





NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD50 93

granted on the 05.03.2015

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Sheet No. 3 of 88

H	16/01/2015	SSDA	AE	AE
G	19/11/2014	SSDA	LF	JF
F	31/10/2014	SSDA	LF	JF
E	26/10/2014	SSDA	KB	KL
D	23/10/2014	SSDA	GH	NB
C	26/05/2014	SSDA	GH	NB
B	26/05/2014	SSDA	GH	NB
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Project no	s11697	
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Plot Date	16/01/2015 1:05:47 PM	
Plot File		
Drawing no.	DA1-003	Revision H

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Client



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North Ryde Station Precinct
M2 Site: State Significant Development,
Urban and Landscape Design
Site Plan



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Drawn	KB	Checked	KL	
Project no	13069			
Status	SSDA			
Plot Date	03/02/2015			
Plot File				
Drawing no	DA 3-001	Revision	E	

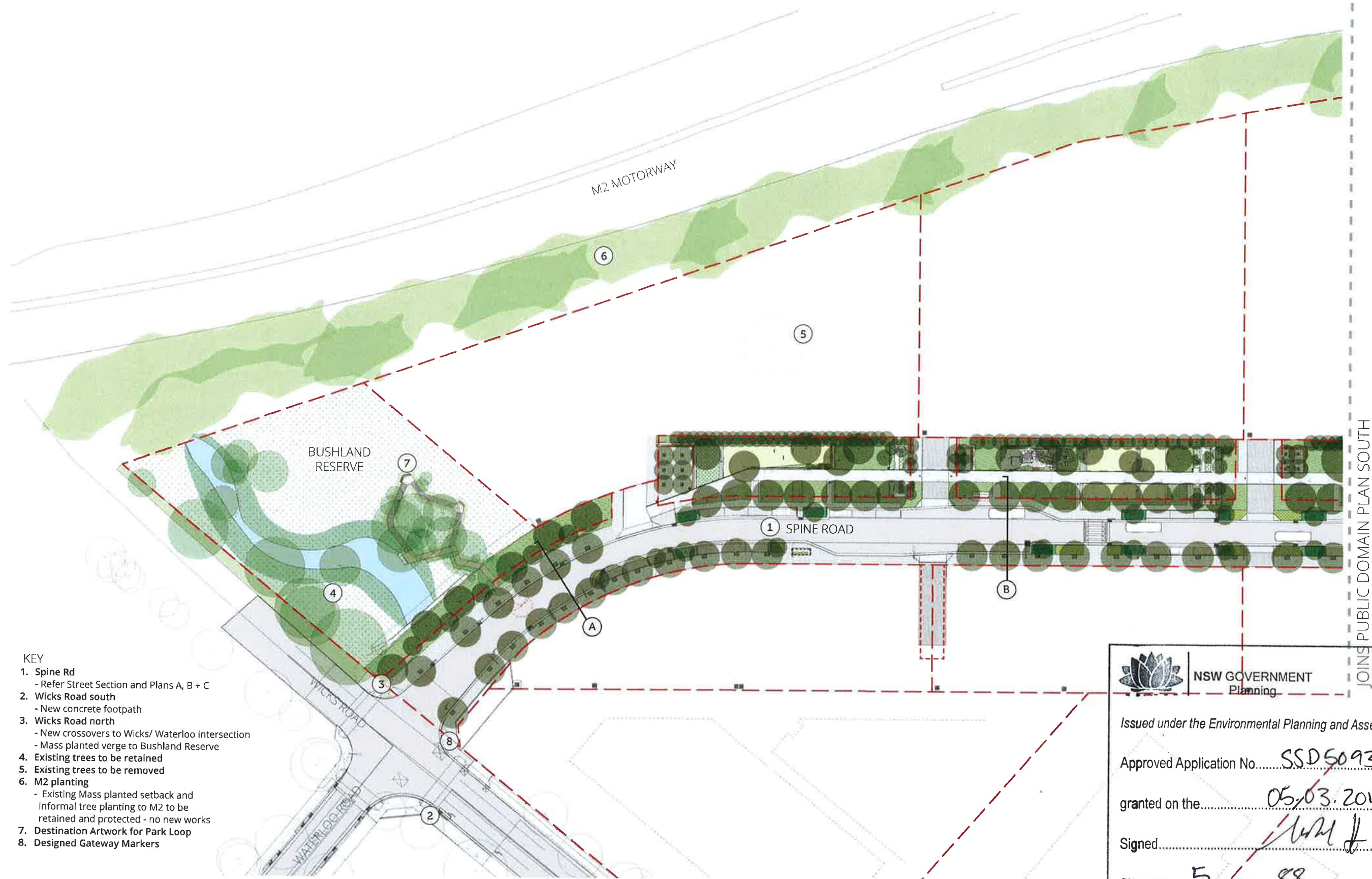
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- KEY**
1. Spine Rd
- Refer Street Section and Plans A, B + C
 2. Wicks Road south
- New concrete footpath
 3. Wicks Road north
- New crossovers to Wicks/ Waterloo intersection
- Mass planted verge to Bushland Reserve
 4. Existing trees to be retained
 5. Existing trees to be removed
 6. M2 planting
- Existing Mass planted setback and informal tree planting to M2 to be retained and protected - no new works
 7. Destination Artwork for Park Loop
 8. Designed Gateway Markers



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Plot File		
Drawing no	DA 3-002	Revision E



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North Ryde Station Precinct
M2 Site: State Significant Development,
Urban and Landscape Design
Public Domain Plan
South

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Status	SSDA	
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Plot File		
Drawing no.	DA 3-003	Revision E

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Street trees and street understory planting

Street Type	Selection Criteria	Location	Botanic Name	Common Name	Estimated Pot Size	Typical Spacing
Street Trees						
Spine Road	Consistent form trees that create a strong avenue, and contribute to improving local habitat.	Street Tree (verge)	<i>Angophora costata</i>	Smooth Barked Apple	200L	8m cts
		Tree in WSUD blister	<i>Glochidion ferdinandii</i>	Cheese Tree	400L	10-16m cts
Park Street	Medium to large scaled trees that create a consistent and uniform avenue.	Street Tree (verge)	<i>Flindersia australis</i>	Crows Ash	200L	8m cts
		Tree in WSUD blister	<i>Waterhousia floribunda</i> 'Green Avenue'	Weeping Lily Pilly	400L	10-16m cts
Plaza Street	Medium to large scaled trees that create a consistent and uniform avenue.	Street Tree	<i>Flindersia australis</i>	Crows Ash	200L	8m cts
Retail Street	Consistent form trees that create a strong avenue, with medium scaled deciduous trees adjacent to pedestrian zones.	Street Tree (verge)	<i>Ulmus parvifolia</i> 'Todd'	Chinese Elm	200L	8m cts
		Tree in WSUD blister	<i>Waterhousia floribunda</i> 'Green Avenue'	Weeping Lily Pilly	400L	10-16m cts
Epping Road	Medium to large scaled trees that create a consistent and uniform avenue.	Street Tree (set-back to boundary)	<i>Lophostemon confertus</i>	Brushbox	400L	8m cts
Mass Planting on verge						
			<i>Liriope muscari</i> 'Just Right'	Just Right Lily Turf	200mm	300mm
			<i>Hibbertia scandens</i>	Snake Vine	200mm	300mm
			<i>Poa labillardieri</i> 'Eskdale'	Tussock Grass	200mm	300mm
			<i>Lomandra longifolia</i> 'Katie Belles'	Mat Rush	200mm	300mm
			<i>Lomandra longifolia</i> 'Tanika'	Fine-leaved Lomandra	200mm	300mm
			<i>Themeda australis</i>	Kangaroo Grass	200mm	300mm
Mass Planting in WSUD tree pits						
			<i>Imperata cylindrica</i>	Blady grass	200mm	300mm
			<i>Ozothamnus diosmifolius</i>	Rice Flower	200mm	300mm
			<i>Dianella carulea</i>	Lax Lily	200mm	300mm
			<i>Poa sieberiana</i>	Grey Tussock Grass	200mm	300mm
			<i>Lomandra filiformis</i>	Giant Rush	200mm	300mm
			<i>Lomandra longifolia</i> 'Katie Belles'	Mat Rush	200mm	300mm

Central Park

Botanic Name	Common Name	Estimated Pot Size	Typical Spacing
New Trees: Central Park			
<i>Cupaniopsis oncardioides</i>	Tuckeroo	400L	As Shown
<i>Lagerstroemia indica</i> 'Natchez'	White Crepe Myrtle	200L	As Shown
<i>Flindersia australis</i>	Crows Ash	400L	As Shown
<i>Eucalyptus punctata</i>	Grey gum	200L	As Shown
<i>Caesalpinia ferrea</i>	Leopard Tree	EX-GROUND	As Shown
<i>Harpulia pendula</i>	Tulip Tree	400L	As Shown
<i>Jacaranda mimosifolia</i>	Jacaranda	EX-GROUND	As Shown
<i>Tristanopsis laurina</i> 'Luscious'	Water gum	400L	As shown
<i>Ficus rubiginosa</i>	Port Jackson Fig	EX-GROUND	As Shown
Low Shrubs, Groundcovers and Climbers			
<i>Anigozanthus</i> 'Gold Velvet'	Regal Velvet Kangaroo Paw	200mm	300mm
<i>Anigozanthus</i> 'Regal Velvet'	Gold Velvet Kangaroo Paw	200mm	300mm
<i>Dietes robinsoniana</i>	Lord Howe Island Lily	200mm	300mm
<i>Doryanthes excelsa</i>	Gynea Lily	200mm	300mm
<i>Doryanthes palmeri</i>	Spear Lily	200mm	300mm
<i>Lomandra longifolia</i> 'Katie Belles'	Mat Rush	200mm	300mm
<i>Lomandra longifolia</i> 'Tanika'	Fine-leaved Lomandra	200mm	300mm
<i>Pennisetum alopecuroides</i>	Swamp Fox Tail	200mm	300mm
<i>Themeda australis</i>	Kangaroo Grass	200mm	300mm
<i>Raphiolepis indica</i> 'Snow Maiden'	Snow Maiden Indian Hawthorn	200mm	300mm
<i>Acacia cognata</i> 'Limelight'	Limelight Acacia	200mm	300mm
<i>Carpobrotus glaucescens</i>	Pigface	200mm	300mm
<i>Westringia fruticosa</i> 'Zena'	Coast Rosemary	200mm	300mm
<i>Poa labillardieri</i> 'Eskdale'	Tussock Grass	200mm	300mm

Community Park

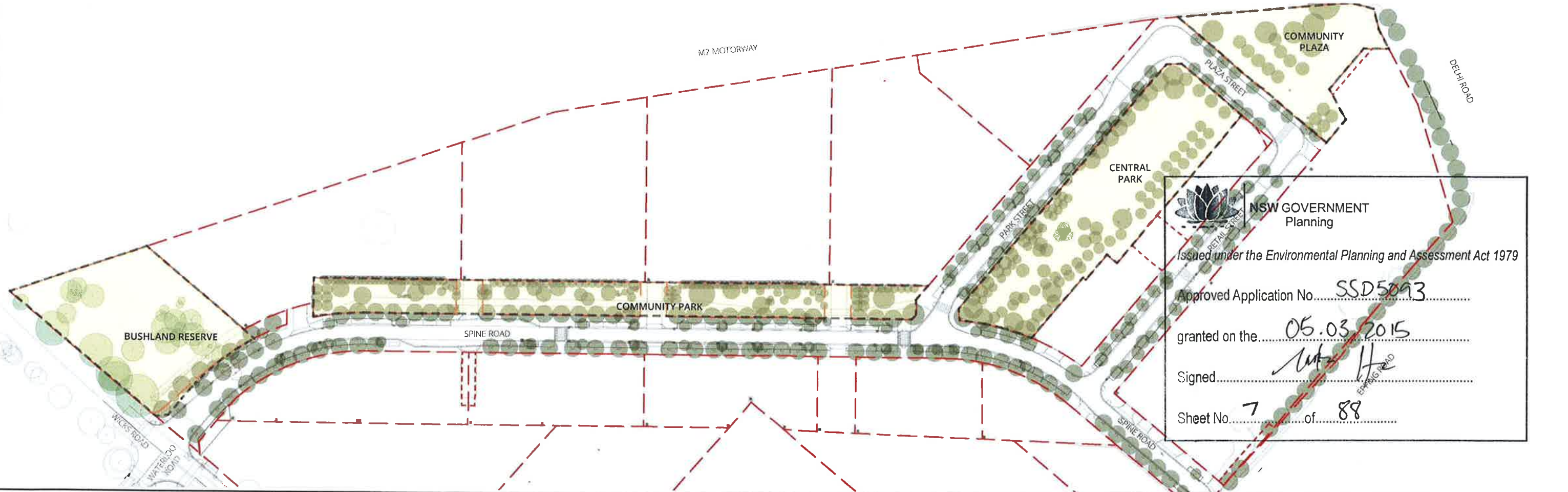
Botanic Name	Common Name	Estimated Pot Size	Typical Spacing
New Trees			
<i>Liriodendron tulipifera</i>	Tulip Tree	400L	As Shown
<i>Lagerstroemia indica</i> 'Natchez'	White Crepe Myrtle	400L	As Shown
<i>Acer buergerianum</i>	Trident maple	400L	As Shown
<i>Backhousia citriodora</i>	Lemon Scented Myrtle	45L	As Shown
<i>Macadamia integrifolia</i>	Macadamia	400L	As Shown
<i>Ficus carica</i>	Fig	45L	As shown
<i>Citrus x limon</i> 'Eureka'	Lemon	100L	As Shown
<i>Citrus sinensis</i>	Orange	EX-GROUND	AS SHOWN
<i>Camellia</i> sp.	Camellia	100L	As Shown
<i>Laurus nobilis</i>	Bay Tree	45L	As Shown
<i>Pyrus ussuriensis</i>	Manchurian Pear	400L	As Shown
<i>Ficus superba</i>	Deciduous fig	EX-GROUND	As shown
<i>Quercus palustris</i>	Pin Oak	400L	As shown
<i>Waterhousia floribunda</i> 'Sweeper'	Weeping Lily Pilly	45L	As shown
<i>Flindersia australis</i>	Yellow-wood	400L	As shown
Low Shrubs, Groundcovers and Climbers			
<i>Anigozanthus</i> 'Regal Velvet'	Regal Velvet Kangaroo Paw	200mm	300mm
<i>Anigozanthus</i> 'Amber Velvet'	Gold Velvet Kangaroo Paw	200mm	300mm
<i>Dietes robinsoniana</i>	Lord Howe Island Lily	200mm	300mm
<i>Lomandra longifolia</i> 'Tanika'	Tanika Mat Rush	200mm	300mm
<i>Helichrysum petiolare</i>	Liquice Plant	200mm	300mm
<i>Pennisetum alopecuroides</i>	Swamp Fox Tail	200mm	300mm
<i>Hebe</i> 'Emerald Green'	Hebe emerald Green	200mm	300mm
<i>Scaevola</i> 'Purple Fanfare'	Fan Flower	200mm	300mm
<i>Pachysandra terminalis</i>	Japanese spurge	200mm	300mm
<i>Viola hederacea</i>	Native violet	200mm	300mm
<i>Liriope</i> 'Just right'	Just right Liriope	200mm	300mm
<i>Westringia fruticosa</i> 'Smokey'	Coast Rosemary	200mm	300mm
<i>Rosmarinus officinalis</i>	Rosemary	25L	500mm

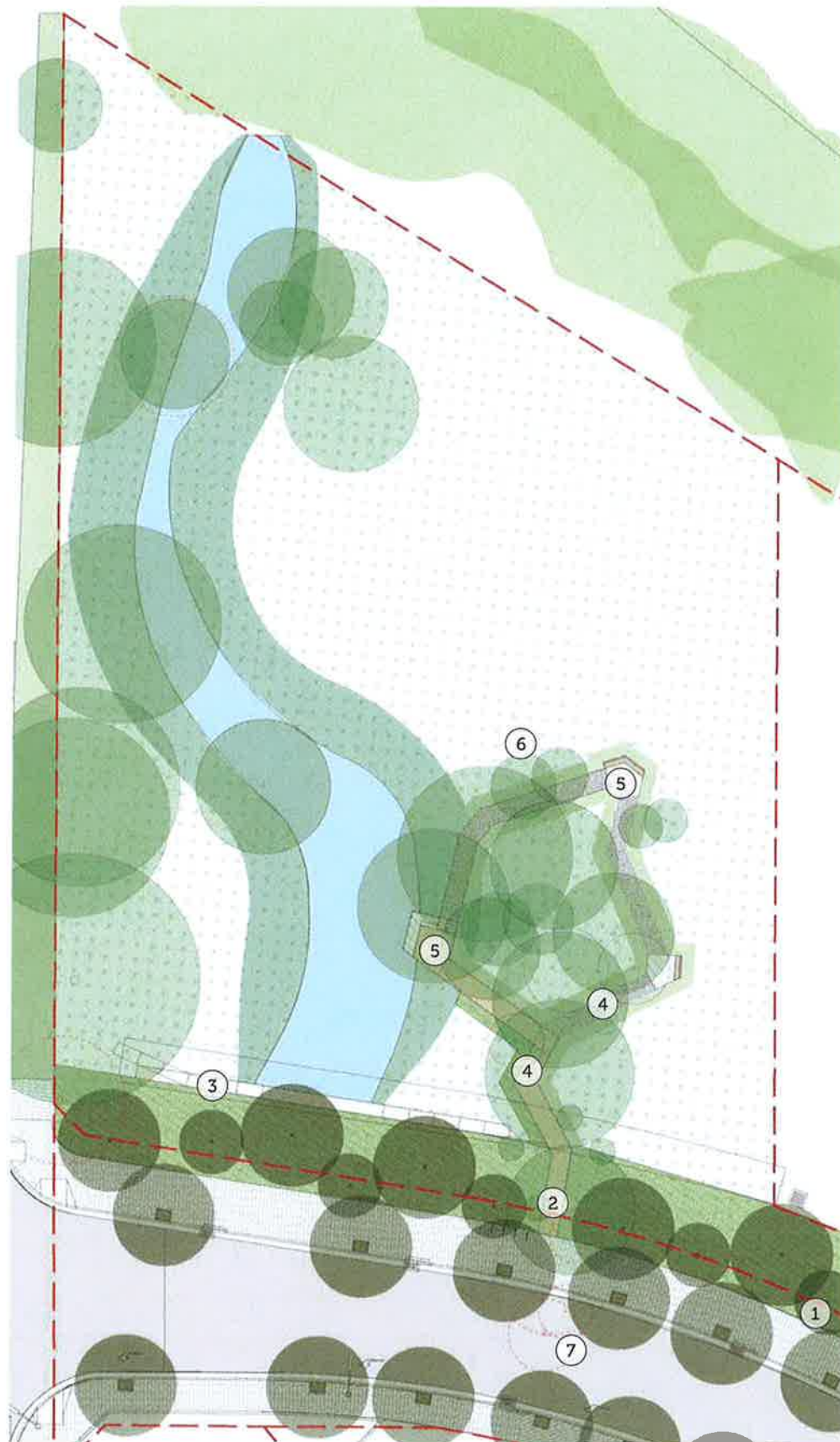
Bushland Reserve

In accordance with Council's bush regeneration strategies and the Vegetation Management Plan (Eco Logical Australia)
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Community Plaza

Botanic Name	Common Name	Estimated Pot Size	Typical Spacing
New Trees			
<i>Ficus macrophylla</i>	Moreton bay Fig	100L	As Shown
<i>Ulmus parvifolia</i> 'Todd'	Chinese elm	200L	As Shown
<i>Caesalpinia ferrea</i>	Leopard Tree	EX-GROUND	As Shown
Low Shrubs, Groundcovers and Climbers			
<i>Anigozanthus</i> 'Amber Velvet'	Regal Velvet Kangaroo Paw	200mm	300mm
<i>Callistemon</i> 'Green John'	Green John Callistemon	200mm	300mm
<i>Dianella tasmanica</i> 'Emerald Arch'	Emerald Arch Dianella	200mm	300mm
<i>Hardenbergia violacea</i>	Purple coral pea	200mm	300mm
<i>Lomandra</i> 'Wingarra'	Wingarra Lomandra	200mm	300mm
<i>Pachysandra terminalis</i>	Japanses Pachysandra	200mm	300mm
<i>Hibbertia scandens</i>	Guinea Flower	200mm	300mm
<i>Pennisetum alopecuroides</i>	Fountain Grass	200mm	300mm
<i>Carpobrotus glaucescens</i>	Pigface	200mm	300mm





KEY

1. **Community Park/ Bushland Reserve connection**
 - A continuous band of planting stretches between the Community Park and the Bushland Reserve
 - 4m wide shared footpath/ cycle path continues adjacent to kerb to northern section of Spine Road
2. **1500 mm wide timber deck entry to Bushland Reserve**
 - Signage and interpretative information
 - Bike racks
3. **Sandstone Retaining Wall**
 - Retaining wall to creek; refer civil drawings
 - New planting and balustrade to street level
4. **Timber & Fiberglass mesh elevated timber boardwalk**
 - 1.5 m wide timber or fibreglass mesh boardwalk allows access through the Bushland Reserve
 - 1:21 grade max. provides equal access
 - Careful siting ensures protection of significant vegetation communities
 - Seating and interpretation/ signage integrated to boardwalk at regular intervals
5. **Small gathering space**
 - Elevated timber deck with seating edges and interpretative information provides opportunity for small groups/ classes to gather
 - Opportunity for environmental interpretation to be integrated into balustrades
6. **Bush Regeneration**
 - Bush regeneration to be undertaken to improve the quality of vegetation and water within the Reserve. Refer to Vegetation Management Plan, Eco Logical Australia
7. **Existing trees to be removed**



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Improved Application No. SSD5093

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Client



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North Ryde Station Precinct
M2 Site: State Significant Development,
Urban and Landscape Design
Key Public Space Plan:
Bushland Reserve



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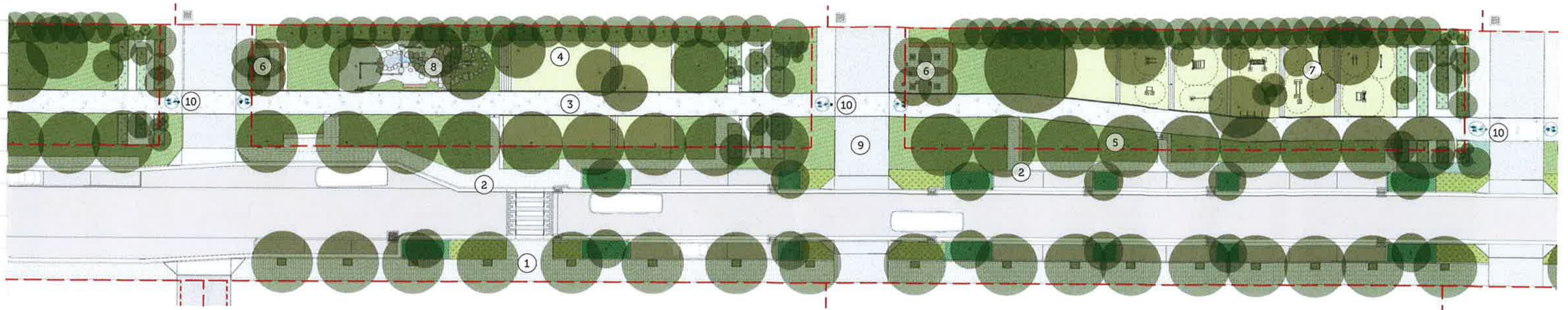
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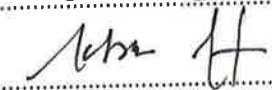


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Sheet No 9 of 88.....

KEY

1. Spine Road

- Large format granite paved footpath
- Street trees, *Glochidion ferdinandii* in WSUD tree pits within parking lane. Refer Street Tree Master Plan
- Street trees, *Angophora costata*, at 8m cts along footpath Refer Street Tree Master Plan

2. Verge

- No continuous footpath adjacent to kerb on eastern side of Spine Rd.
- Main path of travel is via path within park
- Paved sections to allow access from car parking bays to park only.

3. Shared Path

- 3m wide shared pedestrian/ cycle path moves through centre of park
- In situ concrete path with exposed aggregate finish and decorative saw cuts

4. Terraced landscape spaces

- Terraced landscape rooms step along the length of the park
- Terraces are utilised as seating edges and steps within the park to define garden, play, gathering and exercise zones.

5. Garden. Refer Planting Strategy

- Mass planted zones of native and exotic plant specimens form a continuous garden setting in the park
- Garden areas include edible gardens of herbs and fruit trees in groves (responding to the site's long agricultural and market garden history)
- Potential for WSUD bioswales to be incorporated into landscape if required (currently, the tree pits on streetscape are adequate in treating site overland flows)

6. Gathering

- Opportunity for small to medium groups to gather are provided at each Mews Road
- Open areas of pavement under grove of trees form small plazas with seating
- Open turf areas provide opportunity for respite
- Carefully located seats provide opportunity for sitting within a garden setting, or elevated positions to 'people-watch'

7. Exercise

- An exercise 'room' is provided within the park
- Equipment such as bars, steps and beams are integrated into the park terraces
- Bicycle infrastructure is provided at key points along the linear park

8. Play

- Small, informal nature play
- Play space is located away from roads
- Sandstone boulders, balancing beams & creek bed provide opportunities for play in garden setting

9. Driveway entries

- In situ concrete shared path extends as a flush treatment across driveway entry
- Driveway paved in small format concrete unit pavers

10. Bollards

- Bollards to slow cyclists
- Shared path linemarking

Client



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North Ryde Station Precinct
M2 Site: State Significant Development,
Urban and Landscape Design
Key Public Space Plan:
Community Park



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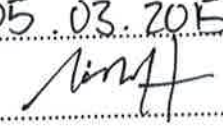
- KEY**
- Park entry**
 - Custom granite paved surface treatment
 - Grove *Ulmus parvifolia* 'Todd' tree planting
 - Active retail edge**
 - 6m wide pedestrian promenade
 - Retail spill-out zone
 - Public seating views over open turf area
 - Avenue tree planting *Lagerstromia*
 - Tree avenue**
 - Trees, *Lagerstromia*, in decomposed granite surface
 - Public seating for gathering of small groups
 - Open turf area**
 - Wide open turf area for informal games/ events
 - Passive edge under shade**
 - Grove tree planting *Eucalyptus punctuata*
 - Seating within planting and deck area
 - Stage**
 - Raised timber deck for stage events/ informal uses
 - Power connection and lighting provided
 - Canopy over.
 - Mass planted buffer**
 - Grove tree planting, *Tristanopsis laurina* 'Luscious', *Caesalpinia ferrea*, *Jacaranda mimosifolia*
 - Mass planting with informal grove tree planting privacy buffer to residential building lot. Refer planting strategy.
 - Seating edge to raised planter
 - Granite paved footpath connection to Community Park**
 - BBQ/ gathering zone**
 - Paved and decomposed granite surface
 - Picnic tables and BBQ's
 - Canopy over.
 - Play space**
 - Children's play area for all ages
 - Climbing structures, water, swings incorporated into mounded landforms
 - Seating areas for parents/ carers
 - Grove tree planting for shade including *Cupaniopsis anarcarioides*, *Harpulia pendula*, *Banksia integrifolia* and *Flindersia australis*.
 - Skate park**
 - Skate area for beginners/children
 - Garden edge**
 - Mass planting under grove tree planting including *Cupaniopsis anarcarioides* and *Harpulia pendula*.
 - Public Art opportunity**
 - Public and Sydney Buses toilets**
 - Integrated WSUD in garden bed**

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North Ryde Station Precinct
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Urban and Landscape Design
Key Public Space Plan:
Central Park

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KEY

- 1. New pedestrian and cycle bridge**
 - Mass planted garden, with feature tree planting of *Ficus macrophylla*, *Ulmus parvifolia* 'Todd' and *Caesalpinia ferrea*
 - Public lighting incorporated into garden and bridge structure
- 2. Public Plaza**
 - Custom granite paved plaza
 - Open plaza environment for flexible use
 - Grove deciduous tree planting of *Ulmus* 'Todd' in grated (traffic-able) tree pits (refer Planting Strategy)
 - Custom timber plaza seating
- 3. Active retail edge**
 - Retail spill-out zone
- 4. Public Art opportunities**
- 5. Bus stop**
 - Bus shelter to CoR guidelines
- 6. Shared Pedestrian / Cycle path**
 - delineated within plaza area through small stainless steel buttons
 - Cycle infrastructure/ bike racks located in plaza
- 7. Delhi Road Streetscape upgrade**
 - Existing path to be retained
 - Mass planted setback to boundary with new street tree planting of *Lophostemon confertus*
 - Pedestrian link to Delhi Road
- 8. Existing trees to be retained**
- 9. M2 planting**
 - Existing Mass planted setback and informal tree planting to M2 to be retained and protected - no new work
- 10. Retaining wall**
 - Refer Engineering drawings
- 11. Cycle Rail**
 - A Cycle rail will be incorporated into the stair so that push bikes can be pushed up or down the stair.



