

**LYNNMOUR / INTER-RIVER  
AREA ONE  
DESIGN GUIDELINES FOR MULTIPLEXES AND  
TOWNHOUSES**

**ADOPTED NOV.20/06**

## DESIGN GUIDELINES

Contents	pages
Design Guidelines	1-21
Engineering Services	22
Potential Improvements	23-27
Sample Layouts	28-34

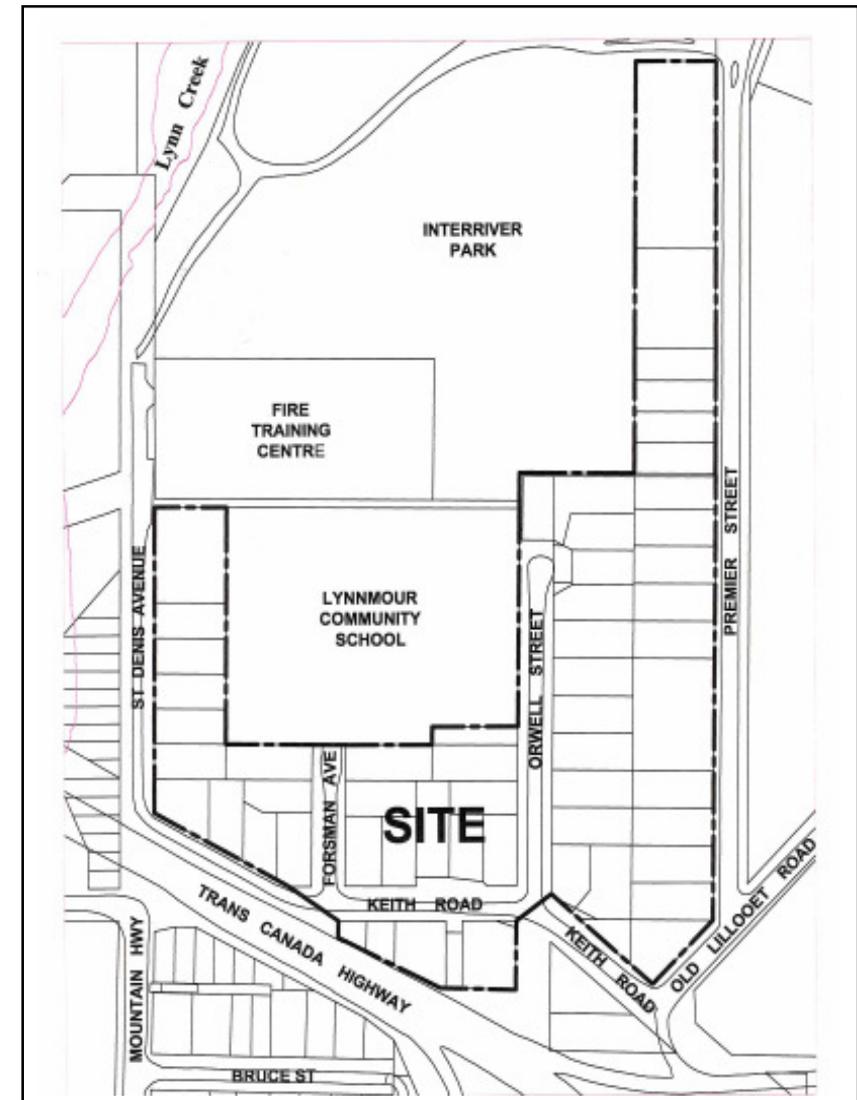
## INTENT

The Lynnmour / Inter-River Plan broadens the housing choices for the area around Lynnmour Community School enabling the neighbourhood to renew the single family character while providing a greater mix of family oriented housing. These housing choices will include garden suites behind existing homes, building new duplexes and triplexes on single family lots, or combining properties to build townhouses, like those on Premier Street.

The Design Guidelines are intended for use with every redevelopment application in this area, to help ensure good quality design that maintains the charm and liveability of the area. This package also provides some reference material on the engineering services in the area, and the anticipated changes for the neighbourhood.

If you are anticipating redeveloping your lot, please read this document, and review it with your consultants (architects, landscape architects and engineers) to ensure that their work is also in line with the requirements discussed here.

