

CITY OF ARMADALE

MINUTES

OF TECHNICAL SERVICES COMMITTEE HELD IN THE FUNCTION ROOM,
ADMINISTRATION CENTRE, 7 ORCHARD AVENUE, ARMADALE ON MONDAY, 5
FEBRUARY 2024 AT 7.00 PM.

PRESENT:

Cr K Busby (Chair)
Cr S S Virk (Deputy Chair)
Mayor R Butterfield
Cr M J Hancock
Cr P A Hetherington
Cr J Joy
Cr K Kamdar
Cr S J Mosey

APOLOGIES:

Nil

OBSERVERS:

Cr G Smith
Cr S Peter
Cr L Sargeson
Cr J Keogh

IN ATTENDANCE:

Ms J Abbiss	Chief Executive Officer
Mr M Andrews	Executive Director Technical Services
Mr J Lyon	Executive Director Corporate Services (via Teams)
Mr S Amasi	Manager Design Technical Services (via Teams)
Mr N Burbridge	Sustainability Project Manager Technical Services (via Teams)
Ms N Mathieson	Senior Administration Officer Technical Services

PUBLIC:

4

*“For details of Councillor Membership on this Committee, please refer to the City’s website
– www.armadale.wa.gov.au/your_council/councillors.”*

DISCLAIMER

The Disclaimer for protecting Councillors and staff from liability of information and advice given at Committee meetings was read as there were members of the public present.

DECLARATION OF MEMBERS' INTERESTS

Nil

QUESTION TIME

Nil

DEPUTATION

Nil

CONFIRMATION OF MINUTES

RECOMMEND

Minutes of the Technical Services Committee Meeting held on 4 December 2023 be confirmed.

Moved Cr M J Hancock

MOTION CARRIED

(8/0)

ITEMS REFERRED FROM INFORMATION BULLETIN

Outstanding Matters and Information Items

Various Items

Monthly Departmental Reports

Technical Services Works Programme

Committee noted the information and no further items were raised for discussion / or further report purposes.

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TECHNICAL SERVICES COMMITTEE

5 FEBRUARY 2024

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1.1 - PETITION - SURFACING CARPARK AREA AT ARMADALE GOLF COURSE

WARD : MINNAWARRA
FILE No. : M/373/23
DATE : 28 June 2023
REF : SA/DC
RESPONSIBLE : Executive Director
MANAGER : Technical Services

In Brief:

- A petition was presented 26 June 2023, the prayer of which reads a request to bituminise the car parking area of Armadale Golf Course.
- Recommend that Council support the consideration of a sealed carpark at the Armadale Golf Course as part of the draft 2024-25 Annual Budget deliberations.

Tabled Items

Petition – Attachment One.

Decision Type

- Legislative** The decision relates to general local government legislative functions such as adopting/changing local laws, town planning schemes, rates exemptions, City policies and delegations etc.
- Executive** The decision relates to the direction setting and oversight role of Council.
- Quasi-judicial** The decision directly affects a person’s rights or interests and requires Councillors at the time of making the decision to adhere to the principles of natural justice.

Officer Interest Declaration

Nil

Strategic Implications

- 1.2 Improve Community Wellbeing
 - 1.2.2 Facilitate the alignment of service and program delivery to identify social priorities within the community.
- 1.3 Community Facilities meets Community needs.
 - 1.3.1 Ensure the equitable provision of Community Facilities throughout the City.
- 2.3 Functional, inclusive and sustainable infrastructure.
 - 2.3.3 Assets are to be effectively maintained in order to meet service levels throughout their life cycle.
- 3.2 Positive image and identity for the City.
 - 3.2.1 Prioritise the creation and promotion of a positive image and identity for the City in order to change the perception and narrative about Armadale and make it a location of choice for residents, business and visitors.

Legal Implications

Nil

Budget/Financial Implications

The costs associated with the design and construction of the Armadale Golf Course Carpark cannot be accommodated within the 2023-24 Budget. It is proposed that the estimated costs for the detailed design and construction be considered as part of the deliberations on the draft 2024-25 Annual Budget.

Consultation

1. Community Facilities
2. Community Planning

BACKGROUND

A Petition was presented to Council dated 26 June 2023, detailing 184 signatures, the prayer of which reads: -

We the undersigned request that the Council surfaces the car parking area of Armadale Golf Course with a suitable bituminous material in line with all the other Council owned sporting establishments. The existing car park surface is extremely sub-standard in comparison to the car parks of other Perth Metropolitan Council owned golf courses.

The standard of the current unsealed car parking area and crossover at the Armadale Golf Course is illustrated below.



The City installed traffic counters on Forrest Road for a seven day period in July 2023 to collect data on the number of vehicles entering and exiting the Armadale Golf Course. The data indicates an average of 43 vehicles per day.

City officers compared 9-hole specific golf courses in Perth at Embleton, Altone Park, Nedlands, Lake Claremont and Mosman Park Golf Courses. All of which have sealed carparks and roads to their clubhouses.

In comparison, it should be noted that the City has other facilities that also currently do not have sealed carparking areas:

- Fletcher Park
- Southern Districts Rifle Club
- Bedforddale Hall
- Settlers Common
- Armadale Tennis Club

However, patronage to these sites is estimated to be significantly lower than that of the Armadale Golf Course. Armadale Golf Course annual attendance numbers are greater than 17,500 which is based on the data collected from the rounds of golf purchased, not individual visits.

COMMENT

The City entered into a lease agreement with Golf Oracle Pty Ltd for the Armadale Golf Course on 1 July 2016, for a ten year term expiring on 30 June 2026. The lease agreement includes options to renew for two additional five year periods up to a maximum expiry of 30 June 2036.

For clarity, as part of the Operating Expenses in the lease agreement, the tenant is listed as being responsible for the costs involved in maintaining, repairing, refurbishing, renovating or replacing the Land or the Complex. However, as the carpark area sits outside of the leased area, as well as the works being the construction of a carpark area and not general maintenance of an existing asset, these works are not considered to fall within the tenants' maintenance responsibilities in the lease agreement, the responsibility residing with the City.

A proposed carpark concept plan has been prepared to accommodate 51 carparking bays and two access locations as per existing facilities. Please refer to the attachment – Concept Plan E23-86-01.

An approximate area of 1,800m² would be required to be constructed with appropriate basecourse and seal material to accommodate this proposed carpark concept at an estimated cost of \$250,000 depending on the type of treatment approved.

In line with the City's sustainability ambitions, the Design team is currently assessing the opportunity of integrating modified crumbed rubber materials into the design project. This approach aligns with environmental conservation goals by reusing materials that would otherwise end up as waste, thereby reducing the demand for new raw materials and minimising environmental impact. Again, in line with City expectation's, there will be no tree loss – this was confirmed by an onsite evaluation.

OPTIONS

Option 1

Do not proceed.

Option 2

Prepare a detailed design for a modified crumb rubber spray seal for the carpark and crossover construction at an estimated initial cost of \$185,000 to be considered as part of the draft 2024/25 Annual Budget deliberations. For reference, spray seal involves the application of a thin layer (7-10mm) of bitumen and aggregates onto an existing road surface, noting the existing hardstand once compacted, is suitable for such a treatment.

The anticipated future capital resurfacing would likely be \$75,000 approximately 7-years after the initial works.

Support the inclusion of Option 2 for consideration in the draft 2024/25 Annual Budget deliberations.

