



# Eagleton Rock Syndicate

## Proposed Hard Rock Quarry at Eagleton

### Traffic Impact Assessment

December 2016



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# 1. Introduction

Eagleton Rock Syndicate Pty Ltd (Eagleton) has engaged GHD to undertake a traffic impact assessment as part of a Development Application and environmental assessment in relation to a new hard rock quarry development on Barleigh Ranch Way, off Italia Road at Eagleton. Central to the traffic impact assessment is a proposed increase in heavy vehicle usage of the Pacific Highway and Italia Road intersection north of Raymond Terrace and the upgrade of existing local roads for access to the proposed development.

## 1.1 Background

Eagleton and its predecessor, Castle Quarry Products, have been undertaking development planning for a new quarry on Barleigh Ranch Way for a number of years. As part of preliminary development planning, including earlier representations and consultations with Roads and Maritime Services (Roads and Maritime), Roads and Maritime raised a number of requirements for a comprehensive assessment of traffic impact, specifically in relation to increased heavy vehicle usage of the Italia Road intersection.

Roads and Maritime correspondence dated 9 November 2012 outlined specific requirements to complement the initial traffic impact assessment. These requirements were further detailed in subsequent correspondence (Roads and Maritime to Department of Planning and Infrastructure) dated 29 October 2015 in relation to the proposed development.

A summary of Roads and Maritime requirements are outlined as follows:

- An assessment of cumulative impacts on road safety and traffic efficiency at the Pacific Highway / Italia Road intersection – consideration of other traffic volumes on Italia Road, including the Boral quarry, in conjunction with expected new traffic generation.
- A road safety / risk assessment of the intersection post development – including identification and evaluation of potential measures to improve road safety in this location.
- The Roads and Maritime correspondence noted concerns of Boral work health and safety representatives in relation to sight distance restrictions at the Italia Road intersection – specifically for the right turn movement to travel south on the Pacific Highway.
- Consideration of the impact of construction traffic arising from the development – including preparation of a Construction Traffic Management Plan.
- Provision of input / output files (assumed to be SIDRA analysis files) for Roads and Maritime review.

Both letters from Roads and Maritime are provided in Appendix A. These requirements have been addressed in this report.

From a historical context, Italia Road has been used as a key access intersection to the Pacific Highway for in excess of 30 years. During this time Boral has operated a hard rock quarry off Italia Road, including when the highway was a two lane road prior to its reconstruction and duplication between 1999 and 2002.

It is confirmed that the new intersection was designed to provide safe access to the highway, particularly for the pre-existing heavy vehicle usage – as demonstrated by the current seagull type arrangement which incorporates a very long southbound acceleration lane.

In 2011 Boral successfully sought an application to extend its development consent to increase the life of its quarry. This was approved by Port Stephens Council (Council) and Boral has been

granted a modification to its development approval to increase the life of the quarry, primarily on the premise that there would be no additional traffic generation. This modification was not challenged by Roads and Maritime and no safety issues were raised at the time.

In response to the Roads and Maritime requirements outlined above, and in anticipation of further queries from approval authorities, a number of technical investigations have been undertaken by Eagleton. These have included a survey based approach to the measurement of actual sight distance to the intersection for approaching northbound vehicles and, conversely, from the intersection to approaching vehicles.

## 1.2 Purpose and scope of this report

The purpose of this report is to provide a traffic impact assessment of existing road and traffic conditions arising from the proposed quarry development. As required by Roads and Maritime this includes traffic counts (November 2016), daily volumes for the existing Pacific Highway and Italia Road, as well as peak hour intersection counts at the junction of these the two roads.

The scope of this report includes a reassessment of proposed traffic generation arising from more recent development planning and further analysis of the capacity and safety of the Italia Road intersection, inclusive of existing (pre-development) and expected post development traffic volumes. The capacity of the intersection is assessed using the SIDRA intersection analysis software which calculates Level of Service (LoS) for individual legs and the intersection as a whole.

Whilst the Pacific Highway has through priority and does not experience delays, the key factor for the intersection capacity is the potential delay and the possibility of queueing on Italia Road. This in turn could lead to driver impatience and additional risk taking in regard to gap acceptance for right turn movements across the northbound carriageway.

A preliminary safety assessment is provided through a review of theoretical sight distance requirements for a typical intersection compared to the measured sight distance at Italia Road. This is assessed for both sight distance requirements to and from the intersection. The report scope also offers a preliminary range of potential improvements to road safety at this location as part of the requirements stipulated by Roads and Maritime.

In order to provide an independent assessment of road safety at the existing Italia Road intersection a separate, independent Road Safety Audit has been undertaken at the Italia Road intersection. This has been prepared by a specialist consultancy with accredited road safety auditors independent of GHD.

The report also assesses access proposals from Italia Road, across a local Right of Way access to Barleigh Ranch Way, the quarry entrance, internal access roads and proposed onsite parking arrangements.

## 2. Existing road and traffic conditions

This section provides an appraisal of the existing road network and traffic volumes in the vicinity of the proposed quarry development. This provides a baseline from which to consider the projected traffic generation and the capacity of the existing system to safely and efficiently absorb potential increases from the new development.

### 2.1 Access roads

The key access roads to and from the proposed quarry are the Pacific Highway, the major arterial route through the area, Italia Road - a prominent local road connecting the Seaham area to the highway and the proposed access road between Italia Road and the quarry, incorporating Barleigh Ranch Way.

#### 2.1.1 Pacific Highway

The Pacific Highway is the major arterial route connecting Sydney and Newcastle to northern NSW and south-east Queensland. The section between Raymond Terrace and Karuah was upgraded from a two lane road to a four lane dual carriageway in the period from 1999 to 2002. On the subject section, approximately 12 km north of Raymond Terrace, the highway is in flat to undulating terrain, with large radii horizontal curves and gradients of between 1% and 3%.

The highway is not a full motorway over this length and as such direct access is permissible for local roads and property frontages, mostly restricted to left turns only. Major intersections are provided for more substantial road connections at Italia Road and Medowie Road and there are u-turn facilities for turning traffic. The speed limit of the highway on this section is 100 km/h (was previously 110 km/h), which is in keeping with the access standard of the highway over this length. A photo of the highway looking south from Italia Road is provided as Figure 2-1.

Management responsibility for the highway rests with the NSW Government through Roads and Maritime Services (Roads and Maritime) and new or increased access proposals are to satisfy the requirements of this organisation as part of development approval processes.



Figure 2-1 Pacific Highway approach to Italia Road

### 2.1.2 Italia Road

Italia Road is a two way, two lane road that connects the rural communities of East Seaham and Seaham to the Pacific Highway over a length of approximately 10 km. On this section it passes through rural and undeveloped land along its southern side and abuts the Wallaroo National Park on the northern side. There are a number of prominent land uses off Italia Road, just west of the Pacific Highway, most notably an existing hard rock quarry operated by Boral.

The speed limit on Italia road is 90 km/h which is generally appropriate for the terrain and usage of this road. However, in the vicinity of the Pacific Highway intersection the speed zone should be limited to 60 km/h but this is not signposted on the approach.

Figure 2-2 below shows the section of Italia Road immediately to the west of the Pacific Highway intersection. Italia Road is classified as a local road under the control of Port Stephens Shire Council (Council).



Figure 2-2 Italia Road west of the Pacific Highway intersection

### 2.1.3 Access road off Italia Road

Access to the proposed quarry development site is currently available via a formed local access road connecting Italia Road with Barleigh Ranch Way. The local road intersects with Italia Road approximately 500 metres west of the Pacific Highway as a t-intersection, on the left hand side heading toward Seaham.

The existing access road does not have a formal road reserve, it is a Right of Way across private property, and is effectively parallel to the Pacific Highway for approximately 900 metres before connecting to Barleigh Ranch Way to access the proposed quarry site. The existing road formation is two lanes wide but is unsealed. It currently provides access to a number of properties and recreational businesses in the area, including attractions such as MG car club, Hunter Valley Paintball and Hunter MCC raceway.

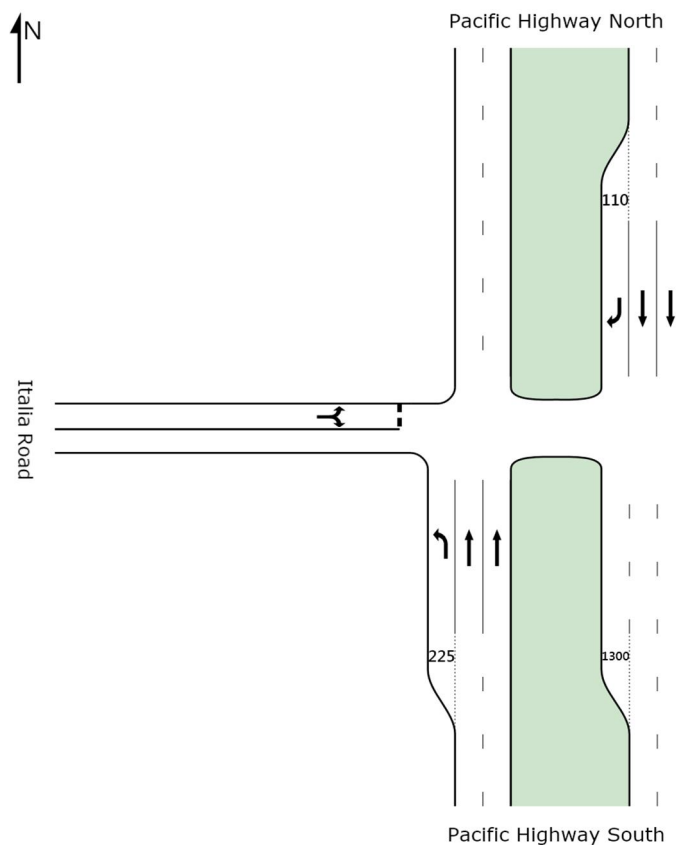
## 2.2 Intersection layout and geometry

### 2.2.1 Pacific Highway / Italia Road

The Italia Road and Pacific Highway intersection is a t-intersection, with Italia Road meeting the Pacific Highway on the western (or northbound) side of the highway. The intersection was constructed as part of the highway upgrade, completed approximately 14 years ago (circa 2002) as a seagull type, at-grade intersection. Access to Italia Road off the highway is provided by dedicated left and right turn bays for turning traffic from the south and north respectively.

The intersection allows a two stage process for southbound right turn access to the highway from Italia Road. This is by way of an initial crossing of the northbound carriageway for the right turn movement into an acceleration lane and then a left hand merge for integration with highway traffic. The acceleration lane is approximately 1.3 km in length, allowing heavy vehicles to attain highway speed prior to merging.

A schematic layout of the Italia Road intersection is provided as Figure 2-3 below.



**Figure 2-3 Schematic of Italia Road intersection with Pacific Highway**

The historical use of Italia Road by quarry vehicles and the length of this acceleration lane confirms that the intersection would have been specifically designed for heavy vehicle movements turning right from Italia Road.

Figure 2.3 overleaf below shows a photo of the Italia Road and Pacific Highway intersection from the north-west corner looking toward Karuah.



Figure 2-4 Italia Road intersection looking north to Karuah

### 2.2.2 Italia Road / existing access road

The existing access road forms t-intersection with Italia Road, on the left hand side at a distance of 500 metres from the Pacific Highway. It is on a straight section of Italia Road that is approximately 500 metres long, with a short length of wide shoulder for the left turn movement to the unsealed access road. There is no formal give way control on the access road but Italia Road has priority at the intersection.

A schematic layout of the access road intersection with Italia Road is provided as Figure 2-5.

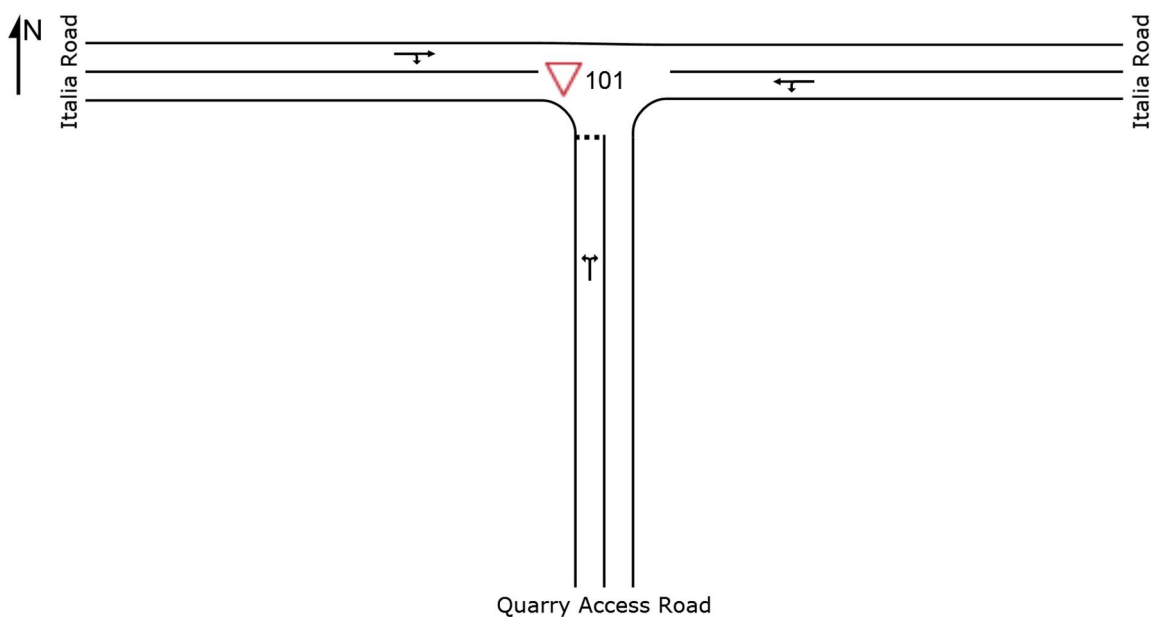


Figure 2-5 Schematic of access road intersection with Italia Road

## 2.3 Current road and intersection usage

The current usage of the intersection of Pacific Highway and Italia Road is made up of traffic from the Seaham area further west and from several local traffic generators close to the highway. This traffic generation includes:

- Residents of and visitors to Seaham and surrounding areas, directly from the Pacific Highway rather than through Raymond Terrace and New Line Road.
- The MG Car Club – Ringwood Park raceway
- Hunter Valley Paintball
- Hunter MCC raceway and MX central
- Existing hard rock quarry operated by Boral
- Other rural industry

Of these traffic generators, the dominant heavy vehicle generator is the Boral hard rock quarry which has been in operation for up to 30 years. The Boral quarry access on Italia Road is approximately 1.4 km from the Pacific Highway, or about 900 metres from the first access intersection, to be used for the proposed quarry.

As previously outlined, Boral has recently (2011) been granted a modification to its development consent to increase the life of its quarry, primarily on the basis of no additional traffic generation. However, it is understood that the resource in this quarry is limited and that Boral may be reducing output over coming years. Based on known reserves and current extraction rates there is a potential for Boral operations to be limited to 5 – 10 years.

It is noted that the more localised traffic generators, the MG car club, Hunter Valley Paintball and Hunter MCC raceway, all currently use the proposed Eagleton access intersection and that these are mostly weekend based operations, which would have little concurrent traffic generation with the proposed quarry development. Non weekend operations and special weekday events at these locations are canvassed in Section 3.4.

## 2.4 Existing traffic volumes

Daily and peak hour traffic volumes have been extracted from a number of sources including Roads and Maritime, Council and from new, site specific, surveys undertaken by Northern Transport Planning and Engineering in November 2016. Full details of these traffic counts are provided in Appendix B to this report.

Daily traffic volumes for the Pacific Highway and Italia Road are quoted in the form of average weekday traffic, total vehicles with a heavy vehicle content in percentage terms. Daily volume counts quoted in earlier reports are included with the results of recent traffic surveys for comparative purposes. Typical peak hour volumes for the Pacific Highway and Italia Road are provided as a range from intersection counts to demonstrate variability across morning and evening peak periods. Details of daily volume counts and peak traffic flows are provided in Table 2-1 overleaf.

The surveyed peak hour traffic volumes at the Italia Road and Pacific Highway intersection, including through and turning volumes from both counts are as shown in Table 2-2 overleaf.

These figures shown in both of these tables show that there has been little or no growth on Italia Road over the last five years whereas peak volumes on the Pacific Highway, particularly northbound, have increased markedly.

**Table 2-1 Existing daily traffic volumes and peak period flows**

| Road                                                                | 2011          | 2016          |
|---------------------------------------------------------------------|---------------|---------------|
| Pacific Highway – daily volume as weekday average (HV content as %) | 15,000 (18%)  | 21,500 (23%)  |
| Pacific Highway – typical 2 way peak hourly volume                  | 1,150 – 1,250 | 1,350 – 1,550 |
| Italia Road – daily volume as weekday average (HV content as %)     | 1,080 (30%)   | 1,350 (31%)   |
| Italia Road – typical 2 way peak hourly volume                      | 100 - 120     | 100 - 120     |

**Table 2-2 Existing peak volumes at Pacific Highway / Italia Road intersection**

| Leg        | Movement | AM Peak hour volume |             | PM Peak hour volume |             |
|------------|----------|---------------------|-------------|---------------------|-------------|
|            |          | 2011 Survey         | 2016 Survey | 2011 Survey         | 2016 Survey |
| North (SB) | Through  | 662                 | 779         | 553                 | 744         |
|            | Right    | 24                  | 29          | 38                  | 32          |
| West       | Left     | 22                  | 29          | 33                  | 28          |
|            | Right    | 32                  | 21          | 24                  | 30          |
| South (NB) | Through  | 547                 | 535         | 698                 | 768         |
|            | Left     | 30                  | 19          | 19                  | 21          |

## 2.5 Accident history

The most recent accident history available for the Italia Road intersection with the Pacific Highway was provided by Roads and Maritime Services in January 2016. The data showed a total of three traffic incidents at the intersection over a 5-year period from 2010 to 2014 inclusive. All three crashes had different causes and outcomes. The incidents were:

- A heavy vehicle entering the Pacific Highway from Italia Road collided with a cyclist who was travelling northbound on the highway.
- A light vehicle left the Pacific Highway and collided with a signpost near the Italia Road intersection.
- A four-wheel drive vehicle travelling northbound on the Pacific Highway struck another four-wheel drive vehicle that was completing a left turn manoeuvre onto the highway from Italia Road.

There were two injuries and no fatalities recorded as a result of these incidents. It is apparent from the nature of the incidents that none occurred solely due to the geometric layout of the intersection, with human error likely playing a role in each of the crashes. In general terms the intersection is considered to have a low accident rate.

The outcomes of a separate, independent Road Safety Audit on the Italia Road intersection are discussed in Section 4.3.

## 3. Proposed development

The development proposal involves the construction and operation of a hard rock quarry and associated transport of quarry products. The Eagleton quarry development would include offices, amenities, maintenance facilities and associated internal road access carparks. The operation of the quarry and transport of quarry materials will generate additional traffic on the existing road network.

### 3.1 Road network access proposals

Access to the proposed quarry would be from the existing Pacific Highway intersection with Italia Road, an upgraded intersection at the existing Right of Way (RoW) access approximately 500 metres from the highway and then via an upgraded access road connection to Barleigh Ranch Way. Detailed consideration of the primary access intersection at the Pacific Highway is canvassed in Section 4.

In relation to the secondary access point, the proposed development would provide improvements to the access road and its existing intersection with Italia Road. This will be an integral part of detailed design and construction planning.

A preliminary assessment of the location of the existing access road intersection is that it is positioned on a straight, flat section of Italia Road, providing in excess of 200 metres of sight distance in each direction. Sight distance improvements could be made with the removal of trees within the road reserve on the western side of Italia Road, either side of the access intersection.

This proposed intersection upgrade would include pre-construction and post construction road safety audits as part of the design, construction and certification processes. As such a full safety assessment is not warranted at present because the intersection will be fundamentally changes as part of future works.

### 3.2 Site access and internal road layout

The proposed quarry site will be accessed off Barleigh Ranch Way which in turn is accessed from Italia Road via an existing RoW as described above. The existing RoW has a formed two lane road connecting these two local roads over a distance of about 900 metres. The quarry access point is proposed approximately 300 m north of where it connects to Barleigh Ranch Way.

A plan layout of the proposed quarry and its access arrangements is provided as Appendix C.

The internal access road to the quarry requires a major crossing of Seven Mile Creek immediately prior to the quarry entrance. This is proposed to be a one lane bridge with appropriate Stop / Give Way controls for entering traffic.

The proposed road layout within the quarry is also shown on the access plan in Appendix C, an extract of that plan is provided as Figure 3-1 showing the proposed site office and administration area, as well as the proposed 11 space car parking area for staff (8) and visitors (3). There is also provision for short term truck parking and an overflow area for additional parking if necessary.

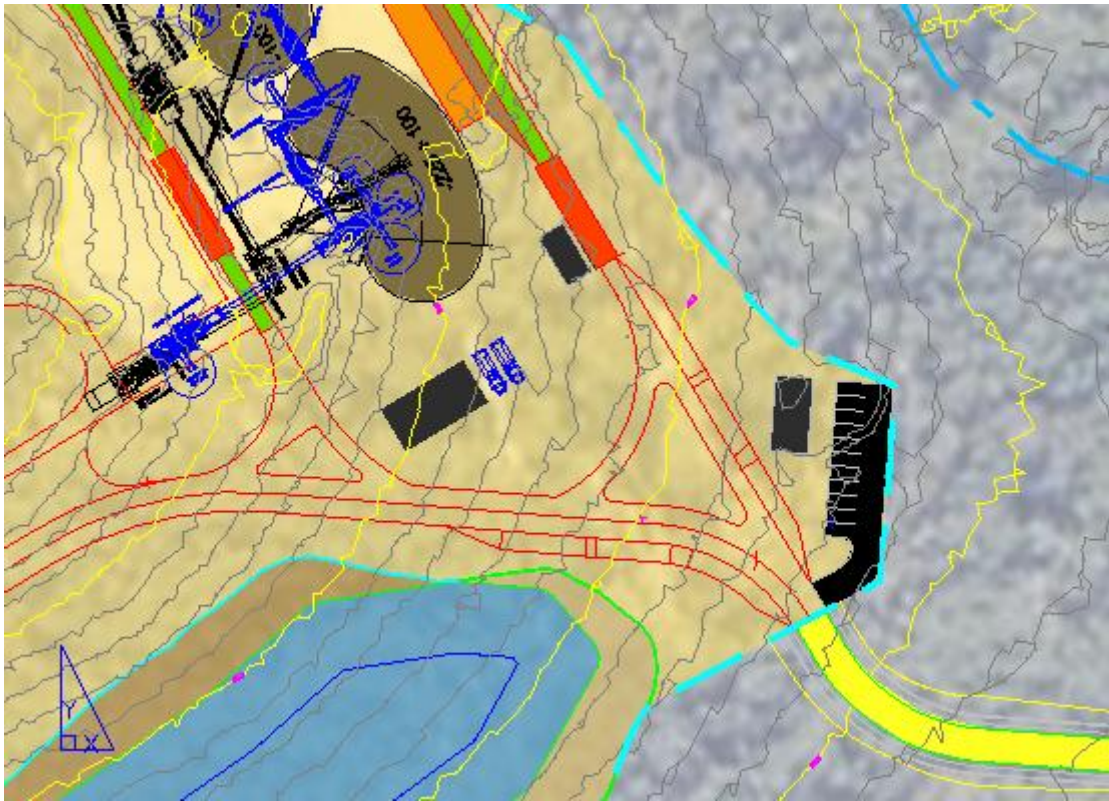


Figure 3-1 Proposed internal road and car parking layout

### 3.3 Expected traffic generation

The Roads and Maritime *Guide to Traffic Generating Developments* is not specific with regard to traffic generation rates for quarry sites. The operation of quarries have approved annual extraction rates which can generally be used to estimate the typical vehicle trips based on hours of operation but this is not site specific.

Advice from Eagleton in relation to the proposed operation and transport logistics of the proposed quarry has been converted into expected daily and peak hour traffic generation on Italia Road and the highway intersection.

The sales hours for the Eagleton Quarry are proposed as 5 am to 10 pm weekdays and 7 am to 4 pm on Saturdays, with a total of 10 staff on-site at any one time. There would be an operational fleet (contractors and haulage operators) of heavy vehicle truck and trailers hauling from the quarry site, with delivery of product locally across the region and in some instances to supply the Sydney market.

The site would also receive fuel and other supplies, notably bulk lime for pug mill operations, by regular truck deliveries. It is estimated that these would be up to 10 deliveries per week, or two per day on average.

The expected daily and peak hour traffic generation from these figures has been aggregated to provide an overall prediction of increased intersection usage. These predictions as shown in Table 3-1 are considered conservative for both daily and peak hour perspectives because the assumptions have included worst case scenarios as follows:

- All employees travel individually
- Peak hourly truck movements of 10 in and 10 out per hour over a sales period of 17 hours (5 am to 10 pm).
- Quarry support vehicles (mostly fuel or bulk lime supplies) arrive or leave in peak periods.

**Table 3-1 Projected traffic generation**

| Source                              | Expected daily total trips<br>(incoming and outgoing) | Peak hour trips (AM / PM) |                |
|-------------------------------------|-------------------------------------------------------|---------------------------|----------------|
|                                     |                                                       | In                        | Out            |
| Quarry staff                        | 20                                                    | 10 / 0                    | 0 / 10         |
| Truck movements (from quarry sales) | 170                                                   | 10 / 10                   | 10 / 10        |
| Quarry support / supply vehicles    | 2                                                     | 1 / 0                     | 0 / 1          |
| <b>Total</b>                        | <b>192</b>                                            | <b>21 / 10</b>            | <b>10 / 21</b> |

The majority (approximately 85%) of daily vehicle trips generated by the proposed quarry development will be from sales and subsequent truck returns after delivery of quarry materials. However, these trips would be spread across a full day of quarry operations.

The interaction of the proposed quarry traffic, estimated at 10 incoming and 10 outgoing trucks per hour, with the existing traffic on Italia Road is expected to be seamless. This number of trucks is very small on a short (500 metre) section of Italia Road; integration with a regular traffic stream of up to 65 vehicles per hour in each direction will involve large gaps and a relatively low density traffic stream.

### 3.4 Cumulative traffic volumes

The expected traffic generation as shown in Table 3-1 corresponds to a likely increase of 158 vehicles per day, with a maximum of 21 additional vehicles using the Italia Road and Pacific Highway intersection in the AM and PM peak hours. The daily and peak hour cumulative traffic volumes are shown in Table 3-2.

**Table 3-2 Cumulative traffic generation**

| Source                             | Expected daily total trips<br>(incoming and outgoing) | Peak hour trips (AM / PM) |                |
|------------------------------------|-------------------------------------------------------|---------------------------|----------------|
|                                    |                                                       | In                        | Out            |
| Existing traffic on Italia Road    | 1,200                                                 | 54 / 57                   | 57 / 54        |
| Eagleton quarry traffic generation | 192                                                   | 21 / 10                   | 10 / 21        |
| <b>Total</b>                       | <b>1,392</b>                                          | <b>75 / 67</b>            | <b>67 / 75</b> |

The cumulative volumes on Italia Road as shown in Table 3-2 are shown as daily two way volumes and respective in / out volumes for the respective AM and PM peak periods. The expected increase represents a 13% increase in daily traffic and up to a 40% increase in peak period volumes, albeit with small absolute numbers – one vehicle every two minutes.

The peak volumes need to split with the likely directional priorities for travel on the Pacific Highway. The additional peak hour volumes have been assumed, for the purposes of this report, to be predominantly to / from the south, that is Raymond Terrace and further afield in the wider Newcastle area. As such 80% of the traffic generation is assumed to be left in / right out movements at Italia Road.

The increases in turning movements at the intersection are shown in Table 3-3. As expected this shows little minor increases in overall turning traffic with the dominant flows on the Pacific Highway.

**Table 3-3 Increased peak hour traffic at highway intersection**

| Leg        | Movement | AM Peak hour volume |          |       | PM Peak hour volume |          |       |
|------------|----------|---------------------|----------|-------|---------------------|----------|-------|
|            |          | Existing            | Increase | Total | Existing            | Increase | Total |
| North (SB) | Through  | 779                 | 0        | 779   | 774                 | 0        | 774   |
|            | Right    | 29                  | 4        | 33    | 32                  | 2        | 34    |
| West       | Left     | 29                  | 2        | 31    | 28                  | 4        | 32    |
|            | Right    | 21                  | 8        | 29    | 30                  | 17       | 47    |
| South (NB) | Through  | 535                 | 0        | 535   | 768                 | 0        | 768   |
|            | Left     | 19                  | 17       | 36    | 21                  | 8        | 29    |

It is clear from the figures in Table 3-3 that the expected additional peak period traffic generation is relatively small in relation to existing turning movements at Italia Road and these in turn are minor in relation to through Pacific Highway volumes.

Consideration of other development approvals in the vicinity of the proposed quarry development have the potential to further increase the cumulative traffic impact on the access road intersection with Italia Road and in turn the nearby Pacific Highway intersection. It has been identified that a recent development approval for an upgraded motor racing facility on Lot 2 DP 1158962 may further increase traffic volumes in the area.

However, as outlined previously, this approval and other land uses adjacent the proposed quarry are primarily recreational in nature and generate traffic that is almost exclusively weekend based. The interaction of weekend based recreational traffic with quarry generated truck movements would be limited to Saturdays. Quarry operations are unlikely to be in full swing on Saturdays, with deliveries to construction sites generally ceasing around mid-day. The departure peak from any Saturday event will be mid to late afternoon and as such any overlap of traffic is unlikely to be significant.

The development consent for the motor racing facility also allows for limited weekday use such as private practice by race cars, general use of the track by road registered vehicles, driver training, educational or promotional events and motorkhana. The numbers of vehicles accessing the track for these types of events is not known but it is expected that midweek patronage would not be large compared to weekend usage which would include many race cars and spectator vehicles. This traffic is also less likely to be generated in peak periods, with a more uniform distribution throughout the day. As such it is proposed that the cumulative traffic impact on the existing road network is minimal.

### 3.5 Construction traffic impacts

In addition to consideration of cumulative impacts of the expected traffic generation, the Roads and Maritime requirements also included an assessment of construction traffic and the preparation of a construction traffic management plan.

Construction traffic impacts will be limited to the delivery of plant, quarry operation equipment and building materials, including ready mix concrete for infrastructure and site facilities. There will be no construction phase impacts on the existing Pacific Highway other than temporary traffic increases.

It is expected that the construction based traffic generation would be less than the future operational traffic volumes as previously outlined. There may be more light vehicles in peak hour for construction personnel (estimated at 20) but these employees are more likely to travel

in groups. Heavy vehicle arrivals would be more spasmodic across the day as building and construction materials arrive during working hours.

A construction traffic management plan is not considered necessary for the Italia Road intersection with the Pacific Highway as it would operate as normal. The proposed quarry access intersection with Italia Road would require some form of interim traffic control during working hours only.

It is proposed that the preparation of a construction traffic management plan would be the domain of the contractor appointed for the establishment of the site access and associated facilities.

## 4. Intersection capacity and safety assessment

This section provides an assessment of the capacity and safety aspects of the Italia Road intersection with the Pacific Highway. A measure of the intersection performance is the Level of Service (LoS) criteria for intersection delays, a reference to the average delay per vehicle in bands and a general description of relative performance, ranging from A as good operation to F which has major capacity and delay issues.

### 4.1 Intersection capacity assessment

A capacity assessment of the Italia Road intersection has been undertaken using the SIDRA intersection analysis package. A number of scenarios have been investigated to assess the impact of the traffic to be generated from the quarry development as follows.

- Existing (2016) volumes
- With development (2016) volumes
- No development (2026) volumes
- With development (2026) volumes

For each peak period the SIDRA analysis provides results for LoS, average delay (seconds) and maximum queue length in terms of number of vehicles. Full details of the SIDRA analysis undertaken is provided in Appendix D, which shows calculated traffic volumes as outlined in Section 3 and the subsequent analysis for the intersection

Table 4-1 provides results for these three criteria for the analysis scenarios for the Italia Road intersection, focussing on the two right turns at Italia Road, right out for the majority of laden vehicles to the south and right in from the north.

**Table 4-1 Projected intersection performance**

| Situation                     | Italia Road right turn out |              |               | Italia Road right turn in |              |               |
|-------------------------------|----------------------------|--------------|---------------|---------------------------|--------------|---------------|
|                               | LoS                        | Delay (secs) | Vehicle Queue | LoS                       | Delay (secs) | Vehicle Queue |
| Existing AM peak              | B                          | 26           | 1             | A                         | 12           | 0             |
| Existing PM peak              | C                          | 35           | 1             | A                         | 14           | 0             |
| With development AM peak 2016 | C                          | 32           | 1             | A                         | 13           | 0             |
| With development PM peak 2016 | D                          | 50           | 1             | B                         | 15           | 0             |
| No development AM peak 2026   | C                          | 35           | 1             | A                         | 14           | 0             |
| No development PM peak 2026   | E                          | 59           | 2             | B                         | 17           | 0             |
| With development AM peak 2026 | D                          | 46           | 2             | A                         | 14           | 0             |
| With development PM peak 2026 | F                          | 163          | 8             | B                         | 18           | 0             |

The SIDRA results provided in Table 4-1 show that the Italia Road intersection would operate satisfactorily in all peak conditions over the ten-year period to 2016. Levels of Service, delays and queue lengths projected during operation of the Eagleton quarry and associated truck movements are typical of a rural t-intersection with a major highway traffic flow. The results for

the PM peak post development in 2026 do show potential issues with greater delays and resultant queue increases. However, it is understood that the neighbouring Boral quarry will cease to operate within 10 years and as such these results for 2026 are considered conservative, with actual performance more likely to be reflected by the 2016 results as the Boral quarry operations are downsized.

## 4.2 Preliminary safety assessment

Roads and Maritime has indicated to Eagleton that it was intending to undertake a review of the intersection layout to assess its overall suitability for highway access in general and for heavy vehicle operations in particular. It is not known if this review has been undertaken as yet.

In the absence of any outcomes from this proposed review, a preliminary safety assessment has been undertaken for the intersection in advance of a Stage 5 Road Safety Audit to be undertaken independently to this report. This is further described in Section 4.3.

An assessment of available sight distance to and from the intersection is considered the primary safety parameter. This has been undertaken from a theoretical basis and, in the absence of geometrical road design plans, from a survey perspective.

### 4.2.1 Required sight distance

The required sight distance for the intersection can be broken into two cases.

- Safe intersection sight distance (SISD) for approaching vehicles to be able to observe a vehicle at the intersection and take necessary action to avoid a collision, stopping if necessary. This is the minimum sight distance which should be provided on the major road at any intersection.
- Minimum gap sight distance (MGSD) is used to find MGSD is the distance corresponding to the critical acceptance gap that drivers are prepared to accept when undertaking a crossing or turning manoeuvre at intersections. This is the key decision parameter for the driver entering the major road.

SISD and MGSD can both be calculated using Austroads *Guide to Road Design Part 4a: Unsignalised and Signalised Intersections*. Figure 4-1 below shows how the SISD for a car was calculated for this intersection for a driver reaction time of 2.5 seconds. A sensitivity test using a less conservative reaction time of 1.5 seconds reaction time is also reported.

Table 3.2: Safe intersection sight distance (SISD) and corresponding minimum crest vertical curve size for sealed roads (S<L)

| Design speed (km/h)                                                                              |                                | Based on safe intersection sight distance for cars <sup>1</sup><br>h <sub>1</sub> = 1.1; h <sub>2</sub> = 1.25, d = 0.362; Observation time = 3 s                             |     |                       |     |                       |     |
|--------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------|-----|-----------------------|-----|
|                                                                                                  |                                | R <sub>T</sub> = 1.5s <sup>2</sup>                                                                                                                                            |     | R <sub>T</sub> = 2.0s |     | R <sub>T</sub> = 2.5s |     |
|                                                                                                  |                                | SISD (m)                                                                                                                                                                      | K   | SISD (m)              | K   | SISD (m)              | K   |
| 40                                                                                               |                                | 67                                                                                                                                                                            | 4.9 | 73                    | 6   | -                     | -   |
| 50                                                                                               |                                | 90                                                                                                                                                                            | 8.6 | 97                    | 10  | -                     | -   |
| 60                                                                                               |                                | 114                                                                                                                                                                           | 14  | 123                   | 16  | -                     | -   |
| 70                                                                                               |                                | 141                                                                                                                                                                           | 22  | 151                   | 25  | -                     | -   |
| 80                                                                                               |                                | 170                                                                                                                                                                           | 31  | 181                   | 35  | -                     | -   |
| 90                                                                                               |                                | 201                                                                                                                                                                           | 43  | 214                   | 49  | 246                   | 55  |
| 100                                                                                              |                                | 234                                                                                                                                                                           | 59  | 248                   | 66  | 262                   | 74  |
| 110                                                                                              |                                | -                                                                                                                                                                             | -   | 285                   | 87  | 300                   | 97  |
| 120                                                                                              |                                | -                                                                                                                                                                             | -   | 324                   | 112 | 341                   | 124 |
| 130                                                                                              |                                | -                                                                                                                                                                             | -   | 365                   | 143 | 383                   | 157 |
| Minimum<br>SISD<br>capability<br>provided by<br>the crest<br>vertical<br>curve size <sup>4</sup> | Car at<br>night <sup>5</sup>   | d = 0.46, h <sub>1</sub> = 0.65 m, h <sub>2</sub> = 1.25 m, observation time = 2.6 s.<br>d = 0.46, h <sub>1</sub> = 1.1 m, h <sub>2</sub> = 0.75 m, observation time = 2.5 s. |     |                       |     |                       |     |
|                                                                                                  | Truck                          | d = 0.24, h <sub>1</sub> = 2.4 m, h <sub>2</sub> = 1.25 m, observation time = 3.0 s.                                                                                          |     |                       |     |                       |     |
|                                                                                                  | Truck at<br>night <sup>5</sup> | d = 0.29, h <sub>1</sub> = 1.05 m, h <sub>2</sub> = 1.25m, observation time = 1.8 s.<br>d = 0.29, h <sub>1</sub> = 2.4m, h <sub>2</sub> = 0.75m, observation time = 3.0s.     |     |                       |     |                       |     |

Figure 4-1 Austroads Table 3.2 Safe intersection sight distance

The downhill grade of approximately 3% is factored in as it increases the required distance for a vehicle to stop safely. This is an additional 10 m, increasing the SISD for the intersection to 272m for car to car observations. This is reduced by 28 metres to 244 metres using the shorter reaction time of 1.5 seconds. SISD was also calculated for heavy vehicles using empirical formulas. This returned a required SISD of 354m for trucks, the additional distance for extra braking requirements.

Figure 4-2 below shows how the MGSD is calculated for entering vehicles through a range of turning movement scenarios. The operation of a seagull intersection, where only one carriageway is crossed for safe entry to southbound lanes has been assumed to be a crossing of three lane / one-way road as depicted in the red box. To test the sensitivity of results a less conservative assumption of crossing a two lane / one-way road is also reported.

For the purposes of calculating MGSD at Italia Road it has been assumed that a car would require a perception of a 6 second gap and a clearance time of 3 seconds to an approaching vehicle, giving a total of 9 seconds which equates to a MGSD of 250 metres. The sensitivity test (total gap of 6 seconds) gives a sight distance of 167 metres.

