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## 8 TRAFFIC AND PARKING INVESTIGATIONS AT MEADOWBANK PUBLIC SCHOOL

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**Report prepared by:** Traffic Engineer, Traffic Transport & Development  
**File No.:** GRP/09/3/15 - BP18/763

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### REPORT SUMMARY

This report outlines the traffic and parking investigations that have been undertaken on the roads that have a frontage with Meadowbank Public School. It outlines the issues raised by the school community and details the proposed recommendations that have been separated into a short and medium term works program. The possible relocation of Meadowbank Public School to the new Meadowbank Education Precinct in 2021 will determine whether the medium term works program is progressed.

In addition to continued enforcement and education, Council's traffic section proposes the following actions:

#### Short Term Works (0 - 2 years):

- All signage and line marking deficiencies that falls under RMS jurisdiction to be reported to that entity for its investigation.
- Request for pedestrian red arrow protection at traffic signals of Belmore Street with Junction Road and Constitution Road to be provided via RMS.
- Phase timing at mid-block pedestrian activated signals on Church Street near Wells Avenue to be modified to accommodate vulnerable pedestrians via RMS.
- Address deficiencies in statutory No Stopping signage at all intersections.
- Give way signage and line marking to be installed where Thistle Street intersects with Sutherland Avenue and Belmore Street.
- Intersection of Thorn Street and Sutherland Avenue to be considered for a Stop treatment with extended No Stopping zones in Sutherland Avenue.
- Extension of the *Kiss and Drop* zone in Thistle Street.
- Proposed *Kiss and Drop* zone on Belmore Street.

#### Proposed Medium Term Works (3 – 5 years):

- Conversion of children's crossing in Gale Street to an at grade pedestrian crossing.
- Conversion of children's crossing in Thistle Street to a raised pedestrian crossing.
- Kerb ramps at all intersections on main routes to school to be upgraded to ensure compliance with Councils and RMS standards.

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- Review footpaths along major desire routes to/from Meadowbank Public School.
- Review of street lighting along pedestrian desire routes.

**RECOMMENDATION:**

- (a) That Council consults with Meadowbank Public School, Meadowbank Public School P&C and local residents regarding the proposed short-term and medium-term works for Meadowbank Public School, as detailed in the report.
- (b) That a report be provided back to Council, via the Ryde Traffic Committee, with a list of recommended short-term and medium-term works for Meadowbank Public School.

**ATTACHMENTS**

- 1 Draft Traffic Report - Meadowbank Public School Rev 1 with plans - revised

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### INTRODUCTION

TPE (Traffic, Planning and Environmental) Consulting was commissioned by the City of Ryde in May 2018 to undertake a traffic and road safety assessment of all roads that have a frontage with Meadowbank Public School, namely Thistle Street, Gale Street and Belmore Street – see *Attachment 1*. Council Engineers expanded on this assessment to also include nearby streets commonly used by parents and carers of children attending the school. It should be noted that the TPE report has been used purely as an aide in determining a short and medium term works program to address traffic and road safety deficiencies on streets surrounding Meadowbank Public School.

### BACKGROUND

The Works and Community Committee Report No. 7/17, dated Tuesday 17 October 2017, recommended that City of Ryde Council adopt a schedule to investigate traffic and parking issues at the 28 schools located within the council area. The school schedule was created in order to:

1. better manage existing staff resources;
2. undertake more in-depth investigations within each school catchment area;
3. budget infrastructure solutions; and
4. ultimately provide better outcomes for the local and school community.

