Appendix A

RMS Correspondence

Transport
Roads & Maritime
Services

4 December 2013

RMS Reference: SYD13/01382 (A5685271)

The Director – Industry Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

DIRECTOR GENERAL'S REQUIREMENTS FOR PROPOSED ENERGY FROM WASTE FACILITY, HONEYCOMBE DRIVE, EASTERN CREEK

Dear Sir/Madam

Reference is made to your email dated 29 November 2013 requesting Roads and Maritime Services (RMS) to provide details of key issues and assessment requirements regarding the abovementioned development for inclusion in the Director General's Environmental Assessment (EA) requirements.

RMS would like the following issues to be included in the transport and traffic impact assessment of the proposed development:

1. Daily and peak traffic movements likely to be generated by the proposed development including the impact on nearby intersections and the need/associated funding for upgrading or road improvement works (if required).

2. Details of the proposed accesses and the parking provisions associated with the proposed development including compliance with the requirements of the relevant Australian Standards (ie: turn paths, sight distance requirements, aisle widths, etc).

3. Proposed number of car parking spaces and compliance with the appropriate parking codes.

4. Details of service vehicle movements (including vehicle type and likely arrival and departure times).

5. RMS requires an assessment of the likely toxicity levels of loads transported on arterial and local roads to / from the site and, consequently, the preparation of an incident management strategy for crashes involving such loads, if relevant.

6. RMS will require in due course the provision of a traffic management plan for all demolition/construction activities, detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures.

Any inquiries in relation to this development application can be directed to Angela Malloch on 8849 2041 or <Angela.Malloch@rms.nsw.gov.au>

Yours faithfully

Pahee Rathan
A/Senior Land Use Planner
Transport Planning, Sydney Region

Appendix B

SIDRA Output Summaries

Appendix B-1

SIDRA Outputs - Existing

MOVEMENT SUMMARY

Site: Wallgrove Rd & Wonderland Dr EX_AM

13.406ms
Wallgrove Road and Wonderland Drive
EX_AM
Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Wallgrove Road (south)											
1	L2	159	6.0	0.246	24.7	LOS B	4.9	35.9	0.73	0.75	45.6
2	T1	744	6.0	0.721	44.7	LOS D	19.9	146.8	0.97	0.86	36.8
3	R2	12	6.0	0.054	22.0	LOS B	0.3	2.0	0.72	0.67	44.0
Approach		915	6.0	0.721	41.0	LOS C	19.9	146.8	0.92	0.84	38.2
East: Access Road											
4	L2	3	6.0	0.041	64.5	LOS E	0.2	1.6	0.97	0.63	23.6
5	T1	1	6.0	0.041	61.0	LOS E	0.2	1.6	0.97	0.63	23.6
6	R2	3	6.0	0.041	64.4	LOS E	0.2	1.6	0.97	0.63	23.6
Approach		7	6.0	0.041	64.0	LOS E	0.2	1.6	0.97	0.63	23.6
North: Wallgrove Road (north)											
7	L2	18	6.0	0.669	29.2	LOS C	27.7	203.8	0.80	0.73	46.0
8	T1	1279	6.0	0.669	22.8	LOS B	27.7	204.1	0.80	0.72	48.7
9	R2	457	6.0	0.716	29.5	LOS C	16.2	119.5	0.92	0.88	42.8
Approach		1754	6.0	0.716	24.6	LOS B	27.7	204.1	0.83	0.76	47.0
West: Wonderland Dr											
10	L2	135	6.0	0.076	4.4	LOS A	0.0	0.0	0.00	0.46	47.8
11	T1	1	6.0	0.103	44.1	LOS D	1.7	12.2	0.87	0.71	30.1
12	R2	66	6.0	0.103	48.7	LOS D	1.7	12.2	0.87	0.71	30.1
Approach		202	6.0	0.103	19.2	LOS B	1.7	12.2	0.29	0.55	40.0
All Vehicles		2878	6.0	0.721	29.5	LOS C	27.7	204.1	0.82	0.77	43.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	5	17.6	LOS B	0.0	0.0	0.54	0.54
P3	North Full Crossing	5	54.2	LOS E	0.0	0.0	0.95	0.95
P4	West Full Crossing	53	39.3	LOS D	0.1	0.1	0.81	0.81
All Pedestrians		63	38.7	LOS D			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Wallgrove Rd & Wonderland Dr EX_PM