Table 3.4: Critical acceptance gaps and follow-up headways

| Movement                        | Diagram | Description                                   | ta                 | tf                 |
|---------------------------------|---------|-----------------------------------------------|--------------------|--------------------|
| Left-hand turn                  |         | Not interfering with A<br>Requiring A to slow | 14.40 sec<br>5 sec | 2-3 sec<br>2-3 sec |
| Crossing                        |         | Two lane/one way                              | 4 sec              | 2 sec              |
|                                 |         | Three lane/one way                            | 6 sec              | 3 sec              |
|                                 |         | Four lane/one way                             | 8 sec              | 4 sec              |
|                                 |         | Two lane/two way                              | 5 sec              | 3 sec              |
|                                 |         | Four lane/two way                             | 8 sec              | 5 sec              |
|                                 |         | Six lane/two way                              | 8 sec              | 5 sec              |
| Right-hand turn from major road |         | Across one lane                               | 4sec               | 2 sec              |
|                                 |         | Across two lanes                              | 5sec               | 3 sec              |
|                                 |         | Across three lanes                            | 6sec               | 4 sec              |
| Right-hand turn from minor road |         | Not interfering with A                        | 14.40 sec          | 3 sec              |
|                                 |         | One way                                       | 3 sec              | 3 sec              |
|                                 |         | Two lane/two way                              | 5 sec              | 3 sec              |
|                                 |         | Four lane/two way                             | 8 sec              | 5 sec              |
|                                 |         | Six lane/two way                              | 8 sec              | 5 sec              |
| Merge                           |         | Acceleration lane                             | 3 sec              | 2 sec              |

Note:  $t_a$  = critical acceptance gap and  $t_f$  = follow up headway.

Source: Austroads (2005).

Table 3.5: Table of minimum gap sight distances ('D' metres) for various speeds

| Critical gap acceptance time ( $t_a$ ) (secs) | 85th percentile speed of approaching vehicle (km/h) |    |    |     |     |     |     |     |     |     |     |
|-----------------------------------------------|-----------------------------------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                               | 10                                                  | 20 | 30 | 40  | 50  | 60  | 70  | 80  | 90  | 100 | 110 |
| 4                                             | 11                                                  | 22 | 33 | 44  | 55  | 67  | 78  | 89  | 100 | 111 | 122 |
| 5                                             | 14                                                  | 28 | 42 | 55  | 69  | 83  | 97  | 111 | 125 | 139 | 153 |
| 6                                             | 17                                                  | 33 | 50 | 67  | 83  | 100 | 117 | 133 | 150 | 167 | 183 |
| 7                                             | 19                                                  | 39 | 58 | 78  | 97  | 117 | 136 | 155 | 175 | 194 | 214 |
| 8                                             | 22                                                  | 44 | 67 | 89  | 111 | 133 | 155 | 178 | 200 | 222 | 244 |
| 9                                             | 25                                                  | 50 | 75 | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 275 |
| 10                                            | 28                                                  | 56 | 83 | 111 | 139 | 167 | 194 | 222 | 250 | 278 | 305 |

Source: Austroads (2005).

Figure 4-2 Austroads Table 3.4 Gap acceptance criteria

The MGSD for truck drivers at this intersection would require a similar time of 6 seconds for initial gap recognition. However, observations made at the intersections have shown that fully laden trucks take approximately 9 seconds to cross the northbound carriageway of the Pacific Highway when turning right from Italia Road.

This corresponds to a required MGSD of 15 seconds for trucks which, based on an extrapolation of the distance table in Figure 4-2 would equate to approximately 420 metres. The sensitivity test reduction of initial gap acceptance to 4 seconds for a two lane crossing would reduce this distance to approximately 365 metres.

A summary of theoretical sight distance requirements for the Italia Road and Pacific Highway intersection is provided in Table 4.2 overleaf.

**Table 4-2 Safe sight distance requirements**

| Sight Distance type              | Distance required | Sensitivity test |
|----------------------------------|-------------------|------------------|
| Safe intersection sight distance |                   |                  |
| Cars                             | 272               | 244              |
| Trucks                           | 354               | 326              |
| Minimum gap sight distance       |                   |                  |
| Cars                             | 250               | 167              |
| Trucks                           | 420               | 365              |

#### 4.2.2 Measured sight distance

The northbound approach to the Italia Road intersection is situated on a broad crest vertical curve. Plans for the recent highway upgrade are not readily available to check the design criteria applied to this crest curve. The effect of this curve is demonstrated in the photographs shown as Figure 4-3, looking south from the intersection along the northbound carriageway.



**Figure 4-3 Sight distance observations across northbound vertical curve**

The actual sight distance at the intersection was measured using survey equipment. The actual sight distance results are summarised as follows:

- Car to car (1.1 m driver eye height to 1.1 m vehicle height) 275 m
- Car to truck (1.1 m driver eye height to 2.4 m truck height) 310 m
- Truck to truck (2.4 m driver eye height to 2.4 m truck height) 385 m

A comparison of these survey results to the theoretical safe intersection and minimum gap sight distance calculations in Table 4-2 shows that the actual sight distance is marginal in a number of circumstances. A generalised description of these circumstances is provided as follows

- An approaching car has adequate sight distance for a waiting car or truck at the intersection.
- The calculations show that an approaching truck requires more distance to stop (354 m) than is available (310 m) but the differential is not critical in that a shorter reaction time reduces the distance required and the driver would have time to slow substantially to avoid a collision.
- The minimum gap sight distance for a car turning right is met (250 m versus 275 m) for the base calculation of 9 seconds decision and intersection clearance time.

- The minimum gap sight distance for a loaded truck has been calculated as 420 metres taking into account decision and intersection clearance time (15 seconds) but there is only 385 metres available. The time assumptions are critical in these circumstances because a 2 second reduction in gap acceptance reduces the requirement to 365 metres which is available.

### 4.3 Road safety audit

As part of this traffic impact assessment an independent road safety audit on the Italia Road intersection has been undertaken to complement the preliminary analysis in this report. The audit was undertaken as a Stage 5 audit on the situational context, layout and geometry of the existing intersection.

#### 4.3.1 Need for independent safety audit

The need for a road safety audit was driven by Roads and Maritime concerns with the layout and safety aspects of the existing intersection and the perception of approval authorities in regard to the suitability of the intersection for increased heavy vehicle usage.

An independent baseline assessment of the intersection is appropriate to understand any issues as part of any consideration of increased usage, particularly by heavy vehicles which would represent the primary traffic generation from quarry operations.

#### 4.3.2 Audit proposal

A full Stage 5 Road Safety Audit of the existing intersection has been undertaken by accredited road safety firm Alan Samsa Consulting. This firm has successfully worked with GHD on a number of Roads and Maritime project development and detailed design commissions and its auditors are well regarded.

The audit was conducted in early February 2016, coinciding with the end of the school holiday period and a return to normal traffic conditions on the Pacific Highway. The audit was undertaken in accordance with Roads and Maritime guidelines and included a day time and night time assessment of the intersection layout.

#### 4.3.3 Audit findings and responses to safety issues

The Stage 5 Audit report for the Italia Road intersection and approaches identifies a number of minor road safety issues. A copy of the audit report is provided in Appendix E.

The principal concerns of the audit team relate to the following issues:

- There is no intersection control for Italia Road at the highway, which is exacerbated by faded 'hold' line pavement marking and lack of street lighting at the junction.
- Safe intersection sight distance (SISD) between the northbound highway travel lanes and the Italia Road junction is marginal for a car to car scenario, improved for a car to truck scenario.

A range of potential road safety issues were identified in the audit and are listed in Table 3.1 of the audit report in Appendix E. That table provides for a combined GHD / Client response to the issue raised and the subsequent risk allocation. The road safety issues and the GHD / Client responses are provided in Table 4-3 overleaf.

In consideration of the audit findings in Table 4-3 it is noted that the majority of issues identified are minor in nature and are likely to be a low cost to rectify, as such are referred for Roads and Maritime consideration. Those items which will incur high costs to resolve and have a medium risk as per Figure 3.4 of the audit report require a higher rectification costs, hence the medium risk is considered acceptable.

#### 4.4 Potential safety improvements

The Roads and Maritime requirement for the development proponent to nominate and evaluate a range of safety improvements for the Italia Road intersection has been noted. The preliminary safety assessment based on sight distance calculations and the outcome of the Road Safety Audit have confirmed that there is no major shortcoming in the intersection design.

The intersection was constructed by Roads and Maritime as part of the Pacific Highway upgrade approximately 15 years ago and has operated since in a safe fashion, with three minor accidents in the 5 years from 2010 to 2014 inclusive.

A number of potential improvements have been identified to improve the operation and safety of the intersection. These include provision of a Stop sign to replace the existing Give Way on Italia Road, new linemarking for the intersection and replacement of intersection sight boards opposite the intersection on the southbound carriageway of the highway.

Table 4-3 Road safety audit issues and GHD / Client response

| No. | Description of road safety issue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Risk rating   | Category                                    | GHD / Client response                                                                                                                                                                                                                                                                                                                          | Action by |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1   | <p>There is no intersection control for Italia Road at the highway, which is exacerbated by faded 'hold' line pavement marking and lack of street lighting at the junction – refer to <i>Photos 1 &amp; 2</i> in <i>Appendix A</i>. The adoption of a 'Stop' control (rather than 'Give Way' control) is considered to be prudent due to sight distance restrictions at the junction.</p> <p>Moreover, the location of the intersection sightboard on the far (eastern) side of the highway could be improved because it sits low beyond the higher crested section of highway – refer to <i>Photo 1</i> in <i>Appendix A</i>. At night, it becomes even less conspicuous because vehicle headlights do not fully extend across highway alignment.</p>                                              | Medium - High | Intersections / Traffic signs / Delineation | It is understood that the proponent is prepared to fund and complete these minor improvements to improve the existing condition of the intersection.                                                                                                                                                                                           | ERS       |
| 2   | <p>Sight distance to/from the northbound highway right (fast) lane to the Italia Road junction is estimated at approximately 250 m due to the combination of the crest vertical alignment and right curve horizontal alignment – refer to <i>Photos 3 &amp; 4</i> in <i>Appendix A</i>. This is marginal with respect to safe intersection sight distance (SISD) guidelines, which it is calculated would require approximately 270 m to/from an approaching northbound car along the highway.</p> <p>It is acknowledged that sight distance for truck drivers would be greater due to the higher driver position in the vehicle and that approaching northbound highway vehicles may be able to earlier sight trucks exiting the Italia Road junction due to the truck's larger (taller) size.</p> | Medium        | Road alignment                              | <p>Rectification works to improve sight distance would involve adjusting the vertical alignment of the northbound lanes which would incur significant cost.</p> <p>In accordance with Figure 3.4 on Page 6, the medium risk and high cost result in acceptable risk without any required rectification works to further reduce risk rating</p> | None      |
| 3   | For the southbound highway right-turn movement into Italia Road, the deceleration lane length is sub-standard for the 110 km/h highway speed zone. This may result in vehicles slowing down within the highway 'fast' lane.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Low - Medium  | Auxiliary lanes                             | Low / medium risk plus high rectification costs result in unjustifiable                                                                                                                                                                                                                                                                        | None      |
| 4   | The northbound highway left-turn movement into Italia Road has adverse cross fall after a downhill approach.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Low - Medium  | Road alignment                              | Low / medium risk plus high rectification costs result in unjustifiable                                                                                                                                                                                                                                                                        | None      |
| 5   | There is no acceleration length for vehicles turning left out of Italia Road onto the highway northbound. This may impede (slow down) northbound highway traffic flow especially due to the downhill grade for northbound highway travel and the restricted sight distances to the south from Italia Road.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Low - Medium  | Auxiliary lanes                             | The proposed development and its traffic generation will be mostly for southbound journeys, involving a right turn from Italia Road                                                                                                                                                                                                            | None      |

| No. | Description of road safety issue                                                                                                                                                                                                                                                                                                         | Risk rating | Category                   | GHD / Client response                                                                                                                                         | Action by |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 6   | For southbound highway traffic approaching the Italia Road junction to turn right, there is no guidance on where to stop, ie. there is no 'hold' line across the 'seagull' layout, which would also act as continuity guidance for northbound highway travel past the junction.                                                          | Low         | Delineation/ Intersections | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration                                                          | Referral  |
| 7   | For southbound highway traffic, a 'merging traffic' sign for the acceleration lane merge is located at the Italia Road intersection 'seagull' splitter island – refer to <i>Photo 5</i> in <i>Appendix A</i> . However, this is approximately 1.2 km prior to the actual merge with no follow-up signage downstream near the merge zone. | Low         | Traffic signs              | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration                                                          | Referral  |
| 8   | On the left (northern) side of Italia Road approaching the highway, there is an unprotected power pole within the clear zone – refer to <i>Photo 1</i> in <i>Appendix A</i> .                                                                                                                                                            | Low         | Roadside hazards           | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration in conjunction with Ausgrid                              | Referral  |
| 9   | There are faded pavement markings (particularly pavement turn arrows and edge line) at the intersection including for the highway southbound right-turn lane and northbound left-turn lane into Italia Road – refer to <i>Photos 5 &amp; 6</i> in <i>Appendix A</i> .                                                                    | Low         | Delineation                | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration                                                          | Referral  |
| 10  | There is no street lighting at the junction, which reduces guidance and delineation at night, especially for the Italia Road approach to the highway. This also reduces the conspicuousness of the junction when approaching along the highway.                                                                                          | Low         | Lighting                   | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration                                                          | Referral  |
| 11  | For the right-turn movement out of Italia Road onto the highway southbound, the length of the acceleration lane is marginal with respect to heavy vehicles. It is acknowledged that the acceleration of loaded heavy vehicles may be problematic, especially for the initial uphill grade alignment.                                     | Low         | Auxiliary lanes            | In accordance with Figure 3.4 on Page 6, the low risk and high cost result in acceptable risk without any required rectification works to reduce risk rating. | None      |
| 12  | For the Italia Road approach to the highway, directional signage has only been provided for directions to the north (left) along the highway.                                                                                                                                                                                            | Low         | Traffic signs              | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration                                                          | Referral  |
| 13  | There is inconsistency in the highway speed zoning with 100 km/h for northbound travel and 110 km/h for southbound travel, which may cause confusion for motorists.                                                                                                                                                                      | Low         | Speed zones                | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration                                                          | Referral  |
| 14  | For southbound highway travel approaching the Italia Road junction, the side road junction signage is partially obstructed by roadside vegetation from the left (slow) lane.                                                                                                                                                             | Low         | Traffic signs              | Beyond the scope of development related impact – issue referred for Roads and Maritime consideration                                                          | Referral  |

## 5. Summary

This report has been prepared as a traffic impact assessment in respect to the proposed development of a hard rock quarry at Eagleton. This proposed road network access for the quarry is from the Pacific Highway intersection with Italia Road, approximately 12 km north of Raymond Terrace.

Following this analysis it is confirmed that the Eagleton quarry would not have any adverse impact on the road network in terms of intersection or route capacity. The report has also confirmed that Eagleton proposes to provide a sealed access road from Italia Road, across an existing Right of Way to the proposed quarry entrance and that suitable design parameters have been adopted for the internal access roads, traffic circulation and on-site car parking.

Safety of the Pacific Highway intersection with Italia Road has been assessed geometrically in relation to sight distance and gap acceptance criteria for the intersection. The analysis shows that the intersection generally meets the required criteria and that sight and stopping distance are satisfactory.

A separate road safety audit has been conducted on the existing intersection by independent auditors from Samsa Consulting. This audit identified a range of mostly low risk issues that should generally be referred to Roads and Maritime as the maintenance authority for the Pacific Highway.



## Appendices



## Appendix A – Roads and Maritime correspondence



**Transport**  
Roads & Maritime  
Services

9 November 2012

SF2011/001364/1  
CR2012/010223  
MD

Manager - Industry  
Major Projects Assessment  
NSW Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

**Attention: Mr Carl Dumpleton**

**PACIFIC HIGHWAY (HW10): EAGLETON QUARRY PROJECT, LOT 2 DP 1108702, BARLEIGH RANCH WAY, EAGLETON - ADEQUACY OF ENVIRONMENTAL ASSESSMENT (MP 10\_0199)**

Dear Mr Dumpleton,

I refer to your email dated 18 October 2012 requesting comment from Roads and Maritime Services (RMS) regarding the adequacy of the Environmental Assessment (EA) for the subject project.

Transport NSW and RMS' primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

RMS has reviewed the information provided and can advise that the Traffic Impact Assessment (TIA) by TPK and Associates dated October 2012 requires significant revision prior to the public exhibition of the Environmental Assessment.

RMS would require the TIA to include:

- An assessment of the cumulative impacts on road safety and traffic efficiency at the intersection of the Pacific Highway and Italia Road as a result of the vehicular movements to/from the proposed quarry, the Boral Quarry, and those land uses identified in the TIA.
- A road safety risk assessment of the Pacific Highway / Italia Road intersection post-development. This assessment should identify and evaluate potential measures to improve road safety at this intersection.

*Comment: RMS is aware of road safety concerns arising from limited sight distance for heavy vehicle operators at the subject intersection. A number of complaints have been received from Boral workplace health and safety representatives regarding the safety of the*

**Roads & Maritime Services**

*right turn out of Italia Road. Additional heavy vehicle movements at this intersection are likely to increase the road safety risks.*

- The impact of construction traffic has not been addressed in the TIA. A Construction Traffic Management Plan should address and mitigate construction traffic impacts resulting from developments on-site.
- Electronic input/output data files for RMS review.

RMS will provide further comment / requirements on the subject proposal during the public exhibition stage and receipt of a revised TIA.

Please contact me on 4924 0688 if you require further advice.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Michael Dixon', with a stylized flourish extending to the right.

Michael Dixon  
A/Manager, Land Use Management  
Hunter Region

Cc Mr Tim Dewey  
Transport for NSW

General Manager  
Port Stephens Council



29 October 2015

CR2015/004934  
SF2012/041993  
KAP

Manager - Resource Assessments  
Planning Services  
NSW Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

Dear Genevieve Seed,

PROPOSAL – EAGLETON HARD ROCK QUARRY PROJECT, BARLEIGH RANCH WAY,  
EAGLETON (LOT 2 DP 1108702), SEARS INPUT REQUEST SSD 15\_7332

Reference is made to Department of Planning and Environment's email dated 15 October 2015, requesting Roads and Maritime Service's (Roads and Maritime) requirements under Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* for the Preliminary Environmental Assessment Report, prepared by JBA Urban Planning Consultants P/L, dated October 2015 for the proposed rock quarry at Barleigh Ranch Way, Eagleton.

Roads and Maritime understands that the current proposal is similar to a request made for Director-Generals Requirements in 2010 under Part 3A of the *Environmental Planning and Assessment Act 1979* where an extraction rate of 750,000tpa was proposed. The current proposal seeks to extract 600,000tpa. Access to the site is still proposed to be from Barleigh Ranch Way via a right-of-carriageway to Italia Road and onto / from the Pacific Highway. Operating hours are proposed between 5:00am to 10:00pm Mondays to Fridays and 6:00am to midday Saturdays.

#### Roads and Maritime response and requirements

Roads and Maritime has reviewed the information provided, including the Preliminary Environmental Assessment Report, and raises no objection to or requirements for the proposed development, subject to the following requirements:

- The EIS should include reference to Section 2 'Traffic Impact Studies' within RTA's *Guide to Traffic Generating Developments 2000* with regard to the traffic and transport impacts of the proposed development.

**Roads and Maritime Services**

- A traffic and transport study shall be prepared in accordance with the RMS *Guide to Traffic Generating Developments 2000* and is to include, but not be limited to, the following:
  - Assessment of all relevant vehicular traffic routes and intersections for access to / from the subject area during the construction and operational phases.
  - Current traffic counts (over 3 days) for all the traffic routes and intersections.
  - Identification and justification of anticipated additional vehicular traffic generated from the proposed development and associated trip distribution on the road network during both the construction and operational phases.

- The cumulative impacts on road safety and traffic efficiency at the intersection of the Pacific Highway and Italia Road as a result of the vehicular movements to/from the proposed quarry, the Boral Quarry, and other existing / future-known land uses.

*Comment: It is expected that an upgrade of the intersection is likely and that all costs associated with an upgrade will be at the developer's expense.*

- Identify the necessary road network infrastructure upgrades that are required to maintain existing levels of service on both the local and classified road network. In this regard, concept drawings shall be submitted with the Environmental Assessment for any identified road infrastructure upgrades. However, it should be noted that any identified road infrastructure upgrades will need to be to the satisfaction of Council and Roads and Maritime.
- A road safety risk assessment of the Pacific Highway / Italia Road intersection post-development. This assessment should identify and evaluate potential measures to improve road safety at this intersection.

*Comment: RMS is aware of road safety concerns arising from limited sight distance for heavy vehicle operators at the subject intersection. A number of complaints have been received from Boral workplace health and safety representatives regarding the safety of the right turn out of Italia Road. Additional heavy vehicle movements at this intersection are likely to increase the road safety risks.*

- A Construction Traffic Management Plan should be provided addressing construction traffic impacts resulting from development/s on-site.
- Intersection analysis (such as SIDRA) shall be submitted to determine the need for intersection and road capacity upgrades. The intersection analysis shall include (but not limited to) the following:
  - Current traffic counts and 10 year traffic growth projections;
  - 95<sup>th</sup> percentile back of queue lengths;
  - Delays and level of service on all legs for the relevant intersection/s;
  - Electronic input/output data files for Roads and Maritime to review.

Roads and Maritime will provide further comment / requirements on the subject proposal during the public exhibition stage of a formal application and receipt of the abovementioned documentation.

On determination of this matter, please forward a copy of the SEARs to Roads and Maritime for record and / or action purposes. Should you require further information please contact Kellee McGilvray on 4924 0688 or by email at [development.hunter@rms.nsw.gov.au](mailto:development.hunter@rms.nsw.gov.au).

Yours sincerely



29/10/15

Kevin Webster  
Network and Safety Manager  
Hunter

## Appendix B – Traffic counts – November 2016

10:00 &lt;&lt;&lt; HOUR ENDING

Wednesday

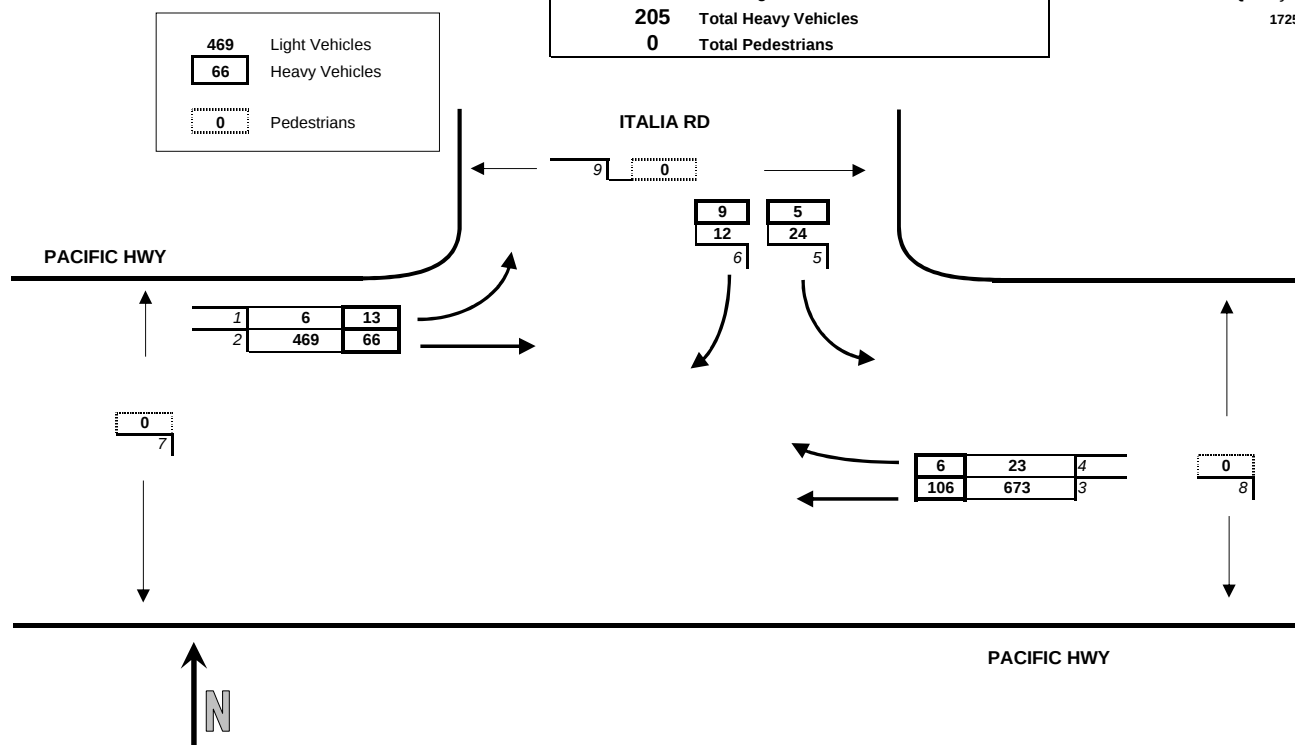
## Summary:

## PACIFIC HWY / ITALIA RD

1207 Total Light Vehicles

205 Total Heavy Vehicles

0 Total Pedestrians



## 23/11/2016 - PACIFIC HWY / ITALIA RD, BALICKERA

## Light Vehicles

1 2 3 4 5 6 Total Vehicles 15 MIN HOUR

|       |     |       |       |     |     |     |            |
|-------|-----|-------|-------|-----|-----|-----|------------|
| 07:15 | 1   | 89    | 103   | 4   | 7   | 6   | 210        |
| 07:30 | 1   | 104   | 130   | 6   | 7   | 3   | 251        |
| 07:45 | 1   | 72    | 144   | 6   | 3   | 5   | 231        |
| 08:00 | 2   | 105   | 140   | 7   | 11  | 4 < | 269 961    |
| 08:15 | 1   | 102   | 145   | 10  | 9   | 4   | 271 1022   |
| 08:30 | 0   | 114   | 166   | 7 < | 8   | 3   | 298 1069   |
| 08:45 | 1   | 112   | 137   | 1   | 4 < | 1   | 256 1094   |
| 09:00 | 2   | 140   | 151   | 2   | 6   | 5   | 306 1131   |
| 09:15 | 2   | 121   | 162   | 6   | 2   | 5   | 298 1158   |
| 09:30 | 1   | 118 < | 178   | 9   | 6   | 2   | 314 1174   |
| 09:45 | 2 < | 101   | 183 < | 4   | 8   | 2   | 300 1218 < |
| 10:00 | 1   | 129   | 150   | 4   | 8   | 3   | 295 1207   |

## Pedestrians

7 8 9

|       |   |   |   |
|-------|---|---|---|
| 07:15 | 0 | 0 | 0 |
| 07:30 | 0 | 0 | 0 |
| 07:45 | 0 | 0 | 0 |
| 08:00 | 0 | 0 | 0 |
| 08:15 | 0 | 0 | 0 |
| 08:30 | 0 | 0 | 0 |
| 08:45 | 0 | 0 | 0 |
| 09:00 | 0 | 0 | 0 |
| 09:15 | 0 | 0 | 0 |
| 09:30 | 0 | 0 | 0 |
| 09:45 | 0 | 0 | 0 |
| 10:00 | 0 | 0 | 0 |

## Heavy Vehicles

1 2 3 4 5 6 Total Vehicles 15 MIN HOUR

|       |     |      |      |     |     |     |          |
|-------|-----|------|------|-----|-----|-----|----------|
| 07:15 | 2   | 23   | 25   | 1   | 0   | 2   | 53       |
| 07:30 | 1   | 31   | 26   | 3   | 0   | 6   | 67       |
| 07:45 | 1   | 21   | 20   | 0   | 4   | 0   | 46       |
| 08:00 | 1   | 18 < | 37 < | 1   | 3   | 0   | 60 226 < |
| 08:15 | 3   | 13   | 24   | 4 < | 0   | 1   | 45 218   |
| 08:30 | 3   | 14   | 23   | 2   | 1 < | 3   | 46 197   |
| 08:45 | 2   | 14   | 22   | 1 < | 3   | 2   | 44 195   |
| 09:00 | 1   | 14   | 19   | 1 < | 1   | 2   | 38 173   |
| 09:15 | 4   | 17   | 26   | 3   | 1   | 3 < | 54 182   |
| 09:30 | 0   | 17   | 24   | 1   | 0   | 3 < | 45 181   |
| 09:45 | 3   | 12   | 28   | 1   | 3   | 2 < | 49 186   |
| 10:00 | 6 < | 20   | 28   | 1   | 1   | 1   | 57 205   |

## All Vehicles

1 2 3 4 5 6 Total Vehicles 15 MIN HOUR

|       |     |       |       |      |     |     |            |
|-------|-----|-------|-------|------|-----|-----|------------|
| 07:15 | 3   | 112   | 128   | 5    | 7   | 8   | 263        |
| 07:30 | 2   | 135   | 156   | 9    | 7   | 9   | 318        |
| 07:45 | 2   | 93    | 164   | 6    | 7   | 5   | 277        |
| 08:00 | 3   | 123   | 177   | 8    | 14  | 4 < | 329 1187   |
| 08:15 | 4   | 115   | 169   | 14 < | 9   | 5   | 316 1240   |
| 08:30 | 3   | 128   | 189   | 9 <  | 9 < | 6   | 344 1266   |
| 08:45 | 3   | 126   | 159   | 2    | 7 < | 3   | 300 1289   |
| 09:00 | 3   | 154   | 170   | 3    | 7   | 7   | 344 1304   |
| 09:15 | 6   | 138   | 188   | 9    | 3   | 8   | 352 1340   |
| 09:30 | 1   | 135 < | 202   | 10   | 6   | 5   | 359 1355   |
| 09:45 | 5   | 113   | 211   | 5    | 11  | 4   | 349 1404   |
| 10:00 | 7 < | 149   | 178 < | 5    | 9   | 4   | 352 1412 < |

Note: Arrows "&lt;" indicate the end time for the peak hour for each turning movement.

16:15 &lt;&lt;&lt; HOUR ENDING

Wednesday

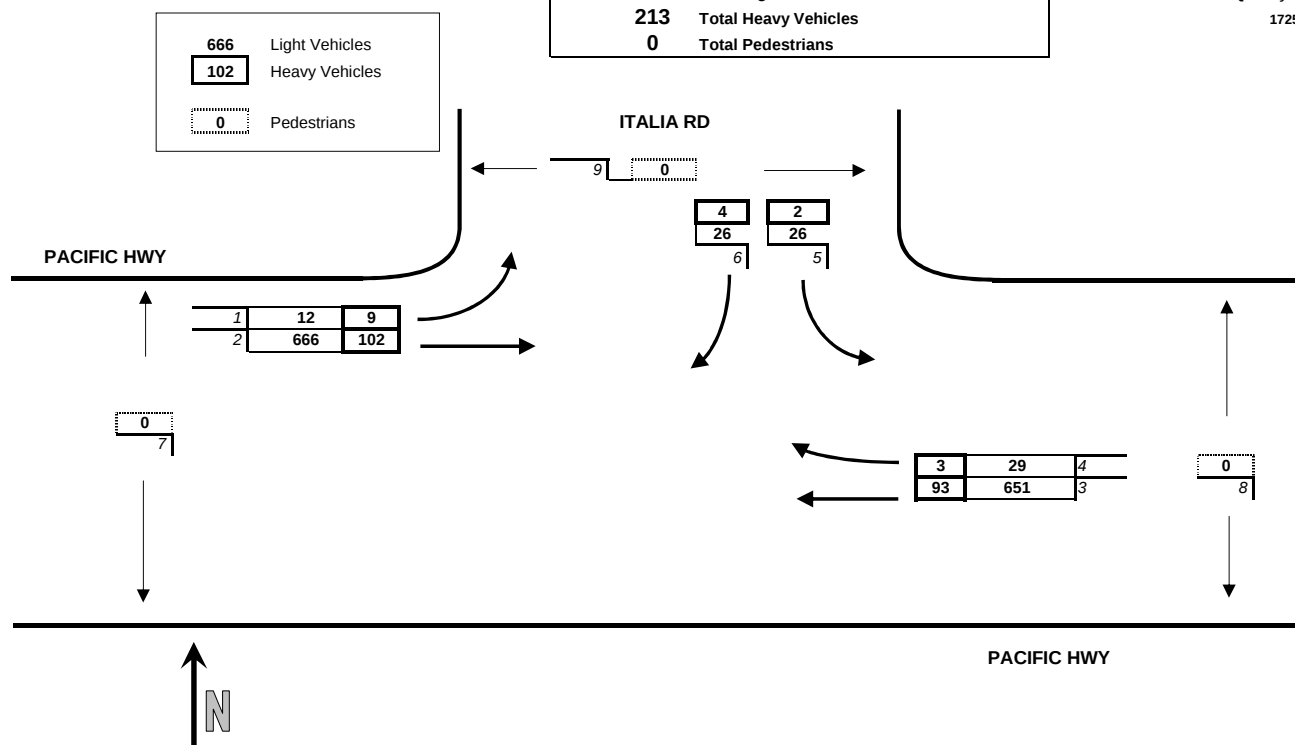
## Summary:

## PACIFIC HWY / ITALIA RD

1410 Total Light Vehicles

213 Total Heavy Vehicles

0 Total Pedestrians



## 23/11/2016 - PACIFIC HWY / ITALIA RD, BALICKERA

| Light Vehicles |     |       |       |      |     |     |     | Total Vehicles |   |    | Pedestrians |    |    |
|----------------|-----|-------|-------|------|-----|-----|-----|----------------|---|----|-------------|----|----|
| 1              | 2   | 3     | 4     | 5    | 6   | 7   | 8   | 15 MIN HOUR    | 9 | 10 | 11          | 12 | 13 |
| 15:15          | 4   | 172   | 138   | 4    | 4   | 1   | 323 |                |   |    | 0           | 0  | 0  |
| 15:30          | 4   | 175   | 156   | 8    | 5   | 6   | 354 |                |   |    | 0           | 0  | 0  |
| 15:45          | 2   | 156   | 167   | 7    | 0   | 6   | 338 |                |   |    | 0           | 0  | 0  |
| 16:00          | 3   | 193 < | 173   | 3    | 12  | 7   | 391 | 1406           |   |    | 0           | 0  | 0  |
| 16:15          | 3   | 142   | 155 < | 11 < | 9   | 7 < | 327 | 1410 <         |   |    | 0           | 0  | 0  |
| 16:30          | 4   | 150   | 120   | 8 <  | 10  | 4   | 296 | 1352           |   |    | 0           | 0  | 0  |
| 16:45          | 6 < | 151   | 112   | 6    | 3 < | 2   | 280 | 1294           |   |    | 0           | 0  | 0  |
| 17:00          | 3 < | 140   | 109   | 4 <  | 6   | 3   | 265 | 1168           |   |    | 0           | 0  | 0  |
| 17:15          | 1   | 151   | 120   | 4    | 8   | 4   | 288 | 1129           |   |    | 0           | 0  | 0  |
| 17:30          | 5   | 191   | 112   | 8    | 6   | 3   | 325 | 1158           |   |    | 0           | 0  | 0  |
| 17:45          | 3   | 118   | 99    | 3    | 9   | 1   | 233 | 1111           |   |    | 0           | 0  | 0  |
| 18:00          | 3   | 101   | 89    | 4    | 3   | 3   | 203 | 1049           |   |    | 0           | 0  | 0  |

| Heavy Vehicles |     |      |      |     |     |     |    | Total Vehicles |   |    | Pedestrians |    |    |
|----------------|-----|------|------|-----|-----|-----|----|----------------|---|----|-------------|----|----|
| 1              | 2   | 3    | 4    | 5   | 6   | 7   | 8  | 15 MIN HOUR    | 9 | 10 | 11          | 12 | 13 |
| 15:15          | 2   | 23   | 17   | 1   | 2   | 0   | 45 |                |   |    |             |    |    |
| 15:30          | 2   | 22   | 24   | 1   | 0   | 0   | 49 |                |   |    |             |    |    |
| 15:45          | 3   | 24   | 22   | 1   | 1   | 0   | 51 |                |   |    |             |    |    |
| 16:00          | 1   | 36   | 22   | 1 < | 1 < | 2   | 63 | 208            |   |    |             |    |    |
| 16:15          | 3   | 20   | 25   | 0   | 0   | 2 < | 50 | 213            |   |    |             |    |    |
| 16:30          | 3 < | 33 < | 25   | 1   | 0   | 0 < | 62 | 226 <          |   |    |             |    |    |
| 16:45          | 0   | 15   | 24   | 0   | 1   | 0 < | 40 | 215            |   |    |             |    |    |
| 17:00          | 1   | 28   | 28 < | 0   | 1   | 2 < | 60 | 212            |   |    |             |    |    |
| 17:15          | 0   | 20   | 16   | 0   | 0   | 0   | 36 | 198            |   |    |             |    |    |
| 17:30          | 0   | 22   | 15   | 0   | 0   | 0   | 37 | 173            |   |    |             |    |    |
| 17:45          | 0   | 13   | 21   | 0   | 0   | 0   | 34 | 167            |   |    |             |    |    |
| 18:00          | 0   | 19   | 17   | 0   | 0   | 0   | 36 | 143            |   |    |             |    |    |

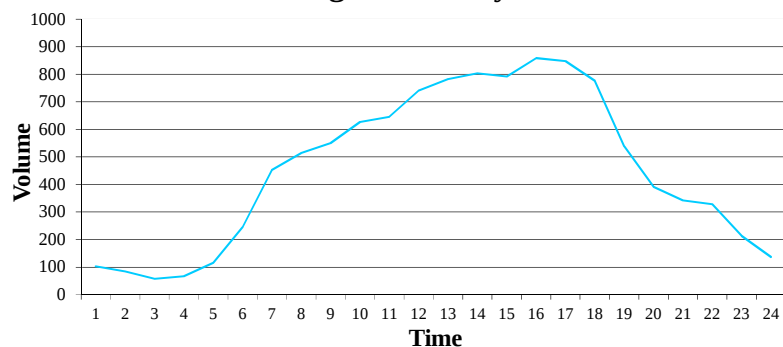
  

| All Vehicles |     |       |       |      |     |     |     | Total Vehicles |   |    | Pedestrians |    |    |
|--------------|-----|-------|-------|------|-----|-----|-----|----------------|---|----|-------------|----|----|
| 1            | 2   | 3     | 4     | 5    | 6   | 7   | 8   | 15 MIN HOUR    | 9 | 10 | 11          | 12 | 13 |
| 15:15        | 6   | 195   | 155   | 5    | 6   | 1   | 368 |                |   |    |             |    |    |
| 15:30        | 6   | 197   | 180   | 9    | 5   | 6   | 403 |                |   |    |             |    |    |
| 15:45        | 5   | 180   | 189   | 8    | 1   | 6   | 389 |                |   |    |             |    |    |
| 16:00        | 4   | 229 < | 195   | 4    | 13  | 9   | 454 | 1614           |   |    |             |    |    |
| 16:15        | 6   | 162   | 180 < | 11 < | 9   | 9 < | 377 | 1623 <         |   |    |             |    |    |
| 16:30        | 7   | 183   | 145   | 9 <  | 10  | 4   | 358 | 1578           |   |    |             |    |    |
| 16:45        | 6 < | 166   | 136   | 6    | 4 < | 2   | 320 | 1509           |   |    |             |    |    |
| 17:00        | 4 < | 168   | 137   | 4    | 7   | 5   | 325 | 1380           |   |    |             |    |    |
| 17:15        | 1   | 171   | 136   | 4    | 8   | 4   | 324 | 1327           |   |    |             |    |    |
| 17:30        | 5   | 213   | 127   | 8    | 6   | 3   | 362 | 1331           |   |    |             |    |    |
| 17:45        | 3   | 131   | 120   | 3    | 9   | 1   | 267 | 1278           |   |    |             |    |    |
| 18:00        | 3   | 120   | 106   | 4    | 3   | 3   | 239 | 1192           |   |    |             |    |    |

Note: Arrows "&lt;" indicate the end time for the peak hour for each turning movement.