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North Ryde Station Precinct
M2 Site: State Significant Development,
Urban and Landscape Design
Key Public Space Plan :
Community Plaza

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Project no	13089	
SSDA		
Not Date	03/02/2015	
Not File		
Drawing no	DA 4-004	Revision E

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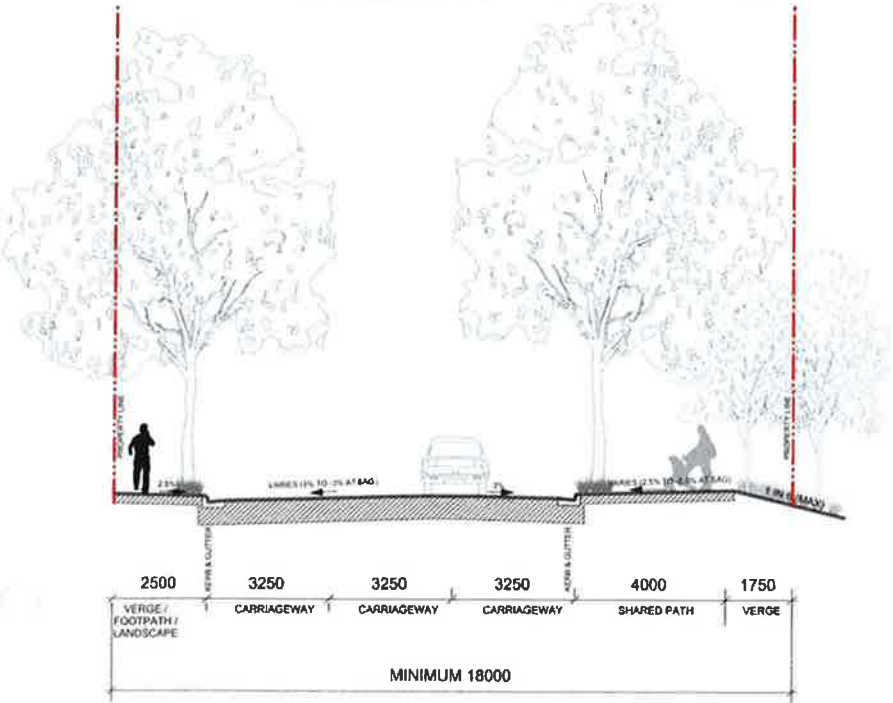
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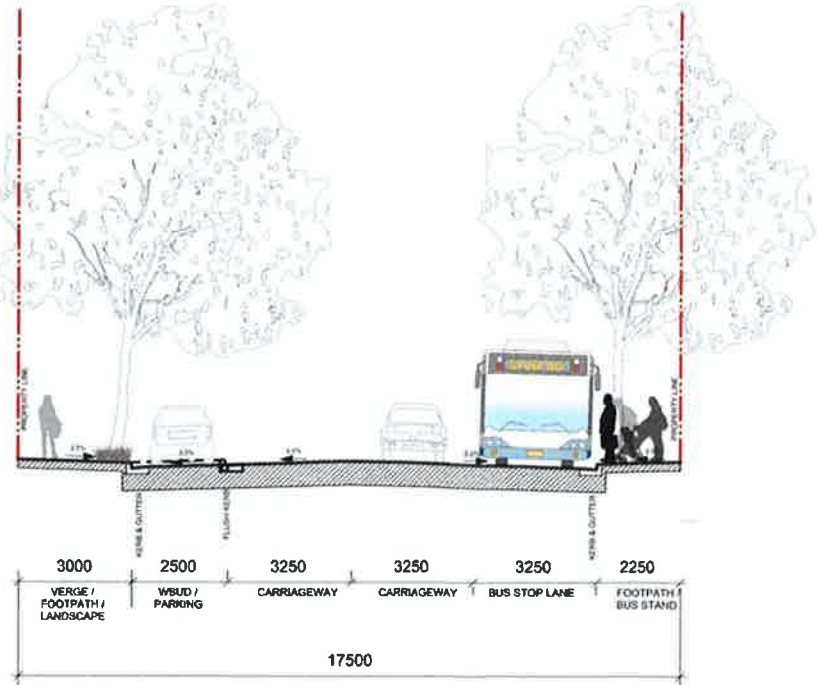
SECTION A: SPINE ROAD

Northern portion (adjacent to Bushland Reserve)



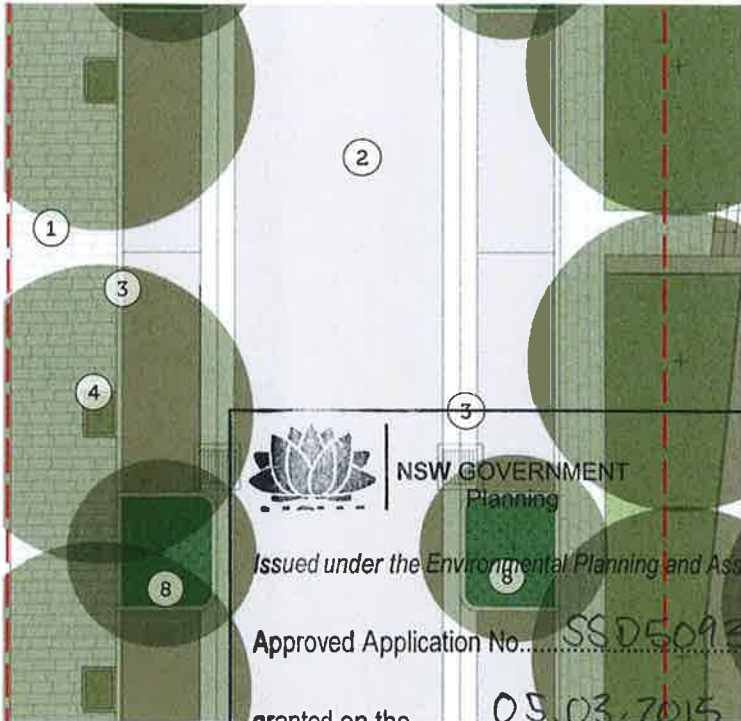
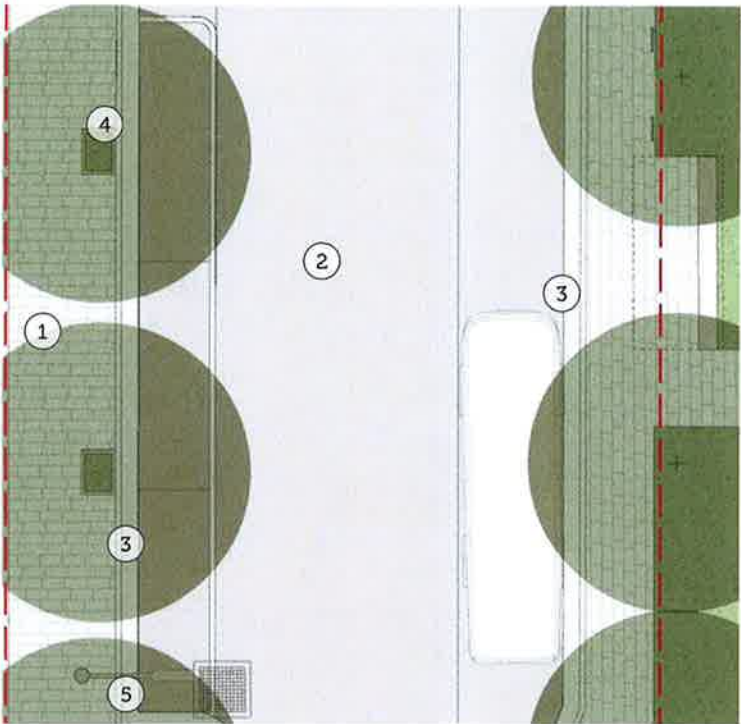
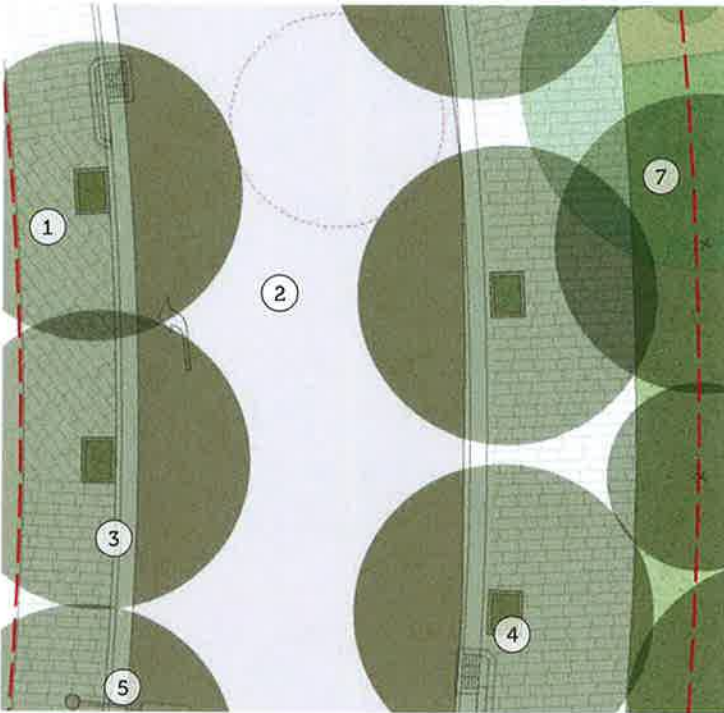
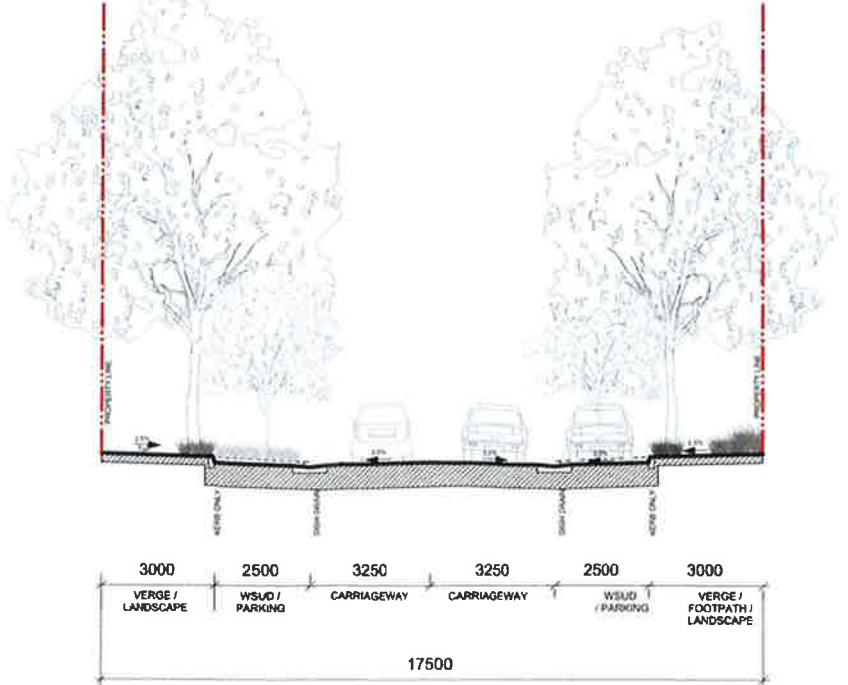
SECTION B: SPINE ROAD

Adjacent bus stop



SECTION C: SPINE ROAD

'Typical condition'



1. Footpath paved in large format dark grey granite pavers (in accordance with CoR Public Domain Manual)
2. Asphalt carriageway.
3. Raised kerb and gutter.
4. Street tree planting in mass planted tree pits on verge. Refer Street Tree Master Plan
5. Street Lighting - refer to electrical engineer's details for locations and light type
6. Shared cycle/ pedestrian path to northern end of Spine Road. 4m wide, paved in large format dark grey granite pavers (in accordance with CoR Public Domain Manual)
7. Planted verge to eastern edge of Spine Road
8. WSUD tree pits with mass planting and canopy. Refer to Street Tree Master Plan



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granted on the 09.03.2015

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Sheet No. 12 of 88

Client



E	02.02.2016	SSDA	KB	KL
D	27.10.2014	SSDA	KB	KL
C	26.05.2014	SSDA	GH	NB
B	26.05.2014	SSDA	GH	NB
A	18.05.2014	SSDA DRAFT	OH	NB
Revision	Date	Description	Initial	Checked

North Ryde Station Precinct
M2 Site: State Significant Development,
Urban and Landscape Design
Street Typologies

On site scale drawings - refer to figure dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.
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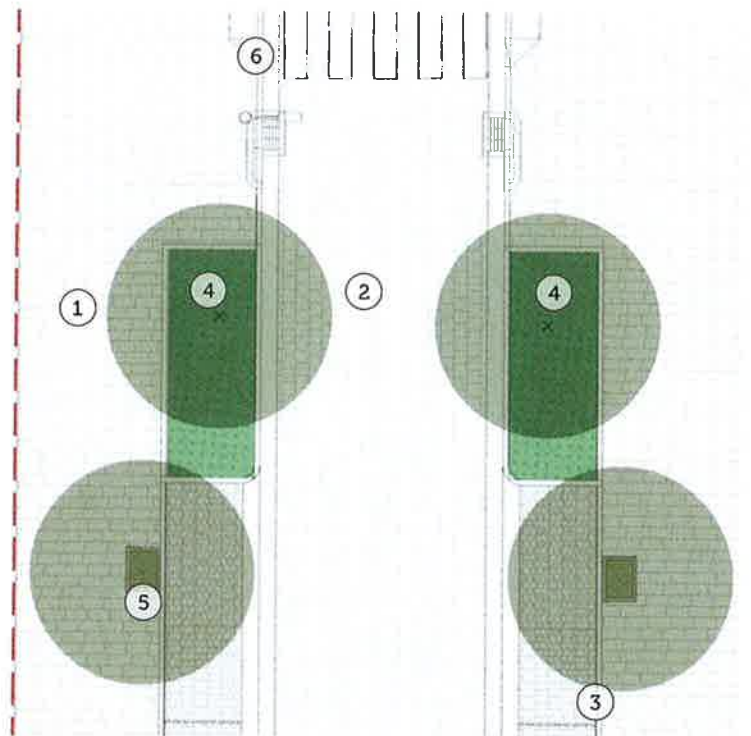
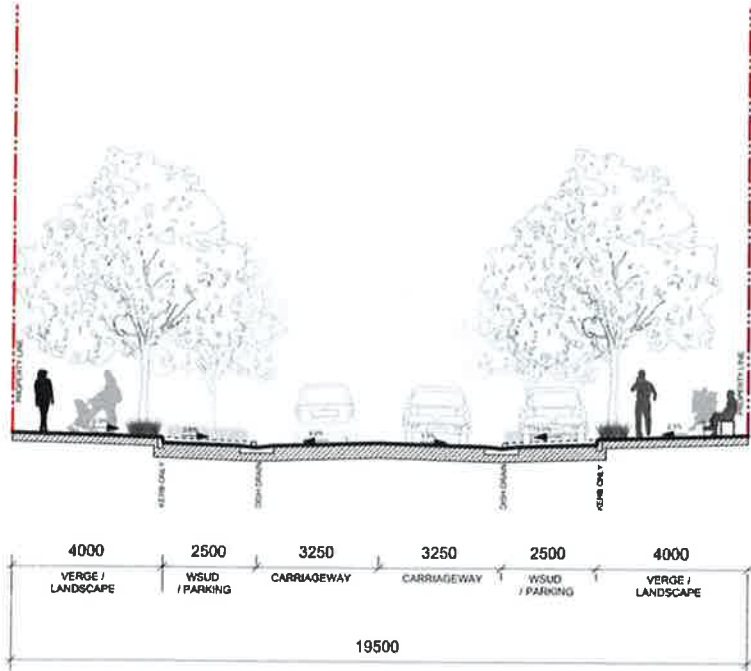
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Project no	13089	
Status	SSDA	
Plot Date	03/02/2015	
Plot File		
Drawing no	DA 5-001	Revision E

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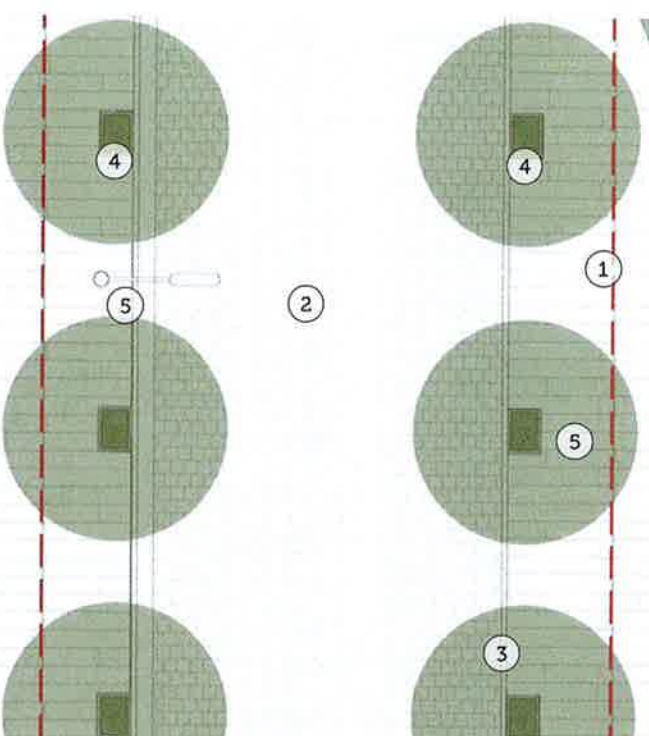
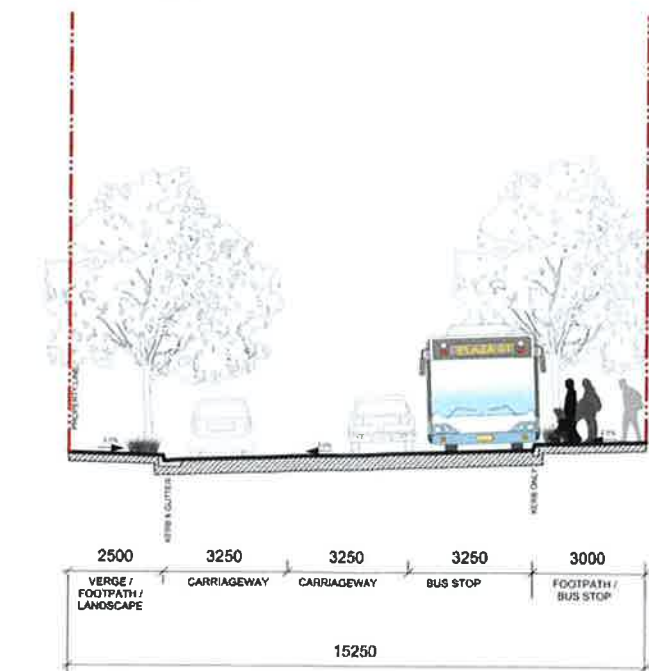
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SECTION D: RETAIL STREET



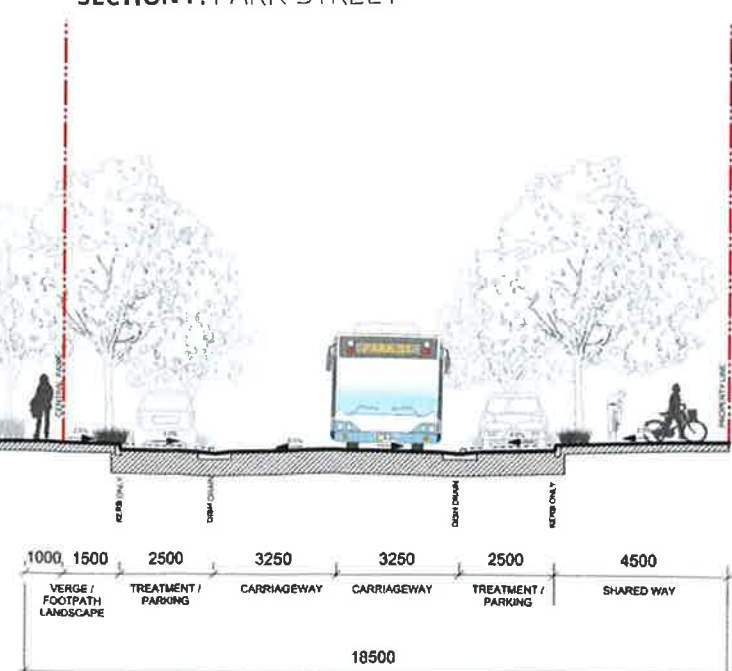
1. Footpath paved in large format dark grey granite pavers (in accordance with CoR Public Domain Manual)
2. Carriageway paved in small format granite pavers (matching larger granite footpath paver type) as a continuation of the footpath treatment indicating a 'slow speed' environment
3. Raised kerb and gutter
4. WSUD tree pits with mass planting an canopy trees. Refer Street Tree Master Plan
5. Street tree planting in pits. Refer Street Tree Master Plan
6. Pedestrian poletop light to match plaza and park light

SECTION E: PLAZA STREET



1. Plaza and footpath paved in decorative patterned granite pavers as a unique plaza/ park interface treatment
2. Carriageway paved in small format granite pavers (matching larger granite footpath paver type) as a continuation of the footpath treatment indicating a 'slow speed' environment
3. Raised kerb and gutter
4. Street tree planting in tree pits. Refer Street Tree Master Plan
5. Smart pole street lighting (to CoR Public Domain Manual).

SECTION F: PARK STREET



1. Shared pedestrian footpath/ cycle path paved in large format dark grey granite pavers (in accordance with CoR Public Domain Manual)
2. Carriageway paved in small format granite pavers (matching larger granite footpath paver type) as a continuation of the footpath treatment indicating a 'slow speed' environment
3. Raised kerb and gutter
4. WSUD tree pits with mass planting and canopy trees. Refer Street Tree Master
5. Street tree planting in tree pits. Refer Street Tree Master Plan

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Sheet No. 13 of 88

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E	02.02.2016	SSDA	KB	KL
D	27.10.2014	SSDA	KB	KL
C	26.05.2014	SSDA	GH	NB
B	26.05.2014	SSDA	GH	NB
A	16.05.2014	SSDA DRAFT	GH	NB
Revision	Date	Description	Initial	Checked

North Ryde Station Precinct
M2 Site: State Significant Development,
Urban and Landscape Design
Street Typologies

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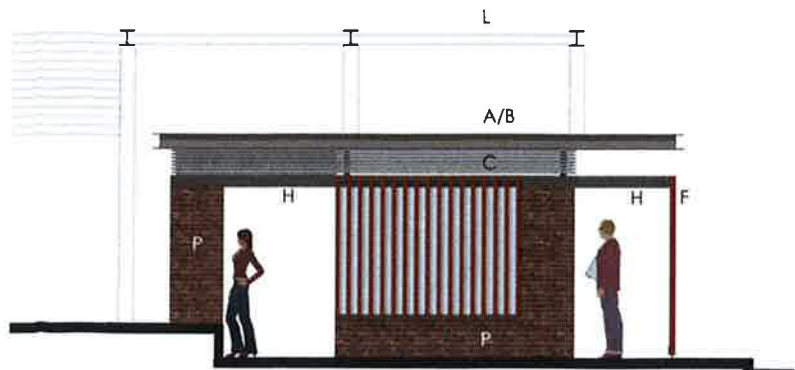
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Drawing no	DA 5-002	Revision E

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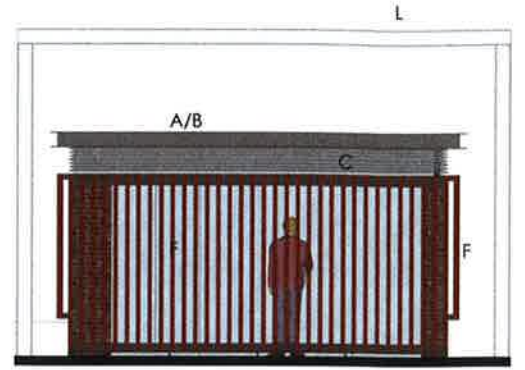
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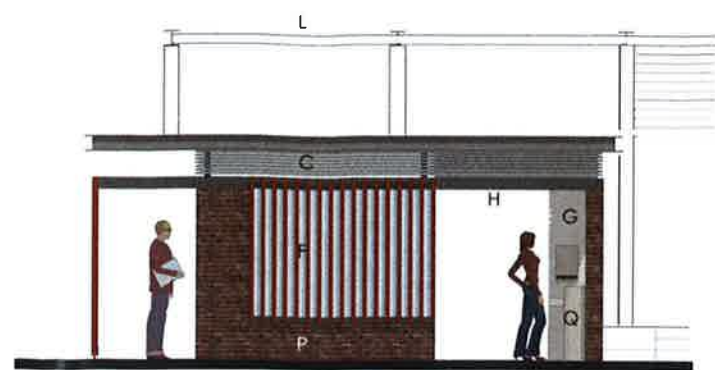
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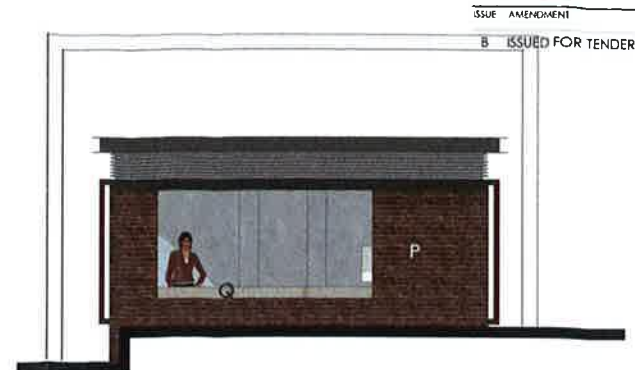
EAST ELEVATION