MAP 1 - GUIDELINE AREA



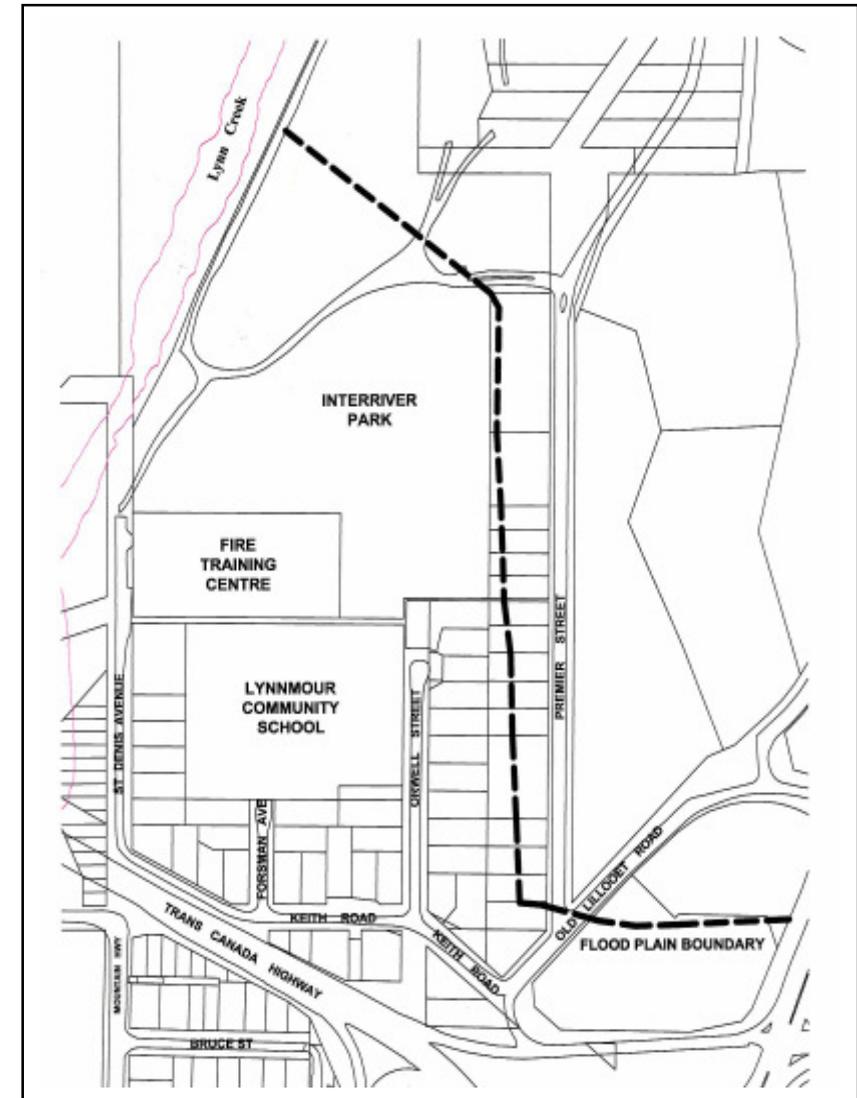
## BUILDING IN A FLOOD PLAIN

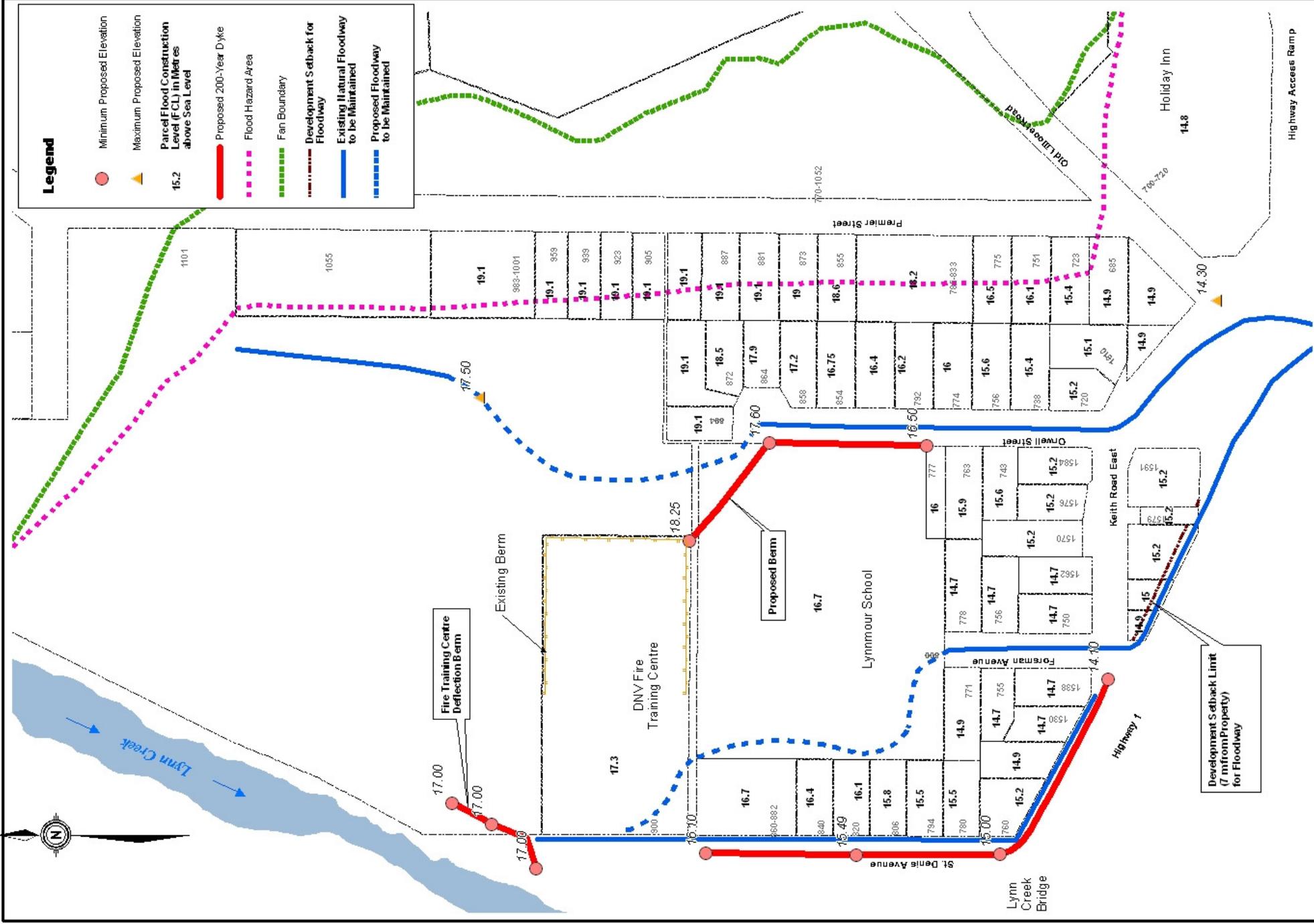
The neighbourhood surrounding Lynnmour Community School (shown on the attached map) lies within the river valley for Lynn Creek. Historically the creek meandered through this area. In more recent times, modifications to the creek banks including rip rap, and raising the level of the bank, have helped ensure the creek maintains its course. Furthermore, the District of North Vancouver maintains a program of regular gravel removal from the creek bed, which reduces the risk of flooding. None the less, a recent study by Kerr Wood Leidal Engineering Consultants demonstrated that in an extreme rain event (the 200 year storm event) there is the potential for some flooding in this neighbourhood. The Province recommends that renovations or new construction within flood plains be built to *flood construction levels* so that all living space is above the potential height of any flood waters. In this neighbourhood, this would mean raising the living space approximately 2 feet above the height of the adjacent roadway.

As there is no insurance for damage from flood waters, it is best for all new construction to be designed in a way that reduces the risk of flood damage, even though that risk is very low, and is something that may not happen in our lifetime.

To ensure that homes are not at risk of flood damage the following should be considered:

- All living space must be constructed above the *flood construction level* assigned to each property.
- Basements will not be permitted (unless tanked).
- Homes should step up from the grade.
- Lots should be regraded so that the finished grade is higher than the street.
- Driveways should not cut into the grade in such a way that flood water would be directed towards living space.





**Legend**

- Minimum Proposed Elevation
- Maximum Proposed Elevation
- Parcel Flood Construction Level (FCL) in fill areas above Sea Level
- Proposed 200-Year Dyke
- Flood Hazard Area
- Fan Boundary
- Development Setback for Floodway
- Existing Natural Floodway to be Maintained
- Proposed Floodway to be Maintained

District of North Vancouver  
Lynnour / Inter - River Local Plan

**Area 1 Flood Construction Level Plan**

Project No. 31-359      Date March 2006

0    25    50    100  
Scale in Metres

**Figure 2**

## GOOD NEIGHBOUR POLICY

All new projects need to consider their neighbours and design in a manner that fits with the harmony, scale and character of the area. We recommend that designers meet with the neighbours early in the process so that new designs can balance community objectives with neighbours' concerns about such things as privacy, views and sunlight.

Neighbourly development should:

- Retain trees and mature vegetation where possible, to minimise the impacts of change.
- Maximise the sunlight to both the development's own outdoor garden areas, and the neighbours' garden areas.
- Minimise over-viewing, and reduce loss of privacy from side windows, through the use of skylights, translucent glass, and stepping back portions of the building.
- Use landscaping and fences to enhance backyard privacy, and privacy between developments.
- Use wider side yard setbacks next to single family zoned land, particularly if the proposed building height at the side yard exceeds the height of the adjacent single family house.
- Carefully site and enclose garbage and recycling containers to reduce the impact of noise and smell on adjacent properties.
- Design lot grading so that there is no run-off onto the adjacent properties.



*This is the garbage area for a triplex on Fromme Road, it is boxed in and screened so as to minimise its impact on both the project and the neighbours.*

## MAXIMUM UNITS AND BUILDING SIZE

In the Lynnmour / Inter-River Local Plan, the maximum number of units and size of building is established for lot redevelopment as follows:

- **With a lot size of less than 5000 square feet single family houses are permitted;**
- **With a lot size between 5001 and 7000 square feet a single family lot may be in-filled with a second unit or redeveloped as a duplex with a maximum density of 0.4 floor space ratio;**
- **With a lot size between 7001 and 8000 square feet a single family lot may be in-filled with a second unit or redeveloped as a duplex to a maximum density of 0.5 floor space ratio; and**
- **With a lot size between 8001 and 12000 square feet single family lot may be in-filled with a second and third unit or redeveloped as a duplex or triplex to a maximum density of 0.5 floor space ratio.**

Where property owners choose to redevelop as a group in a consolidated fashion to create a **redevelopment parcel of 15,000 square feet or greater, then the potential for townhouses exists with a maximum density of 0.7 floor space ratio and 24 units per acre.**

Though the plan establishes maximum building potential, not everyone may wish to build to either the maximum number of units or the maximum size of building. For example, a single family home owner on an 8,500 square foot lot has the potential for a triplex, but may prefer to retain their home and construct a single garden suite in the rear.

## BUILDING COVERAGE

To help ensure designs maximise open space on the lot, building coverage for all buildings and structures proposed on the lot is limited to 40%.

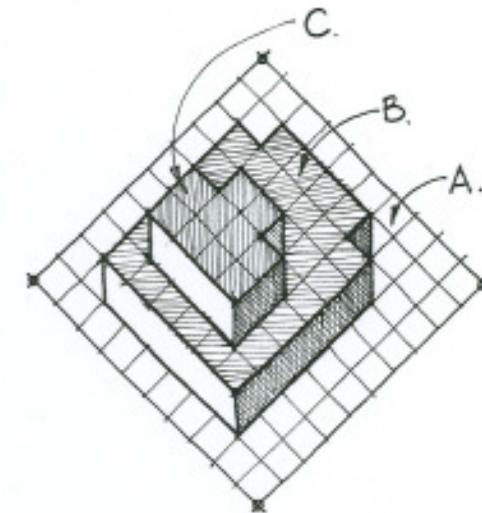
## What are Floor Space Ratio and Building Coverage?

The tool that is traditionally used to measure building size is floor space (also called floor area). This is the measurement from wall to wall of all above ground floors. The floor space is then compared with the lot size to determine the floor space ratio. Floor space ratios are usually written as decimals eg. 0.5 = 50%.

By comparison building coverage represents the percentage of the lot that is covered in buildings and structures, including the dwelling units, garages, garden sheds and garden structures like gazebos.

This diagram shows a site area (A) or lot size of 100 squares (100%). The lower block (B) or main floor of the diagram covers 40 squares, equal to 40% building coverage. The second floor (C) covers another 10 squares. Combined the main floor (B) and upper floor (C) add up to 50 squares or 50% of the total, or a floor space ratio of 0.5.

In most residential zones, including single family homes and town houses, some parts of the building are excluded from floor space area calculations. Typically, these exclusions include the basement areas, garages, and garden sheds. In this neighbourhood basements are not recommended (because of the flood risk) but exclusions for single car garages with some storage space will be considered. Since new development will not include basement space, some designers may wish to make use of the attics for additional living space. Attic floor space is excluded where the floor- to-ceiling height is less than 7 feet.



