

TANDEM AND OFF-STREET PARKING DISCUSSION PAPER 2013



1. **Tandem Parking Study:** identified in the 2013 Planning Department Business Plan;
2. **Triggered** by several recent townhouse development applications proposing all or a significant percentage of the units with tandem parking;
3. **Tandem Parking** currently permitted in a few single family zones, duplex zone and the RM-1 (Townhouse Residential District) zone. It is a concern in the RM-1 zone due to several reasons.

TANDEM AND OFF-STREET PARKING STUDY 2013

This review focuses on the RM-1 (Townhouse Residential District) zone and includes the following:

- **Review of the existing regulations for tandem and off-street parking and loading regulations;**
- **Identification of concerns/issues with tandem parking;**
- **Review of tandem parking regulations in other jurisdictions within the region;**
- **Review of scenarios/ options for the RM-1 (Townhouse Residential District) zone with graphic examples of each scenario;**
- **Review of the recommended option for tandem parking in the RM-1 (Townhouse Residential) zone.**

TANDEM AND OFF-STREET PARKING STUDY 2013

Review of the **Off-Street Parking Bylaw** for the **RM-1 (Townhouse Residential District)** zone:

Out of all the available multi-family zones in Maple Ridge, **only the RM-1 zone permits tandem parking.**

Tandem parking is also permitted in the following zones: RS-1 (one Family Urban Residential) zone, RS-1a (One Family Amenity Residential) zone, RS-1b (One Family Urban Residential- Medium Density) zone, R-1 (Residential District) zone and RT-1 (Two Family Urban Residential) zone

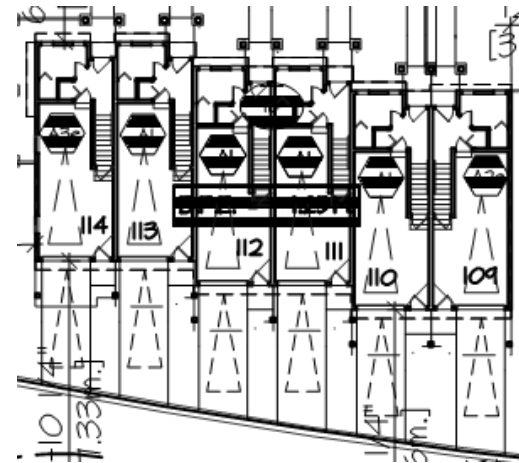
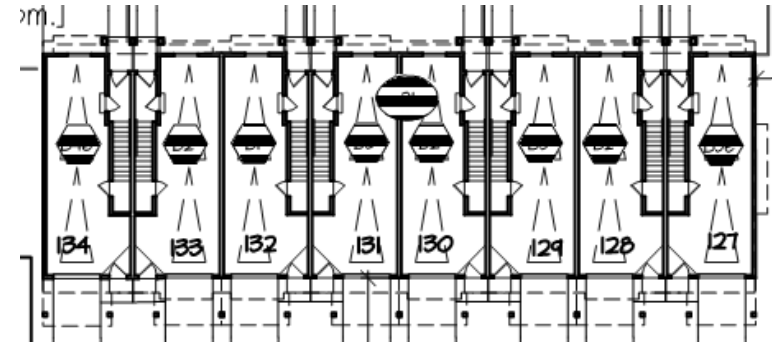
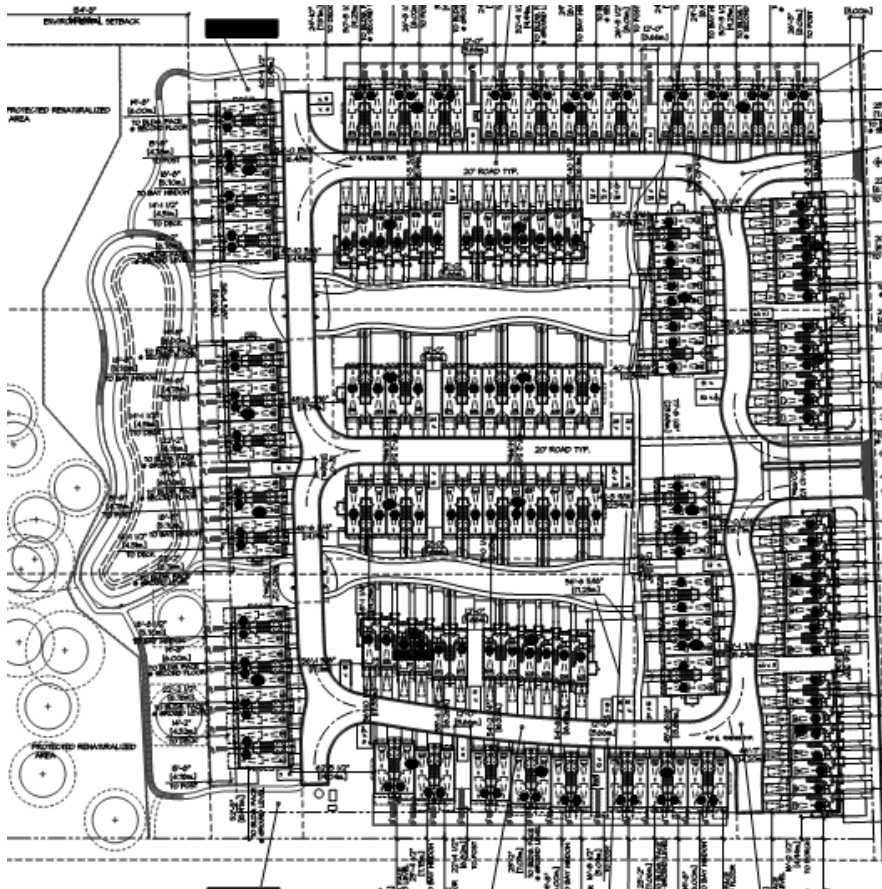
TANDEM AND OFF-STREET PARKING STUDY 2013



Review of some recent townhouse proposals (RM-1 zone) approved and in process. These examples show 100% and other proportions of tandem parking and double wide garages.

TANDEM AND OFF-STREET PARKING STUDY 2013

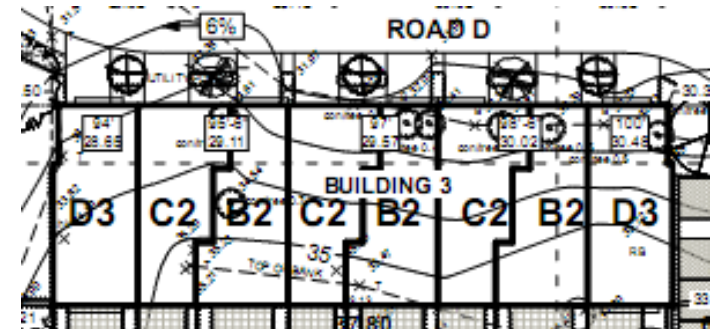
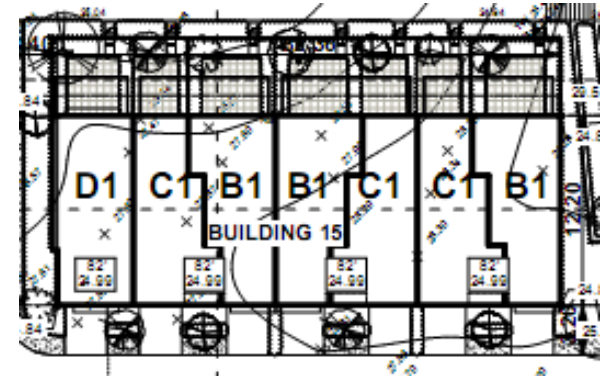
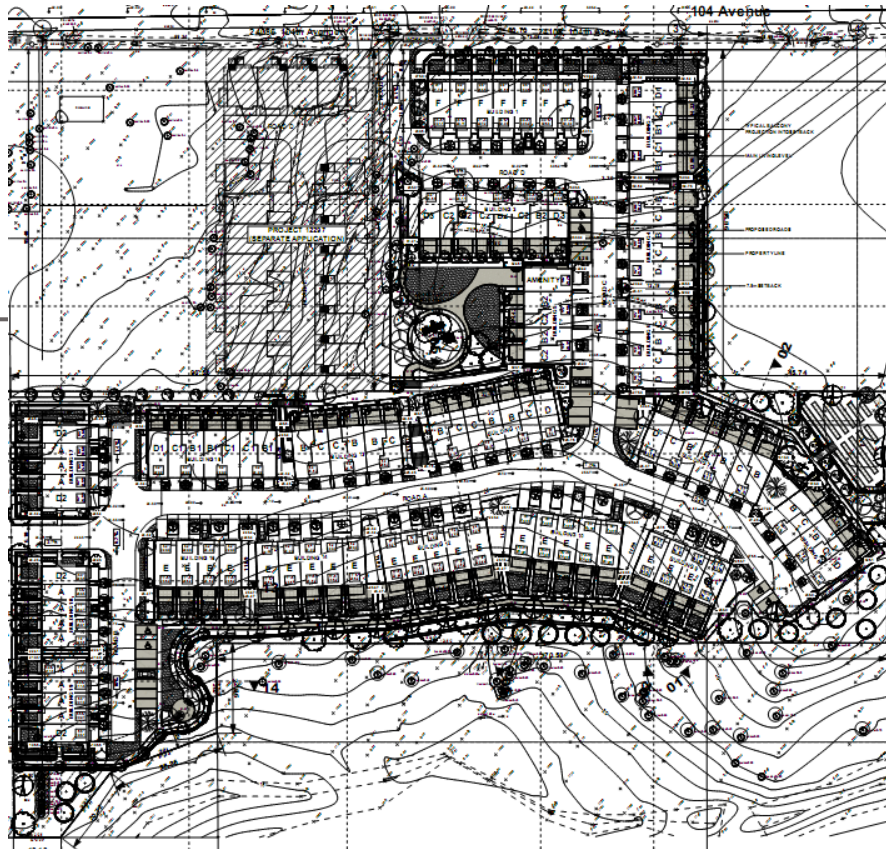
1) Proposed townhouse project on 240th St, north of Albion Elementary School



159 units (in 25 blocks) in 6 phases, with **100% tandem parking**, out of which 53 units have one car garage and the second space on the driveway apron. A density of 0.6 FSR (excluding 50 sq. m per unit basement habitable space) is Proposed- maximum permitted currently.

