use?	What most interests you?	Challenges?	Opportunities?	Amenities?	Remaining Questions? Final thoughts?
Y	Y	letter in mail	walking	possibilities for education	traffic parking increased use of people not living in walking distance loss of privacy loss of property value	education		No opposed but don't think it works here Lots here are large enough to have our own gardens traffic and parking would have an adverse effect on residents increased noise and disturbing ecosystem increased policing costs
Y	Υ	letter in mail	walking, biking	concerns about cleanliness, safety and access	Access rodents homeless camps concern of bordering properties grow-ops			
Y (lived next to area for 25 years)	Y	letter in mail	area in constant use	a possible small project	maintaining access to nature habitat for birds, coyotes, rabbits water parking security for close by neighbours preventing increase of rats protect walk through access	start small, evaluate and address the problems and challenges	possible orchard education	No livestock Have many concerns, but in theory support some of the concepts possible to locate this in an area with more parking and better access
Υ	Υ	letter in mail	walking and biking	pollinator garden	security increased traffic parking ugly chain link fence takes away natural beauty blackberry and habitat preservation	pollinator garden wouldn't need security and could look wild		
Υ	Y	letter in mail	walking the dog, good running trail	Doing something with dead space, not a bad idea but there are concerns	parking access without opening up 202 st	getting the community out to take care of plots would be good for the community	parking access off 200 st	What about wildlife that would be displaced by the project?
Υ	Y	letter in mail	walking wildlife viewing	Nothing. We will have all the rodents and wildlife in our backyards		put money into upgrading existing trails		No questions, concerned that people in power will not listen
Υ	Υ	letter in mail	walking and wildlife viewing, good for fitness and mental health	resent the idea that natural habitat for song birds and wild animals will be destroyed	biggest challenge is for people to accept that wildlife habitat is being destroyed. Residents have previously fought golf course/driving range on this site	no opportunities for urban wildlife if project goes ahead		Leave this area peaceful and undisturbed for wildlife
Υ	Υ	letter in mail	walking dog, daily enjoyment as we back onto the site	how the site will be developed in terms of construction activity and increased traffic food production could be shared with community kitchens and food bank	increase of traffic and noise structures that will block views change the current landscape	enhance community sharing food crops with homeless shelters and community kitchens	pollinator habitat ecological areas orchard indigenous garden training farm	How will construction noise and disruption be mitigated? How will use of site be monitored? How will traffic, both auto and people, be controlled or monitored? Go for it, just do it well!
Υ	Υ	local paper	week, Langley	to use land for something useful	parking	show people how to garden	great to make use of area	Hopefully will still be able to walk dog here!
Υ	Υ	letter in mail	walking to school and Brookswood	the area could be beautiful, removal of blackberry	concern about how busy the area could become parking lots		School garden pollinator garden accessibility garden	
Y	Υ	letter in mail	walking and biking to dog park and trails		chasing rats and rabbits onto property homeless people parking problems			

Do you live in the City of Langley?	Walking distance?	How did you hear about the project?	Current use?	What most interests you?	Challenges?	Opportunities?	Amenities?	Remaining Questions? Final thoughts?
Y	Y	letter in mail	walking with dogs and family	the negative effects on my neighbourhood	parking, currently very limited increased traffic safety non residents homeless gathering place need for security increased rodents should be for the use of surrounding residents loss of trees that buffer noise from traffic	none	none- would like this to remain a passive park with trails	Would like to see more info about how each specific option would be integrated
Y	Υ	local paper	dog walking	like the classroom, but don't want to loose the natural feel of the trail	keeping hydro ROW clear	learning and hands on classroom	don't want the area to be cleared and leveled, would like to see ecological garden	
N (Brookswood)	Y	local paper	dog walking and biking	visibility on site, more people means more security and safety	access water parking (only200 st or 206)	teaching people about gardening	little building or structures leave natural space with small gardens plots for local residents want to see natural greenery for existing wildlife keep building away from edges to maintain property values	
Y	Y	letter in mail	biking, walking	nothing	removal of greenbelt loss of wildlife added traffic non-residents parking on street washroom location	a large teaching garden could donate food to food bank and not increase traffic	training farm and outdoor classroom would both limit traffic, no large parking lot or washrooms needed maintain greenery and buffer from 200st	Why not put this closer to the city centre? People in area have their own properties to plant how will backing properties be compensated for loss of property value
Y	Υ	letter in mail	running, walking dogs, bike riding	community involvement, gardens are always a good idea, attracting birds and bees	flow of traffic, people to the area	ecological enhancement	pollinator garden community garden back to nature is important	
Υ	Υ	letter in mail	not anymore - once walked dogs and used actively	concerned about sustainable food supply we need to grow more of our own food locally	concern about power lines	community garden, partnership with Kwantlen research support volunteer opportunities education for children and students	all would have positive outcomes	
Υ	Υ	letter in mail	walk dogs, bike	cleaning up the area, having some kind of security	keeping security parking no pesticides looking after property in july and august and during winter	organic gardening for schools	demo garden no pesticides used keep area clean	Do not want community plots, too much traffic no outdoor washrooms parking is a concern
Y	Y	local paper	walking, biking, sledding	community involvement education for schools and older people		better use of over grown land teaching opportunities	accessibility garden children's garden community garden ecological habitat Incubator farm outdoor classroom pollinator garden training farm school garden	
Υ		letter in mail	no	and public education	soil nutrients (lack of)	varied crops		
Y	Υ	letter in mail	walking recreation	possible to protect or improve ecological area	public support, hydro restrictions, public support	expand current uses	ecological restoration pollinator habitat wetland	
N (walnutgrove)		Kwantlen - horticulture program		food production, sustainability	power lines/health			

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Public Feedback from Community Open house #1

Do you live in the City of Langley?	Walking distance?	How did you hear about the project?	Current use?	What most interests you?	Challenges?	Opportunities?	Amenities?	Remaining Questions? Final thoughts?
Y	Y	letter in mail	walking biking picking berries	I think a community garden is great but not in our backyard	wildlife homeless traffic	Good idea for condos or townhomes but not for people who have their own yards to garden		
Υ	Υ	letter in mail	relaxing walks/nature	Nothing				Why can't this be somewhere else?
Y	Υ	letter in mail	child/dog walking, jogging, berry picking, nature photography	Making our neighbourhood more beautiful	encroachment on existing homeowners parking loss of natural wildlife removing natural predators means more rats attracting homeless not opening access through 202 st. décor/clutter garbage collection compost washrooms vandalism	maintain dog walking and recreation trails to keep naighbour happy education on urban agriculture growing native to BC flowers beekeeping - natural pollinators	Washrooms -locked at night because of homeless parking off 200th only speed signs and signs on side streets (already have issues with speeders) beehives, honey bees and native pollinators playground?	Will/can this open the door to chickens or beekeeping in Langley City?
Y	Y	neighbour, mail	walking accessing dog park picking blackberries and apples biking sledding in winter	Nothing	traffic parking homeless people vandalism displacing wildlife	if anything, a pollinator garden	keep the undeveloped natural location that is enjoyed by residents	I believe in UA but not on this site, not a good location
Y	Y	newspaper	walking berry collecting	Nothing	rats eating the food raccoons, coyotes location too close to the garbage dump how to handle security		None - school projects are best done on school property	What will be done with all the extra rats?
Υ	Υ	letter in mail	walking, daily	food production education		local food production	Demonstration centre	
Υ	Y	letter in mail	walking, dog walking, biking	not interested, would like to see this site remain as it is	traffic parking ruining nature (coyotes, rabbits, birds)			Not interested in seeing this project located here
Y	Y	letter in mail	walking biking walk dog	not interested, live off 202 and worried about parking and access	People bought here to be on a quite dead end street, we have fought to keep 202 closed twice	Good idea for those who don't have space to grow food. Idea good, location not		access of 200 only, parking at west end under power line to not impact residents, increased traffic as is
у	У	letter in mail	walk along fence on south side to dog park, back along north side		parking and where it will be	school children can learn about agriculture	foot paths for walking, now when it rains there are large muddy puddles	
Υ	Y	letter in mail	walking trails and dog park, natural undisturbed trails		parking homelessness water access maintain dead end street people in area have yards so not needed	none	put this somewhere else	Who will maintain and ensure safety? Parking on 202 St unacceptable - no more traffic Do people want to grow food under power lines? Who will pay for this? Who will maintain cleanliness? Are other areas being considered (west side of 200th street on underutilized areas, Buckley Park)?
Υ	Υ	letter in mail	walking	good use of land	surrounding residents want to keep low traffic on their roads		lockable washrooms, fences with locked private plots	
Υ	Y	newspaper	walking	urban food production allotment gardens	resistance from neighbour vandalism	community involvement in food production education for adults and schools physic garden	community food garden ecological areas accessibility garden children's garden incubator garden	
Υ	Y	letter in mail	walk and bike	I like the idea of enhancing the area	parking attracting too many people and disrupting community	enhance current park issues and not introduce new uses		
N (aldergrove)		Langley Field Naturalists	no	protecting wildlife corridor	security	growing food	ecological habitat (too much lost already	

