

4 - ARTERIAL RD. DUPLEXES

5120, 5140 WILLIAMS RD.

Owner	Alta West Development Group Ltd. (Patrick Zheng)
Architect	Matthew Cheng Architect Inc. (Matthew Cheng)
Landscape Architect	PMG Landscape Architects Ltd. (Yiwen Ruan)



Subdivide & Rezone 2 lots into 4 duplex lots

5120, 5140 Williams Rd.

Context

- Site On Williams Rd.
East of Railway Ave.
- North of Williams Single-family dwellings
A couple old duplexes
- South of Williams Single-family dwellings
- Rear of properties Single-family dwellings



Context North of Williams Rd. (opposite site)



Context South of Williams Rd.



East of site - Single Family



East of site - Single Family



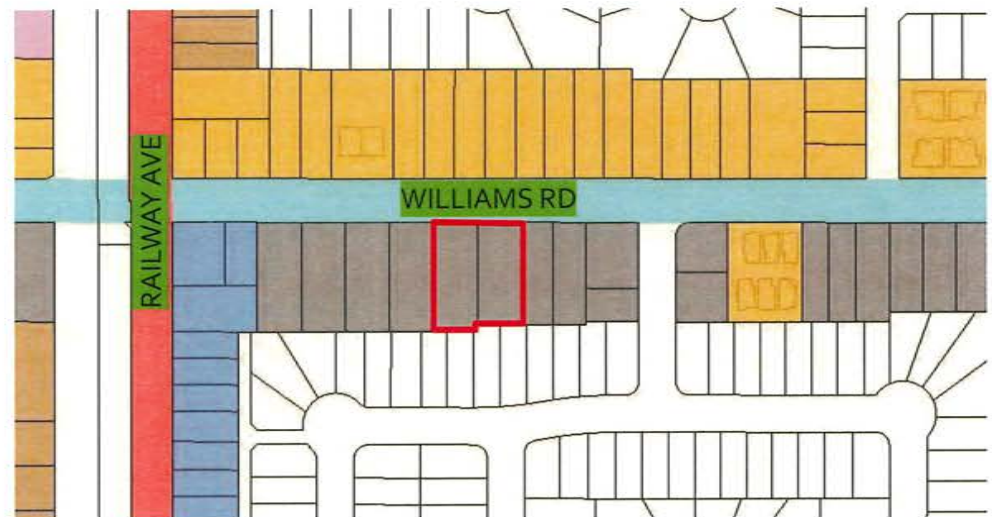
West of site – Single Family



West of site – Single family

Rezoning

OCP	Arterial Road Duplex / Triplex
Rezoning	RSM/L to RDA (Arterial Road Two-Unit Dwellings)
Subdivision	2 lots into 4 lots



Site Plan

Original Site Area

1012 + 993 = 2005 sm.

Subdivided lot area (Min. 464.5 sm.)

Lot A 517.87 sm.
Lot B 516.47 sm.
Lot C 486.46 sm.
Lot D 486.44 sm.

Subdivided lot width (Min. 10.29 sm.)

Lot A 10.30 sm.
Lot B 10.30 sm.
Lot C 10.30 sm.
Lot D 10.30 sm.

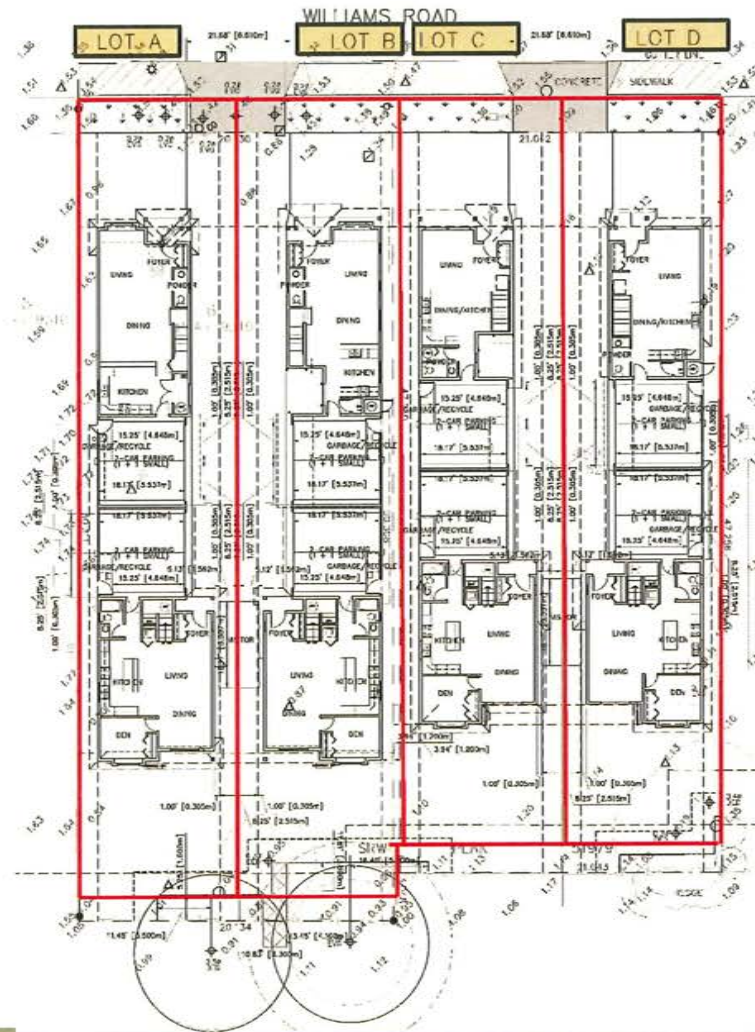
No of units

8 units

FAR

(lesser of 0.6 or 334.5 sm.)
(Each unit min. 125.4 sm.
& max. 183.9 sm.)

Lot A 0.6 (310.72 sm.)
Lot B 0.6 (310.22 sm.)
Lot C 0.6 (291.74 sm.)
Lot D 0.6 (291.74 sm.)



Parking

Lot A + Lot B

Access Easement

Lot A

2 regular + 2 small

Lot B

2 regular + 2 small

Visitor

1 (Shared between Lot A & B)

Lot C + Lot D

Access Easement

Lot C

2 regular + 2 small

Lot D

2 regular + 2 small

Visitor

1 (Shared between Lot C & D)