**Site 1 Pacific Hwy: Between Six Mile & Italia [110]**
**Northbound**
**Lane 1 + 2**

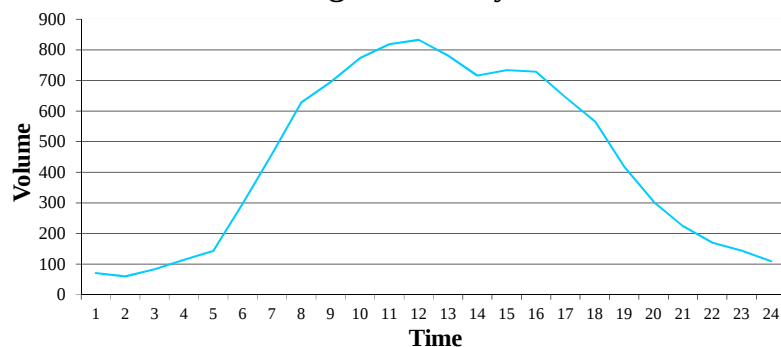
| Day<br>Time  | Thu<br>24/11/16 | Fri<br>25/11/2016 | Sat<br>26/11/2016 | Sun<br>27/11/2016 | Mon<br>28/11/2016 | Tue<br>29/11/2016 | Wed<br>30/11/2016 | W/Day<br>Ave. | W/End<br>Ave. | 7 Day<br>Ave |
|--------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|---------------|--------------|
| 0:00         | 124             | 136               | 126               | 83                | 47                | 97                | 109               | 103           | 105           | 103          |
| 1:00         | 96              | 115               | 99                | 50                | 45                | 82                | 81                | 84            | 75            | 81           |
| 2:00         | 68              | 80                | 61                | 28                | 23                | 53                | 63                | 57            | 45            | 54           |
| 3:00         | 81              | 73                | 69                | 28                | 54                | 59                | 70                | 67            | 49            | 62           |
| 4:00         | 156             | 124               | 86                | 52                | 102               | 97                | 97                | 115           | 69            | 102          |
| 5:00         | 244             | 273               | 165               | 110               | 266               | 233               | 216               | 246           | 138           | 215          |
| 6:00         | 436             | 472               | 318               | 177               | 495               | 432               | 429               | 453           | 248           | 394          |
| 7:00         | 571             | 548               | 518               | 291               | 525               | 468               | 460               | 514           | 405           | 483          |
| 8:00         | 562             | 645               | 707               | 454               | 587               | 488               | 468               | 550           | 581           | 559          |
| 9:00         | 603             | 765               | 841               | 649               | 677               | 539               | 549               | 627           | 745           | 660          |
| 10:00        | 590             | 825               | 906               | 772               | 714               | 557               | 539               | 645           | 839           | 700          |
| 11:00        | 743             | 933               | 873               | 858               | 836               | 592               | 597               | 740           | 866           | 776          |
| 12:00        | 719             | 1027              | 796               | 892               | 845               | 624               | 696               | 782           | 844           | 800          |
| 13:00        | 790             | 1120              | 809               | 874               | 819               | 615               | 675               | 804           | 842           | 815          |
| 14:00        | 734             | 1120              | 776               | 859               | 713               | 703               | 692               | 792           | 818           | 800          |
| 15:00        | 890             | 1125              | 720               | 823               | 771               | 743               | 764               | 859           | 772           | 834          |
| 16:00        | 848             | 1161              | 590               | 764               | 749               | 722               | 759               | 848           | 677           | 799          |
| 17:00        | 738             | 1183              | 509               | 613               | 670               | 656               | 636               | 777           | 561           | 715          |
| 18:00        | 541             | 849               | 359               | 410               | 418               | 413               | 473               | 539           | 385           | 495          |
| 19:00        | 418             | 656               | 250               | 332               | 285               | 308               | 290               | 391           | 291           | 363          |
| 20:00        | 346             | 591               | 213               | 232               | 249               | 237               | 286               | 342           | 223           | 308          |
| 21:00        | 369             | 536               | 176               | 159               | 226               | 254               | 256               | 328           | 168           | 282          |
| 22:00        | 238             | 328               | 122               | 120               | 171               | 159               | 169               | 213           | 121           | 187          |
| 23:00        | 127             | 196               | 118               | 68                | 119               | 114               | 129               | 137           | 93            | 124          |
| <b>Total</b> | <b>11032</b>    | <b>14881</b>      | <b>10207</b>      | <b>9698</b>       | <b>10406</b>      | <b>9245</b>       | <b>9503</b>       | <b>11013</b>  | <b>9953</b>   | <b>10710</b> |

**Average Week Day**

**Summary**

|                            | from     | to       |              |
|----------------------------|----------|----------|--------------|
| <b>AM Peak</b>             | 11:00 AM | 12:00 PM | <b>933</b>   |
| <b>PM Peak</b>             | 5:00 PM  | 6:00 PM  | <b>1183</b>  |
| <b>Week Day Average</b>    |          |          | <b>11013</b> |
| <b>Weekend Day Average</b> |          |          | <b>9953</b>  |
| <b>7 Day Average</b>       |          |          | <b>10710</b> |

**Site 1 Pacific Hwy: Between Six Mile & Italia [110]**
**Southbound**
**Lane 1 + 2**

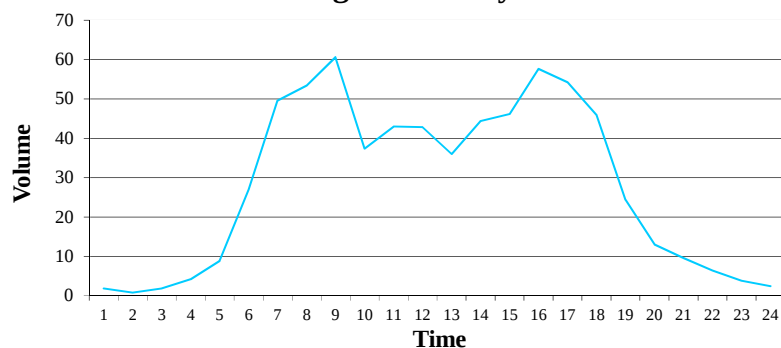
| Day<br>Time  | Thu<br>24/11/16 | Fri<br>25/11/2016 | Sat<br>26/11/2016 | Sun<br>27/11/2016 | Mon<br>28/11/2016 | Tue<br>29/11/2016 | Wed<br>30/11/2016 | W/Day<br>Ave. | W/End<br>Ave. | 7 Day<br>Ave |
|--------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|---------------|--------------|
| 0:00         | 73              | 62                | 70                | 64                | 65                | 79                | 75                | 71            | 67            | 70           |
| 1:00         | 59              | 66                | 51                | 56                | 48                | 71                | 54                | 60            | 54            | 58           |
| 2:00         | 83              | 93                | 52                | 31                | 72                | 89                | 78                | 83            | 42            | 71           |
| 3:00         | 113             | 130               | 67                | 24                | 98                | 118               | 111               | 114           | 46            | 94           |
| 4:00         | 144             | 161               | 96                | 41                | 112               | 152               | 145               | 143           | 69            | 122          |
| 5:00         | 304             | 285               | 151               | 57                | 301               | 297               | 303               | 298           | 104           | 243          |
| 6:00         | 443             | 484               | 217               | 140               | 466               | 448               | 450               | 458           | 179           | 378          |
| 7:00         | 662             | 598               | 425               | 221               | 665               | 595               | 622               | 628           | 323           | 541          |
| 8:00         | 695             | 740               | 624               | 404               | 659               | 715               | 664               | 695           | 514           | 643          |
| 9:00         | 750             | 863               | 876               | 802               | 763               | 741               | 748               | 773           | 839           | 792          |
| 10:00        | 779             | 1036              | 886               | 1031              | 829               | 714               | 735               | 819           | 959           | 859          |
| 11:00        | 790             | 1063              | 861               | 1245              | 853               | 728               | 728               | 832           | 1053          | 895          |
| 12:00        | 710             | 987               | 762               | 1292              | 858               | 669               | 681               | 781           | 1027          | 851          |
| 13:00        | 674             | 883               | 722               | 1242              | 757               | 624               | 640               | 716           | 982           | 792          |
| 14:00        | 724             | 852               | 678               | 1454              | 771               | 643               | 677               | 733           | 1066          | 828          |
| 15:00        | 706             | 871               | 622               | 1355              | 724               | 653               | 688               | 728           | 989           | 803          |
| 16:00        | 672             | 794               | 595               | 1249              | 609               | 559               | 589               | 645           | 922           | 724          |
| 17:00        | 552             | 710               | 485               | 960               | 554               | 537               | 486               | 568           | 723           | 612          |
| 18:00        | 350             | 596               | 348               | 684               | 420               | 336               | 385               | 417           | 516           | 446          |
| 19:00        | 283             | 398               | 250               | 483               | 304               | 267               | 268               | 304           | 367           | 322          |
| 20:00        | 225             | 297               | 195               | 345               | 214               | 196               | 189               | 224           | 270           | 237          |
| 21:00        | 157             | 175               | 188               | 275               | 173               | 165               | 181               | 170           | 232           | 188          |
| 22:00        | 138             | 153               | 143               | 174               | 157               | 150               | 123               | 144           | 159           | 148          |
| 23:00        | 133             | 105               | 94                | 120               | 99                | 110               | 98                | 109           | 107           | 108          |
| <b>Total</b> | <b>10219</b>    | <b>12402</b>      | <b>9458</b>       | <b>13749</b>      | <b>10571</b>      | <b>9656</b>       | <b>9718</b>       | <b>10513</b>  | <b>11604</b>  | <b>10825</b> |

**Average Week Day**

**Summary**

|                            | from     | to       |              |
|----------------------------|----------|----------|--------------|
| <b>AM Peak</b>             | 11:00 AM | 12:00 PM | <b>1063</b>  |
| <b>PM Peak</b>             | 12:00 PM | 1:00 PM  | <b>987</b>   |
| <b>Week Day Average</b>    |          |          | <b>10513</b> |
| <b>Weekend Day Average</b> |          |          | <b>11604</b> |
| <b>7 Day Average</b>       |          |          | <b>10825</b> |

**Site 2 Italia Rd: 300m West of Pacific Hwy [90]**
**Eastbound**
**Lane 0**

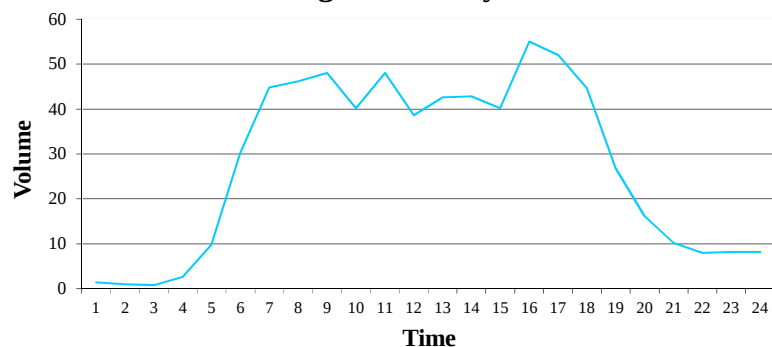
| Day<br>Time  | Thu<br>24/11/16 | Fri<br>25/11/2016 | Sat<br>26/11/2016 | Sun<br>27/11/2016 | Mon<br>28/11/2016 | Tue<br>29/11/2016 | Wed<br>30/11/2016 | W/Day<br>Ave. | W/End<br>Ave. | 7 Day<br>Ave |
|--------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|---------------|--------------|
| 0:00         | 5               | 1                 | 10                | 2                 | 1                 | 1                 | 1                 | 2             | 6             | 3            |
| 1:00         | 0               | 2                 | 1                 | 1                 | 0                 | 2                 | 0                 | 1             | 1             | 1            |
| 2:00         | 3               | 0                 | 2                 | 3                 | 3                 | 1                 | 2                 | 2             | 3             | 2            |
| 3:00         | 1               | 4                 | 6                 | 3                 | 5                 | 5                 | 6                 | 4             | 5             | 4            |
| 4:00         | 12              | 7                 | 0                 | 4                 | 11                | 6                 | 8                 | 9             | 2             | 7            |
| 5:00         | 28              | 24                | 9                 | 3                 | 29                | 26                | 28                | 27            | 6             | 21           |
| 6:00         | 44              | 54                | 17                | 10                | 47                | 53                | 50                | 50            | 14            | 39           |
| 7:00         | 60              | 50                | 34                | 22                | 52                | 44                | 61                | 53            | 28            | 46           |
| 8:00         | 58              | 67                | 33                | 30                | 58                | 58                | 62                | 61            | 32            | 52           |
| 9:00         | 39              | 48                | 49                | 43                | 37                | 32                | 31                | 37            | 46            | 40           |
| 10:00        | 50              | 62                | 54                | 30                | 45                | 30                | 28                | 43            | 42            | 43           |
| 11:00        | 46              | 48                | 45                | 39                | 33                | 40                | 47                | 43            | 42            | 43           |
| 12:00        | 26              | 53                | 49                | 25                | 34                | 33                | 34                | 36            | 37            | 36           |
| 13:00        | 56              | 43                | 70                | 50                | 52                | 33                | 38                | 44            | 60            | 49           |
| 14:00        | 54              | 43                | 69                | 81                | 47                | 45                | 42                | 46            | 75            | 54           |
| 15:00        | 67              | 61                | 59                | 73                | 44                | 65                | 51                | 58            | 66            | 60           |
| 16:00        | 53              | 53                | 37                | 67                | 44                | 63                | 58                | 54            | 52            | 54           |
| 17:00        | 54              | 49                | 29                | 40                | 42                | 44                | 40                | 46            | 35            | 43           |
| 18:00        | 27              | 37                | 20                | 24                | 16                | 25                | 17                | 24            | 22            | 24           |
| 19:00        | 10              | 22                | 13                | 16                | 12                | 9                 | 12                | 13            | 15            | 13           |
| 20:00        | 12              | 16                | 4                 | 3                 | 6                 | 6                 | 8                 | 10            | 4             | 8            |
| 21:00        | 7               | 15                | 7                 | 12                | 3                 | 2                 | 5                 | 6             | 10            | 7            |
| 22:00        | 4               | 6                 | 3                 | 5                 | 4                 | 4                 | 1                 | 4             | 4             | 4            |
| 23:00        | 5               | 4                 | 5                 | 1                 | 1                 | 0                 | 2                 | 2             | 3             | 3            |
| <b>Total</b> | <b>721</b>      | <b>769</b>        | <b>625</b>        | <b>587</b>        | <b>626</b>        | <b>627</b>        | <b>632</b>        | <b>675</b>    | <b>606</b>    | <b>655</b>   |

**Average Week Day**

**Summary**

|                            | from    | to      |            |
|----------------------------|---------|---------|------------|
| <b>AM Peak</b>             | 8:00 AM | 9:00 AM | <b>67</b>  |
| <b>PM Peak</b>             | 3:00 PM | 4:00 PM | <b>67</b>  |
| <b>Week Day Average</b>    |         |         | <b>675</b> |
| <b>Weekend Day Average</b> |         |         | <b>606</b> |
| <b>7 Day Average</b>       |         |         | <b>655</b> |

**Site 2 Italia Rd: 300m West of Pacific Hwy [90]**
**Westbound**
**Lane 0**

| Day<br>Time  | Thu<br>24/11/16 | Fri<br>25/11/2016 | Sat<br>26/11/2016 | Sun<br>27/11/2016 | Mon<br>28/11/2016 | Tue<br>29/11/2016 | Wed<br>30/11/2016 | W/Day<br>Ave. | W/End<br>Ave. | 7 Day<br>Ave |
|--------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|---------------|--------------|
| 0:00         | 2               | 1                 | 1                 | 7                 | 2                 | 1                 | 1                 | 1             | 4             | 2            |
| 1:00         | 0               | 3                 | 3                 | 0                 | 0                 | 1                 | 1                 | 1             | 2             | 1            |
| 2:00         | 1               | 1                 | 0                 | 2                 | 1                 | 0                 | 1                 | 1             | 1             | 1            |
| 3:00         | 2               | 3                 | 0                 | 0                 | 2                 | 4                 | 2                 | 3             | 0             | 2            |
| 4:00         | 12              | 10                | 6                 | 1                 | 11                | 8                 | 8                 | 10            | 4             | 8            |
| 5:00         | 26              | 25                | 8                 | 2                 | 32                | 31                | 37                | 30            | 5             | 23           |
| 6:00         | 41              | 49                | 25                | 4                 | 49                | 44                | 41                | 45            | 15            | 36           |
| 7:00         | 48              | 37                | 43                | 7                 | 35                | 62                | 49                | 46            | 25            | 40           |
| 8:00         | 51              | 49                | 30                | 40                | 45                | 52                | 43                | 48            | 35            | 44           |
| 9:00         | 41              | 39                | 57                | 100               | 47                | 33                | 41                | 40            | 79            | 51           |
| 10:00        | 52              | 63                | 68                | 81                | 43                | 40                | 42                | 48            | 75            | 56           |
| 11:00        | 40              | 44                | 49                | 67                | 34                | 34                | 41                | 39            | 58            | 44           |
| 12:00        | 38              | 52                | 41                | 52                | 49                | 35                | 39                | 43            | 47            | 44           |
| 13:00        | 43              | 45                | 38                | 46                | 47                | 40                | 39                | 43            | 42            | 43           |
| 14:00        | 37              | 48                | 36                | 63                | 48                | 43                | 25                | 40            | 50            | 43           |
| 15:00        | 53              | 59                | 25                | 72                | 50                | 64                | 49                | 55            | 49            | 53           |
| 16:00        | 68              | 57                | 34                | 37                | 40                | 47                | 48                | 52            | 36            | 47           |
| 17:00        | 56              | 49                | 32                | 46                | 44                | 31                | 43                | 45            | 39            | 43           |
| 18:00        | 26              | 32                | 19                | 23                | 23                | 26                | 27                | 27            | 21            | 25           |
| 19:00        | 19              | 31                | 15                | 16                | 11                | 11                | 9                 | 16            | 16            | 16           |
| 20:00        | 8               | 11                | 9                 | 10                | 15                | 10                | 7                 | 10            | 10            | 10           |
| 21:00        | 13              | 7                 | 6                 | 7                 | 6                 | 9                 | 5                 | 8             | 7             | 8            |
| 22:00        | 6               | 15                | 9                 | 5                 | 9                 | 6                 | 5                 | 8             | 7             | 8            |
| 23:00        | 7               | 16                | 8                 | 3                 | 4                 | 8                 | 6                 | 8             | 6             | 7            |
| <b>Total</b> | <b>690</b>      | <b>746</b>        | <b>562</b>        | <b>691</b>        | <b>647</b>        | <b>640</b>        | <b>609</b>        | <b>666</b>    | <b>627</b>    | <b>655</b>   |

**Average Week Day**

**Summary**

|                            | from     | to       |            |
|----------------------------|----------|----------|------------|
| <b>AM Peak</b>             | 10:00 AM | 11:00 AM | <b>63</b>  |
| <b>PM Peak</b>             | 4:00 PM  | 5:00 PM  | <b>68</b>  |
| <b>Week Day Average</b>    |          |          | <b>666</b> |
| <b>Weekend Day Average</b> |          |          | <b>627</b> |
| <b>7 Day Average</b>       |          |          | <b>655</b> |

## Thursday, 24 November 2016

| Time         | Total        | 1           | 2          | 3          | 4          | 5         | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 124          | 62          | 0          | 9          | 1          | 0         | 2         | 2         | 2         | 10         | 36         | 0        | 0        | 0        | 105.63        | 112.77          |
| 1:00         | 96           | 33          | 2          | 7          | 5          | 0         | 0         | 1         | 1         | 20         | 27         | 0        | 0        | 0        | 104.05        | 111.51          |
| 2:00         | 68           | 40          | 0          | 3          | 1          | 0         | 0         | 1         | 1         | 7          | 15         | 0        | 0        | 0        | 105.83        | 112.17          |
| 3:00         | 81           | 48          | 2          | 5          | 2          | 0         | 0         | 0         | 1         | 7          | 16         | 0        | 0        | 0        | 104.05        | 112.99          |
| 4:00         | 156          | 107         | 6          | 18         | 4          | 0         | 0         | 0         | 2         | 9          | 10         | 0        | 0        | 0        | 106.18        | 114.57          |
| 5:00         | 244          | 161         | 6          | 20         | 12         | 1         | 3         | 1         | 8         | 21         | 11         | 0        | 0        | 0        | 107.23        | 115.41          |
| 6:00         | 436          | 296         | 17         | 63         | 14         | 1         | 7         | 2         | 4         | 20         | 12         | 0        | 0        | 0        | 108.33        | 116.73          |
| 7:00         | 571          | 405         | 23         | 72         | 11         | 1         | 8         | 7         | 5         | 22         | 17         | 0        | 0        | 0        | 107.05        | 113.62          |
| 8:00         | 562          | 408         | 37         | 54         | 8          | 2         | 4         | 4         | 1         | 20         | 24         | 0        | 0        | 0        | 106.78        | 113.62          |
| 9:00         | 603          | 450         | 44         | 52         | 8          | 0         | 6         | 9         | 2         | 17         | 15         | 0        | 0        | 0        | 105.90        | 113.44          |
| 10:00        | 590          | 431         | 54         | 47         | 4          | 1         | 4         | 5         | 6         | 21         | 17         | 0        | 0        | 0        | 105.95        | 113.09          |
| 11:00        | 743          | 546         | 47         | 57         | 10         | 1         | 3         | 7         | 2         | 38         | 32         | 0        | 0        | 0        | 106.53        | 113.22          |
| 12:00        | 719          | 546         | 41         | 49         | 5          | 1         | 5         | 5         | 6         | 31         | 30         | 0        | 0        | 0        | 106.33        | 113.44          |
| 13:00        | 790          | 577         | 46         | 55         | 14         | 2         | 3         | 6         | 5         | 45         | 37         | 0        | 0        | 0        | 106.63        | 113.79          |
| 14:00        | 734          | 546         | 31         | 54         | 10         | 1         | 1         | 7         | 3         | 49         | 32         | 0        | 0        | 0        | 106.38        | 113.22          |
| 15:00        | 890          | 680         | 31         | 69         | 6          | 1         | 9         | 4         | 3         | 45         | 41         | 1        | 0        | 0        | 107.45        | 114.71          |
| 16:00        | 848          | 665         | 36         | 65         | 2          | 1         | 8         | 3         | 7         | 34         | 27         | 0        | 0        | 0        | 107.80        | 115.02          |
| 17:00        | 738          | 585         | 23         | 49         | 8          | 0         | 6         | 4         | 2         | 30         | 31         | 0        | 0        | 0        | 108.05        | 115.27          |
| 18:00        | 541          | 415         | 23         | 30         | 2          | 1         | 4         | 1         | 4         | 29         | 32         | 0        | 0        | 0        | 107.93        | 115.24          |
| 19:00        | 418          | 296         | 18         | 27         | 2          | 0         | 1         | 1         | 8         | 19         | 45         | 0        | 0        | 1        | 107.78        | 115.27          |
| 20:00        | 346          | 229         | 10         | 21         | 3          | 0         | 0         | 1         | 1         | 23         | 58         | 0        | 0        | 0        | 106.20        | 113.00          |
| 21:00        | 369          | 235         | 9          | 24         | 1          | 0         | 5         | 2         | 2         | 24         | 67         | 0        | 0        | 0        | 105.53        | 113.44          |
| 22:00        | 238          | 138         | 5          | 10         | 3          | 0         | 3         | 0         | 4         | 18         | 57         | 0        | 0        | 0        | 106.00        | 114.21          |
| 23:00        | 127          | 63          | 0          | 8          | 1          | 0         | 0         | 0         | 1         | 18         | 36         | 0        | 0        | 0        | 104.78        | 112.81          |
| <b>Total</b> | <b>11032</b> | <b>7962</b> | <b>511</b> | <b>868</b> | <b>137</b> | <b>14</b> | <b>82</b> | <b>73</b> | <b>81</b> | <b>577</b> | <b>725</b> | <b>1</b> | <b>0</b> | <b>1</b> | <b>106.43</b> | <b>113.86</b>   |

Light 77% Heavy 23%

## Friday, 25 November 2016

| Time         | Total        | 1            | 2          | 3          | 4          | 5         | 6          | 7         | 8         | 9          | 10         | 11        | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|--------------|------------|------------|------------|-----------|------------|-----------|-----------|------------|------------|-----------|----------|----------|---------------|-----------------|
| 0:00         | 136          | 74           | 2          | 6          | 1          | 0         | 2          | 0         | 2         | 13         | 36         | 0         | 0        | 0        | 105.43        | 113.90          |
| 1:00         | 115          | 44           | 3          | 9          | 2          | 0         | 1          | 1         | 3         | 19         | 33         | 0         | 0        | 0        | 103.68        | 110.20          |
| 2:00         | 80           | 34           | 1          | 5          | 2          | 0         | 0          | 2         | 2         | 15         | 19         | 0         | 0        | 0        | 103.95        | 114.57          |
| 3:00         | 73           | 35           | 1          | 8          | 3          | 0         | 2          | 0         | 1         | 10         | 12         | 1         | 0        | 0        | 105.23        | 113.62          |
| 4:00         | 124          | 79           | 3          | 14         | 2          | 3         | 0          | 4         | 2         | 10         | 7          | 0         | 0        | 0        | 106.40        | 112.52          |
| 5:00         | 273          | 192          | 9          | 22         | 5          | 2         | 2          | 4         | 5         | 8          | 23         | 0         | 0        | 1        | 106.83        | 115.59          |
| 6:00         | 472          | 320          | 24         | 63         | 13         | 3         | 2          | 6         | 3         | 20         | 17         | 1         | 0        | 0        | 107.35        | 115.24          |
| 7:00         | 548          | 420          | 25         | 55         | 6          | 0         | 5          | 2         | 8         | 13         | 14         | 0         | 0        | 0        | 106.73        | 113.97          |
| 8:00         | 645          | 506          | 37         | 49         | 6          | 2         | 7          | 1         | 4         | 18         | 14         | 1         | 0        | 0        | 107.13        | 113.80          |
| 9:00         | 765          | 610          | 55         | 45         | 7          | 0         | 8          | 5         | 5         | 14         | 13         | 3         | 0        | 0        | 107.08        | 113.97          |
| 10:00        | 825          | 620          | 70         | 65         | 5          | 2         | 9          | 6         | 3         | 23         | 22         | 0         | 0        | 0        | 106.93        | 114.50          |
| 11:00        | 933          | 720          | 67         | 63         | 13         | 1         | 9          | 6         | 3         | 26         | 25         | 0         | 0        | 0        | 106.45        | 113.83          |
| 12:00        | 1027         | 809          | 67         | 63         | 9          | 1         | 5          | 8         | 7         | 33         | 24         | 1         | 0        | 0        | 106.98        | 113.62          |
| 13:00        | 1120         | 887          | 76         | 62         | 8          | 1         | 14         | 2         | 1         | 36         | 32         | 0         | 0        | 1        | 106.88        | 113.80          |
| 14:00        | 1120         | 908          | 50         | 73         | 7          | 0         | 8          | 8         | 2         | 43         | 21         | 0         | 0        | 0        | 107.33        | 114.10          |
| 15:00        | 1125         | 902          | 59         | 72         | 5          | 1         | 10         | 5         | 3         | 40         | 28         | 0         | 0        | 0        | 107.98        | 114.93          |
| 16:00        | 1161         | 947          | 62         | 77         | 6          | 0         | 12         | 4         | 1         | 30         | 21         | 1         | 0        | 0        | 108.60        | 115.42          |
| 17:00        | 1183         | 979          | 64         | 72         | 2          | 1         | 16         | 3         | 3         | 21         | 21         | 1         | 0        | 0        | 109.08        | 115.24          |
| 18:00        | 849          | 717          | 44         | 53         | 2          | 0         | 2          | 3         | 1         | 8          | 19         | 0         | 0        | 0        | 109.35        | 116.30          |
| 19:00        | 656          | 539          | 34         | 38         | 0          | 0         | 0          | 0         | 0         | 17         | 28         | 0         | 0        | 0        | 109.28        | 116.12          |
| 20:00        | 591          | 462          | 29         | 33         | 0          | 1         | 4          | 2         | 2         | 22         | 36         | 0         | 0        | 0        | 107.23        | 115.42          |
| 21:00        | 536          | 393          | 25         | 16         | 1          | 0         | 4          | 3         | 1         | 21         | 72         | 0         | 0        | 0        | 107.45        | 114.80          |
| 22:00        | 328          | 222          | 16         | 20         | 2          | 0         | 2          | 1         | 0         | 16         | 48         | 1         | 0        | 0        | 107.20        | 115.27          |
| 23:00        | 196          | 131          | 8          | 7          | 0          | 0         | 2          | 0         | 4         | 7          | 37         | 0         | 0        | 0        | 106.08        | 114.89          |
| <b>Total</b> | <b>14881</b> | <b>11550</b> | <b>831</b> | <b>990</b> | <b>107</b> | <b>18</b> | <b>126</b> | <b>76</b> | <b>66</b> | <b>483</b> | <b>622</b> | <b>10</b> | <b>0</b> | <b>2</b> | <b>106.94</b> | <b>114.40</b>   |

Light 83% Heavy 17%

## Saturday, 26 November 2016

| Time         | Total        | 1           | 2          | 3          | 4         | 5        | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|-----------|----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 126          | 83          | 0          | 5          | 1         | 0        | 0         | 0         | 0         | 17         | 20         | 0        | 0        | 0        | 105.98        | 114.89          |
| 1:00         | 89           | 48          | 1          | 6          | 1         | 0        | 0         | 1         | 1         | 10         | 21         | 0        | 0        | 0        | 104.60        | 113.31          |
| 2:00         | 61           | 29          | 2          | 6          | 2         | 0        | 1         | 0         | 1         | 7          | 13         | 0        | 0        | 0        | 105.95        | 112.98          |
| 3:00         | 69           | 41          | 2          | 5          | 2         | 0        | 0         | 1         | 0         | 6          | 12         | 0        | 0        | 0        | 104.70        | 117.97          |
| 4:00         | 86           | 59          | 4          | 6          | 1         | 0        | 2         | 1         | 0         | 5          | 8          | 0        | 0        | 0        | 107.13        | 118.09          |
| 5:00         | 165          | 120         | 13         | 15         | 1         | 2        | 2         | 0         | 0         | 6          | 5          | 0        | 0        | 1        | 106.43        | 116.15          |
| 6:00         | 318          | 243         | 21         | 26         | 2         | 1        | 2         | 0         | 1         | 12         | 10         | 0        | 0        | 0        | 108.63        | 116.41          |
| 7:00         | 518          | 394         | 49         | 44         | 1         | 0        | 12        | 4         | 2         | 4          | 7          | 0        | 0        | 1        | 107.20        | 114.19          |
| 8:00         | 707          | 565         | 51         | 40         | 4         | 0        | 9         | 2         | 0         | 21         | 15         | 0        | 0        | 0        | 107.43        | 114.71          |
| 9:00         | 841          | 707         | 50         | 49         | 2         | 0        | 10        | 5         | 0         | 5          | 13         | 0        | 0        | 0        | 107.33        | 113.97          |
| 10:00        | 906          | 770         | 49         | 49         | 4         | 1        | 5         | 6         | 1         | 11         | 9          | 0        | 0        | 1        | 100.55        | 113.61          |
| 11:00        | 873          | 704         | 69         | 69         | 1         | 0        | 4         | 4         | 0         | 11         | 11         | 0        | 0        | 0        | 106.88        | 113.40          |
| 12:00        | 796          | 675         | 43         | 41         | 1         | 1        | 6         | 3         | 1         | 13         | 11         | 1        | 0        | 0        | 106.15        | 113.97          |
| 13:00        | 809          | 685         | 41         | 48         | 0         | 0        | 4         | 1         | 2         | 17         | 11         | 0        | 0        | 0        | 108.15        | 115.41          |
| 14:00        | 776          | 659         | 42         | 40         | 3         | 0        | 9         | 3         | 2         | 5          | 13         | 0        | 0        | 0        | 107.78        | 114.71          |
| 15:00        | 720          | 603         | 35         | 49         | 3         | 0        | 2         | 2         | 1         | 13         | 12         | 0        | 0        | 0        | 107.93        | 114.80          |
| 16:00        | 590          | 512         | 18         | 31         | 0         | 0        | 3         | 2         | 0         | 6          | 18         | 0        | 0        | 0        | 107.55        | 113.62          |
| 17:00        | 509          | 438         | 18         | 25         | 2         | 0        | 3         | 1         | 3         | 5          | 14         | 0        | 0        | 0        | 108.20        | 115.02          |
| 18:00        | 359          | 294         | 18         | 21         | 1         | 0        | 2         | 0         | 2         | 1          | 20         | 0        | 0        | 0        | 107.93        | 115.41          |
| 19:00        | 250          | 207         | 10         | 17         | 0         | 0        | 1         | 0         | 0         | 4          | 11         | 0        | 0        | 0        | 109.18        | 116.76          |
| 20:00        | 213          | 174         | 8          | 12         | 1         | 0        | 1         | 0         | 1         | 3          | 13         | 0        | 0        | 0        | 107.20        | 114.49          |
| 21:00        | 176          | 147         | 5          | 11         | 0         | 0        | 1         | 0         | 1         | 1          | 10         | 0        | 0        | 0        | 106.68        | 114.19          |
| 22:00        | 122          | 97          | 3          | 8          | 2         | 0        | 0         | 0         | 2         | 4          | 6          | 0        | 0        | 0        | 107.20        | 117.29          |
| 23:00        | 118          | 104         | 3          | 8          | 0         | 0        | 1         | 0         | 0         | 1          | 1          | 0        | 0        | 0        | 108.20        | 115.79          |
| <b>Total</b> | <b>10197</b> | <b>8358</b> | <b>555</b> | <b>631</b> | <b>35</b> | <b>5</b> | <b>80</b> | <b>36</b> | <b>21</b> | <b>188</b> | <b>284</b> | <b>1</b> | <b>0</b> | <b>3</b> | <b>106.87</b> | <b>115.04</b>   |

Light 87% Heavy 13%

## Sunday, 27 November 2016

| Time  | Total | 1    | 2   | 3   | 4  | 5 | 6  | 7  | 8  | 9   | 10  | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|------|-----|-----|----|---|----|----|----|-----|-----|----|----|----|--------|-----------------|
| 0:00  | 83    | 66   | 1   | 8   | 0  | 0 | 1  | 1  | 0  | 3   | 3   | 0  | 0  | 0  | 107.18 | 115.99          |
| 1:00  | 50    | 34   | 2   | 5   | 2  | 0 | 0  | 0  | 0  | 2   | 5   | 0  | 0  | 0  | 106.75 | 113.30          |
| 2:00  | 28    | 21   | 0   | 3   | 1  | 0 | 1  | 0  | 0  | 1   | 1   | 0  | 0  | 0  | 105.95 | 109.10          |
| 3:00  | 28    | 18   | 2   | 2   | 0  | 0 | 0  | 1  | 0  | 2   | 3   | 0  | 0  | 0  | 105.68 | -               |
| 4:00  | 52    | 37   | 3   | 3   | 0  | 0 | 1  | 0  | 1  | 3   | 4   | 0  | 0  | 0  | 106.48 | 114.17          |
| 5:00  | 110   | 88   | 12  | 7   | 0  | 0 | 1  | 1  | 0  | 0   | 1   | 0  | 0  | 0  | 107.10 | 117.79          |
| 6:00  | 177   | 147  | 10  | 13  | 1  | 0 | 3  | 0  | 1  | 1   | 1   | 0  | 0  | 0  | 108.35 | 115.27          |
| 7:00  | 291   | 231  | 28  | 17  | 2  | 0 | 2  | 1  | 2  | 3   | 5   | 0  | 0  | 0  | 107.33 | 115.24          |
| 8:00  | 454   | 368  | 21  | 36  | 3  | 1 | 7  | 2  | 1  | 8   | 7   | 0  | 0  | 0  | 107.28 | 114.19          |
| 9:00  | 649   | 539  | 54  | 35  | 0  | 0 | 5  | 1  | 0  | 5   | 10  | 0  | 0  | 0  | 108.05 | 114.49          |
| 10:00 | 772   | 648  | 54  | 42  | 1  | 4 | 10 | 1  | 1  | 4   | 7   | 0  | 0  | 0  | 108.00 | 115.24          |
| 11:00 | 858   | 742  | 40  | 46  | 4  | 0 | 3  | 2  | 0  | 10  | 11  | 0  | 0  | 0  | 107.38 | 114.19          |
| 12:00 | 892   | 768  | 39  | 41  | 2  | 0 | 5  | 6  | 3  | 8   | 20  | 0  | 0  | 0  | 107.78 | 114.49          |
| 13:00 | 874   | 732  | 52  | 35  | 1  | 1 | 4  | 6  | 2  | 19  | 21  | 1  | 0  | 0  | 107.15 | 114.32          |
| 14:00 | 859   | 743  | 35  | 36  | 5  | 0 | 5  | 0  | 2  | 14  | 19  | 0  | 0  | 0  | 107.80 | 114.19          |
| 15:00 | 823   | 712  | 34  | 35  | 1  | 3 | 5  | 2  | 2  | 12  | 17  | 0  | 0  | 0  | 108.40 | 114.71          |
| 16:00 | 764   | 657  | 34  | 36  | 0  | 0 | 4  | 0  | 2  | 11  | 20  | 0  | 0  | 0  | 108.55 | 114.49          |
| 17:00 | 613   | 506  | 27  | 36  | 1  | 0 | 5  | 3  | 6  | 10  | 18  | 0  | 1  | 0  | 108.40 | 114.80          |
| 18:00 | 410   | 341  | 12  | 27  | 0  | 0 | 3  | 2  | 1  | 9   | 15  | 0  | 0  | 0  | 108.30 | 115.02          |
| 19:00 | 332   | 257  | 10  | 30  | 0  | 0 | 4  | 2  | 3  | 5   | 21  | 0  | 0  | 0  | 106.83 | 115.41          |
| 20:00 | 232   | 177  | 14  | 16  | 1  | 0 | 0  | 2  | 0  | 6   | 16  | 0  | 0  | 0  | 107.15 | 114.96          |
| 21:00 | 159   | 115  | 6   | 12  | 0  | 0 | 3  | 0  | 1  | 10  | 12  | 0  | 0  | 0  | 106.33 | 117.97          |
| 22:00 | 120   | 85   | 7   | 10  | 2  | 0 | 1  | 0  | 1  | 7   | 7   | 0  | 0  | 0  | 107.43 | 115.42          |
| 23:00 | 68    | 43   | 1   | 8   | 0  | 0 | 0  | 2  | 0  | 1   | 13  | 0  | 0  | 0  | 105.80 | 114.49          |
| Total | 9698  | 8075 | 498 | 539 | 27 | 9 | 73 | 35 | 29 | 154 | 257 | 1  | 1  | 0  | 107.31 | 114.75          |