Do you live in the City of Langley	Which option do you prefer?	Why?	What modifications would you make?	What challenges could arise?	Additional Comments
	2	If I had to pick #2			
	2	Only using a small portion of the site with access off 200st. Perhaps only to 201st			Please leave the majority of the site for wildlife. Ecological system in place
Υ	2	I moved to this area because my home bordered the easement. I wanted a quieter life. This option seems to have less people and activity	Parking - if parking lost is created the parking on 46A /203 and others should be evaluated i.e. no parking on both sides of street for safety	Rats	I would prefer the easement be maintained and monitored and made more natural rather than any of the options
Y	3	Bees, producing food and opportunities for education beyond elementary school classrooms. As there are already opportunities, or possibly, available in school yards.	Outdoor school gathering space so it can still offer seating for classes	Concern about parking along 202 st to be able to access middle of farm. Hopefully there will be well communicated allowances for parking on site when needed.	Trust seems to be a big issue that needs to be overcome, I hope staff and council can reflect on what caused this. Concern orchards will bring in homeless people and goods may be stolen. Concern about mowing and other machinery needed to maintain site. Concern about time needed to maintain classroom and orchard options. Huge concern of pesticides used on trees in orchard. Love pollinator pathways.
N	3	Food production. People will be there	Parking for school bus. Existing parking lot will be dangerous	Public Buy-in. Vandalism. Long term management/care	
Υ	3	opportunity for non- profit to develop food source	clarity on who will be using	theft vandalism impact on current residents backing on to greenway	is there anything wring with current use? Seems to be used regularly
Υ	3	Good way to clean up area		Possible theft of food	
Υ	1,2,3	Any of choices are good	If this doesn't go forward playing fields could go in	There is a big rat problem in the area, where would they go?	I think it should go for a vote
Υ	1,2,3		keep it simple		restrooms
Υ	1,3	I like the idea of mixing farm and classroom	Like classroom and school involvement also farm growing veggies would be ok	Don't like orchard. Fruit would drop and cause issues with pests	If expecting school buses, make space for them to turn around. Lot is small fo them
Υ	1,3	Combine farm and classroom	For parking make big enough for bus parking. Otherwise it will not be usable for a classroom	The orchard would be a mess because people would not pick the fruit	Proper washrooms (flush and water) Do not open 203 st
Y	No Development	Leave as passive park with adjustments like removing invasive plants			Realize that one letter, one formalized response represents many. 1 letter represents 25-500. View petitions in the same way. Avoid separating factioning, bring people together Let us hear from the people whose ideas these are There is an air of disenfranchisement. That could be changed
Υ	No Development	I enjoy the urban feel and seeing wildlife in its natural element is the best way to see it.			I have lived in the city for 17+ years and I like the way it is. Please leave it alone.
Υ	No Development	We bought in this city		rodents transient people/crime traffic loss of enjoyment of property loss of property value	Not happy that the City omitted the option to leave this land as is. Residents feel bullied and censored,

Do you live in the City of Langley	Which option do you prefer?	Why?	What modifications would you make?	What challenges could arise?	Additional Comments
Υ	1	There are lots of small farmers in the Fraser Valley, they need continual replacement of new farmers and this could inspire young people to farm or to understand why they should support small scale food producers.		Orchard issue: long term management could be an issue and it could falter and decline. The continual management of a school garden brings stability to the site	What happens when school is out for the summer? How is engagement encouraged in summer months?
Υ	1	Because of educational aspects, but with modifications	Keep classroom and use it for children education plus adult workshops etc. Combine school garden and community farm keep community orchard and beehives include native berries in orchard area		main concern is about vandalism. How will this be addressed? Otherwise this is a good use of barren land and can serve the community well if properly managed.
Y	1	Because it focuses on a practical designable use for the area with a demographic in mind. It also seems to require the least upkeep	Concerned about annual maintenance and proper upkeep has not been taken into consideration. I foresee the development becoming overgrown and broken down in short time	Increased transient presence in my neighbourhood (my property backs on to site) Increased pests and rodents. Increased traffic and parking on my street.	I am not opposed to development of change. I like the design ideas and the variety of options. I fear there is a lot of development that needs to happen to address residents concerns. The Derek Doubleday arboretum has a demo garden which is only upkept May-Sept. This project will become overgrown, vandalized without regular staff or group to upkeep it. Most residents have gardens of their own so community garden in unnecessary - but we would be the ones who would have to upkeep it because we live close and access it often. I also fear that 202 st will be connected on both sides and I would be unhappy if this happened. I support the project as a classroom because its purpose seems more clear and defined by use of local schools . Don't forget the upkeep and long range planning!
Υ	2			Opposition from neighbours regarding parking Financing	I like the concept
Y	2	Like the amount of habitat areas pollination area and orchard forest. This feels like the most natural of the tree options		Worried about crime increase, homeless people adopting the area. I have young kids and like to walk and bike in the area	Increasing crime is a concern. I currently don't feel safe walking in Langley City North of the powerlines
Υ	2	Rats come with vegetables. Most people in the area grow some veggies. Designs look nice.			
Y	2	Would look attractive and be lower maintenance than	incorporate the classroom concept at a smaller scale to provide educational opportunities without huge commitment from schools	Theft and vandalism may be a concern depending on a final design.	I think the implementation of this type of plan will be a huge improvement to the area. I like all the options presented and some combination of the three could be a good compromise
Υ	2	Looks like less human traffic, orchard for food use is a benefit to the community	Ensure no parking in subdivision areas If fertilizer is used it should be organic	Parking on residential streets keeping wild animals out of garden	

Do you live in	Which option	Why?	What modifications would	What challenges could arise?	Additional Comments
the City of Langley	do you prefer?	,.	you make?	What chancinges could unise.	Additional comments
Υ	No	too many kid sin the area to bring in traffic - the area is already being enjoyed by the public, kids, dogs, wildlife no reason for the added costs to the city		No reason for construction to a perfectly fine area that can be enjoyed by everyone already	Leave it alone waste of money wrecking natural habitat wrecking homes for wildlife dangering my kids with way more traffic give us the option to leave the area alone
Υ	No Development	Leave area as is	Don't do it	Where are animals going Rats go to houses	
Υ	No Development	Leave as is			
Υ	No Development	No options needed	No Modifications	Traffic issues, homeless camps	
Υ	No Development				1-3 are the same with different names for gardens. Poorly prepared design and layout, no parking. Not true consultation. Poorly designed and thought out
Υ	No Development	No options needed	Stop planning	Traffic homeless problems	Please forget this project
Υ	No Development	Do not want it			Leave as is
Υ	No Development	I think all options are good, wrong location		parking, more traffic	I live on 202st and I like the quiet street
Υ	No Development	Keep Brookswood the way it is	leave it be		
Υ	No Development	Traffic parking on 202 st. No one will wheelbarrow from 200st uphill	Find a more suitable site. Downtown where residents who will use the site live Douglas park of Kwantlen	Parking Traffic	The people of our street 202 are tired of public forums where people don't listen
Υ	No Development	the school garden is too big, kids won't work the garden	My options, I do not like it	Where all the rats going in my yard	Keep it as a park
Υ	No Development	There are too many negatives that could/ would potentially happen as a result of development	too many to list	Increased amount of people coming to neighbourhood resulting in theft and vandalism. Parking issues. Loss of recreation area	Save the money and leave this right of way area alone, especially the blackberries. This is one of the few areas in the city that is still untouched. Developing it would not benefit the surrounding community it could bring outsiders who would not show the area the same respect that neighbours currently do.
Υ	No Development	I believe the proposed site is inappropriate for garden because it is a valuable wild piece of Langly in its untouched state	More the location, move to a more suitable one. A more high density area would need this more that the area presently proposed	Peaceful area of Langley would become overrun by cars our street would become parking lot	Don't go through with this. You have not asked those of us who live here. You make it sound like a done deal without any consultation of residents
Υ	No Development	I don't we are suburban, not urban	If there are funds you don't know what to do with you can regravel the path	It is a necessary wildlife corridor to connect ravines	Let Kwantlen students do studies on campus site. We wouldn't benefit
Y	No Development	Wrong area, waste of money, too much wildlife. Everyone in the area has a yard. No need for more bees (allergies)	Do this in an urban area not a sub-urban one. Everyone has a garden already	Where does the water come from? What about homeless people? What about bathrooms? Who gets the food?	
Υ	No Developme	I love the space the way it is I use it all the time and enjoy the wild life natural landscape		Too much traffic Increase homeless people Noise	Please leave the space as is
Υ	No Developme	Like the way things are	Leave it alone	Rats and animals will come to our house. Punk kids will destroy things. Increase traffic	If not broke, don't fix it. Put garden at Douglas park