TANDEM AND OFF-STREET PARKING STUDY 2013

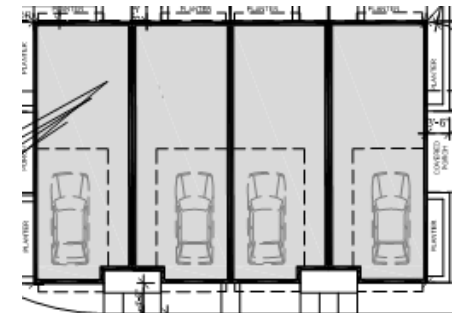
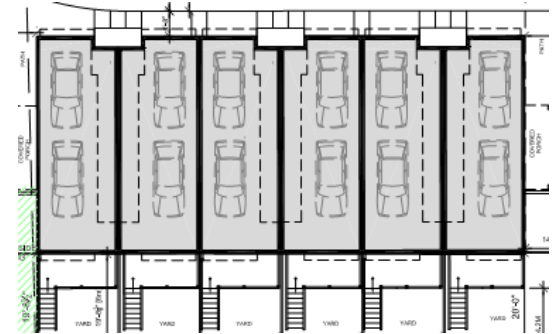
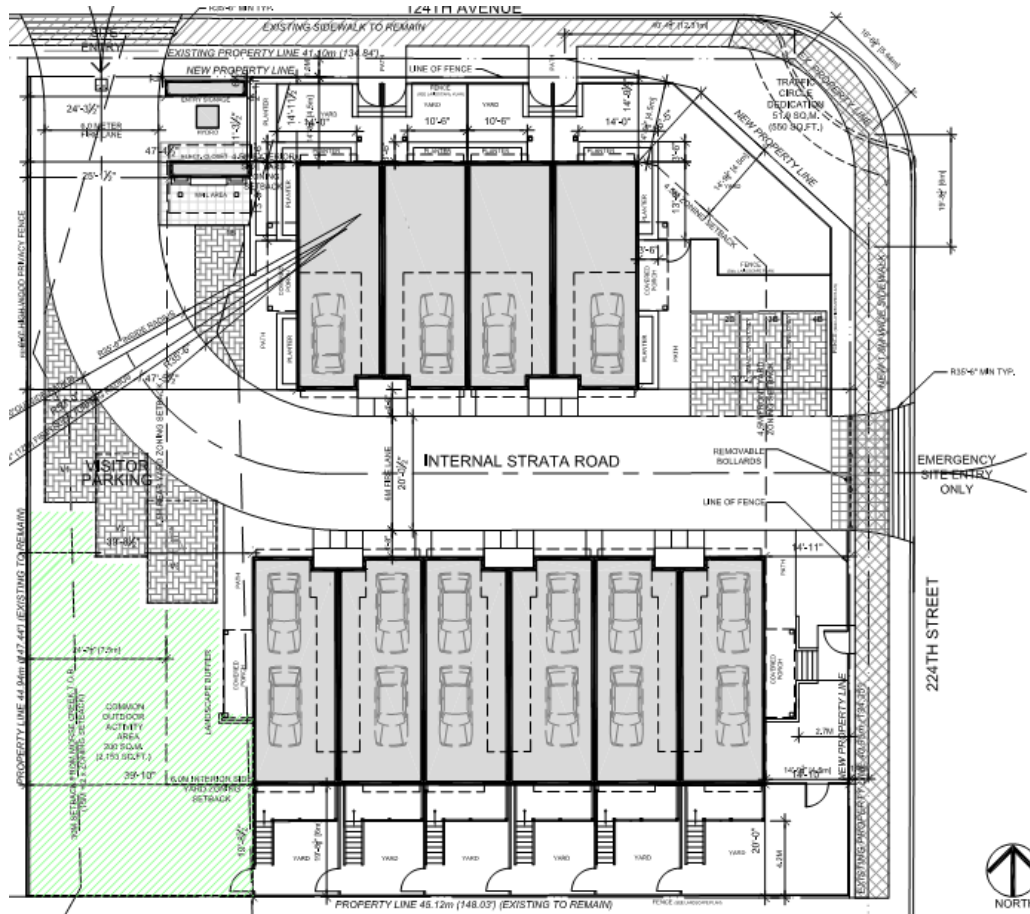
1) Proposed townhouse project on 104th Avenue



104 units, with 100% tandem parking and the tandem garages have minimal driveway aprons. There are 18 blocks proposed and some blocks have 7 to 8 units. Density proposed is 0.6 FSR (excluding 50 sq. m per unit basement habitable space) –maximum permitted currently.

TANDEM AND OFF-STREET PARKING STUDY 2013

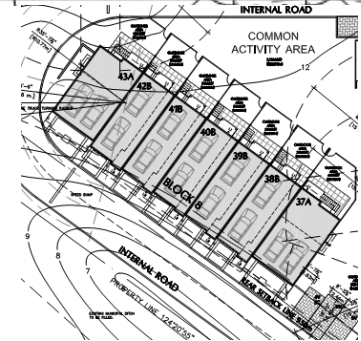
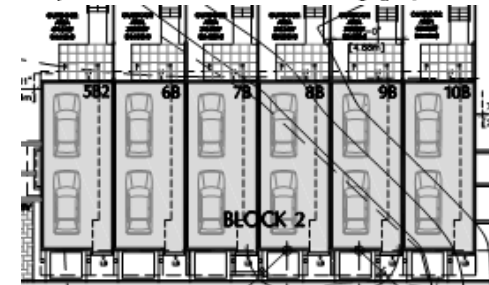
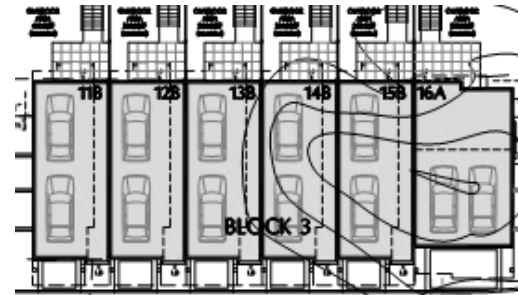
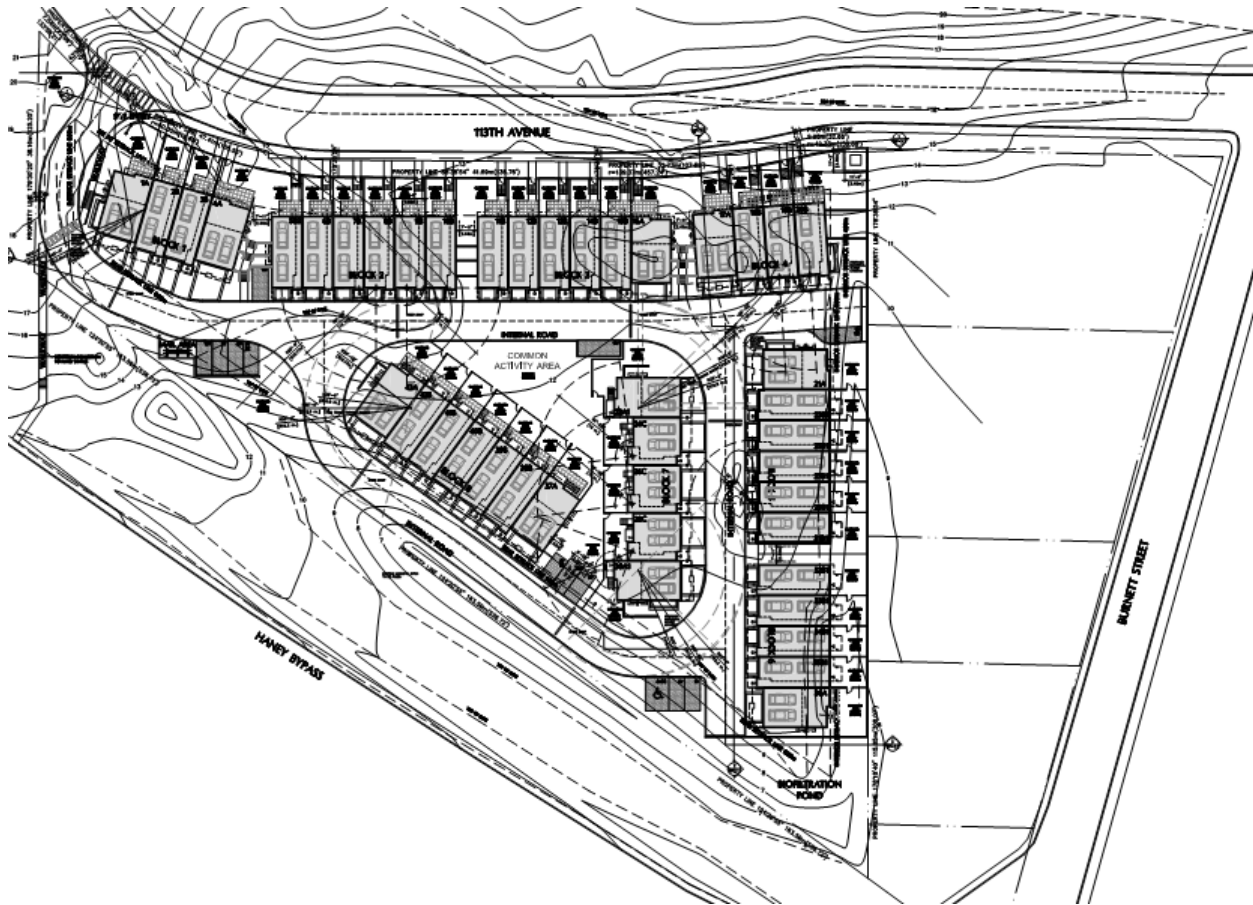
1) The townhouse project on the corner of 224th St and 124th Ave (TCA):



10 units, 8 units with tandem parking (80% tandem), and the tandem garages have minimal driveway aprons.
Density achieved 0.6 FSR (excluding 50 sq. m per unit basement habitable space) – maximum permitted currently.