Light 88% Heavy 12%

## Monday, 28 November 2016

| Time  | Total | 1    | 2   | 3   | 4   | 5  | 6  | 7  | 8  | 9   | 10  | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|------|-----|-----|-----|----|----|----|----|-----|-----|----|----|----|--------|-----------------|
| 0:00  | 47    | 19   | 2   | 10  | 0   | 0  | 1  | 0  | 0  | 6   | 9   | 0  | 0  | 0  | 106.23 | 111.39          |
| 1:00  | 45    | 25   | 2   | 6   | 4   | 0  | 0  | 0  | 0  | 3   | 5   | 0  | 0  | 0  | 107.45 | 113.67          |
| 2:00  | 23    | 12   | 2   | 4   | 0   | 0  | 0  | 0  | 0  | 3   | 2   | 0  | 0  | 0  | 105.78 | -               |
| 3:00  | 54    | 26   | 1   | 11  | 0   | 0  | 1  | 0  | 3  | 9   | 3   | 0  | 0  | 0  | 106.73 | 119.75          |
| 4:00  | 102   | 53   | 1   | 23  | 4   | 1  | 2  | 1  | 3  | 10  | 4   | 0  | 0  | 0  | 107.68 | 120.11          |
| 5:00  | 266   | 179  | 8   | 32  | 3   | 3  | 3  | 4  | 6  | 17  | 11  | 0  | 0  | 0  | 108.08 | 116.98          |
| 6:00  | 495   | 344  | 18  | 72  | 11  | 3  | 4  | 3  | 6  | 15  | 17  | 2  | 0  | 0  | 108.00 | 117.81          |
| 7:00  | 525   | 388  | 20  | 67  | 7   | 4  | 4  | 4  | 2  | 19  | 9   | 1  | 0  | 0  | 107.08 | 113.80          |
| 8:00  | 587   | 449  | 31  | 61  | 6   | 1  | 6  | 4  | 8  | 15  | 6   | 0  | 0  | 0  | 106.88 | 113.97          |
| 9:00  | 677   | 507  | 43  | 54  | 12  | 0  | 7  | 7  | 0  | 34  | 13  | 0  | 0  | 0  | 105.85 | 113.13          |
| 10:00 | 714   | 523  | 42  | 70  | 14  | 0  | 6  | 9  | 7  | 23  | 20  | 0  | 0  | 0  | 106.45 | 113.09          |
| 11:00 | 836   | 665  | 35  | 63  | 10  | 1  | 8  | 4  | 2  | 25  | 23  | 0  | 0  | 0  | 107.28 | 113.62          |
| 12:00 | 845   | 644  | 41  | 49  | 14  | 0  | 6  | 4  | 3  | 42  | 42  | 0  | 0  | 0  | 105.98 | 112.87          |
| 13:00 | 819   | 632  | 33  | 60  | 9   | 2  | 10 | 2  | 4  | 35  | 32  | 0  | 0  | 0  | 106.83 | 113.61          |
| 14:00 | 713   | 535  | 34  | 54  | 3   | 5  | 9  | 4  | 0  | 29  | 40  | 0  | 0  | 0  | 106.68 | 113.80          |
| 15:00 | 771   | 575  | 34  | 56  | 5   | 0  | 6  | 2  | 2  | 52  | 39  | 0  | 0  | 0  | 106.55 | 114.19          |
| 16:00 | 749   | 612  | 17  | 46  | 5   | 1  | 2  | 5  | 2  | 35  | 24  | 0  | 0  | 0  | 107.63 | 114.71          |
| 17:00 | 670   | 520  | 26  | 41  | 4   | 0  | 3  | 2  | 4  | 34  | 36  | 0  | 0  | 0  | 107.53 | 114.89          |
| 18:00 | 418   | 310  | 12  | 29  | 3   | 0  | 1  | 0  | 4  | 31  | 28  | 0  | 0  | 0  | 107.53 | 115.42          |
| 19:00 | 285   | 186  | 4   | 20  | 5   | 0  | 3  | 1  | 0  | 24  | 42  | 0  | 0  | 0  | 106.28 | 114.50          |
| 20:00 | 249   | 155  | 5   | 18  | 1   | 0  | 3  | 2  | 5  | 21  | 39  | 0  | 0  | 0  | 106.48 | 115.49          |
| 21:00 | 226   | 124  | 4   | 9   | 1   | 0  | 1  | 0  | 1  | 24  | 62  | 0  | 0  | 0  | 105.90 | 113.62          |
| 22:00 | 171   | 79   | 0   | 8   | 4   | 1  | 2  | 0  | 3  | 20  | 54  | 0  | 0  | 0  | 104.38 | 112.39          |
| 23:00 | 119   | 44   | 3   | 4   | 0   | 0  | 1  | 0  | 1  | 20  | 46  | 0  | 0  | 0  | 104.90 | 112.70          |
| Total | 10406 | 7606 | 418 | 867 | 125 | 22 | 89 | 58 | 66 | 546 | 606 | 3  | 0  | 0  | 106.67 | 114.58          |

Light 77% Heavy 23%

## Tuesday, 29 November 2016

| Time  | Total | 1    | 2   | 3   | 4   | 5  | 6  | 7  | 8  | 9   | 10  | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|------|-----|-----|-----|----|----|----|----|-----|-----|----|----|----|--------|-----------------|
| 0:00  | 97    | 33   | 3   | 4   | 0   | 1  | 0  | 0  | 1  | 19  | 36  | 0  | 0  | 0  | 103.25 | 109.87          |
| 1:00  | 82    | 31   | 1   | 4   | 1   | 0  | 0  | 0  | 4  | 12  | 29  | 0  | 0  | 0  | 104.40 | 113.22          |
| 2:00  | 53    | 23   | 0   | 6   | 1   | 0  | 1  | 1  | 1  | 5   | 15  | 0  | 0  | 0  | 106.95 | 113.40          |
| 3:00  | 59    | 17   | 3   | 5   | 2   | 1  | 2  | 0  | 3  | 12  | 14  | 0  | 0  | 0  | 104.05 | 111.08          |
| 4:00  | 97    | 59   | 3   | 9   | 4   | 0  | 1  | 2  | 0  | 7   | 12  | 0  | 0  | 0  | 104.98 | 114.97          |
| 5:00  | 233   | 145  | 5   | 27  | 5   | 2  | 4  | 3  | 8  | 20  | 13  | 0  | 0  | 1  | 106.58 | 114.67          |
| 6:00  | 432   | 270  | 17  | 67  | 18  | 1  | 4  | 8  | 4  | 29  | 14  | 0  | 0  | 0  | 107.38 | 115.99          |
| 7:00  | 468   | 302  | 15  | 83  | 11  | 1  | 8  | 8  | 4  | 22  | 14  | 0  | 0  | 0  | 107.05 | 114.19          |
| 8:00  | 488   | 359  | 25  | 54  | 6   | 2  | 0  | 8  | 3  | 19  | 12  | 0  | 0  | 0  | 106.73 | 113.79          |
| 9:00  | 539   | 390  | 20  | 64  | 8   | 1  | 1  | 4  | 2  | 28  | 21  | 0  | 0  | 0  | 105.55 | 113.44          |
| 10:00 | 557   | 402  | 29  | 54  | 9   | 2  | 4  | 6  | 5  | 23  | 23  | 0  | 0  | 0  | 105.68 | 113.00          |
| 11:00 | 592   | 423  | 29  | 55  | 6   | 1  | 6  | 6  | 8  | 34  | 24  | 0  | 0  | 0  | 105.63 | 112.99          |
| 12:00 | 624   | 479  | 17  | 44  | 9   | 0  | 5  | 8  | 2  | 31  | 29  | 0  | 0  | 0  | 106.00 | 112.69          |
| 13:00 | 615   | 463  | 21  | 37  | 11  | 1  | 4  | 6  | 0  | 34  | 38  | 0  | 0  | 0  | 106.25 | 112.87          |
| 14:00 | 703   | 523  | 26  | 52  | 10  | 0  | 3  | 3  | 5  | 44  | 37  | 0  | 0  | 0  | 105.88 | 113.47          |
| 15:00 | 743   | 568  | 17  | 51  | 8   | 1  | 6  | 6  | 3  | 54  | 29  | 0  | 0  | 0  | 107.15 | 113.97          |
| 16:00 | 722   | 570  | 20  | 53  | 5   | 0  | 4  | 3  | 4  | 30  | 33  | 0  | 0  | 0  | 108.08 | 114.93          |
| 17:00 | 656   | 508  | 21  | 38  | 4   | 0  | 2  | 5  | 2  | 34  | 42  | 0  | 0  | 0  | 107.85 | 115.02          |
| 18:00 | 413   | 290  | 9   | 32  | 7   | 1  | 5  | 0  | 1  | 30  | 38  | 0  | 0  | 0  | 107.88 | 115.77          |
| 19:00 | 308   | 196  | 6   | 30  | 4   | 0  | 2  | 3  | 3  | 20  | 44  | 0  | 0  | 0  | 107.48 | 115.42          |
| 20:00 | 237   | 138  | 6   | 12  | 1   | 0  | 1  | 2  | 5  | 20  | 51  | 0  | 1  | 0  | 105.00 | 113.22          |
| 21:00 | 254   | 139  | 5   | 12  | 1   | 0  | 2  | 0  | 3  | 23  | 69  | 0  | 0  | 0  | 105.45 | 113.00          |
| 22:00 | 159   | 70   | 1   | 6   | 4   | 0  | 1  | 0  | 2  | 20  | 55  | 0  | 0  | 0  | 104.18 | 112.63          |
| 23:00 | 114   | 39   | 1   | 7   | 2   | 0  | 1  | 1  | 1  | 14  | 48  | 0  | 0  | 0  | 103.68 | 111.19          |
| Total | 9245  | 6437 | 300 | 806 | 137 | 15 | 67 | 83 | 74 | 584 | 740 | 0  | 1  | 1  | 105.96 | 113.53          |

Light 73% Heavy 27%

Wednesday, 30 November 2016

| Time  | Total | 1    | 2   | 3   | 4   | 5  | 6  | 7  | 8  | 9   | 10  | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|------|-----|-----|-----|----|----|----|----|-----|-----|----|----|----|--------|-----------------|
| 0:00  | 109   | 31   | 0   | 7   | 0   | 0  | 2  | 0  | 3  | 21  | 45  | 0  | 0  | 0  | 103.33 | 110.86          |
| 1:00  | 81    | 25   | 2   | 8   | 2   | 0  | 0  | 2  | 0  | 13  | 29  | 0  | 0  | 0  | 104.10 | 110.93          |
| 2:00  | 63    | 20   | 0   | 7   | 0   | 0  | 1  | 1  | 0  | 12  | 22  | 0  | 0  | 0  | 103.70 | 112.32          |
| 3:00  | 70    | 30   | 1   | 7   | 2   | 3  | 0  | 3  | 1  | 10  | 13  | 0  | 0  | 0  | 104.13 | 110.89          |
| 4:00  | 97    | 41   | 1   | 17  | 2   | 2  | 4  | 0  | 3  | 14  | 13  | 0  | 0  | 0  | 104.58 | 112.69          |
| 5:00  | 216   | 139  | 2   | 26  | 5   | 3  | 4  | 4  | 4  | 12  | 17  | 0  | 0  | 0  | 107.15 | 115.42          |
| 6:00  | 429   | 271  | 11  | 71  | 13  | 4  | 5  | 5  | 3  | 28  | 17  | 0  | 0  | 1  | 106.15 | 117.59          |
| 7:00  | 460   | 312  | 12  | 73  | 12  | 2  | 5  | 3  | 4  | 24  | 13  | 0  | 0  | 0  | 107.10 | 114.61          |
| 8:00  | 468   | 333  | 24  | 51  | 11  | 2  | 6  | 6  | 3  | 18  | 12  | 2  | 0  | 0  | 106.75 | 113.62          |
| 9:00  | 549   | 415  | 22  | 45  | 10  | 3  | 8  | 3  | 1  | 24  | 17  | 0  | 0  | 1  | 106.08 | 113.80          |
| 10:00 | 539   | 402  | 23  | 43  | 10  | 3  | 4  | 6  | 3  | 14  | 30  | 1  | 0  | 0  | 106.03 | 113.62          |
| 11:00 | 597   | 441  | 28  | 43  | 12  | 1  | 11 | 3  | 4  | 28  | 26  | 0  | 0  | 0  | 106.85 | 113.83          |
| 12:00 | 696   | 516  | 21  | 52  | 16  | 1  | 4  | 6  | 4  | 36  | 40  | 0  | 0  | 0  | 106.30 | 112.70          |
| 13:00 | 675   | 501  | 28  | 42  | 14  | 0  | 4  | 2  | 4  | 44  | 36  | 0  | 0  | 0  | 106.15 | 113.62          |
| 14:00 | 692   | 501  | 40  | 47  | 9   | 1  | 5  | 10 | 2  | 39  | 38  | 0  | 0  | 0  | 106.08 | 113.62          |
| 15:00 | 764   | 554  | 27  | 61  | 4   | 0  | 6  | 6  | 6  | 49  | 51  | 0  | 0  | 0  | 106.68 | 113.40          |
| 16:00 | 759   | 593  | 20  | 65  | 6   | 1  | 6  | 6  | 2  | 30  | 30  | 0  | 0  | 0  | 107.80 | 114.19          |
| 17:00 | 636   | 499  | 21  | 40  | 4   | 0  | 3  | 0  | 5  | 32  | 32  | 0  | 0  | 0  | 107.60 | 114.67          |
| 18:00 | 473   | 353  | 13  | 25  | 4   | 0  | 2  | 2  | 3  | 32  | 39  | 0  | 0  | 0  | 107.08 | 114.19          |
| 19:00 | 290   | 198  | 11  | 20  | 1   | 1  | 1  | 2  | 2  | 19  | 35  | 0  | 0  | 0  | 106.90 | 114.35          |
| 20:00 | 286   | 169  | 5   | 18  | 2   | 0  | 4  | 3  | 1  | 23  | 61  | 0  | 0  | 0  | 105.85 | 113.62          |
| 21:00 | 256   | 143  | 8   | 17  | 2   | 0  | 4  | 0  | 2  | 16  | 64  | 0  | 0  | 0  | 105.85 | 115.59          |
| 22:00 | 169   | 72   | 5   | 10  | 3   | 0  | 1  | 1  | 3  | 18  | 56  | 0  | 0  | 0  | 104.05 | 113.51          |
| 23:00 | 129   | 53   | 2   | 5   | 1   | 0  | 1  | 0  | 1  | 11  | 55  | 0  | 0  | 0  | 104.93 | 111.82          |
| Total | 9503  | 6612 | 327 | 800 | 145 | 27 | 91 | 74 | 64 | 567 | 791 | 3  | 0  | 2  | 105.88 | 113.56          |

Light 73% Heavy 27%

## Weekday Average

| Time         | Total        | 1           | 2          | 3          | 4          | 5         | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 103          | 44          | 1          | 7          | 0          | 0         | 1         | 0         | 2         | 14         | 32         | 0        | 0        | 0        | 104.77        | 111.76          |
| 1:00         | 84           | 32          | 2          | 7          | 3          | 0         | 0         | 1         | 2         | 13         | 25         | 0        | 0        | 0        | 104.74        | 111.90          |
| 2:00         | 57           | 26          | 1          | 5          | 1          | 0         | 0         | 1         | 1         | 8          | 15         | 0        | 0        | 0        | 105.24        | 113.11          |
| 3:00         | 67           | 31          | 2          | 7          | 2          | 1         | 1         | 1         | 2         | 10         | 12         | 0        | 0        | 0        | 104.84        | 113.67          |
| 4:00         | 115          | 68          | 3          | 16         | 3          | 1         | 1         | 1         | 2         | 10         | 9          | 0        | 0        | 0        | 105.96        | 114.97          |
| 5:00         | 246          | 163         | 6          | 25         | 6          | 2         | 3         | 3         | 6         | 16         | 15         | 0        | 0        | 0        | 107.17        | 115.61          |
| 6:00         | 453          | 300         | 17         | 67         | 14         | 2         | 4         | 5         | 4         | 22         | 15         | 1        | 0        | 0        | 107.44        | 116.67          |
| 7:00         | 514          | 365         | 19         | 70         | 9          | 2         | 6         | 5         | 5         | 20         | 13         | 0        | 0        | 0        | 107.00        | 114.04          |
| 8:00         | 550          | 411         | 31         | 54         | 7          | 2         | 5         | 5         | 4         | 18         | 14         | 1        | 0        | 0        | 106.85        | 113.76          |
| 9:00         | 627          | 474         | 37         | 52         | 9          | 1         | 6         | 6         | 2         | 23         | 16         | 1        | 0        | 0        | 106.09        | 113.55          |
| 10:00        | 645          | 476         | 44         | 56         | 8          | 2         | 5         | 6         | 5         | 21         | 22         | 0        | 0        | 0        | 106.21        | 113.46          |
| 11:00        | 740          | 559         | 41         | 56         | 10         | 1         | 7         | 5         | 4         | 30         | 26         | 0        | 0        | 0        | 106.55        | 113.50          |
| 12:00        | 782          | 599         | 37         | 51         | 11         | 1         | 5         | 6         | 4         | 35         | 33         | 0        | 0        | 0        | 106.32        | 113.06          |
| 13:00        | 804          | 612         | 41         | 51         | 11         | 1         | 7         | 4         | 3         | 39         | 35         | 0        | 0        | 0        | 106.55        | 113.54          |
| 14:00        | 792          | 603         | 36         | 56         | 8          | 1         | 5         | 6         | 2         | 41         | 34         | 0        | 0        | 0        | 106.47        | 113.64          |
| 15:00        | 859          | 656         | 34         | 62         | 6          | 1         | 7         | 5         | 3         | 48         | 38         | 0        | 0        | 0        | 107.16        | 114.24          |
| 16:00        | 848          | 677         | 31         | 61         | 5          | 1         | 6         | 4         | 3         | 32         | 27         | 0        | 0        | 0        | 107.98        | 114.85          |
| 17:00        | 777          | 618         | 31         | 48         | 4          | 0         | 6         | 3         | 3         | 30         | 32         | 0        | 0        | 0        | 108.02        | 115.02          |
| 18:00        | 539          | 417         | 20         | 34         | 4          | 0         | 3         | 1         | 3         | 26         | 31         | 0        | 0        | 0        | 107.95        | 115.38          |
| 19:00        | 391          | 283         | 15         | 27         | 2          | 0         | 1         | 1         | 3         | 20         | 39         | 0        | 0        | 0        | 107.54        | 115.13          |
| 20:00        | 342          | 231         | 11         | 20         | 1          | 0         | 2         | 2         | 3         | 22         | 49         | 0        | 0        | 0        | 106.15        | 114.15          |
| 21:00        | 328          | 207         | 10         | 16         | 1          | 0         | 3         | 1         | 2         | 22         | 67         | 0        | 0        | 0        | 106.04        | 114.09          |
| 22:00        | 213          | 116         | 5          | 11         | 3          | 0         | 2         | 0         | 2         | 18         | 54         | 0        | 0        | 0        | 105.16        | 113.60          |
| 23:00        | 137          | 66          | 3          | 6          | 1          | 0         | 1         | 0         | 2         | 14         | 44         | 0        | 0        | 0        | 104.87        | 112.68          |
| <b>Total</b> | <b>11013</b> | <b>8033</b> | <b>477</b> | <b>866</b> | <b>130</b> | <b>19</b> | <b>91</b> | <b>73</b> | <b>70</b> | <b>551</b> | <b>697</b> | <b>3</b> | <b>0</b> | <b>1</b> | <b>106.38</b> | <b>115.37</b>   |

Light 77% Heavy 23%

## Weekend Average

| Time         | Total       | 1           | 2          | 3          | 4         | 5        | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 105         | 75          | 1          | 7          | 1         | 0        | 1         | 1         | 0         | 10         | 12         | 0        | 0        | 0        | 106.58        | 115.44          |
| 1:00         | 70          | 41          | 2          | 6          | 2         | 0        | 0         | 1         | 1         | 6          | 13         | 0        | 0        | 0        | 105.68        | 113.30          |
| 2:00         | 45          | 25          | 1          | 5          | 2         | 0        | 1         | 0         | 1         | 4          | 7          | 0        | 0        | 0        | 105.95        | 111.04          |
| 3:00         | 49          | 30          | 2          | 4          | 1         | 0        | 0         | 1         | 0         | 4          | 8          | 0        | 0        | 0        | 105.19        | 117.97          |
| 4:00         | 69          | 48          | 4          | 5          | 1         | 0        | 2         | 1         | 1         | 4          | 6          | 0        | 0        | 0        | 106.80        | 116.13          |
| 5:00         | 138         | 104         | 13         | 11         | 1         | 1        | 2         | 1         | 0         | 3          | 3          | 0        | 0        | 1        | 106.76        | 116.97          |
| 6:00         | 248         | 195         | 16         | 20         | 2         | 1        | 3         | 0         | 1         | 7          | 6          | 0        | 0        | 0        | 108.49        | 115.84          |
| 7:00         | 405         | 313         | 39         | 31         | 2         | 0        | 7         | 3         | 2         | 4          | 6          | 0        | 0        | 1        | 107.26        | 114.71          |
| 8:00         | 581         | 467         | 36         | 38         | 4         | 1        | 8         | 2         | 1         | 15         | 11         | 0        | 0        | 0        | 107.35        | 114.45          |
| 9:00         | 745         | 623         | 52         | 42         | 1         | 0        | 8         | 3         | 0         | 5          | 12         | 0        | 0        | 0        | 107.69        | 114.23          |
| 10:00        | 839         | 709         | 52         | 46         | 3         | 3        | 8         | 4         | 1         | 8          | 8          | 0        | 0        | 1        | 104.28        | 114.42          |
| 11:00        | 866         | 723         | 55         | 58         | 3         | 0        | 4         | 3         | 0         | 11         | 11         | 0        | 0        | 0        | 107.13        | 113.79          |
| 12:00        | 844         | 722         | 41         | 41         | 2         | 1        | 6         | 5         | 2         | 11         | 16         | 1        | 0        | 0        | 106.96        | 114.23          |
| 13:00        | 842         | 709         | 47         | 42         | 1         | 1        | 4         | 4         | 2         | 18         | 16         | 1        | 0        | 0        | 107.65        | 114.86          |
| 14:00        | 818         | 701         | 39         | 38         | 4         | 0        | 7         | 2         | 2         | 10         | 16         | 0        | 0        | 0        | 107.79        | 114.45          |
| 15:00        | 772         | 658         | 35         | 42         | 2         | 2        | 4         | 2         | 2         | 13         | 15         | 0        | 0        | 0        | 108.16        | 114.75          |
| 16:00        | 677         | 585         | 26         | 34         | 0         | 0        | 4         | 1         | 1         | 9          | 19         | 0        | 0        | 0        | 108.05        | 114.05          |
| 17:00        | 561         | 472         | 23         | 31         | 2         | 0        | 4         | 2         | 5         | 8          | 16         | 0        | 1        | 0        | 108.30        | 114.91          |
| 18:00        | 385         | 318         | 15         | 24         | 1         | 0        | 3         | 1         | 2         | 5          | 18         | 0        | 0        | 0        | 108.11        | 115.21          |
| 19:00        | 291         | 232         | 10         | 24         | 0         | 0        | 3         | 1         | 2         | 5          | 16         | 0        | 0        | 0        | 108.00        | 116.08          |
| 20:00        | 223         | 176         | 11         | 14         | 1         | 0        | 1         | 1         | 1         | 5          | 15         | 0        | 0        | 0        | 107.18        | 114.72          |
| 21:00        | 168         | 131         | 6          | 12         | 0         | 0        | 2         | 0         | 1         | 6          | 11         | 0        | 0        | 0        | 106.50        | 116.08          |
| 22:00        | 121         | 91          | 5          | 9          | 2         | 0        | 1         | 0         | 2         | 6          | 7          | 0        | 0        | 0        | 107.31        | 116.36          |
| 23:00        | 93          | 74          | 2          | 8          | 0         | 0        | 1         | 1         | 0         | 1          | 7          | 0        | 0        | 0        | 107.00        | 115.14          |
| <b>Total</b> | <b>9948</b> | <b>8217</b> | <b>527</b> | <b>585</b> | <b>31</b> | <b>7</b> | <b>77</b> | <b>36</b> | <b>25</b> | <b>171</b> | <b>271</b> | <b>1</b> | <b>1</b> | <b>2</b> | <b>107.09</b> | <b>116.01</b>   |

Light 88% Heavy 12%

## 7-Day Average

| Time         | Total        | 1           | 2          | 3          | 4          | 5         | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 103          | 53          | 1          | 7          | 0          | 0         | 1         | 0         | 1         | 13         | 26         | 0        | 0        | 0        | 105.29        | 112.81          |
| 1:00         | 80           | 34          | 2          | 6          | 2          | 0         | 0         | 1         | 1         | 11         | 21         | 0        | 0        | 0        | 105.00        | 112.30          |
| 2:00         | 54           | 26          | 1          | 5          | 1          | 0         | 1         | 1         | 1         | 7          | 12         | 0        | 0        | 0        | 105.44        | 112.42          |
| 3:00         | 62           | 31          | 2          | 6          | 2          | 1         | 1         | 1         | 1         | 8          | 10         | 0        | 0        | 0        | 104.94        | 114.38          |
| 4:00         | 102          | 62          | 3          | 13         | 2          | 1         | 1         | 1         | 2         | 8          | 8          | 0        | 0        | 0        | 106.20        | 115.30          |
| 5:00         | 215          | 146         | 8          | 21         | 4          | 2         | 3         | 2         | 4         | 12         | 12         | 0        | 0        | 0        | 107.05        | 116.00          |
| 6:00         | 394          | 270         | 17         | 54         | 10         | 2         | 4         | 3         | 3         | 18         | 13         | 0        | 0        | 0        | 107.74        | 116.43          |
| 7:00         | 483          | 350         | 25         | 59         | 7          | 1         | 6         | 4         | 4         | 15         | 11         | 0        | 0        | 0        | 107.08        | 114.23          |
| 8:00         | 559          | 427         | 32         | 49         | 6          | 1         | 6         | 4         | 3         | 17         | 13         | 0        | 0        | 0        | 106.99        | 113.95          |
| 9:00         | 660          | 517         | 41         | 49         | 7          | 1         | 6         | 5         | 1         | 18         | 15         | 0        | 0        | 0        | 106.55        | 113.75          |
| 10:00        | 700          | 542         | 46         | 53         | 7          | 2         | 6         | 6         | 4         | 17         | 18         | 0        | 0        | 0        | 105.65        | 113.73          |
| 11:00        | 776          | 606         | 45         | 57         | 8          | 1         | 6         | 5         | 3         | 25         | 22         | 0        | 0        | 0        | 106.71        | 113.58          |
| 12:00        | 800          | 634         | 38         | 48         | 8          | 1         | 5         | 6         | 4         | 28         | 28         | 0        | 0        | 0        | 106.50        | 113.39          |
| 13:00        | 815          | 640         | 42         | 48         | 8          | 1         | 6         | 4         | 3         | 33         | 30         | 0        | 0        | 0        | 106.86        | 113.91          |
| 14:00        | 800          | 631         | 37         | 51         | 7          | 1         | 6         | 5         | 2         | 32         | 29         | 0        | 0        | 0        | 106.84        | 113.87          |
| 15:00        | 834          | 656         | 34         | 56         | 5          | 1         | 6         | 4         | 3         | 38         | 31         | 0        | 0        | 0        | 107.45        | 114.38          |
| 16:00        | 799          | 651         | 30         | 53         | 3          | 0         | 6         | 3         | 3         | 25         | 25         | 0        | 0        | 0        | 108.00        | 114.62          |
| 17:00        | 715          | 576         | 29         | 43         | 4          | 0         | 5         | 3         | 4         | 24         | 28         | 0        | 0        | 0        | 108.10        | 114.99          |
| 18:00        | 495          | 389         | 19         | 31         | 3          | 0         | 3         | 1         | 2         | 20         | 27         | 0        | 0        | 0        | 108.00        | 115.33          |
| 19:00        | 363          | 268         | 13         | 26         | 2          | 0         | 2         | 1         | 2         | 15         | 32         | 0        | 0        | 0        | 107.67        | 115.40          |
| 20:00        | 308          | 215         | 11         | 19         | 1          | 0         | 2         | 2         | 2         | 17         | 39         | 0        | 0        | 0        | 106.44        | 114.31          |
| 21:00        | 282          | 185         | 9          | 14         | 1          | 0         | 3         | 1         | 2         | 17         | 51         | 0        | 0        | 0        | 106.17        | 114.66          |
| 22:00        | 187          | 109         | 5          | 10         | 3          | 0         | 1         | 0         | 2         | 15         | 40         | 0        | 0        | 0        | 105.78        | 114.39          |
| 23:00        | 124          | 68          | 3          | 7          | 1          | 0         | 1         | 0         | 1         | 10         | 34         | 0        | 0        | 0        | 105.48        | 113.38          |
| <b>Total</b> | <b>10709</b> | <b>8086</b> | <b>491</b> | <b>786</b> | <b>102</b> | <b>16</b> | <b>87</b> | <b>62</b> | <b>57</b> | <b>443</b> | <b>575</b> | <b>3</b> | <b>0</b> | <b>1</b> | <b>106.58</b> | <b>115.55</b>   |

Light 80% Heavy 20%

## Thursday, 24 November 2016

| Time         | Total        | 1           | 2          | 3          | 4          | 5         | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 73           | 25          | 1          | 4          | 0          | 0         | 1         | 1         | 2         | 14         | 25         | 0        | 0        | 0        | 103.00        | 110.20          |
| 1:00         | 59           | 17          | 1          | 6          | 0          | 0         | 2         | 0         | 1         | 11         | 21         | 0        | 0        | 0        | 104.23        | 113.16          |
| 2:00         | 83           | 20          | 2          | 8          | 1          | 0         | 1         | 0         | 3         | 19         | 29         | 0        | 0        | 0        | 102.75        | 110.52          |
| 3:00         | 113          | 30          | 3          | 5          | 3          | 0         | 1         | 0         | 0         | 15         | 56         | 0        | 0        | 0        | 102.00        | 112.06          |
| 4:00         | 144          | 57          | 2          | 16         | 3          | 0         | 0         | 0         | 3         | 16         | 47         | 0        | 0        | 0        | 103.88        | 114.79          |
| 5:00         | 304          | 203         | 7          | 14         | 2          | 1         | 2         | 3         | 2         | 35         | 35         | 0        | 0        | 0        | 106.35        | 114.89          |
| 6:00         | 443          | 311         | 9          | 36         | 8          | 1         | 9         | 1         | 2         | 19         | 45         | 1        | 0        | 1        | 107.15        | 114.93          |
| 7:00         | 662          | 492         | 19         | 54         | 5          | 0         | 5         | 5         | 2         | 28         | 52         | 0        | 0        | 0        | 106.48        | 114.10          |
| 8:00         | 695          | 546         | 22         | 43         | 8          | 0         | 3         | 1         | 4         | 36         | 32         | 0        | 0        | 0        | 106.03        | 113.79          |
| 9:00         | 750          | 592         | 29         | 37         | 6          | 3         | 5         | 3         | 5         | 32         | 38         | 0        | 0        | 0        | 104.73        | 112.59          |
| 10:00        | 779          | 593         | 45         | 51         | 9          | 4         | 3         | 6         | 5         | 34         | 29         | 0        | 0        | 0        | 104.58        | 112.00          |
| 11:00        | 790          | 619         | 41         | 50         | 10         | 1         | 3         | 3         | 6         | 29         | 28         | 0        | 0        | 0        | 105.03        | 112.99          |
| 12:00        | 710          | 523         | 39         | 62         | 7          | 2         | 5         | 9         | 7         | 28         | 26         | 2        | 0        | 0        | 104.68        | 112.87          |
| 13:00        | 674          | 512         | 32         | 58         | 10         | 1         | 1         | 6         | 4         | 21         | 28         | 0        | 1        | 0        | 105.38        | 112.17          |
| 14:00        | 724          | 555         | 28         | 57         | 19         | 1         | 7         | 3         | 2         | 31         | 21         | 0        | 0        | 0        | 105.60        | 113.47          |
| 15:00        | 706          | 560         | 18         | 67         | 4          | 6         | 5         | 0         | 6         | 22         | 18         | 0        | 0        | 0        | 105.93        | 113.47          |
| 16:00        | 672          | 536         | 27         | 63         | 8          | 1         | 5         | 5         | 2         | 12         | 13         | 0        | 0        | 0        | 106.33        | 114.39          |
| 17:00        | 552          | 453         | 21         | 40         | 5          | 0         | 1         | 2         | 2         | 11         | 17         | 0        | 0        | 0        | 106.80        | 114.01          |
| 18:00        | 350          | 260         | 11         | 33         | 1          | 1         | 2         | 2         | 4         | 12         | 24         | 0        | 0        | 0        | 106.03        | 112.77          |
| 19:00        | 283          | 206         | 10         | 12         | 4          | 0         | 4         | 3         | 1         | 16         | 27         | 0        | 0        | 0        | 106.50        | 114.01          |
| 20:00        | 225          | 142         | 5          | 13         | 4          | 0         | 2         | 1         | 0         | 32         | 26         | 0        | 0        | 0        | 105.50        | 114.10          |
| 21:00        | 157          | 85          | 3          | 11         | 3          | 0         | 0         | 0         | 3         | 31         | 21         | 0        | 0        | 0        | 103.48        | 112.77          |
| 22:00        | 138          | 73          | 2          | 8          | 4          | 1         | 1         | 0         | 1         | 27         | 21         | 0        | 0        | 0        | 104.50        | 112.41          |
| 23:00        | 133          | 65          | 3          | 6          | 0          | 0         | 0         | 1         | 1         | 24         | 33         | 0        | 0        | 0        | 102.53        | 108.61          |
| <b>Total</b> | <b>10219</b> | <b>7475</b> | <b>380</b> | <b>754</b> | <b>124</b> | <b>23</b> | <b>68</b> | <b>55</b> | <b>68</b> | <b>555</b> | <b>712</b> | <b>3</b> | <b>1</b> | <b>1</b> | <b>104.98</b> | <b>112.96</b>   |

Light 77% Heavy 23%

## Friday, 25 November 2016

| Time         | Total        | 1           | 2          | 3          | 4          | 5         | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 62           | 28          | 1          | 6          | 1          | 0         | 0         | 0         | 0         | 10         | 16         | 0        | 0        | 0        | 103.65        | 114.48          |
| 1:00         | 66           | 20          | 1          | 5          | 1          | 0         | 0         | 1         | 2         | 16         | 20         | 0        | 0        | 0        | 102.75        | 115.38          |
| 2:00         | 93           | 34          | 2          | 6          | 0          | 0         | 0         | 0         | 1         | 20         | 30         | 0        | 0        | 0        | 102.70        | 109.62          |
| 3:00         | 130          | 44          | 1          | 7          | 5          | 1         | 2         | 0         | 0         | 17         | 53         | 0        | 0        | 0        | 103.08        | 112.66          |
| 4:00         | 161          | 73          | 4          | 6          | 2          | 1         | 1         | 0         | 1         | 14         | 59         | 0        | 0        | 0        | 103.95        | 113.09          |
| 5:00         | 285          | 188         | 3          | 20         | 4          | 0         | 1         | 2         | 5         | 19         | 41         | 1        | 0        | 1        | 105.55        | 114.35          |
| 6:00         | 484          | 359         | 23         | 25         | 9          | 1         | 1         | 2         | 7         | 19         | 38         | 0        | 0        | 0        | 107.50        | 115.77          |
| 7:00         | 598          | 445         | 16         | 51         | 4          | 0         | 5         | 2         | 7         | 29         | 39         | 0        | 0        | 0        | 106.90        | 113.97          |
| 8:00         | 740          | 562         | 24         | 45         | 13         | 0         | 5         | 1         | 9         | 43         | 38         | 0        | 0        | 0        | 105.60        | 112.52          |
| 9:00         | 863          | 682         | 36         | 50         | 4          | 4         | 3         | 7         | 3         | 33         | 41         | 0        | 0        | 0        | 105.33        | 112.52          |
| 10:00        | 1036         | 861         | 59         | 44         | 6          | 0         | 5         | 4         | 0         | 36         | 21         | 0        | 0        | 0        | 106.18        | 113.09          |
| 11:00        | 1063         | 853         | 67         | 56         | 7          | 1         | 7         | 3         | 7         | 32         | 30         | 0        | 0        | 0        | 105.83        | 113.31          |
| 12:00        | 987          | 755         | 63         | 87         | 15         | 0         | 4         | 4         | 2         | 31         | 26         | 0        | 0        | 0        | 106.35        | 113.99          |
| 13:00        | 883          | 692         | 60         | 58         | 9          | 4         | 10        | 4         | 1         | 19         | 26         | 0        | 0        | 0        | 106.30        | 113.62          |
| 14:00        | 852          | 686         | 50         | 60         | 6          | 0         | 4         | 4         | 3         | 18         | 20         | 1        | 0        | 0        | 106.58        | 113.79          |
| 15:00        | 871          | 701         | 51         | 62         | 8          | 1         | 5         | 6         | 2         | 16         | 19         | 0        | 0        | 0        | 106.83        | 113.62          |
| 16:00        | 794          | 674         | 33         | 56         | 1          | 0         | 3         | 3         | 3         | 10         | 11         | 0        | 0        | 0        | 107.15        | 114.49          |
| 17:00        | 710          | 615         | 22         | 48         | 2          | 1         | 2         | 0         | 0         | 9          | 11         | 0        | 0        | 0        | 107.88        | 115.02          |
| 18:00        | 596          | 505         | 24         | 33         | 6          | 0         | 2         | 2         | 1         | 11         | 12         | 0        | 0        | 0        | 107.90        | 115.18          |
| 19:00        | 398          | 329         | 22         | 18         | 2          | 0         | 1         | 0         | 0         | 15         | 11         | 0        | 0        | 0        | 107.05        | 114.49          |
| 20:00        | 297          | 231         | 14         | 16         | 2          | 0         | 3         | 3         | 1         | 10         | 17         | 0        | 0        | 0        | 106.35        | 113.97          |
| 21:00        | 175          | 132         | 8          | 11         | 2          | 0         | 0         | 0         | 1         | 11         | 10         | 0        | 0        | 0        | 106.65        | 115.24          |
| 22:00        | 153          | 113         | 10         | 3          | 1          | 0         | 1         | 0         | 1         | 8          | 16         | 0        | 0        | 0        | 104.75        | 114.71          |
| 23:00        | 105          | 74          | 3          | 4          | 0          | 0         | 1         | 1         | 1         | 8          | 13         | 0        | 0        | 0        | 103.40        | 110.59          |
| <b>Total</b> | <b>12402</b> | <b>9656</b> | <b>597</b> | <b>777</b> | <b>110</b> | <b>14</b> | <b>66</b> | <b>49</b> | <b>58</b> | <b>454</b> | <b>618</b> | <b>2</b> | <b>0</b> | <b>1</b> | <b>105.67</b> | <b>113.73</b>   |