the City of	Which option do you	Why?	What modifications would you make?	What challenges could arise?	Additional Comments
Langley Y	prefer? No Developme	This option makes more sense	Who gets the food? Who maintains area? Who gets access?	Bees - what if there are allergies? Where is water coming from What about restrooms? What about animals? What about attracting rats? What about prop. Values?	
Y	No Developme	Development of a community garden is unnecessary at this site as it is not beneficial to local residents who have bog yards enough to have their own gardens if they choose. Development will bring an influx of people who will disrupt the quiet of the neighbourhood and will also disrupt the existing biosphere that is enjoyed by the local		Increased traffic opens area to undesirable land use Increased monitoring and policing costs decreased property values disrupt the existing lifestyles of residents	Where does water come from? Is the area to be completely fenced? Is the boundary to be the full extent of the ROW?
	No Developme	I am against all options	Discard them all	Loss of natural green space	This in not the right area for an urban garden. We are not urban near the ROW. Most of us have garden space on our own properties I do not want people living in the downtown core to park on my street which is now quiet and safe.
Υ	No Developme	None of the above		destruction of wild green space - displacement of birds and animals	We love it as is - well used
Y	No Developme	Habitat for wildlife	rabbits and birds quiet area now well used by walkers, rider, joggers	promotes parking in surrounding dead end streets	A community garden is a fine idea but I feel the proposed location is a poor choice
Υ	No Development		7-00	All three options have parking in an unsafe location, just over the crest of a hill	If it's not broken don't fix it
Y	No Development				Let this piece of land stay the way it is. Can keep maintaining but many Langley residents use it for walks and outdoor recreation.
Υ	No Development (modified)		Golf course, high fences	Increased homeless camps, increased crime. We have had enough	Do not make the same mistake others have made with these gardens
Υ	No Development (modified)	We want ecological preservation of this environment	change of focus. No urban garden. Get LEPS to remove invasive species (we can help). Restore and enhance ecology	parking homelessness loss of habitat loss of open space	Please ask for legitimate input, not use agenda
Υ	No Development (modified)	as a resident of 202 approx. 5 houses from entrance there is no upside - all will bring more traffic	keep as is	tax payers will pay \$\$ to upkeep, many animals will be displaced	The project is too aggressive for this area. Tone it down and start with a small improvement of none at all. Keep as is.
Υ	No Development (modified)	Leave as is but a major clean up and maintenance agreement for the future	As listed above		
Υ	No Development (modified)		Only use the area from 200st to 201 st so that the majority would remain unchanged		Leave majority alone

Do you live in the City of Langley	Which option do you prefer?	Why?	What modifications would you make?	What challenges could arise?	Additional Comments
Y	No Development	Any other option will push rodents into our yards and houses	Put community gardens close to community that needs land to grow i.e. condos and apartments	rats in my yard homeless people attracted to free food teenagers will be given a target for hangouts and crime	My house and property value will go down
Υ	No Development	Enjoying pathways the way they are. Nature and all its beauty now		Parking on residential street would be next, lose privacy and increase traffic for us	Every 15 years new ideas come. They haven't maintained it now. At first they will and then it will go downhill and back to no maintenance
	No Development	Good idea, wrong place			
Υ	No Development	No change necessary, area not broken	None - do not change area. Stop planning traffic issues on 202 St. Speed concerns	No option is good	Find elsewhere. This area is not broken. Leave the area and existing homeowners alone
Υ	No Development	I don't prefer any of the options. I am in favour of option 4, leave as wildlife corridor		It would disrupt the wildlife and bird habitat and the peace and tranquility of the community	It seems that the agenda has already
Y	No Development	The area is home to various wildlife. We don't need community gardens because we all have yards			
Υ	No Development	Leave it alone. There are mature trees for wildlife. Residents enjoy the pathways the way they are. Do not need orchards and gardens to enjoy nature.		Loss of wildlife. Loss of privacy for homeowners. Increase of traffic and parking in our neighbourhoods. Open to vandalism	The area does not need to be clearcut. Area can be left with existing trees. Maybe develop only half the site.
Υ	No Development		have at 208th st where there is floodplain during winter and homeless camps during summer. Closer to Kwantlen		Please leave it alone as we were told it would be after the golf course was proposed
Υ	No Development	The area is too open to crime if changes in the area are allowed	Blackberry bushes left along fences to prevent fence damage and crime	lots of clean up and loss of habitat rat problem and rats will find new homes	Leave ROW as natural area with no changes
Υ	No Development	I don't prefer option 1- 3. I would like to keep this as a natural wildlife corridor	Put them in more desirable location	This would disturb the wildlife and bird habitat and peace and tranquility of the area	There is a definitive choice to leave the ROW as is
Υ	No Development	This is the worst idea. Leave it alone. No one would use a garden	Leave it alone the space is already being used in a great way. Dog walking, bike riding, nature walks	Increasing traffic in a neighbourhood where kids play endangering their safety	Stop wasting tax payer money and leave it alone. No need for a garden to pay people to maintain it. Stop taking away greenspaces that are well used. There is already Sendell Gardens in the City put these ideas there and stop wasting money.
Υ	No Development	Enjoy ecological system as is	Leave it alone , it is a wildlife corridor	Increased homelessness/ delinquent presence wildlife threatened Increase rats Increased traffic on 202 st	These options are unenforceable. Who would use the orchards and community garden
Υ	No Development			Parking	
Υ	No Development	Do Not Change			
	No Development				

Appendix D: Amenity Budgets

Capital and Operational Budgets for Site Servicing and Infrastructure

Capital Expenses	
Site Preparation	\$ 345,000.00
Entry Signage and Planting	\$ 10,000.00
Parking Area	\$ 50,000.00
New Pathways and Resurfacing	\$ 100,000.00
Water Connection	\$ 10,000.00
Pit Toilet	\$ 40,000.00
Site Signage	\$ 30,000.00
Soil Testing	\$ 6,000.00
Contractors and Consultants	\$ 75,000.00
Electrical Servicing	\$ 50,000.00
Total Capital Expenses	\$ 716,000.00

Operational Expenses	
General Site Maintenance	\$ 10,000.00
Pit Toilet Maintenance	\$ 5,000.00
Trail Maintenance	\$ 5,000.00
Pest Control	\$ 500.00
Replacement Plant Material	\$ 2,500.00
(non-production areas only)	
Total Operational Expenses	\$ 23,000.00

Budget Notes:

- Contractors and consultants could refer to additional services requires from professionals, such as: agronomists, soil specialists, or advisors on development of agricultural amenities.
- Operational expenses outlined here refer only to "non-amenity areas" i.e. pathways, servicing areas, washrooms facilities, parking area etc. Operational costs for amenity areas are outlines in the following amenity budgets.
- General site maintenance refers maintenance activities outside of production areas (i.e. mowing, pruning, pathway maintenance)