NORTH ELEVATION

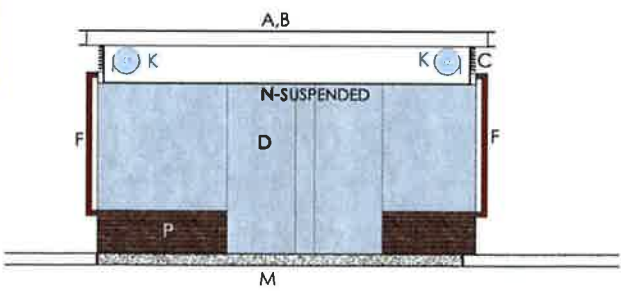
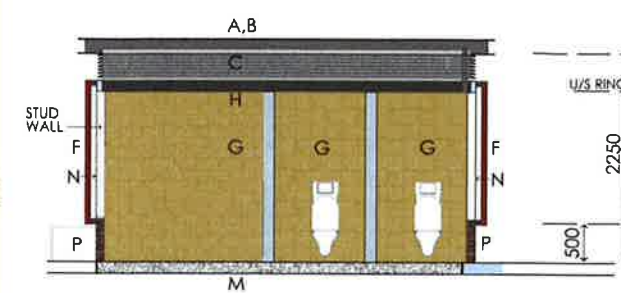
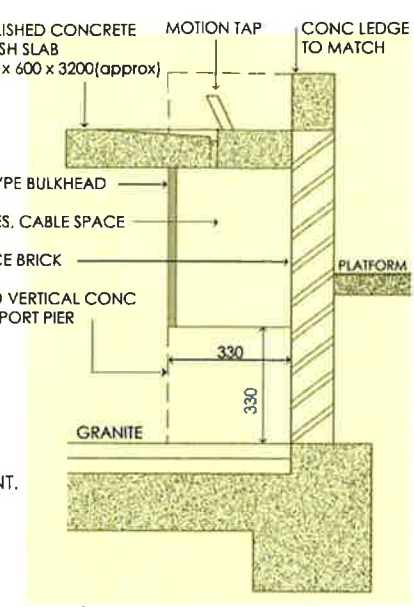
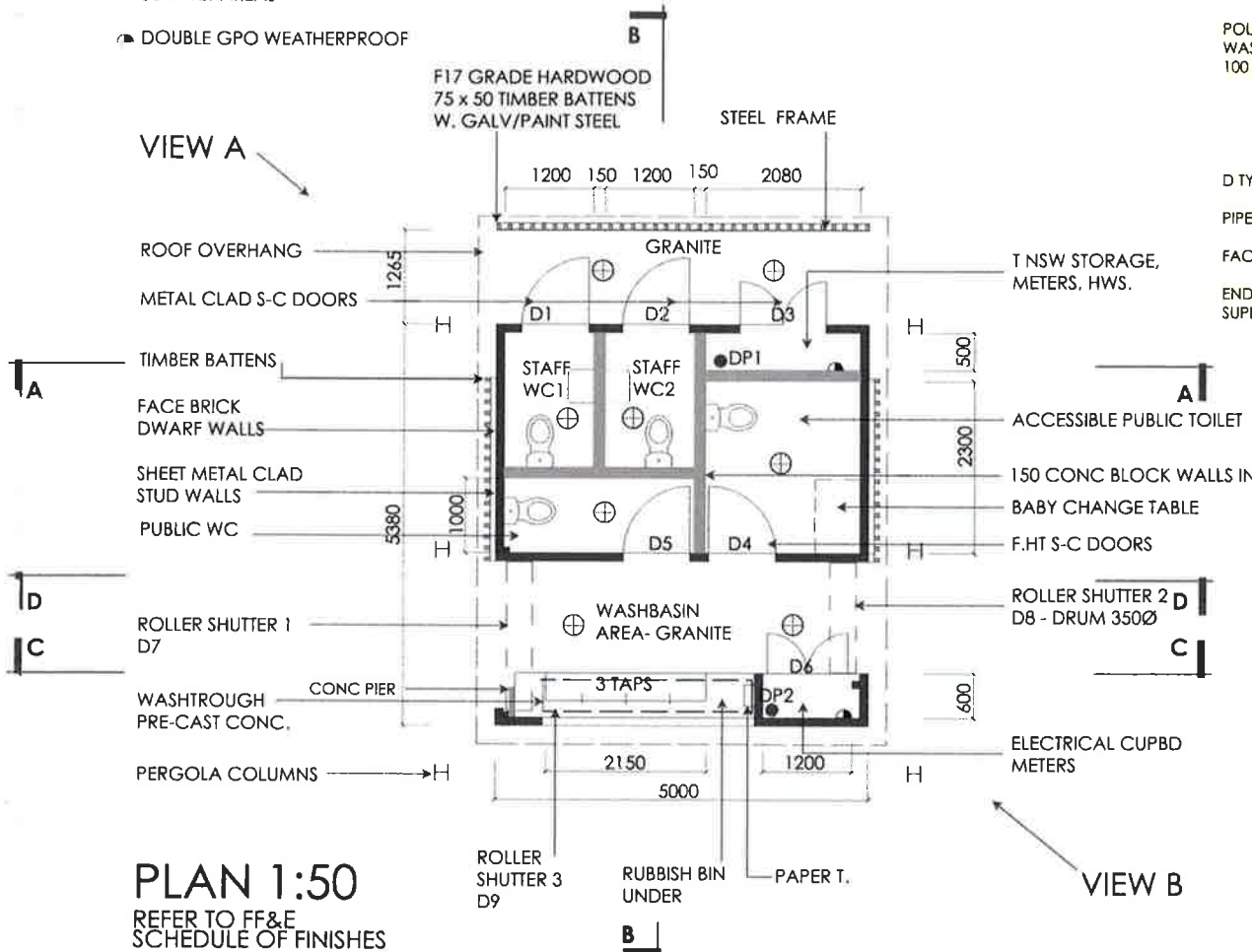


WEST ELEVATION



SOUTH ELEVATION

- LED DOWNLIGHT 6000K, TO SUIT WET AREAS
- DOUBLE GPO WEATHERPROOF



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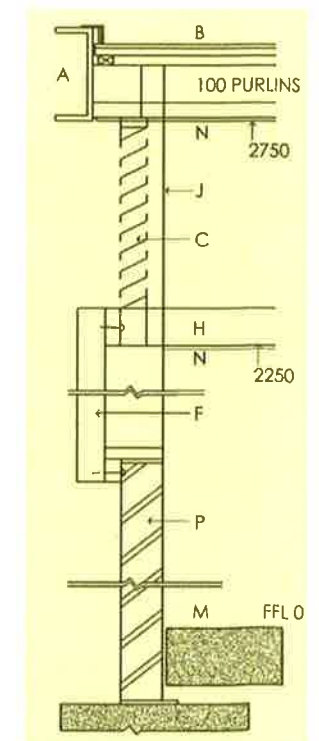
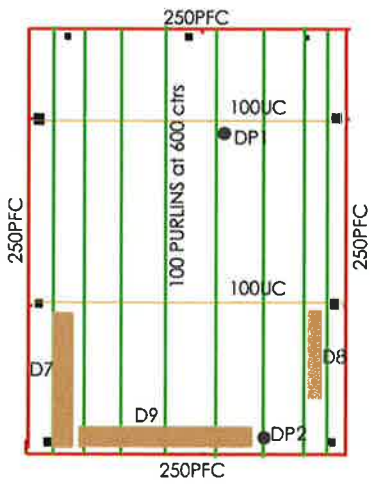
Granted on the 05.03.2015

Signed [Signature]

POL. CONC PIER 1000x350x100

SECTION DD. 14 of 88

LEGEND	DESCRIPTION
A	Hot dipped galvanised 250 PFC paint finish
B	Wolfin GWSK membrane bonded to primed plywood roof; include 2 down pipe outlets + R3.2 insulation
C	Powder coat aluminium louvres 70mm deep
D	Powdercoat finish Steel sheeting to doors and walls
E	Concrete blocks 150mm core filled
F	Timber Battens 75x50 with 100mm gap F17-DAR- Reversed fixed
G	Walls tiled to u/s of louvres where relevant
H	Ring beam 100x50 RHS all round
J	100x100 SHS posts
K	Monarch Commercial Grille Open Curtain - 12MM Grille constructed of 12.7mm aluminium tubes at 30mm ctrs, connected with 77mm x 25mm alum links spaced at 300mm ctrs to form a brick pattern; motorised, key switch, remote control.
L	Pergola; steel framed, refer Aspect Studio details
M	Concrete slab to eng. spec. Polished, Clear finish. R11/P4 Rating
N	Flush plasterboard wet grade ceiling. Paint finish
P	Face Brick to match BBQ; Bowral Gertrudis Brown
Q	Polished concrete wash stand with metal lined underside to hide pipes, cables etc



CONCEPT SKETCH PLANS



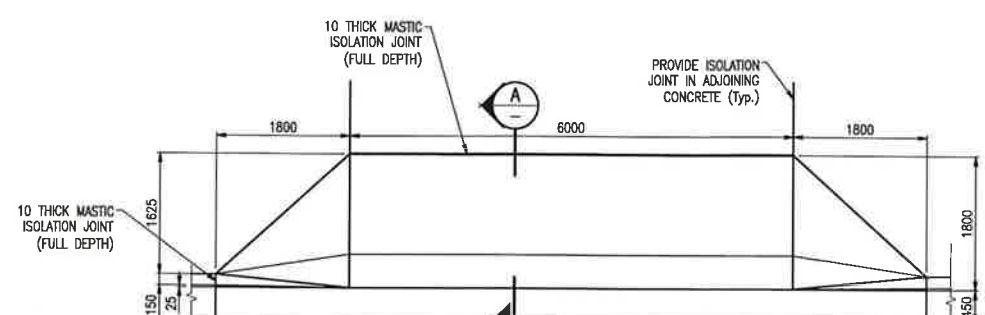
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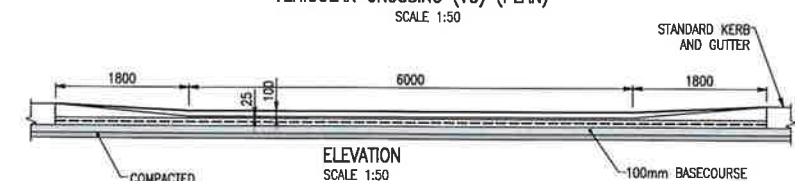
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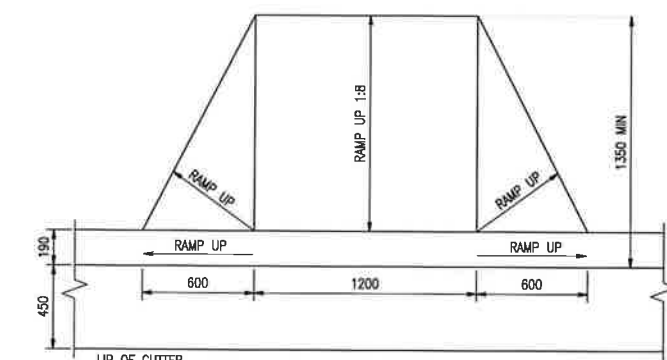
Sheet No. 15 of 88



VEHICULAR CROSSING (VC) (PLAN)
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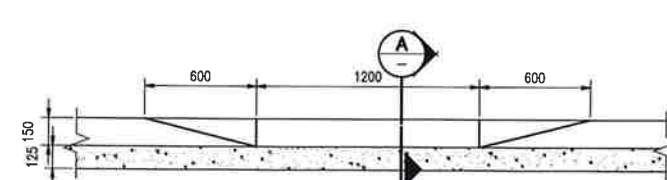


ELEVATION
SCALE 1:50

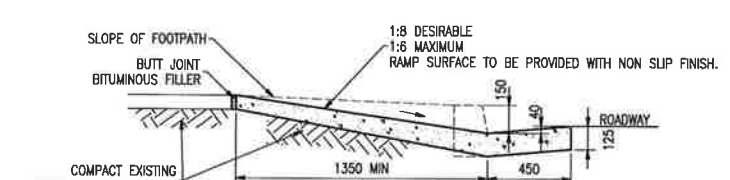


KERB RAMP PLAN
SCALE 1:20

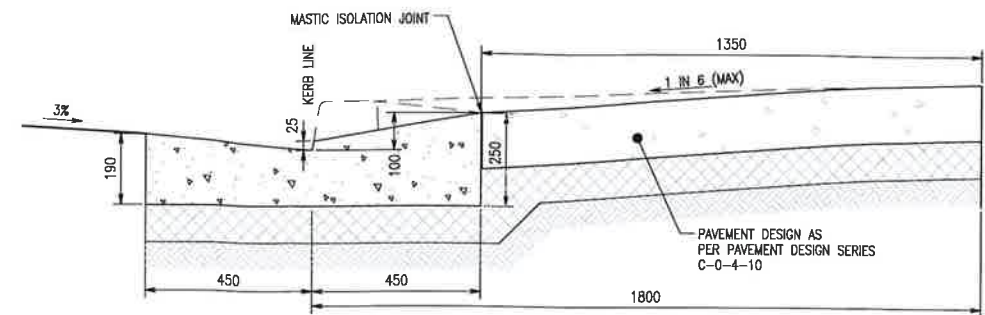
NOTE:
PRAM RAMP HAS NO LIP AT INVERT OF GUTTER



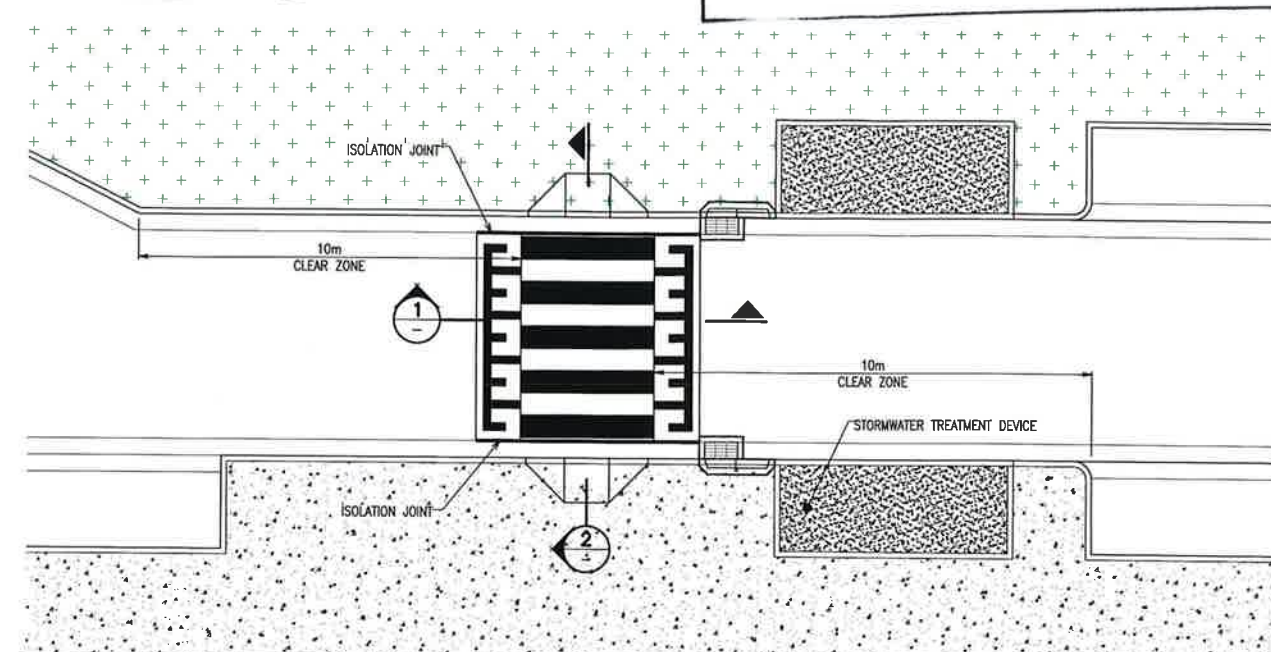
KERB RAMP ELEVATION
SCALE 1:20



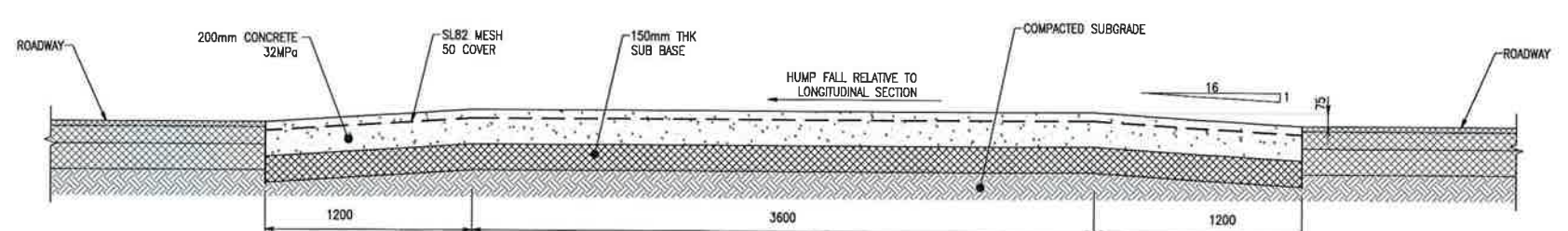
KERB RAMP SECTION A-A
SCALE 1:20



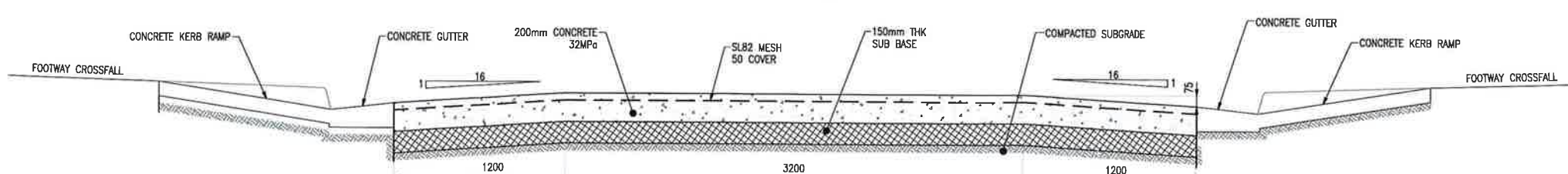
TYPICAL LAYBACK SECTION
SCALE 1:10



RAISED PEDESTRIAN CROSSING PLAN
SCALE 1:100



SECTION 1
SCALE 1:20



SECTION 2
SCALE 1:20

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SCALE 1:20
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SCALE 1:50
0 1 2 3 m

SCALE 1:10
0 100 200 300 400 500mm

Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
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2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014	2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014	3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014	4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014	5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014

Structural, Civil & Construction Engineering Consultant

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Client

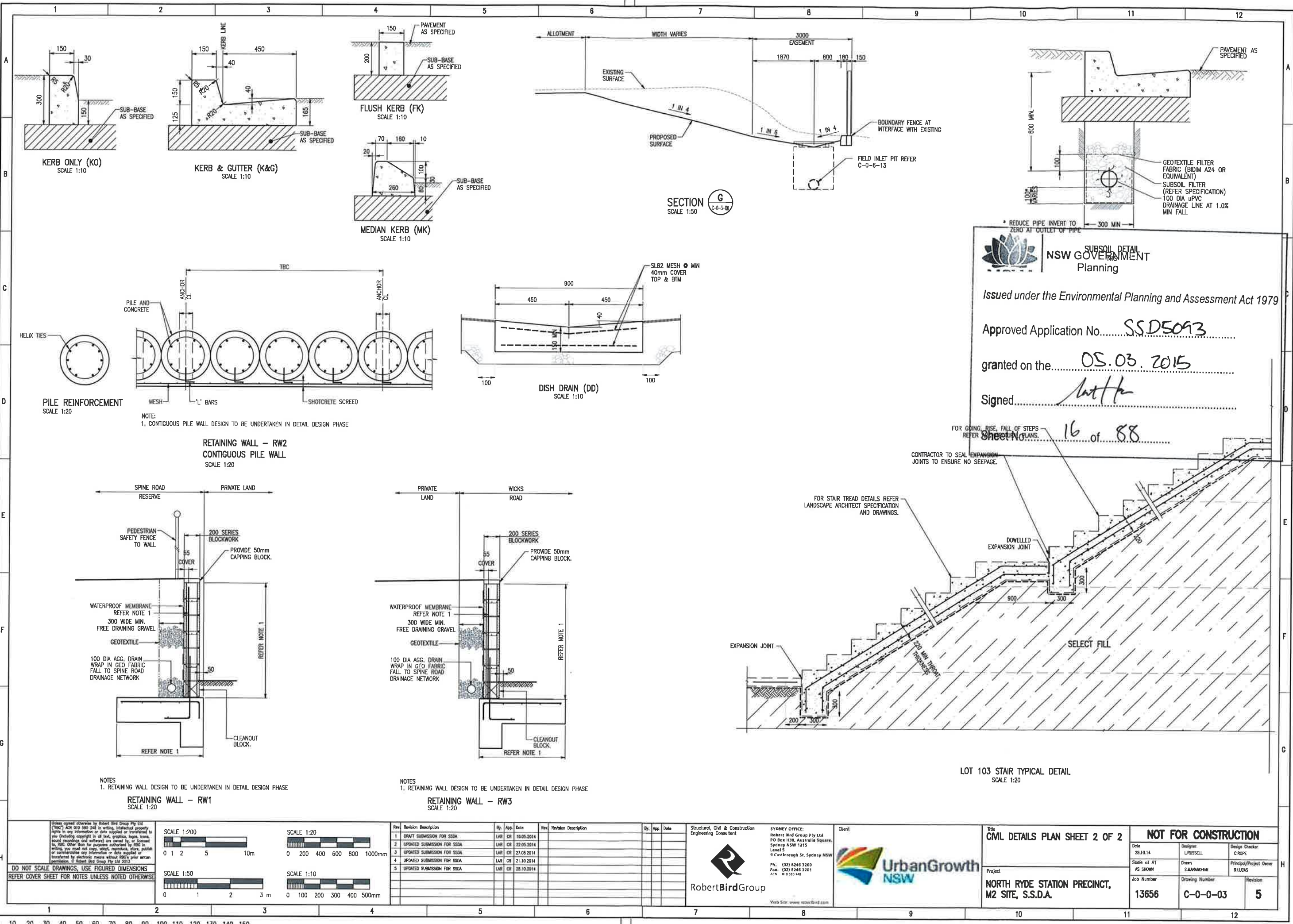
UrbanGrowth NSW

File: CIVIL DETAILS PLAN SHEET 1 OF 2

Project: NORTH RYDE STATION PRECINCT, M2 SITE, S.S.D.A.

NOT FOR CONSTRUCTION

Date: 28.10.14	Designer: L. RUSSELL	Design Checker: C. ROPE
Scale: as shown	Drawn: S. JAWAHAR	Principal/Project Owner: R. LUCAS
Job Number: 13656	Drawing Number: C-0-0-02	Revision: 5



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Approved Application No. **SSD5093**

granted on the **05.03.2015**

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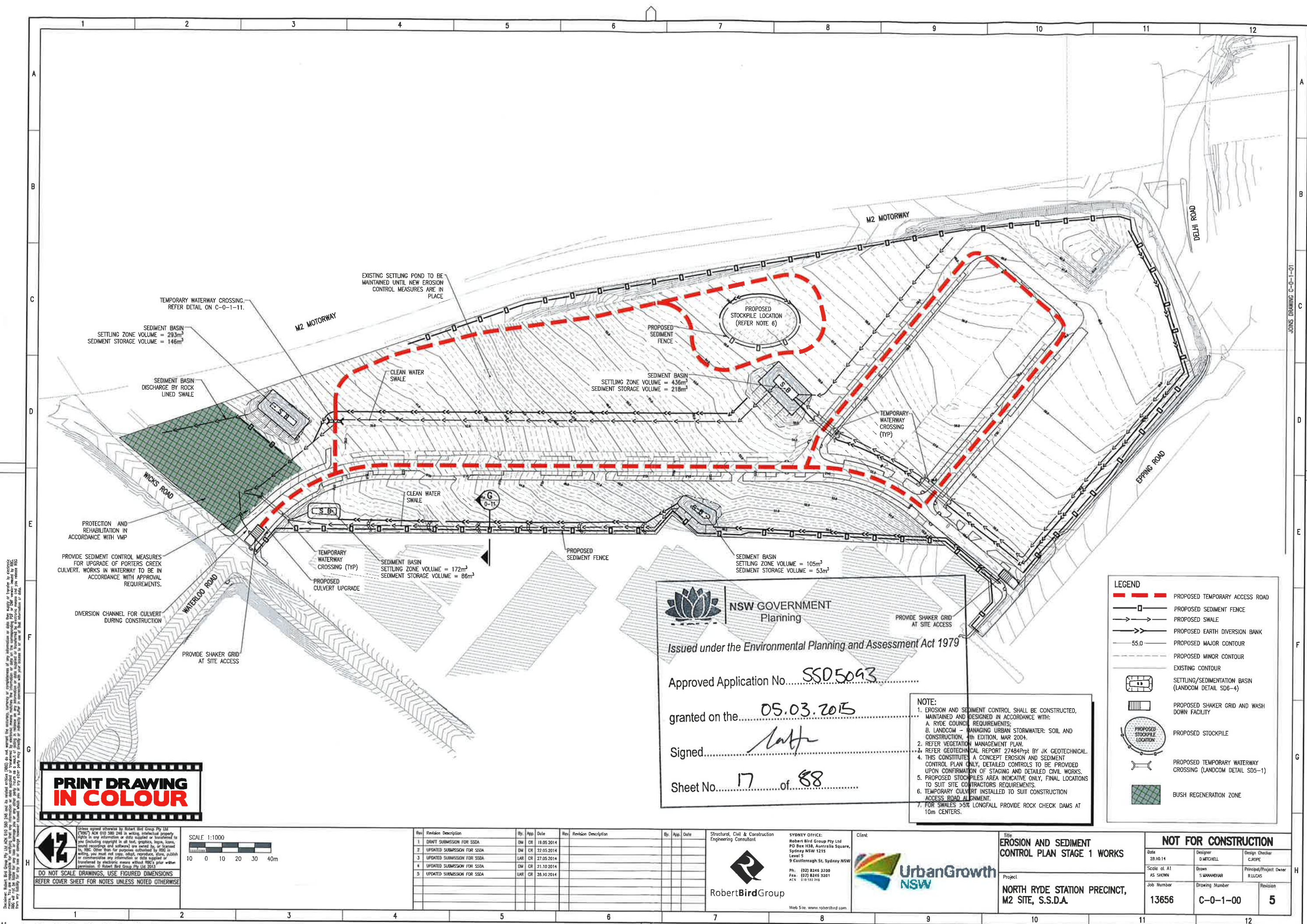
FOR GOING, RISE, FALL OF STEPS
REFER TO STAIR TREAD PLANS.

CONTRACTOR TO SEAL EXPANSION
JOINTS TO ENSURE NO SEEPAGE.

FOR STAIR TREAD DETAILS REFER
LANDSCAPE ARCHITECT SPECIFICATION
AND DRAWINGS.

