

His Worship the Mayor  
Councillors  
CITY OF MARION

## NOTICE OF INFRASTRUCTURE AND STRATEGY COMMITTEE MEETING

Council Chamber, Council Administration Centre  
245 Sturt Road, Sturt

Tuesday, 04 February 2020 at 06:30 PM

The CEO hereby gives Notice pursuant to the provisions under Section 83 of the Local Government Act 1999 that a Infrastructure and Strategy Committee meeting will be held.

A copy of the Agenda for this meeting is attached in accordance with Section 83 of the Act.

Meetings of the Council are open to the public and interested members of this community are welcome to attend. Access to the Council Chamber is via the main entrance to the Administration Centre on Sturt Road, Sturt.



Adrian Skull  
Chief Executive Officer



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## OPEN MEETING

## KAURNA ACKNOWLEDGEMENT

We acknowledge the Kurna people, the traditional custodians of this land and pay our respects to their elders past and present.

## ELECTED MEMBER'S DECLARATION (if any)

## CONFIRMATION OF MINUTES

### Confirmation of the minutes for the Infrastructure and Strategy Committee Meeting held on 3 December 2019

**Originating Officer** Executive Assistant to General Manager Corporate Services - Louise Herdegen

**Corporate Manager** Manager Corporate Governance - Kate McKenzie

**Report Reference:** ISC200204R01

## RECOMMENDATION:

That the minutes of the Infrastructure and Strategy Committee Meeting held on 3 December 2019 be taken as read and confirmed.

## ATTACHMENTS:

#	Attachment	Type
1	ISC191203 - Final Minutes	PDF File

**MINUTES OF THE INFRASTRUCTURE AND STRATEGY  
COMMITTEE MEETING - 3 December 2019**

**Tuesday, 03 December 2019 at 06:30 PM**

**Council Administration Centre, 245 Sturt Road, Sturt**



**PRESENT:**

**Elected Members**

Mayor - Kris Hanna, Councillor - Tim Gard, Councillor - Jason Veliskou, Councillor - Bruce Hull, Councillor - Raelene Telfer, Mr Christian Reynolds (from 6:46 pm)

**DATE:**

Tuesday, 03 December, 2019 | Time 6:30 PM

**VENUE:**

Council Chamber

**IN ATTENDANCE:**

Chief Executive Officer - Adrian Skull  
General Manager Corporate Services - Sorana Dinmore  
General Manager City Development - Ilia Houridis  
General Manager City Services - Tony Lines  
Manager Innovation & Strategy - Fiona Harvey  
Manager Development & Regulatory Services - Warwick Deller-Coombs  
Team Leader Asset Solutions - Brendon Lyons  
Smart Cities Project Officer - Georgie Johnson  
Department of Planning, Transport & Infrastructure - Neil Welsh, DPTI Project Lead Flinders Link  
Department of Planning, Transport & Infrastructure - Tyla Clayson  
New Venture Institute - Aron Hausler  
SAGE Automation - Damian Hewitt  
ESRI Australia - David Trengove  
Independent Member - Russell Colbourne

**OPEN MEETING**

Councillor Veliskou opened the meeting at 06:31 PM

**KAURNA ACKNOWLEDGEMENT**

We acknowledge the Kaurna people, the traditional custodians of this land and pay our respects to their elders past and present.

**ELECTED MEMBER'S DECLARATION (if any)**

Nil

## **CONFIRMATION OF MINUTES**

**Confirmation of the minutes for the Infrastructure and Strategy Committee Meeting held on 5 November 2019 (Report Reference: ISC191203R01)**

**Moved: Mayor - Kris Hanna**

**Seconded: Councillor - Bruce Hull**

That the minutes of the Infrastructure and Strategy Committee Meeting held on 5 November 2019 be taken as read and confirmed.

**Carried**

## **BUSINESS ARISING**

Review of the Business Arising from previous meetings of the Infrastructure and Strategy Committee Meetings

**Business Arising Statement - Action Items (Report Reference: ISC191203R02)**

**Moved: Councillor - Raelene Telfer**

**Seconded: Mayor - Kris Hanna**

The Infrastructure and Strategy Committee noted the business arising statement, meeting schedule and upcoming items.

**Carried Unanimously**

## **CONFIDENTIAL ITEMS – Nil**

## **WORKSHOP / PRESENTATION ITEMS**

**Tonsley Railway Station Presentation (Report Reference: ISC191203R03)**

The DPTI Project Lead for Flinders Link, Mr Neil Welsh presented to the Committee on the delivery of the new Tonsley Railway Station (part of the Flinders Link Project).

A summary of the discussion points noted below:

- DPTI received approximately 1,000 responses as part of the community engagement process in February 2019. The responses highlighted the need for increased rail services, safety, shelter and better station access.
- Connectivity of the station to Flinders Link, Greenway, Tonsley Innovation District, Flinders University, Flinders Medical Centre and residential areas.
- Council would like to see an additional pedestrian crossing point near the Mitchell Park Station added to the project as this is critical to the success of pedestrian and greenways links.
- DPTI working through drainage issues with the City of Marion & Renewal SA.

Mr Reynolds joined the meeting at 6.46 PM

- Smart infrastructure at the railway station to include real time passenger information displays and voice announcements. Members expressed disappointment that more smart technology is not being included given the surrounding innovation district. DPTI had limited scope to deliver outside a standard railway station.
- Disabled access - experience at Oaklands, while may meet standards, it is difficult for people with disabilities / elderly passengers to use the long ramp.
- Community member requested DPTI consider the design of the shelter to cover the blue disabled boarding areas.
- Concern that no car parking is being provided leading to pressure on surrounding residents, Flinders Uni, Medical Centre. DPTI will be promoting how to access the station, connect from other lines, stations, proximity of other public transport options to help alleviate the need for people to drive to the station.
- Construction of railway station and Greenway will be completed late 2020.
- DPTI collaborating with Flinders Uni to connect the station with the uni given the surrounding elevation.
- DPTI meeting regularly with representatives from the City of Marion to ensure optimal outcome for council and delivery team.
- Street scape project will redefine areas of Birch Crescent. Work is scheduled for next year.
- Request DPTI to present final design to the committee prior to construction.

#### **Panel - The Value of Data (Report Reference: ISC191203R04)**

The Manager Innovation & Strategy joined the meeting, along with the three panellists for the session - Mr Aron Hausler (New Venture Institute), Mr Damian Hewitt (SAGE Automation) and Mr David Trengove (ESRI Australia). A brief introduction by each panel member followed by an open Q&A session. The following discussion points were noted:

- availability of raw data important to enable full analysis and integration into systems;
- data assists in better decision making for everyone;
- data needs to be used for a purpose - to deliver better outcomes and benefits for the community;
- data sharing benefits, insights, opportunities.

Lessons learned:

- avoid adding too much technology on the road networks and invest in good design, collaboratively use sensor data sets;
- shift mindset of agencies from data ownership to a custodian mindset;
- start with community in mind to determine the outcomes;
- small projects that deliver value and learning opportunities;
- simple, straightforward issues can use data effectively to produce improved outcomes for the community;
- technology has enabled the acceleration from data collection to analysis;
- ethics of data use needs to be considered and addressed.

Councillor Veliskou left meeting at 8:02 PM

- awareness that data could be matched with other data sets and used for unintended

purposes. Take the time to consider ramifications of using data.

Councillor Veliskou returned to the meeting at 8.07 PM

- encourage administration to continue to bring to the Committee emerging technologies, collaborative opportunities for research and development;
- opportunities for using technology to assist with public safety;
- concerns about adding our infrastructure on existing poles and how we can access that data;
- data collection - get back to basics - what do we need to do our job well;
- Melbourne Water - data sharing portal not only provides information to the community, it also encourages community interaction;
- data strategy - data collection and align with organisational strategy/KPI's;
- data sharing has potential for economic and social benefits;
- data availability and modelling can lead to investment into the area;
- building data literacy of staff is important - requires investment in people before technology;
- asset management key driver around use of smart technologies.
- Harness others to find value from data (where appropriate) eg build apps etc

Councillor Veliskou left meeting the meeting at 8.37 PM

Councillor Veliskou returned to the meeting at 8.38 PM

## REPORTS FOR DISCUSSION

### **Playground Data Analysis Report (Report Reference: ISC191203R05)**

The Infrastructure and Strategy Committee noted the progress report on the use of data collection technologies within Council playgrounds.

The Manager Innovation & Strategy provided an update on the innovation trial for playground data collection and analysis.

The following discussion points were noted:

- visual representation of data collection provided in the report.
- pilot project finishes early next year.
- the data can help with the future design of playgrounds ie equipment most frequently used
- interpreting the data will be a key factor in realising the benefits of the investment
- in the past critical decisions have been made without any data so this is a starting point

Mayor Hanna left the meeting at 9.04 PM

- City of Marion own the sensors in the playground. After the completion of the pilot, they can remain in place or be relocated to other sites;
- the pilot project is in partnership with SAGE. Open Space team can login to view data in real time;
- clear definitions of the questions we are trying to get answers to is required to provide quality data over quantity.



Mayor Hanna returned to the meeting at 9.07 PM

- sensor technology has improved over past 12 months and costs will come down;
- the costs are not just in the hardware but getting value out of the data - commitment to resourcing staff / outsourcing for good data analysis;
- most cost efficient to embed sensors in new playgrounds rather than retrofitting;
- data to assist in understanding the value of playgrounds to the community - are we over/under providing;
- data gathering from different levels of playgrounds would be beneficial and understanding where people coming from to use the playground - demographics in the area - forecasting demographics ie growing/aging.

**Action: Review whether there is data for the period between 7 pm & 7 am (F Harvey)**

### **Procedural Motion**

**Moved: Councillor Hull**

**Seconded: Councillor Telfer**

That the meeting be extended to the end of discussion of the Oaklands Smart Precinct & Independent Member Report items. The remaining item be deferred to the next meeting.

**Carried**

Meeting extended at 9:26 PM

### **Oaklands Smart Precinct Project – Update (Report Reference: ISC191203R06)**

**Moved: Mayor - Kris Hanna**

**Seconded: Councillor - Raelene Telfer**

That the Infrastructure and Strategy Committee:

1. Notes the Oaklands Precinct Project progress report, designs and smart solutions identified to trial within the project.
2. The design be referred to a General Council meeting before going out to tender.

**Carried Unanimously**

The Smart Cities Project Officer presented a progress update on the Oaklands Precinct project. The following discussion points were noted:

- report articulates the technology that will be included within the precinct;
- designs for Oaklands Precinct planning include Marion Cultural Centre (MCC) plaza planning. Oaklands precinct three year program of works funding does not include funding for the MCC Plaza Project;
- City of Marion have extended the DPTI Addinsight Traffic intelligence system by installing four traffic

- monitoring beacons in the area and are sharing the data with SAGE & DPTI;
- designs enable future proofing for an autonomous vehicle between Oaklands Railway Station to Marion Regional Centre;
- smart water fountain is not currently within scope. Staff are exploring an opportunity with SA water to provide one for Dwyer Reserve;
- Members expressed concern that designs were not made available to Council, the Infrastructure and Strategy Committee or at a Ward Briefing prior to a Council decision to close Diagonal Way. Members were notified this decision is now subject to a Section 270 Review and will be included in the next General Council agenda.
- Members discussed the need to have data available to drive decision making around important community issues such as a road closure and requested pedestrian destination data be collected to assess where people are walking to/from prior to Council making any decisions around detailed design of the precinct.

Additional considerations include:

- potential to extend on street parking along Diagonal Way to compensate for loss of parking for the community through the redistribution of parking at Oaklands Station
- high quality CCTV could assist with public safety
- leverage digital kiosk wayfinding within Dwyer Reserve to inform community of Oaklands Station Plaza for public toilets

**Action: Temporary sensors to collect pedestrian movement data. G Johnson to discuss further with SAGE.**

## REPORTS FOR NOTING

### Independent Member Report (Report Reference: ISC191203R08)

**Moved: Councillor - Bruce Hull**

**Seconded: Councillor - Tim Gard**

The Infrastructure and Strategy Committee noted the report.