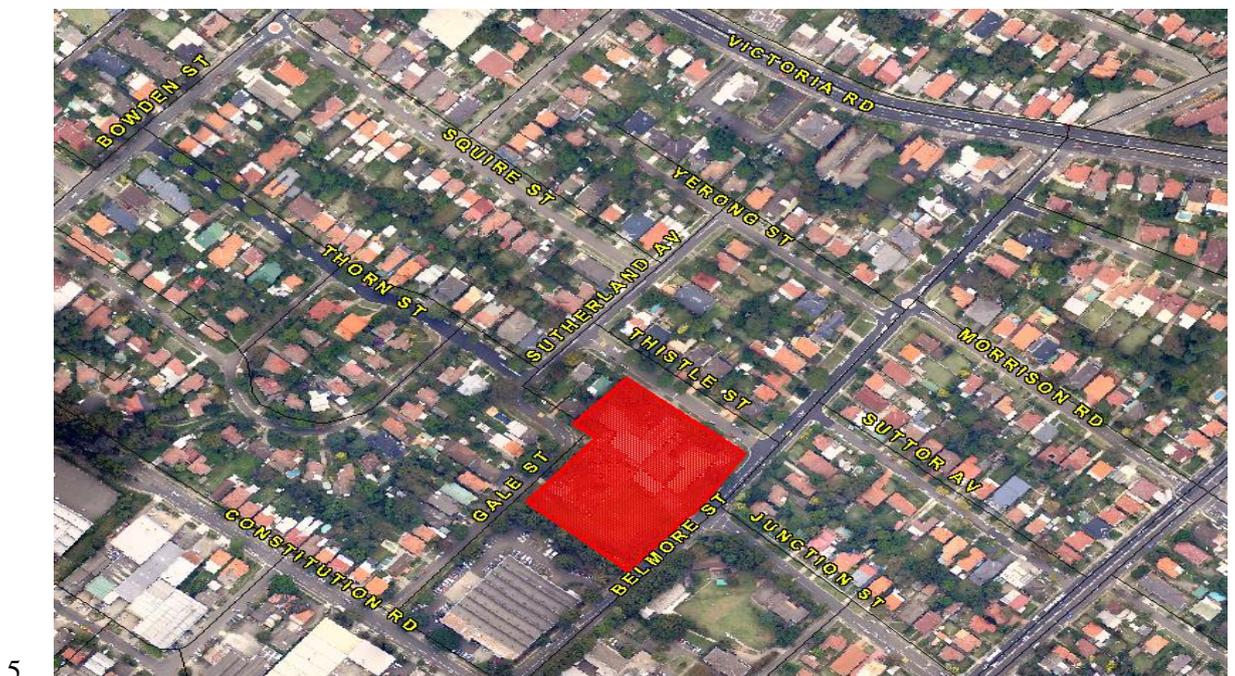


Figure 1: Meadowbank Public School & Environs

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### CONSULTATION PROCESS

A web page on Traffic and Parking Investigations Around Schools was developed, from which Council sought to inform the local community that it was investigating traffic and parking issues around various schools, beginning with Meadowbank Public School, with the aim to improve safety for users in each catchment area.

The local community through this web site was encouraged to provide feedback on what it considered were traffic and road safety issues pertaining to Meadowbank Public School and its environs. These issues were then mapped using an online mapping tool. Council also requested information on how people were travelling to and from the school through a short travel to school survey.