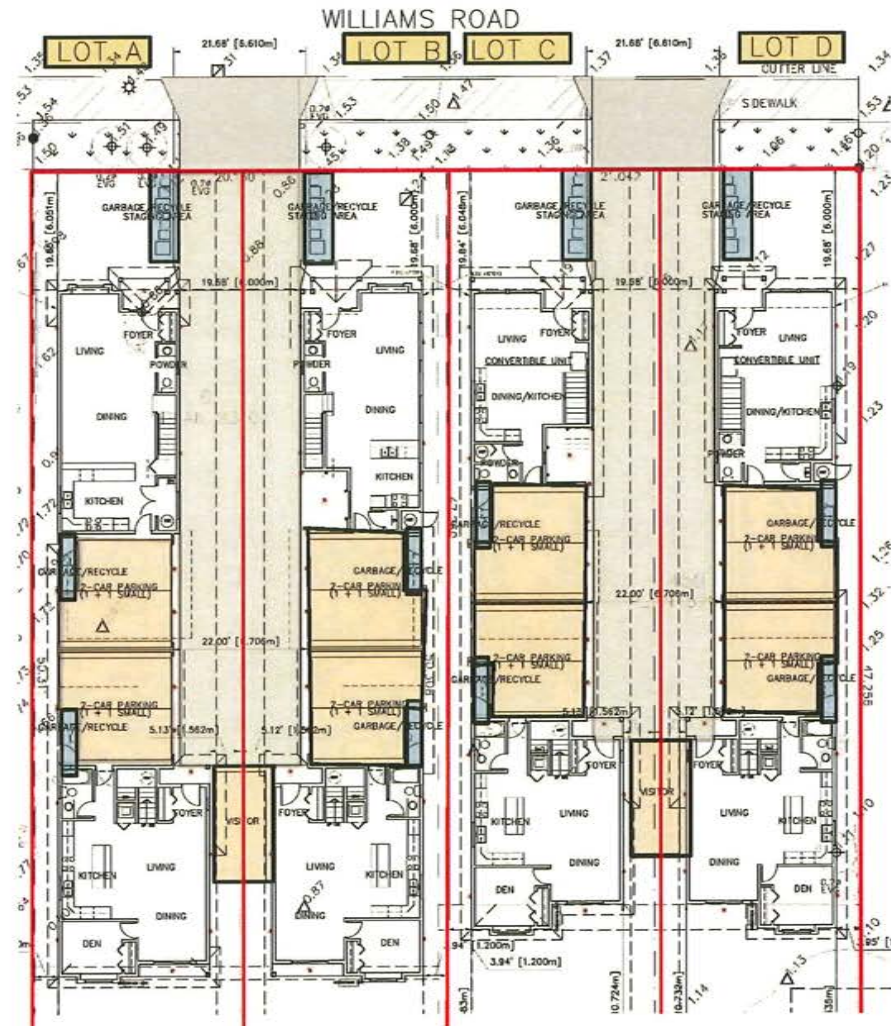
Garbage & Recycle

Storage

Inside garage

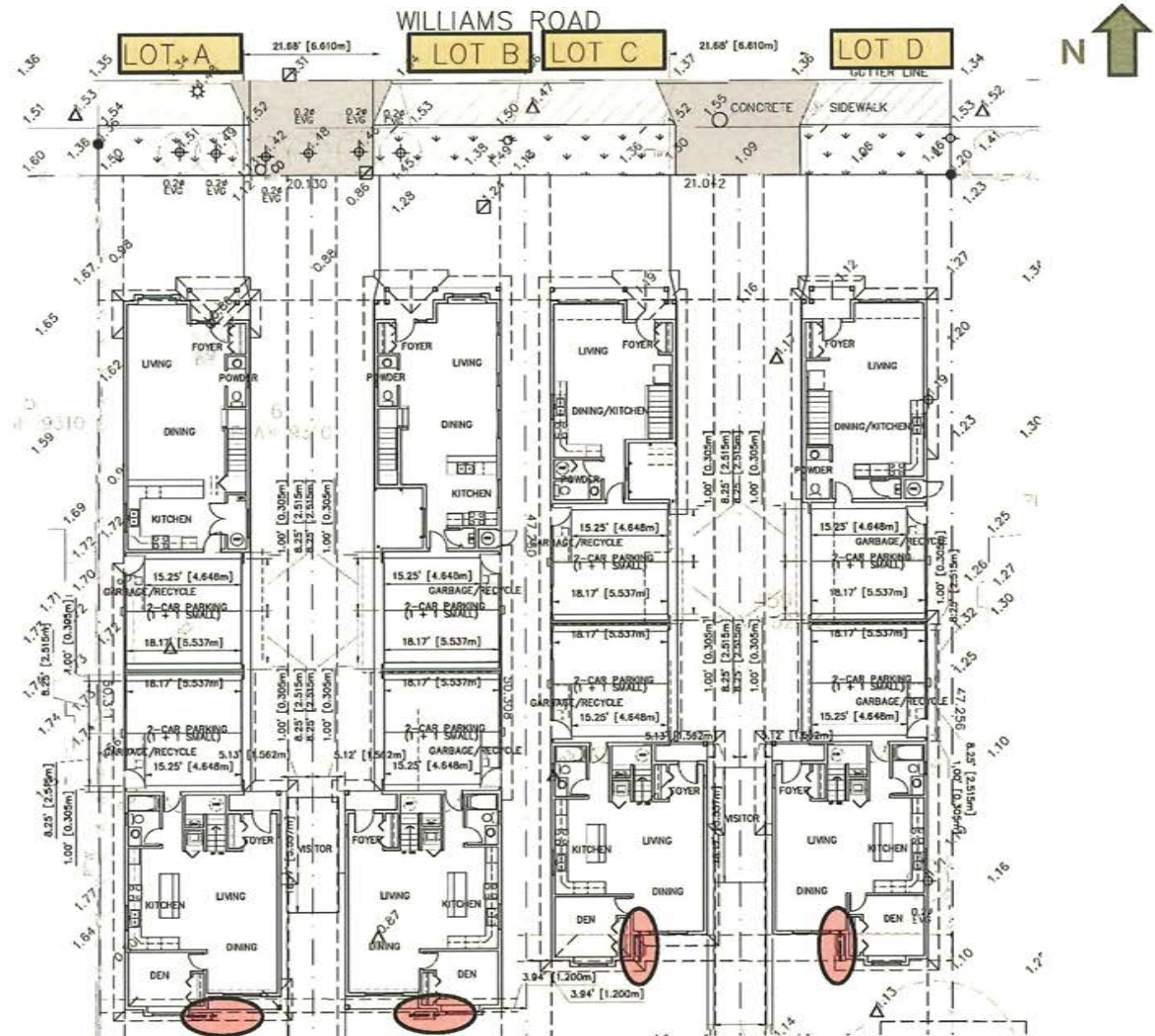
Staging area

At driveway entrance



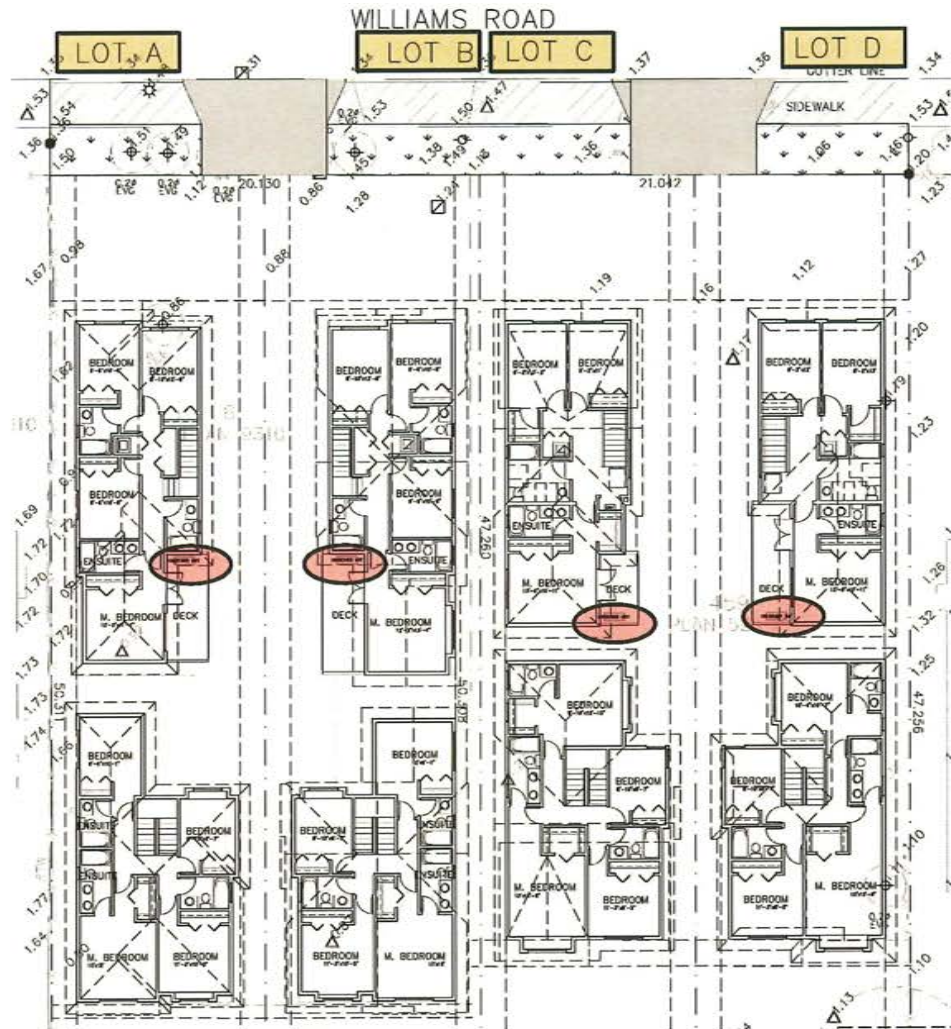
G/F Plan

Lot A	Front unit	L + D + Kit
	Rear unit	L + D + Kit + Den Condenser
Lot B	Front unit	L + D + Kit
	Rear unit	L + D + Kit + Den Condenser
Lot C	Front unit	L + D + Kit
	Rear unit	L + D + Kit + Den Condenser
Lot D	Front unit	L + D + Kit
	Rear unit	L + D + Kit + Den Condenser