**Carried**

The Independent Member, Mr Christian Reynolds presented his summary of the committee's achievements, structure, responsibilities, areas of focus and opportunities for the future efficiency and effectiveness of the committee.

Mayor Hanna left the meeting at 10:15 PM

The Committee thanked Mr Reynolds for his contribution to the Committee over the past three years and noted that the members valued and welcomed his participation.

## OTHER BUSINESS

Nil

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**MEETING CLOSURE**

Meeting Declared Closed at 10:43 PM

**CONFIRMED THIS 4th DAY OF FEBRUARY 2020**

.....  
**CHAIRPERSON**

## BUSINESS ARISING

Review of the Business Arising from previous meetings of the Infrastructure and Strategy Committee Meetings

### Business Arising Statement - Action Items

<b>Originating Officer</b>	Executive Assistant to General Manager Corporate Services - Louise Herdegen
<b>Corporate Manager</b>	Manager Innovation and Strategy - Fiona Harvey
<b>General Manager</b>	General Manager City Development - Ilia Houridis
<b>Report Reference</b>	ISC200204R02

## REPORT OBJECTIVE

The purpose of this report is to review the business arising from previous meetings of the Infrastructure & Strategy Committee meetings, the meeting schedule and upcoming items.

## RECOMMENDATION

That the Infrastructure & Strategy Committee:

1. Notes the business arising statement, meeting schedule and upcoming items.

### Attachment

#	Attachment	Type
1	ISC200204 Business arising statement - action items	PDF File
2	ISC200204 forward agenda February 2020	PDF File

**CITY OF MARION  
BUSINESS ARISING FROM THE INFRASTRUCTURE AND STRATEGY COMMITTEE MEETINGS**

APPENDIX 1  
AS AT 30 JANUARY 2020



	Date of Meeting	Item		Responsible	Due Date	Status	Completed / Revised Due Date
1.	3 December 2019	ISC191203R05	<ul style="list-style-type: none"> <li>Review whether there is data for the period between 7 pm &amp; 7 am</li> </ul>	F Harvey	3/2/20	Spikes at these times could be: -Pockets of night-time use by kids or adults exercising -Animal activity -Poor sensor behaviour These are being further investigated as part of the review of the 12 month data set	March 2020
2.	3 December 2019	ISC191203R06	<ul style="list-style-type: none"> <li>The design be referred to a General Council meeting before going out to tender.</li> </ul>	F Harvey	11/2/20	On the General Council meeting agenda for 11/2/20	
3.	3 December 2019	ISC191203R06	<ul style="list-style-type: none"> <li>Temporary sensors to collect pedestrian movement data. G Johnson to discuss further with SAGE.</li> </ul>	G Johnson	3/2/20	Complete, report being presented to ISC 4/2/20	4 Feb 2020
4.	5 November 2019	ISC191105R02	<ul style="list-style-type: none"> <li>Provide feedback to the new Committee.</li> </ul>	C Reynolds	22/11/19		
5.	5 November 2019	ISC191105R02	<ul style="list-style-type: none"> <li>Provide guidance to the new Chair for agenda items for December meeting.</li> </ul>	F Harvey	22/11/19		

\* Completed items to be removed are shaded

# Meeting Schedule 2020



4 February	6.30 – 9.30
7 April	6.30 – 9.30
2 June	6.30 – 9.30
4 August	6.30 – 9.30
6 October	6.30 – 9.30
1 December	6.30 – 9.30

## 2020 Committee Membership

- Membership – 5 Elected Members + 1 Expert Member
- Quorum - 4 Committee Members

**Presiding Member** – Jason Veliskou

### Expert Member

Russell Colbourne (1/1/2020 – 31/12/2020)

### Members

- Tim Gard
- Bruce Hull
- Raelene Telfer
- Sasha Mason

## Infrastructure &amp; Strategy Committee

# Meeting Schedule 2020



Infrastructure & Strategy Committee      Date: Tuesday, 4 February    Time: 6.30pm – 9.30pm      Venue: Chamber					
Topic	Description	Presentation / Workshop	Duration	External Attendees	Staff Responsible
Infrastructure & Strategy Committee – 2019 Review & Considerations for 2020	Deferred from the December 2019 meeting				
Oaklands Precinct Pedestrian Movements					F Harvey/B Grimm
Shaping Our City	Strategic discussion	Workshop			

Infrastructure & Strategy Committee      Date: Tuesday, 7 April    Time: 6.30pm – 9.30pm      Venue: Chamber					
Topic	Description	Presentation / Workshop	Duration	External Attendees	Staff Responsible

Infrastructure & Strategy Committee      Date: Tuesday, 2 June    Time: 6.30pm – 9.30pm      Venue: Chamber					
Topic	Description	Presentation / Workshop	Duration	External Attendees	Staff Responsible

Infrastructure &amp; Strategy Committee

# Meeting Schedule 2020



Infrastructure & Strategy Committee		Date: Tuesday, 4 August Time: 6.30pm – 9.30pm				Venue: Chamber
Topic	Description	Presentation / Workshop	Duration	External Attendees	Staff Responsible	

Infrastructure & Strategy Committee		Date: Tuesday, 6 October Time: 6.30pm – 9.30pm				Venue: Chamber
Topic	Description	Presentation / Workshop	Duration	External Attendees	Staff Responsible	

Infrastructure & Strategy Committee		Date: Tuesday, 1 December Time: 6.30pm – 9.30pm				Venue: Chamber
Topic	Description	Presentation / Workshop	Duration	External Attendees	Staff Responsible	



## CONFIDENTIAL ITEMS - Nil

## REPORTS FOR DISCUSSION

### Infrastructure & Strategy Committee - 2019 review and considerations for 2020

<b>Originating Officer</b>	Executive Assistant to General Manager Corporate Services - Louise Herdegen
<b>Corporate Manager</b>	Manager Innovation and Strategy - Fiona Harvey
<b>General Manager</b>	General Manager City Development - Ilia Houridis
<b>Report Reference</b>	ISC200204R03

## REPORT OBJECTIVE

This report outlines a summary of the work program the Infrastructure and Strategy Committee (ISC) considered over 2019 and provides the members of the 2020 ISC inputs for consideration into the 2020 work program.

## RECOMMENDATION

**That the Infrastructure and Strategy Committee:**

1. **Recommends to Council that this report and any directions minuted are provided to the 2020 Infrastructure and Strategy Committee to inform its considerations of a work program for 2020.**
2. **Notes the activity of the 2019 Infrastructure and Strategy Committee members and acknowledges the contributions of members:**
  - 2.1. **Presiding Member, Councillor Luke Hutchinson (concluding term)**
  - 2.2. **Councillor Ian Crossland (concluding term)**
  - 2.3. **Councillor Matthew Shilling (concluding term)**
  - 2.4. **Expert Member, Mr Christian Reynolds**
  - 2.5. **Councillor Tim Gard (continuing)**
  - 2.6. **Councillor Bruce Hull (continuing)**
  - 2.7. **Mayor Kris Hanna (continuing)**

## DISCUSSION

The ISC has a broad Terms of Reference (ToR) (Attachment 1) focussed on advising Council on long-term strategic objectives including:

- development and monitoring of Council's strategic management plans
- emerging risks and opportunities
- opportunities for innovation
- monitoring major projects (over \$4 million) and management of its assets
- service levels required to deliver on long-term objectives

During 2019 the ISC met 9 times (including the December meeting) and covered a broad range of topics relating to its TOR.

The ISC's discussions are held in the context of Council's 30 year, 10 year and 4 year strategic and business plans and consider the continuously evolving nature of the City of Marion, the broader local government sector, and the region and state's operating environment.

In all 47 items were discussed across 9 meetings, the topics discussed during 2019 are listed in Attachment 2, including a breakdown of frequency of items against the objectives of the Committee.

The most commonly discussed issues were:

- Major Projects and Assets (17)
- Risks and Opportunities (14)
- Strategic Plans (8)
- Innovation (5)
- Service Levels (3)

The above acknowledges that within these themes there were crossovers, particularly in the case of Risk and Opportunity with Innovation.

Attachment 1 of the Business Arising agenda item includes the forward plan and membership of the Infrastructure and Strategy Committee.

Whilst the following list is not exhaustive, discussion regarding the setting of topics and objectives for the 2020 ISC program could include:

#### **Council Strategic Management Plans**

- Community Vision Towards 2040
- City of Marion Strategic Plan 2019-2029
- City of Marion Business Plan 2019-2023
- Making Marion 2040

#### **Risks and Opportunities**

- Productivity Commission
- Local Government reforms
- Community demographics
- Changing and emerging community expectations
- Technology
- Environment and Sustainability
- Circular Economy

#### **Innovation**

- Council Collaborations
- Service Delivery
- Infrastructure Delivery
- Community Engagement

#### **Major Projects and Assets**

- Projects over \$4 million
- Asset Management and Renewal

#### **Service Levels**

- Service levels to community across Council programs
- Consideration of service levels to Long Term Financial Plan

### **Attachment**

#	Attachment	Type
1	Appendix 1 ISC TOR	PDF File
2	Attachment 2 ISC 2019 Program	PDF File

# INFRASTRUCTURE & STRATEGY COMMITTEE TERMS OF REFERENCE



## 1. ESTABLISHMENT

- 1.1 Pursuant to section 41 of the *Local Government Act 1999* (The Act) the Council has established an Infrastructure and Strategy Committee.

## 2. OBJECTIVES

- 2.1 The Committee is established for the purposes of:
- Providing advice to Council regarding matters of strategic importance.
  - The development and monitoring of Council's strategic management plans as defined under section 122 of the Act.
  - Providing advice to Council on the changing and emerging nature of the community, region and area in which it operates, and specifically the public policy objectives of other councils, State and Commonwealth governments.
  - Providing advice to council on the extent or levels of service required to be provided by the Council to achieve its long-term objectives.
  - Providing advice and recommendations to Council regarding the strategic management of council assets.
  - Monitoring of major Council Projects that are in excess of \$4 million and / or are of a nature which pose significant risk or high community impact.
  - Aligning Council's management of assets and infrastructure to its long term strategic objectives.
  - Providing advice to Council on opportunities for innovation aligned with its long term strategic objectives.

## 3. MEMBERSHIP

- 3.1 The membership of the Committee will comprise of:
- The Mayor
  - Five Elected Members
  - One expert member who is independent of Council
- 3.2 The Membership, term of appointment and the presiding member will be determined by resolution of the Council.

### Elected Member Representatives

- 3.3 An Elected Member will be the presiding member of the Committee.
- 3.4 The Elected Member Representatives will change during the term of Council however Council may resolve to re-appoint an Elected Member representative for consecutive terms if this provides continuity for the Committee.

### Expert Member

- 3.5 The expert member will have experience in strategic management covering areas such as business strategy/planning and integration/alignment of strategic directions, asset/facilities management, project management and/or civil/structural engineering.
- 3.6 The appointment of the expert member will be made by the Council for a term to be determined by the Council. Council may resolve to re-appoint an expert member for consecutive terms.
- 3.7 If Council proposes to remove an expert member from the Committee, it must give written notice to the expert member of its intention to do so and provide the expert member with the opportunity to be heard at a council meeting which is open to the public, if the expert member so requests.
- 3.8 A sitting fee for each scheduled meeting will be paid to the expert member of the Committee and will be set by Council. At a minimum, the remuneration sitting fee paid to expert members will be reviewed within 12 months of a Council (periodic) election.
- 3.9 Any fees for additional workshops and/or meetings outside the meeting schedule must be negotiated separately before the meeting occurs.

### Process to source Expert Members

- 3.10 The Council will determine the process for appointing an expert member. This will be through resolution if not defined by another Committee's Terms of Reference.