13.406ms
Wallgrove Road and Wonderland Drive
EX_PM
Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Wallgrove Road (south)											
1	L2	57	6.0	0.060	15.9	LOS B	1.2	9.2	0.49	0.67	51.1
2	T1	1264	6.0	0.674	25.9	LOS B	27.6	203.1	0.81	0.81	45.3
3	R2	1	6.0	0.003	17.9	LOS B	0.0	0.2	0.60	0.59	46.3
Approach		1322	6.0	0.674	25.5	LOS B	27.6	203.1	0.80	0.80	45.5
East: Access Road											
4	L2	19	6.0	0.218	66.3	LOS E	1.2	8.6	0.99	0.70	23.3
5	T1	1	6.0	0.218	62.8	LOS E	1.2	8.6	0.99	0.70	23.2
6	R2	19	6.0	0.218	66.3	LOS E	1.2	8.6	0.99	0.70	23.3
Approach		39	6.0	0.218	66.2	LOS E	1.2	8.6	0.99	0.70	23.3
North: Wallgrove Road (north)											
7	L2	2	6.0	0.478	27.4	LOS B	17.0	125.3	0.71	0.63	47.1
8	T1	895	6.0	0.478	20.9	LOS B	17.0	125.3	0.71	0.62	50.0
9	R2	87	6.0	0.360	24.9	LOS B	2.2	16.2	0.81	0.76	45.3
Approach		984	6.0	0.478	21.3	LOS B	17.0	125.3	0.71	0.64	49.6
West: Wonderland Dr											
10	L2	354	6.0	0.199	4.4	LOS A	0.0	0.0	0.00	0.46	47.8
11	T1	1	6.0	0.346	46.7	LOS D	5.9	43.2	0.92	0.77	29.5
12	R2	225	6.0	0.346	51.2	LOS D	5.9	43.2	0.92	0.78	29.4
Approach		580	6.0	0.346	22.7	LOS B	5.9	43.2	0.36	0.59	38.5
All Vehicles		2925	6.0	0.674	24.1	LOS B	27.6	203.1	0.69	0.70	44.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	5	18.7	LOS B	0.0	0.0	0.56	0.56
P3	North Full Crossing	5	54.2	LOS E	0.0	0.0	0.95	0.95
P4	West Full Crossing	53	20.5	LOS C	0.1	0.1	0.58	0.58
All Pedestrians		63	23.1	LOS C			0.61	0.61

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Appendix B-2

SIDRA Outputs – Existing + Development

MOVEMENT SUMMARY

Site: Wallgrove Rd & Wonderland Dr EX+DEV_AM

Wallgrove Road and Wonderland Drive
Period: AM
Scenario: Existing plus Development
Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Wallgrove Road (south)											
1	L2	174	7.9	0.156	11.4	LOS A	2.4	17.6	0.42	0.69	54.1
2	T1	744	6.0	0.725	44.8	LOS D	20.1	148.0	0.97	0.86	36.8
3	R2	12	6.0	0.054	22.0	LOS B	0.3	2.0	0.72	0.67	44.0
Approach		929	6.4	0.725	38.3	LOS C	20.1	148.0	0.86	0.82	39.2
East: Access Road											
4	L2	3	6.0	0.041	64.5	LOS E	0.2	1.6	0.97	0.63	23.6
5	T1	1	6.0	0.041	61.0	LOS E	0.2	1.6	0.97	0.63	23.6
6	R2	3	6.0	0.041	64.4	LOS E	0.2	1.6	0.97	0.63	23.6
Approach		7	6.0	0.041	64.0	LOS E	0.2	1.6	0.97	0.63	23.6
North: Wallgrove Road (north)											
7	L2	18	6.0	0.669	29.2	LOS C	27.7	203.8	0.80	0.73	46.0
8	T1	1279	6.0	0.669	22.8	LOS B	27.7	204.1	0.80	0.72	48.7
9	R2	472	6.7	0.743	30.8	LOS C	17.5	129.5	0.94	0.89	42.1
Approach		1768	6.2	0.743	25.0	LOS B	27.7	204.1	0.83	0.77	46.7
West: Wonderland Dr											
10	L2	157	9.4	0.090	4.5	LOS A	0.0	0.0	0.00	0.46	47.7
11	T1	1	6.0	0.115	44.3	LOS D	1.8	13.6	0.87	0.71	30.1
12	R2	73	8.7	0.115	48.9	LOS D	1.8	13.6	0.87	0.71	30.0
Approach		231	9.2	0.115	18.6	LOS B	1.8	13.6	0.28	0.54	40.2
All Vehicles		2936	6.5	0.743	28.8	LOS C	27.7	204.1	0.80	0.77	43.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	5	17.6	LOS B	0.0	0.0	0.54	0.54
P3	North Full Crossing	5	54.2	LOS E	0.0	0.0	0.95	0.95
P4	West Full Crossing	53	39.3	LOS D	0.1	0.1	0.81	0.81
All Pedestrians		63	38.7	LOS D			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Wallgrove Rd & Wonderland Dr EX+DEV_PM