2/F Plan

Lot A	Front unit	4 bed + 3 bath Condenser
	Rear unit	4 bed + 3 bath
Lot B	Front unit	4 bed + 3 bath Condenser
	Rear unit	4 bed + 3 bath
Lot C	Front unit	3 bed + 2 bath Condenser
	Rear unit	4 bed + 3 bath
Lot D	Front unit	3 bed + 2 bath Condenser
	Rear unit	4 bed + 3 bath



Convertible Units

- Chairlift to second floor
- 4m (13'-2") wide accessible parking space provided
- Entry door (2'-10" clear) (Rough in for future door opener) (No Step)
- Interior doors (2'-8" clear) (1 bed & 1 bath)
- Hallway (3'-0")

WC

- Toilet at side & in front (3'-4")
- Blocking for future grab bars (Toilet, Tub, Shower)
- Lever - style plumbing fixtures
- Cabinets easily removed
- Bath and shower controls accessible

Kitchen

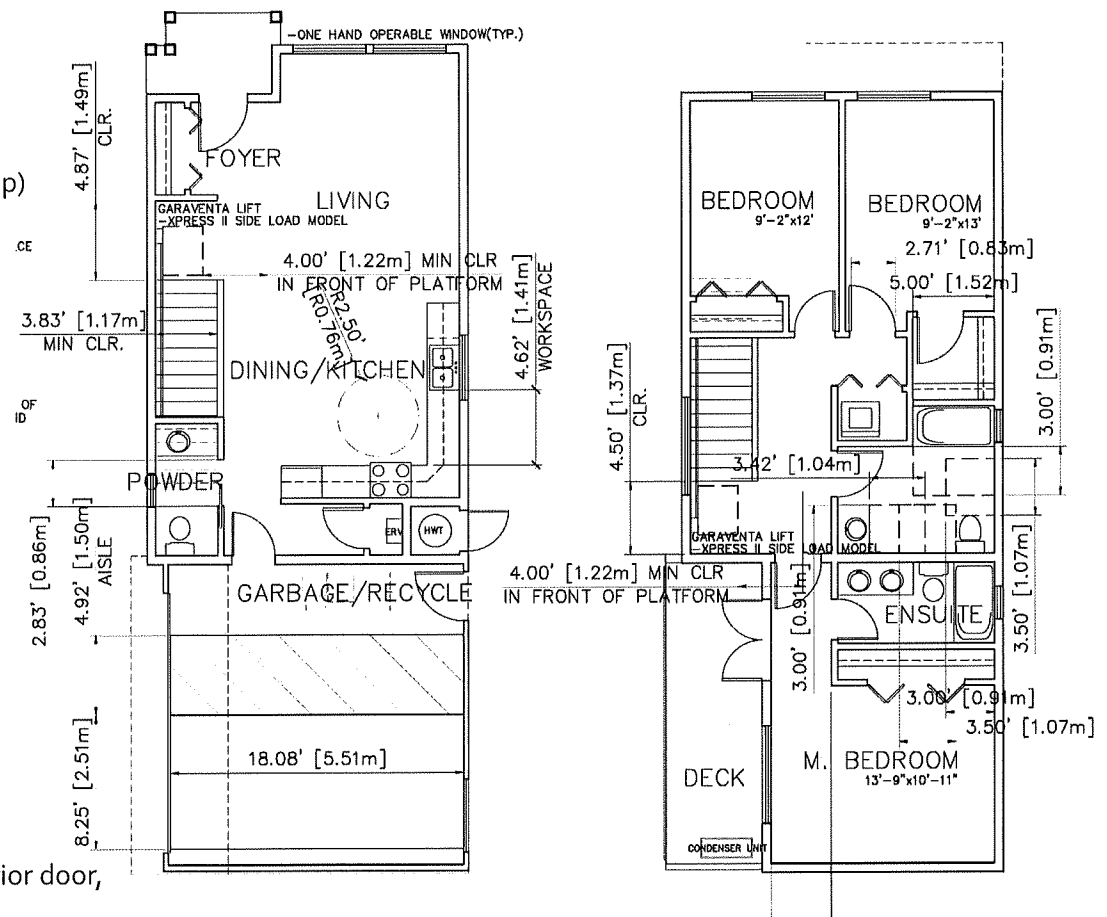
- Plumbing & gas pipes clear of under counter space
- Cabinets easily removed
- 5' turning diameter
- Level-type handles

Windows

- Opened with 1 hand (Min. 1)

Outlets and switches

- Outlets beside window, bottom of stair, beside toilet, above exterior door, in front of kitchen counter
- Within proximity of control center for smart home option
- Upgrades to four-plex outlets in master bed, home office, garage & rec rm



Aging in place

- Stairwell handrails
- Lever-style plumbing faucets & door handles
- Blocking in washroom walls for grab bars

Wayfinding

- All units to be visible and in contrasting colors.
- Site address visible from street & in contrasting colors.

CPTED

(Crime Prevention Through Environmental Design)

Visual surveillance

- Windows adjacent to front and rear yard, shared driveway / courtyard

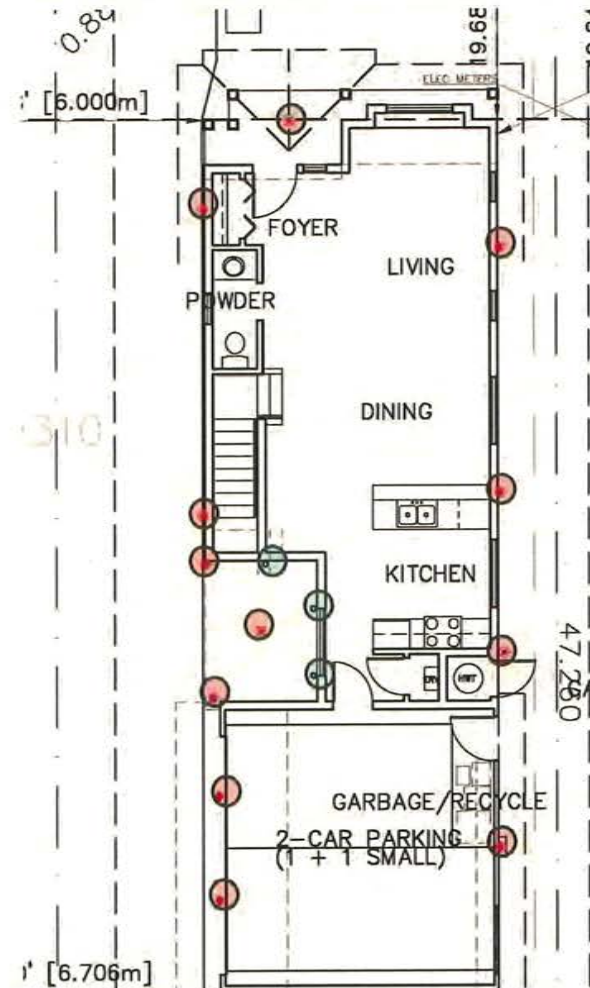
Exterior lights

- Ceiling lights in entry porches / turning niches
- Wall lights along shared driveway / courtyard & exterior walls
- Bollard lights at turning niches

LEGEND:

- WALL MOUNTED LIGHTING
- IN SOFFIT LIGHTING
- ON BOLLARD LIGHTING
- ELECTRICAL PANEL
- CONCRETE BOLLARD

Sample Unit
Lot B front unit



Sustainability

- **Energy Step Code 3 + Zero Carbon EL (Emission Level) 4**
- **Certified Energy Advisor**
Step 5 Solutions
- **Primary Heating**
Air source heat pump for heating and cooling
- **Secondary Heating**
In floor radiant heating with electric boiler
- **Cooling**
Air source heat pump for heating and cooling
- **Ventilation**
HRV 45 CFM (cubic feet / minutes)
- **Domestic Hot water**
Electric storage tank
- **Airtightness**
ACH @50 Pa 2.5 or less
(Air exchange per hour)
- **Windows**
Double glazed
Low-E Argon
U value 1.40 or lower
SHGC 0.40 or higher
(solar heat gain coefficient)
- **Doors**
Fiberglass polystyrene core doors
- **Insulation**
Walls (2X6 @ 16") R-24
Roof (Truss @ 24") R-50
Rim Joists 5" medium density spray foam
Floor over unheated space R-31
Slab R-12 (3" EPS)

Sustainability

Water Conservation

- Dual flush toilets
- Drought tolerant plants

Energy Conservation

- Energy star appliances
- LED lighting
- Programmable thermostats
- Motion sensing light in power rm & master ensuite
- Low E glass windows

All Residential parking space

- 240 – 280V Outlets
- Support Level 2 charging (Min. 12 KWH within 8 hour)

Building materials

- Renewable materials – wood
- Local building materials
- Durable building materials

Waste Reduction

- 3 stream waste bins for construction
- Compost bins in kitchen
- Garbage and recycle bins in garage

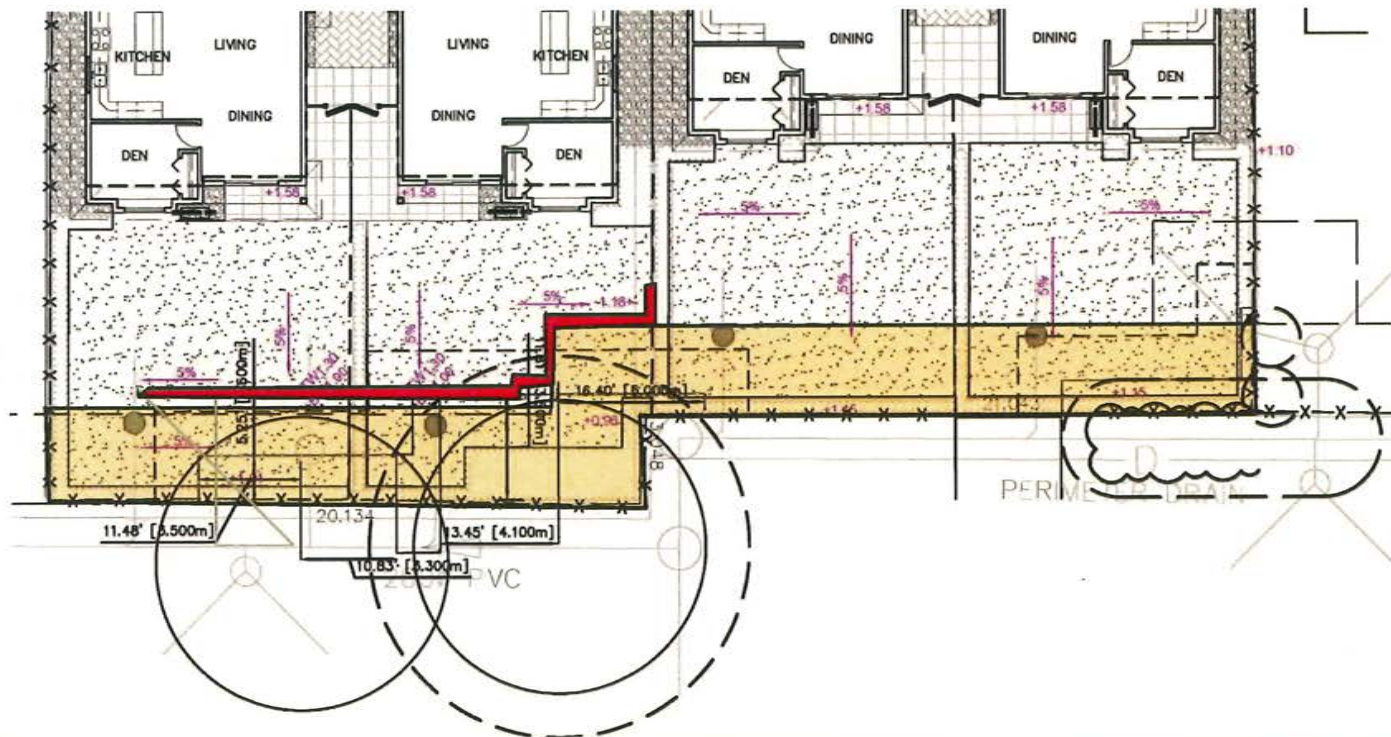
Health and Air quality

- Retain and plant perimeter trees
- LOC paints, adhesives and floorings

Grading

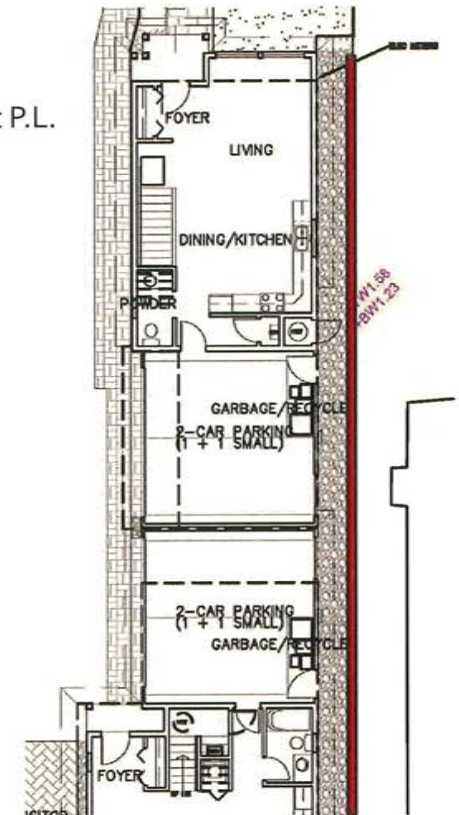
South P.L.

- No change of grade at ROW
- Rear yard slope down 5%
- 0.3 m retaining wall at ROW

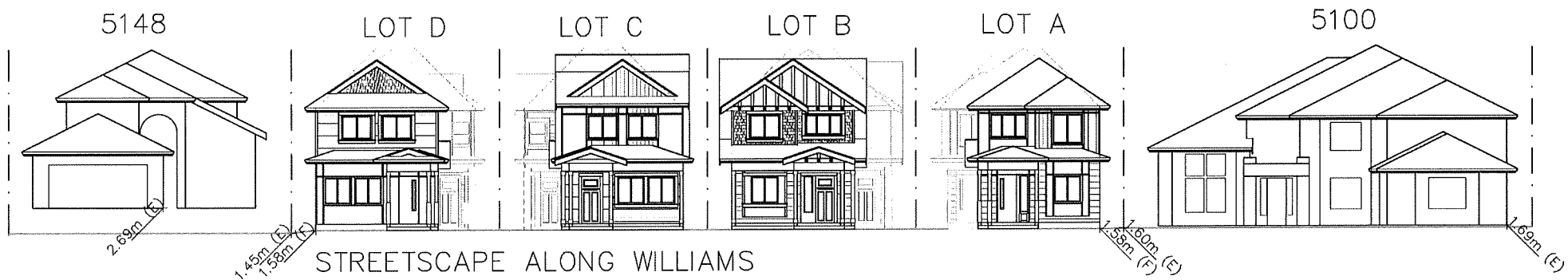


East P.L.

- 0.35m retaining wall at P.L.