## **4. BASIS FOR OPERATION**

- 4.1 The Committee does not have any delegated powers of Council, and all decision of the Committee will constitute recommendations to the Council.
- 4.2 For the purposes of section 41(8) of the Act, the Council does not impose any reporting and accountability requirements on the basis that all decisions of the Committee constitute recommendations to Council.
- 4.3 The Committee will meet as resolved by Council between February and December each year.
- 4.4 A quorum for a meeting of the Committee shall be four Members of the Committee.
- 4.5 Each member present at a Committee meeting must, subject to the provision of the Act, vote on a question arising for decision at that meeting.
- 4.6 Where the Act, the Local Government (Procedures at meetings) Regulations 2000 and these Terms of Reference do not prescribe procedures to be observed in relation to the conduct of a meeting of the Committee, the Committee may determine its own procedures.
- 4.7 Administrative support will be provided to the Committee as requested.
- 4.8 The Committee will review its Performance on a bi-annual (every two years) basis using performance indicators developed for that purpose.

## 5. TERMS OF REFERENCE

- 5.1 Within the parameters of the Act, and having regard to the powers, functions and responsibilities of the Chief Executive Officer, the Committee is charged with providing advice and recommendations to Council regarding:
- 5.1.1 To advise Council regarding the development, implementation and review of its strategic management plans.
  - 5.1.2 To ensure that Council policy and strategies provide and promote Community 'wellbeing' through enhancing and sustaining economic, environmental and community development of the City of Marion.
  - 5.1.3 To review strategic topics (not included within any other Committees Terms of Reference) prior to Council consideration and adoption.
  - 5.1.4 The development and implementation of Council policy relating to the management and utilisation of Council assets and infrastructure.
  - 5.1.5 The monitoring and potential implementation strategies for the sporting facilities priorities of the City of Marion.
  - 5.1.6 The monitoring, development and implementation of Council's Strategic Asset Management Plans in accordance with Council's Asset Management Policy.
  - 5.1.7 Opportunities to either acquire new assets or dispose of assets in accordance with Council's Disposal of Land and Assets Policy.
  - 5.1.8 Monitoring of major projects of the City of Marion or within the City of Marion.
  - 5.1.9 The opportunities to further develop strategic transport and integration of transport needs of the Community.
  - 5.1.10 The opportunities to further pursue Council's strategic objectives using innovative solutions.

Adopted by Council:	27 November 2018
Next Review:	November 2020
Previous Version:	28 February 2017 (GC280217R04)
Owner:	Manager Corporate Governance Manager Innovation and Strategy Manager Strategic Projects
Applicable Legislation:	Local Government Act 1999 Local Government (Procedures at Meetings) Regulations 2013 Development Act 1993

## Attachment 2: 2019 Infrastructure and Strategy Committee Topics



### 5 February 2019

- Oaklands Smart Precinct Update
- Committee's Forward Agenda
- Capital Works Review

### 5 March 2019

- Confidential - Marion Golf Club
- Hallett Cove Sea Pool Technical Feasibility Study - Feedback and Discussion
- Marino Hall - Update on development options
- Infrastructure & Strategy Committee 2019 Focus
- Emerging Innovation and Ideas

### 2 April 2019

- Presentation from SA Power Networks
- Future of Lighting

### 7 May 2019

- Southern Adelaide Economic Development Board (SAEDB)
- Regional Collaboration and Working Across Boundaries
- City of Casey Electric Vehicle Case Study
- Grants Attraction Program Update
- Urban Activation Project Data Analysis
- Playground Data Analysis Report
- Capital Works Progress Update
- Oaklands Smart Precinct Update
- Seaview High School Sports Facilities Partnership

### 4 June 2019

- Living Kurna Cultural Centre Management Models
- Presentation: SRWRA
- Presentation: Flinders University
- Presentation: Current challenges and future opportunities for management of waste and recycling at the City of Marion

## **Attachment 2: 2019 Infrastructure and Strategy Committee Topics**

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### **2 July 2019 - Lack of Quorum** - An informal gathering took place which presented:

- Update on recycled materials in roads
- Presentation: City of Mitcham- recycled road materials
- Presentation: Hydrogen Park SA, AGIC
- Indoor Skate Facility

### **6 August 2019 - No Meeting**

### **3 September 2019 - No Meeting**

### **1 October 2019**

- Presentation: South Australian Productivity Commission
- City Transport and Moveability Plan
- Seaview High School Sports Facilities Partnership
- Oaklands Smart Precinct Project - Update
- Capital Construction Program - Update
- Corporate Information and Community Technology - Update
- Review of Use of Economic Statement

### **5 November 2019**

- Climate Risk and Governance
- Strategic Review of Customer Experience Plan
- Community Courts
- Acquisition of Land and CEO Delegation to Purchase Land of a Strategic Nature
- City Property Strategic Asset Management Plan
- Autonomous Vehicle Trial Experience

### **3 December 2019**

- Presentation: Tonsley Railway Station
- Panel: Value of Data
- Playground Data Analysis Report
- Oaklands Smart Precinct Project - Update
- Independent Member Annual Report
- Infrastructure & Strategy Committee - Summary of Items for 2019

## Oaklands Precinct Pedestrian Movements

<b>Originating Officer</b>	Manager Innovation & Strategy - Fiona Harvey
<b>Corporate Manager</b>	N/A
<b>General Manager</b>	General Manager City Development - Ilia Houridis
<b>Report Reference</b>	ISC200204R04

### REPORT OBJECTIVE

To provide the Infrastructure and Strategy Committee (ISC) with insights into pedestrian movement patterns between the Oaklands Station and Regional Centre

### EXECUTIVE SUMMARY

A key objective of the Oaklands Precinct Project is enhanced walking and cycling connections between the Oaklands railway station and the Marion Regional Centre. To gain further insight into how pedestrians and cyclists move through the precinct four pedestrian sensor counters were placed within the precinct to examine the number of pedestrians and cyclists who currently travel between the Oaklands railway station and regional centre via Morphett Road or by taking the Diagonal Way to Diagonal Road route.

Monitoring was conducted over 16 days across two detection periods between 19-28 December 2019 and 14-22 January 2020 by SAGE Automation. The results and insights from the analysis are provided in Attachment 1.

The analysis of the sensor monitoring data shows the following trend patterns:

- The Morphett Road pathway is currently proportionally of higher use from the station towards the regional centre (59%) as compared to the return direction to the station (52%).
- Diagonal Way provides an alternative connection with (48%) of movements recorded from the regional centre towards the station as compared to (41%) from the station towards the regional centre.
- Further analysis of pedestrian movements in both directions suggests (43%) cross at the signalised intersection heading north/south on Morphett Road as compared to (57%) travelling on Diagonal Road or Diagonal Way to or from Trott Grove/ Warracowie Way direction.

In summary the pedestrian movement data provides correlation that the two assessed routes provide proportionally equivalent desired paths of travel. The designs for the Oaklands precinct intend to enhance both paths of travel with additional amenity and wayfinding.

### RECOMMENDATION

**That the Infrastructure and Strategy Committee:**

1. **Notes the presentation and report (Attachment 1) on the Oaklands Precinct pedestrian movements**
2. **Notes that the Oaklands Precinct designs are scheduled to be presented to Council on 11 February 2020.**



## DISCUSSION

The Oaklands Precinct project designs were presented to the ISC on 3 December 2019 (ISC191203R06) in preparation for the tender of construction of the first 2 stages of works. This timeline aligns with council's adopted schedule of works and the Smart Cities and Suburbs grant funding agreement.

At that meeting the Committee noted that:

- the designs included the technology elements to be included within the precinct
- the designs included linkages with the Marion Cultural Centre plaza planning
- City of Marion has extended the DPTI Addinsight traffic intelligence system by installing four traffic monitoring beacons in the area.
- the designs enable future proofing for an autonomous vehicle between Oaklands Railway Station and the Marion Regional Centre
- a smart water fountain is currently being explored with SA Water

The ISC discussed the need to have data available to drive decision making around important community issues such as a road closure and requested pedestrian destination data be collected to assess where people are walking to/from prior to Council making any decisions around detailed design of the precinct.

An action from the meeting was *'temporary sensors to collect pedestrian movement data. G Johnson to discuss further with SAGE'.*

### Overall Concept

As part of the Oaklands Station redevelopment the City of Marion developed a precinct plan to enhance community activation and connections between the station and the Marion Regional Centre (Marion Cultural Centre, South Australian Aquatic and Leisure Centre, GP Plus and Westfield). The concept plans also integrate Federal Government Smart Cities and Suburbs grant funding.

The objectives of the concept are to create:

- Seamless integration of public realm that provides enhanced connections to the Oaklands Station
- Smart precinct that incorporates real time data capture and information distribution; supporting economic development activities, public safety and community connections
- Dwyer Road Reserve Community Park and playground upgrade with integrated smart technology infrastructure. This incorporates a portion of Diagonal Way being closed to create a larger public park.
- Enhanced walking and cycling connection from the Oaklands railway station to Marion Regional Centre
- A precinct approach to public art, place making and wayfinding to enhance the user experience

Detailed designs for Stage 1 (Dwyer Rd Reserve) and Stage 2 (Diagonal Way to Crew Street) have been developed responding to the community consultation process. The designs are to be presented to General Council 11 February 2020. Attachment 2 provides detailed design intent for the precinct. The tender is scheduled to be released and awarded within the next two months to achieve Council's adopted schedule of works and the Smart Cities and Suburbs Grant funding agreement. Timing for stage 2 works are subject to Diagonal Way road closure gazette. Confirmation on this is likely to be April / May 2020. Consequently the design documentation for tender will be in separable portions to enable award of stage 1 early 2020 and subsequent stage 2 upon confirmation of Diagonal Way closure.

### Monitoring pedestrian movements through the precinct

To progress the action from the meeting as quickly as possible, SAGE Automation partnered with the City of Marion to install temporary sensors to monitor pedestrian movements along two paths of travel:

- Morphet Road towards Diagonal Rd signalised intersection to and from the station
- Diagonal Way towards Trott Grove to and from the station

To ensure monitoring began as quickly as possible, the 4 sensors that SAGE Automation had immediately available were deployed at the following locations:

- Light pole in the Plaza Oaklands Station
- Pole within the garden bed near Crew Street
- DPTI Traffic monitoring box on the corner of Diagonal Road and Morphet Road
- Marion Cultural Centre

Monitoring was undertaken for a period of 16 days in two blocks from 19-28 December 2019 and 14-22 January 2020. The first period is likely to represent more seasonal (ie Christmas/holiday) movements while the second period represents more 'normal' commuter movements. The data has been reviewed and synthesised by SAGE.

Attachment 1 provides the full report on the sensor deployment, methodology for data collection, results and analysis.

Additional pedestrian movement data was also requested from DPTI for the signalised crossing at the intersection of Diagonal Road and Morphet Road. The data relevant to this study is summarised in Attachment 3. Whilst this information is not directly comparable with data collected through the SAGE pedestrian monitors, it provides some insight into trends in crossing at the signalised crossing. The crossing activation data shows that, on average, the crossing is activated (ie green man is lit) 148 and 99 times per day on the crossings that would best represent pedestrian movements in a direction from the station across the Morphet Rd/Diagonal Rd signalised crossing point (P1 and P3 respectively).

It is intended the data and interpretation of findings will inform the design whilst also provide base line data for future monitoring and assessment over time.

Whilst the monitoring of pedestrian movements through the precinct provides Council with an indication of the existing pedestrian movement patterns over a period of 16 days, it is noted that the data is not the only form of site assessment and other factors such as the ease of movement around the public realm through wayfinding signage and constructed pathways with clear sightlines, perceived safety and amenity are also criteria for evaluation. These factors are not considered as part of the sensor data monitoring as they are more intangible qualities that affect human behaviours.

Consideration should also be given to the limited formality of the path along Diagonal Way at present with site compound fencing and limited wayfinding signage. The current path on Morphet Road provides clear sightlines to the signalised intersection with Diagonal Road. It is at this intersection where pedestrians make a decision to either cross at this controlled setting travelling south or further east along Diagonal Road towards Trott Grove and Warracowie Way.