Option 3

Prepare a detailed design for a modified crumb rubber asphalt carpark and crossover construction at an estimated cost of \$250,000 to be considered in the draft 2024/25 Annual Budget deliberations. For reference, this method of construction is the composition of aggregates and an asphalt binder. The mixture is a hot-lay material and laid to achieve a specified thickness (in this case, 25-30mm) to create a smooth and durable road surface.

The anticipated future capital resurfacing would likely be \$100,000 approximately 15-years after the initial works.

Support the inclusion of Option 3 for consideration in the draft 2024/25 Annual Budget deliberations.

CONCLUSION

In consideration of the available options, it is recommended to proceed with Option 3. The decision to opt for a modified crumb rubber asphalt carpark construction, with an estimated cost of \$250,000, aligns with the pursuit of long-term value for money. The asphalt surface promises a prolonged service life of 15+ years, minimising the need for future capital resurfacing expenses until a later stage. This option not only ensures durability and longevity but also aligns with the cost-effectiveness sought in the draft 2024/25 Annual Budget. Therefore, Option 3 is deemed the most prudent choice for the carpark construction project.

ATTACHMENTS

1. Petition - Armadale Golf Course Carpark Surface - Dave McEwan
2. Location Map - Armadale Golf Course
3. Concept Plan - E23-86-01

RECOMMEND

T1/2/24

That Council:

1. **Note the Officer's comments and approve Option 3.**
2. **Inform the petition convener.**

**Moved Mayor Butterfield
MOTION CARRIED**

(8/0)

3.1 - NOTIFICATIONS - BLACKSPOT ROADWORKS & FOOTPATH WORKS (REFERRAL ITEM)

At the Council meeting held on 16 October 2023, Cr John Keogh, referred the following matter to the Technical Services Committee.

That the matter of Blackspot Roadworks and Footpath notifications be referred to the Technical Services Committee.

Comment from Cr J. Keogh

Requesting a policy or process to be put in place that relevant Ward Councillors are notified of planned upcoming road and footpath works to be done in their respective Ward at least two months in advance.

I would also like to request a policy or process where Council is provided with a list of identified Black Spot Projects by City Officers. This list is to be provided biannually with data/evidence for which projects have received funding and which projects have been identified by the City that are yet to be placed on the Black Spot List.

This information will assist with Councillors being aware of road and footpath issues within their Ward and the wider community and have the ability to provide feedback or Community concerns in a timely manner.

Officer Comment

Main Roads WA (MRWA) invites all Councils to nominate Black Spot Project submissions for the State Black Spot (SBS) and Australian Government Black Spot (AGBS) Programs in Quarter 3 (around February) of each financial year. The primary aim of the program is to improve road safety across the Western Australian road network by assisting Councils in funding the projects.

AGBS Program funding comes from the Federal Government (Department of Infrastructure, Transport, Regional Development and Communications) and projects approved under this program are fully funded. The SBS Program funding comes from the State Government, projects approved under this program have a 2:1 State and Local Government funding contribution respectively. Both programs use assessment criteria including benefit cost ratio (BCR), risk score calculation, crash data and potential hazardous problem consideration.

Benefit cost ratio is a financial indicator used in the evaluation of the economic feasibility of a project. It measures the ratio of the benefits of a project relative to its costs. In the context of road safety projects, such as addressing black spots on Main Roads, BCR can be used to assess the effectiveness of these interventions.

For clarity, benefit 'value' is based on crash costs avoided through the installation of the proposed treatments.

Risk assessment plays a crucial role in identifying black spots and prioritising safety interventions. It involves evaluating various factors that contribute to the likelihood and severity of accidents at specific locations.

Crash data helps in identifying trends, specific locations, and recurring issues contributing to accidents.

Identifying hazardous problems involves pinpointing the underlying reasons for accidents. For example, if a certain intersection consistently experiences rear-end collisions due to poor visibility or inadequate signalling, these problems are identified as hazards.

MRWA releases updated crash data around April each year along with a prequalified list which consists of locations meeting the crash criteria. The City's Design team review this prequalified list and consider potential black spot solutions. The closing date for both State and Federal Black Spot Project submissions is generally around July each year.

In response to the referral, City Officers propose to have biannually recurring updates in the months of January and July each year for Black Spot funding – this will be provided as a memorandum from the Executive Director Technical Services.

For convenience, a summary of approved projects for the 2022/2023 SBS and AGBS Programs is provided overleaf. Blackspot Project requests were submitted for funding consideration under both SBS and AGBS Programs at the same time to ensure maximum benefit but were all approved and fully funded through the AGBS Program.

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Project Location	Proposed Treatments	Funding Arrangement	Current Status
Railway Avenue/Streich Avenue intersection, Armadale	<p>Modify the intersection to a left-in-left-out arrangement and improve pedestrian facilities.</p> <ul style="list-style-type: none"> There have been a total of 37 reported crashes between 2016 and 2020, including 6 casualty crashes. The modification will improve traffic operation and safety at the intersection, which is currently in a priority controlled full movement T-intersection configuration. The modification will also improve safety of pedestrian crossing Railway Avenue. 	\$229,900 fully funded under the AGBS Program	Construction completed in late 2023.
Ranford Road/Lake Road/Remisko Drive roundabout, Forrestdale	<p>Install pre-deflection on Ranford Road approaches to the roundabout and improve pedestrian facilities.</p> <ul style="list-style-type: none"> There have been a total of 25 reported crashes between 2016 and 2020, including 3 casualty crashes. The modification will improve safety at the intersection by reducing approach speed towards the roundabout on Ranford Road. The modification will also improve safety of pedestrian crossing the roundabout. 	\$155,200 fully funded under the AGBS Program	Construction completed in late 2023.
Nicholson Road/Wright Road roundabout, Piara Waters/Harrisdale	<p>Install pre-deflection on Nicholson Road approaches to the roundabout and improve pedestrian facilities.</p> <ul style="list-style-type: none"> There have been a total of 18 reported crashes between 2016 and 2020, including 4 casualty crashes. The modification will improve safety at the intersection by reducing approach speed towards the roundabout on Nicholson Road. The modification will also improve safety of pedestrian crossing the roundabout. 	\$143,200 fully funded under the AGBS Program	Construction completed in late 2023.
Nicholson Road/Rowley Road intersection, Forrestdale/Oakford (Staged project over a two-year period)	<p>Install a roundabout.</p> <ul style="list-style-type: none"> There have been a total of 37 reported crashes between 2016 and 2020, including 7 casualty crashes. The modification will improve traffic operation and safety at the intersection, which is currently a staggered intersection configuration. 	\$1,690,920 fully funded under the AGBS Program	The City has been granted the funds with a one-year extension for the project due to complexity of the design. It is anticipated construction to be in FY 2024/2025.
Total Cost		\$2,219,220	

In July 2023, the City submitted the following projects for the 2024/2025 SBS and AGBS Black Spot Programs.