TANDEM AND OFF-STREET PARKING STUDY 2013

1) The Brighton townhouse site (Portrait Homes)

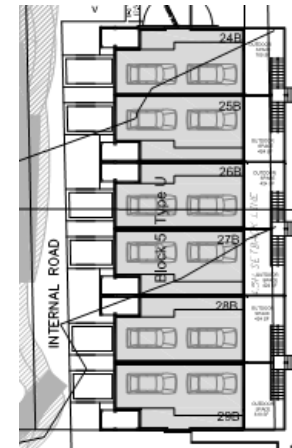
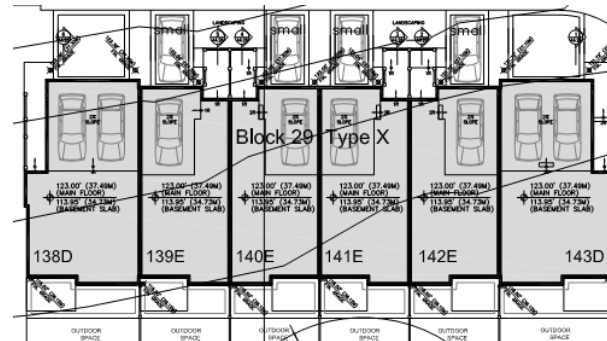
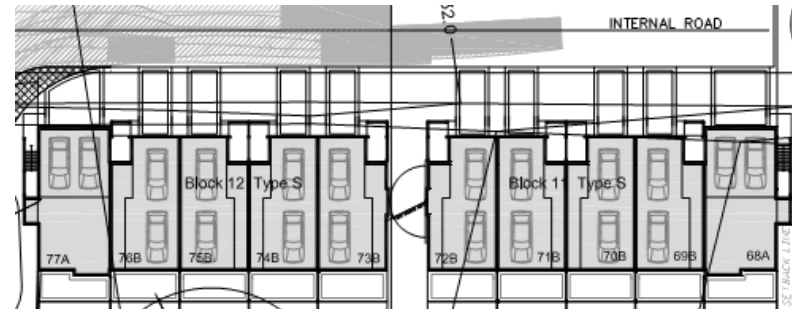
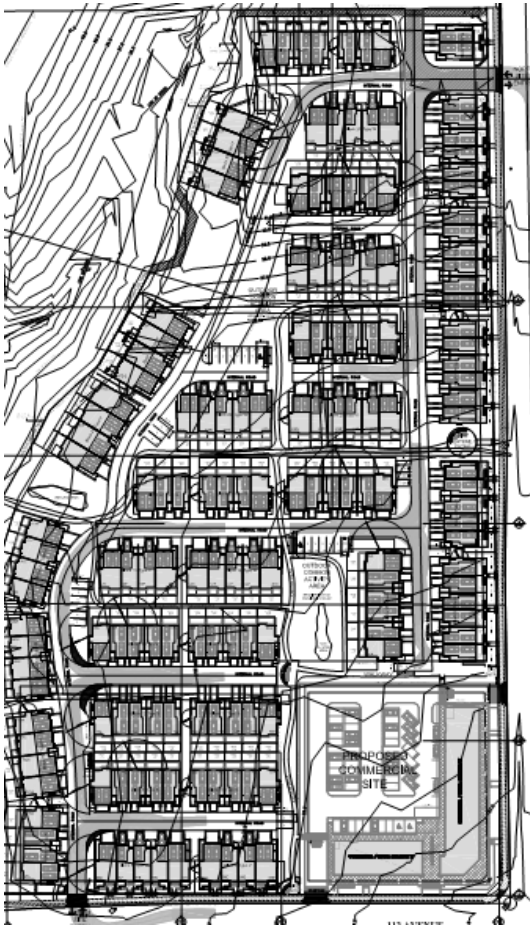


Deep Roots
Greater Heights

43 units, 30 units are with tandem parking (70% tandem), but the tandem garages have minimal driveway aprons. Density achieved 0.6 FSR (excluding 50 sq. m per unit basement habitable space)- maximum permitted currently.

TANDEM AND OFF-STREET PARKING 2013

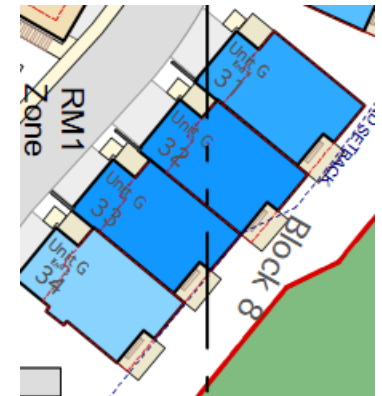
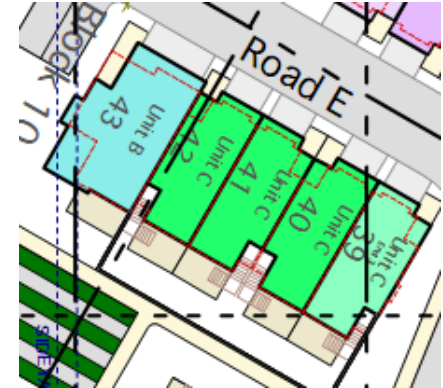
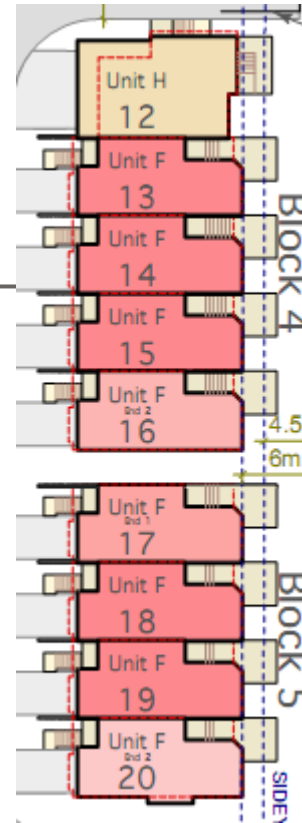
1) The townhouse project on the corner of 240th St and 112th Ave :



Total of 167 units in 35 blocks, 115 units are with tandem parking (**69% tandem**), with some units that have a one car garage and a second parking space on the driveway apron. Density achieved 0.6 FSR (excluding 50 sq. m per unit basement habitable space)- maximum permitted currently.

TANDEM AND OFF-STREET PARKING 2013

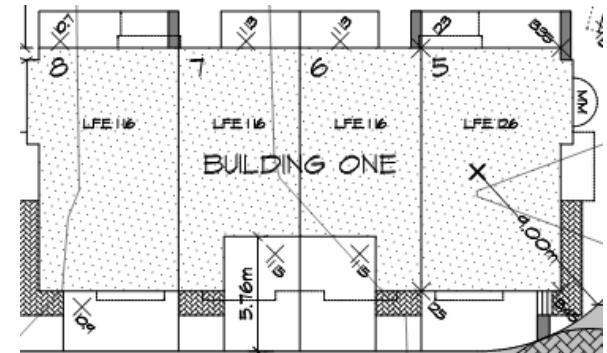
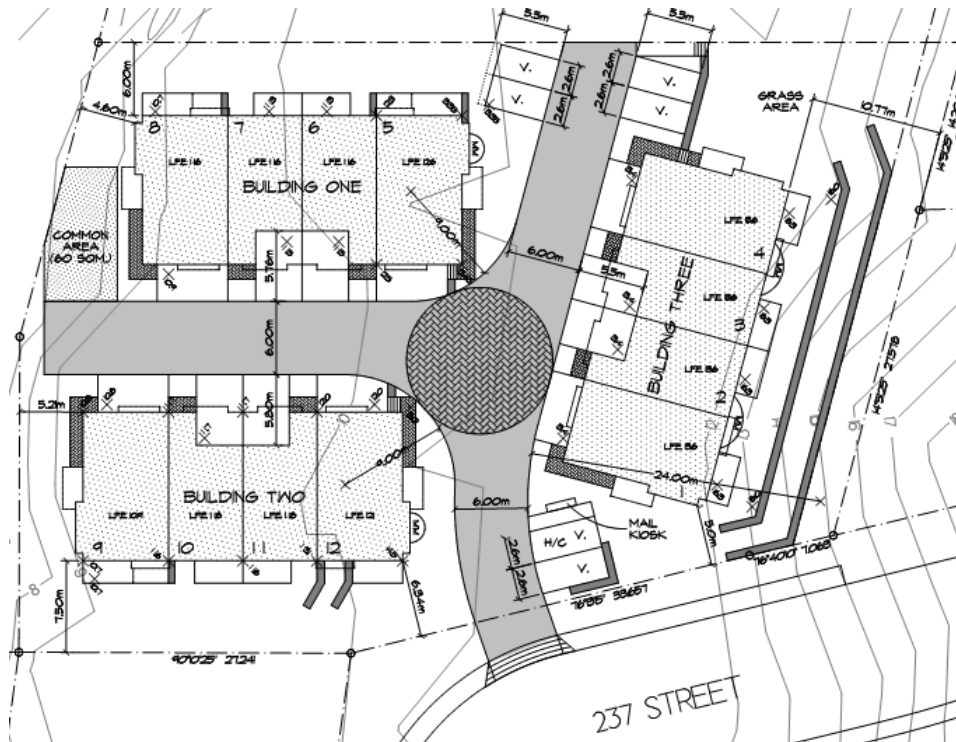
1) Proposed townhouse project on 133rd Ave, Silver Valley:



Total of 69 units, 45 units are with tandem parking (66% tandem), and the tandem garages have minimal driveway aprons. Density achieved 0.57 FSR (excluding 50 sq. m per unit basement habitable space) .