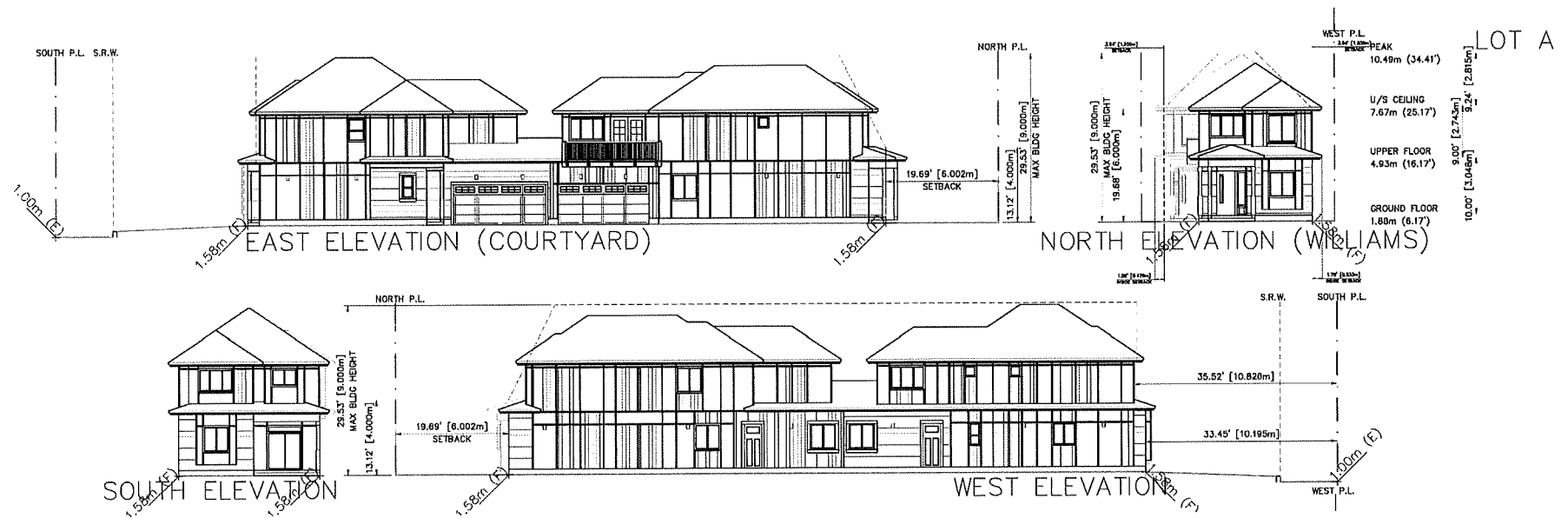
Streetscape along Williams Rd.