Sheet No. **16 of 88**

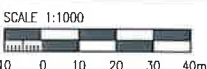
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**PRINT DRAWING
IN COLOUR**

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS
REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE



Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR S.S.D.A.	DM	CR	19.05.2014					
2	UPDATED SUBMISSION FOR S.S.D.A.	DM	CR	22.05.2014					
3	UPDATED SUBMISSION FOR S.S.D.A.	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR S.S.D.A.	DM	CR	21.10.2014					
5	UPDATED SUBMISSION FOR S.S.D.A.	LAR	CR	28.10.2014					

Structural, Civil & Construction
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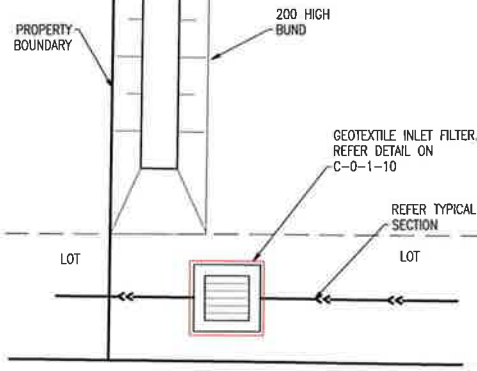
Client

**UrbanGrowth
NSW**

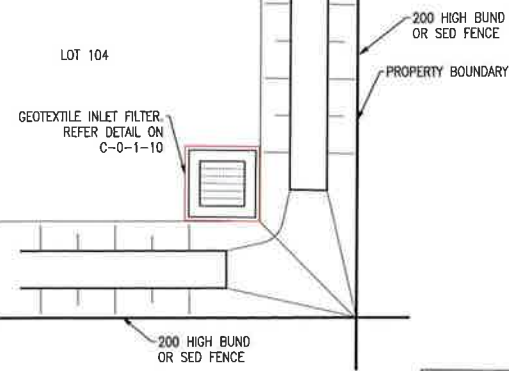
**EROSION AND SEDIMENT
CONTROL PLAN STAGE 1 WORKS**

Project
**NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.**

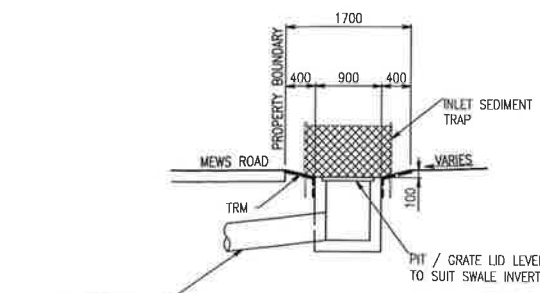
NOT FOR CONSTRUCTION			
Date 28.10.14	Designer D MITCHELL	Design Checker C ROPE	
Scale of A1 AS SHOWN	Drawn S WANNAMOR	Principal/Project Owner R LUCAS	
Job Number 13656	Drawing Number C-0-1-00	Revision 5	



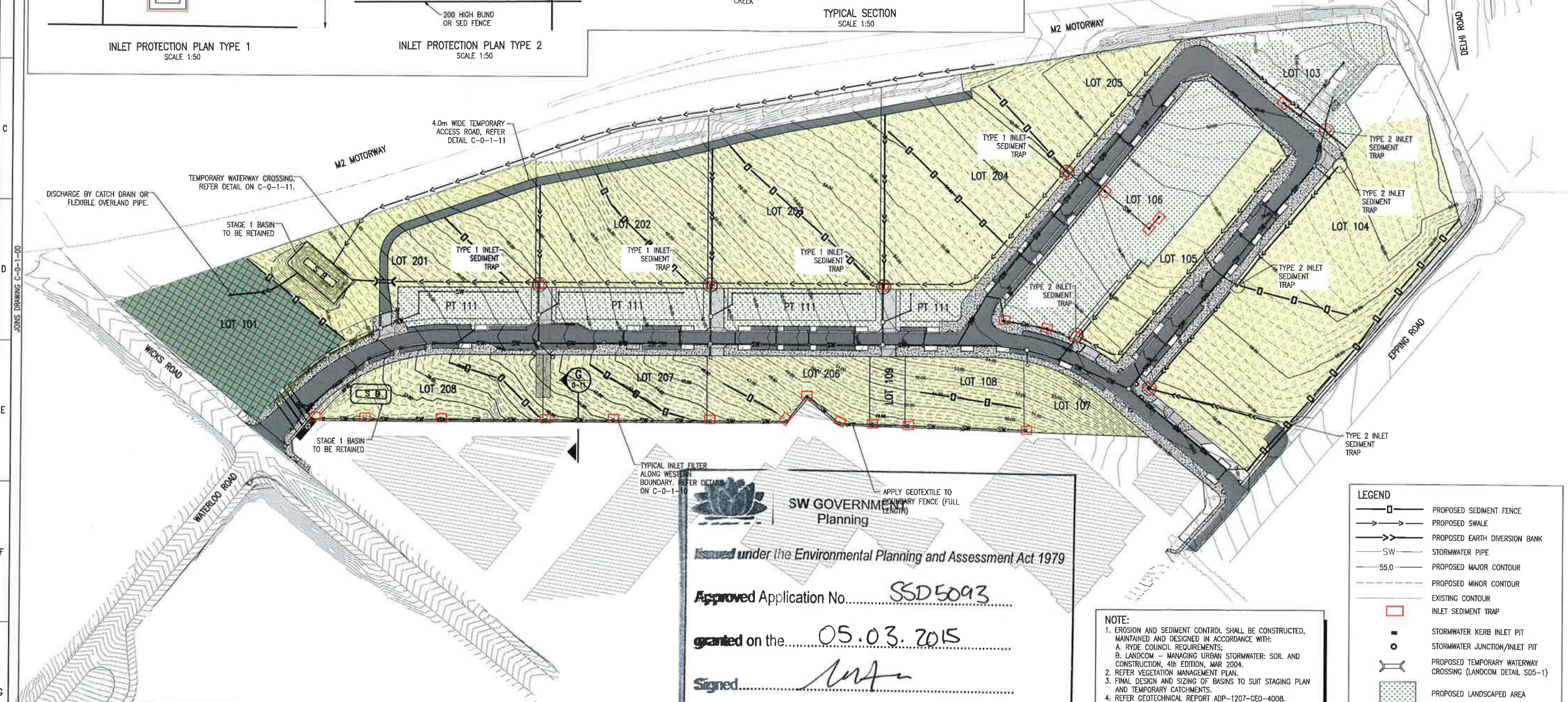
INLET PROTECTION PLAN TYPE 1
SCALE 1:50



INLET PROTECTION PLAN TYPE 2
SCALE 1:50



TYPICAL SECTION
SCALE 1:50



SW GOVERNMENT Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD5093

granted on the 05.03.2015

Signed [Signature]

Sheet No. 18 of 88

NOTE:

1. EROSION AND SEDIMENT CONTROL SHALL BE CONSTRUCTED, MAINTAINED AND DESIGNED IN ACCORDANCE WITH:
A. RYDE COUNCIL REQUIREMENTS;
B. LANDCOM - MANAGING URBAN STORMWATER: SOIL AND CONSTRUCTION, 4th EDITION, MAR 2004.
2. REFER VEGETATION MANAGEMENT PLAN.
3. FINAL DESIGN AND SIZING OF BASINS TO SUIT STAGING PLAN AND TEMPORARY CATCHMENTS.
4. REFER GEOTECHNICAL REPORT ADP-1207-GEO-4008.
5. THIS CONSTITUTES A CONCEPT EROSION AND SEDIMENT CONTROL PLAN ONLY. DETAILED CONTROLS TO BE PROVIDED UPON CONFIRMATION OF STAGING AND DETAILED CIVIL WORKS.
6. PROPOSED STOCKPILES AREA INDICATIVE ONLY. FINAL LOCATIONS TO SUIT SITE SUPERINTENDENT'S REQUIREMENTS.
7. TEMPORARY CULVERT INSTALLED TO SUIT CONSTRUCTION ACCESS ROAD ALIGNMENT.
8. HYDROSEEDING OF LOTS FOLLOWING COMPLETION OF STAGE 1 WORKS.

LEGEND

- PROPOSED SEDIMENT FENCE
- PROPOSED SWALE
- PROPOSED EARTH DIVERSION BANK
- SW - STORMWATER PIPE
- 55.0 - PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING CONTOUR
- INLET SEDIMENT TRAP
- STORMWATER KERB INLET PIT
- STORMWATER JUNCTION/INLET PIT
- PROPOSED TEMPORARY WATERWAY CROSSING (LANDCOM DETAIL SDS-1)
- PROPOSED LANDSCAPED AREA
- BUSH REGENERATION ZONE
- PROPOSED HYDROSEEDING

**PRINT DRAWING
IN COLOUR**

Scale 1:1000

10 0 10 20 30 40m

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS

REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE

Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR SSDA	EM	CR	19.05.2014					
2	UPDATED SUBMISSION FOR SSDA	DM	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					

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UrbanGrowth NSW

NOT FOR CONSTRUCTION

Date: 28.10.14
Scale: as shown
Job Number: 13656

Design: D. MITCHELL
Drawn: S. JAWAHAR
Drawing Number: C-0-1-01

Design Checker: C. ROPE
Principal/Project Owner: R. LUCAS
Revision: 5

EROSION AND SEDIMENT CONTROL PLAN STAGE 2 WORKS

NORTH RYDE STATION PRECINCT, M2 SITE, S.S.D.A.

GENERAL NOTES:

- A1. THIS SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH OTHER ENGINEERING PLANS RELATING TO THIS DEVELOPMENT.
- A2. CONTRACTORS WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND CONSTRUCTED FOLLOWING THE LANDCOM - MANAGING URBAN STORMWATER: SOIL AND CONSTRUCTION, 4th EDITION, MAR 2004.
- A3. REFER VEGETATION MANAGEMENT PLAN BY ECOLOGICAL FOR VEGETATION CLEARANCE AND RIPARIAN ZONE MANAGEMENT.
- A4. REFER GEOTECHNICAL REPORT ADP-1207-GEO-4008 FOR EARTHWORKS AND PARAMETERS.
- A5. ALL SUBCONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN REDUCING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.
- A6. REFER BULK EARTHWORKS PLANS C-0-2-00 AND C-0-2-01 FOR EXTENTS OF ECRIL RESERVE ZONES. CONTRACTOR TO ENSURE EARTHWORKS AND CONSTRUCTION ACTIVITIES ARE IN ACCORDANCE WITH ECRIL PROTECTION GUIDELINES AND PROJECT SPECIAL REQUIREMENTS.

SEDIMENT BASIN CONSTRUCTION NOTES:

- SB1. REMOVE ALL VEGETATION AND TOPSOIL FROM UNDER THE DAM WALL AND FROM WITHIN THE STORAGE AREA.
- SB2. CONSTRUCT A CUT OF TRENCH 500 mm DEEP AND 1,200 mm WIDE ALONG THE CENTRELINE OF THE EMBANKMENT EXTENDING TO A POINT ON THE GULLY WALL LEVEL WITH THE RISER CREST.
- SB3. MAINTAIN THE TRENCH FREE OF WATER AND RECOMPACT THE MATERIALS WITH EQUIPMENT AS SPECIFIED IN THE SWMP TO 98 PER CENT STANDARD PROCTOR DENSITY.
- SB4. SELECT FILL FOLLOWING THE SWMP THAT IS FREE OF ROOTS, WOOD, ROCK, LARGE STONE OR FOREIGN MATERIAL.
- SB5. PREPARE THE SITE UNDER THE EMBANKMENT BY RIPPING TO AT LEAST 100mm TO HELP BOND COMPACTED FILL TO THE EXISTING SUBSTRATE.
- SB6. SPREAD THE FILL IN 100mm TO 150mm LAYERS AND COMPACT IT AT OPTIMUM MOISTURE CONTENT FOLLOWING THE SWMP.
- SB7. CONSTRUCT THE EMERGENCY SPILLWAY.
- SB8. REHABILITATE THE STRUCTURE FOLLOWING THE SWMP.

SITE MAINTENANCE NOTES:

- SM1. THE CONTRACTOR SHALL INSPECT THE SITE AT LEAST WEEKLY AND AT THE CONCLUSION OF EVERY STORM EVENT TO:
 - A) ENSURE THAT DRAINS OPERATE PROPERLY AND TO EFFECT AND NECESSARY REPAIRS.
 - B) REMOVED SPILLED SAND OR OTHER MATERIALS FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 5 METRES FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS ESPECIALLY WATERWAYS AND PAVED AREAS.
 - C) REMOVED TRAPPED SEDIMENT WHENEVER THE DESIGN CAPACITY OF THAT STRUCTURES HAS BEEN EXCEEDED.
 - D) ENSURE REHABILITATION LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD TO INITIATE UPGRADING OR REPAIR AS NECESSARY.
 - E) CONSTRUCT ADDITIONAL EROSION AND OR SEDIMENT CONTROL WORKS THAT MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS. MAKE ONGOING CHANGES TO THE PLAN WHERE IT PROVES INADEQUATE IN PRACTICE OR IS SUBJECT TO CHANGES IN CONDITIONS ON THE WORK-SITE OR ELSEWHERE IN THE CATCHMENT.
 - F) MAINTAIN EROSION AND SEDIMENT CONTROL STRUCTURES IN A FULLY FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.
- SM2. THE SITE SUPERINTENDENT WILL KEEP A LOGBOOK MAKING ENTRIES AT LEAST WEEKLY, IMMEDIATELY BEFORE FORECAST RAIN AND AFTER RAINFALL. ENTRIES WILL INCLUDE:
 - A) THE VOLUME AND INTENSITY OF ANY RAINFALL EVENTS.
 - B) THE CONDITION OF ANY SOIL AND WATER MANAGEMENT WORKS.
 - C) THE CONDITION OF VEGETATION AND ANY NEED TO IRRIGATE.
 - D) THE NEED FOR DUST PREVENTION STRATEGIES
 THE LOGBOOK WILL BE KEPT ON-SITE AND MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. IT WILL BE GIVEN TO THE SUPERINTENDENT AT THE CONCLUSION OF THE WORKS.

SEDIMENT CONTROL NOTES:

- SC1. SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SUPERINTENDENT TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THEIR SOURCE.
- SC2. SEDIMENT FENCES WILL NOT HAVE CATCHMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES.
- SC3. SEDIMENT REMOVED FROM ANY TRAPPING DEVICES WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR.
- SC4. STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METERS OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS AND DRIVEWAYS.
- SC5. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR WATER HAS BEEN TREATED BY AN APPROVED DEVICE.
- SC6. TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
- SC7. ACCESS TO SITES SHOULD BE STABILIZED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

SEDIMENT BASIN MAINTENANCE NOTES:

SBM1. KEEP ALL SEDIMENT DETENTION SYSTEMS IN GOOD, WORKING CONDITION, ENSURE:

- (i) RECENT WORKS HAVE NOT RESULTED IN THE DIVERSION OF SEDIMENT - LADEN WATER AWAY FROM THEM;
- (ii) DEGRADABLE PRODUCTS (E.G. STRAW BALES) ARE REPLACED AS REQUIRED;
- (iii) SEDIMENT IS REMOVED IF THE DESIGN CAPACITY OR LESS REMAINS IN THE SETTLING ZONE;
- (iv) WATER IN RETENTION BASINS ON TYPE D SOILS IS TREATED WITH A FLOCCULATING AGENT FOLLOWING THE REQUIREMENTS OF SECTION 6.3 AND APPENDIX E OF THE LANDCOM BLUE BOOK IF THE SOILS AT THE SEDIMENT SOURCE CONTAIN MORE THAN 10 PERCENT DISPERSIBLE MATERIALS (1). WHERE BASINS REQUIRE PUMPING OUT, THE NECESSARY DOSING SHOULD OCCUR WITHIN 24 HOURS OF THE CONCLUSION OF EACH STORM EVENT AND THE BASIN SHOULD BE DRAINED ONCE SUSPENDED SOLIDS LEVEL ARE LESS THAN 50 MILLIGRAMS PER LITRE, USUALLY 36 TO 48 HOURS IF GYPSUM IS USED. LONGER OR SHORTER TREATMENT AND DEWATERING PERIODS MAY APPLY IF RAINFALL EVENTS OF DURATION OTHER THAN 5 DAYS HAS BEEN ADOPTED IN THE DESIGN OF THE BASING (2); AND
- (v) POLLUTANTS, SEDIMENT AND / OR WASTE REMOVED FROM SEDIMENT BASINS, GRASS POLLUTANT TRAPS AND TRASH RACKS ARE DISPOSED IN STABILISED DUMPS WHERE SOIL AND WATER MEASURES HAVE BEEN IMPLEMENTED TO STOP OFFSITE MOVEMENT OF POLLUTANTS.

SBM2. TO DETERMINE THE EFFECTIVENESS OF ANY SEDIMENT RETENTION BASINS, THE CONSENT AUTHORITY MIGHT REQUIRE THE SITE MANAGER TO UNDERTAKE SAMPLING AND SUBSEQUENT ANALYSIS OF NON FILTERABLE RESIDUE (NFR) CONCENTRATIONS OF WASTE WATER. SUCH SAMPLING AND ANALYSIS IS LIKELY TO BE REQUIRED PERIODICALLY OR FOR A NOMINATED PERIOD, USUALLY THE FIRST THREE MONTHS AFTER COMMISSIONING THE BASINS.

SBM3. DISPOSE ANY POLLUTANTS REMOVED FROM SEDIMENT BASINS IN AREAS WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS SHOULD NOT OCCUR.

SBM4. CONSTRUCT ADDITIONAL

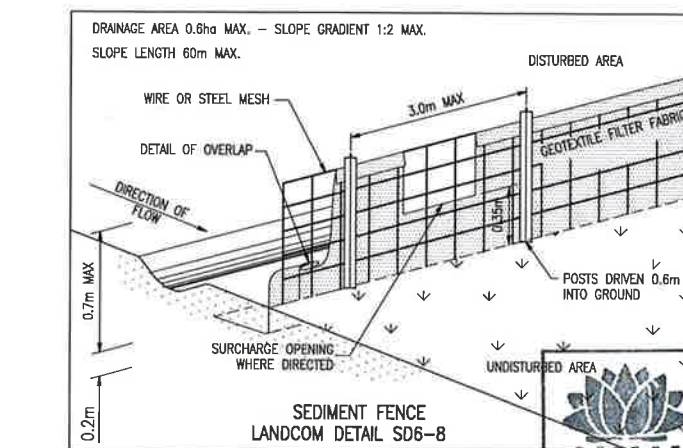
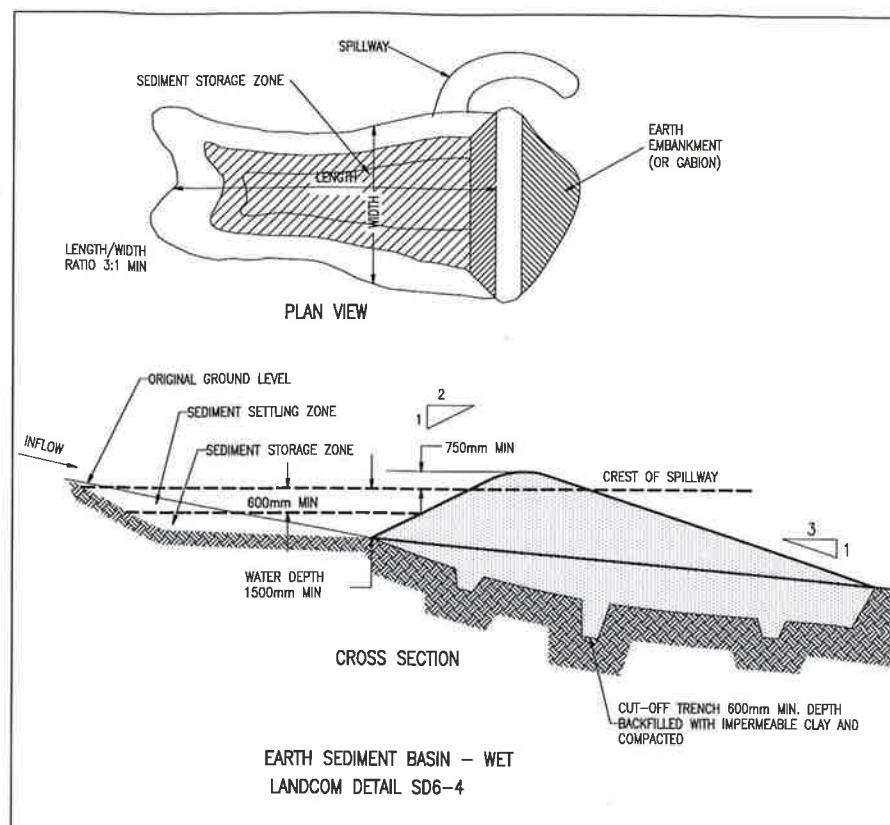
- [1] WHERE NECESSARY, A SUITABLY SIZED STOCKPILE OF FLOCCULATING AGENT SHOULD BE KEPT ONSITE FOR THE TREATMENT OF WASTEWATER IMPOUNDING IN SEDIMENT RETENTION SYSTEMS.
- [2] PLACE A MARKER PEG WITHIN EACH SEDIMENT RETENTION BASIN TO INDICATE THE DESIGN CAPACITY OF THE SEDIMENTATION ZONE AND LEVEL ABOVE WHICH CAPACITY IS AVAILABLE IN THE SETTLING ZONE FOR CONTAINMENT OF RUNOFF.

LAND DISTURBANCE NOTES:

- LD1. ACCESS AREAS ARE TO BE LIMITED TO A MAXIMUM WIDTH OF 10 METERS THE SITE MANAGER WILL DETERMINE AND MARK THE LOCATION OF THESE ZONES ON-SITE. ALL SITE WORKERS WILL CLEARLY RECOGNIZE THOSE BOUNDARIES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH A BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
- LD2. ENTRY TO LANDS NOT REQUIRED FOR CONSTRUCTION OR ACCESS IS PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH.
- LD3. WORKS ARE TO PROCEED IN THE FOLLOWING SEQUENCE:
 - A) INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN.
 - B) CONSTRUCT THE STABILISED SITE ACCESS.
 - C) CONSTRUCT DIVERSION DRAINS AS REQUIRED.
 - D) INSTALL MESH AND GRAVEL INLETS FOR ANY ADJACENT KERB INLETS.
 - E) INSTALL GEOTEXTILE INLET FILTERS AROUND ANY ON-SITE DROP INLET PITS.
 - F) CLEAR SITE AND STRIP AND STOCKPILE TOPSOIL IN LOCATIONS SHOWN ON THE PLAN.
 - G) UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS ENSURING THAT ROOF AND/OR PAVED AREA STORMWATER SYSTEMS ARE CONNECTED TO PERMANENT DRAINAGE AS SOON AS PRACTICABLE.
 - H) GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 20 DAYS OF COMPLETION OF CONSTRUCTION WORKS.
 - I) REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
- LD4. ENSURE THAT SLOPE LENGTHS DO NOT EXCEED 80 METRES WHERE PRACTICABLE. SLOPE LENGTHS ARE DETERMINED BY SILTATION FENCING AND CATCH DRAIN SPACING.

SOIL EROSION CONTROL NOTES:

- SE1. EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER, UNLESS OTHERWISE NOTED, THAN THAT RECOMMENDED BY THE GEOTECHNICAL REPORT ADP-1207-GEO-4008
- SE2. ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 1:20 YEAR ARI, TIME OF CONCENTRATION STORM EVENT.
- SE3. WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.05 (70% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION. FOOT AND VEHICULAR TRAFFIC WILL BE PROHIBITED IN THESE AREAS.
- SE4. STOCKPILES AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.1% (80% GROUND-COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION.
- SE5. ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.15 (50% GROUND COVER) WITHIN 20 WORKING DAYS FROM INACTIVITY EVEN THOUGH WORKS MAY CONTINUE LATER.
- SE6. PERMANENT REHABILITATION OF LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND-COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE WATERED REGULARLY UNTIL AN EFFECTIVE COVER IS ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS NECESSARY.

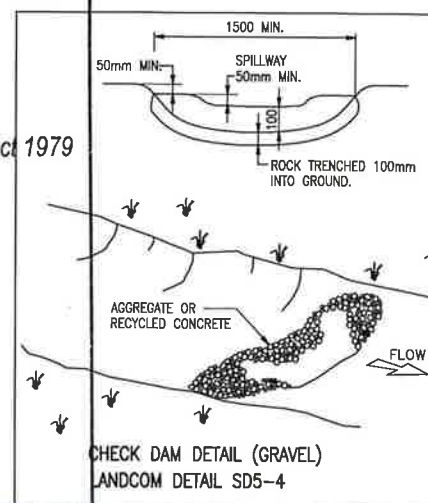
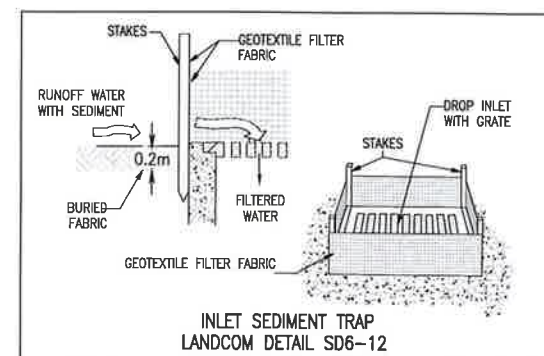
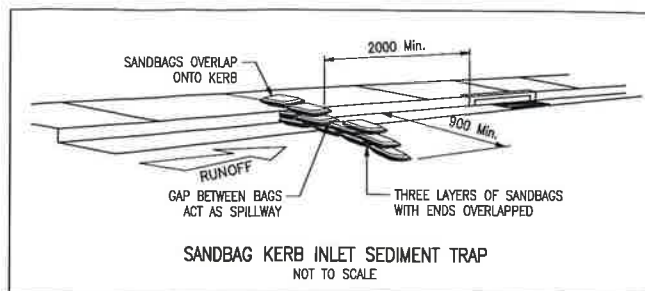
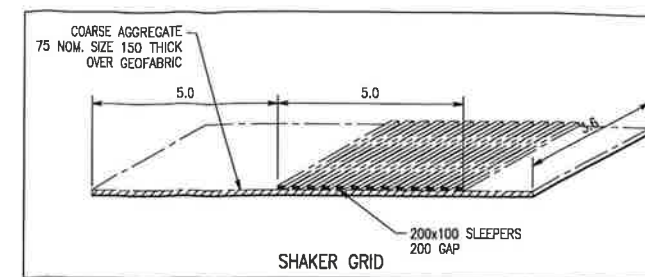


INSTALLATION

1. EXCAVATE A TRENCH 200mm DEEP.
2. DRIVE POSTS 500-700mm INTO GROUND AT A MAXIMUM SPACING OF 3.0m CENTRES.
3. PLACE AND FIX SUPPORT MESH (F82) TO POST.
4. LAY BIDIM GEOTEXTILE (SF 2000) AGAINST THE SUPPORT MESH AND FIX BY TIE WIRE, STAPLES OR HOG RINGS.
5. PLACE BIDIM IN TRENCH AND BACKFILL WITH SOIL.

NOTE: POSITION OF SEDIMENT FENCE AS DIRECTED BY CONTRACTOR. FENCE TO REMAIN IN PLACE UNTIL EXCAVATION IS BELOW FOOTPATH LEVEL. PROVIDE 2m x 2m TURFED AREA ON DOWNSLOPE SIDE OF FENCE AT 500mm SPACING.

NSW GOVERNMENT
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NOTE: ROCK CHECK DAM'S TO ALL SWALES AT 10m INTERVALS FOR SWALES GREATER THAN 5%

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Approved Application No. **SSD5093**

granted on the **05.03.2015**

Signed **[Signature]**

Sheet No. **19** of **88**

WASTE CONTROL NOTES:

- WC1. ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES WILL BE PROVIDED AT LEAST WEEKLY. DISPOSAL OF WASTE WILL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.
- WC2. ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CLEAR OF ANY POORLY DRAINED AREAS, FLOW PRONE AREAS, STREAMBANKS, CHANNELS AND STORMWATER DRAINAGE AREAS. STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUNDS.
- WC3. ALL SITE STAFF AND SUBCONTRACTORS ARE TO BE INFORMED OF THEIR OBLIGATION TO USE WASTE CONTROL FACILITIES PROVIDED.
- WC4. ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
- WC5. PROVIDE DESIGNATED VEHICULAR WASHDOWN AND MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUNDS.

Drawings prepared by Robert Bird Group Pty Ltd (RBG) for the purpose of providing information to the public. RBG does not warrant the accuracy, reliability, or completeness of any information or data that may be included in this drawing. RBG is not responsible for any errors or omissions in this drawing. RBG is not responsible for any damage or loss resulting from the use of this drawing. RBG is not responsible for any damage or loss resulting from the use of this drawing. RBG is not responsible for any damage or loss resulting from the use of this drawing.