TANDEM AND OFF-STREET PARKING STUDY- SOME DEVELOPMENT PROPOSALS WITH SIGNIFICANT TANDEM PARKING RATIO

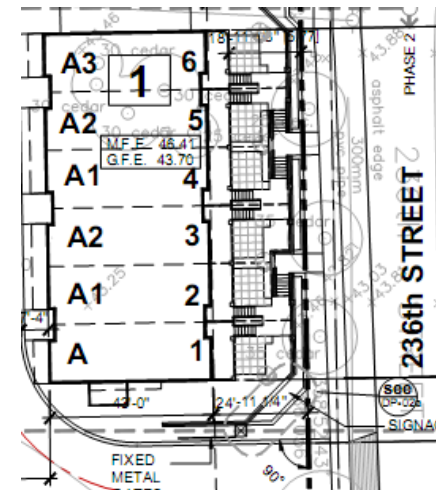
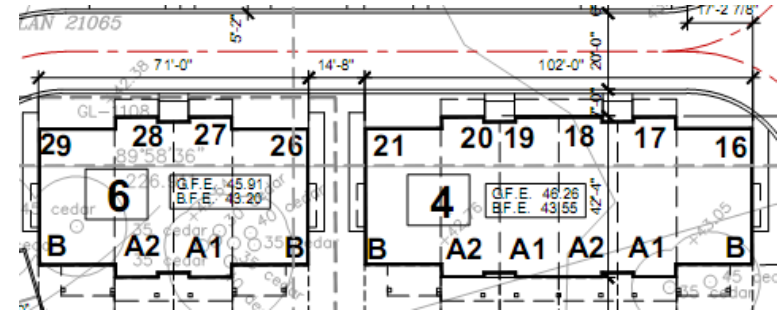
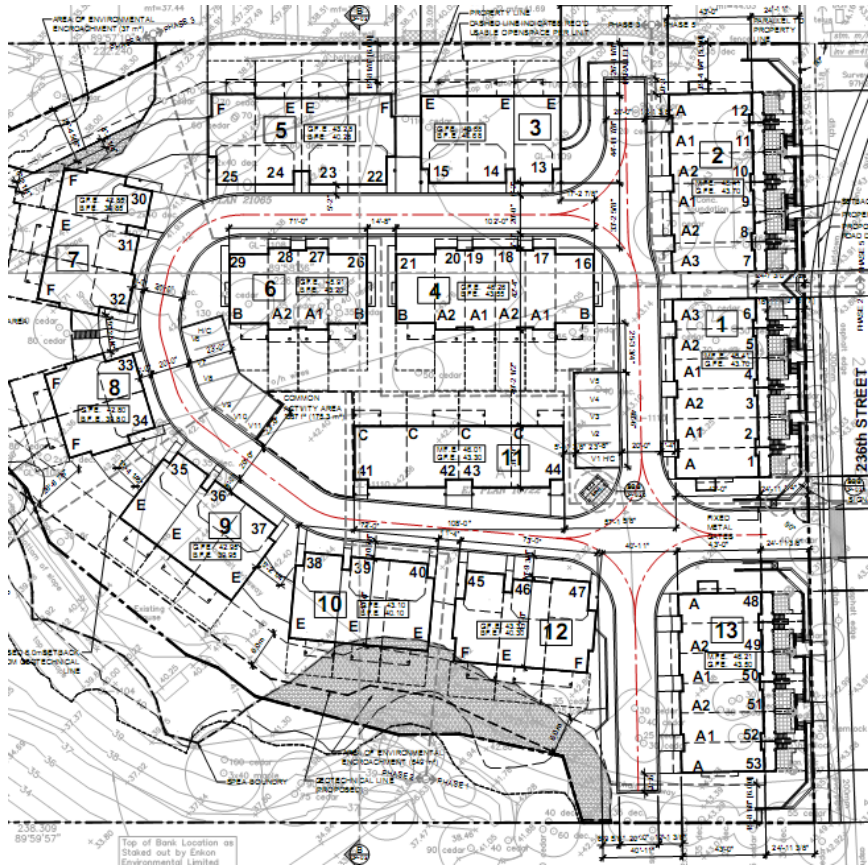
1) Proposed townhouses on 237th Street



Total of 12 units, out of which 6 units are with tandem parking (50% tandem), and the tandem garages have driveway aprons. Density achieved 0.59 FSR (excluding 50 sq. m per unit basement habitable space) .

TANDEM AND OFF-STREET PARKING STUDY 2013

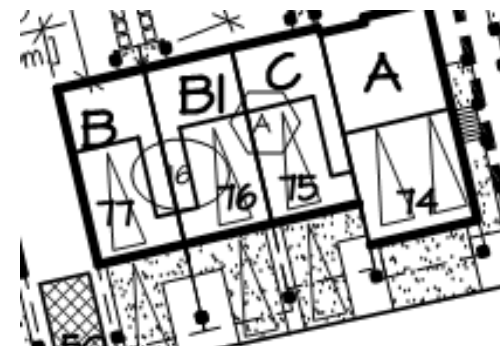
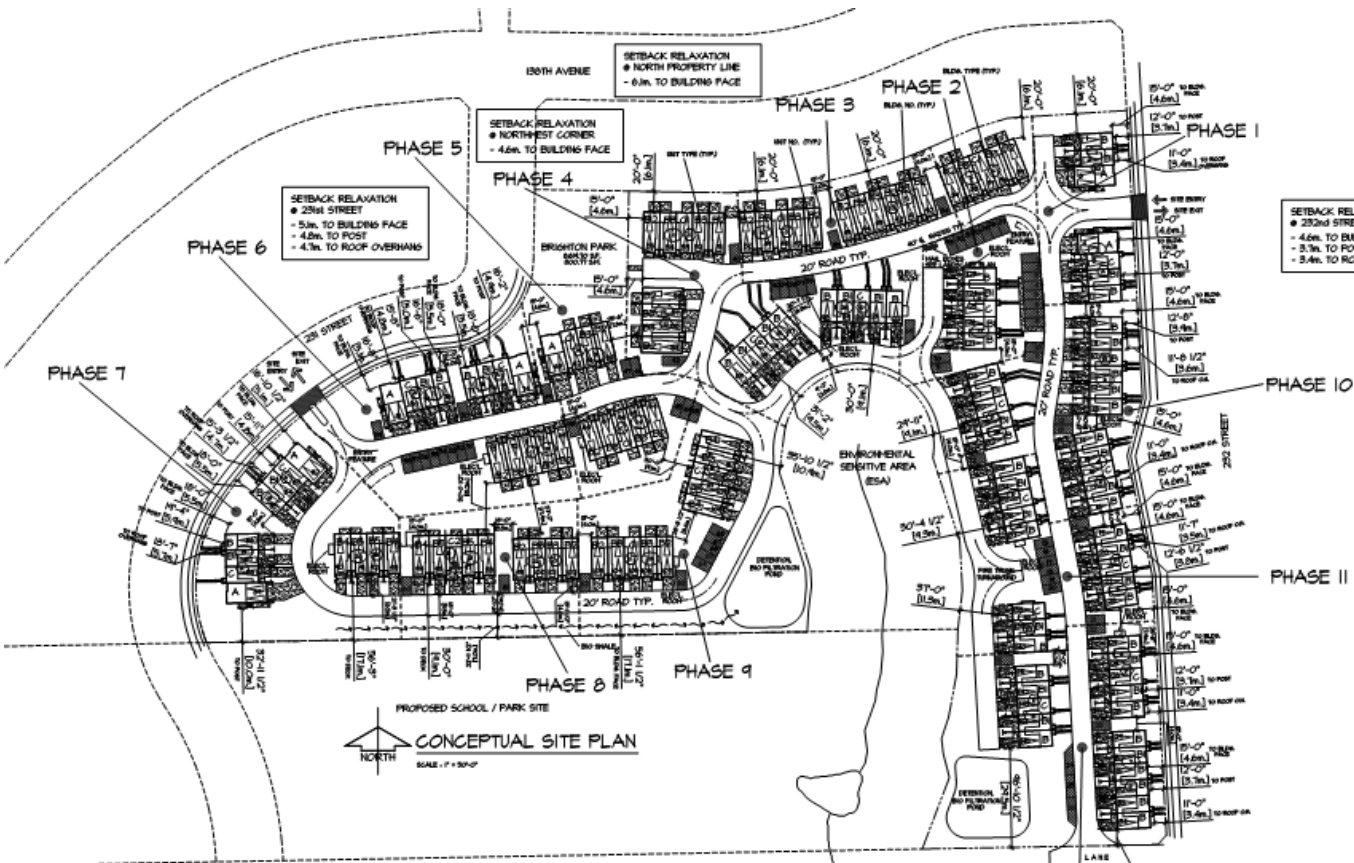
1) Proposed townhouses on 236th Street- Wall mark Homes



Total of 53 units, out of which 24 units are with tandem parking (45% tandem), and the tandem garages have driveway aprons. Density achieved 0.6 FSR (excluding 50 sq. m per unit basement habitable space) – maximum permitted currently.

TANDEM AND OFF-STREET PARKING STUDY 2013

1) The Brighton townhouse site (Portrait Homes)



31 buildings (146 units) in 12 phases, 59 units with tandem parking, (40% tandem), with 0.5 spaces visitor parking ratio for units with tandem parking and 7 units with double parking garages. A density of 44 UPNH is achieved.