### Pedestrian movement insights

The monitoring of pedestrian movements through the precinct provides Council with an indication of the existing pedestrian movement patterns over a period of 16 days and illustrates three current movement patterns which have been recorded in both directions of travel.

- Morphet Road to Diagonal Road signalised intersection with pedestrians utilising the crossing to continue travel.
- Diagonal Way to Diagonal Road and further south towards Trott Grove and Warracowie Way

- Morphet Road to Diagonal Road and further east towards Trott Grove and Warracowie Way

Overall the pedestrian movements are relatively evenly split between the routes, however there is some difference when comparing movements from the station with movements to the station. When the data is synthesised, the movement patterns illustrate:

- Morphet Road pathway from the station towards the signalised intersection has a proportionally higher use (59%) as compared to the return direction to the station (52%).
- Diagonal Way provides an alternative connection with proportionally higher movements towards the station (48%) as compared to from the station (41%).

When considering both 'to and from' the station combined, the pedestrian movement patterns show 57% of pedestrians choose to travel between the station and regional centre via Diagonal Road and Diagonal Way, compared with 43% crossing at the signalised intersection on Morphet Road heading due south or west of the precinct.

The data shows that there are two main directional routes people are travelling between the Oaklands station and the Marion Regional Centre. This supports the proposed precinct designs which reflect improvements to amenity and wayfinding along both Morphet Road and Diagonal Way.

## Attachment

#	Attachment	Type
1	ISC200204 - Oaklands Pedestrian movements Attachment 1	PDF File
2	Attachment 2 Oaklands Community Connection Detail Design Intent	PDF File
3	Attachment 3 DPTI SCAT DATA	PDF File



## ***Oaklands Pedestrian Monitoring***

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Prepared for the City of Marion  
*Wednesday, 29 January 2020*



## Introduction

As part of the Oaklands Station redevelopment the City of Marion have developed a precinct plan to enhance community activation and connections between the station and the Marion Regional Centre (Marion Cultural Centre, South Australian Aquatic and Leisure Centre, GP Plus and Westfield).

The concept plans integrate Federal Government Smart Cities and Suburbs grant funding.

The objectives of the concept are to create:

- Seamless integration of public realm that provides enhanced connections to the Oaklands Station
- Smart precinct that incorporates real time data capture and information distribution; supporting economic development activities, public safety and community connections
- Dwyer Road Reserve Community Park and playground upgrade with integrated smart technology infrastructure. This incorporates a portion of Diagonal Way being closed to create a larger public park.
- Enhanced walking and cycling connection from the Oaklands railway station to Marion Regional Centre
- A precinct approach to public art, place making and wayfinding to enhance the user experience

To support the design development of the precinct, SAGE Automation have been engaged to gather existing pedestrian movement data along two paths of travel;

- Morphett Road towards the signalised intersection to and from the station
- Diagonal Way towards Trott Grove to and from the station

This project examines the number of pedestrians and cyclists who currently travel between the station and regional centre via Morphett Road intersection and Diagonal Road or by taking the Diagonal Way to Diagonal Road route. SAGE Edge devices were used to measure this, utilising their capacity as pedestrian detection devices to detect people movement at key locations on these routes, as shown in figure 1.

To provide supporting data on the destination and activation of the Marion Cultural Centre (MCC) an additional sensor was located in the MCC, which will provide base line data of visitation numbers.

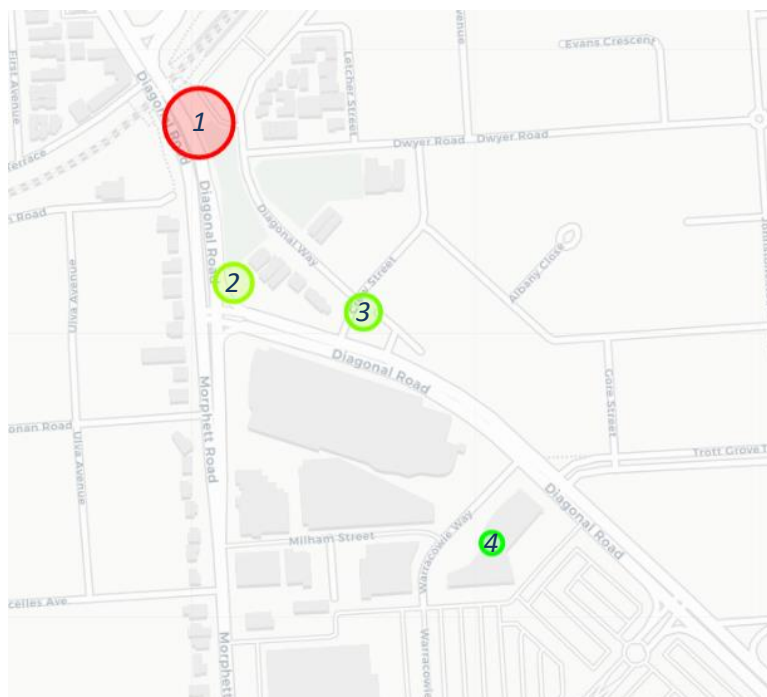


Figure 1- SAGE Edge detection zones

## Context for Data

City of Marion have requested pedestrian traffic data to understand the existing movement patterns to and from the Oaklands Station to the Marion Regional Centre.

The City of Marion have developed a precinct plan to enhance walking and cycling connections which will improve accessibility to public transportation and community facilities. The plan illustrates the retention of the pathway on Morphett Road connecting the new Station to the signalised intersection on Diagonal Road. The alternative connection is to traverse through Dwyer Road Reserve and pathway on Diagonal Way connecting further south on Diagonal Road towards Trott Grove. Data for these two paths of travel have been requested.

It is intended the data and interpretation of findings will inform the design whilst also provide base line data for future monitoring and assessment over time.

### 1.1 Why it is relevant

Information of this variety is important for Councils to consider in planning infrastructure to address community needs. The data can provide validation of areas that are heavily used as well as areas which may currently be underutilised. The data provides context to the locality for interrogation.

It is noted that the sensor data collated is not the only form of site assessment that determines or validates pedestrian movement behaviour. Other factors in urban planning and design should be considered by professionals in this field.

## Analysis

### 1.2 Method

In order to measure the difference in pedestrian traffic on each route, three pedestrian movement sensors were installed to gather comparable information with one additional sensor to augment the data set. These were installed at the following locations, numbered referring to figure 1:

1. Diagonal Road near Oaklands Railway Station, installed on existing light post with associated PV panel and battery storage
2. Corner of Diagonal Road and Morphett Road, installed in existing roadside cabinet
3. Corner of Diagonal Way and Crew Street, installed on new pole, with associated PV panel and battery storage
4. Front counter of the MCC

The data collected from these capture stations was then aggregated, sorted and filtered, such that when the data was to be analysed, that it would be coherent and understandable, accessible from the database that the data was being returned to.



*Figure 2- pole-mounted SAGE Edge unit on Diagonal Road, near Oaklands Railway Station*

Our detection technology senses smart devices (smartphones, tablets, watches) within its detection zone and since not every visitor will have a smart device, we cannot provide an actual number of visitors per location. An approximation of actual visitor numbers can be implied based upon an agreed percentage penetration of smart devices per user (estimated at approximately 32% for this trial).

What we can provide, and what still offers equal insight, is the *change* in detections from one period to the next. This will meet CoM's requirement to measure the change in visitations pre and post park redevelopment because the percentage detection rate per capita generally remains constant during the data capture period (i.e. the percentage of users per capita with smart devices should remain constant during the capture period).

A dashboard was also implemented to allow the data to be displayed in a legible format, such that a general understanding of the results could be obtained even before the project had reached completion.

Pedestrian movement data was captured over two periods, 19<sup>th</sup>-28<sup>th</sup> of December, and 14<sup>th</sup>-21<sup>st</sup> of January. Due to the 1<sup>st</sup> week being captured during the Christmas break period the second week was requested to provide what could be classified as normalisation of pedestrian/ cyclist movement patterns.

The classification of a pedestrian movement was described using the travel time between detection zones, with pedestrians being classified as any trip where the travel time was between 1 minute and 30 minutes, as well as the detection type being Wi-Fi.

Using this classification for pedestrians ensures that only those who are transiting between detection zones within the time period specified above will be classified as pedestrians and be therefore included in the later results. Using this methodology allows the data to remove all detections from the data from either people using devices in their homes, or from people transiting through the area in vehicles.

### 1.3 Equipment

For each monitoring site, a single 4G-enabled SAGE Edge was required which report the number of 'visitors' that were detected, as well as the dwell time within the detection site. Data from all sites then reported to a database, where the collected data could be stored, sorted, and filtered.

### 1.3.1 SAGE Edge

The SAGE Edge is a pedestrian detection device, which provides real-time detection data using a combination of Bluetooth, Wi-Fi, and Low-Energy Bluetooth detections in order to deliver a multi-faceted data set.

Wi-Fi detections correlate most strongly with pedestrian detections as they're typically produced by Wi-Fi probe requests (in addition to other data) to augment device location and scan for available access points. Bluetooth detections mostly come from the pairing of car stereo hands-free in-car phone systems, and communications between phones and smart wearables.

Every device that was be detected has a unique MAC address which was hashed at the detection point using a cryptographic key. This allows us to anonymise the data being collected, while still maintaining the ability to aggregate individual movements.



Figure 3- SAGE Edge pedestrian detection device

## 1.4 Schema

The data that is received from the Edge units is aggregated using the following criteria and method:

- 1 visitor per unique MAC address
- Time is logged as the first detection
- Duration is logged as the seconds between first and last detection
  - o In order to not re-count a device that has already been through the area recently, if the duration from the last detection is longer than 15 minutes, the visit expires and is logged to the database
  - o A subsequent visit after that timeout period will create a new visitor event
- Visitors are also logged with the following metadata:
  - o Detection type (Bluetooth, Wi-Fi, etc.)
  - o Detections (the number of packets with matching MAC addresses while the visitor was active)
- Active Visitors
  - o Shows the count of visitor events active at the device at the specific measurement

Per visit, the data that is collected is formatted using the following schema:

Variable name	Description	Unit	Data type
<b>Time</b>	UTC timestamp		Timestamptz
<b>deviceid</b>	Identifier of the detection unit		Text
<b>Visitor</b>	Hashed mac address		uuid
<b>Duration</b>	Delta between first and last detection	Seconds	Numeric
<b>detectiontype</b>	Detection method	{WIFI,BT,BTLE,UT,UTLE}	Text
<b>detections</b>	Count of detected packets during the visit	Count	numeric



The data from each visit is then tabulated in the database, such that the stored information can be requested and utilised later when comparing between devices

	time	deviceid	visitor	duration	detectiontype	detections
1	2019-05-10 10:30:41	10204	94f80241-6426-a2c3-e3f3-e558992eac02	1,724.127	UT	13
2	2019-05-10 10:54:19	10203	f650b908-5575-be27-6ae0-700b859f454a	348.979	WIFI	10
3	2019-05-10 10:54:28	10203	124da511-dc01-ae66-6c01-156fa1a347b9	325.94	WIFI	5
4	2019-05-10 10:55:30	10202	8af5a83b-1eb7-a0d1-9c35-d651e68688bf	269.524	UT	2
5	2019-05-10 10:56:26	10204	26864c5a-0593-8510-6460-1543efa29a3a	251.764	WIFI	4
6	2019-05-10 10:54:55	10203	e6b35348-fac0-7b59-6276-10d1877c261e	405.113	WIFI	2
7	2019-05-10 10:54:24	10203	f300e937-c80c-1acf-b864-1fcb974193f	450.992	WIFI	4
8	2019-05-10 10:55:34	10203	eadf5042-fcbc-e410-02ae-4b3f80ee5dc2	608.041	WIFI	3
9	2019-05-10 10:24:42	10203	35b631b9-7f19-58f7-edd9-2a7983aef019	2,573.134	WIFI	23
10	2019-05-10 10:54:49	10203	4a3514a7-4f2d-91f7-5113-529e24ea64ae	748.711	WIFI	5
11	2019-05-10 10:53:53	10204	8e36bfb2-f5bb-8ec1-2b7b-219d69abfa4b	947.598	WIFI	8
12	2019-05-10 10:24:15	10204	47a801ea-5a6d-7288-d9d1-5dad103ec50c	3,031.247	BT	114

Figure 4- database example of visitor information

Transits between sites are aggregated by joining the visits table on itself with appropriate filters to ensure reasonable expectations for pairing and the removal of duplicates.