Capital and Operational Budget for The Farm

Capital Expenses	
Farm Hub Building	\$ 17,500.00
Concrete Slab @ 80m²	\$ 6,500.00
Building Supplies	\$ 8,000.00
Shelving	\$ 3,000.00
Produce Washing Area	\$ 5,000.00
Concrete Slab (part of storage building)	N/A
Building Supplies	\$ 4,000.00
Hoses and Fixtures	\$ 1,000.00
Produce Storage	\$ 5,100.00
Building Supplies	\$ 2,500.00
Shelving	\$ 600.00
Cooling Equipment	\$ 2,000.00
Composting Area	\$ 5,700.00
Concrete Slab @ 40 m²	\$ 3,200.00
Building Supplies	\$ 2,500.00
Irrigation System	\$ 13,500.00
Valves, fixtures, and adapters	\$ 3,000.00
Mainline and Sub-mainline	\$ 5,000.00
Drip Tape	\$ 4,000.00
Water meters	\$ 1,500.00
Tools, Equipment and Supplies	\$ 13,600.00
Walk behind tractor with tiller	\$ 6,000.00
Walk behind tractor attachments	\$ 1,500.00
Hand tools	\$ 1,600.00
Harvesting Equipment	\$ 1,000.00
Flat Wheelbarrow	\$ 1,000.00
Seeding Supplies	\$ 800.00
Seeder	\$ 800.00
Pest Management	\$ 1,000.00
Ground cover/mulch	\$ 500.00
Total	\$ 61,000.00

Operational Expenses	
Farm Operations	\$ 9,000.00
Transportation and Produce Distribution	\$ 4,000.00
Equipment Maintenance	\$ 1,000.00
Irrigation Maintenance	\$ 2,000.00
Crop Seeds	\$ 600.00
Cover Crop Seeds	\$ 150.00
Compost	\$ 600.00
Pest Management	\$ 150.00
Ground Cover/Mulch	\$ 500.00
Personnel	\$ 59,650.00
Farm Manager	\$ 32,000.00
Farm Hand	\$ 10,500.00
Intern(s)	\$ 3,150.00
Programming Coordinator	\$14,000.00
Total	\$ 68,650.00

Budget Notes:

- Budget estimates for all food production elements were made based on capital and operational expenses on the Tsawwassen First Nation Farm School operated by The Institute for Sustainable Food Systems
- The cost of water has not been included in preliminary project budgets. An agreement with the City will have to be reached regarding water use and renumeration prior to project development.

Capital and Operational Budgets for The Classroom

Capital Expenses	
Storage Building	\$ 2,500.00
Building Supplies	\$ 2,000.00
Shelving	\$ 500.00
Raised Beds	\$ 8,000.00
Building Materials	\$ 5,000.00
Signage	\$ 500.00
Drip Irrigation	\$ 400.00
Soil	\$ 1,500.00
Compost	\$ 600.00
Irrigation System	\$ 1,300.00
Irrigation Supplies	\$ 1,000.00
Water Meters	\$ 300.00
Tools and Equipment	\$ 1,000.00
Hand Tools	\$ 500.00
Harvesting Equipment	\$ 500.00
Seating	\$ 7,500.00
Stump Seating	\$ 5,000.00
Log Seating	\$ 2,500.00
Plant Material	\$ 10,000.00
Perennial plants	\$ 10,000.00
Micro Production Plots	\$ 3,700.00
Soil and Compost	\$ 2,000.00
Mulch	\$ 1,200.00
	¢ 500 00
Seeds	\$ 500.00

Operational Expenses	
Site Maintenance	\$ 7,000.00
Seeds and Gardening Supplies	\$ 200.00
Tool and Equipment Maintenance	\$ 300.00
Total	\$ 7,500.00

Capital and Operational Budgets for The Orchard

Capital Expenses	
Site Preparation	\$ 5,250.00
Compost	\$ 3,000.00
Ground Cover Seeds	\$ 250.00
Mulch	\$ 2,000.00
Plant Material	\$ 12,650.00
Trees	\$ 10,000.00
Small Fruits	\$ 4,000.00
Production Infrastructure	\$ 9,000.00
Tree Guards	\$ 1,000.00
Trellising and Tree Supports	\$ 8,000.00
Irrigation	\$ 4,000.00
Irrigation Systems	\$ 3,000.00
Water Meters	\$ 1,000.00
Tools and Equipment	\$ 2,500.00
Harvesting Equipment	\$ 500.00
Hand Tools	\$ 1,000.00
Packing and Storage Supplies	\$ 1,000.00
Total	\$ 34,750.00

Operational Expenses						
	Year 1	Year 2 (-25% Y1)	Year 3 (-25% Y2)	Year 4 (-25% Y3)	Year 5 (-25% Y4)	
Replacement Plant Material	\$ 1,450.00	\$ 1,087.50	\$ 815.63	\$ 611.72	\$ 458.79	
Tool and Equipment Maintenance	\$ 300.00	\$ 225.00	\$ 168.75	\$ 126.56	\$ 94.92	
Pest Control	\$ 500.00	\$ 375.00	\$ 281.25	\$210.94	\$158.20	
Compost and Soil Amendments	\$ 525.00	\$ 393.75	\$ 295.31	\$ 221.48	\$ 166.11	
Mulch	\$ 500.00	\$ 375.00	\$ 281.25	\$ 210.94	\$ 158.20	
Cover Crop Seed	\$ 150.00	\$ 112.50	\$ 84.38	\$ 63.28	\$ 47.46	
Total	\$ 3,425.00	\$ 2,568.75	\$ 1,926.56	\$ 1,444.92	\$ 1,083.69	

Capital Budget for Ecological Restoration (Buffer Plantings, Habitat Areas)

Capital Expenses				
	Per Acre	Buffer Planting	Habitat Areas (Wetland)	Habitat Areas (Riparian)
Site Preparation	\$ 2,00000	\$ 8,000.00	\$ 6,000.00	\$ 6,000.00
Invasive Species Removal	\$ 1,000.00	\$ 4,000.00	\$ 1,500.00	\$ 3,000.00
Perennial Plant Material (1 gallon pots)	\$ 10,000.00	\$ 20,000.00	\$ 5,000.00	\$ 15,500.00
Perennial Plant Material (plugs)	\$ 5,000.00	\$ 10,000.00	\$ 7,500.00	\$7,500.00
Mulch	\$ 1,200.00	\$ 4,800.00	\$ 1,800.00	\$ 3,600.00
Compost	\$ 500.00	\$ 3,000.00	\$ 1,125.00	\$ 2,250.00
Total		\$ 49,800.00	\$ 22,925.00	\$ 37,350.00
Total Restoration Costs				\$ 110,075.00

Capital Budget for Pollinator Habitat Restoration (Corridor and Hedgerows)

Capital Expenses				
	Per Acre	Hedgerows	Corridor	Site Total
Site Preparation	\$ 2,000.00	\$ 1,000.00	\$ 5,000.00	\$ 6,000.00
Perennial Plant Material (plugs)	\$ 5,000.00	\$ 2,500.00	\$ 12,500.00	\$ 15,000.00
Seeds	\$ 400.00	\$ 200.00	\$ 1,000.00	\$ 1,200.00
Seeding and Transplanting	\$ 1,000.00	\$ 500.00	\$ 2,500.00	\$ 3,000.00
Compost	\$ 500.00	\$ 250.00	\$ 1,250.00	\$ 1,500.00
Total		\$4,450.00	\$ 22,250.00	
Total Site Costs				\$ 26,700.00

Total Area of Pollinator Habitat on Site

	Hedgerows	Corridor
Approximate Length	1000m	550m
Width	2m	18m
Area	2000m2	9000m2
Acreage	0.5 acres	2.5 acres

10. Endnotes

1. Introduction

- 1 Lovell (2010) describes the multifunctional characteristics of urban agriculture citing projects that have successfully achieved a variety of outcomes including: social connection, urban greening, environmental sustainability, food literacy, food security and community health.
- 2 Black Creek Community Farm, "About Us" http:// www.blackcreekfarm.ca/about-us/ Accessed on: February 14, 2017.
- 3 Loutet Farm , "Loutet Farm Story" http:// ediblegardenproject.com/loutet-farm/ Accessed on: February 14, 2017.
- 4 Knapp, L. et al,. (2016) studied vulnerability in urban agriculture projects in the Netherlands and Switzerland discovering that resilience was connected to institutionalization of projects. This can include municipal support in the form of funding, policy change, and capacity building.
- 5 Knapp, L., Veen, E., Renting, H., Wiskerke, J. S. C., & Groot, J. C. J. (2016). Vulnerability Analysis of Urban Agriculture Projects: A Case Study of Community and Entrepreneurial Gardens in the Netherlands and Switzerland. Urban Agriculture and Regional Food Systems.
- 6 Hamilton Community Foundation, "Urban Farm Planting Seeds of Change in McQueston" http://hamiltoncommunityfoundation.ca/impact/stories/urban-farm-planting-seeds-of-change-in-mcquesten/Accessed on: March 5, 2017.