The figure above represents a site area (A) of 100 squares (100%)

The main lower block (B) represents a building coverage of 40 squares (40%)

The upper and lower blocks (B+C) combine to represent 50 squares (50% of site area) typically referred to as a Floor Space Ratio (FSR) of 0.5

## LOT CONSOLIDATION

The Lynnmour / Inter River-Plan was written with a flexible density so that properties could develop independently. However, there are some locations within Inter-River where lot consolidation is recommended in order to best address other types of design issues:

### Noise Abatement:

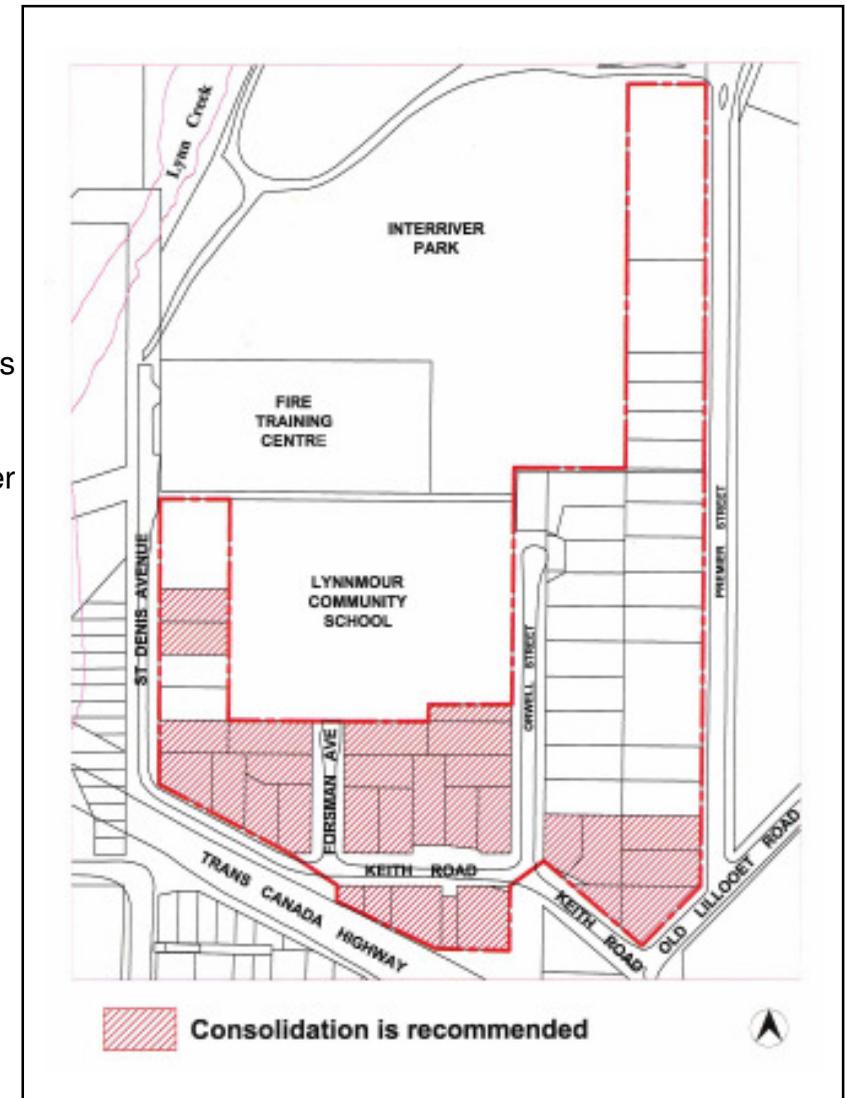
One method of reducing the noise that spills into this community from the highway, is to design row housing along Keith Road so that there is a continual wall of residential buildings blocking the noise from spreading into the community. This would be more easily accomplished if properties along Keith Road redeveloped two or more at a time.

### Lot Grading, Storm Water and Flood Water:

Every time a lot is redeveloped, there is a requirement that all grading and landscaping is done in a manner that does not cause storm water from the typical rain fall to flow onto adjacent lots. When building in a flood plain, the need to ensure rainwater doesn't run onto other properties must be carefully balanced against the desire to raise level of the lot so that floodwater is directed away from the buildings. Careful drainage and landscape plans ensure that a proper balance is met. However, in the south east portion of the Inter-River neighbourhood, along Forsman and between Forsman and Saint Denis, there is a low lying area where it will prove more difficult to meet this balance on individual lots, and therefore lot consolidation is recommended.

### Flood Protection Works:

Saint Denis Avenue functions as a dyke, helping protect the neighbourhood against the risk of flooding. The recent study completed by Kerr Wood Leidal Consulting Engineers, recommends modest improvements along Saint Denis that would raise the roadway above its existing elevations. For 820 and 840 Saint Denis Avenue, where the road improvements will be the most dramatic, consolidation is recommended so that together the lots can find the most appropriate means of accessing their site.



## SETBACKS AND SITING

When considering where to place a building on a site it is important to consider the potential impacts on neighbours and the street. Setback regulations are aimed at protecting and enhancing the neighbourhood, but all designers should consider the impacts of their designs in terms of privacy, over-viewing, and shading, as well the potential for enhancing the streetscape, and look of the site.

### Front Yard Setbacks

To fit into the existing neighbourhood, a minimum front yard setback of 15 feet should be considered, unless an alternative pattern of setbacks already exists, like that found along Premier Street.

### Rear Yard Setbacks

A minimum rear yard setback of 20 feet from the rear property line to building face is recommended to ensure that some area be set aside for rear gardens and open space.

Where townhouse sites are proposed a staggered setback combined with a varied design should be considered so that the project does not create a visual wall along the rear property, and so that successive townhouse projects do not create a feeling of a canyon running down the middle of the block.

### Side Yard Setbacks

Side yards are used to provide access to the site, landscaping around the site, and provide a buffer to the adjacent properties. A larger building will tend to need a larger setback, especially if it is placed further back on the lot, where the impact of over-shadowing, and over-viewing may need to be reduced. The following table sets out recommendations for side yard setbacks.



*This photo of 989 Premier Street has the setbacks and property line marked on to illustrate how front yard setbacks are measured*

<b>2 or 2 ½ Storey Buildings</b>	
Side yard setback, in the front 50 feet of the lot	Minimum 6 foot side yard
Side yard setback, after the front 50 feet of the lot	Minimum 10 foot side yard
Side yard setback for a side yard facing a road	Minimum of 15 foot, as it would function as a second front yard.
<b>1 Storey Building Elements</b>	
Side yard Setback	Minimum 4 foot side yard
Side yard Setback, for a side yard facing a street (corner lots)	Minimum of 15 foot side yard, as it would function as a second front yard.

**Keith Road – Setbacks**

Careful design along Keith Road can help reduce the highway noise impacting both the properties along Keith Road and the larger neighbourhood. Row house design with no side yard setback is encouraged to create a residential wall that will block the noise from the highway, and help create more liveable outdoor space in the rear.

**Varying Setbacks**

The setbacks listed above may be varied if:

- a) Different setbacks will fit with established pattern of development, like that found along Premier Street with the existing townhouses;
- b) Tree preservation or other environmentally benefits can clearly be demonstrated with the use of an alternative setback; or
- c) Noise reduction from the highway can be enhanced.



*This photograph of some row housing in the City of North Vancouver, illustrates how low density homes can be placed side by side, to form a wall of housing.*

## RELATIONSHIP TO THE STREET

Streets feel safe and look great when buildings and landscaping are designed to relate to the street; allowing a passer-by to wave hello or chat with a neighbour. The following guidelines offer suggestions for ways to ensure new development “faces” the street.

- At least one unit’s front door should be directly oriented towards the street. High visibility of the front doors and paths to the rear units is also recommended.
- Prominent pathways should lead from the sidewalk to the front door of at least one unit to emphasize the building face. (Though pathways are required to each unit, designers must be careful not to clutter the open space with excessive pathways.)
- Buildings constructed on corner lots should “wrap the corner” providing an opportunity for multiplexes to have each unit face the street.
- Design details such as the use of verandas, porches, arbours, and decorative gates, should be considered to ensure each development has a visual connection to the street.
- On wide lots, or those lots that do not have to provide a driveway, designing either a wider front unit, or fitting additional units at the front of the development should be considered in order to maximise the street presence.
- Ensure living space at the front of the building is directed towards the street.
- New developments may choose to copy roof lines, building materials, or other design elements in order to blend with the harmony and scale of the street, however, “cookie cutter” and mirror-image design, is discouraged.
- In the front yard landscaping and fences should ensure openness and visibility through to the front of the building.



*Front porches, doorways, window style, roof lines with gables facing the street, and pathways all help make the building appear to face and watch over the street.*

## DRIVEWAYS

In this neighbourhood there are no back lanes, and therefore all parking is accessed from driveways leading off the street. It is beneficial to reduce the numbers of driveways because:

- The sidewalk becomes safer with fewer driveway crossings;
- More emphasis is placed on people and buildings and less on cars and garages, with more room at the front of the lot given to buildings and front gardens, making for a pleasant looking street; and
- There is more room for on street parking.

A lot choosing to redevelop by itself must design the driveway so that it may be shared with the adjacent property. However, no driveway need be shared with more than three units from a neighbouring property, as larger townhouse developments combining two or more lots, may have one driveway for their own development.