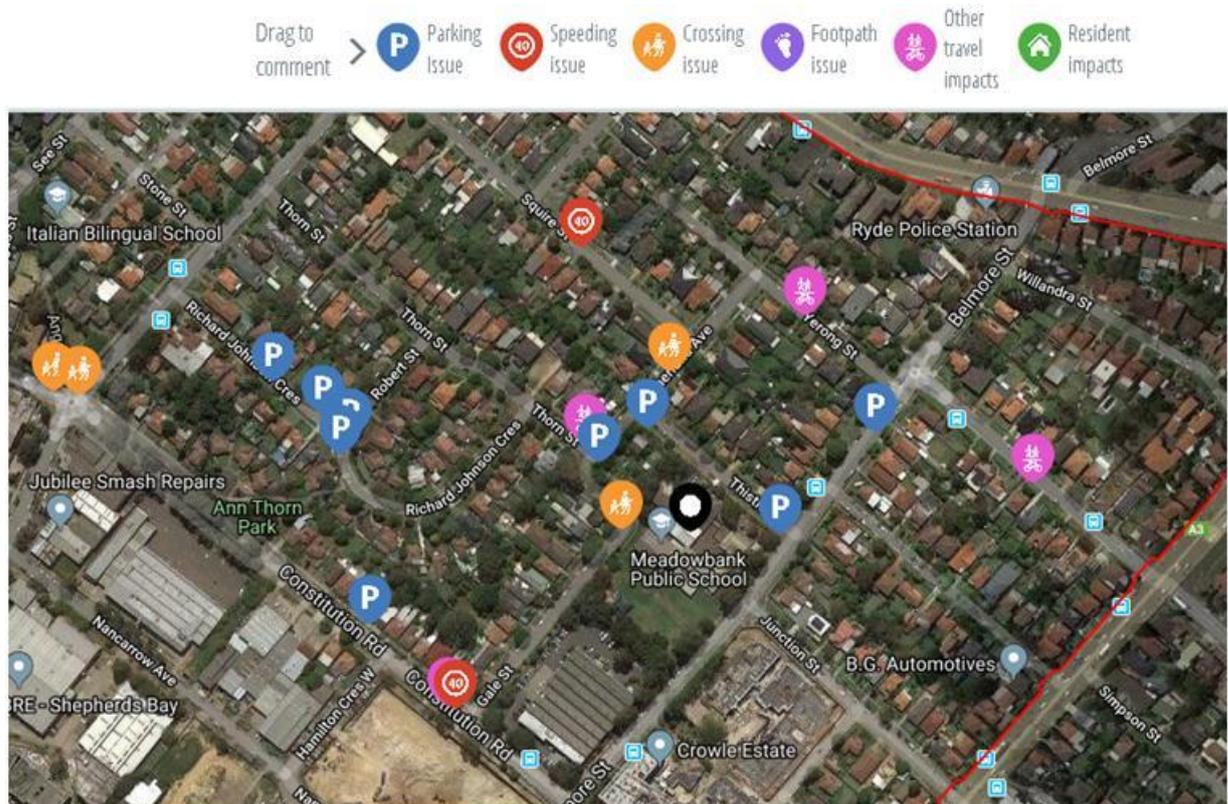


Figure 2: Mapping Tool Identification of Issues

The community was encouraged to provide any further comments or concerns on how Council could improve traffic flow and safety in the area through an online submission form.

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A mail out to all residences in the catchment area was also undertaken, inviting people to an evening information session at the school hall at Meadowbank Public School, which was held on Tuesday 13<sup>th</sup> March 2018.

**REQUIREMENTS, RESPONSIBILITIES & JURISDICTIONS**

Through the consultation process, the Meadowbank Public School community requested a variety of traffic facilities and remedial works to be investigated and provided. Council in general is responsible for all matters that are situated on local roads. However, there are a number of facilities which, while located on local roads, fall outside Council's jurisdiction and which are the sole responsibility of Roads and Maritime Services (RMS). RMS is responsible for the following matters:

- The installation, operation and management of all traffic signal sites;
- Any changes to the phasing arrangement at traffic signal sites;
- The installation, operation and management of all urban speed zones;
- The installation, operation and management of all 40kph School Zones including maintenance of 40kph pavement patches and dragons teeth delineation; and
- All matters associated with the operation and management of State Roads i.e. Victoria Road, which includes all associated parking signage and line marking.

School communities generally perceive that pedestrian crossings are the safest method for children to cross a road carriageway. However, before a location can be considered for a pedestrian crossing it must meet minimum warrants set by the RMS which are based on pedestrian and vehicle numbers. The information below explains how this works:

(i) Normal Warrant:

A pedestrian (Zebra) Crossing is warranted where in each of three separate one hour periods in a typical day:

- a. the pedestrian flow per hour (P) crossing the road is greater than or equal to 30 *AND*
- b. the vehicular flow per hour (V) through the site is greater than or equal to 500 *AND*
- c. the product PV is greater than or equal to 60,000.