Light 83% Heavy 17%

## Saturday, 26 November 2016

| Time         | Total       | 1           | 2          | 3          | 4         | 5        | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|-------------|-------------|------------|------------|-----------|----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 70          | 43          | 2          | 6          | 0         | 0        | 0         | 0         | 1         | 10         | 8          | 0        | 0        | 0        | 104.38        | 112.17          |
| 1:00         | 46          | 26          | 2          | 1          | 0         | 0        | 1         | 0         | 0         | 10         | 6          | 0        | 0        | 0        | 105.53        | 116.41          |
| 2:00         | 52          | 24          | 1          | 4          | 1         | 0        | 0         | 1         | 1         | 7          | 13         | 0        | 0        | 0        | 103.00        | 113.16          |
| 3:00         | 67          | 29          | 1          | 6          | 0         | 0        | 0         | 0         | 2         | 7          | 22         | 0        | 0        | 0        | 103.33        | 113.02          |
| 4:00         | 96          | 54          | 0          | 6          | 1         | 0        | 0         | 0         | 0         | 5          | 30         | 0        | 0        | 0        | 104.05        | 110.97          |
| 5:00         | 151         | 87          | 13         | 8          | 0         | 0        | 1         | 0         | 3         | 12         | 27         | 0        | 0        | 0        | 105.05        | 115.29          |
| 6:00         | 217         | 167         | 7          | 8          | 5         | 0        | 1         | 1         | 2         | 5          | 21         | 0        | 0        | 0        | 106.90        | 115.56          |
| 7:00         | 425         | 346         | 21         | 15         | 0         | 1        | 3         | 0         | 2         | 13         | 24         | 0        | 0        | 0        | 106.43        | 113.79          |
| 8:00         | 624         | 525         | 27         | 33         | 4         | 0        | 1         | 1         | 2         | 14         | 17         | 0        | 0        | 0        | 104.93        | 112.52          |
| 9:00         | 876         | 740         | 57         | 35         | 3         | 0        | 3         | 1         | 1         | 16         | 18         | 0        | 0        | 2        | 104.53        | 112.39          |
| 10:00        | 886         | 761         | 49         | 45         | 2         | 0        | 2         | 2         | 3         | 10         | 12         | 0        | 0        | 0        | 105.95        | 112.87          |
| 11:00        | 861         | 697         | 78         | 51         | 4         | 0        | 6         | 2         | 0         | 10         | 13         | 0        | 0        | 0        | 105.85        | 113.22          |
| 12:00        | 762         | 635         | 56         | 40         | 3         | 0        | 5         | 1         | 3         | 5          | 14         | 0        | 0        | 0        | 106.38        | 113.22          |
| 13:00        | 722         | 615         | 51         | 34         | 5         | 0        | 2         | 2         | 0         | 4          | 9          | 0        | 0        | 0        | 106.25        | 113.09          |
| 14:00        | 678         | 567         | 49         | 40         | 0         | 0        | 4         | 3         | 2         | 6          | 7          | 0        | 0        | 0        | 106.33        | 114.49          |
| 15:00        | 622         | 520         | 35         | 47         | 1         | 0        | 3         | 0         | 1         | 4          | 11         | 0        | 0        | 0        | 106.73        | 113.40          |
| 16:00        | 595         | 499         | 31         | 38         | 2         | 0        | 2         | 2         | 2         | 7          | 11         | 0        | 0        | 1        | 106.85        | 113.80          |
| 17:00        | 485         | 407         | 23         | 41         | 0         | 1        | 1         | 2         | 2         | 4          | 4          | 0        | 0        | 0        | 107.33        | 114.17          |
| 18:00        | 348         | 302         | 17         | 13         | 1         | 1        | 0         | 0         | 1         | 6          | 7          | 0        | 0        | 0        | 107.58        | 115.42          |
| 19:00        | 250         | 204         | 13         | 14         | 0         | 0        | 3         | 1         | 1         | 5          | 9          | 0        | 0        | 0        | 105.55        | 112.55          |
| 20:00        | 195         | 151         | 12         | 12         | 1         | 0        | 1         | 0         | 3         | 2          | 13         | 0        | 0        | 0        | 106.00        | 114.01          |
| 21:00        | 188         | 145         | 5          | 9          | 0         | 0        | 1         | 2         | 0         | 13         | 12         | 1        | 0        | 0        | 106.00        | 114.19          |
| 22:00        | 143         | 100         | 6          | 10         | 1         | 0        | 1         | 2         | 1         | 9          | 13         | 0        | 0        | 0        | 105.73        | 113.98          |
| 23:00        | 94          | 63          | 3          | 4          | 0         | 0        | 2         | 1         | 3         | 6          | 12         | 0        | 0        | 0        | 104.75        | 114.30          |
| <b>Total</b> | <b>9453</b> | <b>7707</b> | <b>559</b> | <b>520</b> | <b>34</b> | <b>3</b> | <b>43</b> | <b>24</b> | <b>36</b> | <b>190</b> | <b>333</b> | <b>1</b> | <b>0</b> | <b>3</b> | <b>105.64</b> | <b>113.66</b>   |

Light 87% Heavy 13%

Sunday, 27 November 2016

| Time  | Total | 1     | 2    | 3   | 4  | 5 | 6  | 7  | 8  | 9   | 10  | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|-------|------|-----|----|---|----|----|----|-----|-----|----|----|----|--------|-----------------|
| 0:00  | 64    | 41    | 4    | 4   | 0  | 0 | 0  | 0  | 0  | 4   | 11  | 0  | 0  | 0  | 105.08 | 114.49          |
| 1:00  | 56    | 32    | 3    | 2   | 0  | 0 | 0  | 0  | 0  | 3   | 16  | 0  | 0  | 0  | 104.23 | 112.92          |
| 2:00  | 31    | 16    | 2    | 3   | 1  | 0 | 0  | 0  | 0  | 4   | 5   | 0  | 0  | 0  | 104.70 | -               |
| 3:00  | 24    | 16    | 0    | 3   | 1  | 0 | 1  | 0  | 0  | 0   | 3   | 0  | 0  | 0  | 108.23 | -               |
| 4:00  | 41    | 29    | 4    | 3   | 2  | 0 | 0  | 0  | 0  | 0   | 3   | 0  | 0  | 0  | 102.10 | 112.27          |
| 5:00  | 57    | 40    | 4    | 6   | 0  | 0 | 1  | 0  | 0  | 3   | 3   | 0  | 0  | 0  | 103.15 | 116.36          |
| 6:00  | 140   | 107   | 7    | 9   | 2  | 0 | 1  | 2  | 1  | 3   | 8   | 0  | 0  | 0  | 105.33 | 114.39          |
| 7:00  | 221   | 180   | 20   | 11  | 1  | 0 | 1  | 0  | 0  | 1   | 7   | 0  | 0  | 0  | 106.70 | 114.89          |
| 8:00  | 404   | 347   | 25   | 17  | 3  | 1 | 1  | 2  | 0  | 2   | 6   | 0  | 0  | 0  | 105.90 | 112.69          |
| 9:00  | 802   | 672   | 80   | 28  | 1  | 0 | 4  | 4  | 2  | 3   | 8   | 0  | 0  | 0  | 105.68 | 113.00          |
| 10:00 | 1031  | 865   | 91   | 55  | 1  | 0 | 1  | 4  | 1  | 7   | 6   | 0  | 0  | 0  | 106.20 | 113.47          |
| 11:00 | 1245  | 1044  | 125  | 45  | 1  | 0 | 7  | 6  | 2  | 5   | 8   | 0  | 0  | 2  | 107.05 | 115.02          |
| 12:00 | 1292  | 1092  | 102  | 68  | 1  | 0 | 8  | 5  | 1  | 9   | 6   | 0  | 0  | 0  | 107.30 | 114.93          |
| 13:00 | 1242  | 1060  | 107  | 54  | 2  | 0 | 8  | 1  | 2  | 6   | 2   | 0  | 0  | 0  | 107.03 | 114.35          |
| 14:00 | 1454  | 1249  | 108  | 66  | 1  | 1 | 10 | 5  | 0  | 3   | 10  | 0  | 0  | 1  | 106.98 | 114.49          |
| 15:00 | 1355  | 1145  | 111  | 68  | 4  | 0 | 7  | 3  | 2  | 7   | 7   | 0  | 0  | 1  | 107.38 | 114.32          |
| 16:00 | 1249  | 1055  | 90   | 69  | 0  | 2 | 6  | 0  | 1  | 14  | 11  | 0  | 0  | 1  | 107.73 | 114.80          |
| 17:00 | 960   | 811   | 53   | 59  | 1  | 1 | 3  | 3  | 2  | 15  | 12  | 0  | 0  | 0  | 107.93 | 114.80          |
| 18:00 | 684   | 553   | 44   | 34  | 2  | 0 | 4  | 2  | 0  | 19  | 26  | 0  | 0  | 0  | 107.88 | 116.12          |
| 19:00 | 483   | 384   | 21   | 26  | 3  | 0 | 1  | 3  | 2  | 23  | 20  | 0  | 0  | 0  | 108.28 | 115.66          |
| 20:00 | 345   | 246   | 22   | 14  | 0  | 0 | 1  | 1  | 0  | 30  | 31  | 0  | 0  | 0  | 106.10 | 113.80          |
| 21:00 | 275   | 168   | 10   | 14  | 2  | 0 | 2  | 2  | 3  | 34  | 37  | 3  | 0  | 0  | 104.53 | 113.31          |
| 22:00 | 174   | 91    | 6    | 6   | 1  | 0 | 1  | 0  | 3  | 20  | 46  | 0  | 0  | 0  | 103.75 | 113.40          |
| 23:00 | 120   | 53    | 3    | 7   | 1  | 0 | 2  | 1  | 1  | 18  | 34  | 0  | 0  | 0  | 103.10 | 111.01          |
| Total | 13749 | 11296 | 1042 | 671 | 31 | 5 | 70 | 44 | 23 | 233 | 326 | 3  | 0  | 5  | 105.93 | 114.11          |

Light 90% Heavy 10%

Monday, 28 November 2016

| Time  | Total | 1    | 2   | 3   | 4   | 5  | 6  | 7  | 8  | 9   | 10  | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|------|-----|-----|-----|----|----|----|----|-----|-----|----|----|----|--------|-----------------|
| 0:00  | 65    | 32   | 0   | 7   | 1   | 0  | 1  | 1  | 1  | 10  | 12  | 0  | 0  | 0  | 104.35 | 125.86          |
| 1:00  | 48    | 19   | 0   | 4   | 1   | 0  | 0  | 0  | 0  | 6   | 18  | 0  | 0  | 0  | 103.80 | 114.28          |
| 2:00  | 72    | 28   | 2   | 6   | 1   | 0  | 1  | 0  | 0  | 6   | 28  | 0  | 0  | 0  | 104.08 | 117.39          |
| 3:00  | 98    | 57   | 2   | 5   | 1   | 0  | 0  | 1  | 2  | 8   | 22  | 0  | 0  | 0  | 108.48 | 119.16          |
| 4:00  | 112   | 77   | 3   | 9   | 3   | 0  | 0  | 0  | 0  | 8   | 12  | 0  | 0  | 0  | 108.40 | 118.71          |
| 5:00  | 301   | 242  | 5   | 22  | 3   | 0  | 1  | 0  | 2  | 9   | 17  | 0  | 0  | 0  | 108.15 | 117.36          |
| 6:00  | 466   | 369  | 12  | 49  | 5   | 0  | 2  | 2  | 4  | 13  | 10  | 0  | 0  | 0  | 108.53 | 117.29          |
| 7:00  | 665   | 535  | 23  | 50  | 4   | 0  | 5  | 3  | 2  | 26  | 16  | 0  | 1  | 0  | 107.35 | 114.32          |
| 8:00  | 659   | 523  | 29  | 41  | 6   | 1  | 2  | 6  | 1  | 30  | 19  | 1  | 0  | 0  | 106.00 | 114.19          |
| 9:00  | 763   | 610  | 41  | 53  | 8   | 0  | 4  | 3  | 3  | 22  | 18  | 1  | 0  | 0  | 105.30 | 112.87          |
| 10:00 | 829   | 647  | 65  | 54  | 9   | 1  | 3  | 2  | 4  | 27  | 17  | 0  | 0  | 0  | 105.00 | 112.00          |
| 11:00 | 853   | 657  | 82  | 44  | 12  | 2  | 6  | 6  | 9  | 19  | 16  | 0  | 0  | 0  | 106.15 | 113.40          |
| 12:00 | 858   | 651  | 49  | 67  | 13  | 3  | 4  | 5  | 3  | 39  | 24  | 0  | 0  | 0  | 106.03 | 113.40          |
| 13:00 | 757   | 598  | 45  | 46  | 5   | 1  | 6  | 6  | 3  | 27  | 19  | 1  | 0  | 0  | 106.45 | 113.61          |
| 14:00 | 771   | 588  | 45  | 65  | 8   | 4  | 10 | 2  | 6  | 27  | 16  | 0  | 0  | 0  | 106.73 | 114.96          |
| 15:00 | 724   | 593  | 47  | 39  | 2   | 3  | 5  | 3  | 3  | 17  | 12  | 0  | 0  | 0  | 106.83 | 113.97          |
| 16:00 | 609   | 478  | 23  | 56  | 6   | 3  | 4  | 2  | 3  | 17  | 17  | 0  | 0  | 0  | 107.33 | 115.41          |
| 17:00 | 554   | 441  | 28  | 36  | 5   | 0  | 3  | 6  | 2  | 15  | 18  | 0  | 0  | 0  | 107.80 | 115.24          |
| 18:00 | 420   | 316  | 15  | 25  | 6   | 2  | 4  | 4  | 2  | 27  | 19  | 0  | 0  | 0  | 107.20 | 114.71          |
| 19:00 | 304   | 214  | 9   | 21  | 4   | 1  | 2  | 3  | 3  | 18  | 28  | 1  | 0  | 0  | 105.25 | 112.00          |
| 20:00 | 214   | 129  | 6   | 11  | 3   | 1  | 0  | 0  | 3  | 31  | 29  | 1  | 0  | 0  | 105.95 | 113.79          |
| 21:00 | 173   | 100  | 4   | 7   | 4   | 0  | 2  | 1  | 0  | 28  | 26  | 1  | 0  | 0  | 103.80 | 112.39          |
| 22:00 | 157   | 75   | 5   | 8   | 0   | 0  | 0  | 0  | 3  | 32  | 34  | 0  | 0  | 0  | 103.70 | 110.90          |
| 23:00 | 99    | 39   | 2   | 5   | 0   | 0  | 1  | 1  | 2  | 18  | 31  | 0  | 0  | 0  | 102.93 | 110.59          |
| Total | 10571 | 8018 | 542 | 730 | 110 | 22 | 66 | 57 | 61 | 480 | 478 | 6  | 1  | 0  | 106.06 | 114.91          |

Light 81% Heavy 19%

Tuesday, 29 November 2016

| Time  | Total | 1    | 2   | 3   | 4   | 5  | 6  | 7  | 8  | 9   | 10  | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|------|-----|-----|-----|----|----|----|----|-----|-----|----|----|----|--------|-----------------|
| 0:00  | 79    | 33   | 1   | 4   | 0   | 2  | 0  | 0  | 2  | 10  | 27  | 0  | 0  | 0  | 103.43 | 113.37          |
| 1:00  | 71    | 17   | 2   | 5   | 0   | 0  | 0  | 1  | 2  | 19  | 25  | 0  | 0  | 0  | 102.58 | 112.88          |
| 2:00  | 89    | 28   | 2   | 8   | 0   | 0  | 2  | 1  | 1  | 15  | 31  | 1  | 0  | 0  | 102.85 | 113.72          |
| 3:00  | 118   | 31   | 1   | 7   | 2   | 0  | 0  | 0  | 0  | 20  | 56  | 1  | 0  | 0  | 102.43 | 110.70          |
| 4:00  | 152   | 78   | 3   | 10  | 2   | 0  | 0  | 1  | 3  | 8   | 46  | 1  | 0  | 0  | 104.98 | 119.95          |
| 5:00  | 297   | 190  | 6   | 17  | 7   | 1  | 2  | 1  | 4  | 24  | 44  | 1  | 0  | 0  | 105.70 | 115.29          |
| 6:00  | 448   | 313  | 11  | 40  | 5   | 1  | 6  | 2  | 5  | 23  | 42  | 0  | 0  | 0  | 107.80 | 116.12          |
| 7:00  | 595   | 454  | 18  | 48  | 8   | 0  | 3  | 2  | 6  | 28  | 26  | 2  | 0  | 0  | 106.13 | 113.62          |
| 8:00  | 715   | 542  | 25  | 43  | 11  | 1  | 4  | 4  | 5  | 39  | 41  | 0  | 0  | 0  | 105.05 | 112.52          |
| 9:00  | 741   | 551  | 45  | 52  | 8   | 1  | 6  | 2  | 1  | 35  | 40  | 0  | 0  | 0  | 104.40 | 112.17          |
| 10:00 | 714   | 536  | 50  | 43  | 7   | 1  | 0  | 6  | 7  | 25  | 39  | 0  | 0  | 0  | 104.30 | 112.00          |
| 11:00 | 728   | 542  | 41  | 48  | 6   | 3  | 3  | 4  | 6  | 44  | 31  | 0  | 0  | 0  | 105.15 | 112.52          |
| 12:00 | 669   | 485  | 34  | 47  | 11  | 1  | 5  | 7  | 3  | 34  | 42  | 0  | 0  | 0  | 104.50 | 112.17          |
| 13:00 | 624   | 463  | 35  | 49  | 16  | 0  | 7  | 3  | 4  | 27  | 20  | 0  | 0  | 0  | 104.95 | 112.52          |
| 14:00 | 643   | 468  | 39  | 54  | 12  | 3  | 4  | 8  | 6  | 26  | 23  | 0  | 0  | 0  | 105.45 | 113.22          |
| 15:00 | 653   | 507  | 32  | 56  | 7   | 1  | 1  | 3  | 2  | 22  | 22  | 0  | 0  | 0  | 105.20 | 113.00          |
| 16:00 | 559   | 442  | 17  | 50  | 9   | 1  | 3  | 5  | 4  | 16  | 12  | 0  | 0  | 0  | 106.38 | 113.40          |
| 17:00 | 537   | 426  | 23  | 42  | 5   | 0  | 1  | 2  | 4  | 16  | 18  | 0  | 0  | 0  | 107.00 | 115.24          |
| 18:00 | 336   | 258  | 9   | 15  | 4   | 0  | 4  | 4  | 2  | 15  | 25  | 0  | 0  | 0  | 105.68 | 114.01          |
| 19:00 | 267   | 183  | 5   | 21  | 2   | 0  | 0  | 1  | 3  | 18  | 34  | 0  | 0  | 0  | 105.88 | 114.17          |
| 20:00 | 196   | 104  | 11  | 10  | 3   | 0  | 1  | 1  | 1  | 31  | 33  | 1  | 0  | 0  | 103.90 | 112.41          |
| 21:00 | 165   | 84   | 4   | 8   | 2   | 0  | 2  | 3  | 2  | 28  | 31  | 1  | 0  | 0  | 104.20 | 113.22          |
| 22:00 | 150   | 66   | 1   | 6   | 2   | 0  | 0  | 2  | 1  | 32  | 40  | 0  | 0  | 0  | 103.48 | 111.29          |
| 23:00 | 110   | 48   | 0   | 8   | 1   | 1  | 0  | 1  | 1  | 27  | 23  | 0  | 0  | 0  | 102.90 | 110.48          |
| Total | 9656  | 6849 | 415 | 691 | 130 | 17 | 54 | 64 | 75 | 582 | 771 | 8  | 0  | 0  | 104.76 | 113.33          |

Light 75% Heavy 25%

Wednesday, 30 November 2016

| Time         | Total       | 1           | 2          | 3          | 4          | 5         | 6         | 7         | 8         | 9          | 10         | 11        | 12       | 13       | Mean          | 85th Percentile |
|--------------|-------------|-------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|-----------|----------|----------|---------------|-----------------|
| 0:00         | 75          | 28          | 2          | 5          | 0          | 0         | 0         | 0         | 1         | 16         | 21         | 2         | 0        | 0        | 102.08        | 111.25          |
| 1:00         | 54          | 20          | 0          | 1          | 1          | 0         | 0         | 1         | 2         | 16         | 13         | 0         | 0        | 0        | 102.88        | 109.98          |
| 2:00         | 78          | 26          | 1          | 4          | 0          | 0         | 2         | 0         | 3         | 15         | 27         | 0         | 0        | 0        | 101.55        | 108.21          |
| 3:00         | 111         | 33          | 2          | 8          | 2          | 0         | 0         | 0         | 1         | 11         | 50         | 4         | 0        | 0        | 102.60        | 108.88          |
| 4:00         | 145         | 59          | 5          | 11         | 3          | 0         | 0         | 0         | 0         | 19         | 47         | 1         | 0        | 0        | 102.23        | 111.51          |
| 5:00         | 303         | 204         | 6          | 20         | 4          | 0         | 3         | 1         | 4         | 17         | 43         | 1         | 0        | 0        | 105.98        | 114.67          |
| 6:00         | 450         | 310         | 15         | 35         | 9          | 1         | 2         | 1         | 1         | 27         | 47         | 2         | 0        | 0        | 106.58        | 116.73          |
| 7:00         | 622         | 447         | 16         | 49         | 12         | 1         | 4         | 6         | 6         | 35         | 45         | 0         | 0        | 1        | 105.58        | 113.31          |
| 8:00         | 664         | 502         | 31         | 49         | 10         | 2         | 1         | 4         | 4         | 20         | 38         | 3         | 0        | 0        | 105.08        | 112.39          |
| 9:00         | 748         | 570         | 31         | 47         | 9          | 3         | 5         | 4         | 5         | 33         | 39         | 2         | 0        | 0        | 104.93        | 112.00          |
| 10:00        | 735         | 566         | 46         | 50         | 4          | 1         | 6         | 2         | 2         | 32         | 24         | 1         | 1        | 0        | 104.98        | 112.69          |
| 11:00        | 728         | 521         | 59         | 57         | 10         | 3         | 3         | 4         | 2         | 38         | 31         | 0         | 0        | 0        | 104.68        | 112.17          |
| 12:00        | 681         | 501         | 38         | 53         | 12         | 2         | 8         | 6         | 4         | 29         | 28         | 0         | 0        | 0        | 104.50        | 111.20          |
| 13:00        | 640         | 472         | 37         | 44         | 11         | 2         | 7         | 7         | 7         | 29         | 24         | 0         | 0        | 0        | 105.33        | 112.70          |
| 14:00        | 677         | 502         | 38         | 55         | 14         | 3         | 3         | 4         | 2         | 25         | 30         | 1         | 0        | 0        | 105.48        | 113.22          |
| 15:00        | 688         | 542         | 26         | 61         | 5          | 2         | 2         | 4         | 8         | 18         | 20         | 0         | 0        | 0        | 106.55        | 114.93          |
| 16:00        | 589         | 471         | 23         | 49         | 9          | 4         | 3         | 5         | 2         | 10         | 13         | 0         | 0        | 0        | 104.63        | 113.44          |
| 17:00        | 486         | 367         | 21         | 42         | 6          | 1         | 6         | 1         | 2         | 16         | 24         | 0         | 0        | 0        | 106.18        | 113.40          |
| 18:00        | 385         | 286         | 10         | 23         | 4          | 0         | 1         | 2         | 5         | 30         | 23         | 1         | 0        | 0        | 105.70        | 114.19          |
| 19:00        | 268         | 180         | 8          | 26         | 3          | 0         | 2         | 0         | 2         | 25         | 21         | 1         | 0        | 0        | 105.68        | 114.46          |
| 20:00        | 189         | 113         | 7          | 8          | 4          | 0         | 2         | 2         | 3         | 25         | 25         | 0         | 0        | 0        | 105.25        | 115.29          |
| 21:00        | 181         | 90          | 3          | 10         | 3          | 0         | 2         | 0         | 2         | 34         | 36         | 1         | 0        | 0        | 103.88        | 112.39          |
| 22:00        | 123         | 48          | 3          | 10         | 0          | 0         | 3         | 0         | 3         | 29         | 27         | 0         | 0        | 0        | 103.53        | 112.87          |
| 23:00        | 98          | 43          | 1          | 7          | 2          | 0         | 1         | 3         | 1         | 15         | 25         | 0         | 0        | 0        | 104.33        | 114.60          |
| <b>Total</b> | <b>9718</b> | <b>6901</b> | <b>429</b> | <b>724</b> | <b>137</b> | <b>25</b> | <b>66</b> | <b>57</b> | <b>72</b> | <b>564</b> | <b>721</b> | <b>20</b> | <b>1</b> | <b>1</b> | <b>104.59</b> | <b>112.77</b>   |

Light 75% Heavy 25%

## Weekday Average

| Time         | Total        | 1           | 2          | 3          | 4          | 5         | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 71           | 29          | 1          | 5          | 0          | 0         | 0         | 0         | 1         | 12         | 20         | 0        | 0        | 0        | 103.30        | 115.03          |
| 1:00         | 60           | 19          | 1          | 4          | 1          | 0         | 0         | 1         | 1         | 14         | 19         | 0        | 0        | 0        | 103.25        | 113.14          |
| 2:00         | 83           | 27          | 2          | 6          | 0          | 0         | 1         | 0         | 2         | 15         | 29         | 0        | 0        | 0        | 102.79        | 111.89          |
| 3:00         | 114          | 39          | 2          | 6          | 3          | 0         | 1         | 0         | 1         | 14         | 47         | 1        | 0        | 0        | 103.72        | 112.69          |
| 4:00         | 143          | 69          | 3          | 10         | 3          | 0         | 0         | 0         | 1         | 13         | 42         | 0        | 0        | 0        | 104.69        | 115.61          |
| 5:00         | 298          | 205         | 5          | 19         | 4          | 0         | 2         | 1         | 3         | 21         | 36         | 1        | 0        | 0        | 106.35        | 115.31          |
| 6:00         | 458          | 332         | 14         | 37         | 7          | 1         | 4         | 2         | 4         | 20         | 36         | 1        | 0        | 0        | 107.51        | 116.17          |
| 7:00         | 628          | 475         | 18         | 50         | 7          | 0         | 4         | 4         | 5         | 29         | 36         | 0        | 0        | 0        | 106.49        | 113.86          |
| 8:00         | 695          | 535         | 26         | 44         | 10         | 1         | 3         | 3         | 5         | 34         | 34         | 1        | 0        | 0        | 105.55        | 113.08          |
| 9:00         | 773          | 601         | 36         | 48         | 7          | 2         | 5         | 4         | 3         | 31         | 35         | 1        | 0        | 0        | 104.94        | 112.43          |
| 10:00        | 819          | 641         | 53         | 48         | 7          | 1         | 3         | 4         | 4         | 31         | 26         | 0        | 0        | 0        | 105.01        | 112.35          |
| 11:00        | 832          | 638         | 58         | 51         | 9          | 2         | 4         | 4         | 6         | 32         | 27         | 0        | 0        | 0        | 105.37        | 112.88          |
| 12:00        | 781          | 583         | 45         | 63         | 12         | 2         | 5         | 6         | 4         | 32         | 29         | 0        | 0        | 0        | 105.21        | 112.72          |
| 13:00        | 716          | 547         | 42         | 51         | 10         | 2         | 6         | 5         | 4         | 25         | 23         | 0        | 0        | 0        | 105.68        | 112.92          |
| 14:00        | 733          | 560         | 40         | 58         | 12         | 2         | 6         | 4         | 4         | 25         | 22         | 0        | 0        | 0        | 105.97        | 113.73          |
| 15:00        | 728          | 581         | 35         | 57         | 5          | 3         | 4         | 3         | 4         | 19         | 18         | 0        | 0        | 0        | 106.27        | 113.80          |
| 16:00        | 645          | 520         | 25         | 55         | 7          | 2         | 4         | 4         | 3         | 13         | 13         | 0        | 0        | 0        | 106.36        | 114.22          |
| 17:00        | 568          | 460         | 23         | 42         | 5          | 0         | 3         | 2         | 2         | 13         | 18         | 0        | 0        | 0        | 107.13        | 114.58          |
| 18:00        | 417          | 325         | 14         | 26         | 4          | 1         | 3         | 3         | 3         | 19         | 21         | 0        | 0        | 0        | 106.50        | 114.17          |
| 19:00        | 304          | 222         | 11         | 20         | 3          | 0         | 2         | 1         | 2         | 18         | 24         | 0        | 0        | 0        | 106.07        | 113.82          |
| 20:00        | 224          | 144         | 9          | 12         | 3          | 0         | 2         | 1         | 2         | 26         | 26         | 0        | 0        | 0        | 105.39        | 113.91          |
| 21:00        | 170          | 98          | 4          | 9          | 3          | 0         | 1         | 1         | 2         | 26         | 25         | 1        | 0        | 0        | 104.40        | 113.20          |
| 22:00        | 144          | 75          | 4          | 7          | 1          | 0         | 1         | 0         | 2         | 26         | 28         | 0        | 0        | 0        | 103.99        | 112.43          |
| 23:00        | 109          | 54          | 2          | 6          | 1          | 0         | 1         | 1         | 1         | 18         | 25         | 0        | 0        | 0        | 103.22        | 110.97          |
| <b>Total</b> | <b>10513</b> | <b>7780</b> | <b>473</b> | <b>735</b> | <b>122</b> | <b>20</b> | <b>64</b> | <b>56</b> | <b>67</b> | <b>527</b> | <b>660</b> | <b>8</b> | <b>1</b> | <b>1</b> | <b>105.21</b> | <b>115.23</b>   |

Light 78% Heavy 22%

## Weekend Average

| Time         | Total        | 1           | 2          | 3          | 4         | 5        | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|-----------|----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 67           | 42          | 3          | 5          | 0         | 0        | 0         | 0         | 1         | 7          | 10         | 0        | 0        | 0        | 104.73        | 113.33          |
| 1:00         | 51           | 29          | 3          | 2          | 0         | 0        | 1         | 0         | 0         | 7          | 11         | 0        | 0        | 0        | 104.88        | 114.67          |
| 2:00         | 42           | 20          | 2          | 4          | 1         | 0        | 0         | 1         | 1         | 6          | 9          | 0        | 0        | 0        | 103.85        | 113.16          |
| 3:00         | 46           | 23          | 1          | 5          | 1         | 0        | 1         | 0         | 1         | 4          | 13         | 0        | 0        | 0        | 105.78        | 113.02          |
| 4:00         | 69           | 42          | 2          | 5          | 2         | 0        | 0         | 0         | 0         | 3          | 17         | 0        | 0        | 0        | 103.08        | 111.62          |
| 5:00         | 104          | 64          | 9          | 7          | 0         | 0        | 1         | 0         | 2         | 8          | 15         | 0        | 0        | 0        | 104.10        | 115.82          |
| 6:00         | 179          | 137         | 7          | 9          | 4         | 0        | 1         | 2         | 2         | 4          | 15         | 0        | 0        | 0        | 106.11        | 114.98          |
| 7:00         | 323          | 263         | 21         | 13         | 1         | 1        | 2         | 0         | 1         | 7          | 16         | 0        | 0        | 0        | 106.56        | 114.34          |
| 8:00         | 514          | 436         | 26         | 25         | 4         | 1        | 1         | 2         | 1         | 8          | 12         | 0        | 0        | 0        | 105.41        | 112.60          |
| 9:00         | 839          | 706         | 69         | 32         | 2         | 0        | 4         | 3         | 2         | 10         | 13         | 0        | 0        | 1        | 105.10        | 112.69          |
| 10:00        | 959          | 813         | 70         | 50         | 2         | 0        | 2         | 3         | 2         | 9          | 9          | 0        | 0        | 0        | 106.08        | 113.17          |
| 11:00        | 1053         | 871         | 102        | 48         | 3         | 0        | 7         | 4         | 1         | 8          | 11         | 0        | 0        | 1        | 106.45        | 114.12          |
| 12:00        | 1027         | 864         | 79         | 54         | 2         | 0        | 7         | 3         | 2         | 7          | 10         | 0        | 0        | 0        | 106.84        | 114.07          |
| 13:00        | 982          | 838         | 79         | 44         | 4         | 0        | 5         | 2         | 1         | 5          | 6          | 0        | 0        | 0        | 106.64        | 113.72          |
| 14:00        | 1066         | 908         | 79         | 53         | 1         | 1        | 7         | 4         | 1         | 5          | 9          | 0        | 0        | 1        | 106.65        | 114.49          |
| 15:00        | 989          | 833         | 73         | 58         | 3         | 0        | 5         | 2         | 2         | 6          | 9          | 0        | 0        | 1        | 107.05        | 113.86          |
| 16:00        | 922          | 777         | 61         | 54         | 1         | 1        | 4         | 1         | 2         | 11         | 11         | 0        | 0        | 1        | 107.29        | 114.30          |
| 17:00        | 723          | 609         | 38         | 50         | 1         | 1        | 2         | 3         | 2         | 10         | 8          | 0        | 0        | 0        | 107.63        | 114.49          |
| 18:00        | 516          | 428         | 31         | 24         | 2         | 1        | 2         | 1         | 1         | 13         | 17         | 0        | 0        | 0        | 107.73        | 115.77          |
| 19:00        | 367          | 294         | 17         | 20         | 2         | 0        | 2         | 2         | 2         | 14         | 15         | 0        | 0        | 0        | 106.91        | 114.10          |
| 20:00        | 270          | 199         | 17         | 13         | 1         | 0        | 1         | 1         | 2         | 16         | 22         | 0        | 0        | 0        | 106.05        | 113.90          |
| 21:00        | 232          | 157         | 8          | 12         | 1         | 0        | 2         | 2         | 2         | 24         | 25         | 2        | 0        | 0        | 105.26        | 113.75          |
| 22:00        | 159          | 96          | 6          | 8          | 1         | 0        | 1         | 1         | 2         | 15         | 30         | 0        | 0        | 0        | 104.74        | 113.69          |
| 23:00        | 107          | 58          | 3          | 6          | 1         | 0        | 2         | 1         | 2         | 12         | 23         | 0        | 0        | 0        | 103.93        | 112.65          |
| <b>Total</b> | <b>11601</b> | <b>9502</b> | <b>801</b> | <b>596</b> | <b>33</b> | <b>4</b> | <b>57</b> | <b>34</b> | <b>30</b> | <b>212</b> | <b>330</b> | <b>2</b> | <b>0</b> | <b>4</b> | <b>105.78</b> | <b>114.97</b>   |

Light 89% Heavy 11%

## 7-Day Average

| Time         | Total        | 1           | 2          | 3          | 4         | 5         | 6         | 7         | 8         | 9          | 10         | 11       | 12       | 13       | Mean          | 85th Percentile |
|--------------|--------------|-------------|------------|------------|-----------|-----------|-----------|-----------|-----------|------------|------------|----------|----------|----------|---------------|-----------------|
| 0:00         | 70           | 33          | 2          | 5          | 0         | 0         | 0         | 0         | 1         | 11         | 17         | 0        | 0        | 0        | 103.71        | 114.54          |
| 1:00         | 57           | 22          | 1          | 3          | 0         | 0         | 0         | 0         | 1         | 12         | 17         | 0        | 0        | 0        | 103.71        | 113.57          |
| 2:00         | 71           | 25          | 2          | 6          | 1         | 0         | 1         | 0         | 1         | 12         | 23         | 0        | 0        | 0        | 103.09        | 112.10          |
| 3:00         | 94           | 34          | 1          | 6          | 2         | 0         | 1         | 0         | 1         | 11         | 37         | 1        | 0        | 0        | 104.30        | 112.74          |
| 4:00         | 122          | 61          | 3          | 9          | 2         | 0         | 0         | 0         | 1         | 10         | 35         | 0        | 0        | 0        | 104.23        | 114.47          |
| 5:00         | 243          | 165         | 6          | 15         | 3         | 0         | 2         | 1         | 3         | 17         | 30         | 0        | 0        | 0        | 105.70        | 115.46          |
| 6:00         | 378          | 277         | 12         | 29         | 6         | 1         | 3         | 2         | 3         | 16         | 30         | 0        | 0        | 0        | 107.11        | 115.83          |
| 7:00         | 541          | 414         | 19         | 40         | 5         | 0         | 4         | 3         | 4         | 23         | 30         | 0        | 0        | 0        | 106.51        | 114.00          |
| 8:00         | 643          | 507         | 26         | 39         | 8         | 1         | 2         | 3         | 4         | 26         | 27         | 1        | 0        | 0        | 105.51        | 112.94          |
| 9:00         | 792          | 631         | 46         | 43         | 6         | 2         | 4         | 3         | 3         | 25         | 29         | 0        | 0        | 0        | 104.98        | 112.50          |
| 10:00        | 859          | 690         | 58         | 49         | 5         | 1         | 3         | 4         | 3         | 24         | 21         | 0        | 0        | 0        | 105.31        | 112.59          |
| 11:00        | 895          | 705         | 70         | 50         | 7         | 1         | 5         | 4         | 5         | 25         | 22         | 0        | 0        | 0        | 105.68        | 113.23          |
| 12:00        | 851          | 663         | 54         | 61         | 9         | 1         | 6         | 5         | 3         | 25         | 24         | 0        | 0        | 0        | 105.68        | 113.11          |
| 13:00        | 792          | 630         | 52         | 49         | 8         | 1         | 6         | 4         | 3         | 19         | 18         | 0        | 0        | 0        | 105.95        | 113.15          |
| 14:00        | 828          | 659         | 51         | 57         | 9         | 2         | 6         | 4         | 3         | 19         | 18         | 0        | 0        | 0        | 106.16        | 113.95          |
| 15:00        | 803          | 653         | 46         | 57         | 4         | 2         | 4         | 3         | 3         | 15         | 16         | 0        | 0        | 0        | 106.49        | 113.81          |
| 16:00        | 724          | 594         | 35         | 54         | 5         | 2         | 4         | 3         | 2         | 12         | 13         | 0        | 0        | 0        | 106.63        | 114.25          |
| 17:00        | 612          | 503         | 27         | 44         | 3         | 1         | 2         | 2         | 2         | 12         | 15         | 0        | 0        | 0        | 107.27        | 114.55          |
| 18:00        | 446          | 354         | 19         | 25         | 3         | 1         | 2         | 2         | 2         | 17         | 19         | 0        | 0        | 0        | 106.85        | 114.63          |
| 19:00        | 322          | 243         | 13         | 20         | 3         | 0         | 2         | 2         | 2         | 17         | 21         | 0        | 0        | 0        | 106.31        | 113.90          |
| 20:00        | 237          | 159         | 11         | 12         | 2         | 0         | 1         | 1         | 2         | 23         | 25         | 0        | 0        | 0        | 105.58        | 113.91          |
| 21:00        | 188          | 115         | 5          | 10         | 2         | 0         | 1         | 1         | 2         | 26         | 25         | 1        | 0        | 0        | 104.65        | 113.36          |
| 22:00        | 148          | 81          | 5          | 7          | 1         | 0         | 1         | 1         | 2         | 22         | 28         | 0        | 0        | 0        | 104.20        | 112.79          |
| 23:00        | 108          | 55          | 2          | 6          | 1         | 0         | 1         | 1         | 1         | 17         | 24         | 0        | 0        | 0        | 103.42        | 111.45          |
| <b>Total</b> | <b>10824</b> | <b>8272</b> | <b>566</b> | <b>695</b> | <b>97</b> | <b>16</b> | <b>62</b> | <b>50</b> | <b>56</b> | <b>437</b> | <b>566</b> | <b>6</b> | <b>0</b> | <b>2</b> | <b>105.38</b> | <b>115.15</b>   |