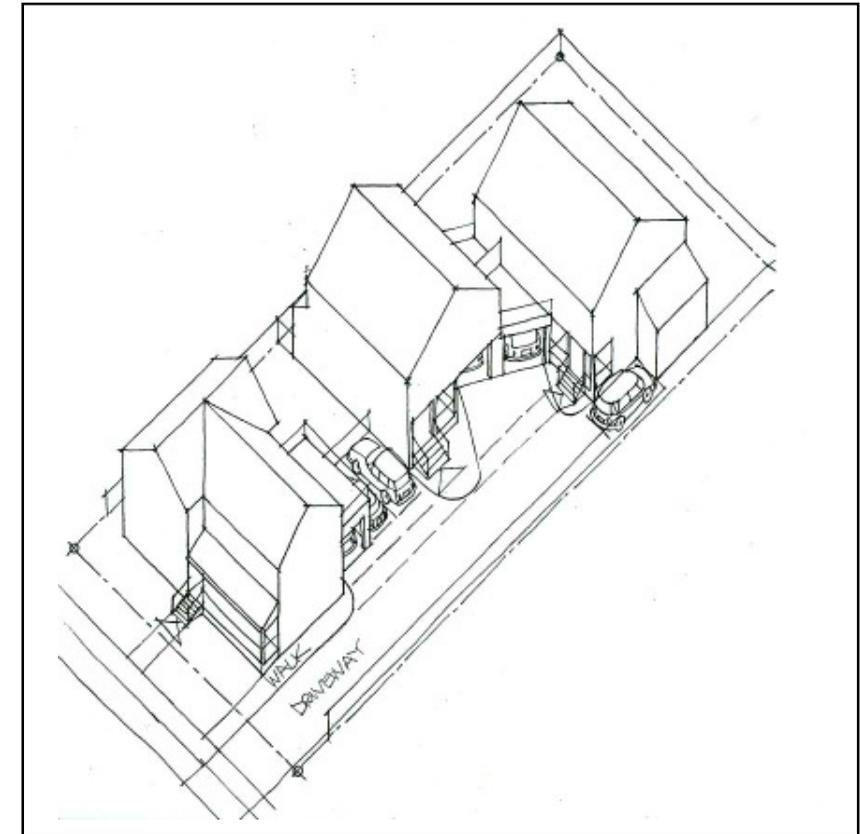
## PARKING

Two parking spaces per unit is the recommended requirement. Parking spaces must be located off the private driveway, and should be located behind the front unit so they are not as visible from the street.

Though visitors may park on site, there is no formal requirement for additional visitor parking spaces, and most visitors will park on the street as they do now in the single-family areas.

### Driveways and Parking Areas

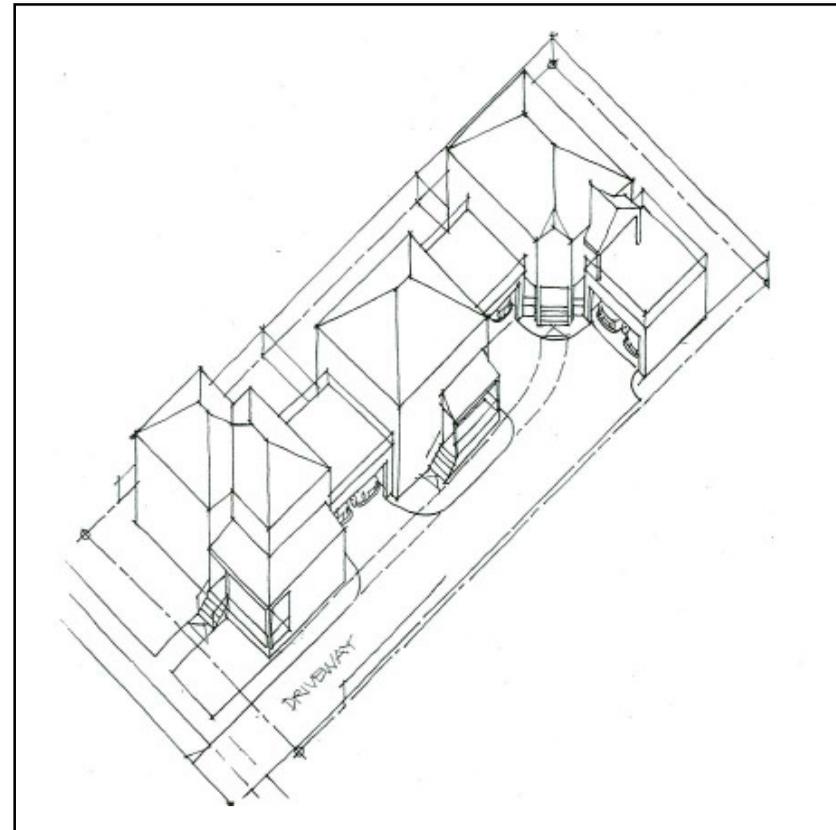
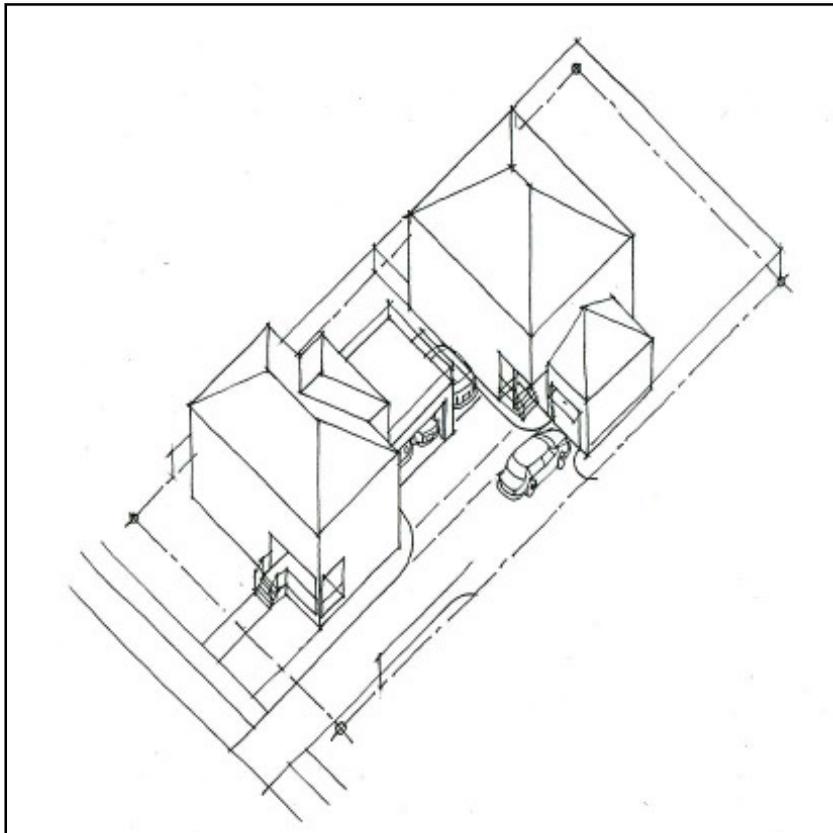
- Driveways and parking areas should be designed in a manner that minimises their impact on the street and the development.
- Paved areas for driveways and parking have a significant impact on storm water run-off and therefore, paving methods that reduce the impact of the hard surface should be considered.



*The parking for the units is located behind the front unit, to reduce its visibility from the street.*

- As many rear units will require pathways along side or through the driveway, pavers may also serve to delineate the pathway system.
- Where developments are sharing a driveway, every effort should be made to match and coordinate with the materials and design of the existing driveway.

*In these sketches the parking for the units is located behind the front unit, to reduce its visibility from the street.*



## REDUCING THE IMPACT OF DEVELOPMENT ON THE ENVIRONMENT

With careful planning, development can occur in a manner that is more environmentally sustainable.

### Construction and Design

New development should consider ways of ensuring that is energy efficient. Where appropriate guidelines and ideas outlined in the LEED and REAP and other sustainable building programs should be considered.

### Rain Water

In order to develop more sustainably, new projects should consider ways of landscaping and grading so that rain water has a chance to soak into the ground, and is diverted away from the storm sewer system, where it would otherwise add to the erosion of the creeks.

### Tree Preservation

Trees provide a number of environmental benefits beyond their aesthetic value including their role in shading homes in the summer, providing habitat for birds, absorbing rain water, absorbing carbon dioxide (a green house gas) and producing oxygen, trapping dust particles and pollutants from the air, and modestly reducing noise. For all these reasons, the preservation of mature trees, and planting of new trees is encouraged in North Vancouver. However, in some cases where flood protection measures require the grade to be changed, it may not always be possible to preserve a mature tree and replacement planting should be considered instead.

### It is therefore recommended that new development:

- Retain as many healthy mature trees as possible.
- Plant new trees.
- Add a thicker layer of gardening quality soil, to the ground prior to landscaping, to increase water retention.
- Introduce “rain gardens” where appropriate so that garden areas can help soak up rain water and reduce storm water run-off.
- Consider using permeable paving material for pathways, driveways and parking areas, or grading the area so that the water can run-off into suitable garden areas.
- If water from the driveway and parking areas is not able to percolate through to the ground, include an oil and grit separator, and / or establish a car washing area to reduce the pollutants that are directed into the storm water system.



These multiplexes were built around existing trees.