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5	UPDATED SUBMISSION FOR SSCA	LAR	CR	28.10.2014					

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Client

UrbanGrowth NSW

Title

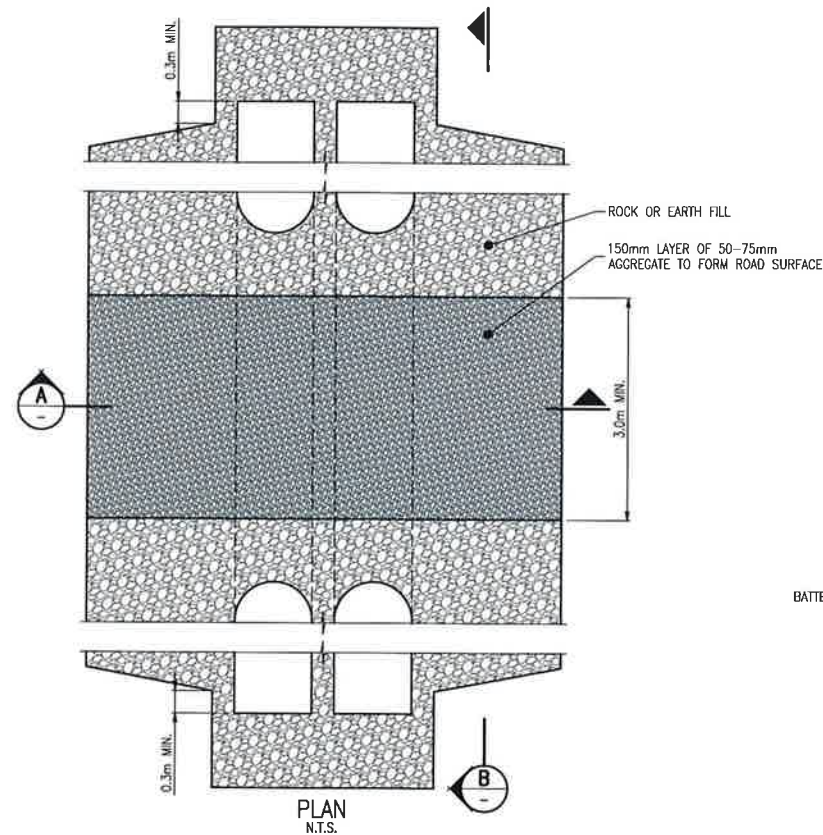
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS SHEET 1 OF 2

Project

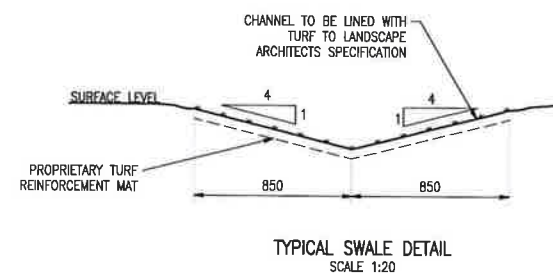
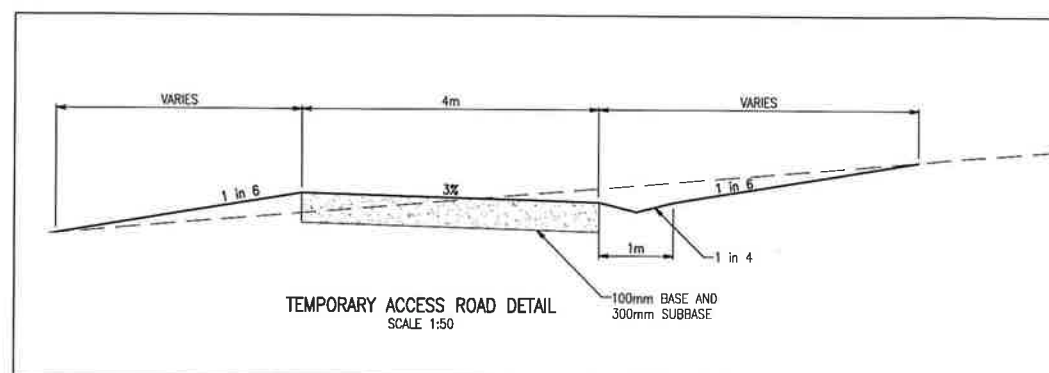
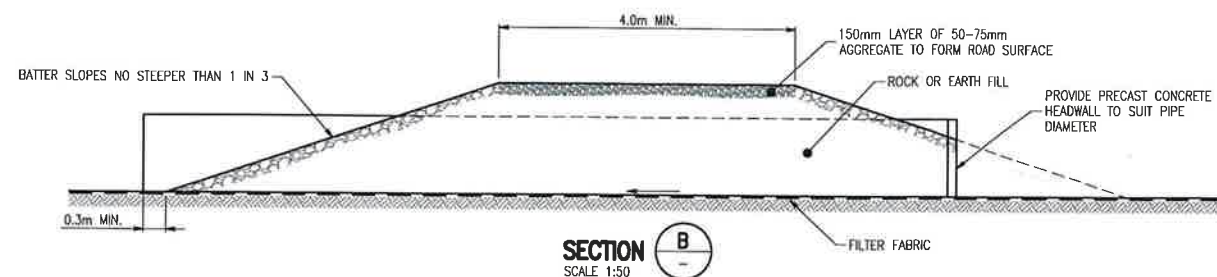
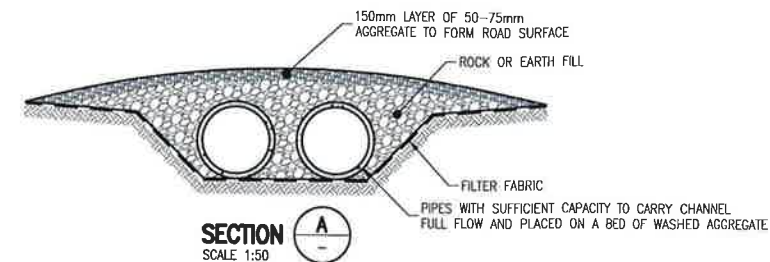
NORTH RYDE STATION PRECINCT, M2 SITE, S.S.D.A.

NOT FOR CONSTRUCTION

Date	28.10.14	Designer	D. MITCHELL	Design Checker	C. ROPE
Scale	as shown	Drawn	S. JAWAHAR	Principal/Project Owner	R. LUCAS
Job Number	13656	Drawing Number	C-0-1-10	Revision	5



TEMPORARY WATERWAY CROSSING
(FROM LANDCOM DETAIL SD5-1)



NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. **SSD5013**

granted on the **05.03.2015**

Signed *[Signature]*

Sheet No. **20** of **88**

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Structural, Civil & Construction
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Client



Title
**EROSION AND SEDIMENT CONTROL
NOTES AND DETAILS SHEET 2 OF 2**

Project
**NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.**

NOT FOR CONSTRUCTION

Date 28.10.14	Designer L. RUSSELL	Design Checker C. ROPE
Scale at A1 AS SHOWN	Drawn S. MANANDHAR	Principal/Project Owner R. LUCAS
Job Number 13656	Drawing Number C-0-1-11	Revision 2

CUT FILL ANALYSIS DEPTH RANGES		
Lower_value	Upper_value	Colour
-999.0	to -5.0m	Red
-5.0	to -4.0m	Red
-4.0	to -3.0m	Red
-3.0	to -2.0m	Orange
-2.0	to -1.0m	Orange
-1.0	to -0.2m	Yellow
-0.2	to 0.2m	White
0.2	to 1.0m	Green
1.0	to 2.0m	Green
2.0	to 3.0m	Green
3.0	to 4.0m	Blue
4.0	to 5.0m	Blue
5.0	to 999.0 m	Blue

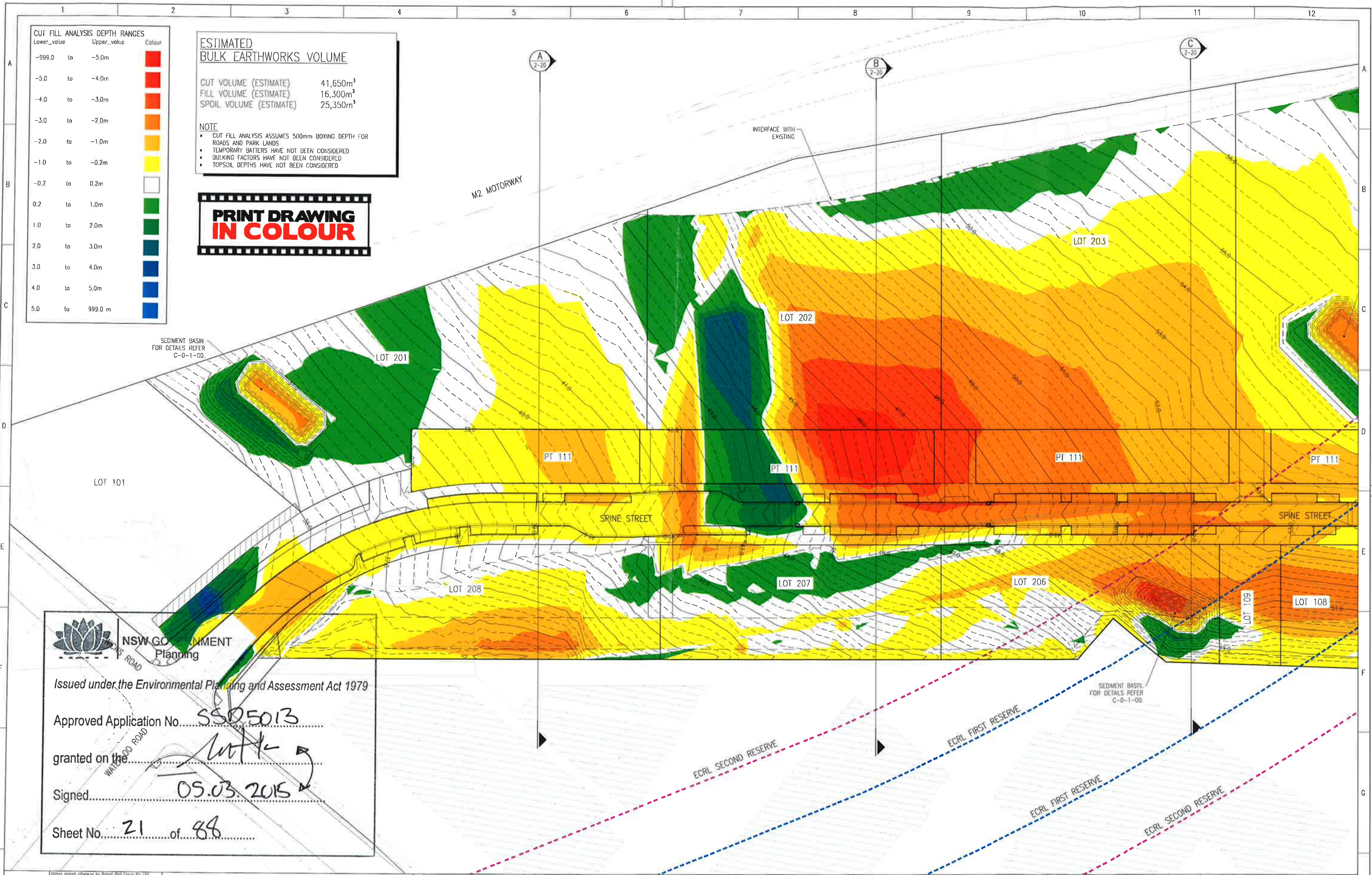
ESTIMATED BULK EARTHWORKS VOLUME

CUT VOLUME (ESTIMATE) 41,650m³
 FILL VOLUME (ESTIMATE) 16,300m³
 SPOIL VOLUME (ESTIMATE) 25,350m³

NOTE

- CUT FILL ANALYSIS ASSUMES 500mm BOXING DEPTH FOR ROADS AND PARK LANDS
- TEMPORARY BATTERS HAVE NOT BEEN CONSIDERED
- BULKING FACTORS HAVE NOT BEEN CONSIDERED
- TOPSOIL DEPTHS HAVE NOT BEEN CONSIDERED

PRINT DRAWING IN COLOUR



NSW GOVERNMENT Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SS05013

granted on the Lot 101

Signed 05.03.2015

Sheet No. 21 of 88

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Scale 1:500

10 0 10 20m

Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
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 AEN: 210 583 418

Client

UrbanGrowth NSW

Title

BULK EARTHWORKS SHEET 1 OF 2

Project

NORTH RYDE STATION PRECINCT, M2 SITE, S.S.D.A.

NOT FOR CONSTRUCTION

Date: 28.10.14
 Scale: at A1 AS SHOWN
 Job Number: 13656

Designer: L. RUSSELL
 Drawn: S. MANANCHAR
 Drawing Number: C-0-2-00

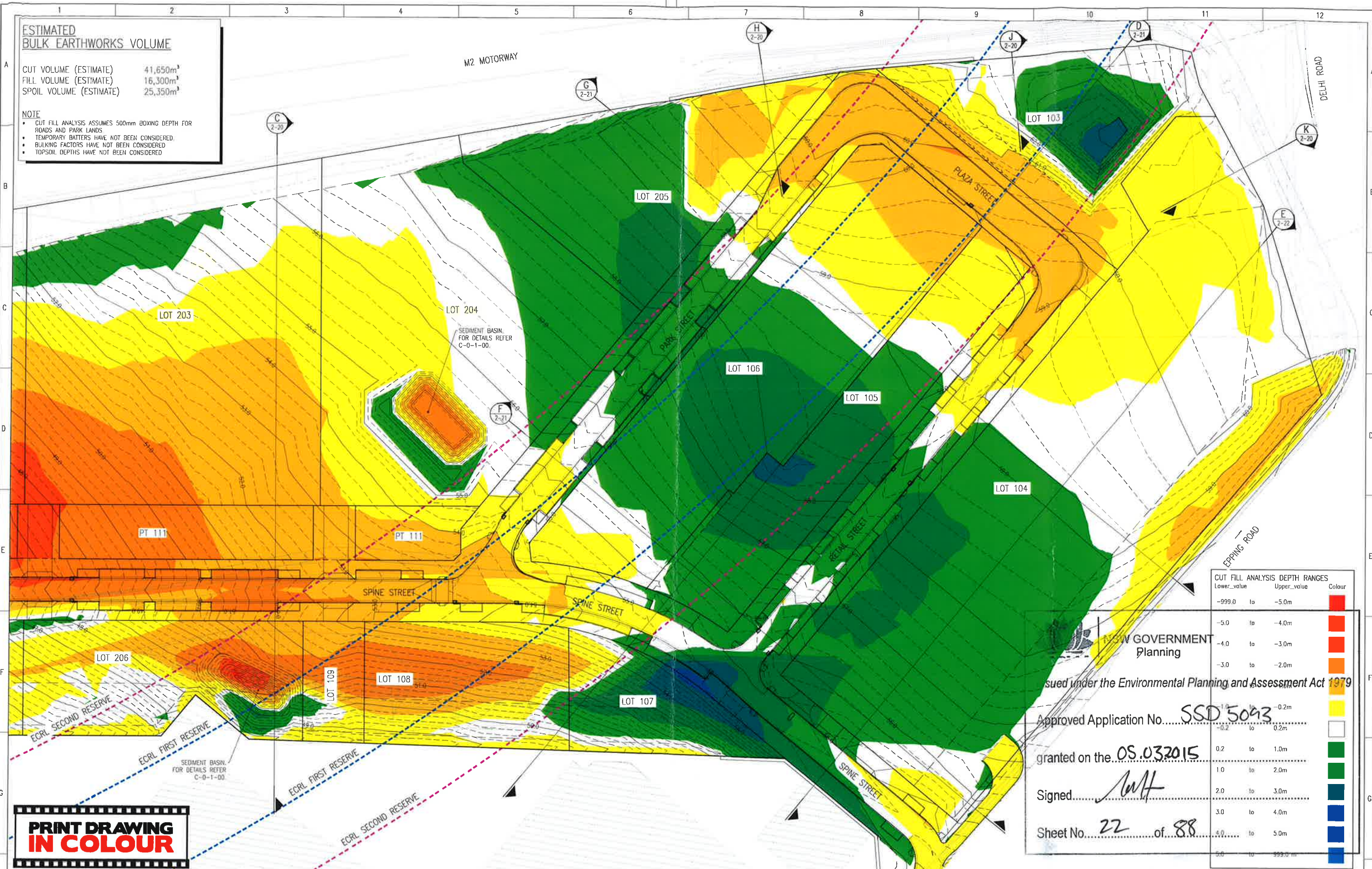
Design Checker: C. ROPE
 Principal/Project Owner: R. LUCKS
 Revision: 5

ESTIMATED BULK EARTHWORKS VOLUME

CUT VOLUME (ESTIMATE) 41,650m³
FILL VOLUME (ESTIMATE) 16,300m³
SPOIL VOLUME (ESTIMATE) 25,350m³

NOTE

- CUT FILL ANALYSIS ASSUMES 500mm BOXING DEPTH FOR ROADS AND PARK LANDS
- TEMPORARY BATTERS HAVE NOT BEEN CONSIDERED
- BULKING FACTORS HAVE NOT BEEN CONSIDERED
- TOPSOIL DEPTHS HAVE NOT BEEN CONSIDERED



CUT FILL ANALYSIS DEPTH RANGES		
Lower_value	Upper_value	Colour
-999.0	to -5.0m	Red
-5.0	to -4.0m	Red
-4.0	to -3.0m	Red
-3.0	to -2.0m	Orange
-2.0	to -1.0m	Yellow
-1.0	to -0.2m	Yellow
-0.2	to 0.2m	White
0.2	to 1.0m	Green
1.0	to 2.0m	Green
2.0	to 3.0m	Green
3.0	to 4.0m	Blue
4.0	to 5.0m	Blue
5.0	to 999.0 m	Blue

NSW GOVERNMENT
Planning
Issued under the Environmental Planning and Assessment Act 1979
Approved Application No. **SSD 5043**
granted on the **05.03.2015**
Signed *[Signature]*
Sheet No. **22** of **88**

**PRINT DRAWING
IN COLOUR**



Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR SSDA	LAR	CR	16.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					

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Engineering Consultant
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Web Site: www.robertbird.com



Title		NOT FOR CONSTRUCTION	
BULK EARTHWORKS SHEET 2 OF 2		Date	28.10.14
Project		Designer	LINSELL
NORTH RYDE STATION PRECINCT, M2 SITE, S.S.D.A.		Drawn	S MANNHEIMER
		Job Number	13656
		Drawing Number	C-0-2-01
		Revision	5

DATUM R.L. 47.0

PROPOSED LEVEL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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BULK EARTHWORKS SECTION D
REFER C-0-2-01
SCALE 1:500 HORIZ
1:250 VERT

DATUM R.L. 51.0

PROPOSED LEVEL	-	59.988	60.182	60.370	60.361	60.161	59.980	59.799	59.643	59.418	59.202	59.986	58.763	58.505	58.211	57.892	57.417	56.935	56.308	55.644	55.123	55.184	-
EXISTING LEVEL	59.35	60.06	60.55	60.55	60.53	60.38	60.21	59.94	59.70	59.42	59.03	58.54	58.05	57.74	57.50	57.10	56.64	56.21	55.65	55.19	54.72	53.89	53.69
CUT/FILL DEPTH	-	-0.07	-0.36	-0.18	-0.17	-0.22	-0.23	-0.15	-0.06	0	0.17	0.44	0.71	0.77	0.71	0.79	0.78	0.73	0.66	0.45	0.4	1.29	-
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000

BULK EARTHWORKS SECTION E
REFER C-0-2-01
SCALE 1:500 HORIZ
1:250 VERT

DATUM R.L. 48.0

PROPOSED LEVEL	55.807	55.847	55.573	55.548	55.783	55.819	55.845	55.897	55.952	55.988	55.725	55.991	55.895	55.730	55.745	55.705	55.683	55.733	55.678	55.70										
EXISTING LEVEL	55.81	55.71	55.53	55.37	55.25	55.40	55.19	55.24	55.51	55.44	55.22	55.02	54.56	54.83	55.26	55.50	55.79	55.99	55.65	55.65	55.70									
CUT/FILL DEPTH	-0	0.14	0.04	0.18	0.54	0.42	0.65	0.66	0.44	0.55	0.51	0.96	1.34	0.8	0.48	0.2	-0.1	-0.26	0.03	55.70										
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000										

BULK EARTHWORKS SECTION F
REFER C-0-2-01
SCALE 1:500 HORIZ
1:250 VERT



NSW GOVERNMENT
Planning

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Approved Application No. SSD5093

granted on the 05.03.2015

Signed [Signature]

Sheet No. 24 of 88

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IN COLOUR**

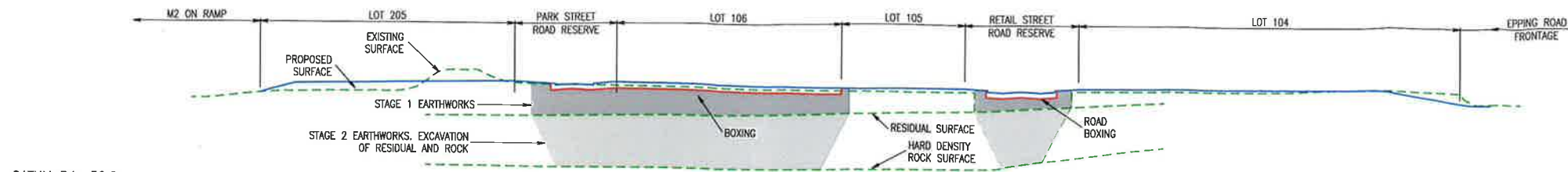
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Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR SSDA	LAN	CR	18.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAN	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAN	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAN	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAN	CR	28.10.2014					

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Client
**UrbanGrowth
NSW**

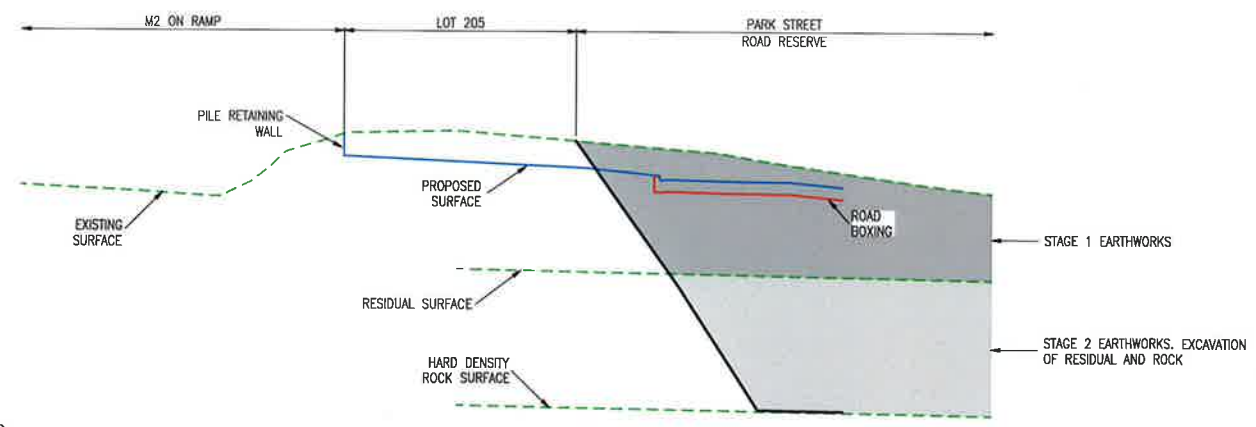
Title
**BULK EARTHWORKS CROSS SECTIONS
SHEET 2 OF 3**
Project
**NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.**
Date
28.10.14
Scale of All
AS SHOWN
Job Number
13656
Designer
L.RUSSELL
Drawn
S.MANANDHAR
Drawing Number
C-0-2-21
Design Checker
C.ROPE
Principal/Project Owner
R.LUCAS
Revision
5



DATUM R.L. 50.0

PROPOSED LEVEL																							
EXISTING LEVEL	57.98	58.39	58.61	58.65	58.42	60.28	54.87	52.21	52.18	52.15	52.12	54.09	58.76	58.79	52.35	56.68	58.90	59.93	59.94	59.03	59.19	59.07	58.20
CUT/FILL DEPTH			0.7	0.73	0.03	-0.75	0.12	0.19	0.26	0.37	0.32	0.25	0.28	0.3	-0.05	0.17	0.21	0.2	0.21	0.15	0.01	-0.39	-0.23
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000
																							228.419

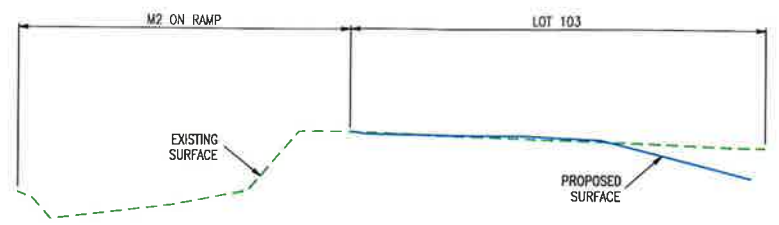
BULK EARTHWORKS SECTION G
REFER C-0-2-01
SCALE 1:1000 HORIZ
1:500 VERT



DATUM R.L. 51.0

PROPOSED LEVEL	60.788	60.558	60.084
EXISTING LEVEL	59.73	59.95	61.69
CUT/FILL DEPTH		-0.9	-0.92
CHAINAGE	0.000	10.000	20.000
			30.000
			40.000

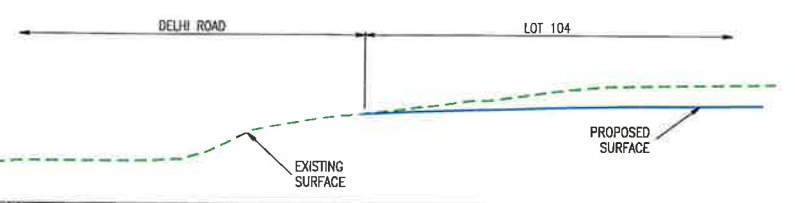
BULK EARTHWORKS SECTION H
REFER C-0-2-01
SCALE 1:250 HORIZ
1:125 VERT



DATUM R.L. 58.0

PROPOSED LEVEL	62.402	62.216	60.964
EXISTING LEVEL	60.51	59.93	62.50
CUT/FILL DEPTH		0.05	0.05
CHAINAGE	0.000	10.000	20.000
			30.000
			40.000
			50.000

BULK EARTHWORKS SECTION J
REFER C-0-2-01
SCALE 1:250 HORIZ
1:125 VERT



DATUM R.L. 57.0

PROPOSED LEVEL	60.197	60.324	60.381
EXISTING LEVEL	58.44	58.49	59.88
CUT/FILL DEPTH		-0.27	-0.68
CHAINAGE	0.000	10.000	20.000
			30.000
			40.000
			50.000

BULK EARTHWORKS SECTION K
REFER C-0-2-01
SCALE 1:250 HORIZ
1:125 VERT

NSW GOVERNMENT Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. **SSD5093**

granted on the **05.03.2015**

Signed *[Signature]*

Sheet No. **25** of **88**

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Rev.	Revision Description	By	App.	Date	Rev.	Revision Description	By	App.	Date
1	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
2	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					

Structural, Civil & Construction Engineering Consultant

RobertBirdGroup

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ACN: 010 510 245

Web Site: www.robertbird.com

Client

UrbanGrowth NSW

BULK EARTHWORKS CROSS SECTIONS SHEET 3 OF 3

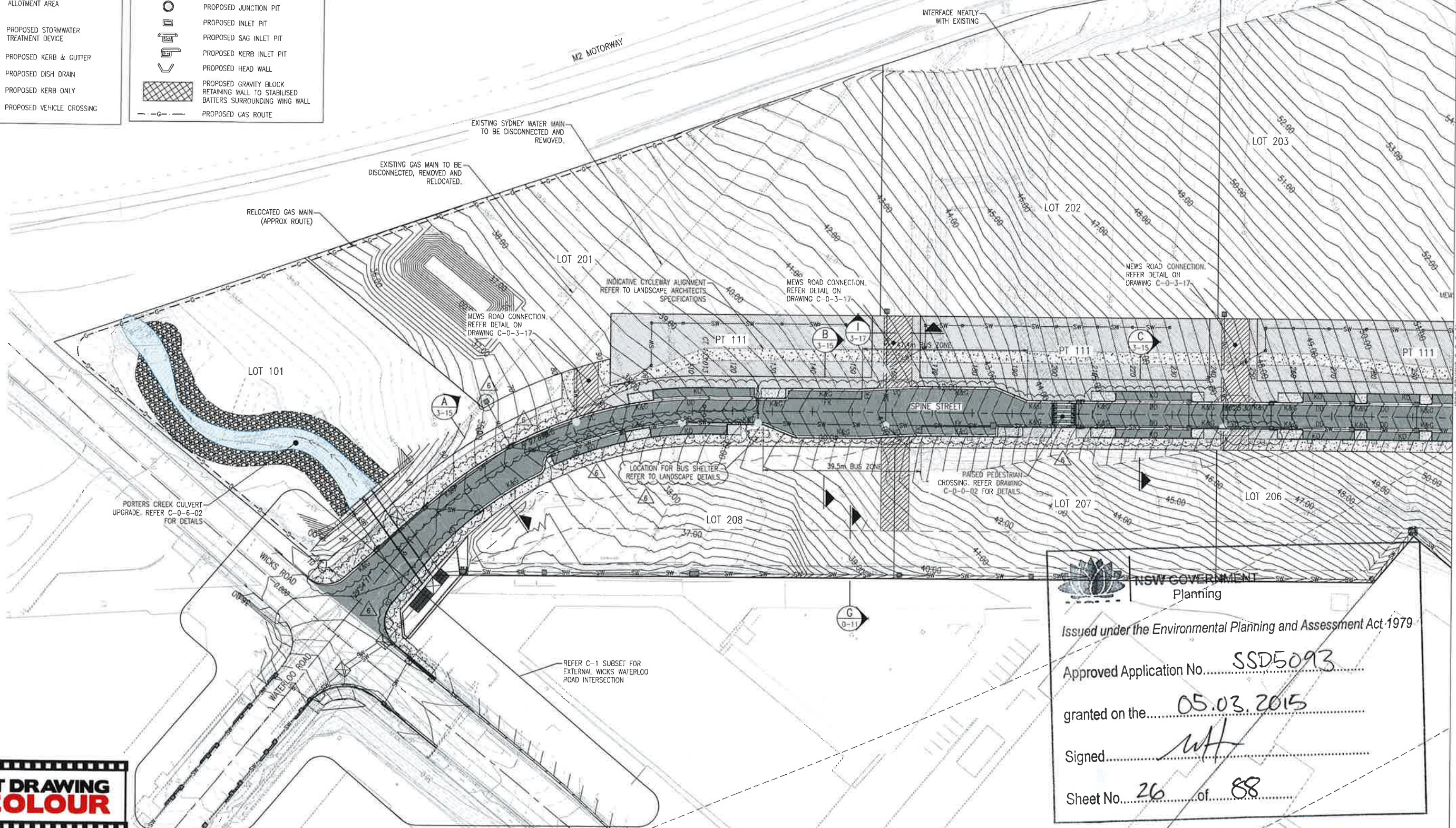
Project
NORTH RYDE STATION PRECINCT, M2 SITE, S.S.D.A.