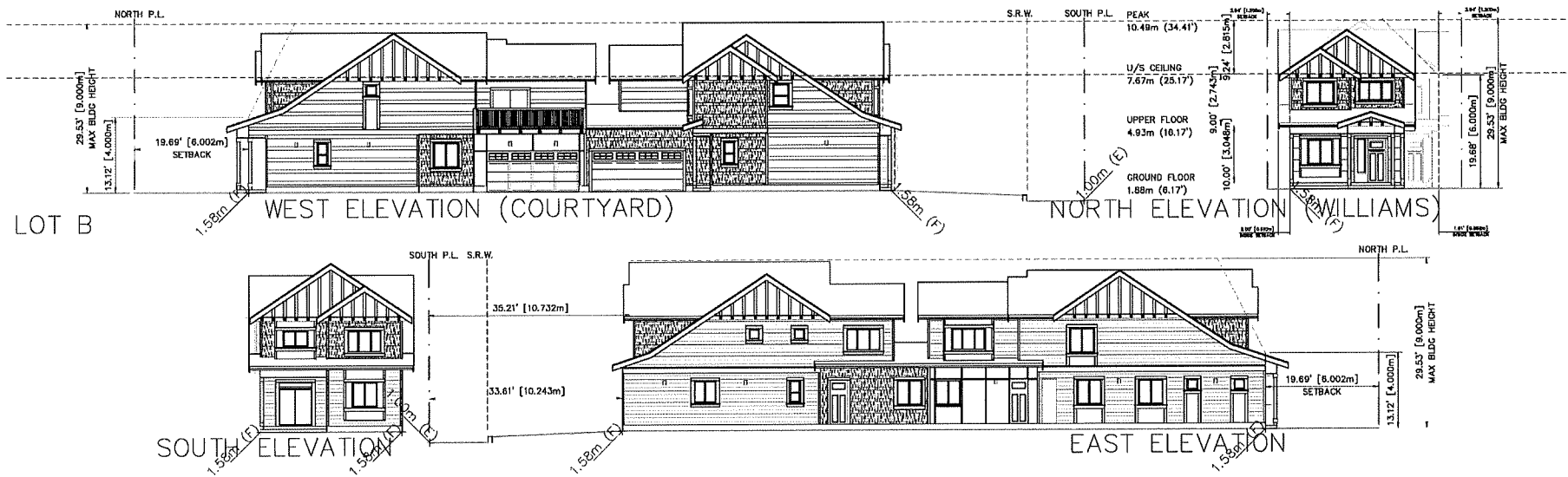
Rear Yard Elevations



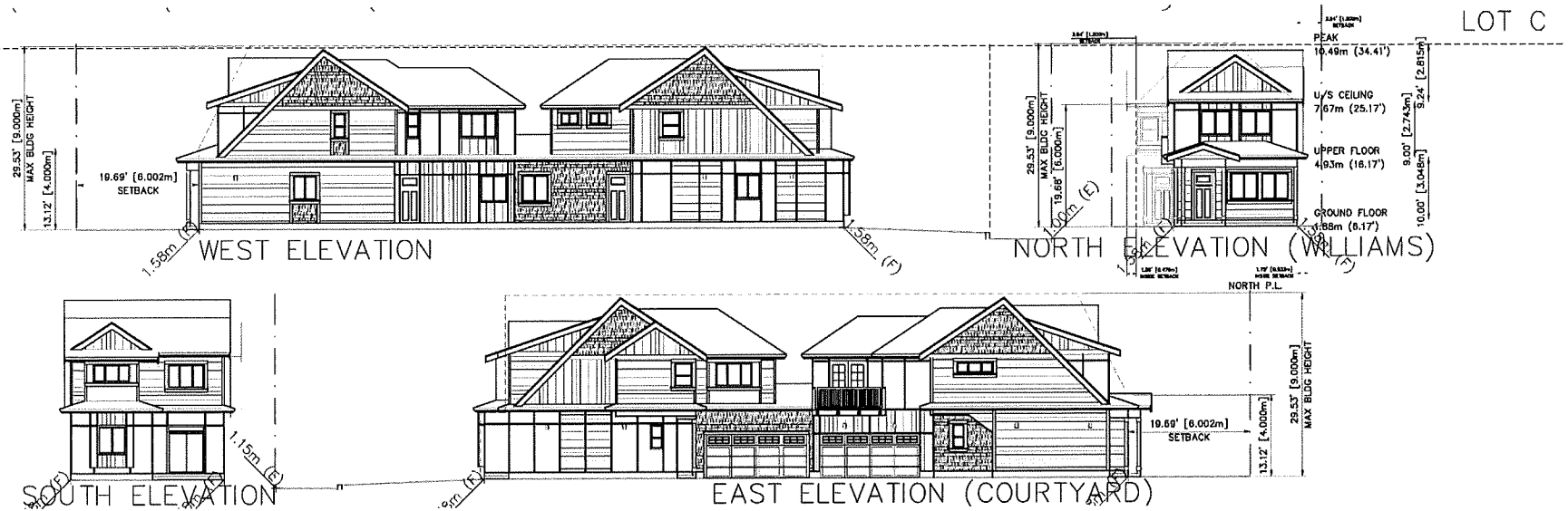
Lot -A Elevations



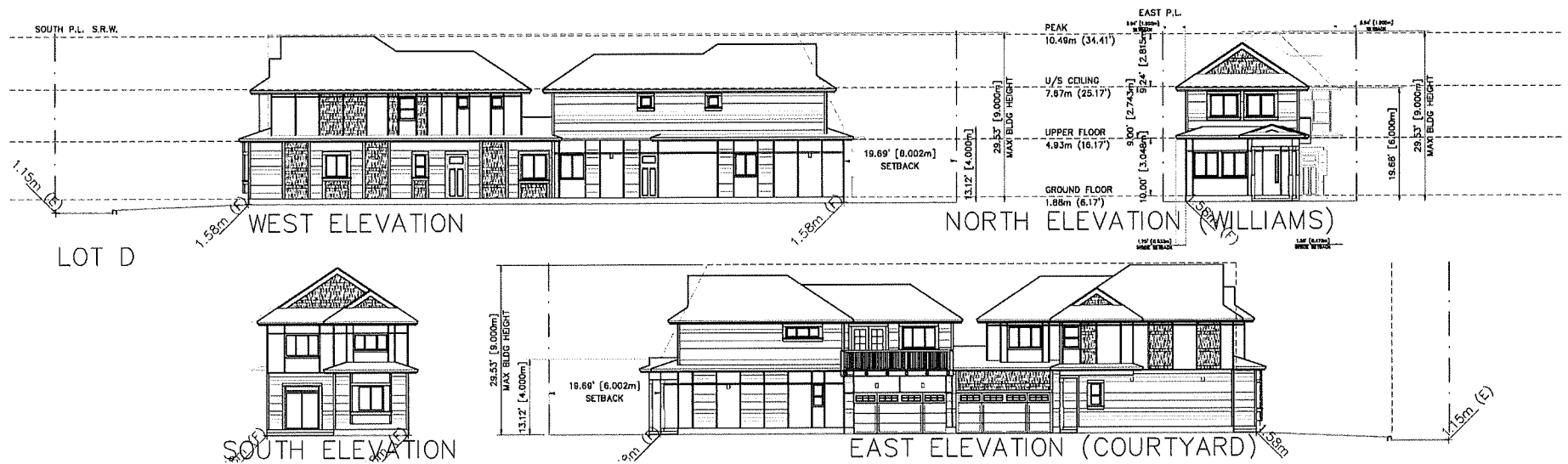
Lot-B Elevations



Lot -C Elevations



Lot -D Elevations



Form & Character



Along Williams Rd

Form & Character



Williams Rd from NW

Form & Character



Williams Rd. from NE

Form & Character



Rear Yard from SE

Form & Character



Rear Yard from SW

Form & Character



Lots A & B Courtyard

Form & Character



Lots C & D Courtyard

Exterior colors and materials – Front units.



MAIN BUILDING

1	HARDIE SHINGLESIDE (AGED PEWTER)	4	VERTICAL LAPSING (PEARL GRAY)	6	HARDIE PANEL (CEDARMILL) (COBBLE STONE)	5	HARDIE PANEL (SMOOTH FACE) (IRON GRAY)
2	HORIZONTAL LAPSING (ARCTIC WHITE)	5	HARDIE PANEL (SMOOTH FACE) (IRON GRAY)	1	HARDIE SHINGLESIDE (AGED PEWTER)	4	VERTICAL LAPSING (PEARL GRAY)
3	T&G HORIZONTAL SIDING (GRAY SLATE)	2	HORIZONTAL LAPSING (ARCTIC WHITE)	2	HORIZONTAL LAPSING (ARCTIC WHITE)	7	T&G HORIZONTAL SIDING (LIGHT MIST)

LOT D

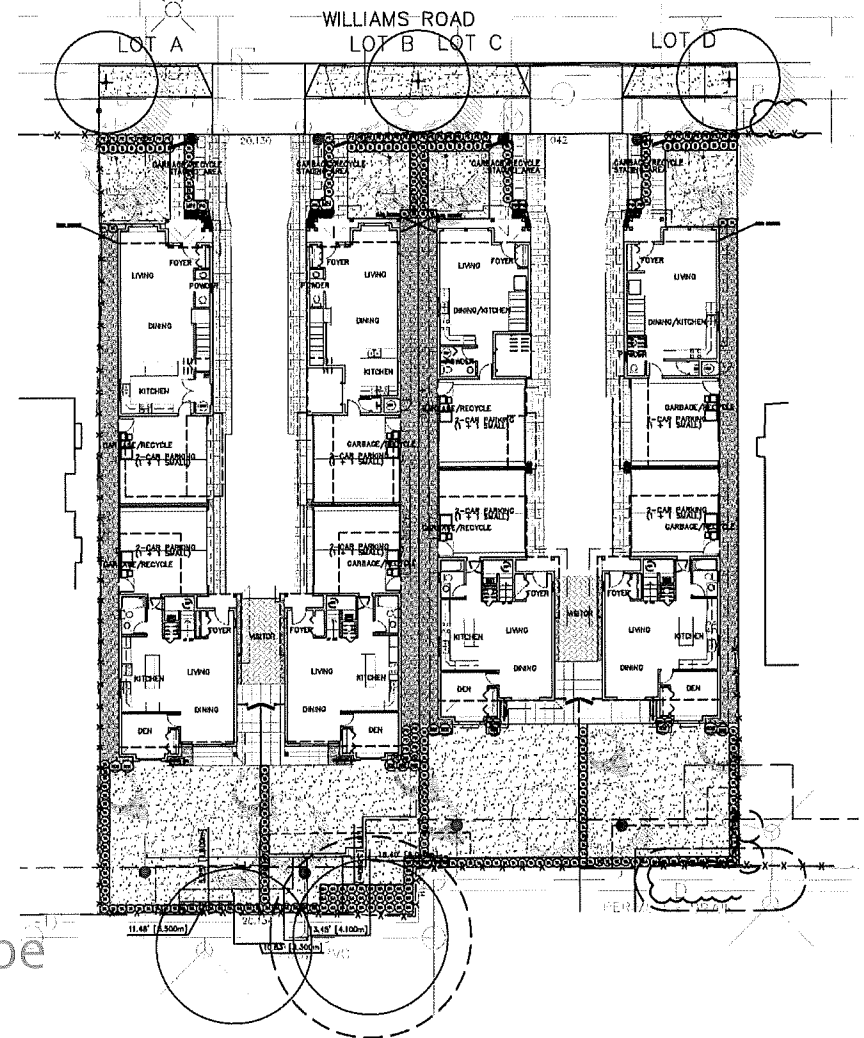
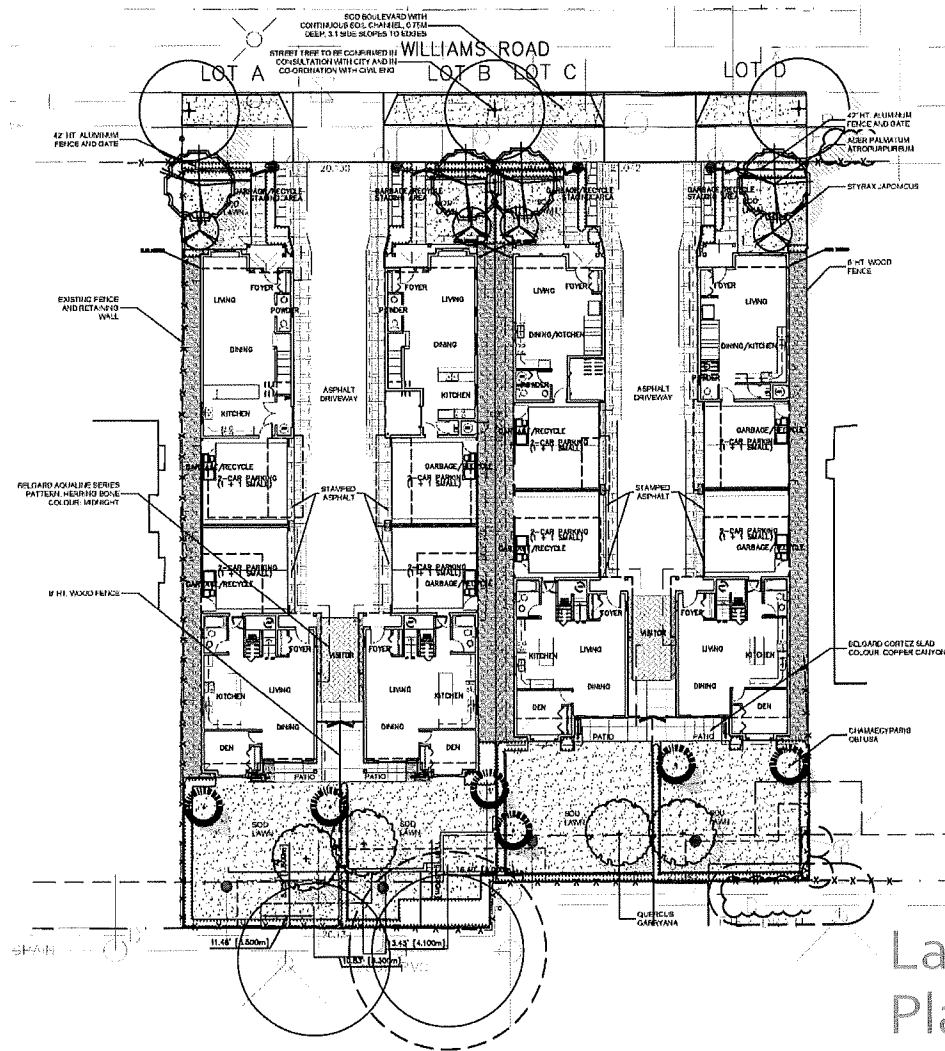
LOT C