## LANDSCAPING

Each redevelopment proposal is required to provide a landscaping plan that will compliment the building design and harmonize with the local setting. Landscape plans must be prepared by a BC Registered Landscape Architect. Landscape plans are to show how each site will be designed and landscaped once the construction is completed. In preparing landscape plans the following criteria should be considered:

- Use landscaping to soften the impacts of new development and help new development harmonize with the area.
- Ensure that landscape plans are prepared in conjunction with the project team, with input from the arborist, engineer and building designer.
- Ensure that the lot grading is consistent with flood proofing measures.
- Include street trees and boulevard planting on the landscape plan.
- Keep the landscaping and fencing low and open in the front yard to foster a strong relationship to the street.
- Preserve healthy trees where possible, and plant new trees where reasonable.
- Design each unit with private outdoor space that is large enough for barbequing and dining outside (100 square feet or larger).
- Use planting and fences to create a buffer, and maximise privacy between on-site units, and between the subject property and neighbouring sites.
- Use low maintenance “xeriscaping” landscaping practices, with native plant materials suited to the local climate.
- Provide a grading and drainage plan which will assist in the safe on-site management of surface water and rain water (storm water).
- Use porous materials on pathways, patios, and parking spaces to maximise rain-water infiltration.



- Minimise the amount of land used for pathways through careful building and landscape design.
- Consider roof decks or “green roofs” over top of parking structures where privacy will not be adversely impacted.
- Provide details for the method of screening the garbage containers and any other service structures.
- Implementation is to use current BCSLA/BCNTA standards for landscaping.



## DEALING WITH NOISE

Finding methods of blocking the noise from the highway is a key issue for improving the liveability of this neighbourhood.

The impacts of noise may be reduced by:

- a) Incorporating noise standards into the design and construction of new development to ensure a quiet interior environment for residents as follows:

Designs must demonstrate that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units. For the purpose of this section the noise level is the A-weighted 24-hour equivalent (Leq) sound level and will be defined simply as the noise level in decibels:

1. Portion of Dwelling Unit	Noise Level (Decibels)
2. bedrooms	35
3. living, dining, recreations rooms	40
4. kitchen, bathrooms, hallways	45

- b) Using building design to create noise buffers in certain locations; and
- c) By encouraging the Provincial Ministry of Transportation to provide noise fencing along Highway #1.

New development should also consider the impacts of their own ventilation and heating systems on neighbouring developments and ensure that design, style, and placement eliminate any additional noise pollution.



### Buildings as Buffers

Designing row housing along Keith Road could serve as a barrier to noise from the highway.

## PRIVACY

It is recommended that all new development consider maximising the privacy between units, and between new and existing developments. To this end the following items should be considered:

- Use building setbacks, landscaping, building design, and window placement to maximise privacy and reduce over-viewing.
- Use translucent frosted or stained glass in side windows, or replace windows with glass block, or skylights where privacy will be impacted.



*This elegant fence provides a pleasant privacy screen.*



*The careful location of windows makes this patio area in the middle of a triplex project feel private.*

## BUILDING HEIGHT

In order to harmonize with the existing single family and townhouse character of the area, building height should be limited to **two and half storeys**.

Building height is measured from the lesser of natural or finished grade to the peak of the roof. In this area where all new development will be raised up to meet flood construction levels, house heights may be 1-2 feet taller than would normally be anticipated for a two and half storey building, and therefore heights may range from 22 feet for a flat roofed two storey home to 35 feet for a steeply pitched roofed two and half storey home.

### Roof Pitch

Steeply sloped roofs are recommended but not mandatory. Roof pitches of 8:12 (rise over run) for the main structure of the roof are widely popular in North Vancouver and work well with the wet climate. However, alternative roof pitches are acceptable provided that flatter roofs have a lower height and compliment the architectural style of the building.



Building height is measured to the roof peak.

**ADAPTABLE DESIGN**

Many residents of North Vancouver have expressed a desire to stay in their homes regardless of the onset of illness, frailty or disabilities. It is therefore beneficial when designing new homes to ensure that they are built with basic features that allow the units to be adapted to help residents deal with disabilities without expensive retrofitting. To this end, redevelopment must comply with the District of North Vancouver 's Adaptable Design Guidelines.

## PUBLIC ART

Since 2003 the District's Public Art Program has encouraged developers to commission works of public art as part of their development application. The District policy applies to applications that require rezoning, and is for residential building proposals with five or more units.

In Lynnmour/Inter-River, District staff undertook a public art mapping exercise with local residents to identify and prioritize potential sites, and to record themes that the community considers appropriate for future public art. The results can be seen on the following map.

Several clear community priorities emerge. For example, residents have identified the corner of Old Lillooet and East Keith Roads as the key location for a community gateway feature. Other clear priorities include art features integrated with the park and pathways, possibly as an enhancement to the Highway underpass, possibly as interpretive route-markers for the extensive net of park trails. As a whole, the map reveals a number of exciting and innovative projects-in-waiting — a loose “master plan” of possible projects of different type and scope. As applicants come forward with different proposals, they will be encouraged to work through the project options and possible themes endorsed through this community process, and to develop a project-specific public art plan that respects community priorities.



# Public Art Map

**1 Mt. Seymour Pkwy Intersection**

*Located on the outskirts of residential Lynnmour/Inter River, this important traffic corridor presents a number of challenges for pedestrians, especially for those crossing to the local super market. Public Art could play an interesting role, integrated as an attractive and functional component as part of a traffic safety solution.*

**2 Mt. Seymour Pkwy & Old Lilloet**

*An opportunity to site a gateway or garden feature.*

**3 E.Keith/Old Lilloet Triangle**

*At this historic intersection of Lillooet and Keith Roads, an interesting opportunity emerges to acknowledge and to interpret the diverse histories that have shaped the North Shore. Today, this site is the "gateway" to a thriving residential community, and local residents have expressed the desire to: "clean up and develop this green space into something we can use and be proud of."*

**4 Trans-Canada Bridge Underpass**

*Much used by local residents, this currently neglected underpass could incorporate public art to create a pleasant "gateway" to the community.*

**5 Lynnmour School**

*Residents have suggested creating a "Welcome Carving" in a project that would involve students in expressing ownership & pride in the community.*

**6 Lynnmour School**

*Public Art could play an effective role in the re-design of this outdoor refuge/play area for the students.*

**7 Lilloet Shopping Plaza**

*A highly visible retail area with potential to create an interesting community space.*

**8 Shortcut Footpath to Old Lilloet**

*Community trails and pathways provide many interesting opportunities to integrate interpretive markers.*

**9 Premier Street**

*Residents have expressed an interest in seeing traffic calming measures on this busy residential street.*

**10 Premier Street Pathway**

*Gateway and path improvement at East and West sides of Premier Street. Creative public art treatments can provide a functional and innovative response to community infrastructure needs.*

**11 Inter River Park Playground**

*Playgrounds provide an interesting opportunity to integrate public art in the design of the park space and/or playground amenities.*

**12 Inter River Park**

*Residents like the existing simple parkscape, describing it as "a magical area to walk and explore." Opportunities for public art could be integrated with the trail network and reflect multiple uses.*

**13 Inter River Park - St Denis Entrance**

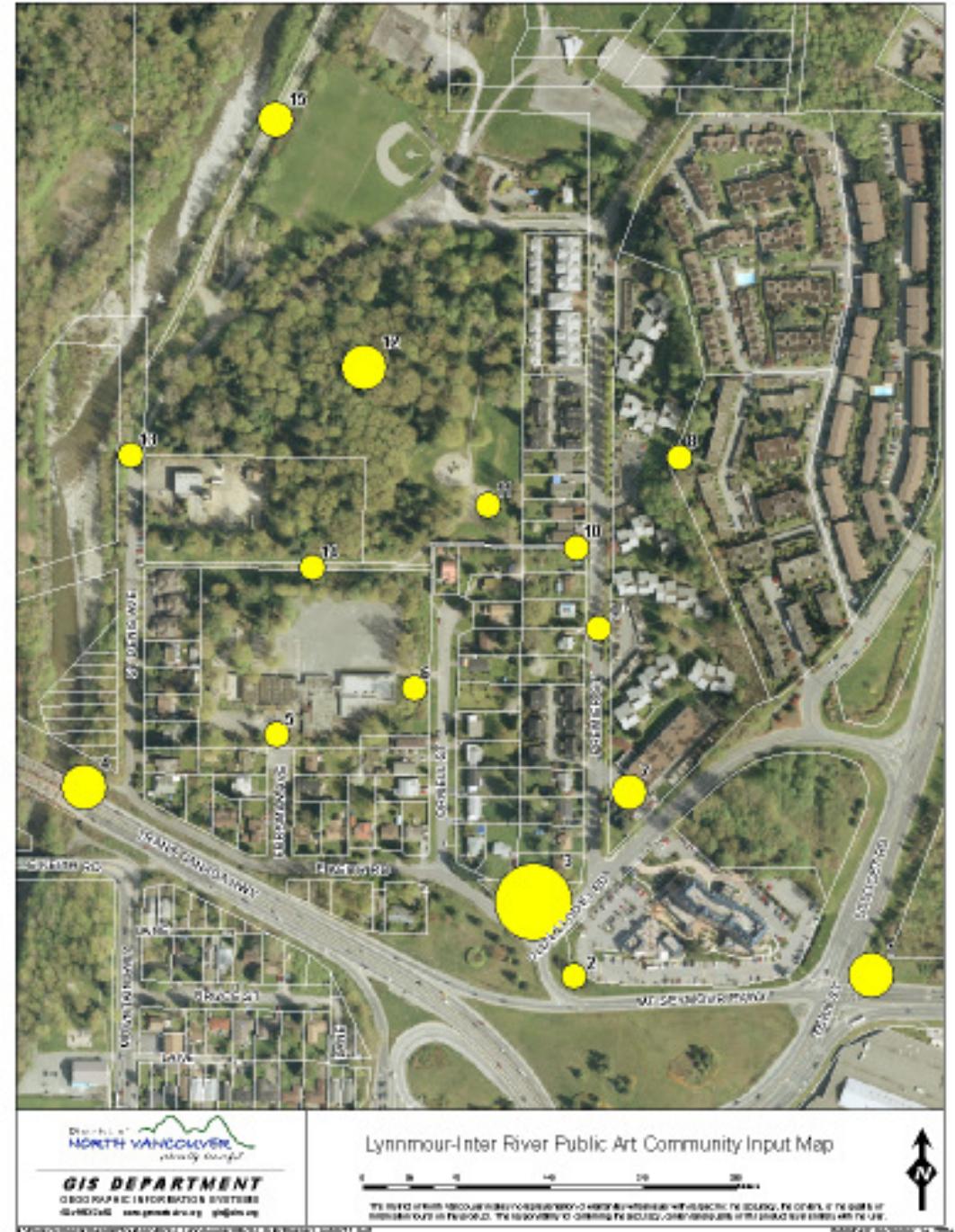
*An important entry or "gateway" to Inter-River Park and to the trail network.*