(ii) Reduced Warrant:

Applies to sites used predominantly by children and by aged or impaired pedestrians. If the crossing is used predominantly by school children, is not a suitable site for a Children's Crossing and in two counts of one hour duration immediately before and after school hours:

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- a. the pedestrian flow per hour (P) crossing the road is greater than or equal to 30 *AND*
- b. the vehicular flow per hour (V) through the site is greater than or equal to 200, and then a pedestrian (Zebra) Crossing may be installed.

**COMMUNITY ISSUES AND RESPONSES**

<b>Item</b>	<b>Issue Raised</b>	<b>Response</b>
<b>1</b>	RMS recent work at Victoria Road / Bowden Street and its impact on children walking to school:	<i>RMS will be advised of residents' concerns and requested to take appropriate action</i>
<b>2</b>	Issues when crossing at Bowden Street / Squire Street	<i>Review feasibility of expanding the spitter islands on the Squire St and Bowden Street approaches to the roundabout</i>
<b>3</b>	Sutherland Street very busy between Thorn Street and Squire Street:	<i>Need for traffic calming devices will be investigated and reported through the Ryde Traffic Committee process.</i>
<b>4</b>	Replace children's crossing with a pedestrian crossing on Gale Street	<i>Investigation found that conversion meets RMS required warrants and as such, will be tabled at a future Ryde Traffic Committee Meeting for consideration</i>
<b>5</b>	Expand Kiss n Drop zone on Thistle Street	<i>Expansion of Kiss n Drop zone to be tabled at a future Ryde Traffic Committee meeting</i>
<b>6</b>	Permanent pedestrian crossing on Thistle Street	<i>Investigation found that conversion meets RMS required warrants and as such, will be tabled at a future Ryde Traffic Committee Meeting for consideration</i>

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<b>7</b>	Inconsiderate parking practices by some motorists, blocking driveway access, parking too close to intersections	<i>Intersections will be signposted appropriately, with enhanced enforcement to be requested from Rangers</i>
<b>8</b>	TAFE students using up all on-street parking in Squire Street	<i>Parking utilisation will be reviewed with consideration of possible time restricted parking near Squire Street</i>
<b>9</b>	Vehicle size and type leading to unsafe environment on local roads	<i>Further investigation will be undertaken to monitor the vehicles utilising the streets within the study area with a report to the Ryde Traffic Committee likely in the first half of 2019</i>
<b>10</b>	Over development – no on street parking left	<i>Outside scope of this exercise</i>
<b>11</b>	Local streets being used as a rat run	<i>As with 9 above, further investigation to occur and a report to the Ryde Traffic Committee likely in the first half of 2019</i>
<b>12</b>	Traffic calming required on these local streets	<i>As with 9 above, further investigation to occur and a report to the Ryde Traffic Committee likely in the first half of 2019</i>
<b>13</b>	Thistle Street as a rat run is very dangerous from 7am to 6pm as students are picked up from OOSH and the childcare centre	<i>As with 9 above, further investigation to occur and a report to the Ryde Traffic Committee likely in the first half of 2019</i>
<b>14</b>	Cars (parents, construction workers etc) are turning into driveways (including the school driveways) during pickup/drop offs	<i>Council developing on line safety fact sheets for all road users. Rangers to monitor this issue.</i>
<b>15</b>	The school crossing on Gale Street is becoming more dangerous with parents simply stopping on the crossing to let children out when traffic is backed up	<i>Council's Law Enforcement team will be requested to target this unsafe practice</i>
<b>16</b>	Construction activity along Sutherland Street has resulted in parents forced to walk on road as constructions vehicles parked across driveway	<i>Council's Law Enforcement team will be requested to target this unsafe practice</i>