Project Location	Proposed Treatments	Funding Arrangement	
		AGBS Program (100% funded)	SBS Program (2:1 State and LG funding arrangement)
Nicholson Road/Easthope Link/Broadway Boulevard roundabout, Piara Waters	<p>Install pre-deflection on Nicholson Road approach to the roundabout including skid resistant improvement, and improve pedestrian/cyclist facilities.</p> <ul style="list-style-type: none"> There have been a total of 14 reported crashes between 2018 and 2022, including 1 casualty crash. The modification will improve safety at the intersection by reducing approach speed towards the roundabout on Nicholson Road. The modification will also improve safety of pedestrian/cyclist crossing the roundabout. 	\$430,709	\$433,666 Contributions: SBS (2/3): \$289,111 CoA (1/3): \$144,555
Wright Road/Columbia Parkway roundabout, Piara Waters	<p>Install pre-deflection on Wright Road west leg approach to the roundabout including skid resistant improvement, improve pedestrian facilities, and upgrade street lighting to AS1158 standards.</p> <ul style="list-style-type: none"> There have been a total of 2 reported crashes between 2018 and 2022. The community raised safety concerns at this roundabout. The City's Street Lighting Audit also identified a need for an upgrade in this area. The modification will improve safety at the intersection by reducing approach speed towards the roundabout on Wright Road west leg and improving lighting provision. The modification will also improve safety of pedestrian crossing the roundabout. 	\$254,615	\$257,565 Contributions: SBS (2/3): \$171,710 CoA (1/3): \$85,855
Skeet Road/Keane Road roundabout, Harrisdale	<p>Install pre-deflection on Skeet Rd southwest leg approach to the roundabout, improve pedestrian/cyclist facilities, and upgrade street lighting to AS 1158 standards.</p> <ul style="list-style-type: none"> The community raised safety concerns at this roundabout. The City's Street Lighting Audit also identified a need for an upgrade in this area. The modification will improve safety at the intersection by reducing approach speed towards the roundabout on Skeet Road southwest leg and improving lighting provision. The modification will also improve safety of pedestrian/cyclist crossing the roundabout. 	\$332,073	\$335,022 Contributions: SBS (2/3): \$223,348 CoA (1/3): \$111,674
Total Cost		\$1,017,397	\$1,026,253
<p><i>* Note: AGBS Program does not cover the cost of undertaking a road safety inspection and therefore, there is a difference in project cost in the AGBS Program and SBS Program columns.</i></p>			Contributions: SBS (2/3): \$684,169 CoA (1/3): \$342,084

In October 2023, MRWA determined the draft 2024/2025 Black Spot Program. All three project submissions were supported by MRWA, with the Wright Road/Columbia Parkway roundabout project proposed under the AGBS Program, and the Nicholson Road/Easthope Link/Broadway Boulevard roundabout and Skeet Road/Keane Road roundabout projects proposed under the SBS Program. It is anticipated MRWA will announce the formal approval in the first half of 2024.

The list of monitoring sites by the Design team is provided as Attachment No.1. The team will review the list when MRWA releases updated crash data around April 2024. Should there be crash patterns identified for any sites, the team will further investigate for the future consideration of potential black spot projects.

The team will also continue to monitor customer requests to identify potential black spot projects.

The team will provide an update to Council once the list of black spot projects has been determined for the upcoming 2025/2026 Black Spot Program in July 2024.

To provide an update on every road project and portion of footpath construction in every Ward at least two months in advance, would take Officer time away from other duties in an already resource constrained environment.

The City's Capital Works programme forms part of the Annual Budget each year.

Suggested Recommendations

That Council note the Officers comments on the matter and the proposal to update Councillors in January and July on Black Spot funding and projects.

ATTACHMENTS

1. List of Black Spot monitoring sites

RECOMMEND

T2/2/24

That Council:

Note the Officers comments on the matter and the proposal to update Councillors in January and July on Black Spot funding and projects.

Moved Cr P A Hetherington
MOTION CARRIED

(8/0)

2.1 - WALGA SUSTAINABLE ENERGY PROJECT - PHASE 2

MEETING CLOSED TO PUBLIC

MOVED Mayor Butterfield that that the meeting be closed to members of the public as the matter to be discussed, if disclosed, would reveal information that has a commercial value to a person. (*Section 5.23(2) (e ii) of the Local Government Act*)
Motion Carried (8/0)

Meeting declared closed to the public at 7.07pm

WARD : ALL
FILE No. : M/26/24
DATE : 23 January 2024
REF : NM
RESPONSIBLE : Executive Director
MANAGER : Technical Services

In Brief:

- A confidential report is presented as an attachment to this Agenda.

Strategic Implications

The subject of this report is related to the following objectives of the Strategic Community Plan 2020-2030:

- 2.1 Conservation and restoration of the natural environment
 - 2.1.1 Sustainability initiatives are supported and implemented throughout the City.
 - 2.1.4 Minimise corporate and community carbon footprints within the City of Armadale.
 - 2.1.8 Facilitate the creation of partnerships and support strategies for the maintenance and enrichment of the natural environment.

Legal Implications

Sections 5.36, 5.38 and 5.39 of *Local Government Act 1995*.

Council Policy/Local Law Implications

Assessment of Policy/Local Law indicates that the following is applicable:

- Council Policy ADM 19 – Procurement of Goods and Services.

Consultation

- Intra Directorate
- Inter Directorate

A Confidential Report is presented as an attachment to this Agenda.

RECOMMEND

T3/2/24

That Council:

Adopt the recommendation as outlined within the Confidential Attachment.

Moved Mayor Butterfield

MOTION CARRIED

(8/0)

MEETING OPENED TO PUBLIC

MOVED Mayor Butterfield that the meeting be opened to members of the public at 7.09pm.
Motion Carried (8/0)

COUNCILLORS' ITEMS

Nil

EXECUTIVE DIRECTOR TECHNICAL SERVICES REPORT

Executive Director report presented.

MEETING DECLARED CLOSED AT 7.55pm

TECHNICAL SERVICES COMMITTEE		
SUMMARY OF ATTACHMENTS		
5 FEBRUARY 2024		
ATT NO.	SUBJECT	PAGE
1.1 PETITION - SURFACING CARPARK AREA AT ARMADALE GOLF COURSE		
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3.1 NOTIFICATIONS - BLACKSPOT ROADWORKS & FOOTPATH WORKS (REFERRAL ITEM)		
3.1.1	List of Black Spot monitoring sites	27

PETITION

To: The Council
 Organisation: City of Armadale
 Address: 7 Orchard Avenue, Armadale
 Western Australia 6112

This petition is submitted on behalf of the listed signatories by:

Name: Dave McEwan
 Contact address: 123 Forrest Road, Armadale, WA 6112
 Phone No. 0426 134 615 Email: dave-mcewan@live.co.uk (office use only-to remain confidential)

(All correspondence will be addressed to the person submitting this petition)

We the undersigned respectfully request that the Council:

Surfaces the car parking area of Armadale Golf Course with a suitable bituminous material in line with all the other Council owned sporting establishments. The existing car park surface is extremely sub-standard in comparison to the car parks of other Perth Metropolitan Council owned golf courses.