Light 82% Heavy 18%

## Thursday, 24 November 2016

| Time  | Total | 1   | 2  | 3  | 4  | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|-----|----|----|----|---|---|---|---|----|----|----|----|----|--------|-----------------|
| 0:00  | 5     | 4   | 0  | 1  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 93.13  | -               |
| 1:00  | 0     | 0   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | -      | -               |
| 2:00  | 3     | 2   | 0  | 1  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 79.60  | -               |
| 3:00  | 1     | 1   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 92.20  | -               |
| 4:00  | 12    | 10  | 1  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 86.10  | -               |
| 5:00  | 28    | 20  | 0  | 1  | 0  | 0 | 0 | 0 | 0 | 5  | 2  | 0  | 0  | 0  | 88.83  | -               |
| 6:00  | 44    | 21  | 1  | 7  | 2  | 1 | 0 | 1 | 0 | 10 | 1  | 0  | 0  | 0  | 85.70  | 103.87          |
| 7:00  | 60    | 35  | 3  | 7  | 2  | 0 | 2 | 0 | 0 | 7  | 4  | 0  | 0  | 0  | 89.20  | 101.30          |
| 8:00  | 58    | 42  | 0  | 2  | 8  | 0 | 0 | 0 | 1 | 4  | 1  | 0  | 0  | 0  | 87.03  | 98.95           |
| 9:00  | 39    | 20  | 1  | 5  | 2  | 0 | 2 | 0 | 0 | 7  | 2  | 0  | 0  | 0  | 83.85  | 88.20           |
| 10:00 | 50    | 25  | 1  | 6  | 3  | 0 | 1 | 0 | 1 | 11 | 2  | 0  | 0  | 0  | 85.73  | 98.59           |
| 11:00 | 46    | 25  | 1  | 1  | 7  | 1 | 0 | 0 | 0 | 9  | 2  | 0  | 0  | 0  | 83.00  | 95.56           |
| 12:00 | 26    | 9   | 2  | 3  | 3  | 0 | 1 | 0 | 1 | 6  | 1  | 0  | 0  | 0  | 84.48  | 92.50           |
| 13:00 | 56    | 27  | 4  | 6  | 3  | 1 | 2 | 0 | 0 | 5  | 8  | 0  | 0  | 0  | 79.55  | 97.40           |
| 14:00 | 54    | 28  | 5  | 4  | 7  | 0 | 0 | 0 | 1 | 6  | 3  | 0  | 0  | 0  | 86.28  | 103.00          |
| 15:00 | 67    | 55  | 1  | 2  | 1  | 0 | 0 | 1 | 0 | 4  | 3  | 0  | 0  | 0  | 87.40  | 95.68           |
| 16:00 | 53    | 44  | 3  | 4  | 1  | 0 | 0 | 0 | 1 | 0  | 0  | 0  | 0  | 0  | 90.58  | 99.23           |
| 17:00 | 54    | 44  | 3  | 6  | 1  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 92.20  | 100.14          |
| 18:00 | 27    | 23  | 0  | 4  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 92.83  | -               |
| 19:00 | 10    | 9   | 0  | 1  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 81.95  | -               |
| 20:00 | 12    | 10  | 0  | 1  | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 96.60  | -               |
| 21:00 | 7     | 7   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 100.85 | -               |
| 22:00 | 4     | 3   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 87.73  | -               |
| 23:00 | 5     | 5   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 93.27  | -               |
| Total | 721   | 469 | 26 | 62 | 40 | 3 | 9 | 2 | 5 | 74 | 31 | 0  | 0  | 0  | 88.18  | 97.87           |

Light 69% Heavy 31%

## Friday, 25 November 2016

| Time  | Total | 1   | 2  | 3  | 4  | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|-----|----|----|----|---|---|---|---|----|----|----|----|----|--------|-----------------|
| 0:00  | 1     | 0   | 0  | 1  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 96.60  | -               |
| 1:00  | 2     | 2   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 100.30 | -               |
| 2:00  | 0     | 0   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | -      | -               |
| 3:00  | 4     | 1   | 0  | 2  | 0  | 0 | 0 | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 78.45  | -               |
| 4:00  | 7     | 5   | 0  | 1  | 0  | 0 | 0 | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 91.88  | -               |
| 5:00  | 24    | 14  | 0  | 2  | 2  | 0 | 0 | 0 | 1 | 4  | 1  | 0  | 0  | 0  | 82.90  | -               |
| 6:00  | 54    | 27  | 3  | 5  | 6  | 0 | 0 | 1 | 1 | 7  | 4  | 0  | 0  | 0  | 83.68  | 102.17          |
| 7:00  | 50    | 32  | 2  | 5  | 3  | 0 | 0 | 1 | 0 | 5  | 2  | 0  | 0  | 0  | 89.23  | 105.79          |
| 8:00  | 67    | 41  | 2  | 4  | 9  | 0 | 0 | 0 | 0 | 10 | 1  | 0  | 0  | 0  | 84.93  | 99.61           |
| 9:00  | 48    | 32  | 4  | 5  | 2  | 0 | 1 | 0 | 0 | 2  | 2  | 0  | 0  | 0  | 86.95  | 96.50           |
| 10:00 | 62    | 37  | 3  | 5  | 7  | 0 | 0 | 0 | 0 | 9  | 1  | 0  | 0  | 0  | 82.45  | 99.55           |
| 11:00 | 48    | 24  | 3  | 5  | 4  | 0 | 1 | 0 | 0 | 6  | 5  | 0  | 0  | 0  | 81.33  | 96.32           |
| 12:00 | 53    | 33  | 2  | 4  | 5  | 0 | 0 | 0 | 0 | 6  | 3  | 0  | 0  | 0  | 79.55  | 96.26           |
| 13:00 | 43    | 20  | 4  | 5  | 3  | 0 | 0 | 1 | 1 | 5  | 4  | 0  | 0  | 0  | 82.45  | 101.48          |
| 14:00 | 43    | 24  | 1  | 4  | 5  | 0 | 0 | 1 | 0 | 3  | 5  | 0  | 0  | 0  | 87.35  | 100.74          |
| 15:00 | 61    | 45  | 3  | 8  | 2  | 0 | 0 | 0 | 0 | 3  | 0  | 0  | 0  | 0  | 88.68  | 108.50          |
| 16:00 | 53    | 43  | 3  | 5  | 1  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 92.45  | 100.68          |
| 17:00 | 49    | 40  | 4  | 3  | 0  | 0 | 1 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 91.05  | 99.16           |
| 18:00 | 37    | 30  | 3  | 4  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 92.63  | 104.80          |
| 19:00 | 22    | 20  | 1  | 0  | 0  | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 88.60  | -               |
| 20:00 | 16    | 14  | 0  | 2  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 85.90  | -               |
| 21:00 | 15    | 11  | 2  | 1  | 0  | 0 | 0 | 0 | 0 | 0  | 1  | 0  | 0  | 0  | 88.98  | -               |
| 22:00 | 6     | 5   | 1  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 90.33  | -               |
| 23:00 | 4     | 4   | 0  | 0  | 0  | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 88.53  | -               |
| Total | 769   | 504 | 41 | 71 | 49 | 0 | 5 | 5 | 3 | 61 | 30 | 0  | 0  | 0  | 87.62  | 100.89          |

Light 71% Heavy 29%

## Saturday, 26 November 2016

| Time  | Total | 1   | 2  | 3  | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 | 13 | Mean   | 85th Percentile |
|-------|-------|-----|----|----|---|---|---|---|---|----|----|----|----|----|--------|-----------------|
| 0:00  | 10    | 7   | 2  | 1  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 92.55  | -               |
| 1:00  | 2     | 2   | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 104.75 | -               |
| 2:00  | 2     | 2   | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 102.90 | -               |
| 3:00  | 6     | 3   | 0  | 2  | 0 | 0 | 0 | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 84.78  | -               |
| 4:00  | 0     | 0   | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | -      | -               |
| 5:00  | 9     | 5   | 0  | 0  | 0 | 0 | 1 | 0 | 0 | 3  | 0  | 0  | 0  | 0  | 88.15  | -               |
| 6:00  | 17    | 10  | 2  | 2  | 0 | 0 | 0 | 0 | 0 | 3  | 0  | 0  | 0  | 0  | 90.65  | -               |
| 7:00  | 34    | 25  | 2  | 3  | 0 | 0 | 0 | 0 | 0 | 4  | 0  | 0  | 0  | 0  | 91.15  | 106.60          |
| 8:00  | 33    | 23  | 2  | 2  | 1 | 0 | 0 | 0 | 0 | 5  | 0  | 0  | 0  | 0  | 89.08  | 98.30           |
| 9:00  | 49    | 39  | 2  | 3  | 0 | 0 | 0 | 0 | 0 | 5  | 0  | 0  | 0  | 0  | 81.83  | 98.54           |
| 10:00 | 54    | 38  | 4  | 8  | 2 | 0 | 0 | 0 | 0 | 1  | 1  | 0  | 0  | 0  | 86.60  | 105.08          |
| 11:00 | 45    | 36  | 1  | 8  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 84.68  | 96.01           |
| 12:00 | 49    | 44  | 1  | 1  | 0 | 0 | 1 | 2 | 0 | 0  | 0  | 0  | 0  | 0  | 80.35  | 97.15           |
| 13:00 | 70    | 56  | 5  | 7  | 0 | 0 | 2 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 82.83  | 99.22           |
| 14:00 | 69    | 50  | 6  | 12 | 0 | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 75.20  | 100.87          |
| 15:00 | 59    | 48  | 5  | 6  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 79.70  | 98.55           |
| 16:00 | 37    | 31  | 3  | 2  | 1 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 90.25  | 96.10           |
| 17:00 | 29    | 27  | 0  | 2  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 93.68  | 97.60           |
| 18:00 | 20    | 17  | 2  | 1  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 90.25  | -               |
| 19:00 | 13    | 9   | 1  | 2  | 0 | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 87.60  | -               |
| 20:00 | 4     | 2   | 2  | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 101.90 | -               |
| 21:00 | 7     | 7   | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 94.60  | -               |
| 22:00 | 3     | 3   | 0  | 0  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 82.33  | -               |
| 23:00 | 5     | 4   | 0  | 1  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 91.15  | -               |
| Total | 626   | 488 | 40 | 63 | 4 | 0 | 4 | 4 | 0 | 22 | 1  | 0  | 0  | 0  | 89.00  | 99.46           |

Light 84% Heavy 16%

Sunday, 27 November 2016

| Time         | Total      | 1          | 2         | 3         | 4        | 5        | 6        | 7        | 8        | 9        | 10       | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 2          | 2          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 84.20        | -               |
| 1:00         | 1          | 1          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 92.90        | -               |
| 2:00         | 3          | 2          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 1        | 0        | 0        | 0        | 0        | 88.10        | -               |
| 3:00         | 3          | 2          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 1        | 0        | 0        | 0        | 0        | 91.73        | -               |
| 4:00         | 4          | 4          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 102.10       | -               |
| 5:00         | 3          | 2          | 0         | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 100.20       | -               |
| 6:00         | 10         | 8          | 1         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 1        | 0        | 0        | 0        | 98.83        | -               |
| 7:00         | 22         | 16         | 5         | 0         | 0        | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 89.38        | 100.80          |
| 8:00         | 30         | 26         | 2         | 2         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 93.18        | -               |
| 9:00         | 43         | 38         | 1         | 3         | 0        | 0        | 0        | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 87.38        | 96.23           |
| 10:00        | 30         | 27         | 2         | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 94.08        | -               |
| 11:00        | 39         | 36         | 2         | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 85.30        | 97.90           |
| 12:00        | 25         | 22         | 2         | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 83.50        | -               |
| 13:00        | 50         | 38         | 4         | 7         | 0        | 0        | 0        | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 73.93        | 96.17           |
| 14:00        | 81         | 59         | 13        | 9         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 74.60        | 105.44          |
| 15:00        | 73         | 45         | 13        | 13        | 0        | 0        | 1        | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 71.45        | 90.28           |
| 16:00        | 67         | 47         | 10        | 8         | 0        | 0        | 2        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 73.75        | 100.73          |
| 17:00        | 40         | 31         | 3         | 4         | 2        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 88.30        | 103.55          |
| 18:00        | 24         | 18         | 1         | 5         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 89.23        | -               |
| 19:00        | 16         | 14         | 0         | 1         | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 86.85        | -               |
| 20:00        | 3          | 2          | 0         | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 111.70       | -               |
| 21:00        | 12         | 10         | 1         | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 93.60        | -               |
| 22:00        | 5          | 5          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 86.35        | -               |
| 23:00        | 1          | 1          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 126.80       | -               |
| <b>Total</b> | <b>587</b> | <b>456</b> | <b>60</b> | <b>58</b> | <b>3</b> | <b>1</b> | <b>3</b> | <b>3</b> | <b>0</b> | <b>2</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>90.31</b> | <b>98.89</b>    |

Light 88% Heavy 12%

Monday, 28 November 2016

| Time         | Total      | 1          | 2         | 3         | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 1          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 76.10        | -               |
| 1:00         | 0          | 0          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | -            | -               |
| 2:00         | 3          | 2          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 77.75        | -               |
| 3:00         | 5          | 5          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 84.00        | -               |
| 4:00         | 11         | 6          | 1         | 0         | 0         | 0        | 0        | 0        | 1        | 2         | 0         | 0        | 0        | 1        | 82.20        | -               |
| 5:00         | 29         | 22         | 1         | 4         | 0         | 0        | 0        | 0        | 0        | 1         | 1         | 0        | 0        | 0        | 93.25        | 102.60          |
| 6:00         | 47         | 26         | 3         | 4         | 3         | 0        | 0        | 0        | 0        | 7         | 4         | 0        | 0        | 0        | 88.10        | 96.61           |
| 7:00         | 52         | 34         | 1         | 4         | 3         | 0        | 1        | 2        | 0        | 3         | 4         | 0        | 0        | 0        | 89.00        | 101.68          |
| 8:00         | 58         | 40         | 1         | 5         | 6         | 0        | 0        | 1        | 1        | 2         | 2         | 0        | 0        | 0        | 86.48        | 97.69           |
| 9:00         | 37         | 25         | 2         | 1         | 2         | 0        | 0        | 0        | 1        | 3         | 3         | 0        | 0        | 0        | 83.20        | 90.40           |
| 10:00        | 45         | 26         | 4         | 4         | 3         | 0        | 0        | 0        | 0        | 5         | 3         | 0        | 0        | 0        | 87.15        | 102.62          |
| 11:00        | 33         | 18         | 0         | 5         | 3         | 0        | 0        | 0        | 0        | 4         | 3         | 0        | 0        | 0        | 85.43        | 85.30           |
| 12:00        | 34         | 15         | 0         | 7         | 1         | 0        | 0        | 0        | 0        | 7         | 4         | 0        | 0        | 0        | 81.95        | 93.20           |
| 13:00        | 52         | 27         | 4         | 6         | 1         | 0        | 0        | 1        | 0        | 9         | 4         | 0        | 0        | 0        | 86.25        | 98.74           |
| 14:00        | 47         | 21         | 4         | 11        | 2         | 1        | 0        | 0        | 1        | 3         | 4         | 0        | 0        | 0        | 79.23        | 99.77           |
| 15:00        | 44         | 30         | 1         | 9         | 0         | 0        | 0        | 0        | 1        | 1         | 2         | 0        | 0        | 0        | 91.68        | 104.68          |
| 16:00        | 44         | 39         | 0         | 3         | 0         | 0        | 0        | 0        | 1        | 1         | 0         | 0        | 0        | 0        | 90.93        | 103.81          |
| 17:00        | 42         | 32         | 0         | 9         | 0         | 0        | 0        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 91.80        | 102.97          |
| 18:00        | 16         | 14         | 0         | 2         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 91.93        | -               |
| 19:00        | 12         | 12         | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.23        | -               |
| 20:00        | 6          | 5          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 82.43        | -               |
| 21:00        | 3          | 3          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 93.20        | -               |
| 22:00        | 4          | 4          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 82.77        | -               |
| 23:00        | 1          | 0          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 97.50        | -               |
| <b>Total</b> | <b>626</b> | <b>407</b> | <b>22</b> | <b>77</b> | <b>24</b> | <b>1</b> | <b>1</b> | <b>4</b> | <b>6</b> | <b>49</b> | <b>34</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>86.63</b> | <b>98.47</b>    |

Light 69% Heavy 31%

Tuesday, 29 November 2016

| Time         | Total      | 1          | 2         | 3         | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 1          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.10        | -               |
| 1:00         | 2          | 2          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 96.80        | -               |
| 2:00         | 1          | 0          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 104.50       | -               |
| 3:00         | 5          | 1          | 1         | 2         | 0         | 0        | 0        | 0        | 0        | 0         | 1         | 0        | 0        | 0        | 75.50        | -               |
| 4:00         | 6          | 6          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 96.60        | -               |
| 5:00         | 26         | 19         | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 4         | 2         | 0        | 0        | 0        | 83.58        | 100.80          |
| 6:00         | 53         | 29         | 2         | 7         | 2         | 0        | 1        | 0        | 0        | 9         | 3         | 0        | 0        | 0        | 87.33        | 99.34           |
| 7:00         | 44         | 24         | 1         | 2         | 6         | 0        | 0        | 2        | 0        | 5         | 4         | 0        | 0        | 0        | 84.58        | 98.73           |
| 8:00         | 58         | 38         | 1         | 6         | 3         | 0        | 1        | 0        | 0        | 6         | 3         | 0        | 0        | 0        | 82.25        | 98.31           |
| 9:00         | 32         | 20         | 3         | 4         | 3         | 0        | 0        | 0        | 0        | 2         | 0         | 0        | 0        | 0        | 88.73        | 98.60           |
| 10:00        | 30         | 19         | 1         | 1         | 4         | 0        | 0        | 0        | 0        | 2         | 3         | 0        | 0        | 0        | 81.00        | -               |
| 11:00        | 40         | 19         | 2         | 3         | 3         | 0        | 0        | 0        | 0        | 10        | 3         | 0        | 0        | 0        | 87.40        | 94.00           |
| 12:00        | 33         | 21         | 0         | 3         | 5         | 0        | 0        | 0        | 0        | 2         | 2         | 0        | 0        | 0        | 79.53        | 82.10           |
| 13:00        | 33         | 17         | 0         | 2         | 5         | 0        | 1        | 0        | 0        | 3         | 5         | 0        | 0        | 0        | 84.00        | 95.80           |
| 14:00        | 45         | 28         | 3         | 0         | 7         | 0        | 0        | 0        | 0        | 3         | 4         | 0        | 0        | 0        | 81.45        | 97.87           |
| 15:00        | 65         | 46         | 2         | 9         | 2         | 0        | 0        | 0        | 0        | 2         | 4         | 0        | 0        | 0        | 89.45        | 97.76           |
| 16:00        | 63         | 42         | 1         | 17        | 0         | 0        | 1        | 1        | 0        | 1         | 0         | 0        | 0        | 0        | 83.03        | 95.79           |
| 17:00        | 44         | 38         | 0         | 4         | 2         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 87.73        | 96.17           |
| 18:00        | 25         | 21         | 0         | 1         | 0         | 0        | 1        | 0        | 0        | 1         | 1         | 0        | 0        | 0        | 90.35        | 99.00           |
| 19:00        | 9          | 8          | 0         | 0         | 0         | 0        | 0        | 1        | 0        | 0         | 0         | 0        | 0        | 0        | 87.83        | -               |
| 20:00        | 6          | 3          | 2         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 91.10        | -               |
| 21:00        | 2          | 1          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 98.30        | -               |
| 22:00        | 4          | 3          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 94.87        | -               |
| 23:00        | 0          | 0          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | -            | -               |
| <b>Total</b> | <b>627</b> | <b>406</b> | <b>19</b> | <b>65</b> | <b>42</b> | <b>0</b> | <b>5</b> | <b>4</b> | <b>0</b> | <b>51</b> | <b>35</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>88.17</b> | <b>96.48</b>    |

Light 68% Heavy 32%

Wednesday, 30 November 2016

| Time         | Total      | 1          | 2         | 3         | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 0          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 99.00        | -               |
| 1:00         | 0          | 0          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | -            | -               |
| 2:00         | 2          | 2          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 100.05       | -               |
| 3:00         | 6          | 4          | 0         | 2         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.77        | -               |
| 4:00         | 8          | 6          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 92.00        | -               |
| 5:00         | 28         | 19         | 1         | 2         | 0         | 0        | 0        | 0        | 2        | 4         | 0         | 0        | 0        | 0        | 93.68        | 98.30           |
| 6:00         | 50         | 23         | 2         | 5         | 1         | 1        | 2        | 0        | 0        | 10        | 6         | 0        | 0        | 0        | 85.38        | 99.62           |
| 7:00         | 61         | 37         | 0         | 5         | 10        | 0        | 0        | 0        | 1        | 5         | 3         | 0        | 0        | 0        | 87.90        | 101.66          |
| 8:00         | 62         | 44         | 5         | 4         | 2         | 0        | 0        | 1        | 0        | 4         | 2         | 0        | 0        | 0        | 87.10        | 96.24           |
| 9:00         | 31         | 18         | 2         | 1         | 4         | 0        | 1        | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 84.78        | -               |
| 10:00        | 28         | 18         | 0         | 3         | 2         | 0        | 0        | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 85.85        | -               |
| 11:00        | 47         | 23         | 2         | 7         | 3         | 1        | 0        | 0        | 0        | 6         | 5         | 0        | 0        | 0        | 88.95        | 93.44           |
| 12:00        | 34         | 17         | 1         | 5         | 6         | 0        | 0        | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 87.55        | 87.80           |
| 13:00        | 38         | 15         | 0         | 4         | 5         | 1        | 1        | 0        | 0        | 8         | 4         | 0        | 0        | 0        | 78.35        | 101.86          |
| 14:00        | 42         | 25         | 1         | 4         | 5         | 0        | 0        | 0        | 0        | 5         | 2         | 0        | 0        | 0        | 87.95        | 96.52           |
| 15:00        | 51         | 36         | 2         | 7         | 2         | 0        | 0        | 0        | 0        | 1         | 3         | 0        | 0        | 0        | 84.70        | 98.25           |
| 16:00        | 58         | 47         | 0         | 7         | 1         | 0        | 2        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 89.70        | 103.72          |
| 17:00        | 40         | 34         | 0         | 3         | 1         | 0        | 1        | 1        | 0        | 0         | 0         | 0        | 0        | 0        | 91.38        | 101.20          |
| 18:00        | 17         | 17         | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 98.60        | -               |
| 19:00        | 12         | 8          | 1         | 3         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 85.68        | -               |
| 20:00        | 8          | 8          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 79.70        | -               |
| 21:00        | 5          | 5          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 97.95        | -               |
| 22:00        | 1          | 1          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 88.40        | -               |
| 23:00        | 2          | 2          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.90        | -               |
| <b>Total</b> | <b>632</b> | <b>409</b> | <b>17</b> | <b>64</b> | <b>42</b> | <b>3</b> | <b>7</b> | <b>2</b> | <b>3</b> | <b>57</b> | <b>28</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>89.58</b> | <b>98.05</b>    |

Light 67% Heavy 33%

## Weekday Average

| Time         | Total      | 1          | 2         | 3         | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 2          | 1          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 91.39        | -               |
| 1:00         | 1          | 1          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 98.55        | -               |
| 2:00         | 2          | 1          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.48        | -               |
| 3:00         | 4          | 2          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 84.58        | -               |
| 4:00         | 9          | 7          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 89.76        | -               |
| 5:00         | 27         | 19         | 0         | 2         | 0         | 0        | 0        | 0        | 1        | 4         | 1         | 0        | 0        | 0        | 88.45        | 100.57          |
| 6:00         | 50         | 25         | 2         | 6         | 3         | 0        | 1        | 0        | 0        | 9         | 4         | 0        | 0        | 0        | 86.04        | 100.32          |
| 7:00         | 53         | 32         | 1         | 5         | 5         | 0        | 1        | 1        | 0        | 5         | 3         | 0        | 0        | 0        | 87.98        | 101.83          |
| 8:00         | 61         | 41         | 2         | 4         | 6         | 0        | 0        | 0        | 0        | 5         | 2         | 0        | 0        | 0        | 85.56        | 98.16           |
| 9:00         | 37         | 23         | 2         | 3         | 3         | 0        | 1        | 0        | 0        | 4         | 2         | 0        | 0        | 0        | 85.50        | 93.43           |
| 10:00        | 43         | 25         | 2         | 4         | 4         | 0        | 0        | 0        | 0        | 6         | 2         | 0        | 0        | 0        | 84.44        | 100.25          |
| 11:00        | 43         | 22         | 2         | 4         | 4         | 0        | 0        | 0        | 0        | 7         | 4         | 0        | 0        | 0        | 85.22        | 92.92           |
| 12:00        | 36         | 19         | 1         | 4         | 4         | 0        | 0        | 0        | 0        | 5         | 2         | 0        | 0        | 0        | 82.61        | 90.37           |
| 13:00        | 44         | 21         | 2         | 5         | 3         | 0        | 1        | 0        | 0        | 6         | 5         | 0        | 0        | 0        | 82.12        | 99.05           |
| 14:00        | 46         | 25         | 3         | 5         | 5         | 0        | 0        | 0        | 0        | 4         | 4         | 0        | 0        | 0        | 84.45        | 99.58           |
| 15:00        | 58         | 42         | 2         | 7         | 1         | 0        | 0        | 0        | 0        | 2         | 2         | 0        | 0        | 0        | 88.38        | 100.97          |
| 16:00        | 54         | 43         | 1         | 7         | 1         | 0        | 1        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 89.34        | 100.64          |
| 17:00        | 46         | 38         | 1         | 5         | 1         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.83        | 99.93           |
| 18:00        | 24         | 21         | 1         | 2         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 93.27        | 101.90          |
| 19:00        | 13         | 11         | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 86.86        | -               |
| 20:00        | 10         | 8          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 87.15        | -               |
| 21:00        | 6          | 5          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 95.86        | -               |
| 22:00        | 4          | 3          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 88.82        | -               |
| 23:00        | 2          | 2          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 93.05        | -               |
| <b>Total</b> | <b>675</b> | <b>439</b> | <b>25</b> | <b>68</b> | <b>39</b> | <b>1</b> | <b>5</b> | <b>3</b> | <b>3</b> | <b>58</b> | <b>32</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>88.03</b> | <b>102.17</b>   |

Light 69% Heavy 31%

## Weekend Average

| Time         | Total      | 1          | 2         | 3         | 4        | 5        | 6        | 7        | 8        | 9         | 10       | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|-----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 6          | 5          | 1         | 1         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 88.38        | -               |
| 1:00         | 2          | 2          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 98.83        | -               |
| 2:00         | 3          | 2          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 95.50        | -               |
| 3:00         | 5          | 3          | 0         | 1         | 0        | 0        | 0        | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 88.25        | -               |
| 4:00         | 2          | 2          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 102.10       | -               |
| 5:00         | 6          | 4          | 0         | 1         | 0        | 0        | 1        | 0        | 0        | 2         | 0        | 0        | 0        | 0        | 94.18        | -               |
| 6:00         | 14         | 9          | 2         | 1         | 0        | 0        | 0        | 0        | 0        | 2         | 1        | 0        | 0        | 0        | 94.74        | -               |
| 7:00         | 28         | 21         | 4         | 2         | 0        | 1        | 0        | 0        | 0        | 2         | 0        | 0        | 0        | 0        | 90.26        | 103.70          |
| 8:00         | 32         | 25         | 2         | 2         | 1        | 0        | 0        | 0        | 0        | 3         | 0        | 0        | 0        | 0        | 91.13        | 98.30           |
| 9:00         | 46         | 39         | 2         | 3         | 0        | 0        | 0        | 1        | 0        | 3         | 0        | 0        | 0        | 0        | 84.60        | 97.38           |
| 10:00        | 42         | 33         | 3         | 5         | 1        | 0        | 0        | 0        | 0        | 1         | 1        | 0        | 0        | 0        | 90.34        | 105.08          |
| 11:00        | 42         | 36         | 2         | 5         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 84.99        | 96.96           |
| 12:00        | 37         | 33         | 2         | 1         | 0        | 0        | 1        | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 81.93        | 97.15           |
| 13:00        | 60         | 47         | 5         | 7         | 0        | 0        | 1        | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 78.38        | 97.70           |
| 14:00        | 75         | 55         | 10        | 11        | 0        | 0        | 0        | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 74.90        | 103.15          |
| 15:00        | 66         | 47         | 9         | 10        | 0        | 0        | 1        | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 75.58        | 94.42           |
| 16:00        | 52         | 39         | 7         | 5         | 1        | 0        | 1        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 82.00        | 98.42           |
| 17:00        | 35         | 29         | 2         | 3         | 1        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 90.99        | 100.58          |
| 18:00        | 22         | 18         | 2         | 3         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 89.74        | -               |
| 19:00        | 15         | 12         | 1         | 2         | 1        | 0        | 0        | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 87.23        | -               |
| 20:00        | 4          | 2          | 1         | 1         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 106.80       | -               |
| 21:00        | 10         | 9          | 1         | 1         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 94.10        | -               |
| 22:00        | 4          | 4          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 84.34        | -               |
| 23:00        | 3          | 3          | 0         | 1         | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 108.98       | -               |
| <b>Total</b> | <b>607</b> | <b>472</b> | <b>50</b> | <b>61</b> | <b>4</b> | <b>1</b> | <b>4</b> | <b>4</b> | <b>0</b> | <b>12</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>89.65</b> | <b>103.19</b>   |

Light 86% Heavy 14%

## 7-Day Average

| Time         | Total      | 1          | 2         | 3         | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 3          | 2          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.53        | -               |
| 1:00         | 1          | 1          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 98.69        | -               |
| 2:00         | 2          | 1          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.15        | -               |
| 3:00         | 4          | 2          | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 85.63        | -               |
| 4:00         | 7          | 5          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 91.81        | -               |
| 5:00         | 21         | 14         | 0         | 2         | 0         | 0        | 0        | 0        | 0        | 3         | 1         | 0        | 0        | 0        | 90.08        | 100.57          |
| 6:00         | 39         | 21         | 2         | 4         | 2         | 0        | 0        | 0        | 0        | 7         | 3         | 0        | 0        | 0        | 88.52        | 100.32          |
| 7:00         | 46         | 29         | 2         | 4         | 3         | 0        | 0        | 1        | 0        | 4         | 2         | 0        | 0        | 0        | 88.63        | 102.36          |
| 8:00         | 52         | 36         | 2         | 4         | 4         | 0        | 0        | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 87.15        | 98.18           |
| 9:00         | 40         | 27         | 2         | 3         | 2         | 0        | 1        | 0        | 0        | 3         | 1         | 0        | 0        | 0        | 85.24        | 94.74           |
| 10:00        | 43         | 27         | 2         | 4         | 3         | 0        | 0        | 0        | 0        | 5         | 2         | 0        | 0        | 0        | 86.12        | 101.46          |
| 11:00        | 43         | 26         | 2         | 4         | 3         | 0        | 0        | 0        | 0        | 5         | 3         | 0        | 0        | 0        | 85.15        | 94.08           |
| 12:00        | 36         | 23         | 1         | 3         | 3         | 0        | 0        | 0        | 0        | 4         | 2         | 0        | 0        | 0        | 82.41        | 91.50           |
| 13:00        | 49         | 29         | 3         | 5         | 2         | 0        | 1        | 0        | 0        | 4         | 4         | 0        | 0        | 0        | 81.05        | 98.67           |
| 14:00        | 54         | 34         | 5         | 6         | 4         | 0        | 0        | 0        | 0        | 3         | 3         | 0        | 0        | 0        | 81.72        | 100.60          |
| 15:00        | 60         | 44         | 4         | 8         | 1         | 0        | 0        | 0        | 0        | 2         | 2         | 0        | 0        | 0        | 84.72        | 99.10           |
| 16:00        | 54         | 42         | 3         | 7         | 1         | 0        | 1        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 87.24        | 100.01          |
| 17:00        | 43         | 35         | 1         | 4         | 1         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.88        | 100.11          |
| 18:00        | 24         | 20         | 1         | 2         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.26        | 101.90          |
| 19:00        | 13         | 11         | 0         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 86.96        | -               |
| 20:00        | 8          | 6          | 1         | 1         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.76        | -               |
| 21:00        | 7          | 6          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 95.35        | -               |
| 22:00        | 4          | 3          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 87.54        | -               |
| 23:00        | 3          | 2          | 0         | 0         | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 98.36        | -               |
| <b>Total</b> | <b>655</b> | <b>448</b> | <b>32</b> | <b>66</b> | <b>29</b> | <b>1</b> | <b>5</b> | <b>3</b> | <b>2</b> | <b>45</b> | <b>23</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>88.50</b> | <b>102.46</b>   |

Light 73% Heavy 27%

## Thursday, 24 November 2016

| Time         | Total      | 1          | 2         | 3          | 4         | 5        | 6         | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|-----------|----------|-----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 2          | 2          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.00        | -               |
| 1:00         | 0          | 0          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | -            | -               |
| 2:00         | 1          | 0          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 81.00        | -               |
| 3:00         | 2          | 0          | 0         | 2          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 79.75        | -               |
| 4:00         | 12         | 9          | 0         | 3          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 77.53        | -               |
| 5:00         | 26         | 13         | 0         | 11         | 0         | 0        | 0         | 1        | 0        | 0         | 1         | 0        | 0        | 0        | 91.80        | 97.60           |
| 6:00         | 41         | 18         | 0         | 10         | 3         | 0        | 0         | 0        | 0        | 9         | 1         | 0        | 0        | 0        | 86.75        | 96.28           |
| 7:00         | 48         | 26         | 2         | 12         | 2         | 0        | 1         | 0        | 1        | 4         | 0         | 0        | 0        | 0        | 87.75        | 98.95           |
| 8:00         | 51         | 28         | 1         | 7          | 2         | 0        | 3         | 0        | 0        | 7         | 3         | 0        | 0        | 0        | 83.60        | 90.77           |
| 9:00         | 41         | 24         | 2         | 6          | 2         | 0        | 0         | 1        | 0        | 6         | 0         | 0        | 0        | 0        | 86.23        | 94.99           |
| 10:00        | 52         | 25         | 1         | 10         | 3         | 0        | 0         | 0        | 1        | 9         | 3         | 0        | 0        | 0        | 84.33        | 98.06           |
| 11:00        | 40         | 14         | 3         | 4          | 6         | 0        | 1         | 0        | 0        | 10        | 2         | 0        | 0        | 0        | 82.45        | 93.94           |
| 12:00        | 38         | 14         | 2         | 6          | 2         | 0        | 1         | 0        | 1        | 6         | 6         | 0        | 0        | 0        | 82.20        | 91.98           |
| 13:00        | 43         | 11         | 1         | 10         | 5         | 1        | 0         | 0        | 1        | 13        | 1         | 0        | 0        | 0        | 81.65        | 97.43           |
| 14:00        | 37         | 17         | 1         | 4          | 2         | 0        | 1         | 0        | 0        | 8         | 4         | 0        | 0        | 0        | 83.83        | 106.60          |
| 15:00        | 53         | 25         | 2         | 15         | 2         | 0        | 0         | 0        | 1        | 3         | 5         | 0        | 0        | 0        | 85.75        | 96.17           |
| 16:00        | 68         | 44         | 1         | 19         | 0         | 0        | 2         | 0        | 0        | 0         | 2         | 0        | 0        | 0        | 90.25        | 102.47          |
| 17:00        | 56         | 35         | 1         | 15         | 2         | 0        | 1         | 0        | 0        | 1         | 1         | 0        | 0        | 0        | 91.15        | 103.35          |
| 18:00        | 26         | 23         | 0         | 1          | 0         | 0        | 1         | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 95.55        | -               |
| 19:00        | 19         | 16         | 0         | 2          | 0         | 0        | 0         | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 91.78        | -               |
| 20:00        | 8          | 4          | 1         | 3          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 86.98        | -               |
| 21:00        | 13         | 10         | 1         | 2          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 89.05        | -               |
| 22:00        | 6          | 5          | 0         | 0          | 0         | 0        | 0         | 1        | 0        | 0         | 0         | 0        | 0        | 0        | 86.73        | -               |
| 23:00        | 7          | 4          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 2         | 1         | 0        | 0        | 0        | 83.80        | -               |
| <b>Total</b> | <b>690</b> | <b>367</b> | <b>19</b> | <b>143</b> | <b>31</b> | <b>1</b> | <b>11</b> | <b>3</b> | <b>5</b> | <b>80</b> | <b>30</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>86.08</b> | <b>97.58</b>    |