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<b>17</b>	The Bowden, Squire, Macpherson Street intersection needs a major upgrade	<i>Further investigation to occur and a report to the Ryde Traffic Committee likely in the first half of 2019</i>
<b>18</b>	Crossing Squire Street is becoming more dangerous especially with rat run cars. Can a crossing please be added	<i>Location does not meet RMS warrant for a zebra crossing, a pedestrian refuge may be warranted and will be investigated in first half of 2019</i>
<b>19</b>	Intersection of Gale Street/Constitution Road dangerous/congested	<i>Intersection geometry and sight distance requirements will be reviewed. Ensure statutory No Stopping distances are signposted appropriately at this intersection.</i>
<b>20</b>	Cars parked along Thistle Street make it very hard to drive along the street. I have had to reverse numerous times to allow a car through when turning off Belmore St into Thistle Street	<i>Statutory No Stopping restrictions at intersections have been reviewed with works instructions issued to address deficiencies. It is considered that this will address this issue.</i>
<b>21</b>	Belmore street need to be local traffic only, restricted to 3 tonne and 30 kph	<i>Council will work with RMS to determine the best way to reduce traffic impacts on the school on Belmore St, noting that construction in Meadowbank will be ongoing for some time</i>
<b>22</b>	Meadowbank Station congestion	<i>It is considered that the signalisation of Railway Parade and Constitution Road has alleviated traffic congestion in this area</i>
<b>23</b>	Developers should be required to provide a wide range of pedestrian facilities – overdevelopment	<i>Falls outside scope of this study, but the traffic section considers the need for these facilities when development applications are lodged</i>
<b>24</b>	Pedestrian overbridges required	<i>Limited opportunity to provide these facilities due to the significant cost implications. Other traffic facilities to be considered where required</i>

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25	Drivers parking their vehicles on either side of Rumble bars in Sutherland Street adjacent to Thorn and Gale Street entrances - thus causing great difficulty to pass easily either way	<i>Delineation of No Stopping zones will be implemented to help address this issue</i>
26	I have had frequent near misses at this intersection. Thorn St. needs a stop sign	<i>Further investigation to occur and a report to the Ryde Traffic Committee likely in the first half of 2019</i>

**INVESTIGATIONS**
**Signage & Line Marking Audit**

A signage and line marking audit was undertaken by TPE on Belmore Street, Thistle Street and Gale Street to identify deficiencies where primarily statutory No Stopping restrictions were either missing or not signposted appropriately. The line marking audit identified a number of locations where additional delineation is considered appropriate and where existing line marking needs to be upgraded. Where improvements are of a purely maintenance nature, associated works instructions are issued. Deficiencies associated with RMS works have been referred directly to that entity, with proposed new parking zones or extensions to No Stopping zones to be referred to the Ryde Local Traffic Committee for endorsement and subsequent resolution by Council.

The following issues were identified through this audit:

- Issue 1: RMS is responsible for the installation and maintenance of all urban speed limit and school zone delineation. This includes speed signage/ pavement patches/ and dragons teeth line marking. Audit revealed that many of these facilities are in a poor state of maintenance.
- Issue 2: Delineation at the children's crossing on Gale Street and Thistle Street does not comply with the required standard.
- Issue 3: There are two small part-time No Stopping zones on the Gale Street bend which allow parking outside school times. Permitting parking here is considered very unsafe due to nil approach sight distance to vehicles parked here, also does not comply with 3m rule. These zones will be made full time No Stopping zones.