Full Name	Address (Number, Street, Suburb)	Signature	Date
David W. McEwan	123 Forrest Road, Armadale 6112	D McEwan	05.05.23
DONALD STEWART	52 PATERSON ROAD, MT NASURABO	Stewart	05-06-23
MARGARET RANDELL	31 Gascoigne Dr Goroona	M Randell	5/5/23
RONALD SHAIKEY	6191 WILLIAM ST. ARMADALE	Ronald Shaikey	5/5/23
JOHN KINSEY	22 ASLEY ST GOSWELLS	J Kinsey	5/5/23
WARREN STANDING	43 KINGSTON PL MADDINGA	W Standing	5/5/23
Trish Laxon	10a Lancebl Ct Camillo	T Laxon	5/5/23
Pat Laxon	10a Lancebl Ct Camillo	P Laxon	5/5/23
Brian Stanley	5 Aard Ct Seville Grove	B Stanley	5/5/23
Lyn Stanley	" " " "	L Stanley	5/5/23
GRAVE GORING	11 CHISHOLM CR SEVILLE GROVE	G Goring	5/5/23
Rob Shawan	312 STRICKLAND	R Shawan	5-5-23
JOE TRENKA	18 CROST COURT THORNIE	J Trenga	5-5-23
GUY M'GINNIS	17 ABON PL CAMILLO	G M'Ginnis	5-5-23
Josh Hughes	54 HILTON MADDINGTON	J Hughes	5-5-23
LAC DANSON	24 Barraberry way byford	L Danson	5-5-23
Arcon Swanson	6 PARKINSON WAY SOUTHZEN GULL	A Swanson	5/05/23
ILICAMP	28 Daleford way STANLEY	I Ilicamp	6/5/23
NEL DEDMAN	36 CORSELA RD ARMADALE	N Dedman	6.5.23
Judy Faggatta	6 ROSNELL V GOSWELLS	J Faggatta	7-5-23
DAVE WILLIAMS	4 SPARGO ST MYARLEE 6154	D Williams	7-5-23
RAYE RIDDLE	FA GORNEY CRES ALBURN GROVE	R Riddle	7-5-23
CANDIE TOVEY	2, 21 DISNEY RD PALMELIA	C Tovey	7-5-23
JOAN BENSON	42 ELVIRA ST PALMYRA	J Benson	7-5-23
RAY LAYLER	152 YANK RD THORNIE	R Layler	7-5-23
Leela Nair	42B FLORA ST PALMYRA	L Nair	7-5-23
Ravi Pragash	4 TRAVERS ST SPEARWOOD	R Pragash	7-5-23
	33 MORTON LOOP CIVIC		7-5-23
	12 Cranbrook Pass CIVIC		7-5-23

Note: The request must appear on every page of the petition

PETITION

To: The Council
 Organisation: City of Armadale
 Address: 7 Orchard Avenue, Armadale
 Western Australia 6112

We the undersigned respectfully request that the Council:

Surfaces the car parking area of Armadale Golf Course with a suitable bituminous material in line with all the other Council owned sporting establishments. The existing car park surface is extremely sub-standard in comparison to the car parks of other Perth Metropolitan Council owned golf courses.

Full Name	Address (Number, Street, Suburb)	Signature	Date
ALAN CLARK	62 DISCOVERY DRIVE	[Signature]	9/5/23
JIM COOK	14 VIGNETA PLACE KEMSCOTT	[Signature]	9/5/23
Tom Dwyer	30 WATSON ST PERSE	[Signature]	9/5/23
BRIAN HAWKER	6 COOLABAH DR MT NASCOTE	[Signature]	9/5/23
JIM BROWNE	24 SCANTON CT CHANDLER	[Signature]	9/5/23
John Kowal	76 SCHULTZ ST. N. KEMSCOTT	[Signature]	9/5/23
KEVIN DAVY	154 WELLESLEY MT NASCOTE	[Signature]	9/5/23
Geoff McKeberly	47 CARRICK RD WA 6112	[Signature]	9-5-23
TOM GAELG	12 EDWARD ST	[Signature]	9.5.23
NEIL JONES	116 TALBOT RD SUNVIEW	[Signature]	9.5.23
Peter Ferguson	24 WATTLEDALE RD HAYDOES	[Signature]	10-5-23
KOM BLAIR	37 KOLLY CRES LYNDWOOD	[Signature]	10/5/23
TERRY M'LAUGHLIN	14 CHICAGO CLOSE CIVALE	[Signature]	9/5/23
LEN HARDINGHAM	77 GERRARD ST. CANNINGTON	[Signature]	9/5/23
Geoff LANDWEHR	19 Penrhyn Pl Armadale	[Signature]	9/5/23
Justin Wakeley	14 Cornhill Ent, Hilbert	[Signature]	9/5/23
Col Krueer	3 Clarendon Court Thornlie	[Signature]	9/5/23
James Sharp	9 Consulate Court Thornlie	[Signature]	09/05/23
Beau Van de Sande	B Fulmer Street Thornlie	[Signature]	09/5/23
Blake West	28 Malcolm St Spearwood	[Signature]	09/5/23
RAY BANKS	92 GEORGINA ST HILBERT	[Signature]	11/5/23
BRIAN COMBES	39 ONYX ROAD MT RICHMOND	[Signature]	11/5/2023
WILLOW TOWSTILL	11 COLONIALE CRES CHANDLER	[Signature]	11/5/23
CHRIS FELSTRA	11 OSPREY WAY THORNLEE	[Signature]	12/5/23
KEITH CHAPMAN	147A LOCKHART ST COMU	[Signature]	12/5/23
SAM HUME	18/100 CLEMENTINE BLVD TREEBY	[Signature]	12/5/23
COO BRADLEY	10 AKMA COURT MADDLIN	[Signature]	12/5/23
CHRIS HUNT	T. JANDA COURT ARMADALE	[Signature]	12/5/23
PAUL QUADD	21 LOOPINE CRES CAMMIE	[Signature]	12/5/23
A. PINTO	32 TEAK WY	[Signature]	12/5/23
DENIS TODD	310 CAMPBELL RD CHURCH	[Signature]	12/5/23
D THOMAS	21 THE GROVE ARMADALE	[Signature]	13/5/23
V WOOD	6A FOURTH AVE BASSENDEN	[Signature]	13-5-23
DAVID GRICE	4/37 ELIZABETH ST. MANDURAH	[Signature]	13/5/23
KEVYN SAMUELS	5 JURY ST. ARMADALE	[Signature]	13/5/23
DICK GENOBKS	33 KILBY RD. BANJOP	[Signature]	18/5/23

PETITION

To: The Council
 Organisation: City of Armadale
 Address: 7 Orchard Avenue, Armadale
 Western Australia 6112

 CAR PARK FIXEE

We the undersigned respectfully request that the Council:

Surfaces the car parking area of Armadale Golf Course with a suitable bituminous material in line with all the other Council owned sporting establishments. The existing car park surface is extremely sub-standard in comparison to the car parks of other Perth Metropolitan Council owned golf courses.