2. Site Assessment

- 7 The perception that urban environments are contaminated and therefore dangerous for food production is a common barrier to community buy in for urban agriculture projects. However, this is not the case for all sites. Site assessment, including soil testing and analysis is critical step for any UA project and is essential for gaining community support for projects.
- 8 Archbold, J., & Goldacker, S. (2011). Assessing Urban Impacted Soil for Gardening: Decision Support Tool Technical Report and Rationale. Toronto Public Health. City of Toronto.

- 9 Canadian Council of Ministers of the Environment "Canadian Environmental Quality Guidelines" http:// st-ts.ccme.ca/en/index.html?chems Accessed on: January 27, 2017. The Canadian Council of Ministers of the Environment provides information about the sources and impacts of heavy metal and chemical contaminants as well as information about the acceptable contaminant levels for a variety of land uses, including residential, recreational and agriculture.
- 10 City of Langley. (2014). City of Langley Community Profile. http://www.city.langley.bc.ca/sites/default/ files/uploads/Discover/Community_Profile.pdf. Accessed on: March 13, 2017
- 11 City of Langley. (2014). City of Langley Community Profile. http://www.city.langley.bc.ca/sites/default/ files/uploads/Discover/Community_Profile.pdf. Accessed on: March 13, 2017
- 12 Metro Vancouver. (2011). Metro Vancouver 2040: Shaping Our Future. Regional Growth Strategy. http://www.metrovancouver.org/services/regional-planning/PlanningPublications/RGSAdoptedbyGVRDBoard.pdf. Accessed on: November 15, 2017.
- 13 City of Langley (2006) Official Community Plan. http://city.langley.bc.ca/business-development/ official-community-plan Accessed on: November 17, 2017.
- 14 City of Langley. (2015). 10 Year Parks, Recreation and Culture Master Plan. http://www.city.langley.bc.ca/sites/default/files/uploads/Parks/PRC_Master_Plan_Document.pdf. Accessed on: March 14, 2017.
- 15 City of Langley. (2015). 10 Year Parks, Recreation and Culture Master Plan. http://www.city.langley.bc.ca/sites/default/files/uploads/Parks/PRC_Master_Plan Document.pdf. Accessed on: March 14, 2017.
- 16 Istvanffy, N., & Atkey, J. (2007). City of Langley Social Plan. http://www.city.langley.bc.ca/sites/default/files/uploads/Services/Social_Plan.pdf. Accessed on: November 8, 2017.
- 17 Metro Vancouver. (2011). Metro Vancouver 2040: Shaping Our Future. Regional Growth Strategy. http://www.metrovancouver.org/services/regional-planning/PlanningPublications/RGSAdoptedbyGVRDBoard.pdf. Accessed on: November 15, 2017.

- 18 Metro Vancouver (2011). Regional Food System Strategy. http://www.metrovancouver.org/ services/regional-planning/PlanningPublications/ RegionalFoodSystemStrategy.pdf Accessed on: November 15, 2017.
- 19 Invasive species Council of BC. Himalayan Blackberry. https://bcinvasives.ca/invasive-species/identify/ invasive-plants/himalayan-blackberry. Accessed on: March 12, 2017
- 20 BC Hydro (2015) Integrated Vegetation Management Plan for BC Hydro Transmission and Distribution Power line Corridors.

3. Urban Agriculture in Hydro ROW Areas

- 21 Fodour, Z., & Tay, S. (2015). Urban Farming Practices in Metro Vancouver. Vancouver Urban Farming Societyhttp://www.urbanfarmers.ca/wp-content/uploads/2015/12/VUFS_report_25nov15_web-2.pdf Accessed on: April 11, 2017.
- 22 Holland Barrs Planning Group; Lees + Associates; Sustainability Ventures Group. (2002). Southeast False Creek Urban Agriculture Strategy. City of Vancouver. http://ecourbia.org/Papers/SEFC Urban Agriculture Strategy.pdf. Accessed on: March 14, 2017.
- 23 Danyluk, Martin. (2011) Cultivating Potential: Planning for Urban Agriculture in Toronto's Hydro Corridors. Geography Dept. Toronto, ON: University of Toronto.
- 24 Los Angeles Community Garden Council (2017)
 "Meet Don Francisco at the Stanford Avalon
 Community Garden" http://lagardencouncil.org/
 meet-don-francisco-stanford-avalon-communitygarden/ Accessed on: November 6, 2017
- 25 Livingstone, A., & Nagulan, J. (2016). Community Grown: Vibrant Community Owned Public Spaces -A Case Study. Centre for Sustainable Food Systems, Wilfred Laurier University, and FoodShare Toronto
- 26 BC Hydro. (2016). BC Hydro Rights of Way Guidelines: Compatible uses and development near power lines. Vancouver, BC. https://www.bchydro. com/content/dam/BCHydro/customer-portal/ documents/corporate/safety/row-guidelines-2017. pdf. Accessed on: February 12, 2017
- 27 The World Health Organization is responsible for aggregating data about the health impacts of EMF, and recognizes the increase in potential EMF exposure to the public in the modern environment.

- 28 BC Hydro. (2013). Understanding Electric and Magnetic Fields. Vancouver, BC. https://www. bchydro.com/content/dam/BCHydro/customerportal/documents/corporate/community/ understanding-electric-magnetic-fields 2013.pdf. Accessed on: March 12, 2017
- 29 World Health Organization. (2002) Establishing a Dialogue on Risks from Electromagnetic Fields. Geneva, Switzerland. http://www.who.int/peh-emf/publications/en/EMF_Risk_ALL.pdf?ua=1. Accessed on: March 5, 2017
- 30 World Health Organization. (2002) Establishing a Dialogue on Risks from Electromagnetic Fields. Geneva, Switzerland. http://www.who.int/peh-emf/publications/en/EMF_Risk_ALL.pdf?ua=1. Accessed on: March 5, 2017
- 31 BC Hydro. (2013). Understanding Electric and Magnetic Fields. Vancouver, BC. https://www.bchydro.com/content/dam/BCHydro/customerportal/documents/corporate/community/understanding-electric-magnetic-fields 2013.pdf. Accessed on: March 13, 2017
- 32 Health Canada. (2016). Electric and magnetic fields from power lines and electrical appliances. https://www.canada.ca/en/health-canada/services/homegarden-safety/electric-magnetic-fields-power-lines-electrical-appliances.html. Accessed on: March 9, 2017
- 33 Macfarlane, R., Campbell, M., & Timmings, C. (2008). STAFF REPORT Reducing Electromagnetic Field Exposure from Hydro Corridors. Staff Report. Toronto Ontario.