Wallgrove Road and Wonderland Drive
Period: PM
Scenario: Existing + Development
Signals - Fixed Time Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Wallgrove Road (south)											
1	L2	72	10.3	0.050	8.0	LOS A	0.5	4.1	0.21	0.63	56.3
2	T1	1264	6.0	0.674	25.9	LOS B	27.6	203.2	0.81	0.81	45.3
3	R2	1	6.0	0.003	17.9	LOS B	0.0	0.2	0.60	0.59	46.3
Approach		1337	6.2	0.674	24.9	LOS B	27.6	203.2	0.78	0.80	45.8
East: Access Road											
4	L2	19	6.0	0.218	66.3	LOS E	1.2	8.6	0.99	0.70	23.3
5	T1	1	6.0	0.218	62.8	LOS E	1.2	8.6	0.99	0.70	23.2
6	R2	19	6.0	0.218	66.3	LOS E	1.2	8.6	0.99	0.70	23.3
Approach		39	6.0	0.218	66.2	LOS E	1.2	8.6	0.99	0.70	23.3
North: Wallgrove Road (north)											
7	L2	2	6.0	0.478	27.4	LOS B	17.0	125.3	0.71	0.63	47.1
8	T1	895	6.0	0.478	20.9	LOS B	17.0	125.3	0.71	0.62	50.0
9	R2	102	9.3	0.431	25.5	LOS B	2.6	19.7	0.83	0.77	44.4
Approach		999	6.3	0.478	21.4	LOS B	17.0	125.3	0.72	0.64	49.4
West: Wonderland Dr											
10	L2	376	7.3	0.213	4.5	LOS A	0.0	0.0	0.00	0.46	47.7
11	T1	1	6.0	0.360	46.8	LOS D	6.1	45.0	0.92	0.78	29.5
12	R2	233	6.8	0.360	51.4	LOS D	6.1	45.0	0.92	0.78	29.4
Approach		609	7.1	0.360	22.4	LOS B	6.1	45.0	0.35	0.58	38.6
All Vehicles		2984	6.4	0.674	23.8	LOS B	27.6	203.2	0.68	0.70	44.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

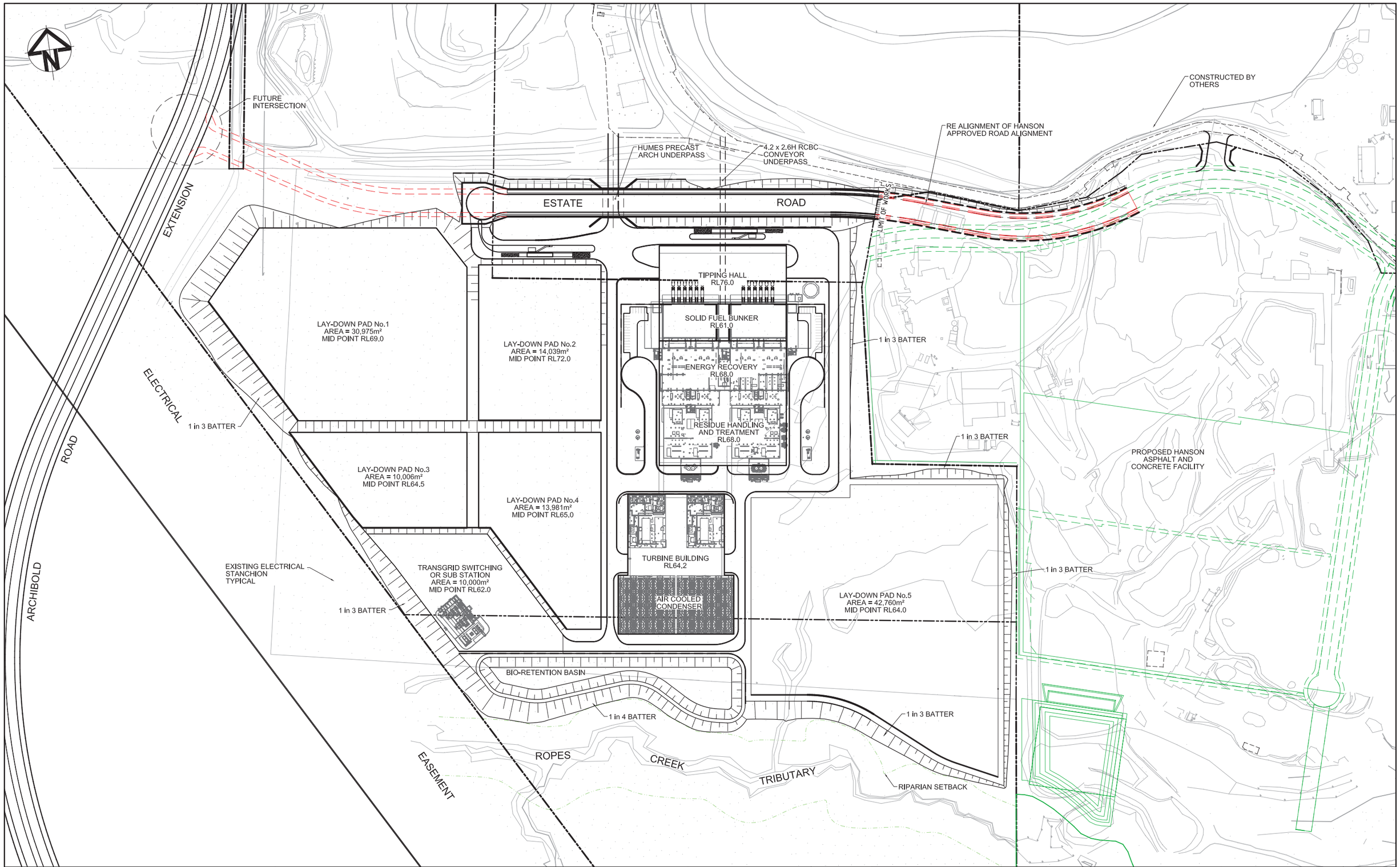
Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P2	East Full Crossing	5	18.7	LOS B	0.0	0.0	0.56	0.56
P3	North Full Crossing	5	54.2	LOS E	0.0	0.0	0.95	0.95
P4	West Full Crossing	53	20.5	LOS C	0.1	0.1	0.58	0.58
All Pedestrians		63	23.1	LOS C			0.61	0.61