Full Name	Address (Number, Street, Suburb)	Signature	Date
IAN LOFTHOUS	61 - DEARY AVE MT NATURE	[Signature]	13-5-23
ROB SHEWAN	157 " " "	[Signature]	13-5-23
RAY ETTROGC	42B ELVIRA ST PALMYRA	[Signature]	14-5-23
Daniel Thomas	27 Spindler Heights	[Signature]	14-5-23
JASON WOOD	255 adelaide Terrace	[Signature]	14/5/23
MARTY THOMAS	54 BREAKSEA DRIVE MCOCKE	[Signature]	14/5/23 F
GHYLIAN SECRET	UNIT 16-14 BAYD CRES HAMILTON HILL	[Signature]	14/5/23
GARY MCKAY	9 MAKAKSKA WAY SPANWOOD	[Signature]	04383697
A.J. Morton	St Winmill Dr BIRBAHUC	[Signature]	14/5/23
WALLY HUGUES	7 AUGUSTUS CT AUBINGROVE	[Signature]	14/5/23
Cameron Cassidy	17 MAYHEW CRSS, ATWELL	[Signature]	14/5/23
Isaac Guffy	17 MAYHEW CRSS, ATWELL	[Signature]	14-8-23
Kanna Pereira	5 COBHAM WY CAMILLO	[Signature]	14/5-23
Brian Doch	16 ORWATA ST BYFORD	[Signature]	14/5/23
CLAUDE IANNELLO	5 INN CROSE BIRBA LAKE	[Signature]	15-5-23
BETRIE WILLIAMS	UNIT 7/32 CHAMION DR	[Signature]	15/5/23
LORRAINE TAYLOR	4 LAWRENCE ST. GOSNELLS	[Signature]	15/5/23
ANTHONY SENIOR	1 EUSTON CRT BYFORD	[Signature]	15/5/23
REG GERARD	3 dinner Puce BELMONT	[Signature]	15/5/23
GAVIN TAYLOR	4 LAWRENCE ST GOSNELLS	[Signature]	15/5/23
JOHN McALINDON	20 SACKLER LINK	[Signature]	15/5/23
DAVID KUCICH	19 HEATHER RD ROLEYSTONE	[Signature]	15/5/23
Laure Anderson	47 CONISTON WAY FONDLE	[Signature]	15/5/23
D. BARR	16 CASELLA CT, WANDI	[Signature]	16/5/23
EDDIE EARL	18 WALCHA WAY	[Signature]	15/5/23
DOUG ROACH	12/128 BIRBA DR Birba Lake	[Signature]	16/5/23
DAVID PUTS	27/7 FREEMANTLE RD GOSNELLS	[Signature]	16/5/23
BOB McARTHUR	22 Ashburton St Belmont	[Signature]	14/03/23
ROD JARVIS	10 GILCOL PL ROLEYSTONE	[Signature]	16/5/23
JANE HUGHES	24 Southside Dr THORNHILL	[Signature]	16/5/23
CATH ONCELL	11 PEMBROOK LN	[Signature]	16-5-23
FIONA PENMAN	13 STEFANELLI CL, WANDI	[Signature]	16-5-23
GAYE KEMBERSY	3 MATULA LINK, AUBINGROVE	[Signature]	16-5-23
LIRIS PORTER	5 COADIE CIRCUIT BYFORD	[Signature]	16-5-23
SHARLA PEGGON	18 FORDICE PROM HARRISDALE	[Signature]	16-5-23
Collian Pitt	Lot 25 Casella Pl. Wandi	[Signature]	16-5-23

PETITION

To: The Council
 Organisation: City of Armadale
 Address: 7 Orchard Avenue, Armadale
 Western Australia 6112

Seal the carpark surface

We the undersigned respectfully request that the Council:

Surfaces the car parking area of Armadale Golf Course with a suitable bituminous material in line with all the other Council owned sporting establishments. The existing car park surface is extremely sub-standard in comparison to the car parks of other Perth Metropolitan Council owned golf courses.

Full Name	Address (Number, Street, Suburb)	Signature	Date
JUDY LEEBS	8 THE FAIRWAY JANDAKOT WA	[Signature]	16/5/23
Ruth Marshall	167 CAMPBELL DRIVE, CAMILLO	[Signature]	16/5/23
Ken Kenechington	18 CRAIGIE PL S GROVE	[Signature]	"
Dennis Cooper	15/5 MARGH RD MT RICHON	[Signature]	18/5/23
Paul Ficket	4 GRIFFITH WAY THORNHURST	[Signature]	19-5-23
Sue THOMPSON	8 MADDOX MEWS PARKVIEW	[Signature]	19-5-23
KERRY WICKINS	30/41 GEOGRAPHIC WY TARDON	[Signature]	19-5-23
Phil Scott	31 GAMONIST C/VALE	[Signature]	19-5-23
HOYD DUNGRY	83A CLOISTERS AVE MANNING	[Signature]	19.5.23
ROB STEWAN	18 CREST COURT THORNHURST	[Signature]	19.5.23
CHRIS BAWTING	10 WREX CT THORNHURST	[Signature]	19.5.23
FRANK MOLONEY	10/4 PAGE RD KELMSCOTT	[Signature]	19/5/23
Bill Hoagwood	86 HOME STERS ROAD GIBBERN	[Signature]	19/5/23
WILLIAM DAVIS	351 Acton Av KENDALE	[Signature]	19/5/23
COY McILHENNY	37 LUCAS IP CHANNINGVALE	[Signature]	19/5/23
DAVID RAPATTONI	49 LEATHERWOODS HUNTINGDALE	[Signature]	19/5/23
Sam Linn	Rewley Rd Leeming	[Signature]	20/5/23
LUKE TOGNOLINI	CORBRIDGE AVE WELLS	[Signature]	20/5/23
PAUL TOGNOLINI	"	[Signature]	20/5/23
TRISH HILCOCK	Colahan Pt Ferndale	[Signature]	21/5/23
NETL DEDMAN	SPARCO ST MYARLEE	[Signature]	21/5/23
DAVE WILLIAMS	DISNEY RD PARMELIA	[Signature]	21/5/23
RAY ETHERIDGE	ELVERA ST	[Signature]	21.5.23
J FOWLES	BUCKINGHAM RD	[Signature]	" "
G. GLEESON	18 Buckingham Rd	[Signature]	22/5/23
H. Raitt	17 AURELIAN ST PARMELIA	[Signature]	23/5/23
N. PRIGG	4 COPPIN STREET JANDAKOT	[Signature]	23/5/23
T. RAYAH	1 ELATA COURT THORNHURST	[Signature]	24/5/23
A. NETTO	4 JASMINE LOOP WA 6115	[Signature]	24/5/23
R. Nathan	30 NORTHFIELD CRE CHANNINGVALE	[Signature]	24/5/23
S. PEPPER	25 FRAMPTON CRES CHANNINGVALE	[Signature]	23/5/23
DAVE GARLAND	26 MILLIN ST MT NASURA	[Signature]	25/5/23
John Murrell	617 Cannington Hills Rd	[Signature]	25/5/23
Elly Charlison	71 CHARLTON WY CHARLTON	[Signature]	25/5/23
Michael Sebaly	5 Lyon Rd Athol	[Signature]	25/5/23
N. Kuhn	10A Finella Parkway Athol	[Signature]	25/5/23