5. Site Plan

- 34 Plans for pit toilet building available on the Leko Precast Ltd. website http://www.lekoprecast.com/ toilet-buildings.html
- 35 Anecdotal accounts of wildlife seen on the site was collected from local residents at the Community Open House events.
- 36 Diamon Head Consulting Ltd. (2016) "City of Langley Environmentally Sensitive Areas Mapping Study" https://city.langley.bc.ca/sites/default/files/uploads/ Development/2016_Mapping_Study.pdf. Accessed March 12, 2017.
- 37 Toronto Region Conservation Authority. (2017)
 Maintaining Your Pollinator Habitat: A Guide
 for Community Gardeners. http://trca.on.ca/
 dotAsset/150579.pdf. Accessed on: October 14,
 2017. Although there is an investment of time and
 resources when establishing a pollinator habitat
 over the long term, these amenities are are low

- maintenance. They also have a high positive impact for UA projects and for the broader environment, increasing biodiversity, building soil and creating aesthetically pleasing public spaces.
- 38 BC Hydro (May 27, 2016) "Richmond Delivers Wildflowers for Bees at a City Park". https://www.bchydro.com/news/conservation/2016/bridgeport-pollination-corridor.html. Accessed on March 7, 2017
- 39 The Canadian Organic Standard is created and revised nationally and enforced by inspection agencies in local jurisdictions. UA projects may choose to not be certified organic (that is, inspected by a third party) but often use the organic practices outlined in the standard.
- 40 BC Hydro. (2016). BC Hydro Rights of Way Guidelines: Compatible uses and development near power lines. Vancouver, BC. https://www.bchydro. com/content/dam/BCHydro/customer-portal/ documents/corporate/safety/row-guidelines-2017. pdf. Accessed on: February 12, 2017
- 41 These estimates are based on plans for a Three Bin Composter available online from Metro Vancouver. http://www.metrovancouver.org/ services/solid-waste/SolidWastePublications/ CompostBinConstructionPlan-ThreeBin.pdf
- 42 Jones Valley Teaching Farm. "Our Sites". https://jvtf. org/our-sites/. Accessed on February 1, 2017
- 43 Recommended dimensions for raised beds from the City of Vancouver Urban Agriculture Guide. These measurements are based on the average reach of a human, but may need to be adjusted if building beds for very young children.
- 44 Copley Community Orchard. "Information" http://www.copleycommunityorchard.com/information/. Accessed on: March 7, 2017

6. Management Plan

- 45 Beacon Food Forest. "How We Started". http:// beaconfoodforest.org/how-we-started/ Accessed on: March 4, 2017
- 46 Langley Environmental Partners Society. "About US" http://www.leps.bc.ca/. Accessed on: March 1, 2017
- 47 Langley Environmental Partners Society.

 "Community Gardens" http://www.leps.bc.ca/
 demonstration-garden/. Accessed on: March 1, 2017
- 48 Nasr, J., Macrae, R., Kuhns, J., Danyluk, M., Kaillvinish, P., Michalak, M., & Snider, A. (2010). Scaling up Urban Agriculture in Toronto Metcalf Food Solutions, (June), 23. Retrieved from http://metcalffoundation.com/wp-content/uploads/2011/05/scaling-urban-agriculture.pdf

- 49 Kamloops Public Produce. "Kamloops Public Produce Program. http://kamloopsfoodpolicycouncil.com/programs/kamloops-public-produce-program/. Accessed on November 2, 2017
- 50 Langley Environmental Partners Society. "
 Community Harvest Program". http://www.leps.
 bc.ca/action/volunteer/community-harvest/.
 Accessed on: November 13, 2017
- 51 Fresh Roots Urban Farm Society. "Our Story" http://freshroots.ca/about/our-story/. Accessed on February 1. 2017
- 52 Langley Community Farmers Market. "About". http://langleycommunityfarmersmarket.com/. Accessed on: March 10, 2017

11. References

- Archibold, J., & Goldacker, S. (2011). Assessing Urban Impacted Soil for Gardening: Decision Support Tool Technical Report and Rationale.
- Baker, L., Campsie, P., Rabinowicz, K., Rosengarten, L., Stephens, P., & Ward, V. (2010). Menu 2020:Ten Good Food Ideas for Ontario. Toronto, ON.
- BC Hydro. (2013a). Planting Near Power lines: A guide to vegetation recommended for planting and growing near power lines. Retrieved from https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/safety/planting-near-powerlines.pdf
- BC Hydro. (2013b). Understanding Electric and Magnetic Fields. Vancouver, BC. Retrieved from https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/community/understanding-electric-magnetic-fields 2013.pdf
- BC Hydro. (2017). BC Hydro Rights of Way Guidelines: Compatible uses and development near power lines. Vancouver, BC. Retrieved from https:// www.bchydro.com/content/dam/BCHydro/ customer-portal/documents/corporate/safety/ row-guidelines-2017.pdf
- BC Hydro. (2017a). Powerlines and Your Health. Retrieved March 9, 2017, from https://www. bchydro.com/safety-outages/power-lines-andyour-health.html
- BC Hydro. (2017b). What the Experts are Saying. Retrieved April 24, 2017, from https://www. bchydro.com/safety-outages/power-lines-andyour-health/emf-and-your-health.html
- Brown, K. H., & Carter, A. (2002). Urban Agriculture and Community Food Security in the United States: Farming from the City Center to the Urban Fringe. Urban Agriculture Committee of the Community Food Security Coalition.
- Canadian Council for Ministers of the Environment. (2017). Soil Quality Guidelines for Protection of Human Health. Retrieved February 3, 2017, from http://ceqg-rcqe.ccme.ca/

- Carten, S. (2015). Farm to School: Canada
 Digs in! Retrieved from http://www.
 farmtocafeteriacanada.ca/wp-content/
 uploads/2015/11/F2S-Storybook_en_online.pdf
- Chapman, G. (2010). Putting Food in Our Cities & Community in Our Food. Halifax N.S.
- City of Langley. (2014). City of Langley Community Profile. City of Langley. Retrieved March 13,2017, from http://www.city.langley.bc.ca/sites/default/ files/uploads/Discover/Community_Profile.pdf
- City of Vancouver Persons with Disabilities Advisory Committee and Senior Advisory Committee. (2011). Background and Details Accessible Community Garden Guidelines. Vancouver.
- Condon, P. M., Mullinix, K., Fallick, A., & Harcourt, M. (2010). Agriculture on the edge: strategies to abate urban encroachment onto agricultural lands by promoting viable human-scale agriculture as an integral element of urbanization. International Journal of Agricultural Sustainability.
- Danyluk, M. (2009). Cultivating Potential: Planning for Urban Agriculture in Toronto's Hydro Corridors.
- de laSalle, J., & Holland, M. (2010). Agricultural Urbanism. Vancouver: Green Frigate Books.
- Delind, L. B. (2002). Place, Wor, and Civic Cultivation: Common fields for cultivation. Agriculture and Human Values, 217–224.
- Edible Garden Project. (2013). Loutet Farm's Story. Retrieved August 8, 2017, from http://ediblegardenproject.com/loutet-farm/story/
- Fodour, Z., & Tay, S. (2015). Urban Farming Practices in Metro Vancouver. Vancouver.
- Freehill, L. (2015). Urban Farming on the Fringe: The State of Urban Agriculture in Four Cities of the Milwaukee Metropolitan Region. University of Wisconsin Madison.
- Fresh Roots Urban Farm Society. (2013). Growing Neighbours: A Case Study of Schoolyard Market Gardens. Vancouver. Retrieved from http://www. refbc.com/sites/default/files/FRUFS CaseStudy. pdf

- Gocova, A. (2016). Urban Agriculture Garden Guide. City of Vancouver. Retrieved from http:// vancouver.ca/files/cov/urban-agriculturegarden-guide.pdf
- Greater Vancouver Regional District. (2002).
 Construction Plan for a Home-built Rodent
 Resistant Three Bin Compost System.
 Retrieved November 17, 2017, from http://
 www.metrovancouver.org/services/
 solid-waste/SolidWastePublications/
 CompostBinConstructionPlan-ThreeBin.pdf
- HB Lanarc Golder. (2013). The Urban Farming Guidebook: Planning for the Business of Growing Food in BC's Towns & Cities. Real Estate Foundation of BC.
- Health Canada. (2016). Electric and magnetic fields from power lines and electrical appliances.

 Retrieved March 9, 2017, from https://www.canada.ca/en/health-canada/services/homegarden-safety/electric-magnetic-fields-power-lines-electrical-appliances.html
- Heinegg, A., Maragos, P., Edmund, M., Rabinowicz, J., Straccini, G., & Waish, H. (2002). Soil Contamination and Urban Agriculture: A practical guide to soil contamination issues for individuals and groups. McGill School of Environment, McGill University.
- Holland Barrs Planning Group. (2002). Southeast False Creek Urban Agriculture Strategy.Retrieved March 13, 2017 from,
- Institute for Sustainable Horticulture KPU. (2010).