LOT B

LOT A

4" WOOD TRIM
(CONTRASTING TO CLADDING)











2" REVEAL
(SAME AS PANEL)



FENCING LEGEND

	6' WOOD FENCE
	42" HT. ALUMINUM FENCE

MATERIAL LEGEND

		BELGARD CORTEZ SLAB COLOUR: COPPER CANYON
		GRAVEL
		BELGARD AQUILINE SERIES PATTERN: RUNNING BOUND COLOUR: NATURAL
		BELGARD AQUILINE SERIES PATTERN: HERRINGBONE COLOUR: MIDNIGHT
		STAMPED ASPHALT

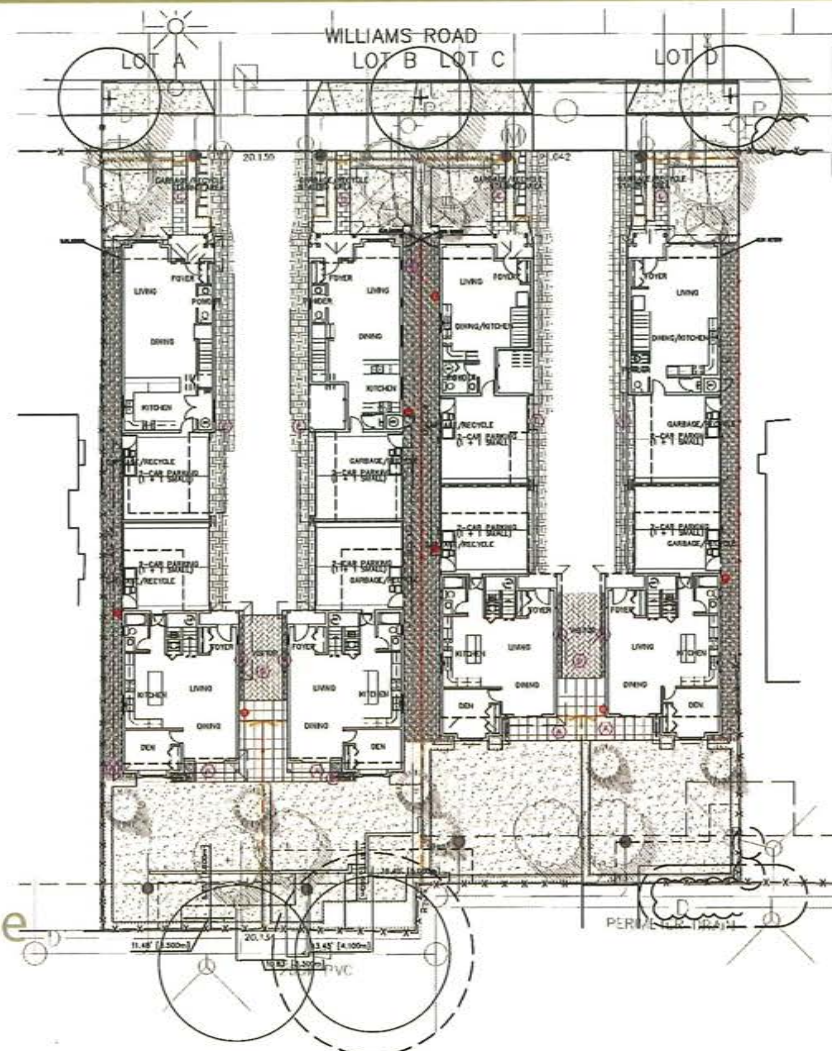
LIGHT LEGEND

	BOLLARD LIGHT, UGMAN; LBX BOLLARD, MATT SILVER DARK SKY CERTIFIED
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NOTE: LIGHTING SPEC/LOCATION
PER ELECTRICAL DWG.