PETITION

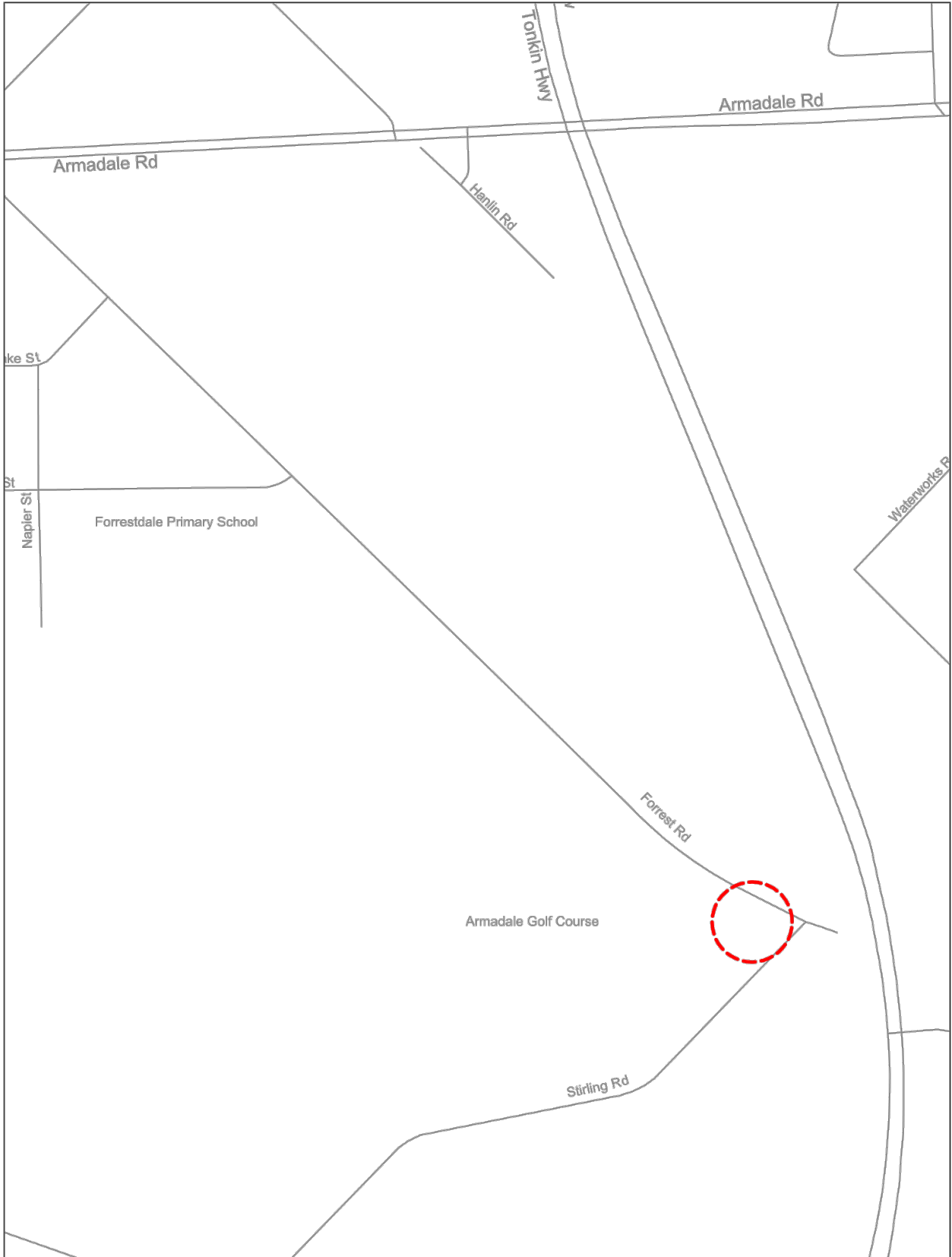
To: The Council
 Organisation: City of Armadale
 Address: 7 Orchard Avenue, Armadale
 Western Australia 6112

SEAL THE
 CARPARK

We the undersigned respectfully request that the Council:

Surfaces the car parking area of Armadale Golf Course with a suitable bituminous material in line with all the other Council owned sporting establishments. The existing car park surface is extremely sub-standard in comparison to the car parks of other Perth Metropolitan Council owned golf courses.

Full Name	Address (Number, Street, Suburb)	Signature	Date
Geoffrey Miskiss	4 WATERLOO CR. GOSNORTH		26/5/23
PAUL BAKER	12 DOOLEY ESP CURMARR		26/5/23
NIKE HOME	7 SANDARA COURT ARMADALE		26/5/23
TODD WADDELL	124 MALANKEV RD		27/5/23
R. EZZRINGER	420 ELVERST ST		28.5.23
Splinter	12 - Newell loop		28.5.23
R. Tomlinson	15/19 BUNKERSY DR. BIORA		30.5.23
TONT BOOMER	22 CALVIN CRT MEDINA		29.5.23
JOHN SMITH	19 TRON PL CAMKE		30.5.
Debra Braine	33 Clover Square Girardin		1/6/23
Georgette Williams	Quincey CRT C/DAVE		1/6/23
Michael Cameron	27 WEBBMAN WAY, KALMSCOTT 6111		1.6.23
KATE PEOLLES	16 THURMAN CR THORNLEIGH		2/6/23
GRAEME SCOTT	49 JUNIPER WAY FORRESTFIELD		2/6/23
WILIE MCMILLAN	18 SIMONS DRIVE KINGSWAY		2/6/23
Simon Emerson	4/6 Acton Ave Kardale		2/6/23
Folly Hamara	15 Bavich Road		3/6/23
Craig Dewar	23 Brandon Crescent Croydon		3 June 23
John Charisley	67A McDonald St Como		24/06/23
Julie Waller	41 THE LAKES BLVD JANDAKOT		01/06/23
PAUL WALLON	41, THE LAKES BLVD, JANDAKOT		01/06/23
JACK BRUNET	116 LYDON DR D. ATWELL		04/05/2023
NASON DUND	2 FREINTON ST, DAYSWATER		04/05/2023
S. Reed	16 GERRARDON CR C. VASE		04/05/2023
P. NOVAK & VIK NOVAK	6 STENSON ST South River		04/28/15/2023
L. SMITH	50B Taincester W. Thornlie		9/6/23
DAVID TOMKINS	49 BARRINGTON AVE C/LAKES		9/6/23
GARRY BARR	25/14 CRAIG CR, MEDINA 6112		9/6/23
maxx Fleming	47 willowmead way 6111		9/6/23
Mitchel Fleming	47 willowmead way 6111		9/6/23
RETRIFIED			11.6.23
DAVID	506 ROBERTSON BLVD		11/6/23
Romyne Brown	34 BOTTLEBRUSH DRIVE, THORNLEIGH 6108		11/6/23
DAVE BROWN	"		11/6/23
SHANE STOCKWELL	3 IRMA CLOSE HUNTINGDALE 6110		11/6/23
TED COLEMAN	7 RUINA AVE BENTON		12/6/23

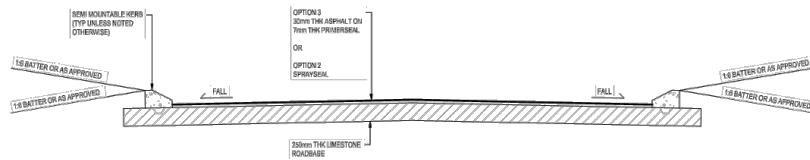


Armadale Golf Course Carpark
FORRESTDAL
Location Plan





PLAN VIEW
SCALE 1:200



PROPOSED PAVEMENT TYPICAL CROSS SECTION
1/23

SCHEDULE OF QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
150mm THICK ACID BLACK ASPHALT	m ²	1830
TWIN PRIMER SEAL	m ²	1830
200mm THICK LIMESTONE ROAD BASE	m ²	469
INSTALL SEMI MOUNTABLE KERB	m	280
DRAINAGE	m	234
(INSTALL LINEMARKING (PARKING BAYS ONLY))	m	234
PARKING BAYS	No.	51

LEGEND

- EXISTING TREES (TRACED OFF AERIAL PHOTO)
- EXISTING EDGE OF SEAL
- PROPOSED EDGE OF SEAL
- PROPOSED KERB
- PROPOSED EXISTING EDGE OF TRACK
- AREA OF SEAL



No.	Date	Revision	By	Approved
A	10/10/23	ISSUED FOR COUNCIL REPORT	PC	SA

Scale: AS SHOWN @ A1
Client: GHD
Project: P0524
Drawn: [Name]
Checked: [Name]
Date: 10/10/23

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Drawn: PC
Checked: [Name]
Date: 10/10/23

Project: ARMADALE GOLF COURSE CARPARK FORRESTDALE
Task: CONCEPT PLAN

Drawn: PC	Checked: [Name]	Date: 10/10/23
Project: ARMADALE GOLF COURSE CARPARK FORRESTDALE	Task: CONCEPT PLAN	Revision No: 1 of 1
Drawn: [Name]	Checked: [Name]	Date: 10/10/23
Project: ARMADALE GOLF COURSE CARPARK FORRESTDALE	Task: CONCEPT PLAN	Revision No: 1 of 1
Drawn: [Name]	Checked: [Name]	Date: 10/10/23
Project: ARMADALE GOLF COURSE CARPARK FORRESTDALE	Task: CONCEPT PLAN	Revision No: 1 of 1