**14 Pathway: St Denis to Orwell**

*Community trails and pathways provide many interesting opportunities to integrate interpretive markers.*

**15 River Pathway**

*River path improvements and amenities: public art with picnic tables, benches, BBQ areas.*



## ENGINEERING SERVICES

Throughout the District of North Vancouver, as properties redevelop, they are required to upgrade the services in front of their property to modern standards. This work normally includes:

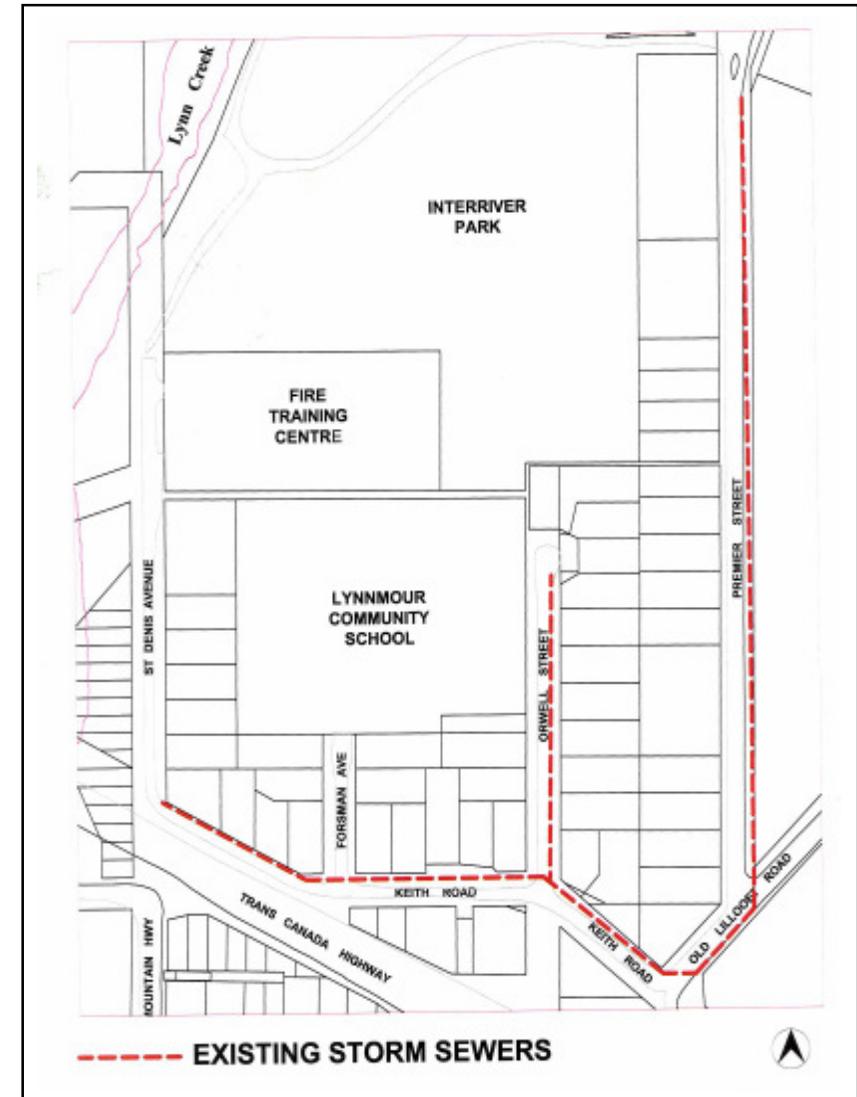
- Upgrading to the centre of the road all aspects of the roadway including pavement, curb and gutter;
- Constructing sidewalks;
- Planting street trees;
- Installing street lights; and
- Extending services to the subject site; including water, and sanitary & storm lines.

### Water and Sanitary Sewer

In anticipation of redevelopment in this neighbourhood, staff undertook an analysis of the water supply and sanitary sewer capacity, which showed that there is sufficient supply and capacity to meet the demands of the school, existing development and all potential redevelopment that could be considered in this area under the Lynnmour / Inter-River Community Plan.

### Storm Sewer

Storm sewers do not exist on all streets in the study area. For anyone considering redeveloping the storm line may need extending to your property. If you are interested in redeveloping, please discuss the need for storm sewer upgrades with the District's engineering staff.



**ROADWAY IMPROVEMENTS**

Each development will be responsible for upgrading the road, sidewalk, curb and gutter, and planting in the boulevard in front of their own site. Over time, this has the potential to add sidewalks, and street trees throughout the neighbourhood.

This section details the road standards currently anticipated for each road.



Saint Denis Avenue	Design Standards
	Saint Denis Avenue functions as a dyke providing flood protection to the adjacent neighbourhood. In the March 2006, Kerr Wood Leidal report on flood protection, the engineering consultants recommended further improvements to Saint Denis, including a slight change in grade, and the construction of a floodway. These improvements may cause some of the design work originally anticipated and described below to be undertaken a little differently.
Road Width	8 metres / 26 feet Two travel lanes and one parking lane
Sidewalk Width and Location	Boulevard sidewalk, 1.5 – 2.0 metres wide on east side. Gravel path at curb, on west side, next to the top of the riverbank.
Hydro and Tel	Underground
Additional Features	Provides connection under the bridge and to the park.

<b>Forsman Avenue</b>	Design Standards
Road Width	8 metres / 26 feet two travel lanes and one parking lane
Sidewalk width and location	Boulevard sidewalks, 1.5 – 2.0 metres wide on both sides.
Hydro and Tel	Underground
Additional Features	To enhance pedestrian safety, the street will narrow at the entrance, and the sidewalk will bulge out on either side.



<b>Orwell Street</b>	Design Standards
Road Width	8 metres / 26 feet. Two travel lanes and a parking lane
Sidewalk width and location	Boulevard sidewalks, 1.5 – 2.0 metres wide on both sides.
Hydro and Tel	Underground to each unit, but poles will remain as the upper tier of wires carries service beyond the neighbourhood.
Additional Features	<p>To enhance pedestrian safety, the street will narrow at the entrance, and the sidewalk will bulge out on either side.</p> <p>The potential for an improved school drop off area exists, and could be considered should Lynnmour Community School be further renovated.</p>



Premier Street	Design Standards
Road Width	10 metres / 33 feet Two travel lanes and two parking lanes
Sidewalk width and location	Boulevard sidewalks, 1.5 – 2.0 metres wide on both sides.
Hydro and Tel	Underground to each unit, and eventually poles will be shifted to the east side, if not removed completely.
Additional Features	To enhance pedestrian safety, the street will narrow at the entrance and the alignment be shifted so that traffic must slow down when turning into the street.  Possible improvements to the pedestrian crossing at mid block are also under consideration.