 Langley Urban Agriculture Demonstration

 Project Project Proposal. Retrieved from http://

 www.kpu.ca/sites/default/files/downloads/

 Langley_Urb_Ag_Demo_Project_-_Project_

 Proposal23802.pdf
- Kaufman, J., & Bailkey, M. (2000). Farming Inside Cities: Entrepreneurial Urban Agriculture in the United States. Lincoln Institute Land Policy Working Paper.
- Kessler, R. (2013). Urban Gardening: Managing the Risk of Contaminated Soil. Environmental Health Perspectives, 326–334.
- Knapp, L., Veen, E., Renting, H., Wiskerke, J. S. C., & Groot, J. C. J. (2016). Vulnerability Analysis of Urban Agriculture Projects: A Case Study of Community and Entrepreneurial Gardens in the Netherlands and Switzerland. Urban Agriculture and Regional Food Systems.

- Koski, H. (2013). Guide to Urban Farming in New York State. Retrieved from https://ecommons. cornell.edu/bitstream/handle/1813/40230/ SFP-Guide to URBAN FARMING in NYS. pdf?sequence=2&isAllowed=y
- Leichhardt Council. (2016). Draft Community Orchard Management Plan.
- Lovell, S. T. (2010). Multifunctional urban agriculture for sustainable land use planning in the United States. Sustainability, 2(8), 2499–2522.
- Macfarlane, R., Campbell, M., & Timmings, C. (2008). STAFF REPORT Reducing Electromagnetic Field Exposure from Hydro Corridors. Staff Report. Toronto Ontario.
- McPherson, B. D. (2011). Urban agriculture: Design principles for enhancing sustainability. ProQuest Dissertations and Theses. University of Guelph.
- Moreau, T. (2012). Delta Community-Based Farm District Planning Southlands as a Regionally Significant Model for Metro Vancouver, (October).
- Morton, D., Cameron, T., & Hayes, J. (2003). The Learning Grounds: Guide for Schools.
- Mullinix, K. (2012). Fruit Tree Production: A brief guide to growing your own fruit in the city.
- Nagulan, J. (2016). Community Grown: Vibrant Community Owned Public Spaces.
- Nasr, J., Macrae, R., Kuhns, J., Danyluk, M., Kaillvinish, P., Michalak, M., & Snider, A. (2010). Scaling up Urban Agriculture in Toronto Metcalf Food Solutions, (June), 23. Retrieved from http://metcalffoundation.com/wp-content/uploads/2011/05/scaling-urban-agriculture.pdf
- Nordahl, D. (2014). Public Produce: Cultivating Our Parks, Plazas and Streets for Healthier Cities. Washington, DC: Island Press.
- Porter, E. R. (2010). Agricultural Urbanism & Human Being: Intent, program & Scale. In Agricultural Urbanism: Handbook for Building Sustainable Food & Agriculture Systems in the 21st Century (pp. 115–121). Vancouver, BC: Green Frigate Books.
- Poulsen, M. N., & Spiker, M. L. (2014). Integrating Urban Farms into the Social Landscape of Cities.
- Schutzbank, M. H. (2012). Growing Vegetables in Metro Vancouver: An urban farming census. University of British Columbia.
- Scientific Committee of Emerging and Newly Identified Health Risks. (2015). Potential Health Effects of Exposure to Electromagnetic Fields (EMF). Luxembourg.

- Sedgeman, E. (2013). Growing Food in Public Spaces: A start up guide. Retrieved from http:// kamloopsfoodpolicycouncil.com/wp-content/ uploads/2013/07/HOW-TO-GUIDE.WEB_. mar_.13.pdf
- Shumate, N. C. (2012). Success on the Ground: Case Studies of Urban Agriculture in a North American Context by. University of Waterloo.
- Skelcher, G. (2011). Fairfield Millennium Green and Community Orchard.
- Stolhandske, S. (2011). Urban Farming in Vancouver. Simon Fraser University.
- Szymberski, C. (2015). Urban Farming Design Guidelines: A guide for class B urban farms on City-owned land. Vancouver, BC.
- U-Grow Organic Community Gardens. (2002). Community Garden Agreement. Retrieved from http://docs.wixstatic.com/ugd/a13de7_ a261c482ac0a41a98aea86b0954e7db0.pdf
- Upland Consulting. (2011). Incubator Farm Program: Metro Vancouver Colony Farm Regional Park. Metro Vancouver.
- Vaughan, M., Hopwood, J., Lee-mäder, E., Shepherd, M., Kreman, C., Stine, A., & Black, H. (2015). Farming for Bees: Guidelines for Providing Native Bee Habitat on Farms.
- Viljoen, A., & Bohn, K. (Eds.). (2014). Second Nature Urban Agriculture. Routledge.
- Voicu, I., & Been, V. (2008). The Effect of Community Gardens on Neighboring Property Values. Real Estate Economics, 241–283.
- Winig, B., & Wooten, H. (2013). Dig, Eat, and Be Healthy: A guide to growing food on public property. Retrieved from http://www. changelabsolutions.org/publications/dig-eat-behealthy
- Wittman, H. (2009). Community Farms in BC, Building Local Food Systems for Sustainable Communities: Community Farms Survey Report.
- Wooten, H., & Ackerman, A. (2012). Seeding the City: Land Use Policies to Promote Urban Agriculture.
- World Health Organization. (2002). Establishing a Dialogue on Risks from Electromagnetic Fields. Geneva, Switzerland.
- World Health Organization. (2006). Electromagnetic Fields and Public Health. Retrieved March 9, 2017, from http://www.who.int/peh-emf/publications/facts/fs299/en/



Board and Information Services, Legal and Legislative Services Tel. 604 432.6250 Fax 604 451.6686

FEB 2 6 2018

File: CR-12-01 Ref: RDP 2018 Feb 23

Kelly Kenney, Corporate Officer City of Langley 20399 Douglas Crescent Langley, BC V3A 4B3

Dear Ms. Kenney:

Re: Consent to Metro Vancouver Regional Parks Service Amendment Bylaw No. 1260

At its February 23, 2018 regular meeting, the Board of Directors of the Metro Vancouver Regional District (Metro Vancouver) gave three readings to *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018;* directed staff to seek consent of at least 2/3 of the participants to amend the service area to remove Abbotsford as a participant in the regional park function; and following that, forward the Bylaw to the Inspector of Municipalities for approval.

Section 346 of the *Local Government Ac*t applies to municipal participating area approval and therefore a council may give participating area approval by consenting on behalf of the electors to the adoption of the Bylaw.

I respectfully ask that this matter be included on Council agenda. A sample resolution is set out below for your convenience:

"The Council of	approves	adoption	on of	Metro	Vancou	ver
Regional District Regional Parks Service Am	ending Byl	aw No.	1260,	2018 b	y provid	ing
consent on behalf of the electors."						

A response, including Council resolution, to my attention by March 9, 2018 is appreciated. Should you have questions or need clarification, I can be reached at 604.432.6338 or by email at chris.plagnol@metrovancouver.org.

Yours truly,

Chris Plagnol
Corporate Officer

CP/kh

Encl: Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018 Regional Parks Service Amendment Bylaw No 1260, dated February 19, 2018

24614992

METRO VANCOUVER REGIONAL DISTRICT BYLAW NO. 1260, 2018

A Bylaw to Amend Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005

BACKGROUND:

- A. By Division V of Letters Patent issued January 13, 1972, as amended by further Supplementary Letters Patent, Metro Vancouver Regional District was granted the function of regional parks (the "Regional Parks Service"), and the participating areas for the Regional Parks Service were deemed to include not only Metro Vancouver Regional District member municipalities, but also member municipalities of the former Vancouver-Fraser Park District;
- B. One of the member municipalities of the former Vancouver-Fraser Park District was the former District of Matsqui, which was not within the boundaries of the MVRD;
- C. On January 1, 1995, the former District of Matsqui and the former District of Abbotsford were incorporated as the City of Abbotsford;
- D. On July 25, 2005, the Board of Directors of the Metro Vancouver Regional District adopted "Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005", a bylaw to convert the Regional Parks Service and to amend the participating areas to include the area within the boundaries of the former District of Abbotsford, such that the whole of the City of Abbotsford became a municipal participating area for the Regional Parks Service;
- E. The City of Abbotsford has consented to an amendment to the "Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005", to remove the City of Abbotsford as a participating area from the Regional Parks Service;
- F. The Board of Directors of the Metro Vancouver Regional District wishes to amend "Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005";
- G. Two-thirds of the participants in the Regional Parks Service have consented to the adoption of this Bylaw to amend the "Greater Vancouver Regional District Parks Service Conversion and Amendment Bylaw No. 1024, 2005".