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- Issue 4: Given the reduced sight distance to the children's crossing on the bend in Gale Street, zig zag markings to be installed on both approaches.
- Issue 5: Request RMS to include the small section of Sutherland Street between Thistle Street and Gale Street into the existing 40kph school zone.
- Issue 6: The No Stopping distances used at the Children's Crossing in Thistle Street can be reduced as per TDT2002/12C *Stopping And Parking Restrictions At Intersections And Crossings*, i.e. 24m on approach and 15m on departure from the pedestrian crossing lines (PCL) or 18m from the stop line. It is noted that the PCL is not marked at this crossing.
- Issue 7: The No Stopping zones on Thistle Street at both Belmore Street and Sutherland Street are not signposted or in some cases not properly closed – parking zones that are not closed, cannot be enforced.
- Issue 8: The statutory No Stopping at Gale Street / Thorn Street / Sutherland Avenue needs to be clearly signposted.
- Issue 9: Consider converting the 1/4P time restricted parking on Thistle Street along the school frontage to time restricted No Parking. With the exception of the part time No Stopping restrictions associated with the Children's Crossing there are no other restrictions on Thistle Street.
- Issue 10: The School Zone sign on Thistle Street at Belmore Street should be accompanied by a 40kph pavement patch.
- Issue 11: The 40kph pavement patch and dragons teeth on Belmore Street, north of Constitution Road are missing. RMS has been contacted regarding this matter.
- Issue 12: The location of the children's crossing on the Gale Street bends needs to be re-examined, as its present location is not considered appropriate. Consider relocation of children's crossing further south on Gale Street opposite No: 5 Gale Street
- Issue 13: The pedestrian phase cycle at the mid-block pedestrian activated signals across Church Street just north of Wells Street is very short and doesn't accommodate the slower pace of either the aged or parents with children. RMS to be advised.
- Issue 14: Some motorists are already turning left from Constitution Road into Belmore Street before children have finished crossing the road. Red

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arrow protection required for the walk phase across Belmore Street. This is a matter for RMS to investigate.

**Crash Analysis:**

The roads surrounding Meadowbank Public School have been assessed using the July 2012 - June 2017 RMS crash dataset. This dataset is populated by reported accidents to NSW Police, and will not include any unreported accidents. It should be noted that 2012 – 2016 crash data is confirmed, with the 6 months of 2017 data still considered provisional. This analysis indicated that there has been only 1 reported crash located on a street with an active school frontage, with this injury crash located on Belmore Street at Thistle Street.

The crash occurred between a car and light truck at 10:45am on 28<sup>th</sup> April 2015 at the intersection of Thistle Street and Belmore Street. It involved a right turning vehicle on Thistle Street being struck by a southbound vehicle on Belmore Street. One person was injured in this crash.



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### Traffic & Pedestrian Volume Counts:

Currently there are two children's crossings associated with Meadowbank Public School, one on Thistle Street and the other on Gale Street. The local community has requested whether these could be upgraded to zebra crossings as it is felt that the current children's crossings, in particular the crossing on Gale Street does not offer a level of safety that parents are comfortable with. It should be noted that there have been no recorded crashes associated with pedestrians on any of the streets that have a school frontage.

Given that any proposed new pedestrian crossings would be used primarily by school children, the reduced warrant requirement can be used to determine if the locations meet the necessary traffic and pedestrian volume numbers. Counts were undertaken immediately before and after school as follows: noting that the warrant is for a minimum of 30 pedestrians and 200 vehicles.

Street	Time Period	Pedestrian Volume/Hour	Traffic Volume/Hour
<b>Thistle Street</b>	8.00am-9.00am	355	338
	2:30pm-3:30pm	275	450
<b>Gale Street</b>	8.00am-9.00am	300	270
	2:30pm-3:30pm	280	345

The results indicate that both locations meet the reduced warrant for conversion of the existing children's crossings to full time pedestrian (zebra) crossings. The statutory No Stopping restrictions associated with the existing children's crossings only operate between 8:00-9:30am & 2:30-4:00pm Mon-Fri, with zebra crossings however these operate at all times.