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Appendix C

Reduced Plans



Issue	Description	Date
B	BUNKER AND PAD 5 AMENDED	12-06-14
A	ISSUED FOR INCLUSION WITH REPORTS	20-05-14

100mm on Original

Bar Scales

0 30 60 90 120 150m

1 : 1500 @ A1 1 : 3000 @ A3

Client

THE NEXT GENERATION PTY LTD

Scales	1 : 1500 @ A1	Drawn	TS
		Designed	TS
Grid	MGA	Checked	MM
Height Datum	AHD	Approved	

Project

ENERGY FROM WASTE ELECTRICITY GENERATION PLANT, EASTERN CREEK

Title

GENERAL ARRANGEMENT PLAN

Civil Engineers and Project Managers
at&l
Suite 702, 154 Pacific Hwy
St Leonards NSW 2065
ABN 96 130 882 405
Tel: 02 9439 1777
Fax: 02 9460 8413
www.atl.net.au
Info@atl.net.au

Status: FOR REVIEW
NOT TO BE USED FOR CONSTRUCTION

A1

Drawing No.	Project No.	Issue
SKC34	14-187	B

Date Plotted: 12 Jun 2014 - 03:10PM File Name: F:\14-187 TNG\Drgs\Civil\Sketches\SKC34.dwg