Transits are recorded with the following schema:

Variable name	Description	Unit	Data type
<b>Visitor</b>	Hashed visitor MAC		UUID
<b>Time</b>	Time of first detection	Time	timestamptz
<b>Timeend</b>	Time of last detection	Time	Timestamptz
<b>Fromname</b>	Friendly name of first detected device		Text
<b>Toname</b>	Friendly name of last detected device		Text
<b>Fromdwell</b>	Duration detected at the first device	Seconds	Numeric
<b>Todwell</b>	Duration detected at the second device	Seconds	Numeric
<b>Traveltime</b>	Time between the last detection at the first device and the last detection at the second device	Seconds	Numeric
<b>Detectiontype</b>	Detection method	{WIFI,BT,BTLE,UT,UTLE}	Text

## 1.5 What do the data points mean

Using the data collected from the pedestrian detection devices, it is then possible to filter and sort that data into a manner which allows the end user to understand the number of pedestrians who have travelled between two of the detection devices. This is done using the MAC identifiers of devices, and comparing the received packets at each of the stations, and then looking at the travel time between the two detections, filtering out any results which take less time than the expected walking travel time, such as detections from people in cars.

## Results

All four sensor devices were operational from the 19<sup>th</sup> of December, 2019. Interruptions were experienced on the sensor device at Diagonal Way on the 28<sup>th</sup> of December, 2019 due to low battery caused by lack of sunlight charging batteries at the install location. This unit was brought back online on the 14<sup>th</sup> January, 2020 to capture comparable data from a typical working week.

During the first detection period between the 19<sup>th</sup> of December, 2019, and 28<sup>th</sup> of December, 2019, a total of 730,000 measurements were taken across all installed sensors. Of these measurements, 31,300 movements were linked between detection zones, and it was determined that of those linked movements, that there was 1,842 pedestrian movements within the measurement period.

During the second detection period between the 14<sup>th</sup> of January, 2020, and 22<sup>nd</sup> of January, 2020, a total of 961,000 measurements were taken across all installed sensors. Of these measurements, 80,400 movements were linked between detection zones, and it was determined that of those linked movements, there was 6,050 pedestrian movements within the measurement period.

Detection density per site during the detection periods is shown in appendix A, figure 9 and 10. Additionally in appendix A, figure 11 provides insight into detection density trends from the two detection periods, with additional comments around the comparison between the two detection periods and how the public holidays around Christmas would affect the trends.

## Synthesis

### 1.6 Count of pedestrians for each route

Looking at site-to-site detections, the two major measurements to meet the goal of measuring the usage of Diagonal Rd compared with Diagonal Way is by examining the visitor site-to-site detections going to and from the Oaklands Train Station. Observing the results displayed in figure 6 shows that, while in both cases, there is a majority of visitors who choose to travel via Diagonal Road, there is more of a difference when visitors are coming from the station, as compared to when they are travelling to the station.

This result by itself would lead to the conclusion that the Diagonal Way path is not as obvious or accessible from Oaklands Train Station, especially for those pedestrians who are not as familiar with the area. This conclusion is again supported by the fact that the results for people using the Diagonal Way path on the return trip to the train station is much closer, supporting the idea that the Diagonal Way path is more visible when coming from the Marion Cultural Centre direction.

Consideration should also be given to the limited formality of the proposed path along Diagonal Way at present with the site compound fencing and lack of signage.

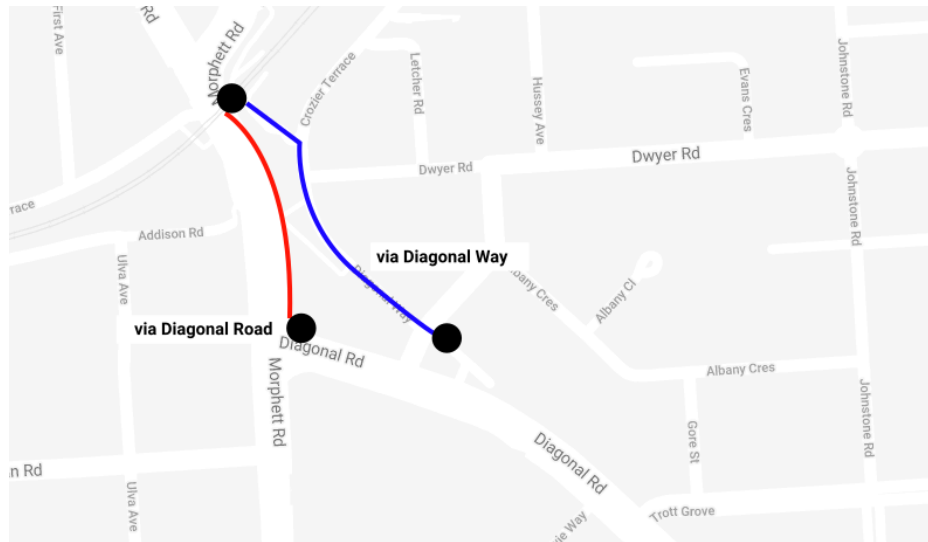


Figure 5- pedestrian routes being compared

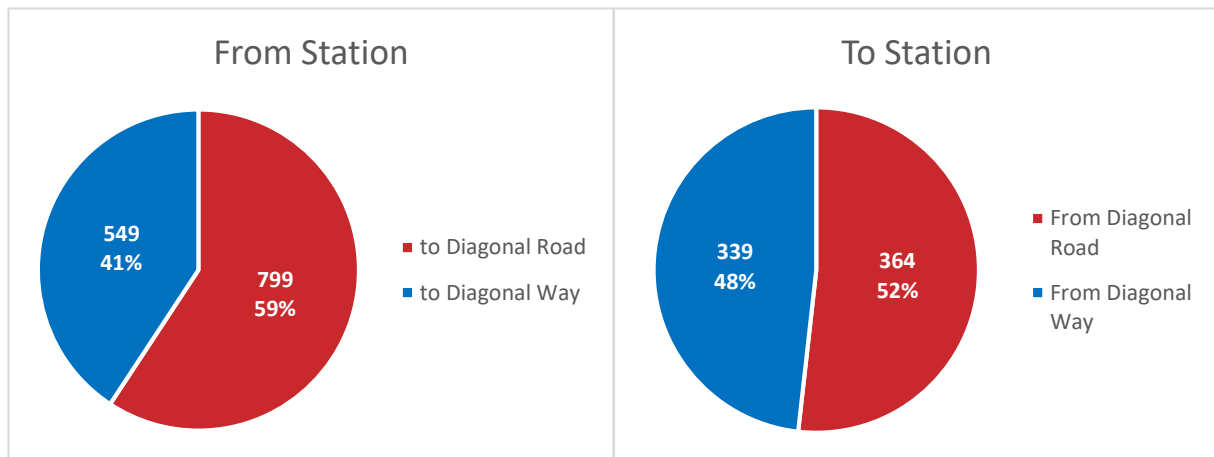


Figure 6- site-to-site visitations to and from Oaklands Station

As a total comparison of visitors moving down the two paths from the station, Diagonal Road is shown to be the most popular route in both directions, albeit by a smaller margin when travelling to the station.

## 1.7 Diagonal Road Crossing Traffic

Further analysis has been conducted to evaluate the percentage of pedestrians who cross Diagonal Road at the signalised intersection to continue on Morphet Road (Figure 7 red dotted line), as compared to the percentage of pedestrians who travel down Diagonal Road towards Trott Grove (Figure 7 blue dotted line)

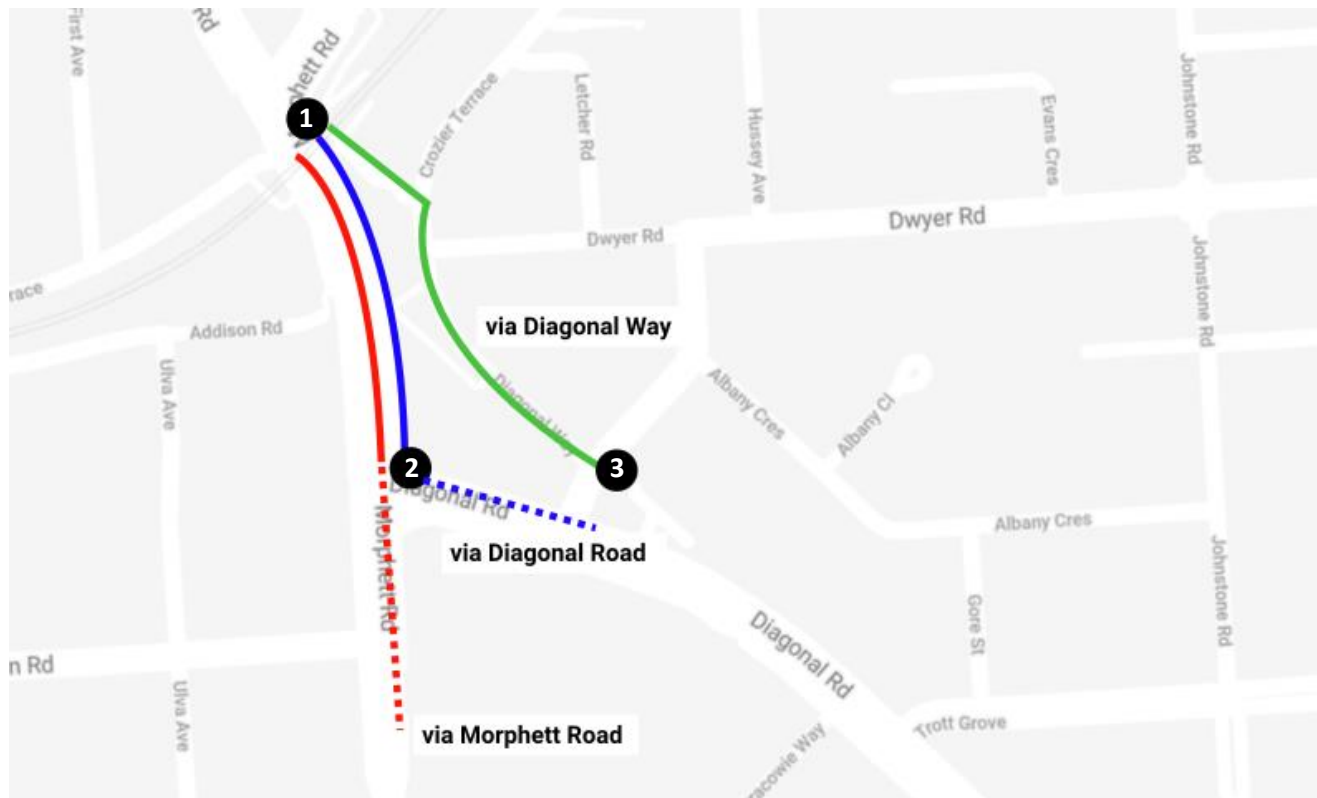


Figure 7- possible routes for pedestrians heading south from Oaklands Train Station

A percentage trend of pedestrians heading due south or west on Morphet Rd (Figure 7 red dotted line) as compared to a south easterly direction on Diagonal Road (Figure 7 blue dotted line) can be approximated by deducting pedestrians detected at both sensors 2 and 3 from the total number of pedestrians detected between sensors 1 and 2. This is a valid correlation to make as the pedestrian path along Diagonal Road is within detection range of the Diagonal Way device<sup>1</sup>.