The above conversion would result in the local community losing on-street parking outside of school hours, thus consultation will be required as part of any proposal to the Ryde Traffic Committee seeking endorsement for conversion of the children's crossings to zebra crossings

## PROPOSED ACTIONS

### Enforcement

Feedback from residents and school community indicate that some parents and carers continue to undertake unsafe practices despite being regularly informed of the penalties and risks. Therefore, Council's new dedicated School Enforcement

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Rangers will be requested to undertake additional patrols of Meadowbank Public School throughout the school year. In particular, they will be requested to target individuals who are undertaking the following illegal practices:

- blocking resident driveways
- double parking
- parking in No Stopping zones or within 3m of double barrier lines
- dropping off children within the Children Crossing zone

**Education**

Education is regularly delivered to parents and carers by the Department of Education's Road Safety Officers to highlight the risks and consequences associated with dangerous driving and parking practices on roads in and around schools. Council's Road Safety Officer is currently working with the Department of Education Road Safety Officers to target joint programs to parents and children.

Each year Council distributes updated fact sheets to schools on various road safety topics which are then distributed through the school to parents and carers. Council will also continue to provide road safety signage and resources to schools and from 2019 will be developing and distributing a quarterly road safety newsletter in different languages to all primary schools as an additional reminder of safe practices, road rules and penalties.

**Proposed Short-Term Works**

- All signage and line marking deficiencies that falls under RMS jurisdiction to be reported to that entity for its investigation.
- Request for pedestrian red arrow protection at traffic signals of Belmore Street with Junction Road and Constitution Road to be provided via RMS.
- Phase timing at mid-block pedestrian activated signals on Church Street near Wells Avenue to be modified to accommodate vulnerable pedestrians via RMS.
- Address deficiencies in statutory No Stopping signage at all intersections.
- Give way signage and line marking to be installed where Thistle Street intersects with Sutherland Avenue and Belmore Street.
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- Extension of the *Kiss and Drop* zone in Thistle Street.
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**ITEM 8 (continued)****Proposed Medium-Term Works:**

- Conversion of children's crossing in Gale Street to zebra crossing.
- Conversion of children's crossing in Thistle Street to a raised pedestrian crossing.
- Kerb ramps at all intersections on main routes to school to be upgraded to ensure compliance with Council's and RMS standards.
- Review footpaths along major desire routes to/from Meadowbank Public School.
- Review of street lighting along pedestrian desire routes.

**COMMUNITY ENGAGEMENT**

Recommendations that require the approval of the Ryde Traffic Committee will, as part of the associated report, contain results of consultation with the local community and school if directly impacted.

Where changes are necessitated to ensure compliance with NSW Road Rules, only directly impacted residents will be advised about minor works to be undertaken i.e. statutory No Stopping restrictions at intersections, pedestrian facilities or signposting of bus zones. While the opinions of residents will be considered in all proposals, it should be noted that road safety will be of paramount importance in all cases.

**FUNDING**

The maintenance of signage and line marking and provision of associated new minor delineation works is generally catered for through the annual Block Grant that Council receives each year from Roads and Maritime Services.

New works such as enhanced street lighting / provision of traffic calming devices / pedestrian refuges or enhanced pedestrian crossings all must be funded by Council directly or through funding submissions to the Federal or State Government via road safety programs. This will occur following the staff investigation in the first half of 2019.

**Relocation of Meadowbank Public School**

The Premier, Gladys Berejiklian announced in June 2018, that a Meadowbank Education Precinct was being established which would see Marsden High School and Meadowbank Public School relocated to the redeveloped Meadowbank TAFE site. The proposed education precinct is scheduled to open in 2021 with the existing

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school sites to be turned into a sporting facility and public open space. The fact that Meadowbank Public School will be relocated from its current site has been factored into the proposed short and medium term engineering treatments proposed for the school. Confirmation of when the primary school is to be relocated to the new site will determine which of the medium term recommendations are actioned.