Appendix D

Swept Paths & Design Comments

Additional splay to access
required to facilitate access
by articulated vehicles

no. revision note by. date

project manager
Urbis

client
The Next Generation NSW

scale
1:500 @ A3
m 5 10 15 20
0

project
Energy from Waste Facility,
Eastern Creek

drawing prepared by

TRAFFIX
traffic and transport planners

suite 3.08 46a maclaey street
potts point NSW 2011

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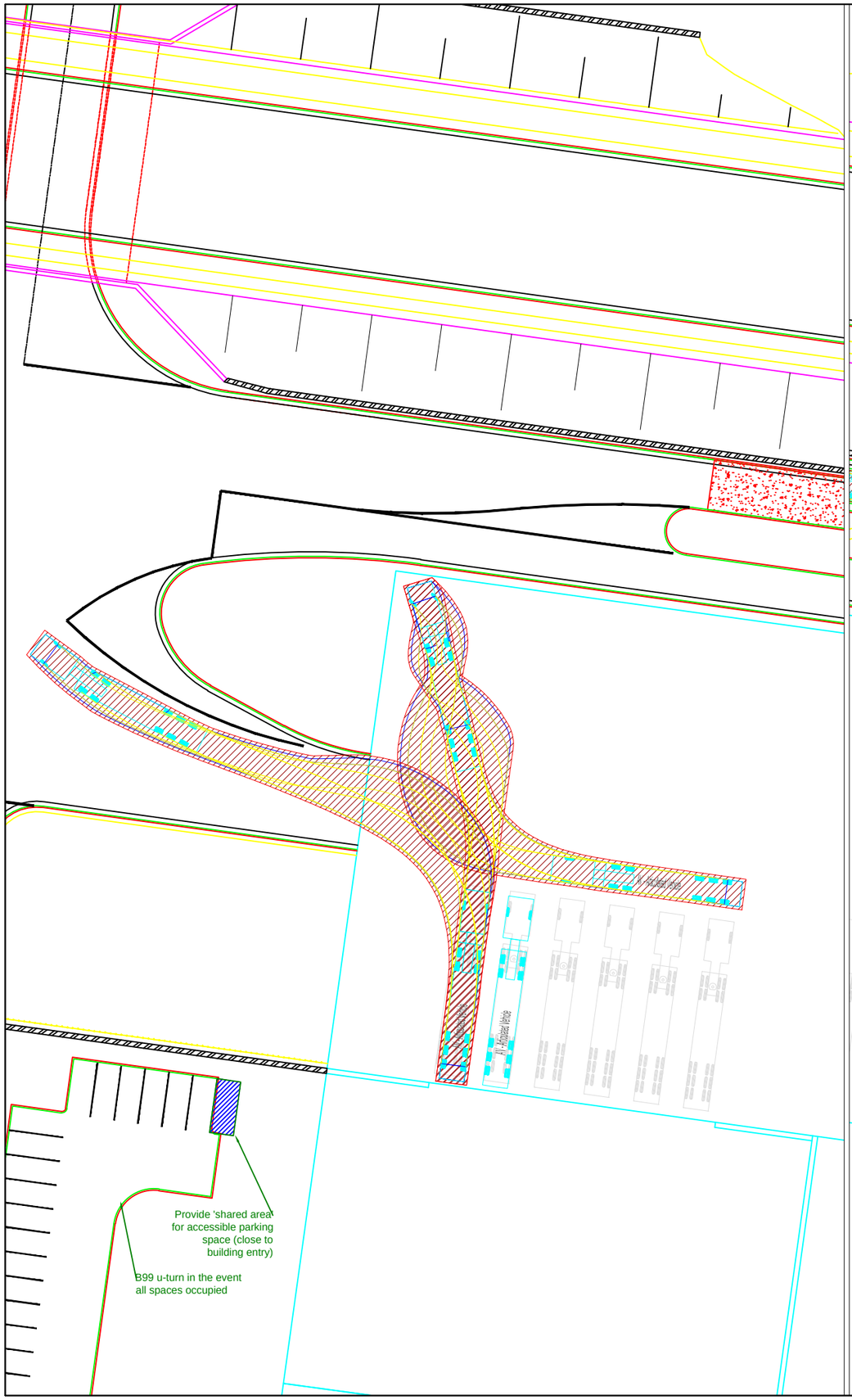
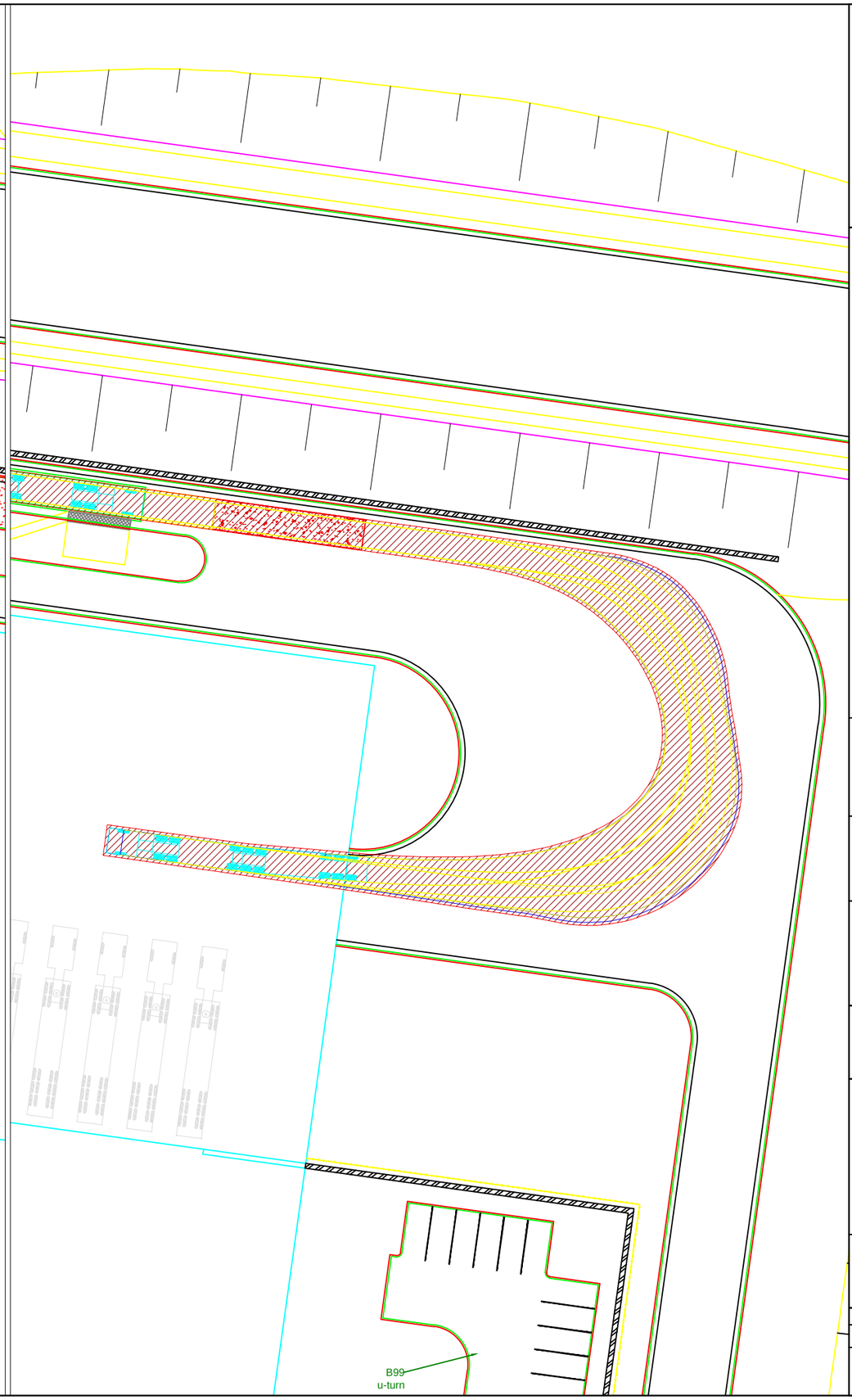
traffix
traffic & transport planners