NOT FOR CONSTRUCTION

Date 28.10.14	Designer L.RUSSELL	Design Checker C.ROPE
Scale at A1 AS SHOWN	Drawn S.MANANDHAR	Principal/Project Owner R.LUCAS
Job Number 13656	Drawing Number C-0-2-22	Revision 2

- LEGEND**
- PROPOSED EXTENT OF ROAD
 - PROPOSED FOOTPATH
 - PROPOSED VEHICLE CROSSING TO COUNCIL STANDARDS
 - PROPOSED LANDSCAPED AREA
 - LOT A
 - ALLOTMENT AREA
 - PROPOSED STORMWATER TREATMENT DEVICE
 - F&G
 - PROPOSED KERB & GUTTER
 - DD
 - PROPOSED DISH DRAIN
 - KO
 - PROPOSED KERB ONLY
 - VC
 - PROPOSED VEHICLE CROSSING

- 55.40
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED KERB RAMP
- SW
- PROPOSED STORMWATER PIPE
- PROPOSED BATTER
- PEDESTRIAN SAFETY FENCE
- PROPOSED JUNCTION PIT
- PROPOSED INLET PIT
- PROPOSED SAG INLET PIT
- PROPOSED KERB INLET PIT
- PROPOSED HEAD WALL
- PROPOSED GRAVITY BLOCK RETAINING WALL TO STABILISED BATTERS SURROUNDING WING WALL
- G
- PROPOSED GAS ROUTE



NSW GOVERNMENT Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. **SSD5093**

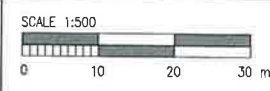
granted on the **05.03.2015**

Signed *[Signature]*

Sheet No. **26** of **88**

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2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					
6	UPDATED SUBMISSION FOR SSDA	LAR	CR	04.02.2015					

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Client

UrbanGrowth NSW

Title

GENERAL ARRANGEMENT PLAN
SHEET 1 OF 2

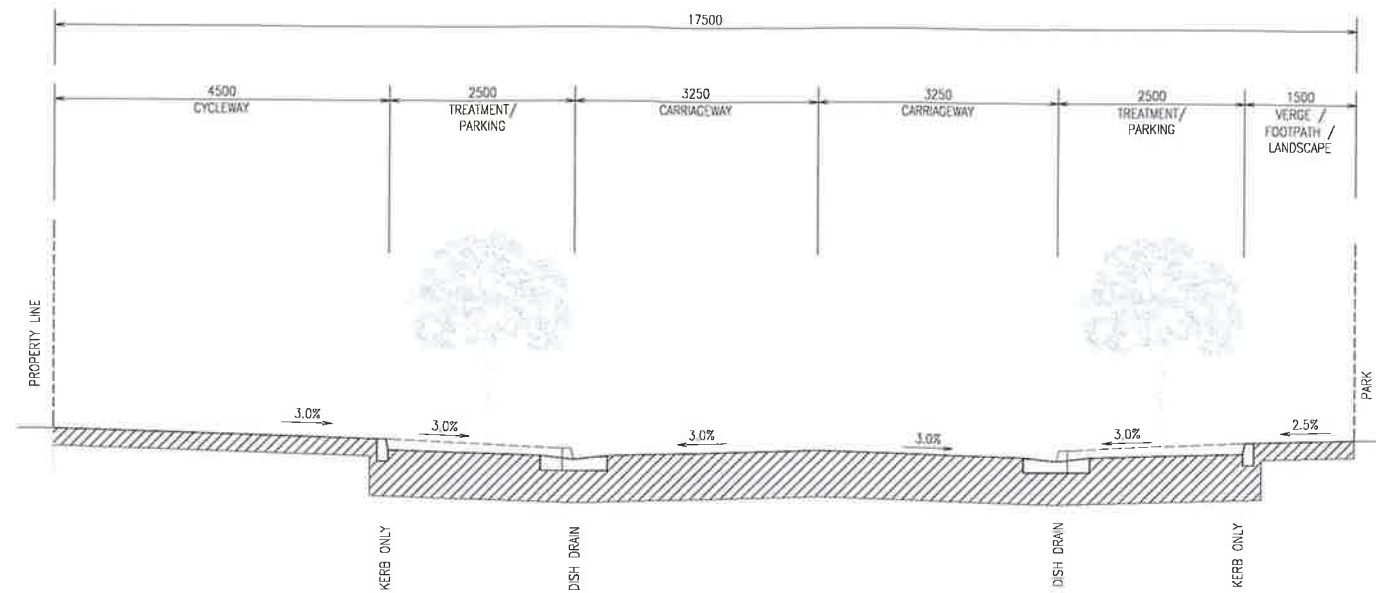
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M2 SITE, S.S.D.A.

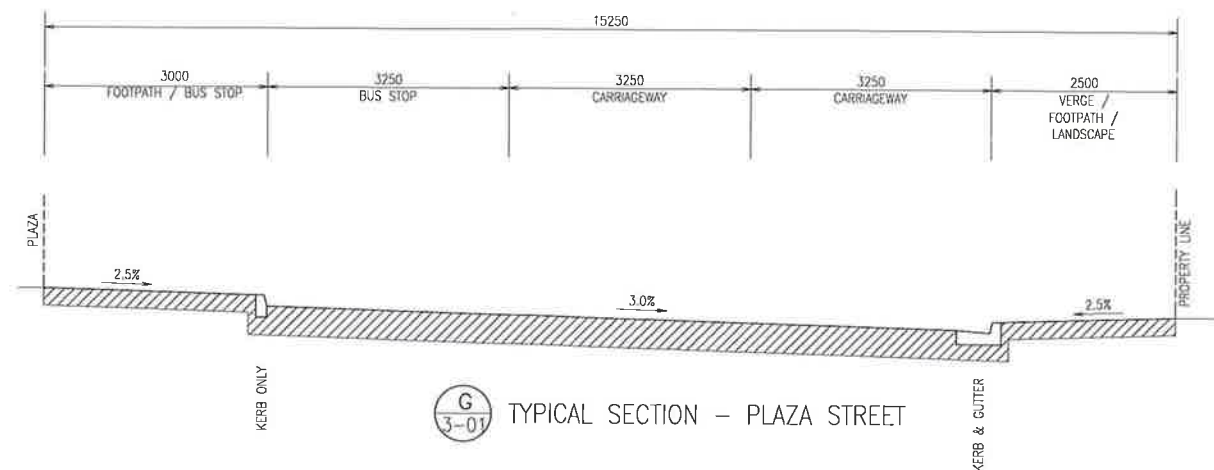
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Date	04.02.2015	Designer	LIRUSSELL	Design Checker	C.ROPE
Scale of A1	AS SHOWN	Drawn	S. WANANDHAR	Principal/Project Owner	R. LUCAS
Job Number	13656 B	Drawing Number	C-0-3-00	Revision	6

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E
3-01 TYPICAL SECTION - PARK STREET



G
3-01 TYPICAL SECTION - PLAZA STREET



NSW GOVERNMENT
Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. **SSD5093**

granted on the **05.03.2015**

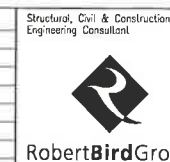
Signed **[Signature]**

Sheet No. **29** of **88**



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REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE

Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR SSQA	LAR	CH	18.05.2014					
2	UPDATED SUBMISSION FOR SSQA	LAR	CH	22.05.2014					
3	UPDATED SUBMISSION FOR SSQA	LAR	CH	27.05.2014					
4	UPDATED SUBMISSION FOR SSQA	LAR	CH	21.10.2014					
5	UPDATED SUBMISSION FOR SSQA	LAR	CH	28.10.2014					



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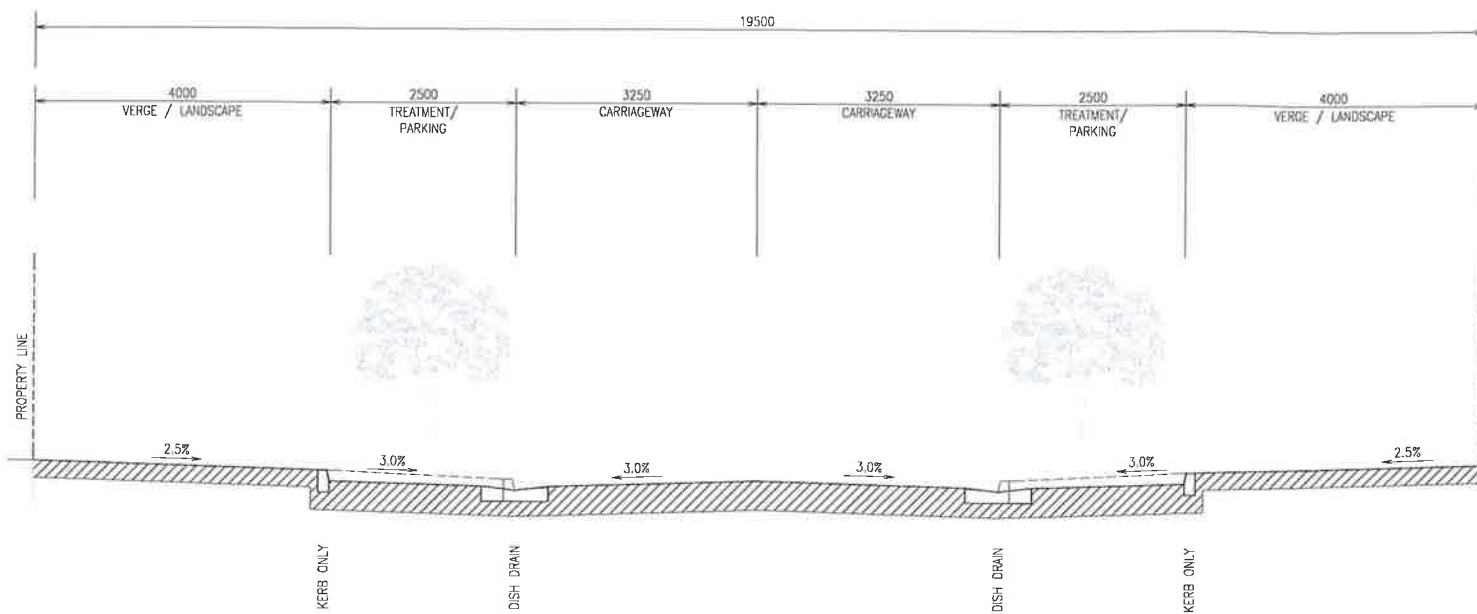


TYPICAL SECTIONS PLAN
SHEET 2 OF 3

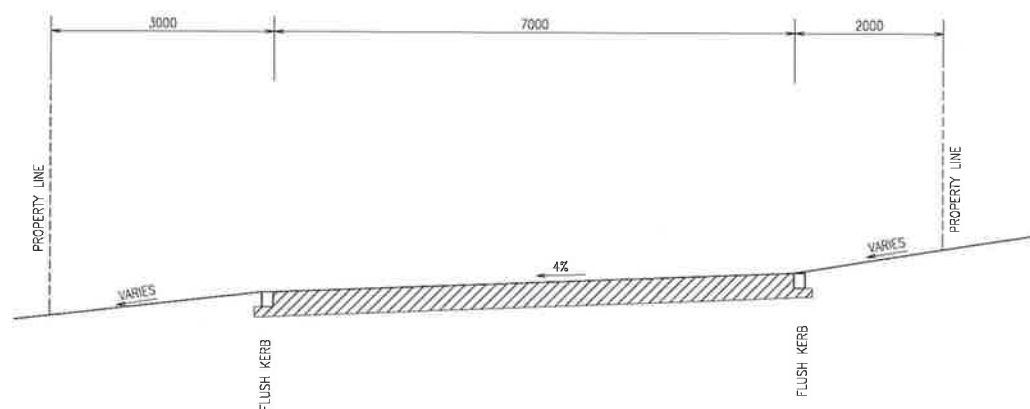
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NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.

NOT FOR CONSTRUCTION

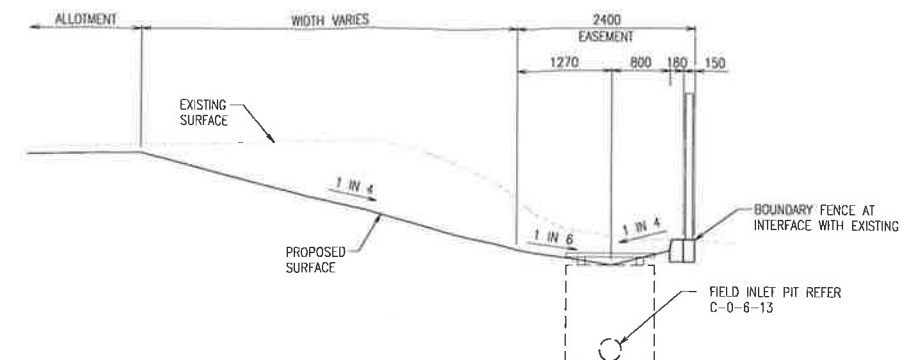
Date 28.10.2014	Designer L. RUSSELL	Design Checker C. ROPE
Scale of A1 AS SHOWN	Drawn S. MANANDHAR	Principal/Project Owner R. LUCAS
Job Number 13656	Drawing Number C-0-3-16	Revision 5



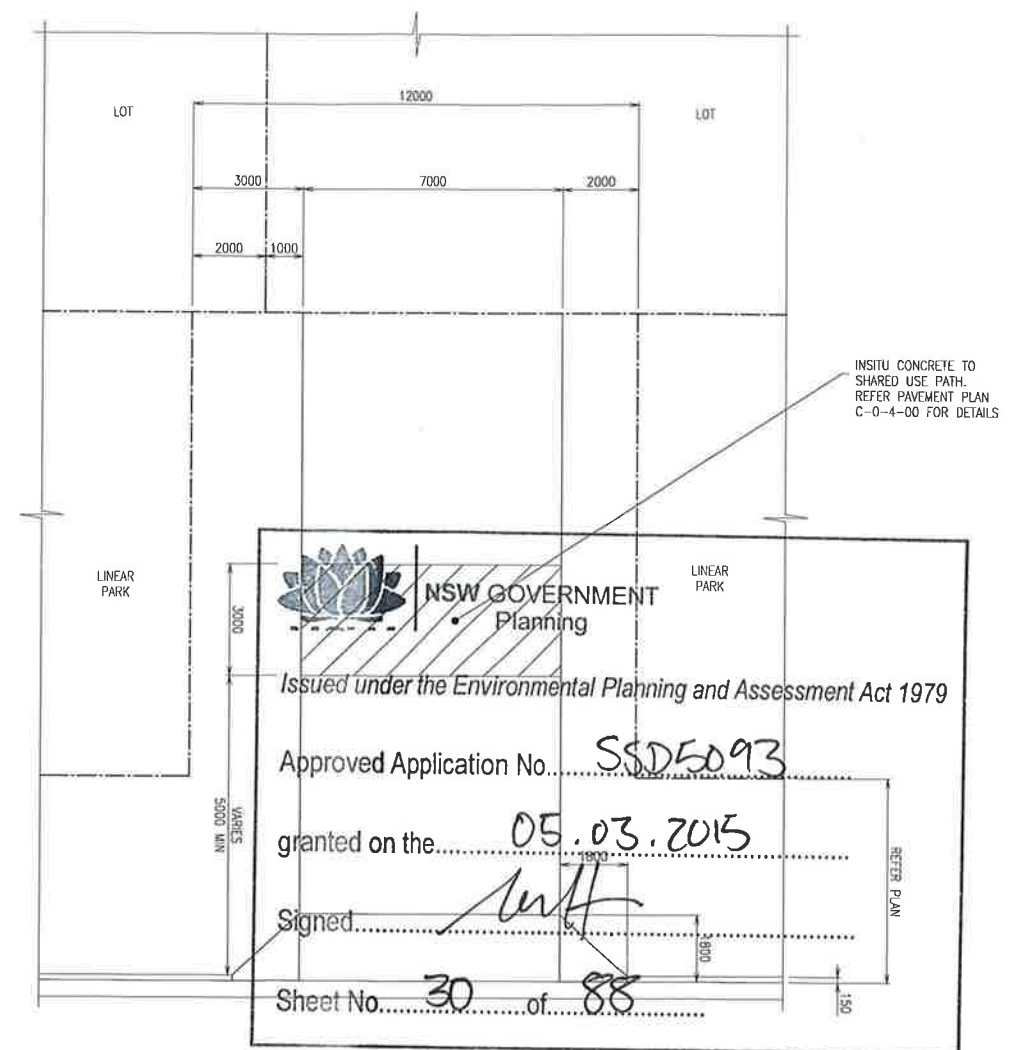
H
3-01 TYPICAL SECTION - RETAIL STREET



I
3-00 TYPICAL SECTION - MEWS ROAD



G
3-00 TYPICAL SECTION - WESTERN BOUNDARY INTERFACE



MEWS ROAD CONNECTION DETAIL
SCALE 1:100

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Planning

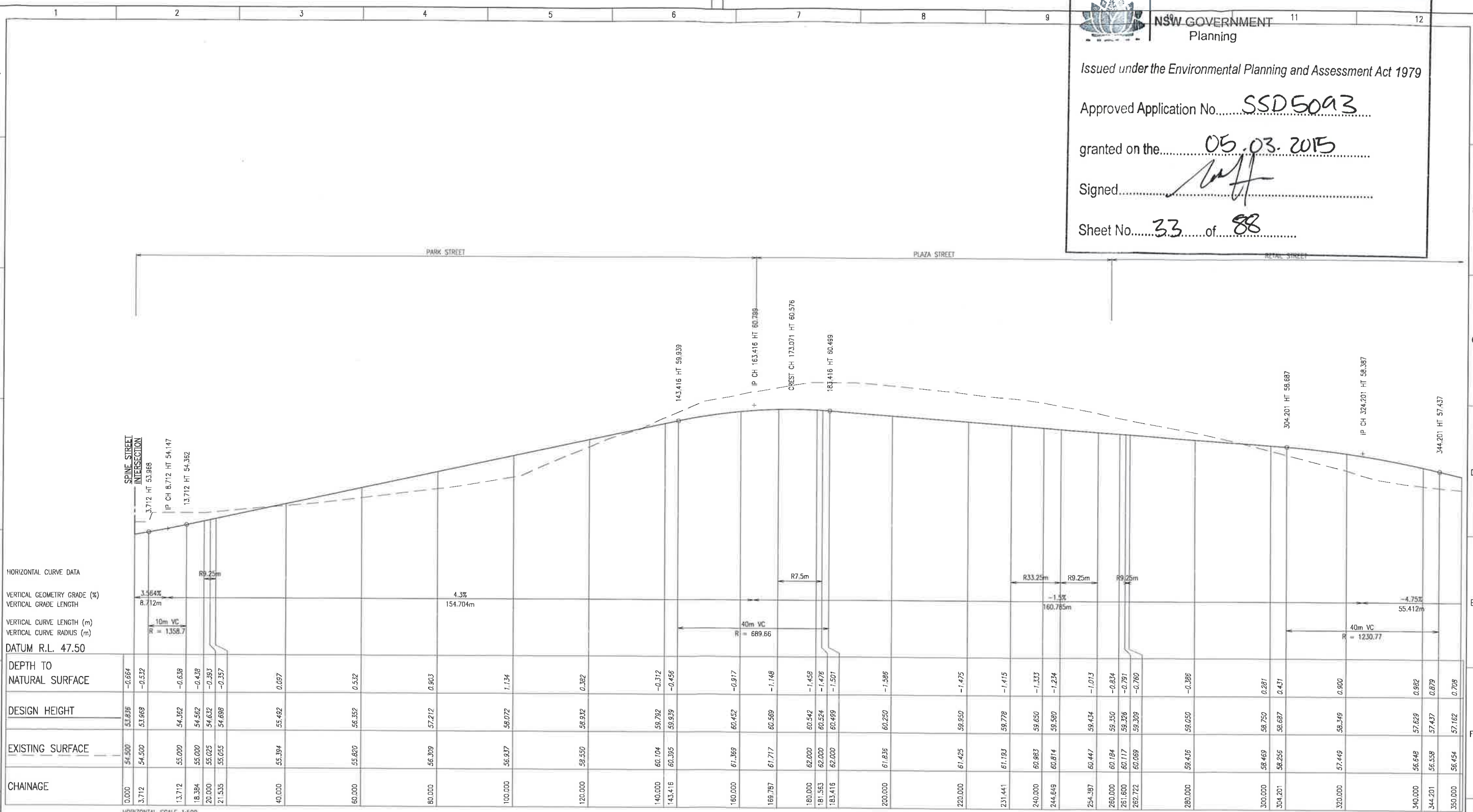
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Approved Application No.SSD5093

granted on the 05.03.2015

Signed [Signature]

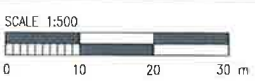
Sheet No.33..... of 88



LONGITUDINAL SECTION PARK PLAZA RETAIL STREETS

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Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR SSDA	LAN	CR	16.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAN	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAN	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAN	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAN	CR	28.10.2014					

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UrbanGrowth NSW

NOT FOR CONSTRUCTION

Date: 26.10.2014
Scale: as shown
Job Number: 13656

Designer: L. RUSSELL
Drawn: S. WANDHAR
Drawing Number: C-0-3-25

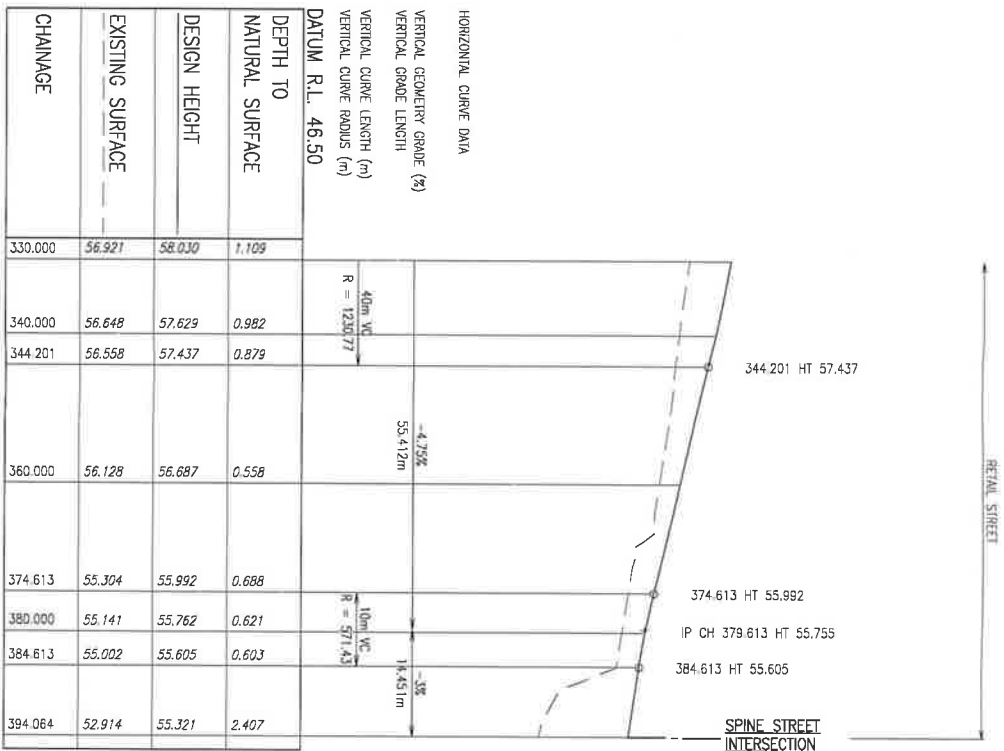
Design Checker: C. ROPE
Project Manager: R. LUCAS
Revision: 5

NOT FOR CONSTRUCTION

Date: 26.10.2014
Scale: as shown
Job Number: 13656

Designer: L. RUSSELL
Drawn: S. WANDHAR
Drawing Number: C-0-3-25

Design Checker: C. ROPE
Project Manager: R. LUCAS
Revision: 5



LONGITUDINAL SECTION MC ROAD PARK PLAZA RETAIL

Station	Existing Surface	Design Height	Depth to Natural Surface	Change
330.000	56.921	58.030	1.109	
340.000	56.648	57.629	0.982	
344.201	56.558	57.437	0.879	
360.000	56.128	56.687	0.558	
374.613	55.304	55.992	0.688	
380.000	55.141	55.762	0.621	
384.613	55.002	55.605	0.603	
394.064	52.914	55.321	2.407	



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Approved Application No. S50 50 43

granted on the 05.03.2015

Signed M.H.