The results have been included below in figure 8, and have been filtered to enable an evaluation of directional travel movements. The following summarises the data:

- 50% pedestrian movements from the station heading south east (dotted blue and green) as compared to 50% crossing at the signalised intersection heading south or west on Morphet Rd (red dotted line)

<sup>1</sup> Due to the placement of the Diagonal Way sensor, that sensor would not necessarily pick up all passing pedestrians who are travelling on Diagonal Road, especially if they crossed at the signalised intersection and continued on the south side of Diagonal Road. Due to this inconsistency relative to the movement path, an overestimation of Morphet Road may exist in the resultant figures, due to the underrepresentation of the pedestrians travelling on Diagonal Road. Further measurements or additional detection devices would be required to eliminate this bias which has not been corrected in these results.

- 70% of pedestrian movements heading to the station travel along Diagonal Rd or Diagonal Way (dotted blue and green) as compared to 30% being detected crossing at the signalised intersection (red dotted line)
- In summary the total pedestrian movement patterns (both directions) suggest 57% of pedestrians choose to travel between the station and regional centre via Diagonal Rd and Diagonal Way (blue dotted and green) as compared to 43% crossing at the signalised intersection heading due south or west of the precinct (red dotted line).

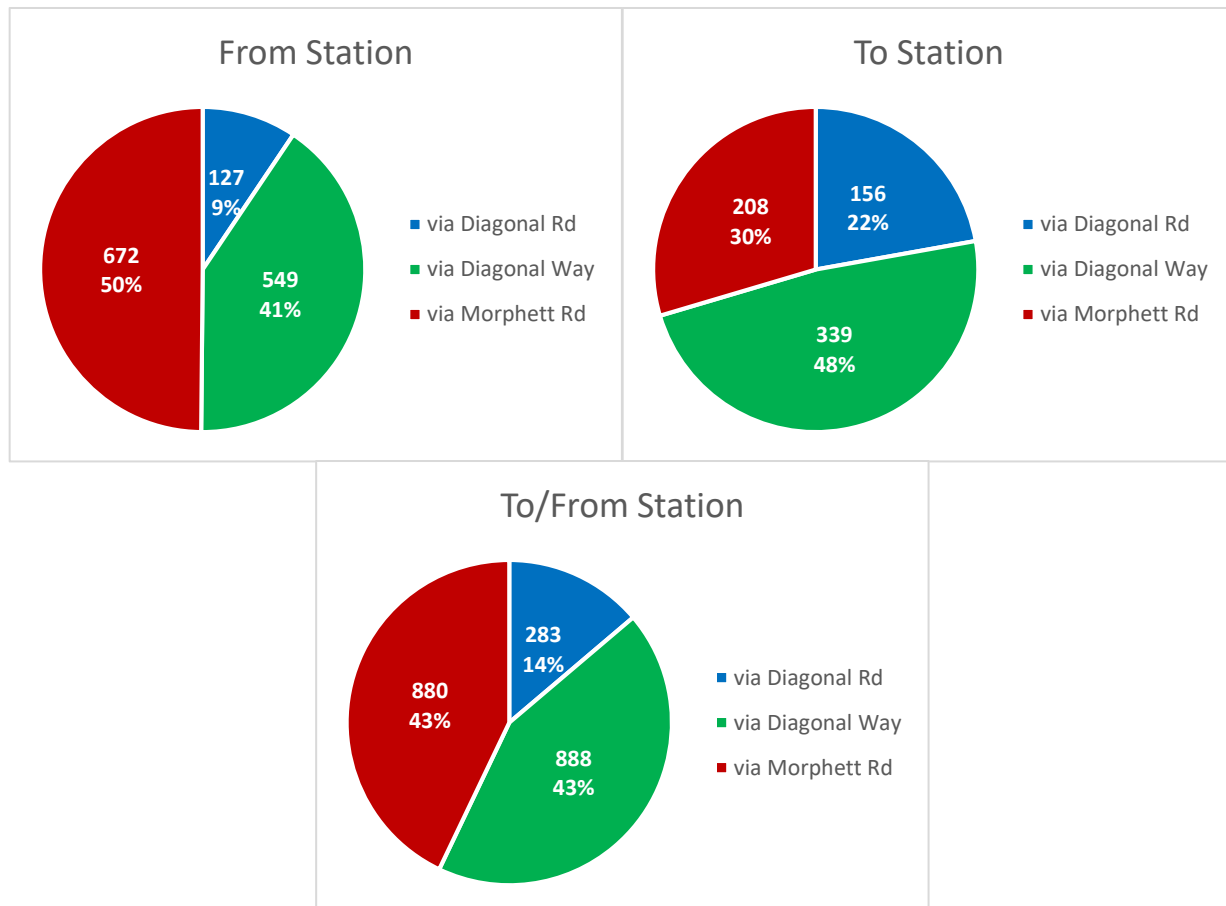


Figure 8- Number of pedestrians moving to/from Oaklands Train Station collectively over both detection period

## Summary

The data collated provides Council with an indication of the existing pedestrian movement patterns over a period of 16 days. The data has been filtered to evaluate a series of questions regarding community connections between the new Oaklands Station and the Regional Centre. The data provides base line measurements to support design and future monitoring of the precinct.

The data illustrates three current movement patterns, which have been recorded in both directions of travel.

- Morphet Road to Diagonal Road signalised intersection with pedestrians utilising the crossing to continue travel. (Marked as red figure on figure 7)
- Diagonal Way to Diagonal Road and further south towards Trott Grove and Warracowie Way. (Marked as green figure 7)
- Morphet Road to Diagonal Road and further east towards Trott Grove and Warracowie Way. (Marked as blue figure 7)

The Morphet Road pathway (red) towards the intersection is currently proportionally of higher use from the station towards the regional centre (59%) whereas the return direction to the station is proportionally reduced (52%).

Diagonal Way (green) provides an alternative desired connection with proportionally higher movements recorded from the regional centre towards the station (48%) as opposed to from the station towards the regional centre (41%).

Further depiction of pedestrian movement patterns (both directions) suggests 57% of pedestrians choose to travel between the station and regional centre via Diagonal Rd and Diagonal Way (blue dotted and green) as compared to 43% crossing at the signalised intersection heading due south or west of the precinct (red dotted line).

## Appendix A- Results of data collection

### Chart of active visitors over time

As a part of the data aggregation, a chart of active visitors over time was generated, as seen below in figure 9 and 10, where the darker blue colours represent fewer people being detected, and the colours moving toward red indicates there being more people detected. Figure 9 shows the active visitor counts over the entire project time period, while figure 10 shows the detection periods used for the analysis in this report.



Figure 9- Active visitor counts per hour over the full sample period

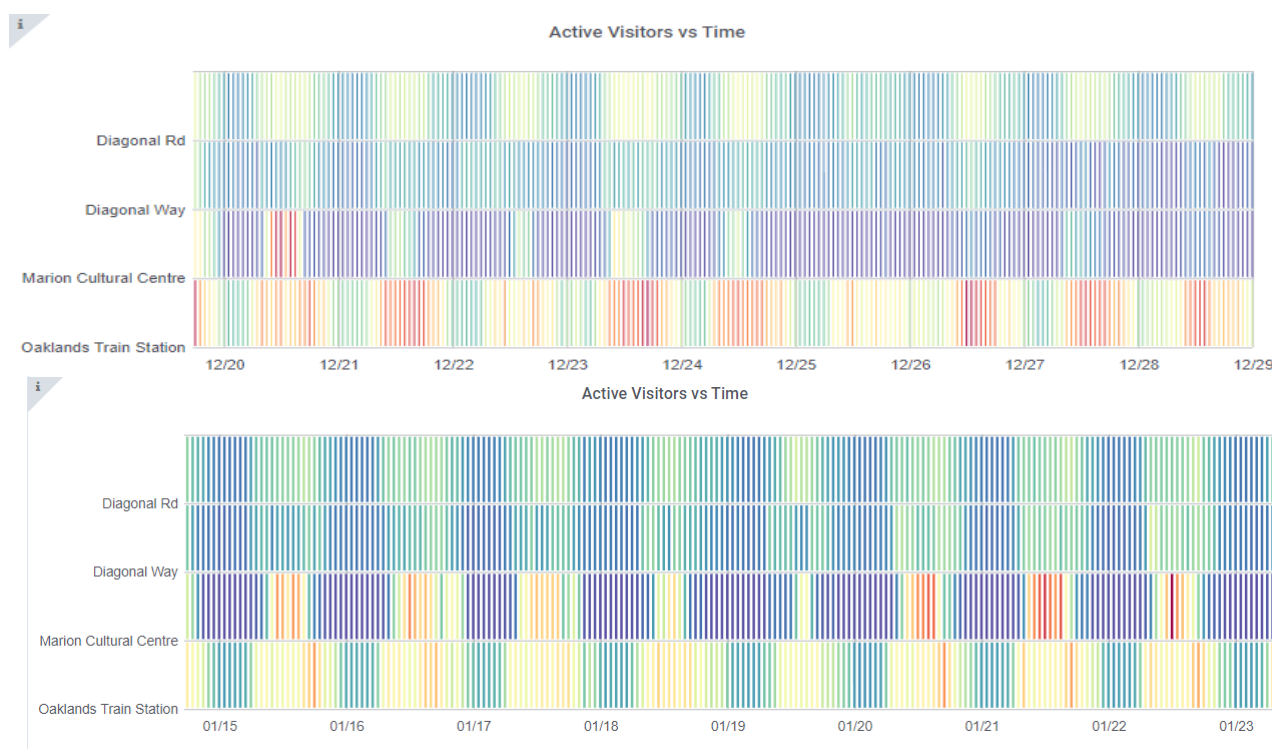


Figure 10- Active visitors over time at all detection zones over the 1<sup>st</sup> (top) and 2<sup>nd</sup> (bottom) detection periods

This chart demonstrates that overall, the most detections occurred at the Oaklands Train Station detection device, with the next being Diagonal Road, then Diagonal Way, and then Marion Cultural Centre. This metric does however include all detections, including those from passing traffic, thus providing a result which is greater in number than that of the pedestrians in the area, but still being indicative of general movement in the area.

The period of time that the first results were obtained should also be considered, with the Christmas period being somewhat abnormal in terms of traffic and pedestrian movement. This is reflected in figure 11, where there was higher than usual detections on the 23<sup>rd</sup> and 24<sup>th</sup>, but very few on the 25<sup>th</sup>, with this being due to the pre-Christmas shopping rush, and Christmas day itself where there are very few shops and amenities open.

The second detection period shown on the bottom of figure 11 is more representative of a regular working week, where the detections are as high or higher than the first period per working day, with the weekend, being the 18<sup>th</sup> and 19<sup>th</sup> of January, showing significantly less foot traffic in the area.