TANDEM AND OFF-STREET PARKING STUDY: REVIEW OF REGULATIONS IN OTHER MUNICIPALITIES IN THE LOWER MAINLAND

MUNICIPALITY	TANDEM PARKING	LOT COVERAGE	DENSITY	RESIDENT PARKING RATIO	VISITOR PARKING REQUIRED	USABLE OPEN SPACE
	PERMITTED				PER UNIT	GROSS FLOOR AREA
Pitt Meadows	yes	40%	0.55 FSR	1.75 per unit	0.2	20% of the total gross floor area
Port Coquitlam	No (project basis)		1 unit/220 m2 of lot area	1.5 -2BR unit/2.0-3BR unit	0.2	
Coquitlam	No (project basis)	45%	0.9 FSR	1.0 -studio unit/ 1.5- 2BR unit	0.2	37m2 per unit plus 5m2 per unit amenity area
Township of Langley	yes	30%	1 unit/ 335 m2 of lot area (or 30 UPNH)	2.0 per unit (2.5/unit if tandem)	0.2	46m2-2BR, 28 m2-2BR, 19m2-1BR, 9m2-studio
Burnaby	No (project basis)	40%	1 unit/ 334.4 m2 of lot area	1.75 per unit (incl 0.25 for visitor)	0.25	46m2 per unit
Delta	yes	N/A	40 PPNH (min fl areas of units defined)	2.0 per unit	0.2	50m2-2BR, 27.5 m2-2BR, 19m2-1BR & studio
Abbotsford	yes	40%	60 UPNH	2.0 per unit (incl 20% visitor)	20% of residential parking	15m2 per unit (excluding balconies)
Mission	yes (up to 50%)	50%	52 UPNH and 0.6 FSR	2.0 per unit	0.2	50 m2 per unit=outdoor
Richmond	yes	40%	0.6 FSR (0.1 additional for Ame- space)	2.0 per unit	0.2	0.1 FSR for amenity space
Surrey	yes	45%	0.6 FSR and 37 UPNH	2.0 per unit (reduced by 20% in the Surrey City Centre area)	0.2 (reduced by 20% in the Surrey City Centre area)	outdoor=3.0 m2 per unit indoor=3.0 m2 per unit



Deep Roots
Greater Heights

TANDEM AND OFF-STREET PARKING STUDY

Concerns/Issues with tandem parking in the RM-1 (Townhouse Residential District) zone:

- **BC Building Code requirements;**
- **Unit sizes/density/number of units, architectural design and streetscape;**
- **Restrictive Covenant on the tandem space; enforcement of tandem spaces and visitor parking spaces.**

TANDEM AND OFF-STREET PARKING STUDY

Concern: no driveway apron length in front of the garage



TANDEM AND OFF-STREET PARKING STUDY 2013

Concern: no driveway apron length in front of the garage



TANDEM AND OFF-STREET PARKING STUDY 2013

Concern: inadequate driveway apron length causes a vehicle to project into the 6.0 m strata road



TANDEM AND OFF-STREET PARKING STUDY 2013

Concern: inadequate driveway apron length causes a vehicle to be parked along the length of a double car garage, blocking it



TANDEM AND OFF-STREET PARKING STUDY 2013

Concern: car parked on the 6.0 wide strata road for lack of driveway apron or visitor parking spaces



TANDEM AND OFF-STREET PARKING STUDY 2013

Concern: garage built to the minimum width, depth and height required as per the BCBC Code



TANDEM AND OFF-STREET PARKING STUDY 2013

Examples of ways to minimize negative impacts of tandem parking in the RM-1 (Townhouse Residential District) zone:

1) Provide adequate driveway apron length to be able to park a vehicle in front of the tandem garage



TANDEM AND OFF-STREET PARKING STUDY 2013

Examples of ways to minimize negative impacts of tandem parking in the RM-1 (Townhouse Residential District) zone:
2) provide extra parking spaces on site



TANDEM AND OFF-STREET PARKING STUDY 2013

18 scenarios with/without tandem parking in the RM-1 (Townhouse Residential District) zone, were analysed. They were broadly classified into four categories:

- 1. A townhouse development with 100% tandem parking spaces (currently permitted);**
- 2. A townhouse development with up to a maximum of 70% tandem parking spaces;**
- 3. A townhouse development with up to a maximum of 50% tandem parking spaces;**
- 4. A townhouse development with no tandem parking spaces (100% double garages).**

TANDEM AND OFF-STREET PARKING STUDY 2013

VARIABLE ELEMENTS FOR THE SCENARIOS:

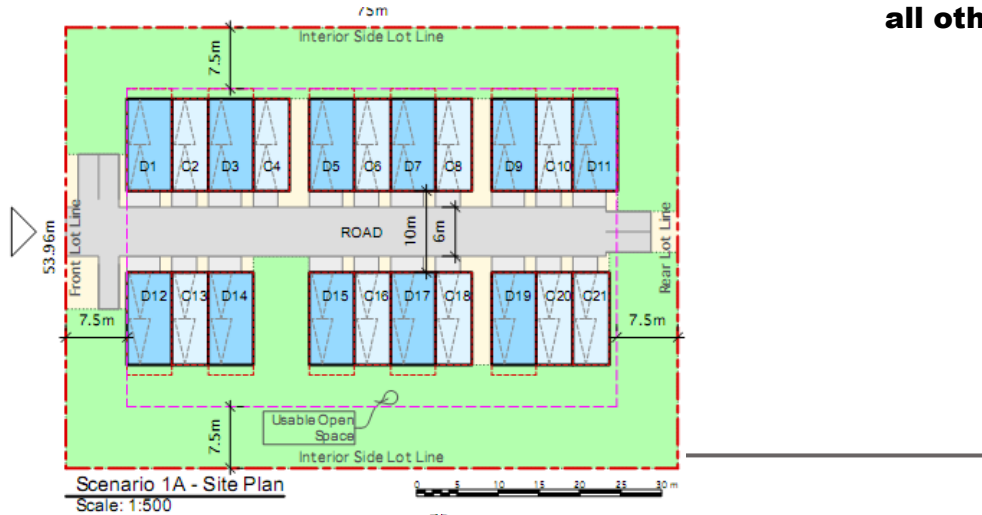
1. Percentage (%) of tandem parking spaces on site
 2. Usable Open Space Area for units with tandem parking spaces
 3. Common Activity Area for units with tandem parking spaces
 4. Visitor parking ratio for units with tandem parking spaces
 5. Driveway apron length for units with tandem parking spaces
 6. Setback variances
-

FIXED ELEMENTS FOR THE SCENARIOS:

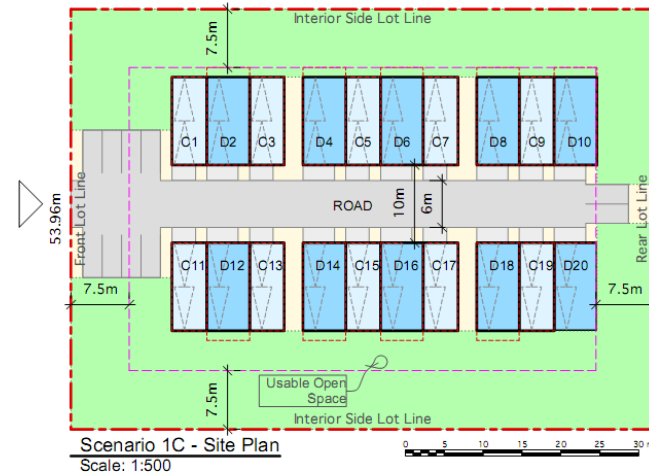
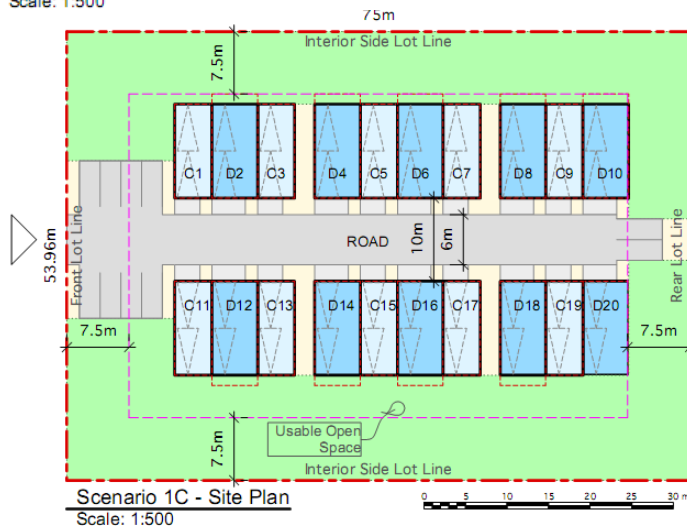
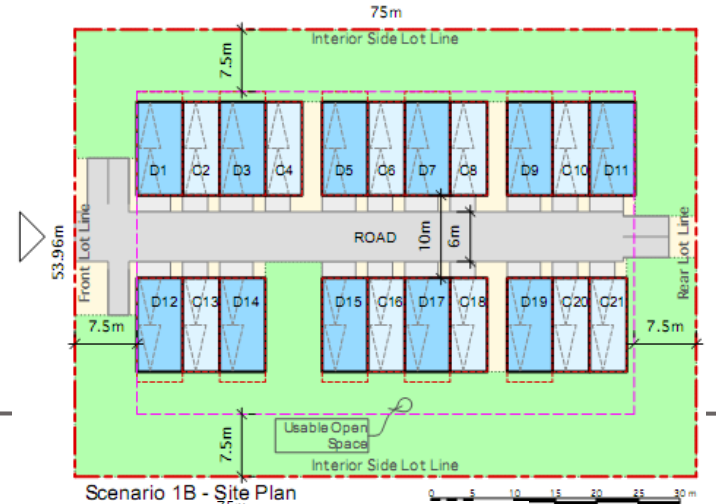
1. Lot Size: 4047 m² (1 acre or 43562.97 ft²)
2. FSR: 0.6 (50 m² extra for habitable basement area per unit)
3. Unit sizes: 2 bedroom =1000 ft² and 3 bedroom=1500 ft² (50% of each type)
4. Setbacks: 7.5 m from all property lines
5. Parking: 2 spaces per unit (residential) and 0.2 spaces per unit (visitor)
6. 6.0 m wide strata road (no parking along strata road)
7. Max lot coverage: 40%
8. Units in one block: 2 minimum and 6 maximum (2-6 units)