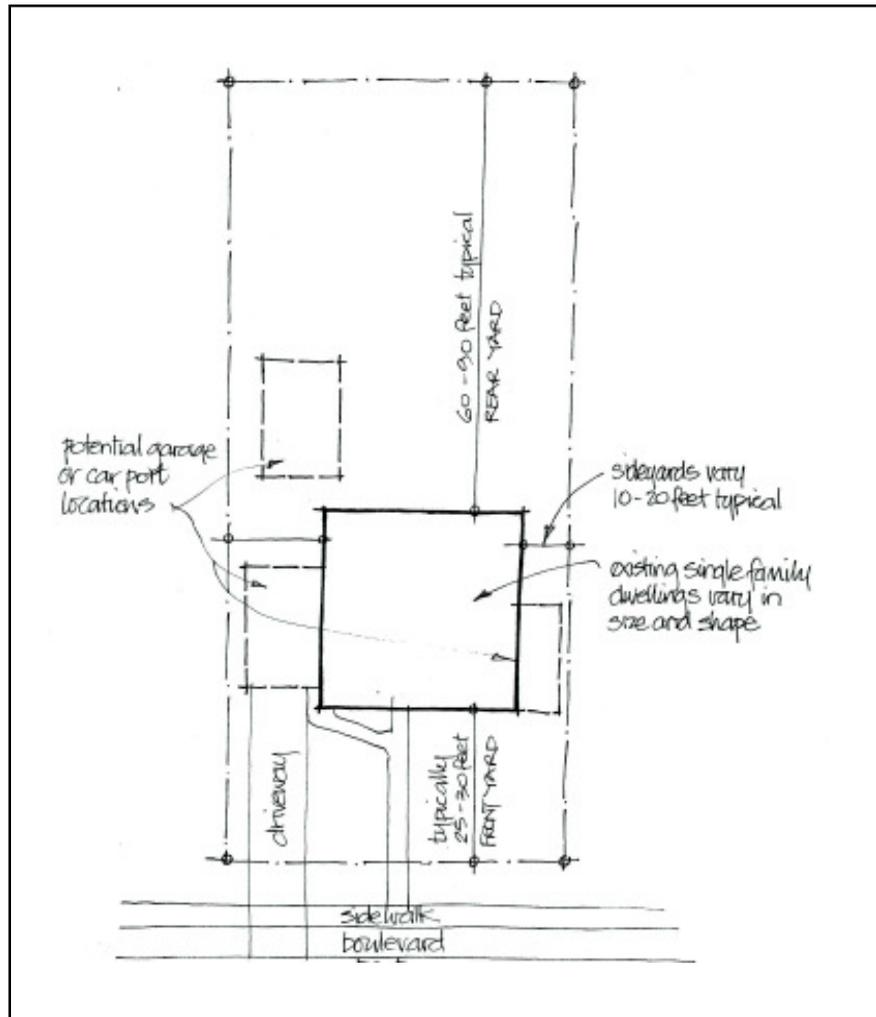
<b>Keith Road</b>	<b>Design Standards</b>
Road Width	8 metres / 26 feet Two travel lanes, one parking lane on the north side.
Sidewalk width and location	Boulevard sidewalk, 1.5 – 2.0 metres wide on north side
Hydro and Tel	Underground to each unit, and eventually poles will be shifted removed.
Additional Features	Potential road realignment at intersection with Old Lillooet Road



**SAMPLE LAYOUTS**

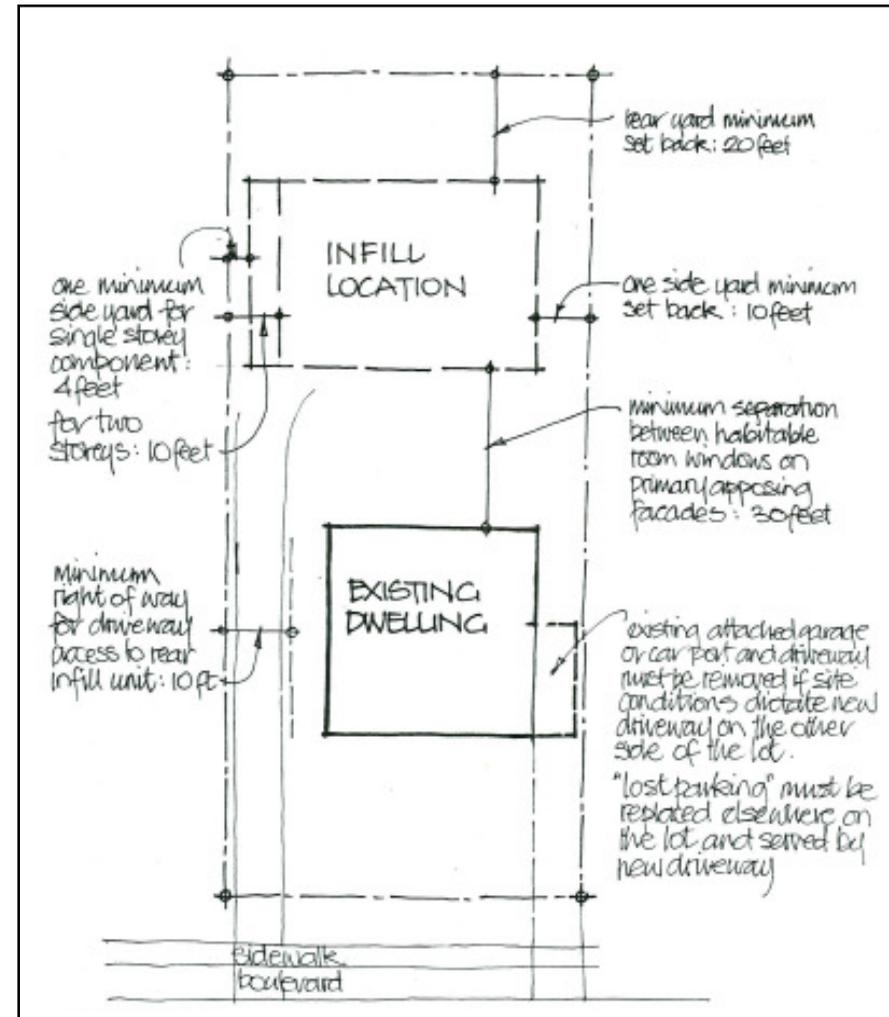
In order to ensure that these guidelines are feasible, staff worked closely with Mr. R. A. Spencer a local designer who provided the following sketches to show how development on different size lots could be achieved. The following sketches do not show the details and ornamentation that is necessary, but do show the potential massing, layout and parking for different redevelopment options including rear yard infill, duplex and triplex development.

*Examples of an Existing Single Family Home*



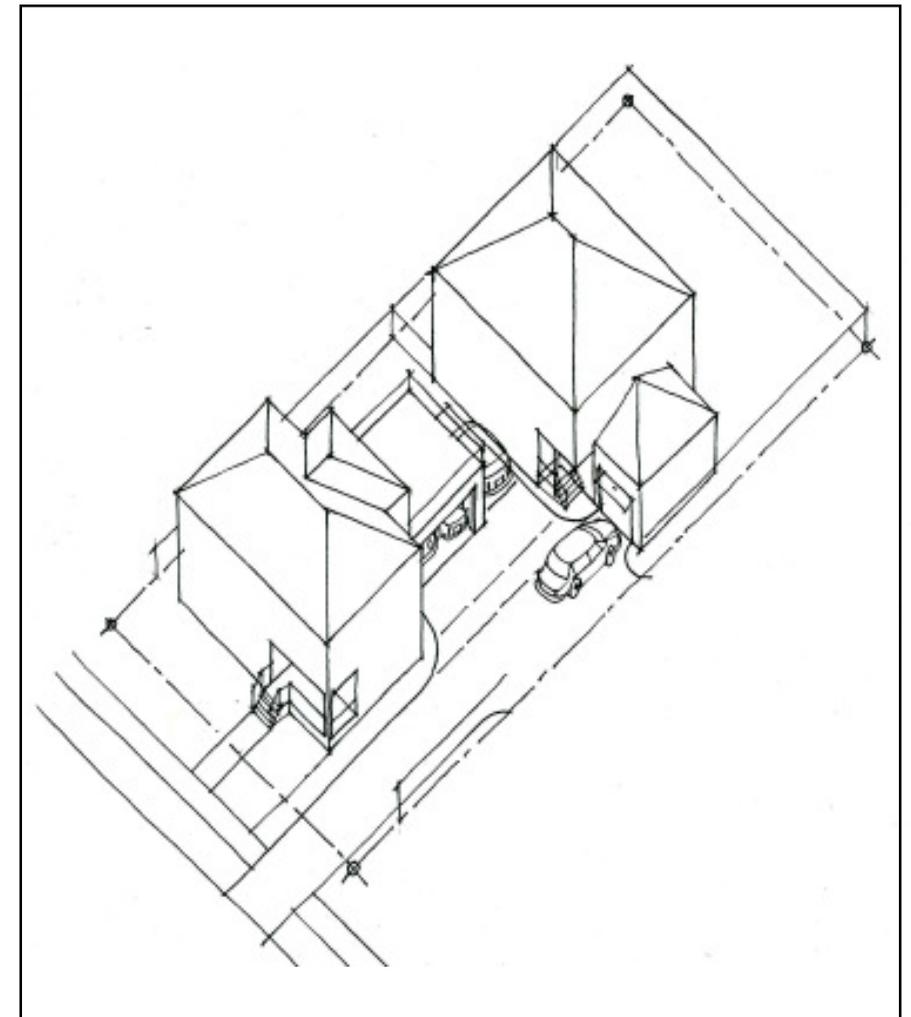
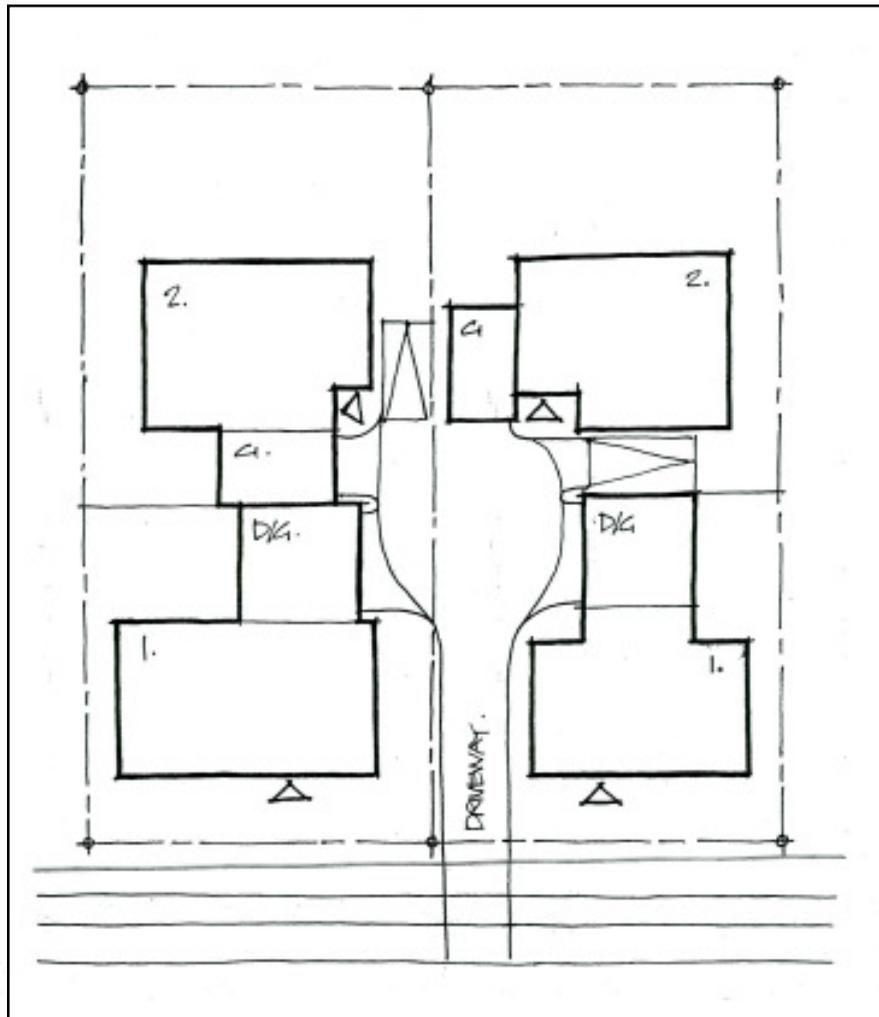
**Infilling the Backyard**