Light 56% Heavy 44%

## Friday, 25 November 2016

| Time         | Total      | 1          | 2         | 3          | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 80.10        | -               |
| 1:00         | 3          | 1          | 0         | 1          | 0         | 0        | 0        | 0        | 1        | 0         | 0         | 0        | 0        | 0        | 82.10        | -               |
| 2:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 101.40       | -               |
| 3:00         | 3          | 1          | 0         | 2          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 85.30        | -               |
| 4:00         | 10         | 9          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 86.83        | -               |
| 5:00         | 25         | 16         | 0         | 8          | 0         | 0        | 0        | 0        | 0        | 0         | 1         | 0        | 0        | 0        | 87.73        | -               |
| 6:00         | 49         | 24         | 0         | 11         | 4         | 0        | 0        | 1        | 0        | 6         | 3         | 0        | 0        | 0        | 85.25        | 97.64           |
| 7:00         | 37         | 21         | 1         | 5          | 5         | 0        | 1        | 1        | 0        | 2         | 1         | 0        | 0        | 0        | 81.23        | 97.90           |
| 8:00         | 49         | 27         | 2         | 6          | 2         | 0        | 1        | 0        | 0        | 8         | 3         | 0        | 0        | 0        | 82.48        | 96.56           |
| 9:00         | 39         | 24         | 2         | 6          | 4         | 0        | 0        | 0        | 0        | 3         | 0         | 0        | 0        | 0        | 87.38        | 100.06          |
| 10:00        | 63         | 29         | 2         | 15         | 5         | 0        | 0        | 1        | 0        | 7         | 4         | 0        | 0        | 0        | 81.78        | 96.30           |
| 11:00        | 44         | 22         | 3         | 3          | 7         | 0        | 0        | 0        | 0        | 5         | 4         | 0        | 0        | 0        | 79.28        | 93.20           |
| 12:00        | 52         | 31         | 0         | 7          | 4         | 0        | 0        | 1        | 1        | 7         | 1         | 0        | 0        | 0        | 86.18        | 98.53           |
| 13:00        | 45         | 19         | 3         | 7          | 4         | 0        | 1        | 0        | 0        | 4         | 7         | 0        | 0        | 0        | 83.18        | 96.94           |
| 14:00        | 48         | 23         | 2         | 10         | 2         | 0        | 2        | 1        | 0        | 6         | 2         | 0        | 0        | 0        | 88.08        | 100.33          |
| 15:00        | 59         | 27         | 2         | 15         | 2         | 0        | 1        | 1        | 0        | 7         | 4         | 0        | 0        | 0        | 87.40        | 103.55          |
| 16:00        | 57         | 32         | 2         | 19         | 0         | 0        | 0        | 1        | 0        | 2         | 1         | 0        | 0        | 0        | 90.75        | 105.32          |
| 17:00        | 49         | 35         | 4         | 5          | 3         | 0        | 0        | 1        | 0        | 1         | 0         | 0        | 0        | 0        | 85.08        | 102.44          |
| 18:00        | 32         | 23         | 2         | 7          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 93.93        | -               |
| 19:00        | 31         | 20         | 0         | 9          | 0         | 0        | 1        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 91.88        | 101.20          |
| 20:00        | 11         | 5          | 0         | 6          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 95.88        | -               |
| 21:00        | 7          | 5          | 0         | 0          | 0         | 0        | 0        | 1        | 0        | 1         | 0         | 0        | 0        | 0        | 85.40        | -               |
| 22:00        | 15         | 11         | 0         | 4          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 88.80        | -               |
| 23:00        | 16         | 14         | 0         | 2          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 88.40        | -               |
| <b>Total</b> | <b>746</b> | <b>421</b> | <b>25</b> | <b>149</b> | <b>42</b> | <b>0</b> | <b>7</b> | <b>9</b> | <b>3</b> | <b>59</b> | <b>31</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>86.91</b> | <b>99.23</b>    |

Light 60% Heavy 40%

## Saturday, 26 November 2016

| Time         | Total      | 1          | 2         | 3          | 4        | 5        | 6        | 7        | 8        | 9         | 10       | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 1          | 0         | 0          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 90.40        | -               |
| 1:00         | 5          | 4          | 0         | 1          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 93.37        | -               |
| 2:00         | 0          | 0          | 0         | 0          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | -            | -               |
| 3:00         | 0          | 0          | 0         | 0          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | -            | -               |
| 4:00         | 6          | 5          | 1         | 0          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 86.87        | -               |
| 5:00         | 8          | 6          | 1         | 1          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 86.30        | -               |
| 6:00         | 25         | 12         | 1         | 7          | 0        | 0        | 0        | 0        | 0        | 5         | 0        | 0        | 0        | 0        | 88.23        | -               |
| 7:00         | 43         | 29         | 0         | 10         | 0        | 0        | 0        | 1        | 0        | 3         | 0        | 0        | 0        | 0        | 81.93        | 97.49           |
| 8:00         | 30         | 14         | 0         | 10         | 0        | 0        | 1        | 0        | 0        | 5         | 0        | 0        | 0        | 0        | 75.10        | -               |
| 9:00         | 57         | 31         | 5         | 15         | 3        | 0        | 1        | 1        | 0        | 1         | 0        | 0        | 0        | 0        | 69.35        | 82.42           |
| 10:00        | 68         | 38         | 7         | 14         | 3        | 0        | 2        | 0        | 0        | 4         | 0        | 0        | 0        | 0        | 76.40        | 93.51           |
| 11:00        | 49         | 29         | 5         | 13         | 0        | 0        | 2        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 84.33        | 93.44           |
| 12:00        | 41         | 25         | 5         | 7          | 1        | 0        | 1        | 0        | 0        | 2         | 0        | 0        | 0        | 0        | 81.75        | 91.80           |
| 13:00        | 38         | 25         | 1         | 10         | 0        | 0        | 0        | 0        | 0        | 2         | 0        | 0        | 0        | 0        | 89.28        | 101.20          |
| 14:00        | 36         | 25         | 1         | 8          | 0        | 0        | 2        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 90.33        | 99.00           |
| 15:00        | 25         | 18         | 2         | 5          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 91.23        | -               |
| 16:00        | 34         | 25         | 0         | 8          | 0        | 0        | 0        | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 88.78        | 96.24           |
| 17:00        | 32         | 27         | 0         | 4          | 0        | 0        | 0        | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 90.10        | 102.60          |
| 18:00        | 19         | 16         | 0         | 3          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 96.28        | -               |
| 19:00        | 15         | 11         | 1         | 2          | 0        | 0        | 0        | 0        | 0        | 0         | 1        | 0        | 0        | 0        | 91.80        | -               |
| 20:00        | 9          | 6          | 0         | 3          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 97.07        | -               |
| 21:00        | 6          | 5          | 1         | 0          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 91.80        | -               |
| 22:00        | 9          | 5          | 0         | 3          | 0        | 0        | 0        | 0        | 1        | 0         | 0        | 0        | 0        | 0        | 89.28        | -               |
| 23:00        | 8          | 6          | 0         | 2          | 0        | 0        | 0        | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 87.55        | -               |
| <b>Total</b> | <b>564</b> | <b>363</b> | <b>31</b> | <b>126</b> | <b>7</b> | <b>0</b> | <b>9</b> | <b>4</b> | <b>1</b> | <b>22</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>87.16</b> | <b>95.30</b>    |

Light 70% Heavy 30%

Sunday, 27 November 2016

| Time         | Total      | 1          | 2         | 3          | 4        | 5        | 6         | 7        | 8        | 9        | 10       | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 7          | 6          | 0         | 1          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 87.40        | -               |
| 1:00         | 0          | 0          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | -            | -               |
| 2:00         | 2          | 2          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 87.30        | -               |
| 3:00         | 0          | 0          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | -            | -               |
| 4:00         | 1          | 1          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 84.80        | -               |
| 5:00         | 2          | 2          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 94.90        | -               |
| 6:00         | 4          | 2          | 0         | 2          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 88.70        | -               |
| 7:00         | 7          | 6          | 1         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 86.88        | -               |
| 8:00         | 40         | 21         | 3         | 13         | 0        | 0        | 3         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 79.25        | 87.63           |
| 9:00         | 100        | 47         | 14        | 31         | 0        | 0        | 8         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 73.00        | 90.36           |
| 10:00        | 81         | 44         | 8         | 22         | 0        | 0        | 5         | 2        | 0        | 0        | 0        | 0        | 0        | 0        | 78.98        | 95.42           |
| 11:00        | 67         | 48         | 7         | 8          | 0        | 0        | 1         | 2        | 0        | 1        | 0        | 0        | 0        | 0        | 84.75        | 105.04          |
| 12:00        | 52         | 36         | 6         | 9          | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 88.75        | 97.96           |
| 13:00        | 46         | 36         | 1         | 9          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 89.58        | 100.44          |
| 14:00        | 63         | 46         | 2         | 12         | 0        | 0        | 3         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 84.95        | 95.47           |
| 15:00        | 72         | 51         | 6         | 14         | 0        | 0        | 0         | 1        | 0        | 0        | 0        | 0        | 0        | 0        | 88.60        | 100.20          |
| 16:00        | 37         | 26         | 2         | 8          | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 93.48        | 104.40          |
| 17:00        | 46         | 35         | 1         | 9          | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 91.13        | 103.92          |
| 18:00        | 23         | 20         | 0         | 1          | 0        | 0        | 1         | 0        | 0        | 1        | 0        | 0        | 0        | 0        | 94.30        | -               |
| 19:00        | 16         | 13         | 0         | 3          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 93.93        | -               |
| 20:00        | 10         | 6          | 1         | 3          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 84.60        | -               |
| 21:00        | 7          | 2          | 0         | 4          | 0        | 0        | 0         | 0        | 0        | 1        | 0        | 0        | 0        | 0        | 86.33        | -               |
| 22:00        | 5          | 5          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 94.55        | -               |
| 23:00        | 3          | 3          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 88.75        | -               |
| <b>Total</b> | <b>691</b> | <b>458</b> | <b>52</b> | <b>149</b> | <b>0</b> | <b>0</b> | <b>24</b> | <b>5</b> | <b>0</b> | <b>3</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>87.49</b> | <b>98.08</b>    |

Light 74% Heavy 26%

Monday, 28 November 2016

| Time         | Total      | 1          | 2         | 3          | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 2          | 2          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 100.50       | -               |
| 1:00         | 0          | 0          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | -            | -               |
| 2:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 56.30        | -               |
| 3:00         | 2          | 1          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 72.55        | -               |
| 4:00         | 11         | 8          | 0         | 2          | 0         | 0        | 1        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 88.95        | -               |
| 5:00         | 32         | 19         | 0         | 12         | 0         | 0        | 0        | 0        | 0        | 0         | 1         | 0        | 0        | 0        | 92.15        | 95.80           |
| 6:00         | 49         | 26         | 0         | 16         | 4         | 0        | 1        | 0        | 0        | 0         | 2         | 0        | 0        | 0        | 88.18        | 101.80          |
| 7:00         | 35         | 21         | 1         | 6          | 0         | 0        | 1        | 1        | 1        | 3         | 1         | 0        | 0        | 0        | 89.05        | 95.00           |
| 8:00         | 45         | 26         | 1         | 12         | 1         | 0        | 0        | 0        | 2        | 2         | 1         | 0        | 0        | 0        | 82.23        | 92.39           |
| 9:00         | 47         | 16         | 1         | 14         | 4         | 0        | 1        | 1        | 0        | 8         | 2         | 0        | 0        | 0        | 84.80        | 96.73           |
| 10:00        | 43         | 21         | 2         | 3          | 2         | 0        | 1        | 1        | 0        | 7         | 6         | 0        | 0        | 0        | 80.28        | 94.93           |
| 11:00        | 34         | 16         | 1         | 8          | 3         | 1        | 0        | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 83.83        | -               |
| 12:00        | 49         | 25         | 2         | 7          | 2         | 0        | 2        | 0        | 0        | 6         | 5         | 0        | 0        | 0        | 83.08        | 91.75           |
| 13:00        | 47         | 16         | 3         | 17         | 3         | 1        | 1        | 0        | 0        | 5         | 1         | 0        | 0        | 0        | 81.88        | 98.68           |
| 14:00        | 48         | 19         | 4         | 14         | 0         | 0        | 0        | 0        | 3        | 3         | 4         | 1        | 0        | 0        | 79.95        | 98.99           |
| 15:00        | 50         | 20         | 3         | 14         | 1         | 0        | 0        | 0        | 0        | 10        | 2         | 0        | 0        | 0        | 86.95        | 103.76          |
| 16:00        | 40         | 29         | 1         | 6          | 0         | 0        | 0        | 0        | 1        | 2         | 1         | 0        | 0        | 0        | 88.23        | 97.63           |
| 17:00        | 44         | 28         | 1         | 12         | 0         | 0        | 0        | 0        | 0        | 1         | 2         | 0        | 0        | 0        | 90.80        | 101.29          |
| 18:00        | 23         | 18         | 0         | 4          | 0         | 0        | 0        | 1        | 0        | 0         | 0         | 0        | 0        | 0        | 100.00       | 101.20          |
| 19:00        | 11         | 10         | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.35        | -               |
| 20:00        | 15         | 10         | 0         | 4          | 1         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 91.60        | -               |
| 21:00        | 6          | 5          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 94.30        | -               |
| 22:00        | 9          | 8          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 89.58        | -               |
| 23:00        | 4          | 1          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 2         | 0         | 0        | 0        | 0        | 83.10        | -               |
| <b>Total</b> | <b>647</b> | <b>346</b> | <b>20</b> | <b>156</b> | <b>21</b> | <b>2</b> | <b>8</b> | <b>4</b> | <b>7</b> | <b>53</b> | <b>29</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>86.03</b> | <b>97.69</b>    |

Light 57% Heavy 43%

Tuesday, 29 November 2016

| Time         | Total      | 1          | 2         | 3          | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 106.60       | -               |
| 1:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 93.40        | -               |
| 2:00         | 0          | 0          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | -            | -               |
| 3:00         | 4          | 2          | 0         | 2          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 72.47        | -               |
| 4:00         | 8          | 5          | 0         | 3          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 84.70        | -               |
| 5:00         | 31         | 20         | 1         | 9          | 0         | 0        | 0        | 0        | 0        | 0         | 1         | 0        | 0        | 0        | 92.48        | 97.05           |
| 6:00         | 44         | 19         | 1         | 17         | 2         | 0        | 1        | 0        | 0        | 2         | 2         | 0        | 0        | 0        | 84.30        | 93.71           |
| 7:00         | 62         | 34         | 2         | 13         | 3         | 0        | 1        | 1        | 0        | 5         | 3         | 0        | 0        | 0        | 82.03        | 96.50           |
| 8:00         | 52         | 29         | 0         | 14         | 0         | 0        | 2        | 0        | 0        | 7         | 0         | 0        | 0        | 0        | 84.15        | 95.84           |
| 9:00         | 33         | 19         | 1         | 5          | 4         | 0        | 0        | 0        | 0        | 1         | 3         | 0        | 0        | 0        | 83.78        | -               |
| 10:00        | 40         | 18         | 1         | 8          | 5         | 0        | 0        | 0        | 0        | 6         | 2         | 0        | 0        | 0        | 82.30        | 95.41           |
| 11:00        | 34         | 16         | 1         | 8          | 3         | 0        | 0        | 0        | 0        | 4         | 2         | 0        | 0        | 0        | 88.13        | 96.80           |
| 12:00        | 35         | 15         | 2         | 8          | 3         | 0        | 1        | 0        | 0        | 3         | 3         | 0        | 0        | 0        | 81.15        | 91.80           |
| 13:00        | 40         | 15         | 2         | 7          | 5         | 0        | 1        | 0        | 1        | 4         | 5         | 0        | 0        | 0        | 82.28        | 88.90           |
| 14:00        | 43         | 20         | 1         | 9          | 5         | 0        | 1        | 0        | 0        | 5         | 2         | 0        | 0        | 0        | 87.43        | 99.93           |
| 15:00        | 64         | 30         | 4         | 12         | 4         | 0        | 0        | 1        | 0        | 9         | 4         | 0        | 0        | 0        | 84.28        | 99.72           |
| 16:00        | 47         | 26         | 3         | 16         | 0         | 0        | 0        | 0        | 0        | 0         | 2         | 0        | 0        | 0        | 93.50        | 100.00          |
| 17:00        | 31         | 22         | 2         | 6          | 0         | 0        | 0        | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 87.55        | 100.81          |
| 18:00        | 26         | 18         | 1         | 6          | 0         | 0        | 0        | 1        | 0        | 0         | 0         | 0        | 0        | 0        | 92.33        | -               |
| 19:00        | 11         | 9          | 0         | 2          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 93.15        | -               |
| 20:00        | 10         | 7          | 0         | 2          | 0         | 0        | 0        | 1        | 0        | 0         | 0         | 0        | 0        | 0        | 96.55        | -               |
| 21:00        | 9          | 7          | 0         | 1          | 0         | 0        | 0        | 1        | 0        | 0         | 0         | 0        | 0        | 0        | 89.85        | -               |
| 22:00        | 6          | 6          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 96.53        | -               |
| 23:00        | 8          | 4          | 0         | 2          | 0         | 0        | 0        | 0        | 0        | 0         | 2         | 0        | 0        | 0        | 86.20        | -               |
| <b>Total</b> | <b>640</b> | <b>343</b> | <b>22</b> | <b>150</b> | <b>34</b> | <b>0</b> | <b>7</b> | <b>5</b> | <b>1</b> | <b>47</b> | <b>31</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>88.05</b> | <b>96.37</b>    |

Light 57% Heavy 43%

Wednesday, 30 November 2016

| Time         | Total      | 1          | 2         | 3          | 4         | 5        | 6         | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|-----------|----------|-----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 103.30       | -               |
| 1:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 102.40       | -               |
| 2:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 86.70        | -               |
| 3:00         | 2          | 2          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 73.90        | -               |
| 4:00         | 8          | 7          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 88.75        | -               |
| 5:00         | 37         | 21         | 0         | 11         | 0         | 1        | 1         | 0        | 0        | 1         | 2         | 0        | 0        | 0        | 86.83        | 102.20          |
| 6:00         | 41         | 14         | 1         | 15         | 5         | 0        | 0         | 0        | 1        | 4         | 1         | 0        | 0        | 0        | 83.83        | 99.00           |
| 7:00         | 49         | 27         | 3         | 8          | 2         | 0        | 0         | 0        | 0        | 8         | 1         | 0        | 0        | 0        | 87.98        | 97.50           |
| 8:00         | 43         | 23         | 1         | 7          | 4         | 0        | 3         | 0        | 0        | 3         | 2         | 0        | 0        | 0        | 84.75        | 93.50           |
| 9:00         | 41         | 25         | 0         | 4          | 4         | 0        | 1         | 0        | 0        | 6         | 1         | 0        | 0        | 0        | 85.63        | 96.39           |
| 10:00        | 42         | 18         | 2         | 10         | 3         | 1        | 0         | 0        | 0        | 3         | 5         | 0        | 0        | 0        | 86.30        | 96.22           |
| 11:00        | 41         | 23         | 2         | 7          | 2         | 0        | 1         | 0        | 0        | 5         | 1         | 0        | 0        | 0        | 90.43        | 99.07           |
| 12:00        | 39         | 13         | 2         | 8          | 4         | 0        | 1         | 0        | 0        | 7         | 4         | 0        | 0        | 0        | 80.30        | 96.65           |
| 13:00        | 39         | 19         | 3         | 3          | 6         | 0        | 0         | 0        | 0        | 7         | 1         | 0        | 0        | 0        | 87.23        | 102.20          |
| 14:00        | 25         | 8          | 0         | 5          | 2         | 0        | 1         | 0        | 0        | 4         | 5         | 0        | 0        | 0        | 77.18        | -               |
| 15:00        | 49         | 25         | 2         | 10         | 1         | 0        | 2         | 0        | 0        | 5         | 4         | 0        | 0        | 0        | 85.38        | 101.84          |
| 16:00        | 48         | 29         | 0         | 13         | 1         | 0        | 1         | 0        | 0        | 2         | 1         | 0        | 0        | 1        | 87.73        | 100.62          |
| 17:00        | 43         | 34         | 2         | 5          | 1         | 0        | 0         | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 91.35        | 98.70           |
| 18:00        | 27         | 21         | 1         | 5          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.73        | 100.40          |
| 19:00        | 9          | 9          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 85.83        | -               |
| 20:00        | 7          | 6          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.07        | -               |
| 21:00        | 5          | 2          | 0         | 3          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 96.20        | -               |
| 22:00        | 5          | 4          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 99.37        | -               |
| 23:00        | 6          | 4          | 0         | 2          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 98.70        | -               |
| <b>Total</b> | <b>609</b> | <b>337</b> | <b>19</b> | <b>119</b> | <b>35</b> | <b>2</b> | <b>11</b> | <b>0</b> | <b>1</b> | <b>56</b> | <b>28</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>88.95</b> | <b>98.79</b>    |

Light 58% Heavy 42%

## Weekday Average

| Time         | Total      | 1          | 2         | 3          | 4         | 5        | 6        | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 96.10        | -               |
| 1:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.63        | -               |
| 2:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 81.35        | -               |
| 3:00         | 3          | 1          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 76.79        | -               |
| 4:00         | 10         | 8          | 0         | 2          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 85.35        | -               |
| 5:00         | 30         | 18         | 0         | 10         | 0         | 0        | 0        | 0        | 0        | 0         | 1         | 0        | 0        | 0        | 90.20        | 98.16           |
| 6:00         | 45         | 20         | 0         | 14         | 4         | 0        | 0        | 0        | 0        | 4         | 2         | 0        | 0        | 0        | 85.66        | 97.69           |
| 7:00         | 46         | 26         | 2         | 9          | 2         | 0        | 1        | 1        | 0        | 4         | 1         | 0        | 0        | 0        | 85.61        | 97.17           |
| 8:00         | 48         | 27         | 1         | 9          | 2         | 0        | 2        | 0        | 0        | 5         | 2         | 0        | 0        | 0        | 83.44        | 93.81           |
| 9:00         | 40         | 22         | 1         | 7          | 4         | 0        | 0        | 0        | 0        | 5         | 1         | 0        | 0        | 0        | 85.56        | 97.04           |
| 10:00        | 48         | 22         | 2         | 9          | 4         | 0        | 0        | 0        | 0        | 6         | 4         | 0        | 0        | 0        | 83.00        | 96.18           |
| 11:00        | 39         | 18         | 2         | 6          | 4         | 0        | 0        | 0        | 0        | 6         | 2         | 0        | 0        | 0        | 84.82        | 95.75           |
| 12:00        | 43         | 20         | 2         | 7          | 3         | 0        | 1        | 0        | 0        | 6         | 4         | 0        | 0        | 0        | 82.58        | 94.14           |
| 13:00        | 43         | 16         | 2         | 9          | 5         | 0        | 1        | 0        | 0        | 7         | 3         | 0        | 0        | 0        | 83.24        | 96.83           |
| 14:00        | 40         | 17         | 2         | 8          | 2         | 0        | 1        | 0        | 1        | 5         | 3         | 0        | 0        | 0        | 83.29        | 101.46          |
| 15:00        | 55         | 25         | 3         | 13         | 2         | 0        | 1        | 0        | 0        | 7         | 4         | 0        | 0        | 0        | 85.95        | 101.01          |
| 16:00        | 52         | 32         | 1         | 15         | 0         | 0        | 1        | 0        | 0        | 1         | 1         | 0        | 0        | 0        | 90.09        | 101.21          |
| 17:00        | 45         | 31         | 2         | 9          | 1         | 0        | 0        | 0        | 0        | 1         | 1         | 0        | 0        | 0        | 89.19        | 101.32          |
| 18:00        | 27         | 21         | 1         | 5          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 94.91        | 100.80          |
| 19:00        | 16         | 13         | 0         | 3          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.60        | 101.20          |
| 20:00        | 10         | 6          | 0         | 3          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.61        | -               |
| 21:00        | 8          | 6          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.96        | -               |
| 22:00        | 8          | 7          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.20        | -               |
| 23:00        | 8          | 5          | 0         | 1          | 0         | 0        | 0        | 0        | 0        | 1         | 1         | 0        | 0        | 0        | 88.04        | -               |
| <b>Total</b> | <b>666</b> | <b>363</b> | <b>21</b> | <b>143</b> | <b>33</b> | <b>1</b> | <b>9</b> | <b>4</b> | <b>3</b> | <b>59</b> | <b>30</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>87.20</b> | <b>101.71</b>   |

Light 58% Heavy 42%

## Weekend Average

| Time         | Total      | 1          | 2         | 3          | 4        | 5        | 6         | 7        | 8        | 9         | 10       | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|----------|----------|-----------|----------|----------|-----------|----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 4          | 4          | 0         | 1          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 88.90        | -               |
| 1:00         | 3          | 2          | 0         | 1          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 93.37        | -               |
| 2:00         | 1          | 1          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 87.30        | -               |
| 3:00         | 0          | 0          | 0         | 0          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | -            | -               |
| 4:00         | 4          | 3          | 1         | 0          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 85.83        | -               |
| 5:00         | 5          | 4          | 1         | 1          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 90.60        | -               |
| 6:00         | 15         | 7          | 1         | 5          | 0        | 0        | 0         | 0        | 0        | 3         | 0        | 0        | 0        | 0        | 88.46        | -               |
| 7:00         | 25         | 18         | 1         | 5          | 0        | 0        | 0         | 1        | 0        | 2         | 0        | 0        | 0        | 0        | 84.40        | 97.49           |
| 8:00         | 35         | 18         | 2         | 12         | 0        | 0        | 2         | 0        | 0        | 3         | 0        | 0        | 0        | 0        | 77.18        | 87.63           |
| 9:00         | 79         | 39         | 10        | 23         | 2        | 0        | 5         | 1        | 0        | 1         | 0        | 0        | 0        | 0        | 71.18        | 86.39           |
| 10:00        | 75         | 41         | 8         | 18         | 2        | 0        | 4         | 1        | 0        | 2         | 0        | 0        | 0        | 0        | 77.69        | 94.46           |
| 11:00        | 58         | 39         | 6         | 11         | 0        | 0        | 2         | 1        | 0        | 1         | 0        | 0        | 0        | 0        | 84.54        | 99.24           |
| 12:00        | 47         | 31         | 6         | 8          | 1        | 0        | 1         | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 85.25        | 94.88           |
| 13:00        | 42         | 31         | 1         | 10         | 0        | 0        | 0         | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 89.43        | 100.82          |
| 14:00        | 50         | 36         | 2         | 10         | 0        | 0        | 3         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 87.64        | 97.24           |
| 15:00        | 49         | 35         | 4         | 10         | 0        | 0        | 0         | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 89.91        | 100.20          |
| 16:00        | 36         | 26         | 1         | 8          | 0        | 0        | 1         | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 91.13        | 100.32          |
| 17:00        | 39         | 31         | 1         | 7          | 0        | 0        | 1         | 1        | 0        | 0         | 0        | 0        | 0        | 0        | 90.61        | 103.26          |
| 18:00        | 21         | 18         | 0         | 2          | 0        | 0        | 1         | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 95.29        | -               |
| 19:00        | 16         | 12         | 1         | 3          | 0        | 0        | 0         | 0        | 0        | 0         | 1        | 0        | 0        | 0        | 92.86        | -               |
| 20:00        | 10         | 6          | 1         | 3          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 90.83        | -               |
| 21:00        | 7          | 4          | 1         | 2          | 0        | 0        | 0         | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 89.06        | -               |
| 22:00        | 7          | 5          | 0         | 2          | 0        | 0        | 0         | 0        | 1        | 0         | 0        | 0        | 0        | 0        | 91.91        | -               |
| 23:00        | 6          | 5          | 0         | 1          | 0        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 88.15        | -               |
| <b>Total</b> | <b>628</b> | <b>411</b> | <b>42</b> | <b>138</b> | <b>4</b> | <b>0</b> | <b>17</b> | <b>5</b> | <b>1</b> | <b>13</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>87.33</b> | <b>102.50</b>   |

Light 72% Heavy 28%

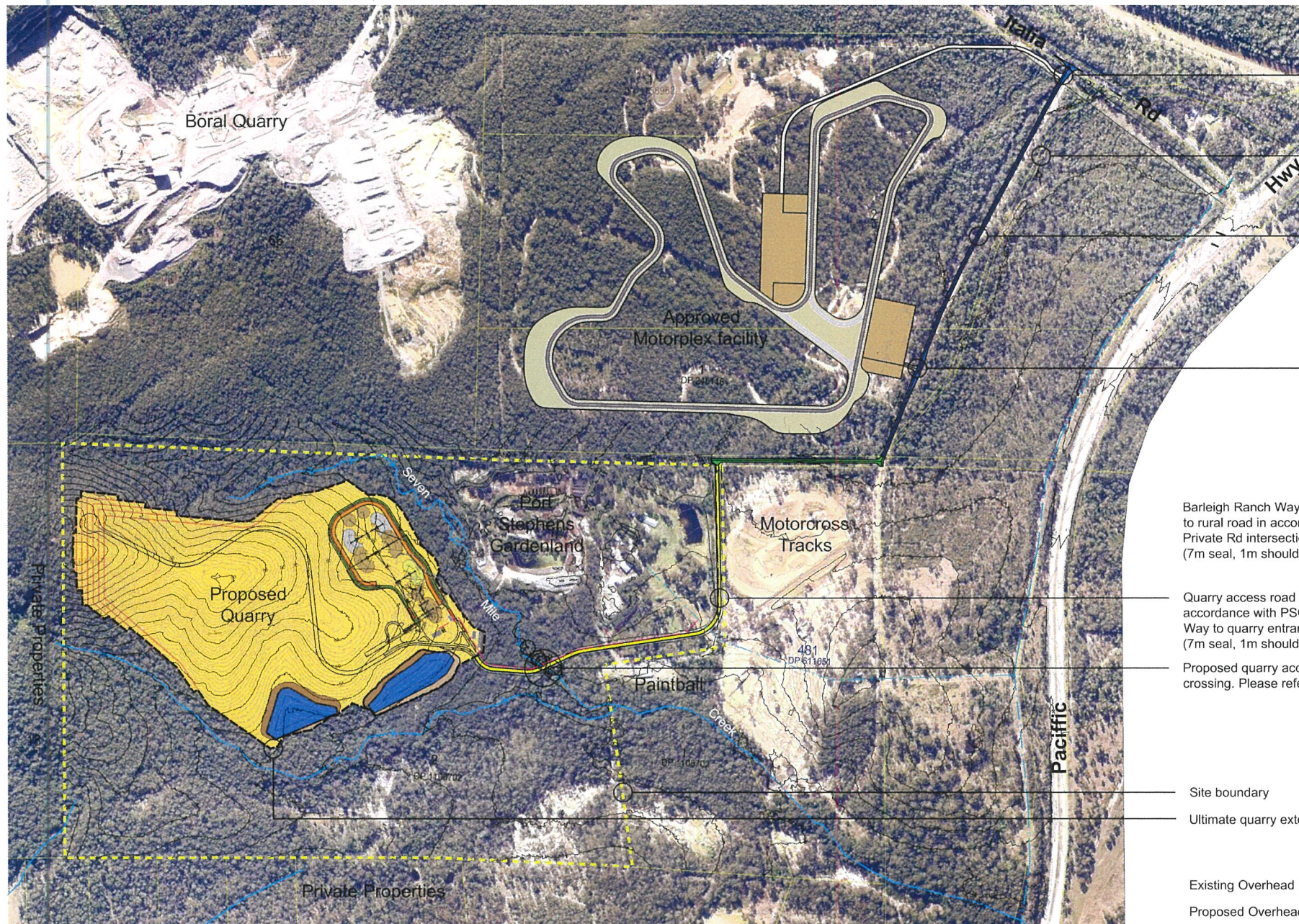
## 7-Day Average

| Time         | Total      | 1          | 2         | 3          | 4         | 5        | 6         | 7        | 8        | 9         | 10        | 11       | 12       | 13       | Mean         | 85th Percentile |
|--------------|------------|------------|-----------|------------|-----------|----------|-----------|----------|----------|-----------|-----------|----------|----------|----------|--------------|-----------------|
| 0:00         | 2          | 2          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 94.04        | -               |
| 1:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.82        | -               |
| 2:00         | 1          | 1          | 0         | 0          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 82.54        | -               |
| 3:00         | 2          | 1          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 76.79        | -               |
| 4:00         | 8          | 6          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 85.49        | -               |
| 5:00         | 23         | 14         | 0         | 7          | 0         | 0        | 0         | 0        | 0        | 0         | 1         | 0        | 0        | 0        | 90.31        | 98.16           |
| 6:00         | 36         | 16         | 0         | 11         | 3         | 0        | 0         | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 86.46        | 97.69           |
| 7:00         | 40         | 23         | 1         | 8          | 2         | 0        | 1         | 1        | 0        | 4         | 1         | 0        | 0        | 0        | 85.26        | 97.22           |
| 8:00         | 44         | 24         | 1         | 10         | 1         | 0        | 2         | 0        | 0        | 5         | 1         | 0        | 0        | 0        | 81.65        | 92.78           |
| 9:00         | 51         | 27         | 4         | 12         | 3         | 0        | 2         | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 81.45        | 93.49           |
| 10:00        | 56         | 28         | 3         | 12         | 3         | 0        | 1         | 1        | 0        | 5         | 3         | 0        | 0        | 0        | 81.48        | 95.69           |
| 11:00        | 44         | 24         | 3         | 7          | 3         | 0        | 1         | 0        | 0        | 4         | 1         | 0        | 0        | 0        | 84.74        | 96.91           |
| 12:00        | 44         | 23         | 3         | 7          | 2         | 0        | 1         | 0        | 0        | 4         | 3         | 0        | 0        | 0        | 83.34        | 94.35           |
| 13:00        | 43         | 20         | 2         | 9          | 3         | 0        | 0         | 0        | 0        | 5         | 2         | 0        | 0        | 0        | 85.01        | 97.97           |
| 14:00        | 43         | 23         | 2         | 9          | 2         | 0        | 1         | 0        | 0        | 4         | 2         | 0        | 0        | 0        | 84.53        | 100.05          |
| 15:00        | 53         | 28         | 3         | 12         | 1         | 0        | 0         | 0        | 0        | 5         | 3         | 0        | 0        | 0        | 87.08        | 100.87          |
| 16:00        | 47         | 30         | 1         | 13         | 0         | 0        | 1         | 0        | 0        | 1         | 1         | 0        | 0        | 0        | 90.39        | 100.95          |
| 17:00        | 43         | 31         | 2         | 8          | 1         | 0        | 0         | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 89.59        | 101.87          |
| 18:00        | 25         | 20         | 1         | 4          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 95.01        | 100.80          |
| 19:00        | 16         | 13         | 0         | 3          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 91.24        | 101.20          |
| 20:00        | 10         | 6          | 0         | 3          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.10        | -               |
| 21:00        | 8          | 5          | 0         | 2          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 90.42        | -               |
| 22:00        | 8          | 6          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 0         | 0         | 0        | 0        | 0        | 92.12        | -               |
| 23:00        | 7          | 5          | 0         | 1          | 0         | 0        | 0         | 0        | 0        | 1         | 0         | 0        | 0        | 0        | 88.07        | -               |
| <b>Total</b> | <b>655</b> | <b>376</b> | <b>27</b> | <b>142</b> | <b>24</b> | <b>1</b> | <b>11</b> | <b>4</b> | <b>3</b> | <b>46</b> | <b>21</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>87.24</b> | <b>101.94</b>   |

Light 62% Heavy 38%



## Appendix C – Eagleton quarry and access proposals



Proposed Italia Rd intersection and Motorplex entrance  
Refer Sheet 13 & 14 Fisher Engineering Plans for details

Existing right of way to be reestablished over existing physical works and proposed works.

Existing right of way to be reconstructed and improved to "private" rural road to PSC standards from Italia Rd to Barleigh Ranch Way intersection.  
(7m seal, 1m shoulders plus table drains as required).

Proposed right turn lane to be incorporated into private access road reconstruction to provide secondary access to Motorplex site.

Barleigh Ranch Way to be reconstructed and improved to rural road in accordance with PSC standards from Private Rd intersection to quarry access road.  
(7m seal, 1m shoulders plus table drains as required).

Quarry access road to be constructed to rural road in accordance with PSC standards from Barleigh Ranch Way to quarry entrance.  
(7m seal, 1m shoulders plus table drains as required).

Proposed quarry access road single lane bridge crossing. Please refer to bridge detail sheet.