TANDEM AND OFF-STREET PARKING STUDY 2013- **100% TANDEM** WITH ONE VARIABLE

Scenario 1A: 100% tandem with no changes (as permitted currently)



Scenario 1B: 100% tandem plus increased useable open space and common activity area by 5 sq. m per unit and all other regulations as permitted currently



Scenario 1C: 100% tandem plus increased Visitor parking of 0.5 space per unit and all other regulations as permitted currently

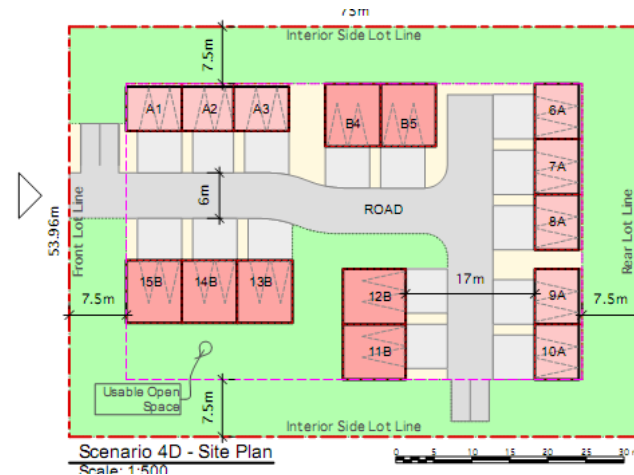
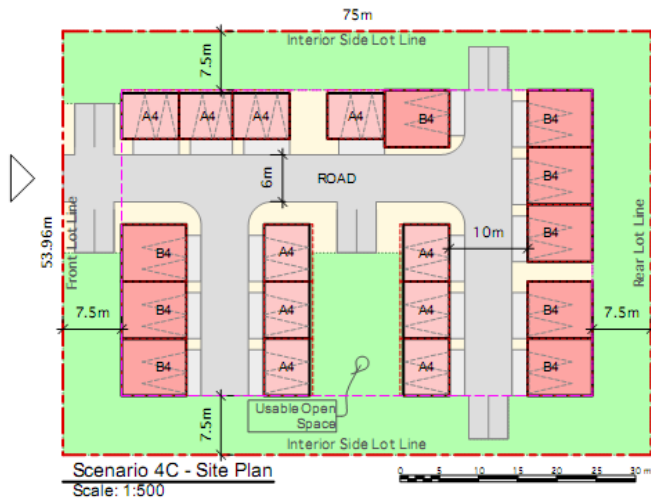
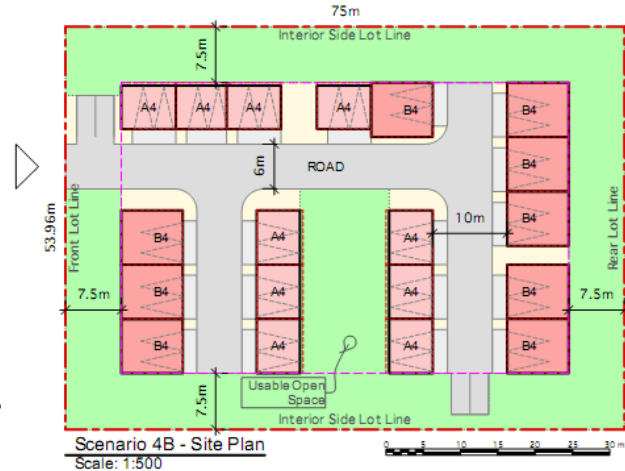
Scenario 1D: 100% tandem plus driveway apron required and all other regulations as permitted currently

TANDEM AND OFF-STREET PARKING STUDY 2013- **NO TANDEM** WITH ONE VARIABLE

Scenario 4A: No tandem with no changes (as permitted currently)



Scenario 4B: No tandem **PLUS** increased useable open space and common activity area by 5 sq. m per unit and all other regulations as permitted currently

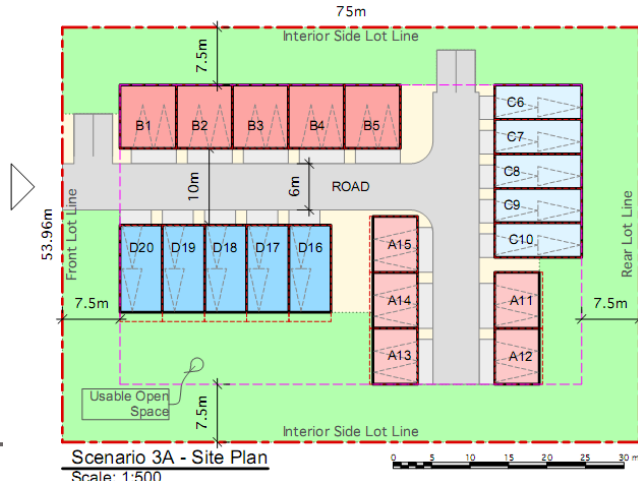


Scenario 4C: No tandem **PLUS** increased Visitor parking of 0.5 space per unit and all other regulations as permitted currently

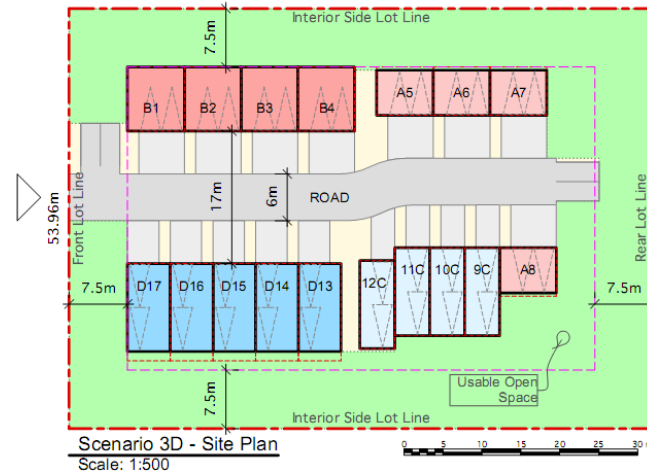
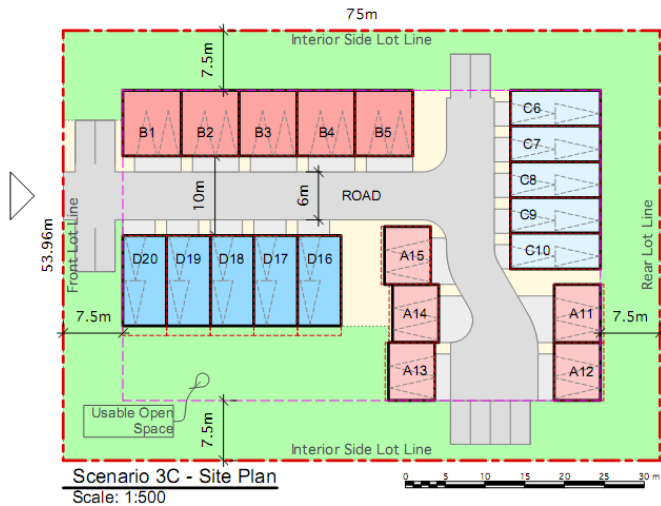
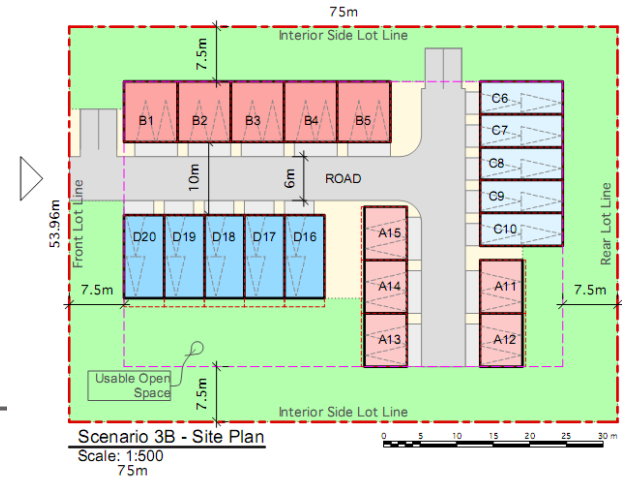
Scenario 4D: No tandem **PLUS** driveway apron required and all other regulations as permitted currently

TANDEM AND OFF-STREET PARKING STUDY 2013- **70% TANDEM** WITH ONE VARIABLE

Scenario 3A: 50% tandem with no changes (as permitted currently)



Scenario 3B: 50% tandem plus increased useable open space and common activity area by 5 sq. m per unit and all other regulations as permitted currently



Scenario 3C: 50% tandem plus increased Visitor parking of 0.5 space per unit and all other regulations as permitted currently