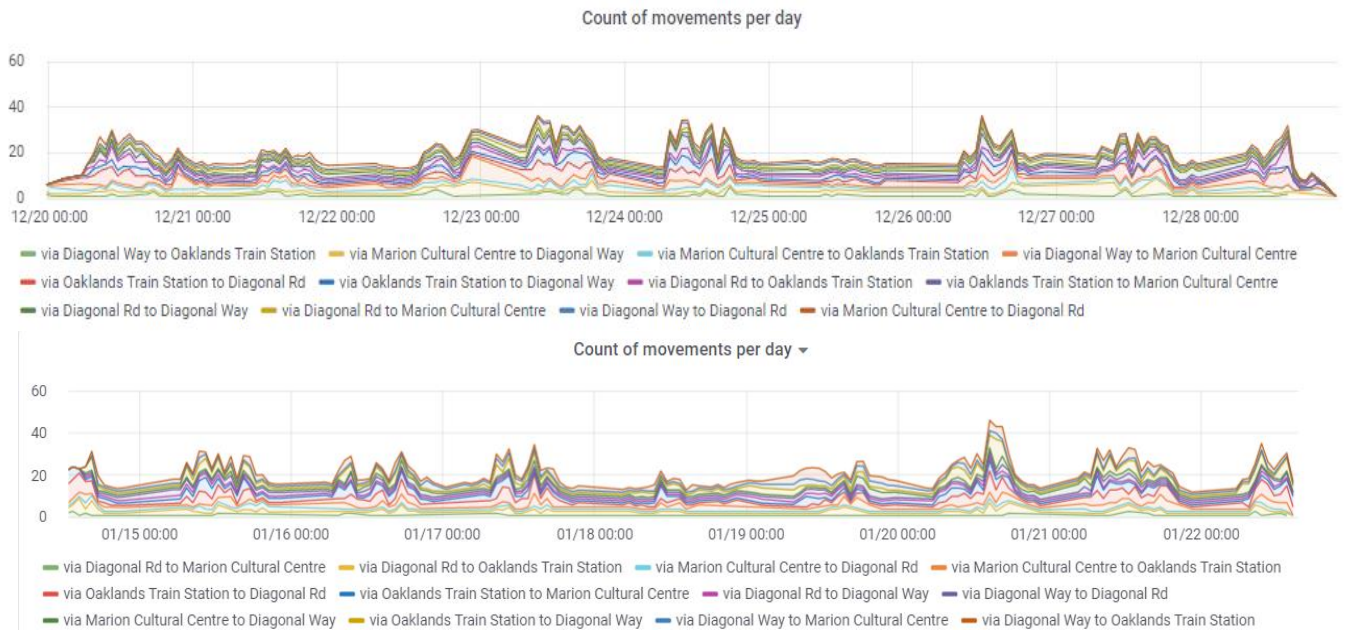


Figure 11- Pedestrian Movement counts per day over the 1st (top) and 2nd (bottom) period





OAKLANDS COMMUNITY CONNECTIONS LANDSCAPE DESIGN DEVELOPMENT





KEY

- 01 Nature Play
- 02 Smart Play Space
- 03 Solar Shelter & BBQ
- 04 Sports Court
- 05 Upgraded Footpath
- 06 Almond Tree Grove
- 07 Lawn Area
- 08 1.5m Wide Multi Purpose Track with Painted Graphics
- 09 Upgraded Car Parking
- 10 Indented Car Parking
- 11 New Pedestrian / Bike Link
- 12 Autonomous Vehicle Entry Point With Removable Bollards
- 13 Brushed Concrete Path with Painted Graphics

LEGEND

- Concrete Paver
- Bluestone Paving
- Exposed Aggregate Concrete
- Broom Finish Concrete
- Asphalt
- Rubber Softfall
- Gravel
- Organic Mulch
- Lawn
- Planting
- Dryland Grass
- Existing Tree
- Proposed Tree

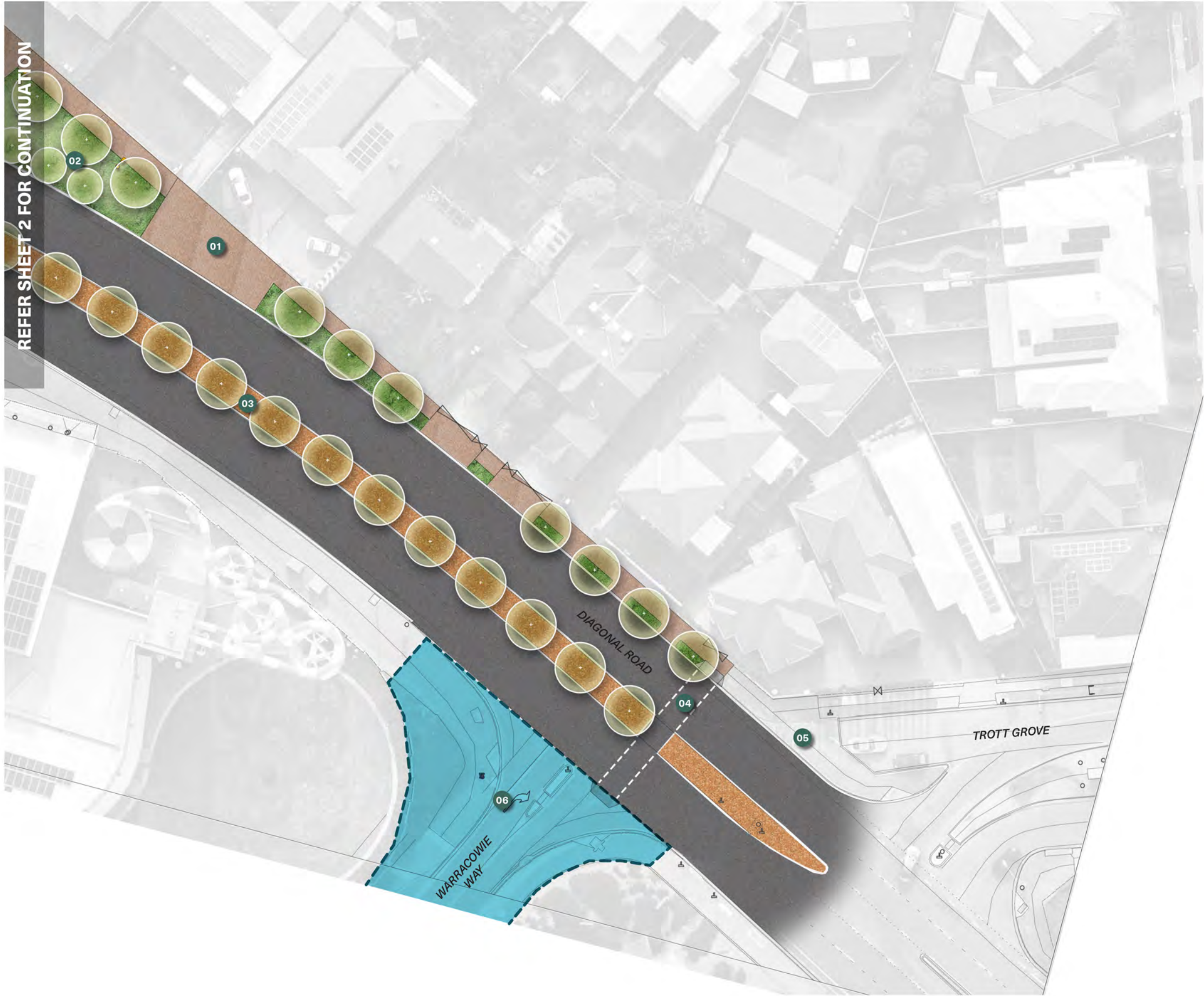




- KEY**
- 01 New Pedestrian / Bike Link
  - 02 Upgraded Car Parking
  - 03 Raised Wombat Crossing
  - 04 Thermoplastic Graphics on Exposed Aggregate Concrete
  - 05 Upgraded Footpath
  - 06 New Landscaping
  - 07 Median Tree Planting (Subject to DPTI)

- LEGEND**
- Exposed Aggregate Concrete
  - Broom Finish Concrete
  - Asphalt
  - Gravel
  - Planting
  - Existing Tree
  - Proposed Tree





KEY

- 01 Upgraded Footpath
- 02 New Landscaping
- 03 Median Tree Planting (Subject to DPTI)
- 04 New Pedestrian Activated Crossing (Location to be confirmed)
- 05 Future 'Chrysler Trail' shared path to Tonsley Connection
- 06 Future Marion Cultural Centre Plaza Project Integration

LEGEND

- Exposed Aggregate Concrete
- Asphalt
- Gravel
- Planting
- Existing Tree
- Proposed Tree

DPTI SCAT data

- The data provided is a record of the number of times the pedestrian displays were in Walk (green).
- The pedestrian crosswalks are actuated by pedestrian push buttons, which call the crossing movements (P1, P2 and P3).
- When the controller receives a call for the phase it will queue up the crossing movement for the phase in which it is permitted by the program.
- For P1 the Walk period runs in A phase but can be introduced multiple times per signal cycle.
- First, if demanded, at the start of A phase, then again during A phase if sufficient time remains in A phase to safely clear a crossing pedestrian.
- For P3 the Walk period runs in both A phase and C phase, or if B phase is demanded then P3 runs only in B phase.
- P2 runs in C phase only.



SAGE study period				
		P1	P2	P3
Friday	20191220	234	52	169
Saturday	20191221	270	98	208
Sunday	20191222	228	67	163
Monday	20191223	341	101	271
Tuesday	20191224	244	70	214
Wednesday	20191225	33	15	18
Thursday	20191226	257	65	187
Friday	20191227	252	55	179
Saturday	20191228	205	56	157
Total		2064	579	1566
Average per day		206.4	57.9	156.6

Site Graphics

TCS 117

OAKLANDS PARK  
STMARY

153 A2  
SS=34

4 PHASES

A

B

C

D

The diagram shows a site plan with Morpeth Rd and Diagonal Rd. Traffic flow is indicated by numbered arrows (1-10) and green arrows. Phase indicators A, B, C, and D are shown on the left. The plan includes a green area, a grey area, and a black area. The number 284 is at the top, 172 is on the right, and 171 is at the bottom.

North/South movement P1 and P3 can be derived by subtracting P2

		P1	P3
Friday	20191220	182	117
Saturday	20191221	172	110
Sunday	20191222	161	96
Monday	20191223	240	170
Tuesday	20191224	174	144
Wednesday	20191225	18	3
Thursday	20191226	192	122
Friday	20191227	197	124
Saturday	20191228	149	101
Total		1485	987
Average per day		148.5	98.7



## REPORTS FOR NOTING - Nil

## WORKSHOP / PRESENTATION ITEMS

### Shaping our City

<b>Originating Officer</b>	Manager Innovation & Strategy - Fiona Harvey
<b>Corporate Manager</b>	Manager Innovation and Strategy - Fiona Harvey
<b>General Manager</b>	General Manager City Development - Ilia Houridis
<b>Report Reference</b>	ISC200204R05

### REPORT OBJECTIVE

To support the Infrastructure and Strategy Committee in a strategic workshop discussion to consider the question 'How do we want to shape our City?' to inform a program of future strategic discussions of the Committee

### RECOMMENDATION

**The Infrastructure and Strategy Committee:**

- 1. Notes this report.**
- 2. Participates in a workshop to consider the question 'How do we want to shape our City?' to inform a program of future strategic discussions of the Committee.**

### DISCUSSION

The City of Marion's purpose is *To improve our residents' quality of life; continuously, smartly and efficiently*. Over the past 5 years through the 10 year strategic plan, 2016-2019 and 2019-2023 Business Plans and Annual Business Plans a significant number of priority initiatives have been delivered that have reshaped the City of Marion.

The built form of the City has changed through major infrastructure projects such as the Edwardstown Soldiers Memorial Oval redevelopment, the upgraded Marion Outdoor Pool, Hallet Cove foreshore redevelopment, significant playgrounds including Hendrie St, Oaklands Estate and Jervois St reserves, and the Cove Community Centre. The built form has also significantly transformed in some areas through urban infill and increases in housing density, bringing more cars/traffic and 'clutter' on the neighbourhood streets.

The city has become greener and more sustainable with thousands more trees planted, streetscaping and treescaping significantly enhanced, the Oaklands Wetlands Water reuse scheme well established, LED street lighting rolled out, and solar panels and energy efficiency measures put in place at major community facilities.

Whilst less visible at a macro level to people living and moving through the City there has also been changes in the way people connect and interact within the City through things such as the continued increased use and rate of change of technology; deployed of smart cities initiatives such as traffic/pedestrian counting, digital signage and public wifi; the change in the way people are working for example people working at different locations, flexible arrangements, small business operators, multiple jobs; the reliance on social media and e-based platforms for people to connect, communicate and transact; the focus on people ageing in their homes and neighbourhoods; and the significant growth of the personalised services and the sharing economy where individuals can access (or offer) personalised services to their homes.

Beyond the initiatives that the City of Marion has leadership and responsibility for, significant changes have been rolled out across the City by other parties including the Tonsley Innovation District, Darlington Interchange, Flinders University Hub proposal and Flinders Link development, Tonsley rail line electrification, Oaklands Crossing upgrade and the planning and design code. These major projects have provided, and will continue to present, significant opportunities and challenges for the City and the whole southern region.