Landscape Plan 2



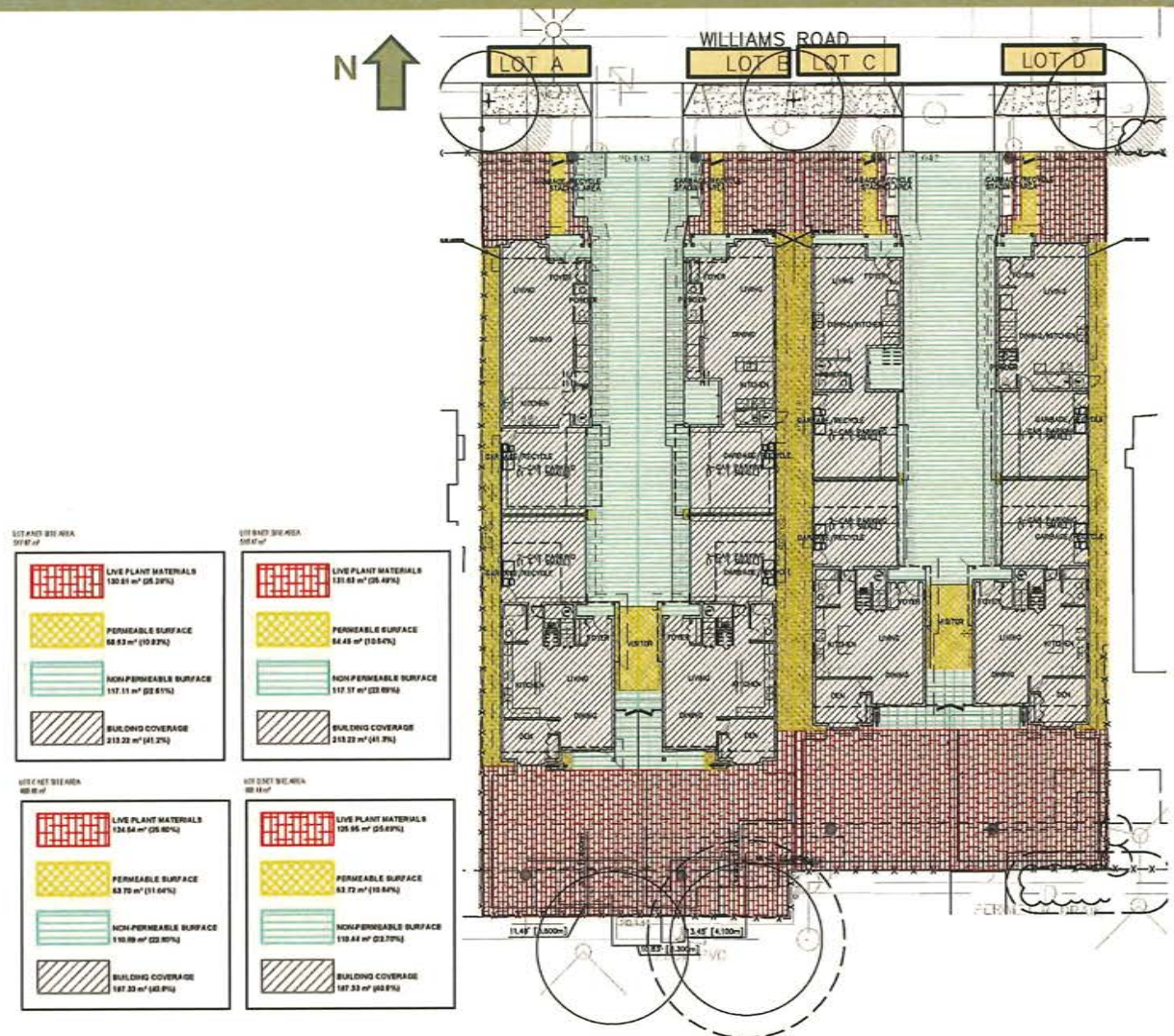
Landscape Plan 3 Lot Coverage

All lots

Coverage < 45%

Bldg. + non-porous < 70%

Live Plant > 25%

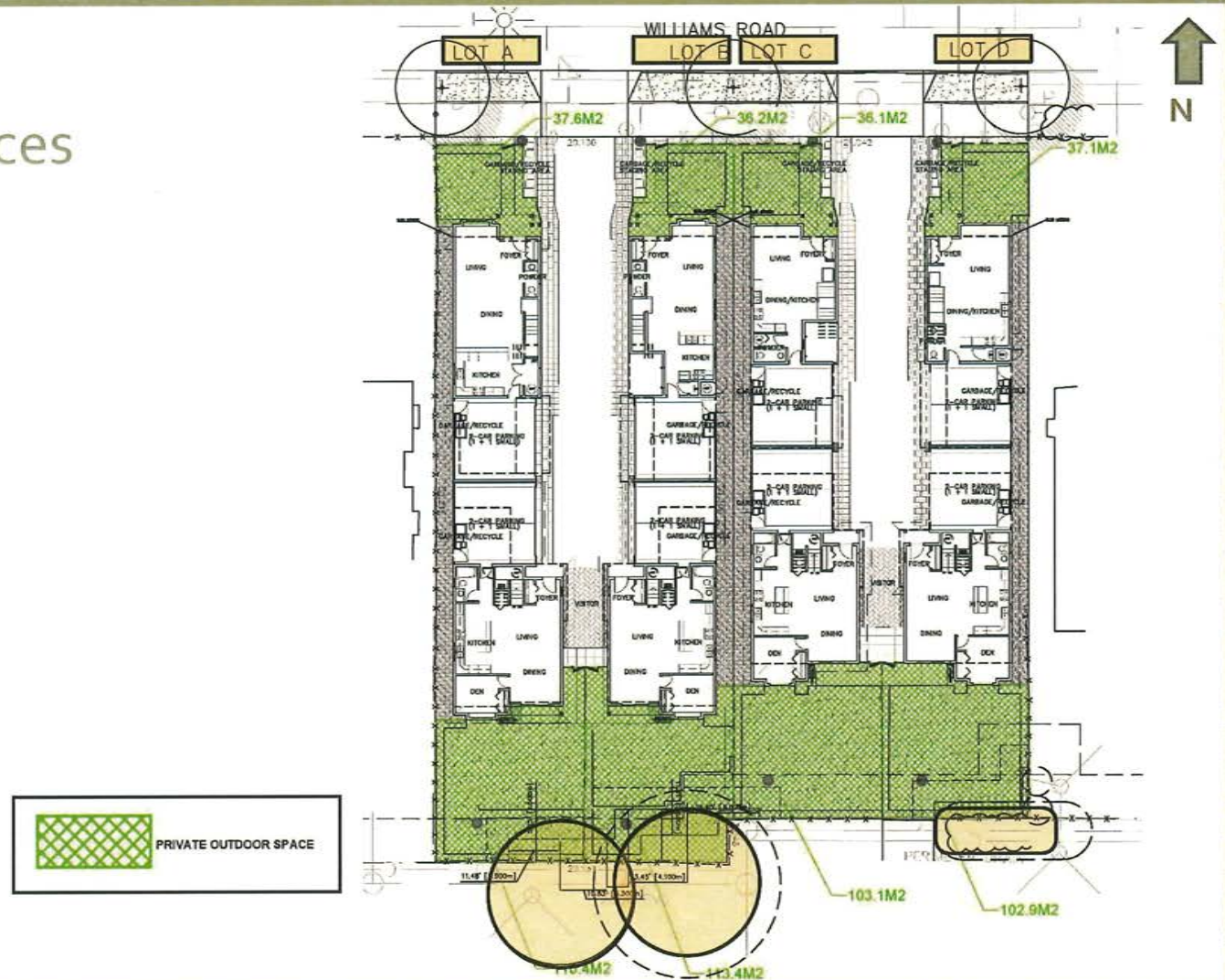


Landscape Plan 4 Private Outdoor spaces

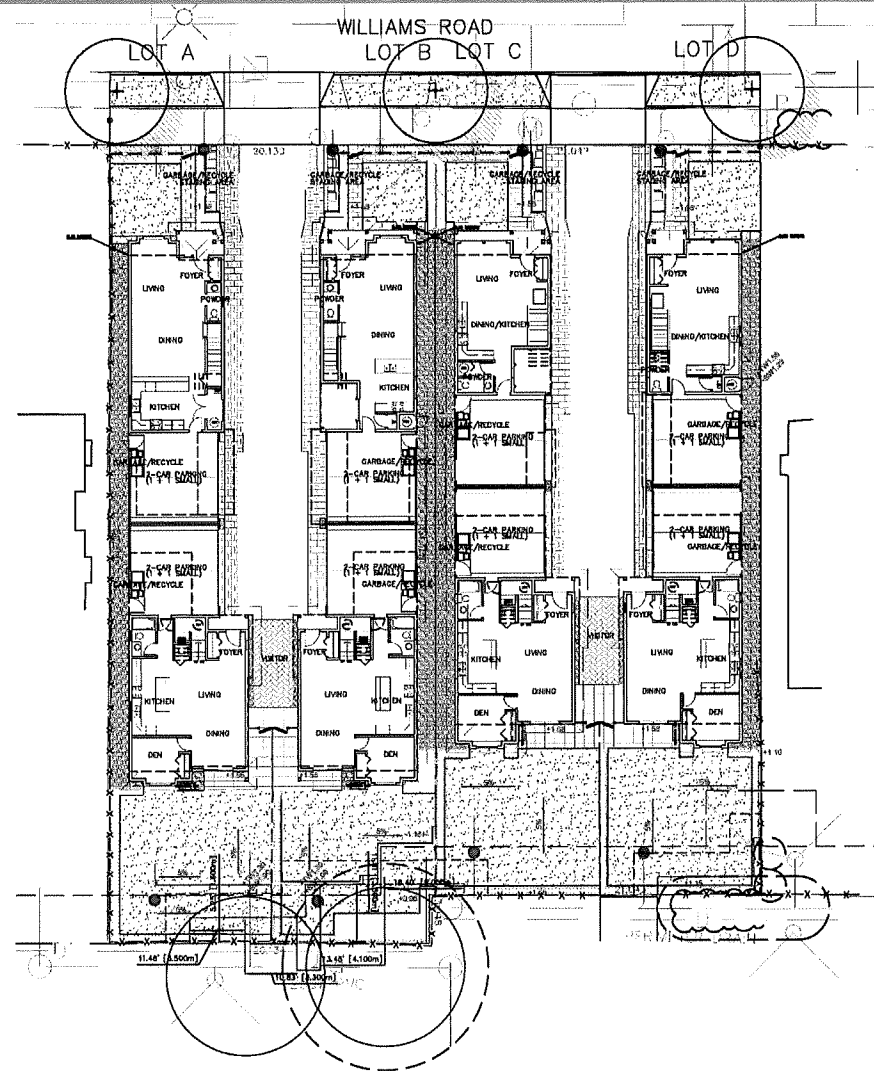
All lots

Front units > 30 sm.

Rear units > 100 sm.



Landscape Plan 5





THANK YOU