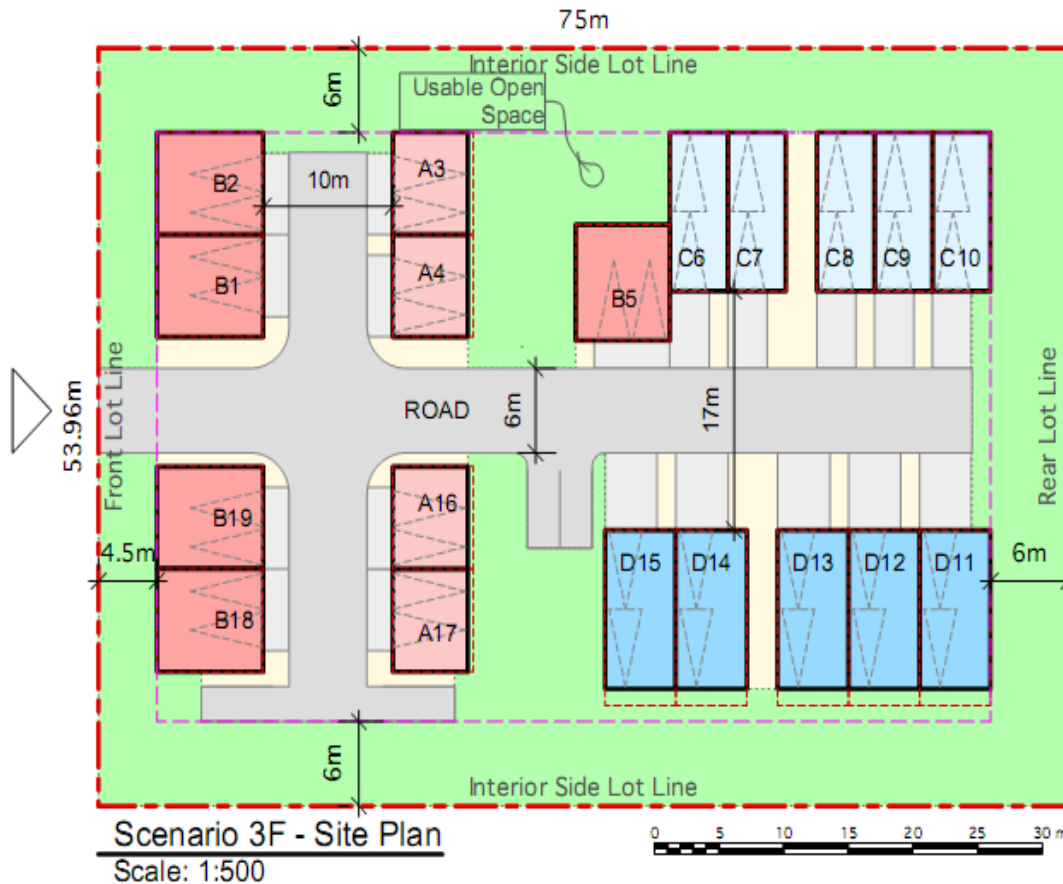
Scenario 3D: 50% tandem plus driveway apron required and all other regulations as permitted currently

TANDEM PARKING AND OFF-STREET PARKING STUDY 2013

SCENARIO 3F: 50% TANDEM WITH SETBACK VARIANCES PLUS DRIVEWAY APRON AND ALL OTHER REGULATIONS AS PERMITTED CURRENTLY

Variables

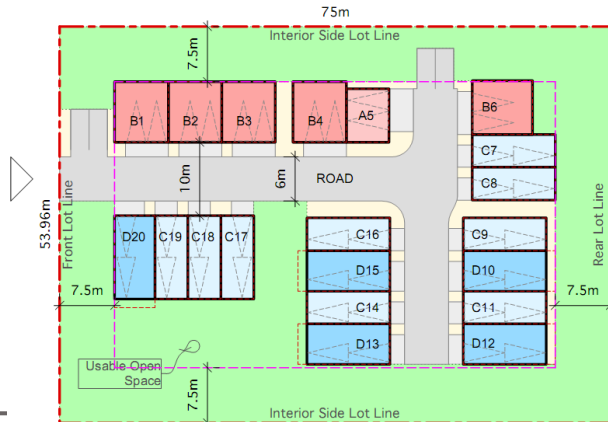
1)	Parking Type:	50% of Tandem & 50% of Double Wide parking stalls
2)	Usable Open Space:	45 m ² / 3 Bedroom & 30 m ² for 2 Bedroom
3)	Common activity area:	5 m ² / unit
4)	Parking:	0.2 visitor stalls / unit Visitor parking complies with setbacks
5)	Driveway Apron:	5.5m unit driveway, tandem garage only
6)	Variances:	Front Yard Setback 4.5m, all other setbacks 6.0m



- Lot size: 1 acre (4046.8 sq. m.)
- Unit yield: 19 units
- Total GFA: 2230 sq. m.
- Setbacks: 4.5 m front yard and 6.0 m for all other sides
- FSR: 0.551
- Unit type: 10 three BR and 9 two BR
- Visitor parking: 4 stalls
- Lot Coverage: 26.7%

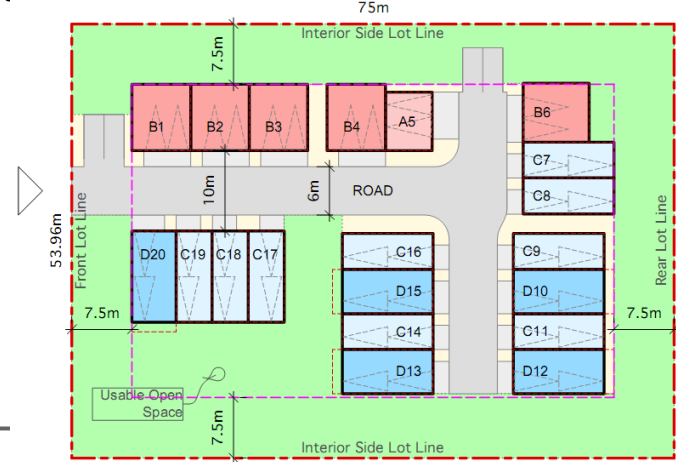
TANDEM AND OFF-STREET PARKING STUDY 2013- **70% TANDEM** WITH ONE VARIABLE

Scenario 2A: 70% tandem with no changes (as permitted currently)

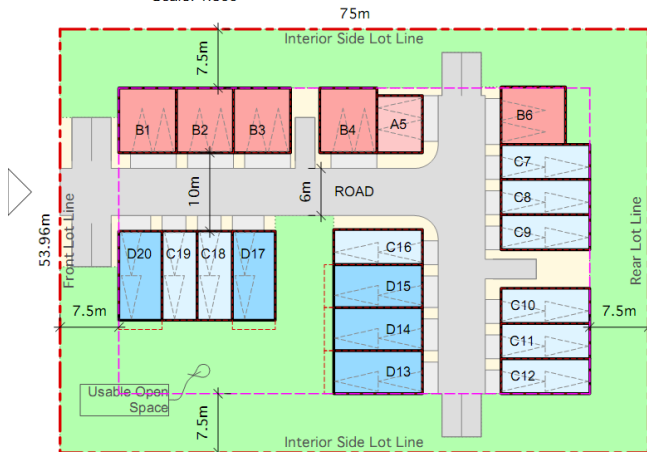


Scenario 2A - Site Plan
Scale: 1:500

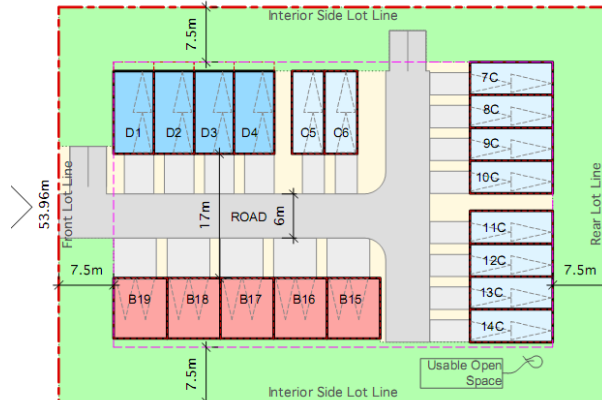
Scenario 2B: 70% tandem **PLUS** increased useable open space and common activity area by 5 sq. m per unit and all other regulations as permitted currently



Scenario 2B - Site Plan
Scale: 1:500



Scenario 2C - Site Plan
Scale: 1:500



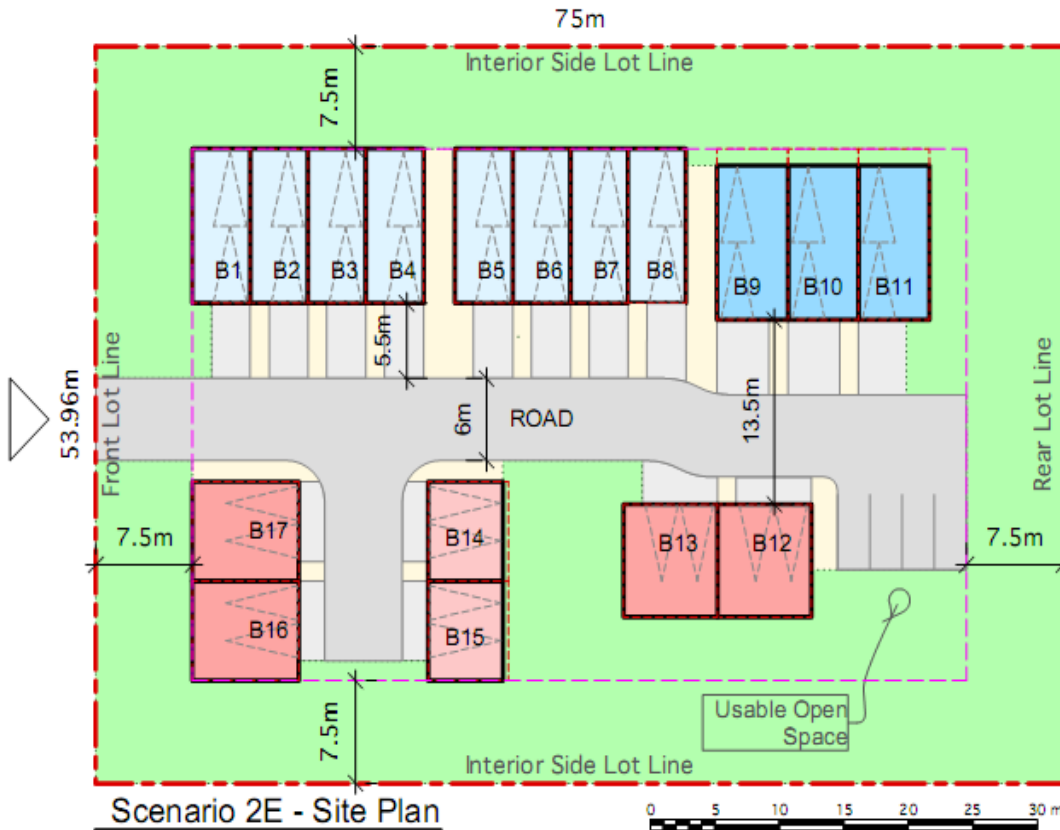
Scenario 2D - Site Plan
Scale: 1:500

Scenario 2C: 70% tandem **PLUS** increased Visitor parking of 0.5 space per unit and all other regulations as permitted currently