Considering the change in shape of our City over the past five years, and bearing in mind that the current rate of change is faster than it has ever been at any point in history, it is valuable to consider how the City will change shape over the next 5 years and what role(s) the City of Marion can play in shaping this.

Using the purpose and the long term community vision (attachment 1) as a foundation, and the most recent environmental scan (attachment 2) as an input, it is proposed that the Committee participates in a workshop discussion to consider the question 'How do we want to shape our City?' to inform a program of future strategic discussions over the course of the Committee's bi-monthly meetings. This would also provide an opportunity to identify and connect with experts in the fields identified for further discussions, enabling Administration to organise guest speakers well in advance.

A suggested workshop format is:

Part 1: discussion and documentation of ideas and areas for further exploration using the environmental scan, Elected Member input, recent community feedback

Part 2: alignment against the 6 themes of the Community Vision (Attachment 1)

Part 3: Consideration of any gaps in Council's current strategic goals/objectives

Part 4: Where to next

## Attachment

#	Attachment	Type
1	Community Vision Towards 2040 A4 flyer	PDF File
2	ISC200204 - Shaping our City Attachment 2	PDF File



## Six themes of our Community Vision

These six themes represent the shared values and aspirations that will guide how our city develops.



### LIVEABLE

By 2040 our city will be well planned, safe and welcoming, with high quality and environmentally sensitive housing, and where cultural diversity, arts, heritage and healthy lifestyles are celebrated.

### VALUING NATURE

By 2040 our city will be deeply connected with nature to enhance peoples' lives, while minimising the impact on the climate, and protecting the natural environment.

### ENGAGED

By 2040 our city will be a community where people are engaged, empowered to make decisions, and work together to build strong neighbourhoods.

### PROSPEROUS

By 2040 our city will be a diverse and clean economy that attracts investment and jobs, and creates exports in sustainable business precincts while providing access to education and skills development.

### INNOVATIVE

By 2040 our city will be a leader in embracing and developing new ideas and technology to create a vibrant community with opportunities for all.

### CONNECTED

By 2040 our city will be linked by a quality road, footpath and public transport network that brings people together socially, and harnesses technology to enable them to access services and facilities.

LIVEABLE



VALUING NATURE



ENGAGED



PROSPEROUS



INNOVATIVE



CONNECTED



Attachment 2: Environmental Scan for CoM			Criticality for action			
Macro forces						
PESTLER (Political, Economic, Social, Technological, Legal, Environmental and Relationships)	Key Issues	Detail	Short term: 12 months	Medium term: 2-4 years	Long term: 5-10 years	Ongoing
Political (led by Government/ Policy or Council)	Last Federal Election- Liberal	Potential change to funding and key policy changes in budget cycles	✓	✓		
	State productivity commission Independent Inquiry (LGA reforms)	• LG spending • Council conduct • Transparency • LGA reforms	✓	✓		
	NDIS roll out	NDIS funding changes from provider to individual from 2020 will impact current service delivery in the community and cultural services team	✓			✓
	HACC Funding changes	From July 2019 the City of Marion will no longer receive State Government funding to support those aged under 65 with a disability and HACC	✓			✓
	City Deal	On 12 December 2018 the Australian and South Australian Governments signed a Memorandum of Understanding, agreeing to develop a City Deal for Adelaide. The City Deal will be developed in partnership with local governments, communities and the private sector to support long term growth of Adelaide as a vibrant, innovative city that drives the economy forward.				✓
	Keeping rates low	Balancing the expectations of keeping rates low against increasing service delivery and infrastructure responsibilities and unavoidable cost increases	✓	✓	✓	✓
	30 Year plan for Greater Adelaide	Need to plan now to cater for projected population growth, COM is projected to grow 15% over the next 15 years.	✓	✓	✓	✓
	Waste Levy	Unannounced solid waste levy from \$100 to \$140 was not anticipated by councils across SA when announced late in the budgetary process by the State Government., The impact to Marion in 19/20 was \$404,000 Future impacts are financial risk- impact on our liveable theme and risk to programs and projects that enhance community liveability. Growing impact on recyclables and their disposal EPA reforms- changes proposed to the way waste is collected at landfills and the EPA's approach to requiring financial assurances for stockpiles. Forum 25 Sep 2019	✓	✓		
	Potential merge discussions	Discussion on an electoral boundary merger with Holdfast Bay.	✓			
	Local Government reform	Discussion paper released on 5 August 2019 'Reforming Local Government in South Australian Discussion Paper' https://www.dpti.sa.gov.au/local_govt/local_government_reform State Productivity Commission established, paper released and highlights the following: high labour costs, materials, capital costs and depreciation costs State Government action would likely contribute to addressing critical information gaps & ensure the adoption of standardised approaches. Sector wide bench marking, sector wide performance management system.	✓	✓		✓
Economic	Economic outlook	Dec 2019- Interest rates at a low of 0.75% Economists outlining an exceptionally weak economy as the catalyst for low interest rates, wages growth has slumped, retail spending has declined, savings depleted and housing boom is over with negative equity a growing trend interstate. Housing market value growth of 0.8% in SA Global economy pressures	✓	✓		✓
	Housing sector- building approvals	Slowing housing economy- building approvals have fallen nationwide. (RP data June 2019)	✓	✓		✓
	Static job growth	Statistics for COM show that there is a static number of jobs (Remplan June 2019)	✓			
	GST business decline	Number of GST businesses recording a slight increase	✓			
	Retail growth	Vacancies in our retail centres including Hallett Cove Shopping Centre (less so at Westfield) along with a high number of national retailers entering voluntary administration	✓			
	Westfield Marion expansion	Development application approved by DPTI for expansion	✓	✓		
	Economic development	A focus on activating economic development in Edwardstown and the need for employment generating business growth	✓	✓		
	Retail Turnover	Retail turnover worst in 5 years- Deloitte Access economics July 2019 A significant number of retail businesses have gone into administration in Janaury 2020, which will impact retail centre's including Westfield	✓			
	SA Economy-global rating	Independent global ratings agency Moody's & Fitch has re-affirmed confidence in SA's economy and maintained the state's Aa1 stable rating (second highest in the nation) recognising economic and jobs growth- underpinned by the \$90 billion naval shipbuilding program and \$11.9 billion infrastructure pipeline over the next 4 years (Source Premier.sa.gov.au 29/9/19)				
	Investment hotspot- Marion ranked high	newdaily.com reported that the COM is in the Top 10 investment property hotspots October 2019				
Social						
	Concerning Public health	Higher than metropolitan average of people with physically chronic conditions, mental health problems and psychological distress particularly in northern and central Marion	✓	✓	✓	✓
	Local Government reputation	Media has reported a number of incidences related to poor conduct within the sector impacting significantly on the reputation of the sector and trust within the community.	✓			
	Increase in Crimes across the state	SA Police have reported a 12% increase in crime across the state. 4/6/19 <i>The Advertiser</i>	✓			✓
	1% population growth per annum	potential for increasing demands on services <i>populationid</i> Increased traffic congestion as the population grows and Westfield expands	✓	✓	✓	✓
	A third of the community live alone	Risks of social isolation	✓	✓		
	Disengaged Youth	7% of youth aged 15 to 24 are disengaged with education and employment <i>Population ID</i>	✓			
	Expectation of keeping rates low	Implications on Long Term Financial Plan and projects and potential for unexpected policies to come through (i.e. waste levy increases, on- charges from State Government)	✓	✓	✓	✓
	SEIFA Index	The SEIFA index for Marion is 1001. Tonsley & Mitchell Park areas have the lowest areas of disadvantage of 902.2 and 858.0 respectively (2016 ABS data). SEIFA Index is used to allocate funding or services by ranking areas by their need.				✓
	Future workforce	The Local Government Workforce and Future Skills report proposes that the LG sector will experience a skills shortage as the inability of councils to compete with the private sector on remuneration, lack of suitably qualified or experienced candidates available locally, high demand across the labour market and remoteness of location will make it difficult to attract and retain workers. (LGA)	✓			
Macro forces			Criticality for action			



Technological	Cyber Security	Targeted attacks are increasing across industries	✓	✓		
	Digital Divide	79.4% have internet access, slightly above Greater Adelaide statistics.				✓
Legal (must be complied with)	Public Interest Act (replaced Whistle-blowers Policy)	Removes barriers that prevent people who work in the public sector from speaking up about serious problems				✓
Environmental	Climate Risk	Councils that fail to mitigate, manage and disclose climate risks in their governance and decision making will expose themselves to legal liabilities, including potentially breaching fiduciary duties. With climate risks now occupying the minds of mainstream investors, those not addressing climate risks will increasingly struggle to access affordable finance and insurance.	✓	✓	✓	✓
	Waste Management	China Sword- recyclables not being taken by China China's revised waste import policy raised standards for the contamination of imported products to 0.5% contamination and cost to rise per tonne from July 1 2018. Increased media coverage may impact public opinion on the need for sustainable solutions	✓	✓		
	Urban heat concerns	Mentioned in the tree management framework, however as there are no consistent measures on tree canopy coverage councils are in discussions as to how to measure the tree canopy targets outlined in the 30 year Greater Adelaide Plan.	✓	✓	✓	✓
Relationships	Relationships with key stakeholders eg State Government, Local MP's, clubs	CoM's relationships with sporting and community clubs have had some media attention recently- Relationship risks to be closely managed between key stakeholders	✓	✓	✓	✓
<b>Micro forces</b>			Criticality for action			
Financial Sustainability	Focus on driving innovation and continuous improvement	Most revenue comes from rates with compromised financial capacity of ratepayers in economic climate and decreasing grant opportunities Increases in State Government fees and levies impact on the cost of delivering services	✓	✓		
	Collaborative partnership model with other councils	Will give rise to opportunities including productivity improvements, efficiencies and improved community outcomes. Also some risks	✓	✓	✓	✓
	Maximising revenue opportunities	88% of revenue is generated through rates. Opportunities to seek further partnership opportunities	✓	✓	✓	✓
	Grants	Need to ensure that opportunities for grants/external funding for major/strategic project are proactively identified and pursued Significant reduction in Federal funding earmarked for SA- will have an impact on project funding available & capacity to deliver projects	✓			✓
Asset Reliability & Sustainability	Ageing assets and infrastructure	Understanding which assets can be repurposed, reused or disposed of in order to enhance other assets to better meet community needs	✓	✓		
	Coastal Path	Unforeseen safety & financial implications related with the Coastal pathway	✓	✓		
	Asset Management	A need for more data to inform any action, more granular detail/quality data/ further identification of liabilities needed Outcomes of plans have unknown financial implications to council at this stage	✓	✓		
Service provision	Governance	Public interest disclosure Act into effect July 1 2019	✓			
	Climate Risk	Processes, policies and monitoring of climate risk is not yet embedded within the organisation	✓	✓		
Workforce	Capacity to deliver on projects in the 4YBP	The FAC 280519 raised concerns about the high number of projects and capacity to deliver, pressures on staff to manage high workloads.	✓	✓		
	Lost Time Injury monitoring	A focus needs to be on sustaining momentum/appropriate support for staff. Need to have ongoing consideration of approach to remain high priority	✓			✓
	Staff changes	Key staff changes- intellectual capital transfer and time for new staff to get up to speed	✓			
	Change Management	High number of technology based changes that are considered radical changes in change management principles, appropriate roll out strategies are crucial. Integration towards the new Planning Code will also have an impact on work carried out within the Development and Regulatory Services team	✓	✓		✓
Volunteering	Volunteering landscape trends	19.4% of residents in Marion participate in some form of voluntary work. Increasing community interest in volunteerism is providing a varied skill base but higher expectations. Longer working hours are reducing the capacity for long-term volunteering and increasing the desire for more flexible periodic and short-term volunteering opportunities. Increase demand for volunteering as a pathway to employment	✓	✓		

## **OTHER BUSINESS**

## **MEETING CLOSURE**

The meeting shall conclude on or before 9.30pm unless there is a specific motion adopted at the meeting to continue beyond that time.