drawing title
Swept paths
26m B-Double

drawn:	checked:	date:
TL	-	13-Jun-14

13.519	DA	TX.01	-
project no.	drawing phase.	drawing no.	rev





no.	revision note	by.	date

project manager

Urbis

client

The Next Generation NSW

scale

1:500 @ A3

m 5 10 15 20

0

project

Energy from Waste Facility,
Eastern Creek

drawing prepared by

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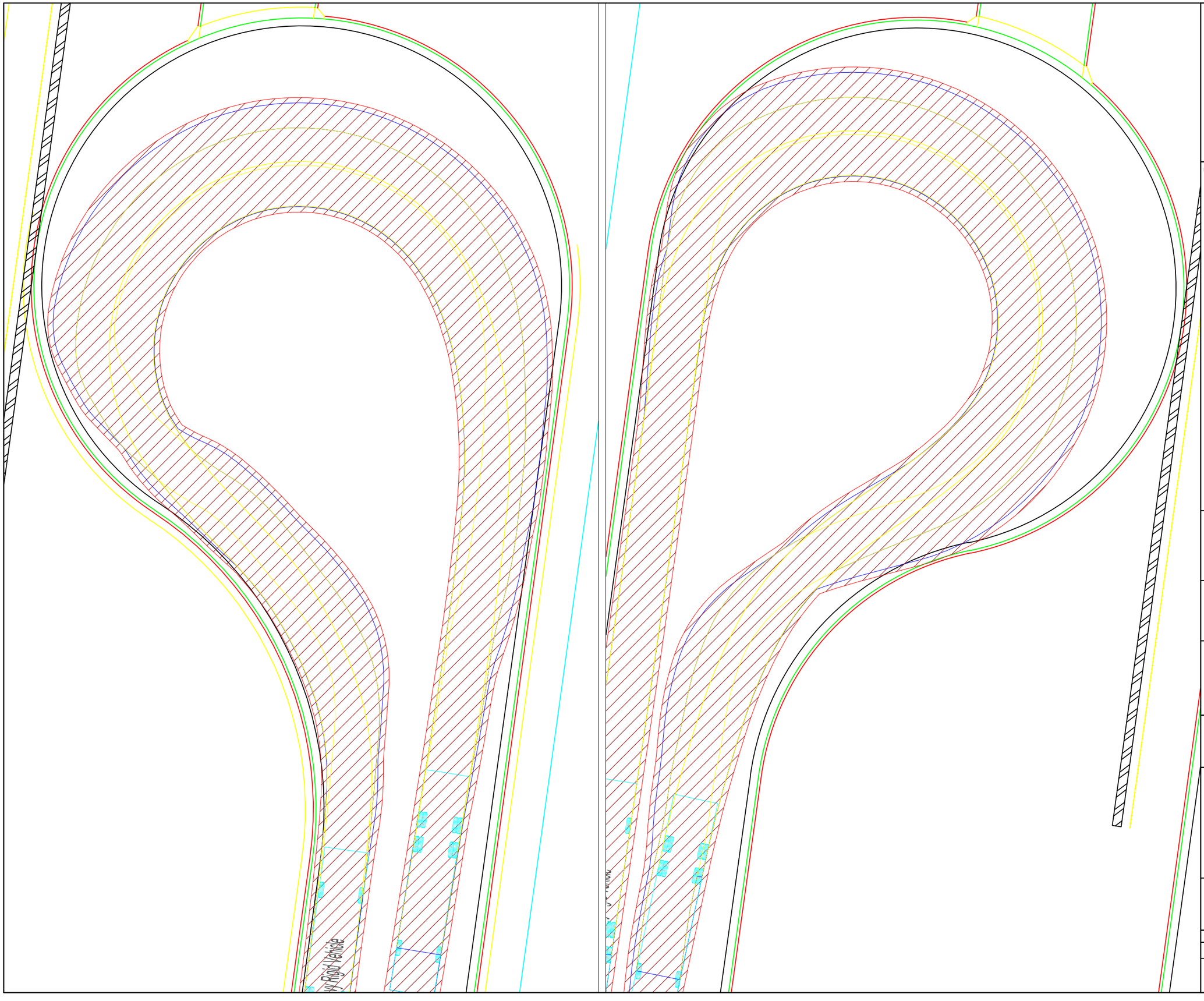
traffix
traffic & transport planners