Scenario 2D: 70% tandem **PLUS** driveway apron required and all other regulations as permitted currently

TANDEM AND OFF-STREET PARKING STUDY 2013- PREFERRED APPROACH

SCENARIO 2E: 70% TANDEM WITH DRIVEWAY APRON AND INCREASED USEABLE OPEN SPACE AND ALL OTHER REGULATIONS AS PERMITTED CURRENTLY (**NO SETBACK VARIANCES**)



Variables

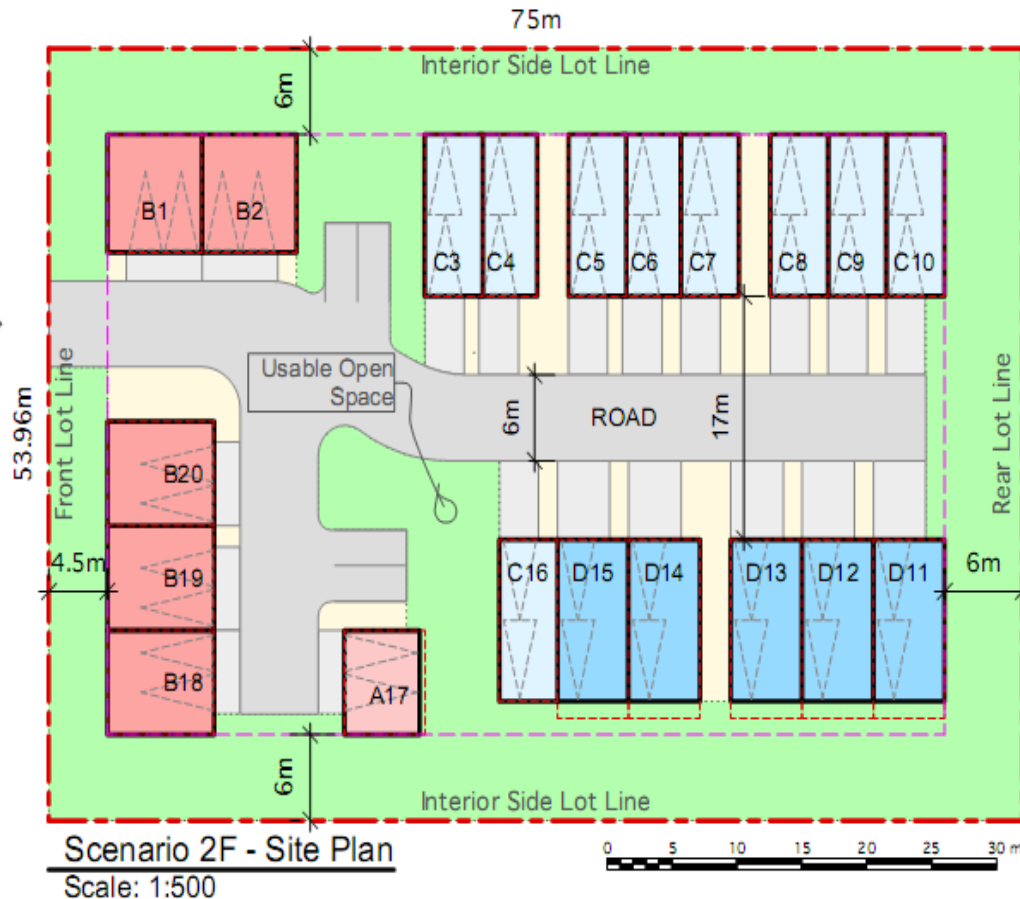
1)	Parking Type:	70% of Tandem & 30% of Double Wide parking stalls
2)	Usable Open Space:	65 m ² / 3 Bedroom & 50 m ² for 2 Bedroom
3)	Common activity area:	5 m ² / unit
4)	Parking:	0.2 visitor stalls / unit Visitor parking complies with setbacks
5)	Driveway Apron:	5.5m unit driveway, tandem garage only

- Lot size: 1 acre (4046.8 sq. m.)
- Unit yield: 17 units
- Total GFA: 1905 sq. m.
- No setback variances sought
- FSR: 0.471
- Unit type: 7 three BR and 10 two BR
- Visitor parking: 4 stalls
- Lot Coverage: 23.3%
- Useable Open Space: 2097 sq. m.

Scenario 2E - Site Plan
Scale: 1:500

TANDEM PARKING AND OFF-STREET PARKING STUDY 2013

SCENARIO 2F: 70% TANDEM WITH DRIVEWAY APRON AND INCREASED USEABLE OPEN SPACE , WITH SETBACK VARIANCES AND ALL OTHER REGULATIONS AS PERMITTED CURRENTLY



Variables

1) Parking Type:	70% of Tandem & 30% of Double Wide parking stalls
2) Usable Open Space:	65 m ² / 3 Bedroom & 50 m ² for 2 Bedroom
3) Common activity area:	5 m ² / unit
4) Parking:	0.2 visitor stalls / unit Visitor parking complies with setbacks
5) Driveway Apron:	5.5m unit driveway, tandem garage only
6) Variances:	Front Yard Setback 4.5m, all other setbacks 6.0m

- Lot size: 1 acre (4046.8 sq. m.)
- Unit yield: 20 units
- Total GFA: 2323 sq. m.
- Setbacks: 4.5 m front yard and 6.0 m for all other sides
- FSR: 0.574
- Unit type: 10 three BR and 10 two BR
- Visitor parking: 4 stalls
- Lot Coverage: 28.3%
- Useable Open Space: 1703 sq. m.

TANDEM AND OFF-STREET PARKING STUDY 2013

SCENARIO COMPARISON CHART:

	FSR	Unit / Ha:	Unit / Acre	# of 3 bdrms	# of 2 bdrms	% of Tandem Stalls	Usable Open Space	Site Coverage	Total Hard surfaces (Excludes Site Coverage)
Scenario 1A	0.608	51.9	21	11	10	100 %	2,011 m2	31 %	15 %
Scenario 1B	0.608	51.9	21	11	10	100 %	2,011 m2	31 %	15 %
Scenario 1C	0.574	49.4	20	10	10	100 %	1,980 m2	30 %	17 %
Scenario 1D	0.517	44.5	18	9	9	100 %	1,886 m2	27 %	22 %
Scenario 2A	0.562	49.4	20	9	11	70 %	2,048 m2	28 %	18 %
Scenario 2B	0.562	49.4	20	9	11	70 %	2,048 m2	28 %	18 %
Scenario 2C	0.574	49.4	20	10	10	70 %	1,893 m2	28 %	21 %
Scenario 2D	0.539	47.0	19	9	10	74 %	1,699 m2	27 %	24 %
Scenario 2E	0.471	42.0	17	7	10	65 %	2,097 m2	23 %	21 %
Scenario 2Eb	0.517	44.5	18	9	9	72 %	2,089 m2	26 %	21 %
Scenario 2F	0.574	49.4	20	10	10	70 %	1,703 m2	28 %	24 %
Scenario 2Fb	0.574	49.4	20	10	10	70 %	1,870 m2	28 %	22 %
Scenario 3A	0.574	49.4	20	10	10	50 %	1,993 m2	28 %	19 %
Scenario 3B	0.574	49.4	20	10	10	50 %	1,993 m2	28 %	19 %
Scenario 3C	0.574	49.4	20	10	10	50 %	1,819 m2	28 %	23 %
Scenario 3D	0.494	42.0	17	9	8	53 %	2,016 m2	24 %	22 %
Scenario 3E	0.471	39.5	16	9	7	69 %	2,048 m2	23 %	21 %
Scenario 3Eb	0.494	42.0	17	9	8	53 %	2,094 m2	24 %	22 %
Scenario 3F	0.551	47.0	19	10	9	53 %	1,795 m2	27 %	24 %
Scenario 3Fb	0.539	47.0	19	9	10	47 %	1,857 m2	26 %	25 %
Scenario 4A	0.539	47.0	19	9	10	0 %	1,885 m2	25 %	24 %
Scenario 4B	0.539	47.0	19	9	10	0 %	1,885 m2	25 %	24 %
Scenario 4C	0.539	47.0	19	9	10	0 %	1,731 m2	25 %	26 %
Scenario 4D	0.425	37.1	15	7	8	0 %	1,943 m2	19 %	26 %

TANDEM AND OFF-STREET PARKING STUDY 2013

PREFERRED APPROACH:

A maximum of 70% units with tandem parking spaces may be permitted with the following required for each unit having tandem parking spaces, except in the Town Centre Area:

-
- **Block size not to exceed six attached units;**
 - **Driveway apron length of 5.5 metres; and**
 - **Usable open space of 65 m² for each three bedroom or bigger units and 50m² for each two bedroom or smaller units.**

Note that 100% tandem parking in the RM-1 (Townhouse Residential District) zone would still be permitted in the Town Centre Area, due to access to transit and policy support for a dense housing form.

It is important to note that setback variances would be considered on a site specific basis and are subject to Council approval.

TANDEM AND OFF-STREET PARKING STUDY 2013

RECOMMENDATION:

That Council direct staff to prepare the relevant bylaw revisions to the RM-1(Townhouse Residential District) zone and the Off-Street Parking and Loading Bylaw, as described in Section E of the “Tandem and Off-Street Parking Discussion Paper” dated May 27, 2013.

THANK YOU !