Sheet No. 34 of 88

SYDNEY OFFICE:
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Web Site: www.robertbird.com



NOT FOR CONSTRUCTION

Date: 28.10.2014

Scale: As Shown

Job Number: 13656

Project: PARK, PLAZA AND RETAIL STREET LONGITUDINAL SECTION SHEET 2 OF 2

Design: L. BRESILL

Checker: C.M. REE

Project/Field Sheet: RUDOS

Drawing Number: C-0-3-26

Revision: 5

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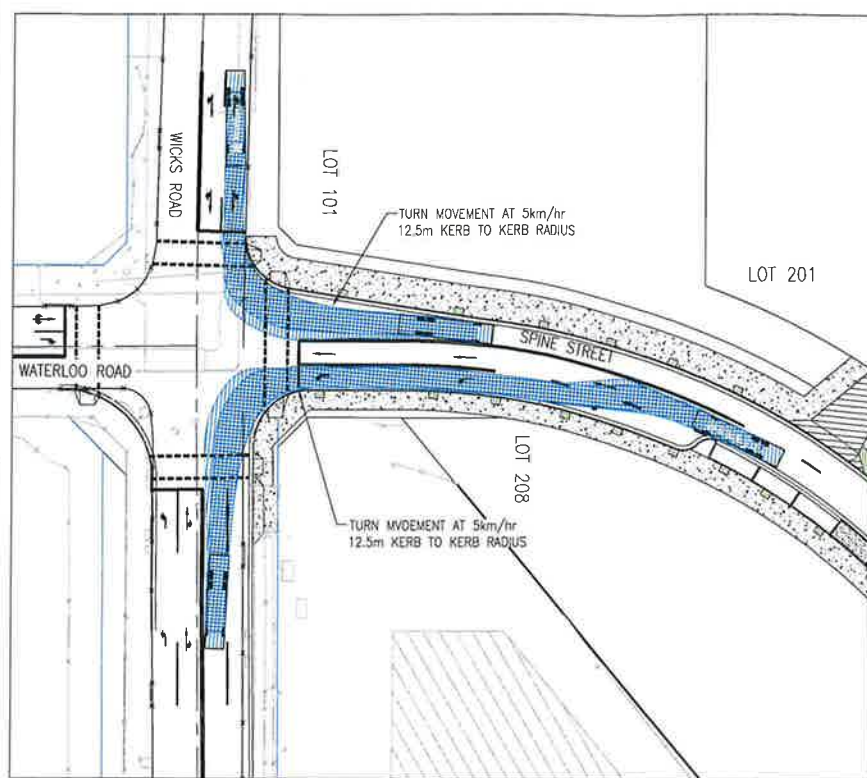


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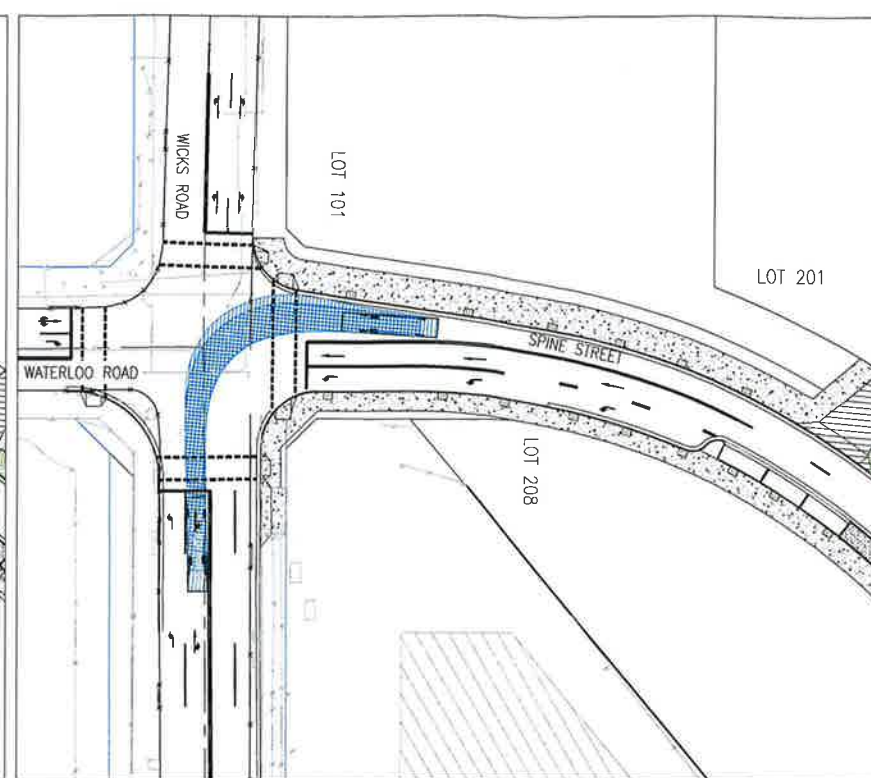
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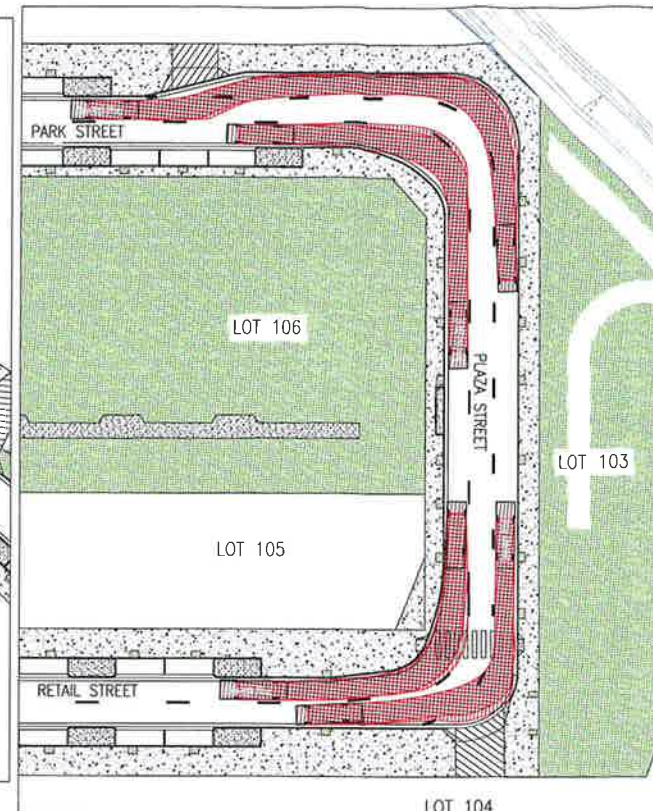
REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE



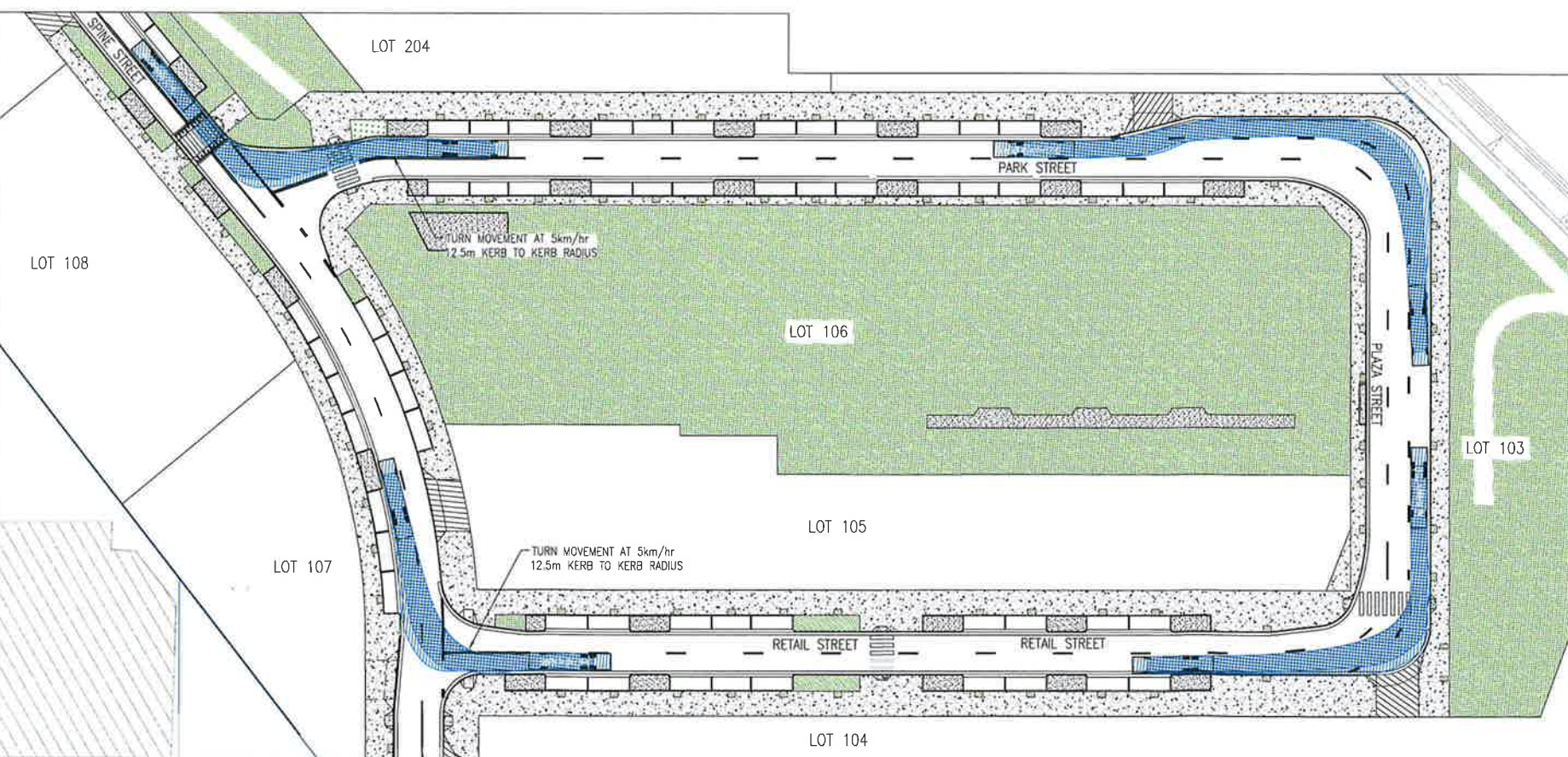
VEHICLE SWEEP PATHS – VIEW 1
WICK'S, WATERLOO AND SPINE STREET INTERSECTION



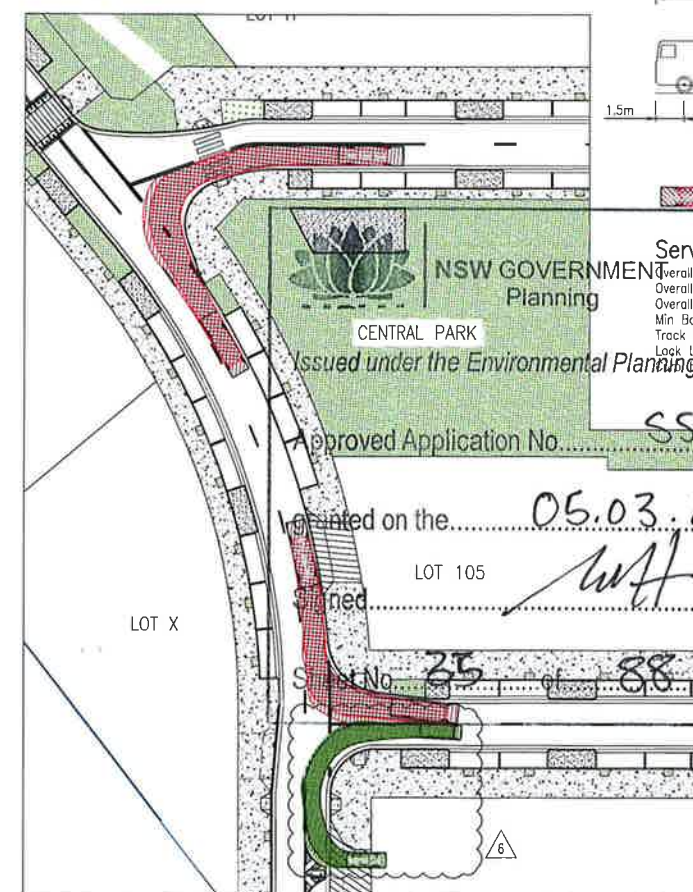
VEHICLE SWEEP PATHS – VIEW 2
WICK'S, WATERLOO AND SPINE STREET INTERSECTION



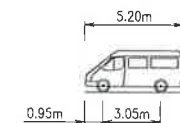
VEHICLE SWEEP PATHS – VIEW 3
PARK, PLAZA AND RETAIL STREET BENDS



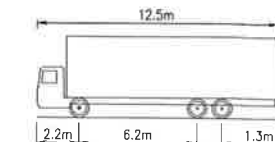
VEHICLE SWEEP PATHS – VIEW 4
PARK, PLAZA AND RETAIL STREET BENDS
SPINE STREET INTERSECTIONS WITH PARK AND RETAIL STREETS



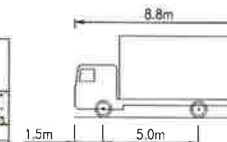
VEHICLE SWEEP PATHS – VIEW 5
SPINE STREET INTERSECTIONS WITH PARK AND RETAIL STREETS



CAR/VAN VEHICLE (5.2 m)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 2.200m
Min Body Ground Clearance 0.312m
Track Width 1.640m
Lock to Lock Time 4.00s
Curb to Curb Turning Radius 5.300m



Single Unit Truck/Bus (12.5 m)
Overall Length 12.500m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.490m
Track Width 2.500m
Lock to Lock Time 6.00s
Curb to Curb Turning Radius 15.000m



Service Vehicle (8.8 m)
Overall Length 8.800m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.427m
Track Width 2.500m
Lock to Lock Time 4.00s
Curb to Curb Turning Radius 5.000m

Approved Application No. **SSP 5093**

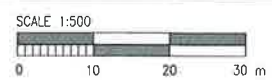
Issued on the **05.03.2015**

Signed **[Signature]**

Scale No. **35** of **88**

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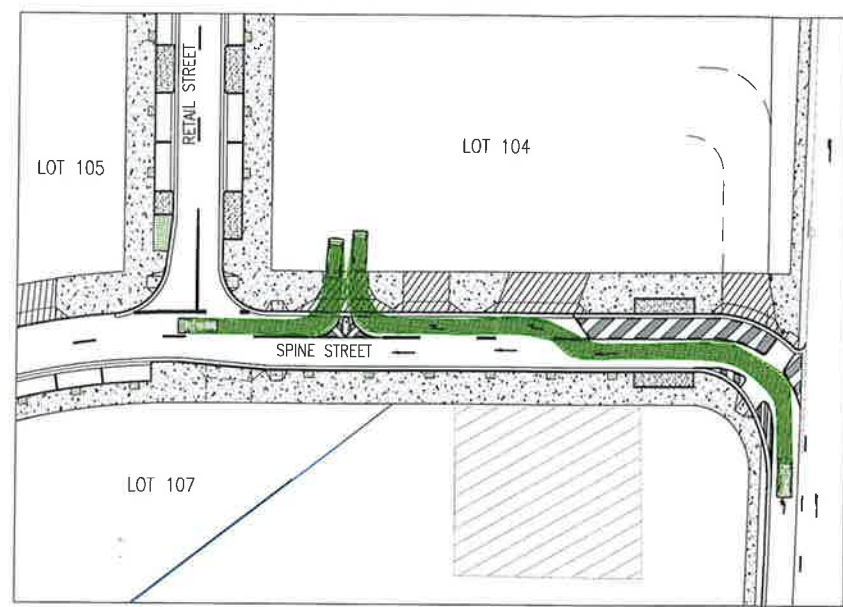
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1	DRAFT SUBMISSION FOR SSDA	LAR	CR	16.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	29.10.2014					
6	UPDATED SUBMISSION FOR SSDA	LAR	CR	04.02.2015					

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Fax: (02) 8246 3201
401 015 0244
Web Site: www.robertbird.com

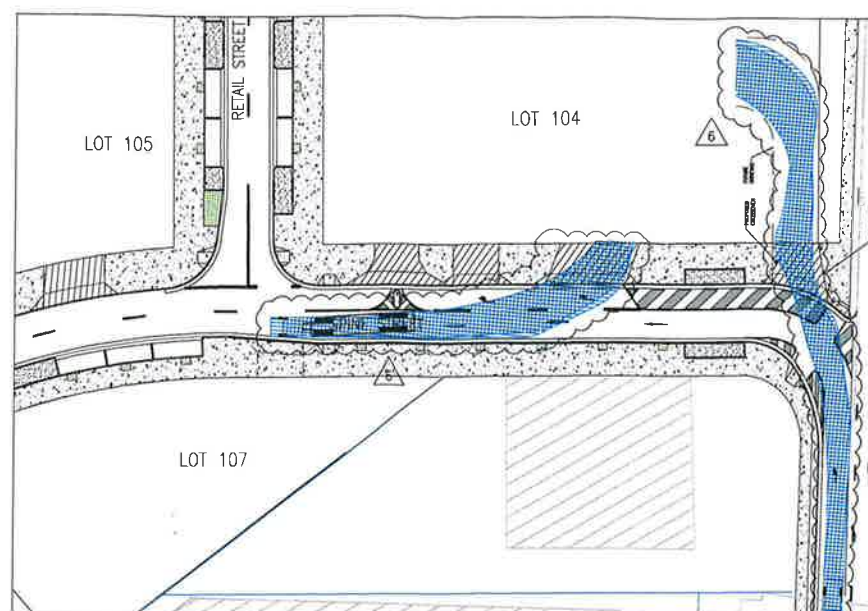
**UrbanGrowth
NSW**

Title
**SWEEP PATH ANALYSIS PLAN
SHEET 1 OF 3**
Project
**NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.**

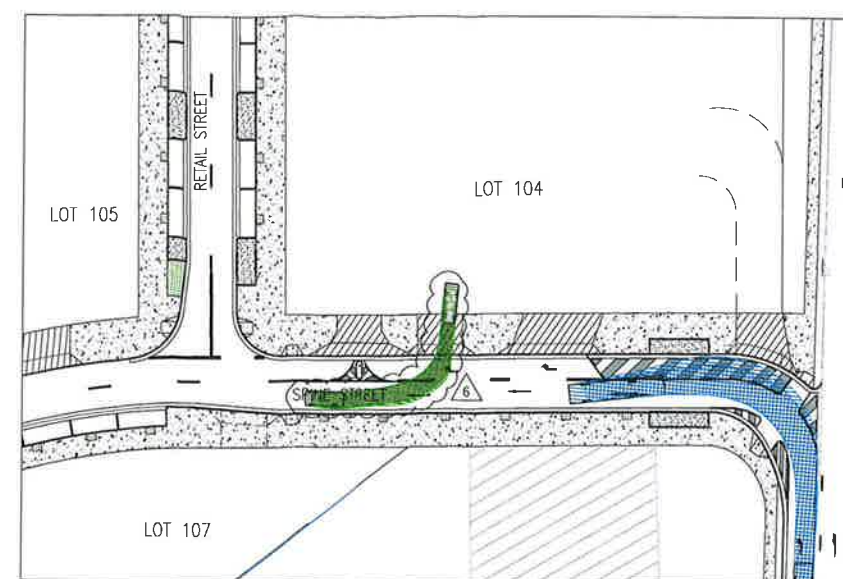
NOT FOR CONSTRUCTION			
Date 04.02.2015	Designer L. RUSSELL	Design Checker C. ROPE	
Scale at A1 AS SHOWN	Drawn S. MANOHAR	Principal/Project Owner R. LUCAS	
Job Number 13656 B	Drawing Number C-0-3-40	Revision 6	



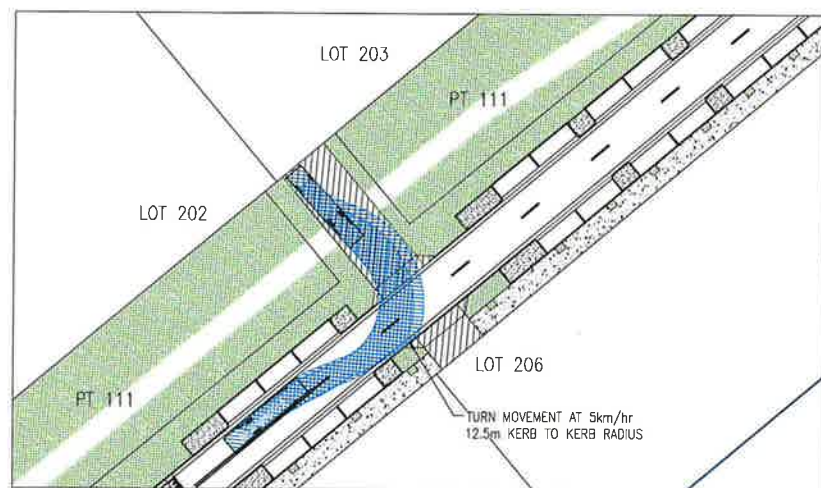
VEHICLE SWEEP PATHS - VIEW 6
LOT 104 DRIVEWAY INTERSECTION WITH SPINE STREET



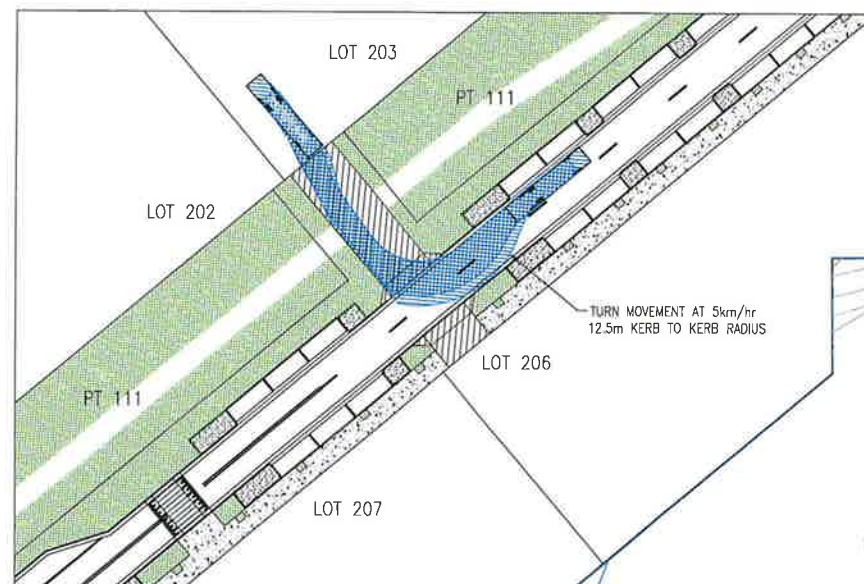
VEHICLE SWEEP PATHS - VIEW 7
LOT 104 DRIVEWAY INTERSECTION WITH SPINE STREET



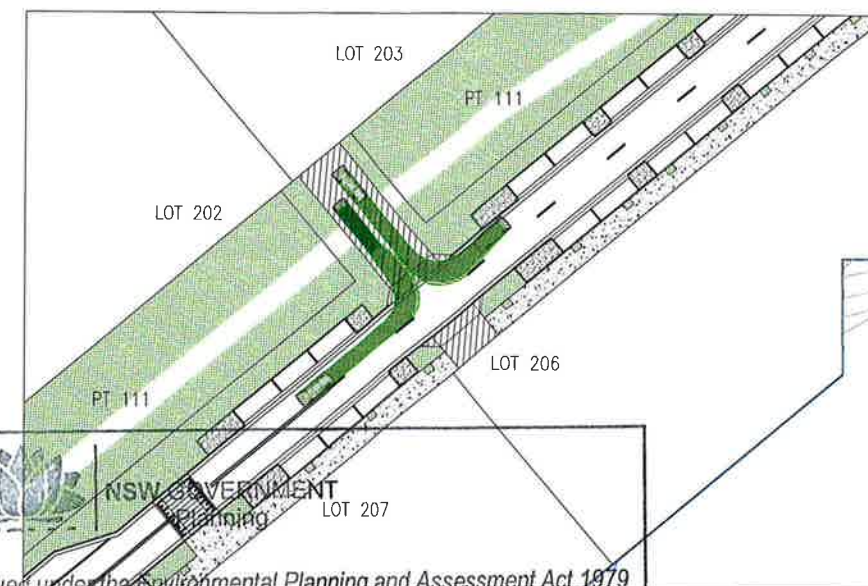
VEHICLE SWEEP PATHS - VIEW 8
LOT 104 DRIVEWAY INTERSECTION WITH SPINE STREET
EPPING ROAD INTERSECTION WITH SPINE STREET



VEHICLE SWEEP PATHS - VIEW 9
MEWS ROAD INTERSECTION WITH SPINE STREET



VEHICLE SWEEP PATHS - VIEW 10
MEWS ROAD INTERSECTION WITH SPINE STREET



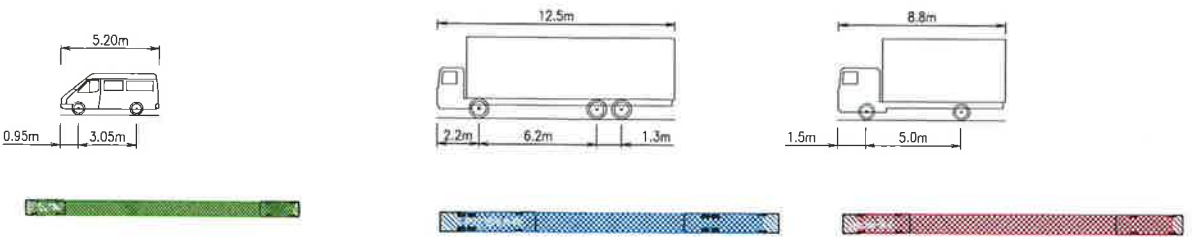
ISSUED UNDER THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Approved Application No. **SSD 5093**
VEHICLE SWEEP PATHS - VIEW 11
MEWS ROAD INTERSECTION WITH SPINE STREET

granted on the **05.03.2015**

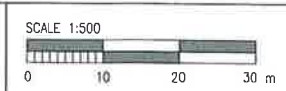
Signed **[Signature]**

Sheet No. **36** of **88**



CAR/VAN VEHICLE (5.2 m)	Single Unit Truck/Bus (12.5 m)	Service Vehicle (8.8 m)
Overall Length 5.200m	Overall Length 12.500m	Overall Length 8.800m
Overall Width 1.940m	Overall Width 2.500m	Overall Width 2.500m
Overall Body Height 2.200m	Overall Body Height 4.300m	Overall Body Height 4.300m
Min Body Ground Clearance 0.312m	Min Body Ground Clearance 0.490m	Min Body Ground Clearance 0.427m
Track Width 1.840m	Track Width 2.500m	Track Width 2.500m
Lock to Lock Time 4.00s	Lock to Lock Time 6.00s	Lock to Lock Time 4.00s
Curb to Curb Turning Radius 6.300m	Curb to Curb Turning Radius 15.000m	Curb to Curb Turning Radius 12.500m

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Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR SSDA	LAR	CR	16.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					
6	UPDATED SUBMISSION FOR SSDA	LAR	CR	04.02.2015					