drawing title

Swept Paths
26m B-Double Turning to Tipping Area &
19m semi-trailer reversing to unloading area

drawn:	checked:	date:
TL	-	13-Jun-14

project no.	drawing phase.	drawing no.	rev
13.519	DA	TX.02	-



no. revision note by. date

project manager

Urbis

client

The Next Generation NSW

scale

1:200 @ A3

0m 2 4 6 8

project

Energy from Waste Facility,
Eastern Creek

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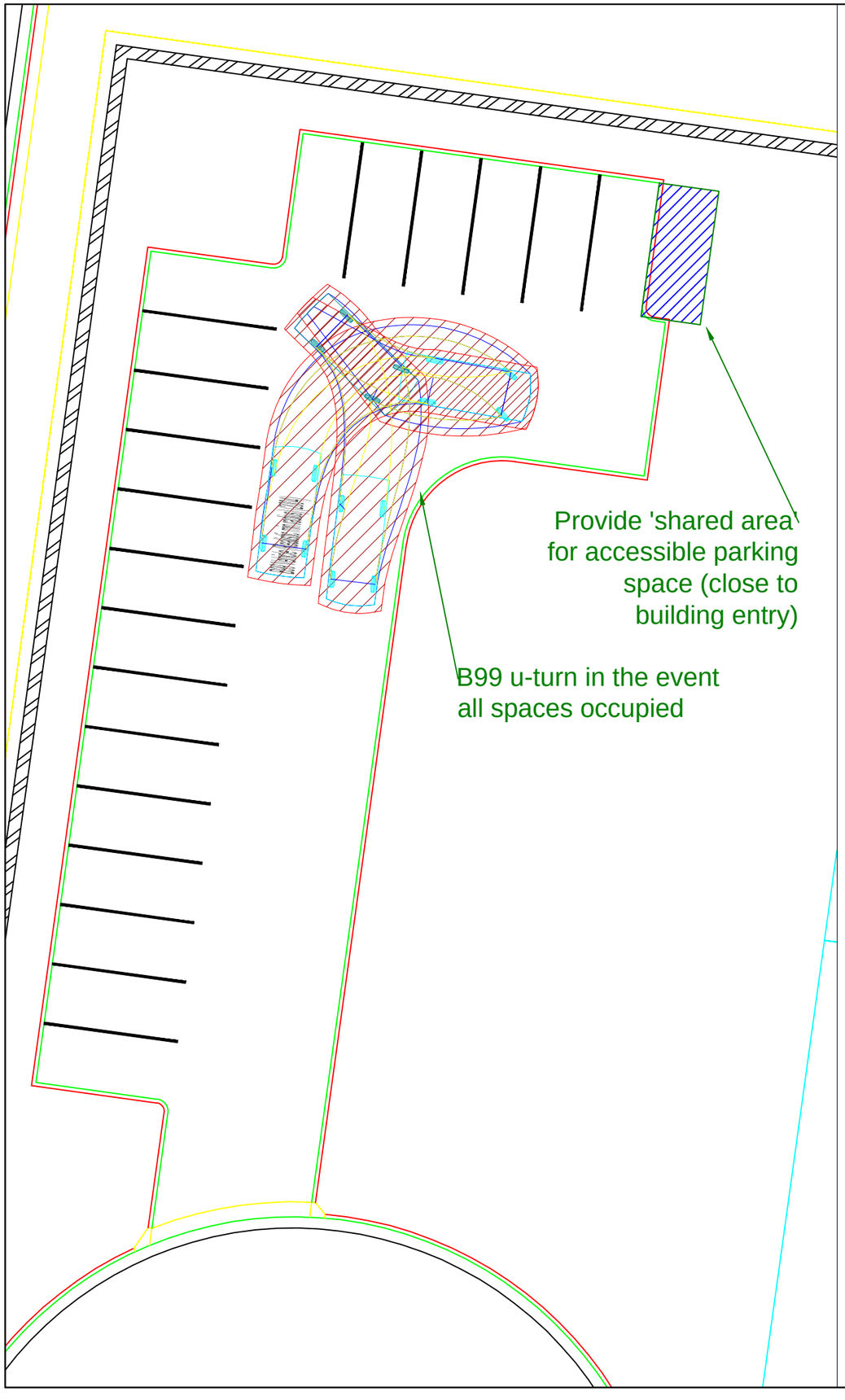
traffic & transport planners