Design Team - List of black spot monitoring sites

INTERSECTION_RANK	INTERSECTION_NO	INTERSECTION_NAME	TOTAL_CRASH_COUNT	CASUALTY_CRASH_COUNT	TOTAL_CRASH_COST	CRITERIA	State/Local	Notes
1	036171	NICHOLSON RD & WARTON RD	95	8	4824013	>= 5 total crashes	L/L	Currently a dual lane roundabout. Shared boundary with Gosnells/Cockburn/Canning. Cockburn is currently investigating for traffic signals.
2	137011	TONKIN HWY & RANFORD RD	95	14	3811726	>= 10 total crashes	S/L	MRWA future plans for grade separation by 2026
3	178523	RANFORD RD & SOUTHERN RIVER RD & BALANNUP RD	82	12	4766138	>= 5 total crashes	L/L	Previous upgrade/improvement - Balannup Rd (by Armadale in 2019), Southern River Rd (by Gosnells in 2018). Future 3-lane roundabout (DPLH Ranford Road Reservation Study (2016)).
4	043989	RANFORD RD & WARTON RD	79	14	3155341	>= 5 total crashes	L/L	Future 6-lane plus bus priority lane on Ranford Rd, double LT & RT from Warton Rd onto Ranford Rd (S) (DPLH Ranford Road Reservation Study (2016)).
5	147793	TONKIN HWY & FORREST RD (EAST)	57	21	2564199	>= 10 total crashes	S/L	Recently upgraded to traffic signals in August 2022 MRWA future plans for grade separation by 2026.
6	138649	TONKIN HWY & ROWLEY RD	56	6	2093235	>= 10 total crashes	S/L	MRWA future plans for grade separation by 2026
7	070820	WARTON RD & WARTON RD & JANDAKOT RD & MASON RD	55	10	2548177	>= 5 total crashes	L/L	Cockburn is currently investigating for traffic signals. They have approved black spot projects in 2017/18 and 2022/23 - additional LT lane on Jandakot Rd and pre-deflection on Warton Rd (not proceeded).
8	141661	TONKIN HWY & CHAMPION DR	50	11	2628057	>= 10 total crashes	S/L	MRWA future plans for grade separation by 2026
9	036346	ARMADALE RD & EIGHTH RD	45	11	2030888	>= 10 total crashes	S/L	MRWA future plans for upgrade to traffic signals 2025/26 Armadale Rd (west of Eighth Rd to west of Seville Dr) speed reduction to 70km/h from 80km/h (Jan 2024).
10	081408	RAILWAY AV & STREICH AV RAIL XING	38	5	1615618	>= 5 total crashes	L/L	Armadale 2022/23 black spot project (completed late 2023) - LILLO treatment, extend LT pocket length and improve pedestrian facilities.
11	036922	RANFORD RD & WRIGHT RD & BRISTLE AV	36	9	1300355	>= 5 total crashes	L/L	Future 6-lane plus LT & RT pockets on Ranford Rd (DPLH Ranford Road Reservation Study (2016)).
12	036279	RANFORD RD & LAKE RD & REMISKO DR	33	2	1370790	>= 5 total crashes	L/L	Armadale 2022/23 black spot project (completed late 2023) - Install pre-deflection on Ranford Rd approach and improve pedestrian facilities.
13	188271	ARMADALE RD & RAILWAY AV & ABBEY RD	26	2	1302809	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
14	036814	ARMADALE RD & SEVILLE DR	25	5	1647160	>= 10 total crashes	S/L	Armadale 2021/22 black spot project (completed) - additional pedestrian crossing on Armadale Rd east leg. MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
15	036178	NICHOLSON RD - LG BDRY & ROWLEY RD WEST	24	3	1192219	>= 5 total crashes	L/L	Armadale 2022/23 approved black spot project - Roundabout treatment Shared boundary with SJ (granted one-year extension for complex design, construction in FY 2024/25).
16	036386	LAKE RD & CHAMPION DR	24	2	931770	>= 5 total crashes	L/L	Armadale 2020/21 black spot project (completed) - pre-deflection on Champion Dr NW leg S&L improvements.
17	036541	ARMADALE RD & ORCHARD AV	23	4	967293	>= 10 total crashes	S/L	Armadale future plans for Armadale Strategic Metropolitan Activity Centre Structure Plan (2018) - Commerce Ave connects with Streich Av? MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
18	036784	ARMADALE RD & TAIT ST	21	5	1251184	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates. Armadale Rd (west of Gribble Rd to east of Tait St) speed reduction to 70km/h from 80km/h in Jan 2024.
19	014851	ALBANY HWY & FANCOTE ST & DAVIS RD	20	1	1372793	>= 10 total crashes	S/L	Upgraded to traffic signals as part of Denny Ave LCR project (completed Dec 2020/Jan 2022).
20	012323	ABBAY RD & FORREST RD & GREEN AV	20	3	1152913)	L/L	Previous upgrade/improvement - Forrest Rd west leg with pre-deflection in early 2019 Future plans for a roundabout or signal (dual carriageway on Forrest Rd) (DPLH Forrest/Wungong/Eleventh Road Reservation Study (2016)).
21	036310	ARMADALE RD & STREICH AV	19	3	1511250	>= 10 total crashes	S/L	Armadale future plans for Armadale Strategic Metropolitan Activity Centre Structure Plan (2018) - Commerce Ave connects with Streich Av? MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
22	014794	SEVENTH RD & FORREST RD	17	0	1097826	>= 5 total crashes	L/L	Future plans for a roundabout (dual carriageway on Forrest Rd) (DPLH Forrest/Wungong/Eleventh Road Reservation Study (2016)).
23	133395	RANFORD RD & BOARDWALK BVD	17	3	945526	>= 5 total crashes	L/L	Boardwalk Bvd on Gosnells side. Future plans to remove CHL for 3 lanes on Ranford Rd (DPLH Ranford Road Reservation Study (2016)).
24	014733	TWELFTH RD & FORREST RD	17	5	742490	>= 5 total crashes	L/L	Future Wungong plans for a roundabout (Development WA/Planning/DCS funding)
25	014873	ALBANY HWY & FOSTER RD	17	2	696429	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
26	014864	ALBANY HWY & CARAWATHA AV	16	4	746448	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
27	209311	H411 (Twelfth Rd Rty) & RANFORD RD	16	3	599216	>= 10 total crashes	L/L	Future Wungong plans to upgrade Twelfth Rd (Development WA/Planning/DCS funding).
28	076416	GILLAM DR & CHAMPION DR	14	3	898512	>= 5 total crashes	L/L	Pre-deflection on Champion Dr SE leg in late 2019
29	036770	ARMADALE RD & GRIBBLE AV	14	7	679838	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates. Armadale Rd (west of Gribble Rd to east of Tait St) speed reduction to 70km/h from 80km/h in Jan 2024.
30	224556	NICHOLSON RD & EASTHOPE LINK & BROADWAY BVD	14	1	643030	>= 5 total crashes	L/L	Armadale 2024/25 black spot project submitted for approval - Install pre-deflection on Nicholson Road approach to the roundabout including skid resistant improvement, and improve pedestrian/cyclist facilities.
31	172807	NICHOLSON RD & WRIGHT RD	13	1	1142388	>= 5 total crashes	L/L	Armadale 2022/23 black spot project (completed late 2023) - Install pre-deflection on Nicholson Rd approach and improve pedestrian facilities.
32	036342	ARMADALE RD & CHURCH AV	13	2	703406	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
33	014858	ALBANY HWY & CHURCH ST	13	3	584417	>= 10 total crashes	S/L	MRWA plans for 50/60km/h variable speed limit between Page Rd and Ottaway St by end of 2023. MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
34	036426	RAILWAY AV & CHAMPION DR	13	1	574282	>= 5 total crashes	L/L	*Predominant RA crashes. Street lighting consideration. Monitor future crash data
34	137011	TONKIN HWY & RANFORD RD	95	14	3811726	>= 10 total crashes	S/L	MRWA future plans for grade separation by 2026