NOW THEREFORE the Board of Directors of the Metro Vancouver Regional District, in open meeting assembled, enacts as follows:

- 1. The Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005 (the "Bylaw") is hereby amended as follows:
 - a) By deleting section 2 of the Bylaw; and
 - b) In section 3 of the Bylaw, by striking the phrase "City of Abbotsford" in its entirety.
- 2. This bylaw may be cited as "Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018".

READ A FIRST TIME THIS <u>23</u> day of <u>February</u> , 2018.
READ A SECOND TIME THIS <u>33</u> day of <u>February</u> , 2018.
READ A THIRD TIME THIS 23 day of February, 2018.
APPROVED BY THE INSPECTOR OF MUNICIPALITIES THIS day of, 2018.
PASSED AND FINALLY ADOPTED THIS day of, 2018.
Greg Moore, Chair
Chris Plagnol, Corporate Officer



To: MVRD Board

From: Chris Plagnol, Corporate Officer

Date: February 19, 2018 Meeting Date: February 23, 2018

Subject: Regional Parks Service Amendment Bylaw No. 1260

RECOMMENDATION

That the MVRD Board:

- a) give first, second and third reading to *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018;* and
- b) direct staff to seek consent of at least 2/3 of the participants to amend the service area to remove Abbotsford as a participant in the regional park function, and following that, forward the *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018* to the Inspector of Municipalities for approval.

PURPOSE

To consider first, second and third reading of the *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018* that will initiate the withdrawal of the City of Abbotsford as a participant in the regional parks function, and to direct staff to seek consent of at least 2/3 of the participants in the regional parks function in relation to the withdrawal of the City of Abbotsford as a participant.

BACKGROUND

On January 26, 2018, the MVRD Board furthered the withdrawal of the City of Abbotsford as a participant in the MVRD Regional Parks Service by giving second and third reading to the *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1255, 2017*, and by directing staff to seek consent of the participants for the Amending Bylaw.

This Amending Bylaw had been previously provided to the Ministry of Municipal Affairs and Housing for its preliminary consideration and to highlight any areas of concern given the complexity of the matter.

On February 15, 2018, the Ministry informed Metro Vancouver that after further investigation, the Amending Bylaw 1255 could not be approved by the Inspector of Municipalities. The Bylaw contained a reference to an Order-in-Council which the Ministry reasoned could not override the statutory requirements for operating a park outside the boundaries of the regional district. On that basis, the Inspector of Municipalities has indicated that the Amending Bylaw cannot be approved, but has recommended a new Amending Bylaw be prepared.

This report brings forward a new Amending Bylaw to initiate the withdrawal of the City of Abbotsford as a participant in the regional parks function.

MVRD REGIONAL PARKS AMENDING BYLAW

The adoption of a bylaw to amend the *Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005* is required to facilitate the withdrawal of the City of Abbotsford from the Metro Vancouver Regional Parks function. If approved, the Amending Bylaw will amend the participants in the service area by removing the City of Abbotsford as a participant under section 2 and section 3 of Conversion Bylaw 1024.

The proposed Amending Bylaw 1260 is substantially similar to the former Amending Bylaw 1255 (which will be abandoned) except it no longer contains a clause intended to continue park operations outside the boundaries of the regional district. A complete background on various elements of Abbotsford's withdrawal from the service was provided in the report dated January 26, 2018, titled "Regional Parks Service Amendment Bylaw No. 1255".

The new Amending Bylaw is before the Board for first, second and third reading. Once third reading is given, the Amending Bylaw will be circulated to all service area participants (which includes the City of Abbotsford) to obtain their consent to the adoption of the Bylaw. Two-thirds consent of participants is required before the Amending Bylaw can be considered for adoption by the Board. Once consent is obtained, the Amending Bylaw will be forwarded to the Inspector of Municipalities for approval.

ALTERNATIVES

- 1. That the MVRD Board:
 - a) give first, second and third reading to *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018;* and
 - b) direct staff to seek consent of at least 2/3 of the participants to amend the service area to remove Abbotsford as a participant in the regional park function, and following that, forward the *Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018* to the Inspector of Municipalities for approval.
- 2. That the MVRD Board receive for information the report dated February 19, 2018, titled "Regional Parks Service Amendment Bylaw No. 1260" and provide alternate direction.

FINANCIAL IMPLICATIONS

If the Board approves alternative one, the financial implications include an adjustment to Metro Vancouver's 2018 Annual Budget and Financial Plan (which will be brought forward in March), a reimbursement from the Fraser Valley Regional District on the City of Abbotsford's behalf for its allocated costs of participating in the MVRD regional parks function for the months from January to March 2018, and a one-time payment by Metro Vancouver to the City of Abbotsford representing the proportional return of Park Reserve Fund contributions and transitional costs.

The Fraser Valley Regional District is in the process of establishing a new sub-regional parks function with the City of Abbotsford as a participant beginning in 2018. The transferred regional parks will form part of the new FVRD regional parks function.

If the Board does not approve the Amending Bylaw, the City of Abbotsford will remain as a participant in the MVRD Regional Parks function. The approval of this alternative will require a review of the terms and conditions agreed upon by Metro Vancouver and the City of Abbotsford with respect to its withdrawal from the function and the disposition of parkland.

SUMMARY / CONCLUSION

The MVRD Board approved the terms for the withdrawal of the City of Abbotsford as a participant in the MVRD Regional Parks Service. This change to the service area requires an amendment to the *Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No.* 1024, 2005 to amend service area participants. This report brings forward the associated Amending Bylaw to facilitate this service withdrawal for consideration by the Board. Staff recommend Alternative One.

Attachments:

1. Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018

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METRO VANCOUVER REGIONAL DISTRICT BYLAW NO. 1260, 2018

A Bylaw to Amend Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005

BACKGROUND:

- A. By Division V of Letters Patent issued January 13, 1972, as amended by further Supplementary Letters Patent, Metro Vancouver Regional District was granted the function of regional parks (the "Regional Parks Service"), and the participating areas for the Regional Parks Service were deemed to include not only Metro Vancouver Regional District member municipalities, but also member municipalities of the former Vancouver-Fraser Park District;
- B. One of the member municipalities of the former Vancouver-Fraser Park District was the former District of Matsqui, which was not within the boundaries of the MVRD;
- C. On January 1, 1995, the former District of Matsqui and the former District of Abbotsford were incorporated as the City of Abbotsford;
- D. On July 25, 2005, the Board of Directors of the Metro Vancouver Regional District adopted "Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005", a bylaw to convert the Regional Parks Service and to amend the participating areas to include the area within the boundaries of the former District of Abbotsford, such that the whole of the City of Abbotsford became a municipal participating area for the Regional Parks Service;
- E. The City of Abbotsford has consented to an amendment to the "Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005", to remove the City of Abbotsford as a participating area from the Regional Parks Service;
- F. The Board of Directors of the Metro Vancouver Regional District wishes to amend "Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005";
- G. Two-thirds of the participants in the Regional Parks Service have consented to the adoption of this Bylaw to amend the "Greater Vancouver Regional District Parks Service Conversion and Amendment Bylaw No. 1024, 2005".

NOW THEREFORE the Board of Directors of the Metro Vancouver Regional District, in open meeting assembled, enacts as follows:

- 1. The Greater Vancouver Regional District Regional Parks Service Conversion and Amendment Bylaw No. 1024, 2005 (the "Bylaw") is hereby amended as follows:
 - a) By deleting section 2 of the Bylaw; and
 - b) In section 3 of the Bylaw, by striking the phrase "City of Abbotsford" in its entirety.
- 2. This bylaw may be cited as "Metro Vancouver Regional District Regional Parks Service Amending Bylaw No. 1260, 2018".

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			Greg M	oore Chair
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