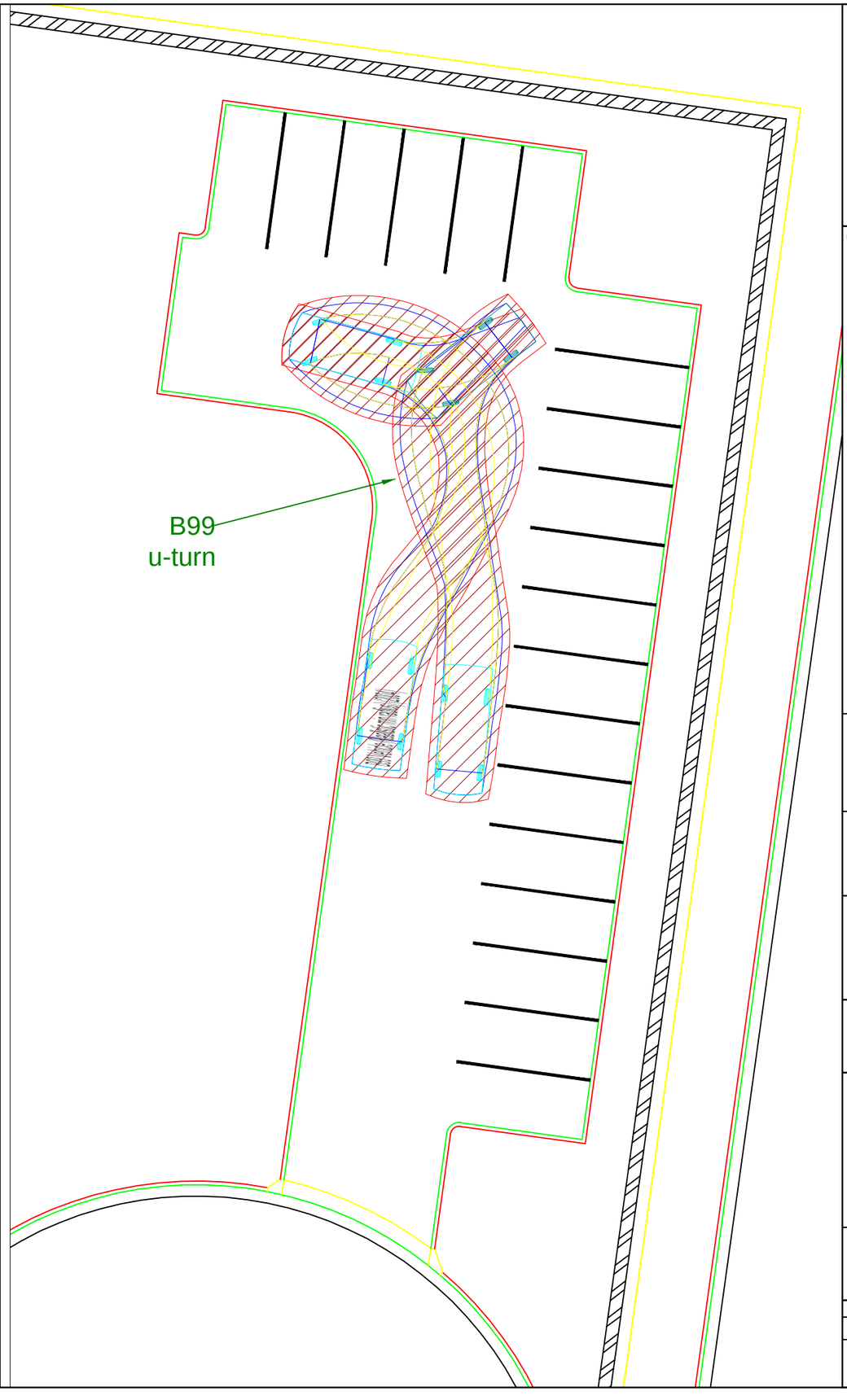
drawing title

Swept Paths
12.5m Rigid Truck (HRV)

drawn:	checked:	date:
TL	-	13-Jun-14

13.519	DA	TX.03	-
project no.	drawing phase.	drawing no.	rev





no.	revision note	by.	date

project manager

Urbis

client

The Next Generation NSW

scale

1:200 @ A3

0m 2 4 6 8

project

Energy from Waste Facility,
Eastern Creek

drawing prepared by

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traffix
traffic & transport planners

drawing title

Swept Paths & Car Park Design Comments
B99 U-turn

drawn:	checked:	date:
TL	-	13-Jun-14

project no.	drawing phase.	drawing no.	rev
13.519	DA	TX.04	-