Design Team - List of black spot monitoring sites

35	036181	DENNY AV & STREICH AV	12	3	617136	>= 5 total crashes	L/L	Upgraded to T-intersection as part of Denny Ave LCR project (completed Dec 2020/Jan 2022).
36	014901	ALBANY HWY & CARRADINE RD	12	1	615048	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
37	004164	ELEVENTH RD & FORREST RD	12	4	541432	>= 5 total crashes	L/L	Future Wungong plans for a roundabout (Development WA/Planning/DCS funding)
38	014845	ALBANY HWY & DENNY AV	12	1	449486	>= 10 total crashes	S/L	Signal removal and LILORI treatment as part of Denny Ave LCR project (completed Dec 2021/Jan 2022).
39	081407	STREICH AV & STREICH AV RAIL XING	11	2	562958	>= 5 total crashes	L/L	Note: Armadale 2022/23 approved black spot project for Railway Av/Streich Av Rail Xing (completed late 2023) - LILOR treatment, extend LT pocket length and improve pedestrian facilities.
40	036339	CHURCH AV & WILLIAM ST	10	0	1007263	>= 5 total crashes	L/L	Armadale 2019/20 black spot project - Pre-deflection on William St north leg (completed May 2020).
40	137008	TONKIN HWY & ARMADALE RD	92	22	3224690	>= 10 total crashes	S/S	MRWA future plans for grade separation by 2026
41	139162	TONKIN HWY (STH BND) OFF & CORFIELD ST & TONKIN HWY (STH BND) ON	10	1	528891	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
42	068988	ALBANY HWY & PAGE RD	10	2	430803	>= 10 total crashes	S/L	MRWA plans for 50/60km/h variable speed limit between Page Rd and Ottaway St by end of 2023.
43	279072	ARMADALE RD & WARTON RD	10	1	328500	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
44	036358	ELEVENTH RD & LANNAM RD & ASTORIA BVD	9	2	925977	>= 5 total crashes	L/L	Future Wungong plans to upgrade Eleventh Rd (Development WA/Planning/DCS funding).
45	043990	RANFORD RD & BALFOUR ST	9	2	369340	>= 5 total crashes	L/L	Future plans for LILOR treatment (DPLH Ranford Road Reservation Study (2016))
45	014839	COMMERCE AV & THIRD RD (WEST)	9	1	369340	>= 5 total crashes	L/L	Armadale future plans for Armadale Strategic Metropolitan Activity Centre Structure Plan (2018) - Commerce Ave connects with Streich Av?
47	170913	CHURCH AV & GREEN AV & WUNGONG RD	8	0	574599	>= 5 total crashes	L/L	BRE project plans to remove level rail crossing on Church Av Future plans for a modified roundabout (DPLH Forrest/Wungong/Eleventh Road Reservation Study (2016)).
48	224558	NICHOLSON RD & YELLOWWOOD AV	8	2	373372	>= 5 total crashes	L/L	Monitor future crash data.
49	036325	STREICH AV & DAVIS RD & THIRD AV	8	2	335432	>= 5 total crashes	L/L	New traffic signals constructed as part of Denny Ave LCR project (completed Dec 2021/Jan 2022).
50	077413	CHURCH AV & HOBBS DR & COMMERCE AV	7	0	358926	>= 5 total crashes	L/L	Carry out review upon completion of METRONET BRE project
51	202489	MASON RD & WRIGHT RD	7	2	358778	>= 5 total crashes	L/L	*All RA crashes. Street lighting audit identified for an upgrade. Possibly high speed entry from Mason Rd W leg. Monitor future crash data.
52	139164	CORFIELD ST & KOORDEN CL & BUS DEPOT	6	0	834156	>= 5 total crashes	L/L	Monitor future crash data.
53	036323	STREICH AV & FOSTER RD	6	0	326150	>= 5 total crashes	L/L	Median treatment/footpath improvement on Foster Rd in mid-2018
54	209310	RANFORD RD & TESLA WY	6	0	307598	>= 5 total crashes	L/L	Monitor future crash data.
55	036237	WESTFIELD RD & CHAMPION DR	6	1	289194	>= 5 total crashes	L/L	Monitor future crash data.
56	036204	RAILWAY AV & DURLING PL	6	1	288284	>= 5 total crashes	L/L	All crash recorded 2018-2020. Intersection improved/road network changed by Denny Av LCR project in end 2021.
57	036421	RAILWAY AV & CAMMILLO RD	6	1	270790	>= 5 total crashes	L/L	Monitor future crash data.
58	178486	ALEX WOOD DR & RANFORD RD	5	3	664765	>= 5 total crashes	L/L	Monitor future crash data.
59	036172	NICHOLSON RD & HARRISDALE DR	5	1	604830	>= 5 total crashes	L/L	Monitor future crash data.
60	036326	THIRD RD & CHURCH AV	5	0	402507	>= 5 total crashes	L/L	3 crashes in 2018. Monitor future crash data.
61	166674	WRIGHT RD & REILLY RD	5	2	347221	>= 5 total crashes	L/L	3 crashes in 2018 and 2 crashes in 2019. Monitor future crash data
62	181732	WARTON RD & ERADE DR	5	1	237866	>= 5 total crashes	L/L	Future plans for LILOR treatment, proposed as part of Harrisdale Green development
63	036461	WILLIAMS RD & CHAMPION DR	5	0	219462	>= 5 total crashes	L/L	Monitor future crash data.
64	036348	EIGHTH RD & WOLLASTON AV	5	1	201058	>= 5 total crashes	L/L	Armadale plans for a roundabout (MRRG Eighth Rd Upgrade project - construction stage to be resubmitted in 2024 for construction commencing FY 2025/26).
65	036428	RAILWAY AV & GLADSTONE RD	5	0	182654	>= 5 total crashes	L/L	Monitor future crash data.
231	004062	ALBANY HWY & SOUTH WESTERN HWY & ARMADALE RD	40	5	2064699	>= 10 total crashes	S/S	MRWA future plans for minor intersection modification
260	004136	ALBANY HWY (START DUAL) & BROOKTON HWY	36	8	2247288	>= 10 total crashes	S/S	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.
453	148911	H411 (Twelfth Rd Rty) & ARMADALE RD (LT)	20	2	656016	>= 10 total crashes	S/L	Future Wungong plans to upgrade Twelfth Rd (See H411 (Twelfth Rd Rty) & RANFORD RD above).
462	148910	H411 (Twelfth Rd Rty) & ARMADALE RD (RT)	19	2	844998	>= 10 total crashes	S/L	MRWA is currently undertaking a study to improve intersection safety involving State roads in the Metro region. There is currently no further updates.

Legend	
ROAD	Involve State road(s)
ROAD	Wungong Urban Water area
ROAD	Upgraded/improved in the recent years
	2022/23 black spot project
	2024/25 black spot project
	Potential future black spot project