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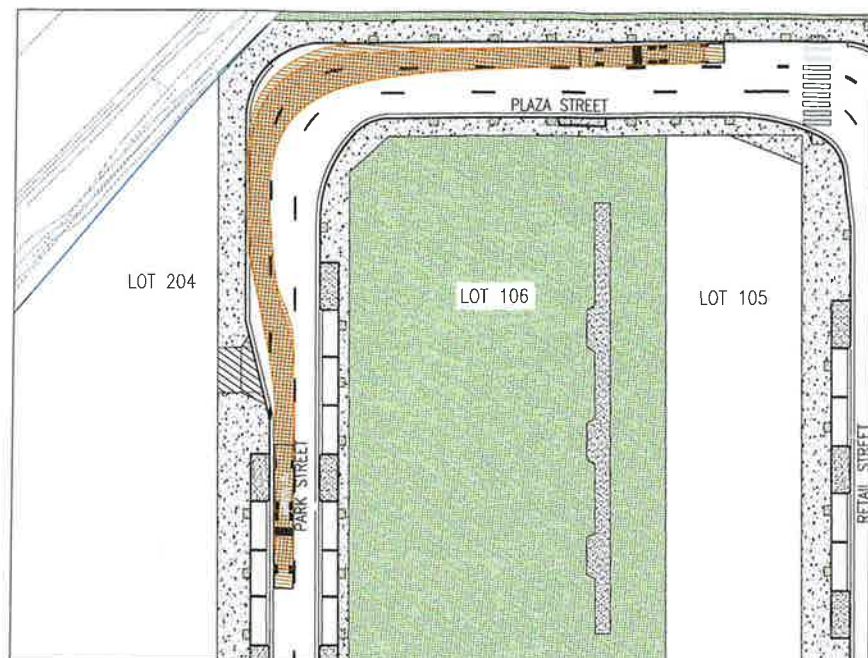
SYDNEY OFFICE:
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Client
UrbanGrowth NSW

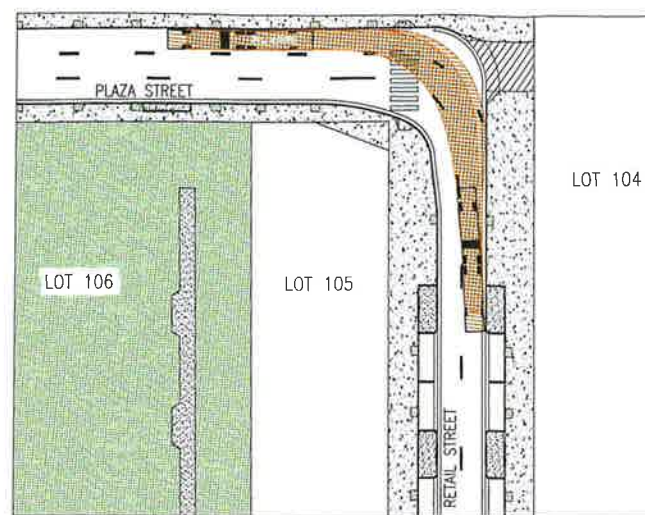
Title
**SWEEP PATH ANALYSIS PLAN
SHEET 2 OF 3**
Project
**NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.**

NOT FOR CONSTRUCTION			
Date 04.02.2015	Designer LUSSELL	Design Checker CROPE	
Scale at A1 AS SHOWN	Drawn S MANANDHAR	Principal/Project Owner R LUCAS	
Job Number 13656 B	Drawing Number C-0-3-41	Revision 6	

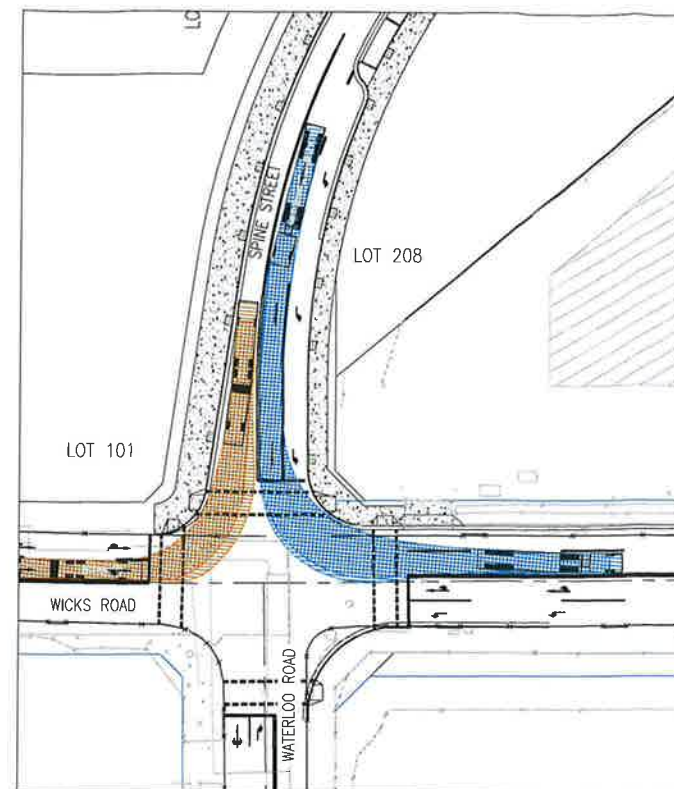
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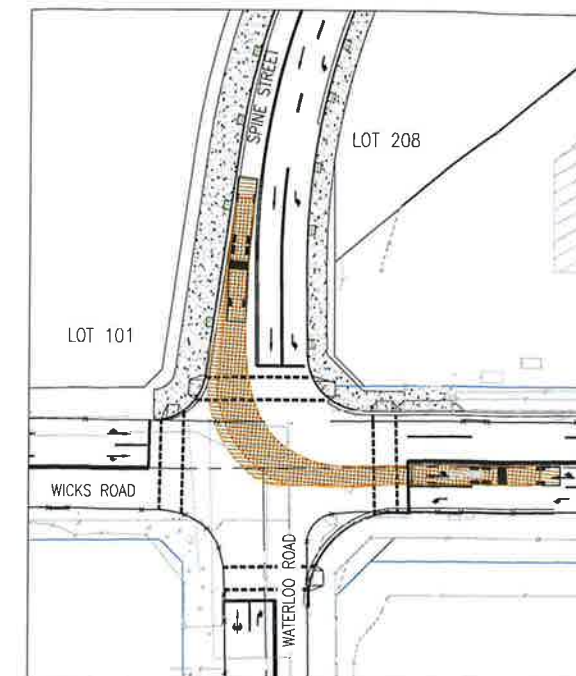
VEHICLE SWEEP PATHS - VIEW 12
PARK AND PLAZA STREET BEND



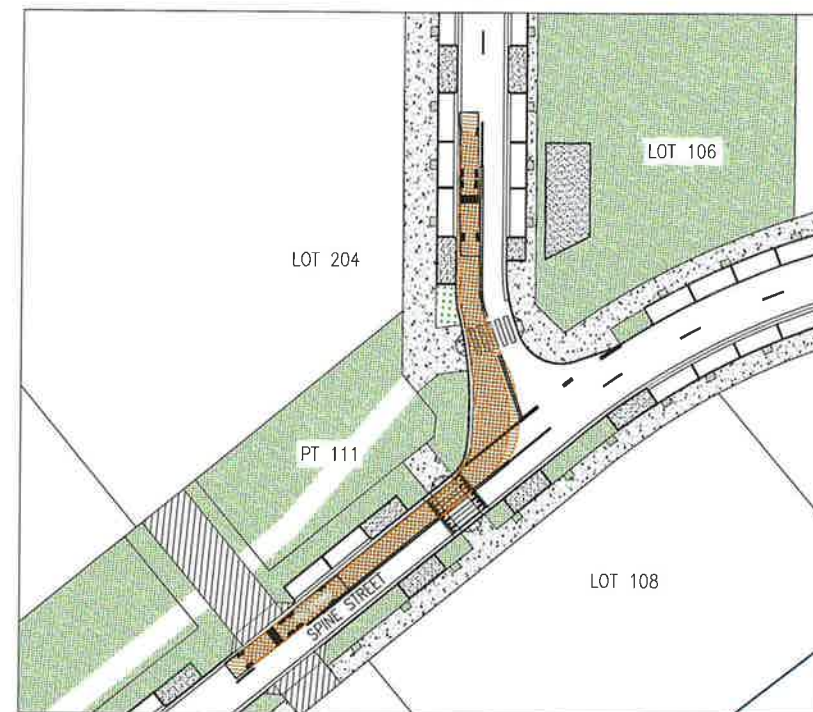
VEHICLE SWEEP PATHS - VIEW 13
PLAZA AND RETAIL STREET BEND



VEHICLE SWEEP PATHS - VIEW 14
WICKS WATERLOO AND SPINE STREET INTERSECTION



VEHICLE SWEEP PATHS - VIEW 15
WICKS WATERLOO AND SPINE STREET INTERSECTION



VEHICLE SWEEP PATHS - VIEW 16
SPINE STREET INTERSECTION WITH PARK STREET

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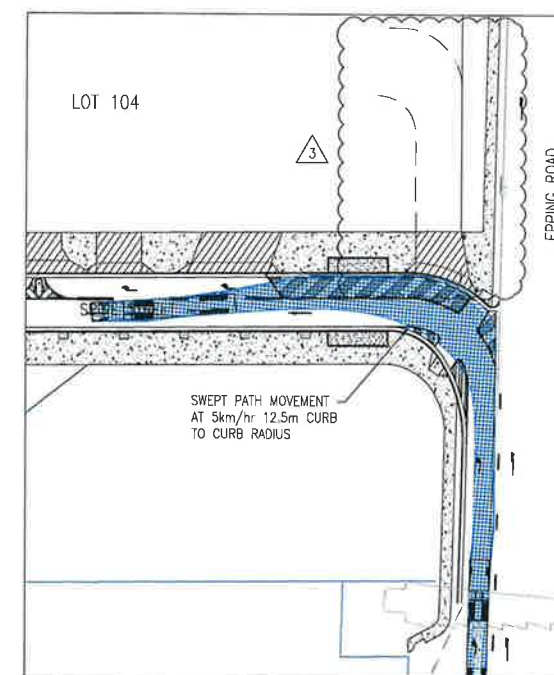
VEHICLE SWEEP PATHS - VIEW 17
SPINE STREET INTERSECTION WITH RETAIL STREET

Approved Application No. SSD 5043

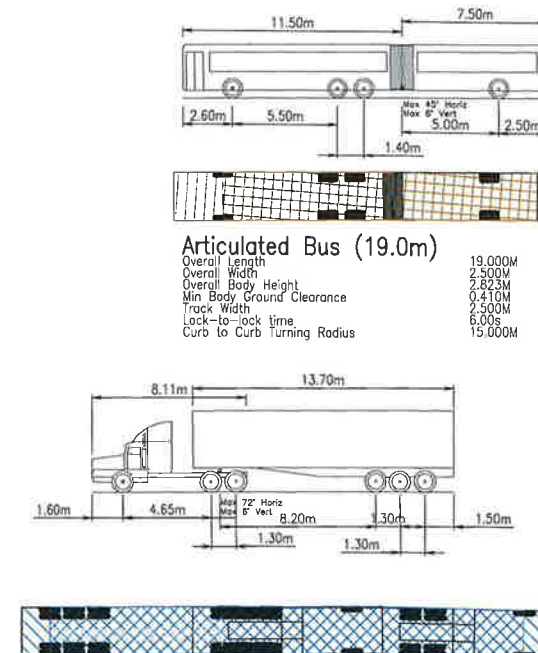
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Signed [Signature]

Sheet No. 37 of 88

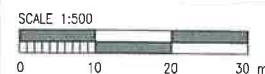


VEHICLE SWEEP PATHS - VIEW 18
EPPING ROAD SLIP LANE AND INTERSECTION WITH SPINE STREET



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1	DRAFT SUBMISSION FOR SSDA	LAR	CR	16.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAR	CR	26.10.2014					
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	04.02.2015					

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NSW**

Title
SWEPT PATH ANALYSIS PLAN
SHEET 3 OF 3

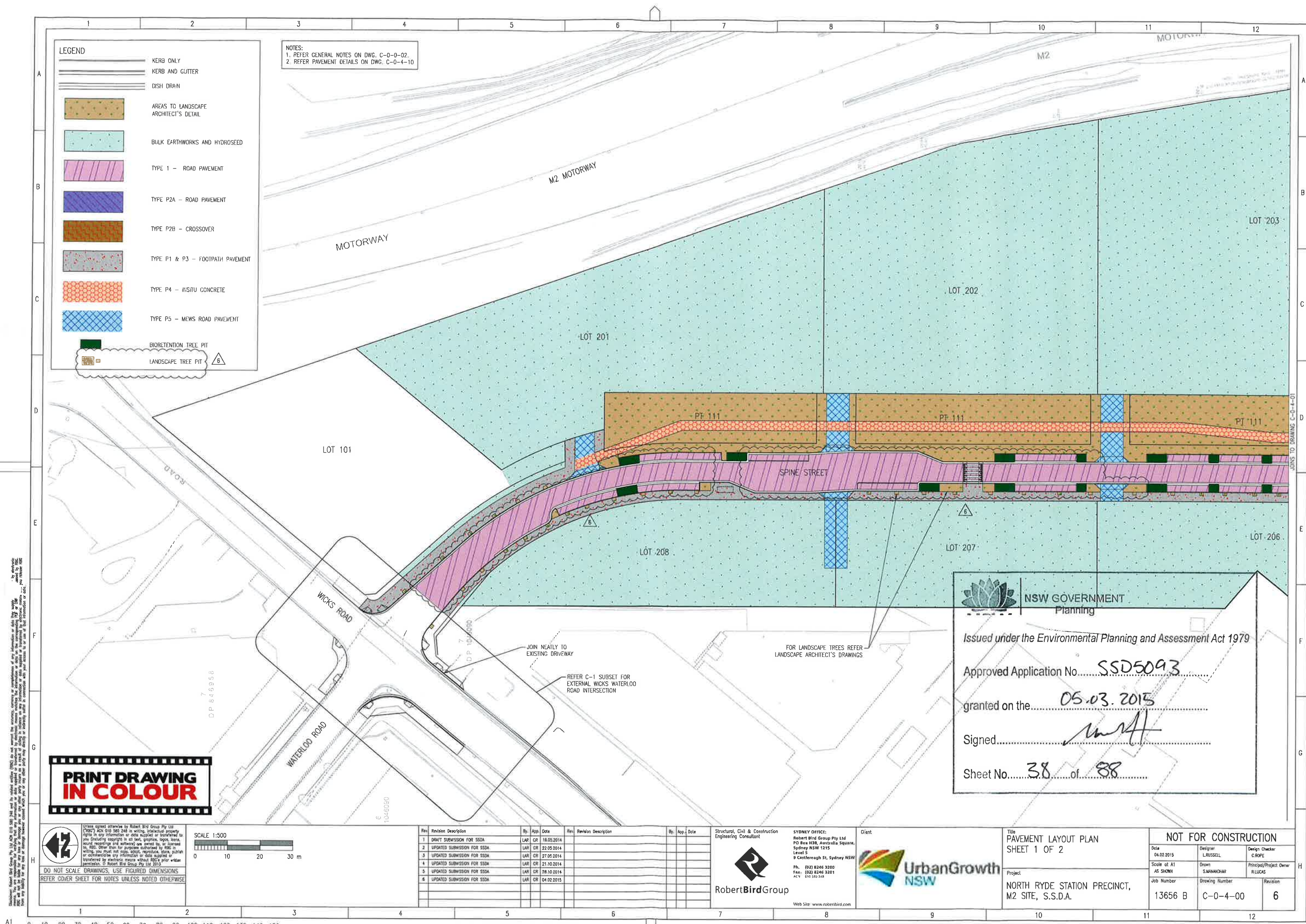
Project
NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.

NOT FOR CONSTRUCTION

Date 04.02.2015	Designer L.RUSSELL	Design Checker C.ROPE
Scale at A1 AS SHOWN	Drawn S.MANANDHAR	Principal/Project Owner A.LUCAS
Job Number 13656 B	Drawing Number C-0-3-42	Revision 3

- LEGEND**
- KERB ONLY
 - KERB AND GUTTER
 - DISH DRAIN
 - AREAS TO LANDSCAPE ARCHITECT'S DETAIL
 - BULK EARTHWORKS AND HYDROSEED
 - TYPE 1 - ROAD PAVEMENT
 - TYPE P2A - ROAD PAVEMENT
 - TYPE P2B - CROSSOVER
 - TYPE P1 & P3 - FOOTPATH PAVEMENT
 - TYPE P4 - INSITU CONCRETE
 - TYPE P5 - MEWS ROAD PAVEMENT
 - BIORETENTION TREE PIT
 - LANDSCAPE TREE PIT

NOTES:
1. REFER GENERAL NOTES ON DWG. C-0-0-02.
2. REFER PAVEMENT DETAILS ON DWG. C-0-4-10



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Planning

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Approved Application No. **SSD5093**

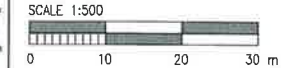
granted on the **05.03.2015**

Signed *[Signature]*

Sheet No. **38** of **88**

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1	DRAFT SUBMISSION FOR SSDA	LAR	CR	18.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014					
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4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					
6	UPDATED SUBMISSION FOR SSDA	LAR	CR	04.02.2015					

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Engineering Consultant

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MCN: 010-560-240

Web Site: www.robertbird.com

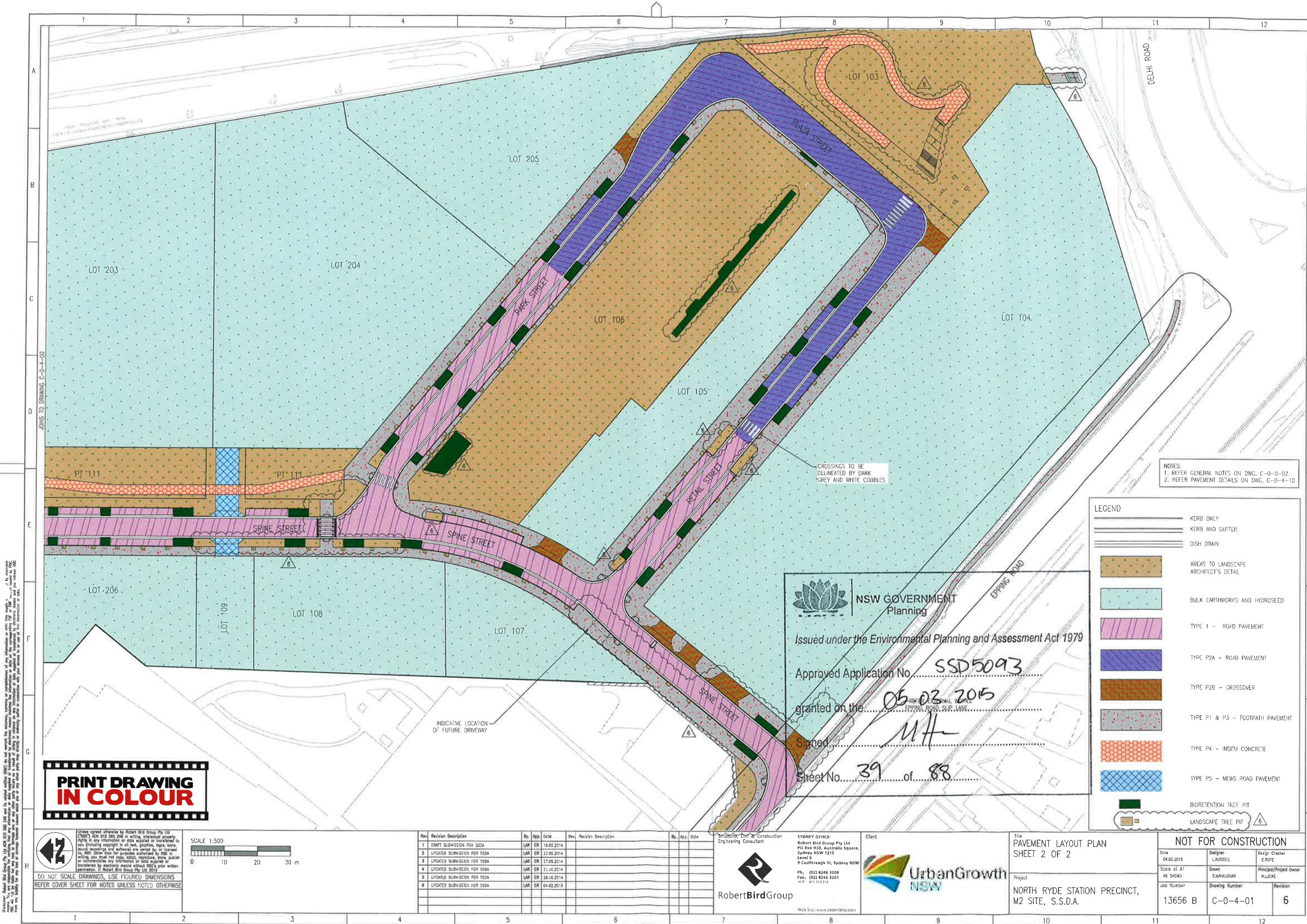
Client

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NSW**

Title
**PAVEMENT LAYOUT PLAN
SHEET 1 OF 2**

Project
**NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.**

NOT FOR CONSTRUCTION			
Date 04.02.2015	Designer L. RUSSELL	Design Checker C. ROPE	
Scale at A1 AS SHOWN	Drawn S. MANANDHAR	Principal/Project Owner R. LUCAS	
Job Number 13656 B	Drawing Number C-0-4-00	Revision 6	



NOTES:
1. REFER GENERAL NOTES ON DWG. C-0-0-02.
2. REFER PAVEMENT DETAILS ON DWG. C-0-4-10

LEGEND

- KERB ONLY
- KERB AND GUTTER
- DISH DRAIN
- AREAS TO LANDSCAPE ARCHITECT'S DETAIL
- BULK EARTHWORKS AND HYDROSEED
- TYPE 1 - ROAD PAVEMENT
- TYPE P2A - ROAD PAVEMENT
- TYPE P2B - CROSSOVER
- TYPE P1 & P3 - FOOTPATH PAVEMENT
- TYPE P4 - INSITU CONCRETE
- TYPE P5 - MEWS ROAD PAVEMENT
- BIORETENTION TREE PIT
- LANDSCAPE TREE PIT

NSW GOVERNMENT Planning

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. **SSD5093**

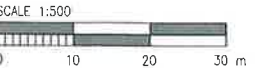
granted on the **05.02.2015**

Signed: *[Signature]*

Sheet No. **39** of **88**

PRINT DRAWING IN COLOUR

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Rev.	Revision Description	By	App.	Date	Rev.	Revision Description	By	App.	Date
1	DRAFT SUBMISSION FOR SSDA	LAR	CR	18.05.2014					
2	UPDATED SUBMISSION FOR SSDA	LAR	CR	22.05.2014					
3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					
6	UPDATED SUBMISSION FOR SSDA	LAR	CR	04.02.2015					

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UrbanGrowth NSW

NOT FOR CONSTRUCTION

Date	04.02.2015	Designer	LIRUSSELL	Design Checker	C.ROPE
Scale	at A1 AS SHOWN	Drawn	S.MARWORTH	Principal/Project Owner	P.LUCAS
Job Number	13656 B	Drawing Number	C-0-4-01	Revision	6

RobertBirdGroup

Robert Bird Group Pty Ltd

Client

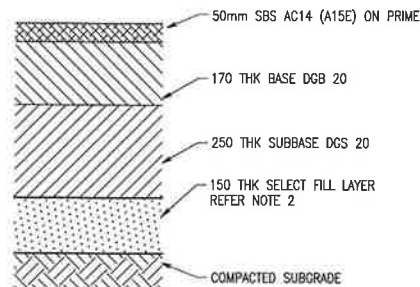
Project

Title

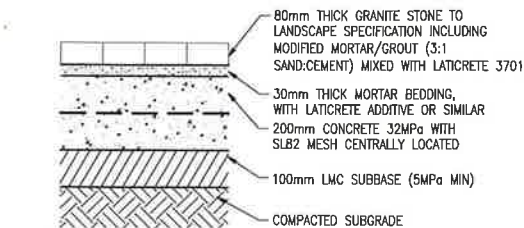
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Revision

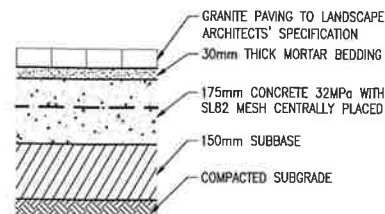
Electronic copies of this drawing are available on the project website. The user must ensure that the version of the drawing is the latest version. The user must ensure that the version of the drawing is the latest version. The user must ensure that the version of the drawing is the latest version.



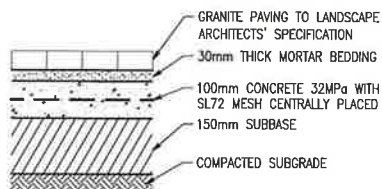
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TYPICAL DETAIL
NOTE: DESIGN ESAs 3.0x10⁶
SCALE 1:10



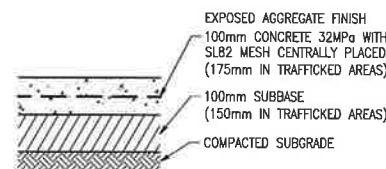
TYPE P2A - ROAD PAVEMENT
TYPICAL DETAIL
SCALE 1:10



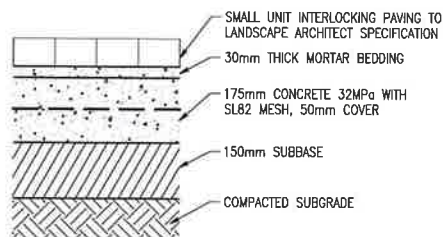
TYPE P2B - CROSSOVER PAVEMENT
TYPICAL DETAIL
SCALE 1:10



TYPE P1 & P3 - FOOTPATH PAVEMENT
TYPICAL DETAIL
SCALE 1:10



TYPE P4 - INSITU CONCRETE
TYPICAL DETAIL
SCALE 1:10



TYPE P5 - MEWS ROAD PAVEMENT
TYPICAL DETAIL
SCALE 1:10

- NOTES:
1. RIGID PAVEMENT TYPE NAMES MATCH LANDSCAPE ARCHITECTS PLAN 13089-SK-001.
 2. CBR10 SELECT FILL LAYER NOT REQUIRED WHEN EXISTING SUBGRADE ACHIEVES CBR6 (MIN)



NSW GOVERNMENT
Planning

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Approved Application No. SSD5093

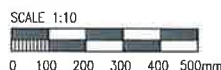
granted on the 05.03.2015

Signed [Signature]

Sheet No. 40 of 88

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Rev	Revision Description	By	App	Date	Rev	Revision Description	By	App	Date
1	DRAFT SUBMISSION FOR SSDA	LAR	CR	16.05.2014					
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3	UPDATED SUBMISSION FOR SSDA	LAR	CR	27.05.2014					
4	UPDATED SUBMISSION FOR SSDA	LAR	CR	21.10.2014					
5	UPDATED SUBMISSION FOR SSDA	LAR	CR	28.10.2014					

Structural, Civil & Construction
Engineering Consultant



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PAVEMENT DETAILS

Project
NORTH RYDE STATION PRECINCT,
M2 SITE, S.S.D.A.

FOR TENDER NOT FOR CONSTRUCTION

Date 28.10.2014	Designer L. RUSSELL	Design Checker C. ROPE
Scale of A1 AS SHOWN	Drawn S. JAWAHAR	Principal/Project Owner R. LUCAS
Job Number 13656	Drawing Number C-0-4-10	Revision 5