*This drawing shows how some homes could accommodate an additional building in the rear yard.*



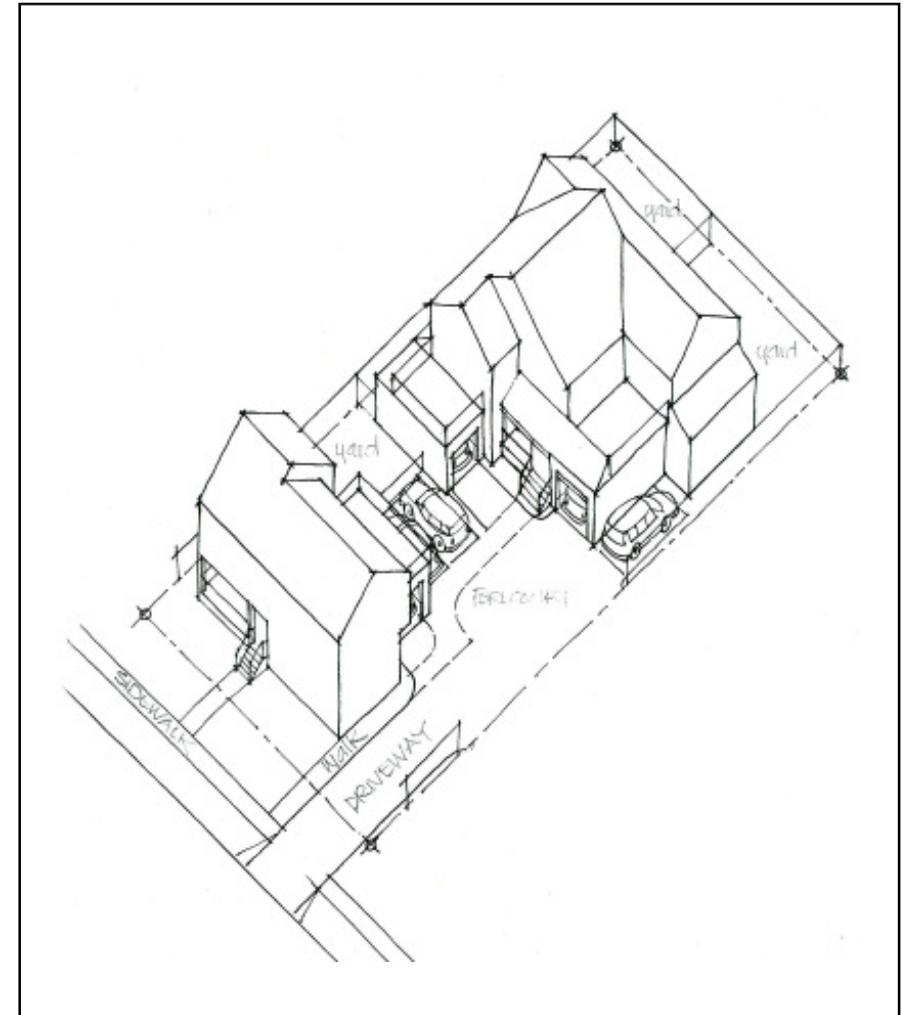
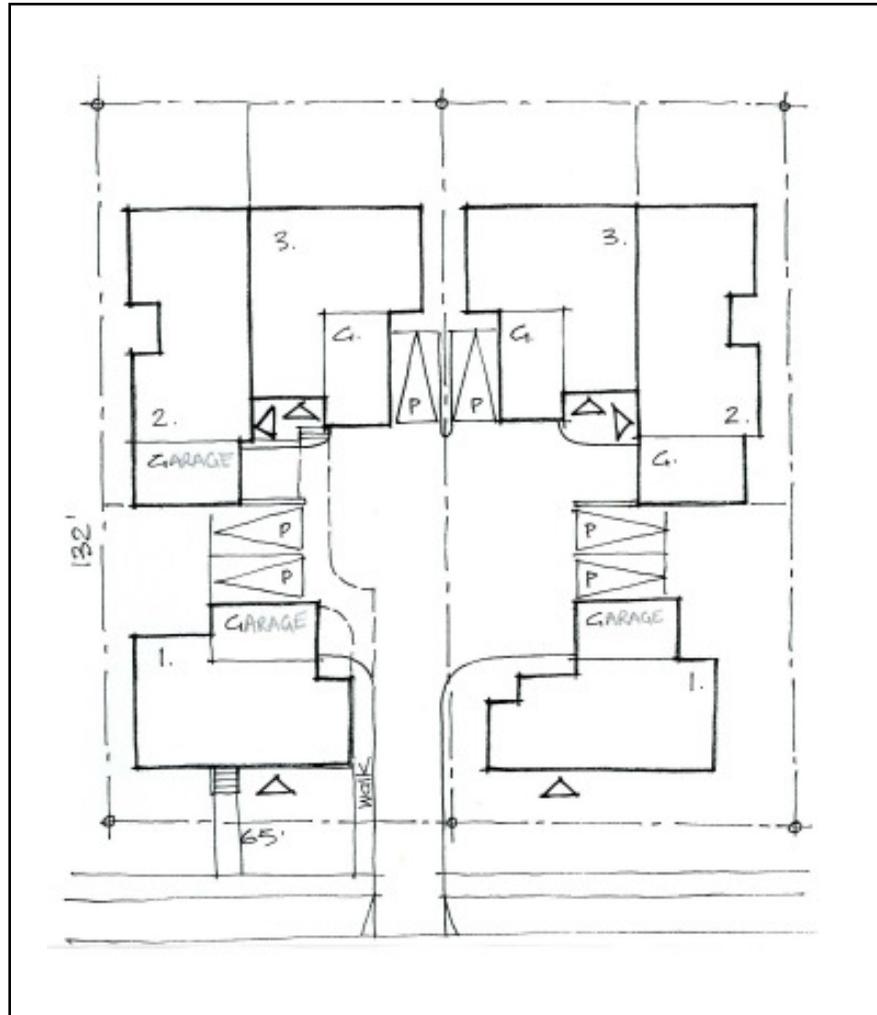
## Duplexes

For smaller lots between 5,000 and 8,000 square feet in size, this illustration shows a potential duplex design.



### Layouts for Triplexes on 8,500 square foot lots

For lots between 8,000 and 12,000 square feet triplexes are permitted at a density of 0.5 floor space ratio. The first illustration shows the potential for a smaller triplex on a 8,500 square foot lot.



### Layouts for Triplexes on 10,000 square foot Lots

Here are four alternative designs for triplexes on 10,000 square foot lots. Each one is shown in the bird's eye view, and the site plan.