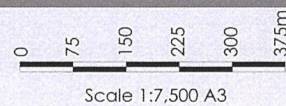
Site boundary

Ultimate quarry extent

Existing Overhead Electrical — E —

Proposed Overhead Electrical — E —

|                   |                             |                 |             |       |          |
|-------------------|-----------------------------|-----------------|-------------|-------|----------|
| PROJECT NUMBER:   | Eagleton Quarry             |                 |             |       |          |
| FILE NAME:        | Eagleton Plans 20161205.dwg |                 |             |       |          |
| DATUM:            | 05/12/2016                  | DoP Application | MT          | A     |          |
| CONTOUR INTERVAL: |                             | DATE            | DESCRIPTION | DRAWN | REVISION |



Project No: Eagleton Quarry  
Suburb: Eagleton  
Street: 13 Barleigh Ranch Way  
Lot & DP: Lot 2 DP1108702

Dwg Title: Proposed Rock Quarry  
Sheet Title: Proposed Infrastructure  
Number of Sheets: 1  
Sheet Number: 1

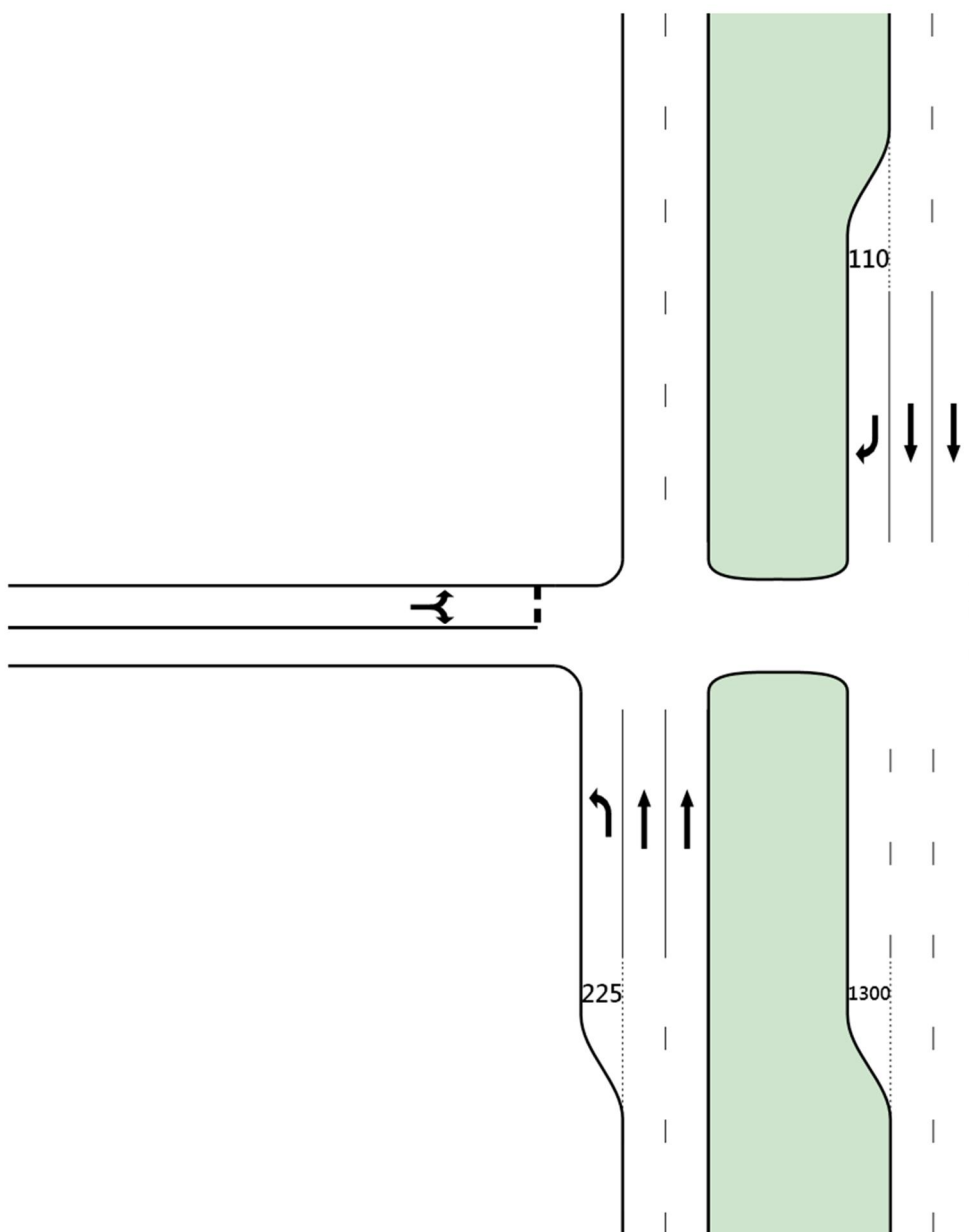
**Eagleton**  
Rock Syndicate Pty Ltd

## Appendix D – SIDRA analysis outputs



Pacific Highway North

Italia Road



Pacific Highway South

# INPUT VOLUMES

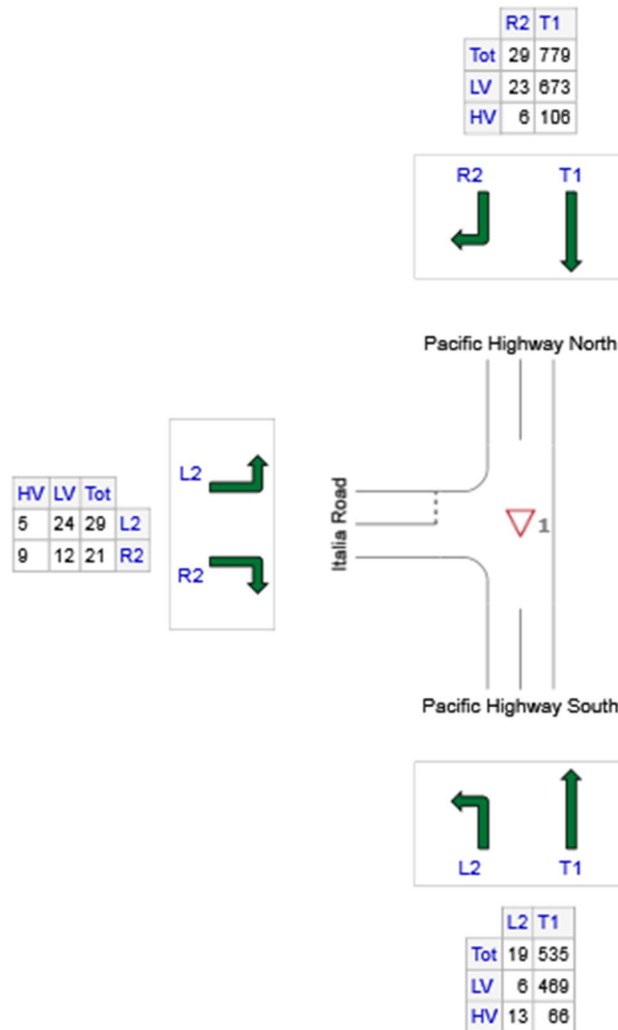
## Vehicles and pedestrians per 60 minutes

### ▽ Site: 1 [Italia Road and Pacific Highway - Pre development - AM Peak]

Italia Road and Pacific Highway - Pre development - AM Peak

Giveaway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 554     | 475                 | 79                  |
| N: Pacific Highway North | 808     | 696                 | 112                 |
| W: Italia Road           | 50      | 36                  | 14                  |
| Total                    | 1412    | 1207                | 205                 |

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Organisation: GHD SERVICES PTY LTD | Created: Monday, 5 December 2016 11:45:18 AM

Project: G:\22\18208\Technical\SIDRA\Italia Road intersection.sip7

## MOVEMENT SUMMARY

### Site: 1 [Italia Road and Pacific Highway - Pre development - AM Peak]

Italia Road and Pacific Highway - Pre development - AM Peak  
 Giveway / Yield (Two-Way)

#### Movement Performance - Vehicles

| Mov ID                       | OD Mov | Demand Total<br>veh/h | Flows HV<br>% | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue<br>Vehicles<br>veh | Queue<br>Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
|------------------------------|--------|-----------------------|---------------|------------------|----------------------|------------------|--------------------------------------|------------------------|--------------|--------------------------------|-----------------------|
| South: Pacific Highway South |        |                       |               |                  |                      |                  |                                      |                        |              |                                |                       |
| 1                            | L2     | 20                    | 68.4          | 0.016            | 10.3                 | LOS A            | 0.0                                  | 0.0                    | 0.00         | 0.67                           | 75.3                  |
| 2                            | T1     | 563                   | 12.3          | 0.153            | 0.1                  | LOS A            | 0.0                                  | 0.0                    | 0.00         | 0.00                           | 99.9                  |
| Approach                     |        | 583                   | 14.3          | 0.153            | 0.4                  | NA               | 0.0                                  | 0.0                    | 0.00         | 0.02                           | 98.8                  |
| North: Pacific Highway North |        |                       |               |                  |                      |                  |                                      |                        |              |                                |                       |
| 8                            | T1     | 820                   | 13.6          | 0.224            | 0.0                  | LOS A            | 0.0                                  | 0.0                    | 0.00         | 0.00                           | 99.9                  |
| 9                            | R2     | 31                    | 20.7          | 0.048            | 12.2                 | LOS A            | 0.2                                  | 1.5                    | 0.55         | 0.77                           | 61.0                  |
| Approach                     |        | 851                   | 13.9          | 0.224            | 0.5                  | NA               | 0.2                                  | 1.5                    | 0.02         | 0.03                           | 98.9                  |
| West: Italia Road            |        |                       |               |                  |                      |                  |                                      |                        |              |                                |                       |
| 10                           | L2     | 31                    | 17.2          | 0.168            | 12.8                 | LOS A            | 0.6                                  | 5.1                    | 0.68         | 0.89                           | 56.1                  |
| 12                           | R2     | 22                    | 42.9          | 0.168            | 25.6                 | LOS B            | 0.6                                  | 5.1                    | 0.68         | 0.89                           | 73.5                  |
| Approach                     |        | 53                    | 28.0          | 0.168            | 18.2                 | LOS B            | 0.6                                  | 5.1                    | 0.68         | 0.89                           | 66.2                  |
| All Vehicles                 |        | 1486                  | 14.5          | 0.224            | 1.1                  | NA               | 0.6                                  | 5.1                    | 0.04         | 0.06                           | 97.7                  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: GHD SERVICES PTY LTD | Processed: Monday, 5 December 2016 11:32:54 AM

Project: G:\22\18208\Technical\SIDRA\Italia Road intersection.sip7

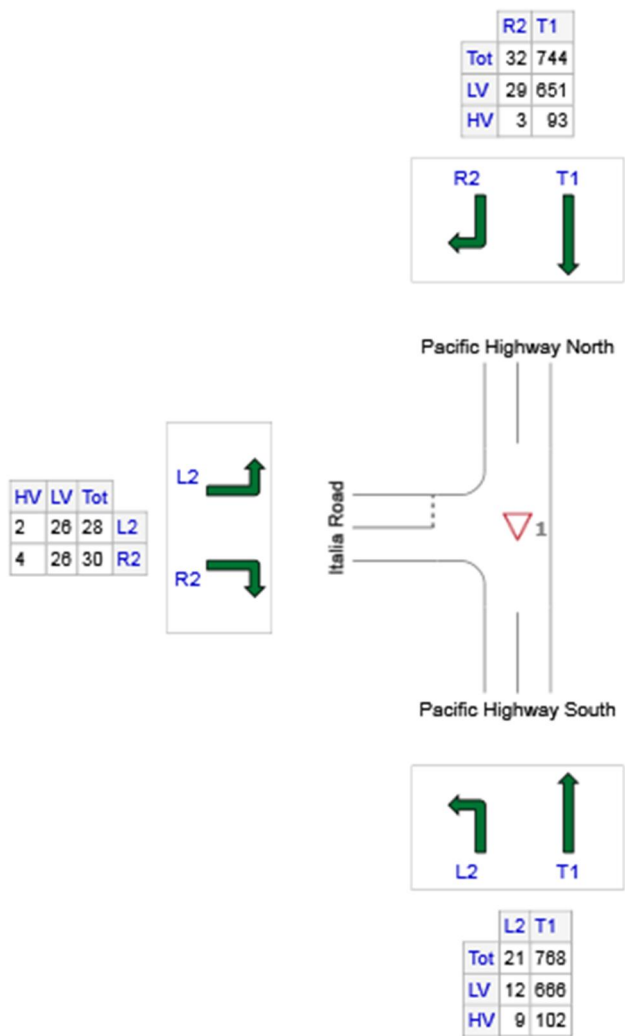
# INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

▽ Site: 1 [Italia Road and Pacific Highway - Pre development - PM Peak]

Italia Road and Pacific Highway - Pre development - PM Peak  
Giveaway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 789     | 678                 | 111                 |
| N: Pacific Highway North | 776     | 680                 | 96                  |
| W: Italia Road           | 58      | 52                  | 6                   |
| Total                    | 1623    | 1410                | 213                 |

# MOVEMENT SUMMARY

## Site: 1 [Italia Road and Pacific Highway - Pre development - PM Peak]

Italia Road and Pacific Highway - Pre development - PM Peak  
Giveaway / Yield (Two-Way)

### Movement Performance - Vehicles

| Mov ID                       | OD Mov | Demand Flows Total<br>veh/h | Deg. Satn HV %<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue Vehicles<br>veh | Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
|------------------------------|--------|-----------------------------|-----------------------|----------------------|------------------|-----------------------------------|---------------|--------------|--------------------------------|-----------------------|
| South: Pacific Highway South |        |                             |                       |                      |                  |                                   |               |              |                                |                       |
| 1                            | L2     | 22                          | 42.9                  | 0.015                | 9.4              | LOS A                             | 0.0           | 0.0          | 0.00                           | 79.6                  |
| 2                            | T1     | 808                         | 13.3                  | 0.221                | 0.1              | LOS A                             | 0.0           | 0.0          | 0.00                           | 99.9                  |
| Approach                     |        | 831                         | 14.1                  | 0.221                | 0.3              | NA                                | 0.0           | 0.0          | 0.00                           | 99.2                  |
| North: Pacific Highway North |        |                             |                       |                      |                  |                                   |               |              |                                |                       |
| 8                            | T1     | 783                         | 12.5                  | 0.213                | 0.0              | LOS A                             | 0.0           | 0.0          | 0.00                           | 99.9                  |
| 9                            | R2     | 34                          | 9.4                   | 0.069                | 14.1             | LOS A                             | 0.2           | 1.9          | 0.66                           | 62.0                  |
| Approach                     |        | 817                         | 12.4                  | 0.213                | 0.6              | NA                                | 0.2           | 1.9          | 0.03                           | 98.8                  |
| West: Italia Road            |        |                             |                       |                      |                  |                                   |               |              |                                |                       |
| 10                           | L2     | 29                          | 7.1                   | 0.286                | 17.6             | LOS B                             | 1.0           | 8.0          | 0.82                           | 51.3                  |
| 12                           | R2     | 32                          | 13.3                  | 0.286                | 34.6             | LOS C                             | 1.0           | 8.0          | 0.82                           | 71.6                  |
| Approach                     |        | 61                          | 10.3                  | 0.286                | 26.4             | LOS B                             | 1.0           | 8.0          | 0.82                           | 64.6                  |
| All Vehicles                 |        | 1708                        | 13.1                  | 0.286                | 1.4              | NA                                | 1.0           | 8.0          | 0.04                           | 97.7                  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: G:\22\18208\Technical\SIDRA\Italia Road intersection.sip7

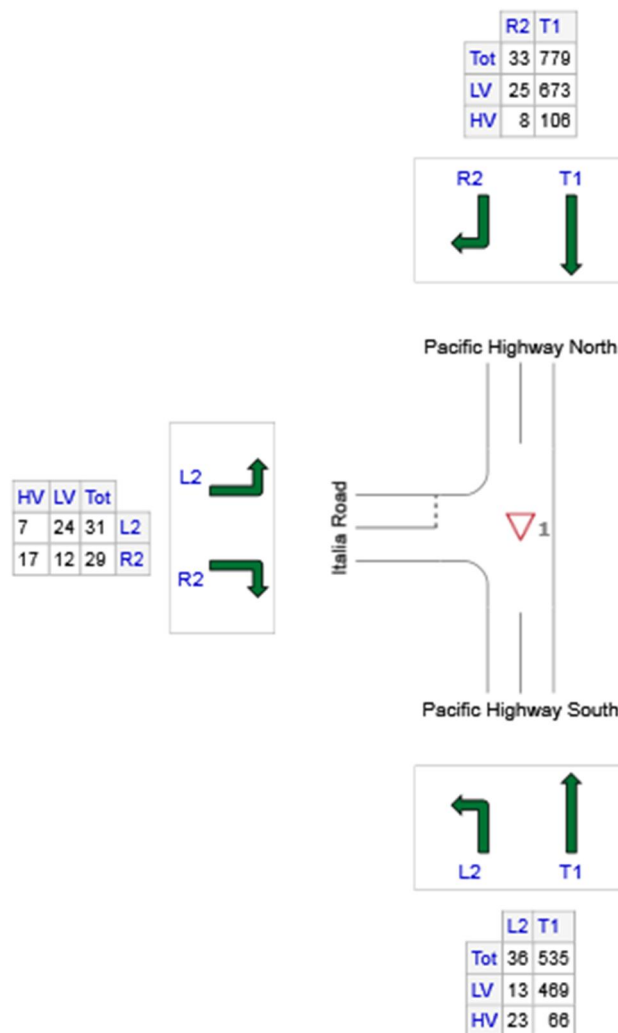
# INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

▽ Site: 1 [Italia Road and Pacific Highway - Post development - AM Peak]

Italia Road and Pacific Highway - Post development - AM Peak  
 Giveway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 571     | 482                 | 89                  |
| N: Pacific Highway North | 812     | 698                 | 114                 |
| W: Italia Road           | 60      | 36                  | 24                  |
| Total                    | 1443    | 1216                | 227                 |

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Organisation: GHD SERVICES PTY LTD | Created: Monday, 5 December 2016 11:48:40 AM

Project: G:\22\18208\Technical\SIDRA\Italia Road intersection.sip7

# MOVEMENT SUMMARY

## Site: 1 [Italia Road and Pacific Highway - Post development - AM Peak]

Italia Road and Pacific Highway - Post development - AM Peak  
 Giveway / Yield (Two-Way)

| Movement Performance - Vehicles |        |                             |      |                  |                      |                  |                                   |                     |              |                                |                       |
|---------------------------------|--------|-----------------------------|------|------------------|----------------------|------------------|-----------------------------------|---------------------|--------------|--------------------------------|-----------------------|
| Mov ID                          | OD Mov | Demand Flows Total<br>veh/h | HV % | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue Vehicles<br>veh | Queue Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
| South: Pacific Highway South    |        |                             |      |                  |                      |                  |                                   |                     |              |                                |                       |
| 1                               | L2     | 38                          | 63.9 | 0.029            | 10.2                 | LOS A            | 0.0                               | 0.0                 | 0.00         | 0.67                           | 76.0                  |
| 2                               | T1     | 563                         | 12.3 | 0.153            | 0.1                  | LOS A            | 0.0                               | 0.0                 | 0.00         | 0.00                           | 99.9                  |
| Approach                        |        | 601                         | 15.6 | 0.153            | 0.7                  | NA               | 0.0                               | 0.0                 | 0.00         | 0.04                           | 98.0                  |
| North: Pacific Highway North    |        |                             |      |                  |                      |                  |                                   |                     |              |                                |                       |
| 8                               | T1     | 820                         | 13.6 | 0.224            | 0.0                  | LOS A            | 0.0                               | 0.0                 | 0.00         | 0.00                           | 99.9                  |
| 9                               | R2     | 35                          | 24.2 | 0.058            | 12.7                 | LOS A            | 0.2                               | 1.8                 | 0.57         | 0.79                           | 59.6                  |
| Approach                        |        | 855                         | 14.0 | 0.224            | 0.5                  | NA               | 0.2                               | 1.8                 | 0.02         | 0.03                           | 98.7                  |
| West: Italia Road               |        |                             |      |                  |                      |                  |                                   |                     |              |                                |                       |
| 10                              | L2     | 33                          | 22.6 | 0.250            | 14.4                 | LOS A            | 0.9                               | 8.9                 | 0.74         | 0.93                           | 51.7                  |
| 12                              | R2     | 31                          | 58.6 | 0.250            | 31.7                 | LOS C            | 0.9                               | 8.9                 | 0.74         | 0.93                           | 69.5                  |
| Approach                        |        | 63                          | 40.0 | 0.250            | 22.7                 | LOS B            | 0.9                               | 8.9                 | 0.74         | 0.93                           | 63.0                  |
| All Vehicles                    |        | 1519                        | 15.7 | 0.250            | 1.5                  | NA               | 0.9                               | 8.9                 | 0.04         | 0.07                           | 96.8                  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: GHD SERVICES PTY LTD | Processed: Monday, 5 December 2016 11:33:05 AM

Project: G:\22\18208\Technical\SIDRA\Italia Road intersection.sip7

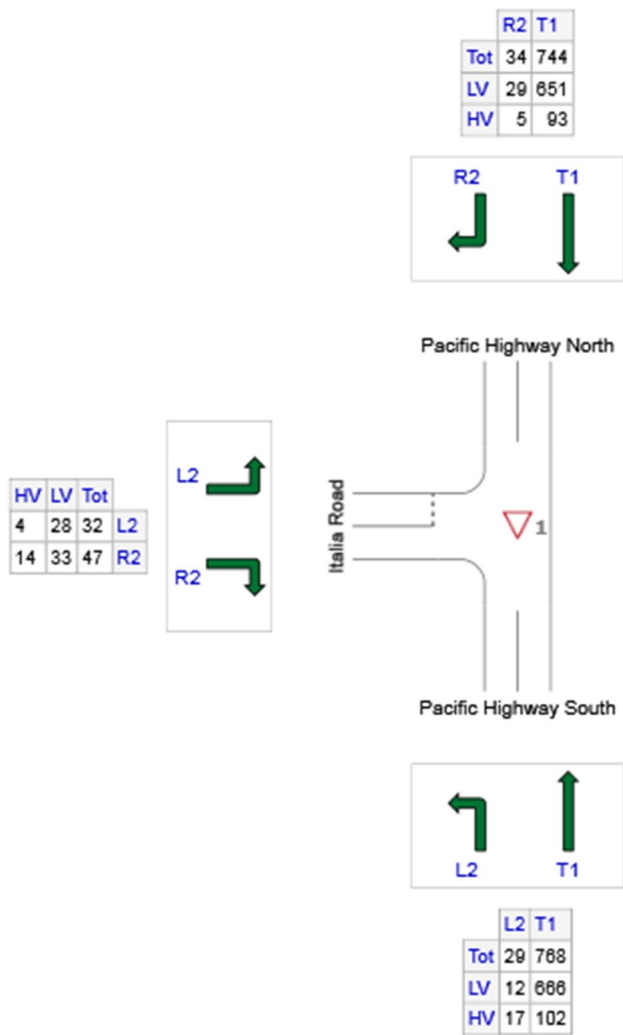
# INPUT VOLUMES

## Vehicles and pedestrians per 60 minutes

▽ Site: 1 [Italia Road and Pacific Highway - Post development - PM Peak]

Italia Road and Pacific Highway - Post development - PM Peak  
Giveaway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 797     | 678                 | 119                 |
| N: Pacific Highway North | 778     | 680                 | 98                  |
| W: Italia Road           | 79      | 61                  | 18                  |
| Total                    | 1654    | 1419                | 235                 |

# MOVEMENT SUMMARY

## Site: 1 [Italia Road and Pacific Highway - Post development - PM Peak]

Italia Road and Pacific Highway - Post development - PM Peak  
 Giveway / Yield (Two-Way)

### Movement Performance - Vehicles

| Mov ID                       | OD Mov | Demand Flows Total<br>veh/h | HV % | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue Vehicles<br>veh | Queue Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
|------------------------------|--------|-----------------------------|------|------------------|----------------------|------------------|-----------------------------------|---------------------|--------------|--------------------------------|-----------------------|
| South: Pacific Highway South |        |                             |      |                  |                      |                  |                                   |                     |              |                                |                       |
| 1                            | L2     | 31                          | 58.6 | 0.023            | 10.0                 | LOS A            | 0.0                               | 0.0                 | 0.00         | 0.67                           | 76.9                  |
| 2                            | T1     | 808                         | 13.3 | 0.221            | 0.1                  | LOS A            | 0.0                               | 0.0                 | 0.00         | 0.00                           | 99.9                  |
| Approach                     |        | 839                         | 14.9 | 0.221            | 0.5                  | NA               | 0.0                               | 0.0                 | 0.00         | 0.02                           | 98.8                  |
| North: Pacific Highway North |        |                             |      |                  |                      |                  |                                   |                     |              |                                |                       |
| 8                            | T1     | 783                         | 12.5 | 0.213            | 0.0                  | LOS A            | 0.0                               | 0.0                 | 0.00         | 0.00                           | 99.9                  |
| 9                            | R2     | 36                          | 14.7 | 0.078            | 14.9                 | LOS B            | 0.3                               | 2.2                 | 0.68         | 0.89                           | 59.9                  |
| Approach                     |        | 819                         | 12.6 | 0.213            | 0.7                  | NA               | 0.3                               | 2.2                 | 0.03         | 0.04                           | 98.7                  |
| West: Italia Road            |        |                             |      |                  |                      |                  |                                   |                     |              |                                |                       |
| 10                           | L2     | 34                          | 12.5 | 0.509            | 25.3                 | LOS B            | 2.1                               | 18.0                | 0.89         | 1.04                           | 42.6                  |
| 12                           | R2     | 49                          | 29.8 | 0.509            | 50.1                 | LOS D            | 2.1                               | 18.0                | 0.89         | 1.04                           | 63.4                  |
| Approach                     |        | 83                          | 22.8 | 0.509            | 40.0                 | LOS C            | 2.1                               | 18.0                | 0.89         | 1.04                           | 57.3                  |
| All Vehicles                 |        | 1741                        | 14.2 | 0.509            | 2.4                  | NA               | 2.1                               | 18.0                | 0.06         | 0.08                           | 96.2                  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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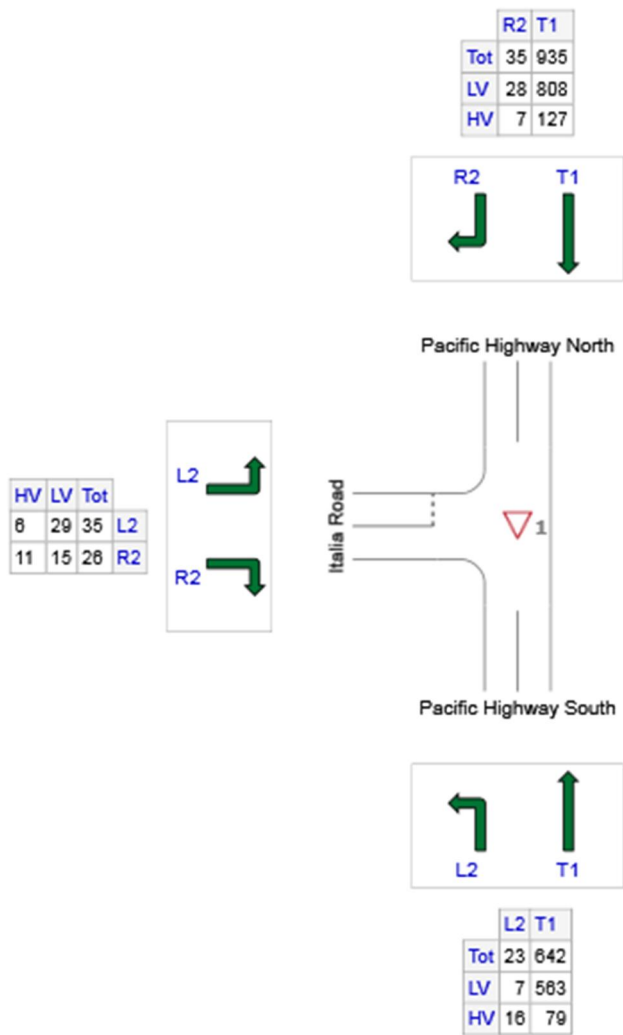
# INPUT VOLUMES

## Vehicles and pedestrians per 60 minutes

### ▽ Site: 1 [Italia Road and Pacific Highway - Existing 2026 - AM Peak]

Italia Road and Pacific Highway - Existing 2026 - AM Peak  
Giveaway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 665     | 570                 | 95                  |
| N: Pacific Highway North | 970     | 836                 | 134                 |
| W: Italia Road           | 61      | 44                  | 17                  |
| Total                    | 1696    | 1450                | 246                 |

# MOVEMENT SUMMARY

## Site: 1 [Italia Road and Pacific Highway - Existing 2026 - AM Peak]

Italia Road and Pacific Highway - Existing 2026 - AM Peak  
 Giveway / Yield (Two-Way)

| Movement Performance - Vehicles |        |                             |            |                  |                      |                  |                                   |               |              |                                |                       |
|---------------------------------|--------|-----------------------------|------------|------------------|----------------------|------------------|-----------------------------------|---------------|--------------|--------------------------------|-----------------------|
| Mov ID                          | OD Mov | Demand Flows Total<br>veh/h | Flows HV % | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue Vehicles<br>veh | Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
| South: Pacific Highway South    |        |                             |            |                  |                      |                  |                                   |               |              |                                |                       |
| 1                               | L2     | 24                          | 69.6       | 0.019            | 10.4                 | LOS A            | 0.0                               | 0.0           | 0.00         | 0.67                           | 75.1                  |
| 2                               | T1     | 676                         | 12.3       | 0.183            | 0.1                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.00                           | 99.9                  |
| Approach                        |        | 700                         | 14.3       | 0.183            | 0.4                  | NA               | 0.0                               | 0.0           | 0.00         | 0.02                           | 98.8                  |
| North: Pacific Highway North    |        |                             |            |                  |                      |                  |                                   |               |              |                                |                       |
| 8                               | T1     | 984                         | 13.6       | 0.269            | 0.0                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.00                           | 99.8                  |
| 9                               | R2     | 37                          | 20.0       | 0.068            | 13.5                 | LOS A            | 0.2                               | 2.0           | 0.60         | 0.84                           | 59.9                  |
| Approach                        |        | 1021                        | 13.8       | 0.269            | 0.5                  | NA               | 0.2                               | 2.0           | 0.02         | 0.03                           | 98.8                  |
| West: Italia Road               |        |                             |            |                  |                      |                  |                                   |               |              |                                |                       |
| 10                              | L2     | 37                          | 17.1       | 0.269            | 15.9                 | LOS B            | 1.0                               | 8.7           | 0.78         | 0.95                           | 51.5                  |
| 12                              | R2     | 27                          | 42.3       | 0.269            | 35.1                 | LOS C            | 1.0                               | 8.7           | 0.78         | 0.95                           | 70.2                  |
| Approach                        |        | 64                          | 27.9       | 0.269            | 24.1                 | LOS B            | 1.0                               | 8.7           | 0.78         | 0.95                           | 62.2                  |
| All Vehicles                    |        | 1785                        | 14.5       | 0.269            | 1.3                  | NA               | 1.0                               | 8.7           | 0.04         | 0.06                           | 97.4                  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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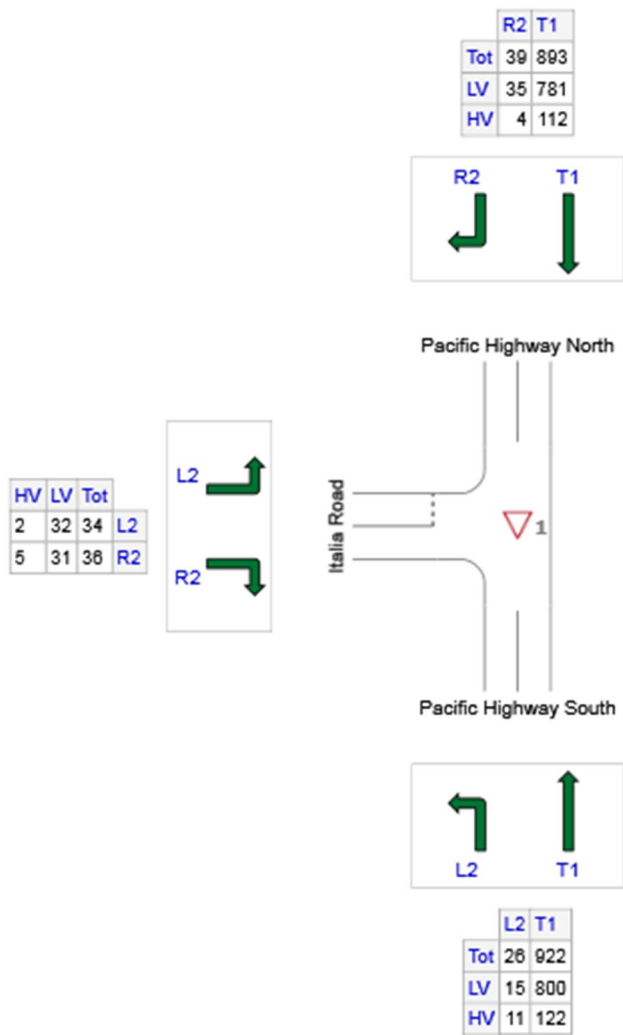
# INPUT VOLUMES

## Vehicles and pedestrians per 60 minutes

### ▽ Site: 1 [Italia Road and Pacific Highway - Existing 2026 - PM Peak]

Italia Road and Pacific Highway - Existing 2026 - PM Peak  
Giveaway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 948     | 815                 | 133                 |
| N: Pacific Highway North | 932     | 816                 | 116                 |
| W: Italia Road           | 70      | 63                  | 7                   |
| Total                    | 1950    | 1694                | 256                 |

# MOVEMENT SUMMARY

## Site: 1 [Italia Road and Pacific Highway - Existing 2026 - PM Peak]

Italia Road and Pacific Highway - Existing 2026 - PM Peak  
 Giveway / Yield (Two-Way)

| Movement Performance - Vehicles |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |  |
|---------------------------------|--------|-----------------------|---------------|------------------|----------------------|------------------|-----------------------------------|---------------|--------------|--------------------------------|-----------------------|--|
| Mov ID                          | OD Mov | Demand Total<br>veh/h | Flows HV<br>% | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue Vehicles<br>veh | Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |  |
| South: Pacific Highway South    |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |  |
| 1                               | L2     | 27                    | 42.3          | 0.019            | 9.4                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.66                           | 79.7                  |  |
| 2                               | T1     | 971                   | 13.2          | 0.265            | 0.1                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.00                           | 99.8                  |  |
| Approach                        |        | 998                   | 14.0          | 0.265            | 0.4                  | NA               | 0.0                               | 0.0           | 0.00         | 0.02                           | 99.1                  |  |
| North: Pacific Highway North    |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |  |
| 8                               | T1     | 940                   | 12.5          | 0.255            | 0.0                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.00                           | 99.8                  |  |
| 9                               | R2     | 41                    | 10.3          | 0.110            | 17.0                 | LOS B            | 0.4                               | 2.9           | 0.75         | 0.92                           | 58.9                  |  |
| Approach                        |        | 981                   | 12.4          | 0.255            | 0.7                  | NA               | 0.4                               | 2.9           | 0.03         | 0.04                           | 98.6                  |  |
| West: Italia Road               |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |  |
| 10                              | L2     | 36                    | 5.9           | 0.518            | 29.5                 | LOS C            | 2.0                               | 15.5          | 0.92         | 1.04                           | 40.9                  |  |
| 12                              | R2     | 38                    | 13.9          | 0.518            | 59.3                 | LOS E            | 2.0                               | 15.5          | 0.92         | 1.04                           | 62.4                  |  |
| Approach                        |        | 74                    | 10.0          | 0.518            | 44.9                 | LOS D            | 2.0                               | 15.5          | 0.92         | 1.04                           | 54.5                  |  |
| All Vehicles                    |        | 2053                  | 13.1          | 0.518            | 2.1                  | NA               | 2.0                               | 15.5          | 0.05         | 0.06                           | 96.8                  |  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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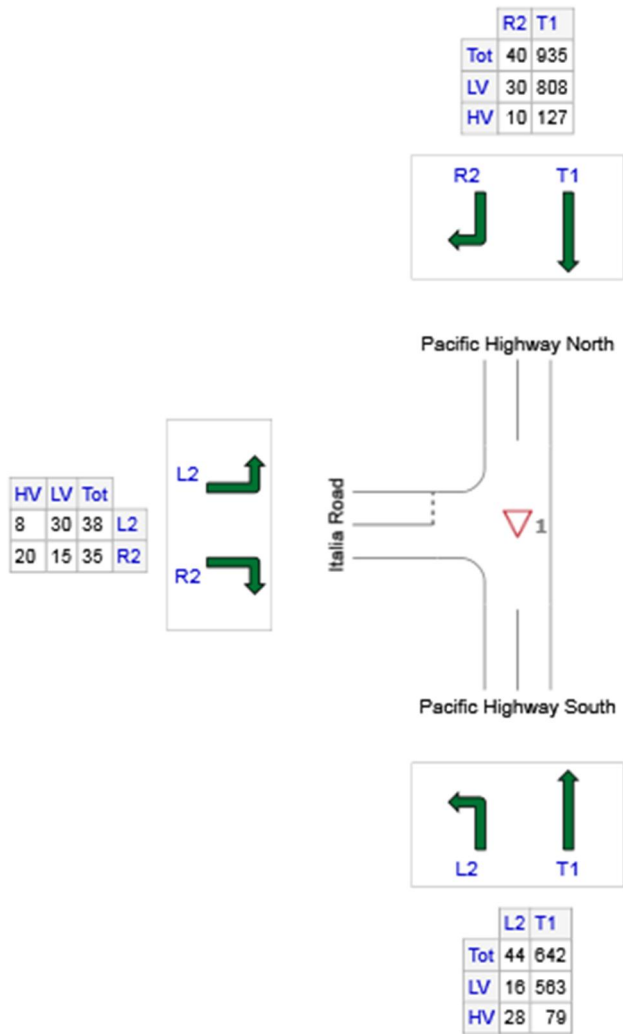
# INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

▽ Site: 1 [Italia Road and Pacific Highway - 10 years Post development - AM Peak]

Italia Road and Pacific Highway - 10 years Post development - AM Peak  
Giveaway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 686     | 579                 | 107                 |
| N: Pacific Highway North | 975     | 838                 | 137                 |
| W: Italia Road           | 73      | 45                  | 28                  |
| Total                    | 1734    | 1462                | 272                 |

## MOVEMENT SUMMARY

### Site: 1 [Italia Road and Pacific Highway - 10 years Post development - AM Peak]

Italia Road and Pacific Highway - 10 years Post development - AM Peak  
Giveaway / Yield (Two-Way)

#### Movement Performance - Vehicles

| Mov ID                       | OD Mov | Demand Flows Total<br>veh/h | Flows HV % | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue<br>Vehicles<br>veh | Back of Queue<br>Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
|------------------------------|--------|-----------------------------|------------|------------------|----------------------|------------------|--------------------------------------|--------------------------------|--------------|--------------------------------|-----------------------|
| South: Pacific Highway South |        |                             |            |                  |                      |                  |                                      |                                |              |                                |                       |
| 1                            | L2     | 46                          | 63.6       | 0.036            | 10.2                 | LOS A            | 0.0                                  | 0.0                            | 0.00         | 0.67                           | 76.1                  |
| 2                            | T1     | 676                         | 12.3       | 0.183            | 0.1                  | LOS A            | 0.0                                  | 0.0                            | 0.00         | 0.00                           | 99.9                  |
| Approach                     |        | 722                         | 15.6       | 0.183            | 0.7                  | NA               | 0.0                                  | 0.0                            | 0.00         | 0.04                           | 97.9                  |
| North: Pacific Highway North |        |                             |            |                  |                      |                  |                                      |                                |              |                                |                       |
| 8                            | T1     | 984                         | 13.6       | 0.269            | 0.0                  | LOS A            | 0.0                                  | 0.0                            | 0.00         | 0.00                           | 99.8                  |
| 9                            | R2     | 42                          | 25.0       | 0.085            | 14.3                 | LOS A            | 0.3                                  | 2.6                            | 0.63         | 0.87                           | 57.9                  |
| Approach                     |        | 1026                        | 14.1       | 0.269            | 0.6                  | NA               | 0.3                                  | 2.6                            | 0.03         | 0.04                           | 98.6                  |
| West: Italia Road            |        |                             |            |                  |                      |                  |                                      |                                |              |                                |                       |
| 10                           | L2     | 40                          | 21.1       | 0.406            | 20.0                 | LOS B            | 1.7                                  | 15.5                           | 0.84         | 1.01                           | 45.5                  |
| 12                           | R2     | 37                          | 57.1       | 0.406            | 46.4                 | LOS D            | 1.7                                  | 15.5                           | 0.84         | 1.01                           | 64.7                  |
| Approach                     |        | 77                          | 38.4       | 0.406            | 32.6                 | LOS C            | 1.7                                  | 15.5                           | 0.84         | 1.01                           | 57.3                  |
| All Vehicles                 |        | 1825                        | 15.7       | 0.406            | 2.0                  | NA               | 1.7                                  | 15.5                           | 0.05         | 0.08                           | 96.3                  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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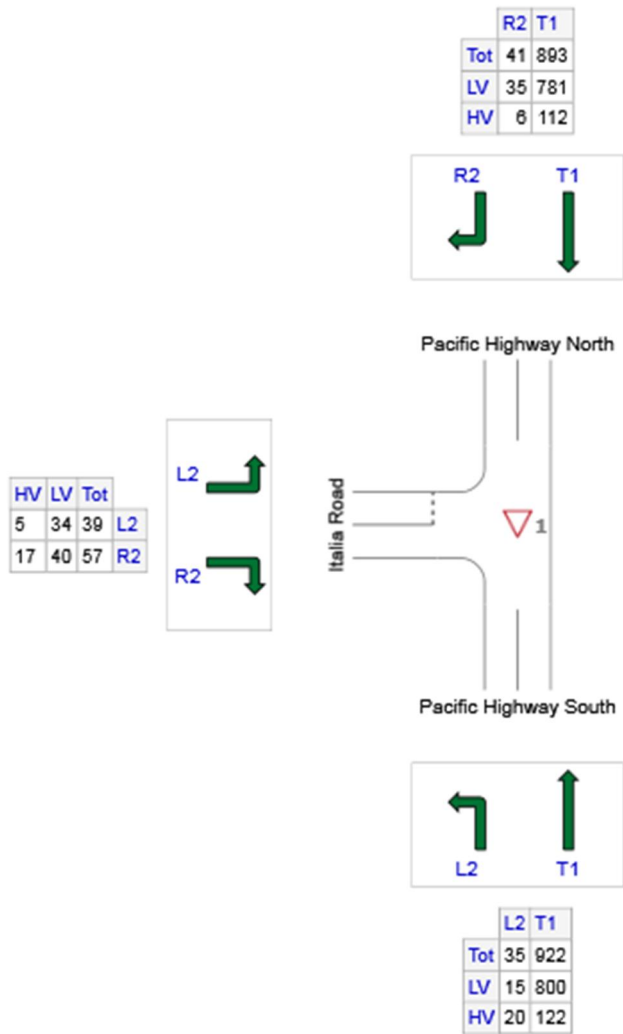
# INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

▽ Site: 1 [Italia Road and Pacific Highway - 10 years Post development - PM Peak]

Italia Road and Pacific Highway - 10 years Post development - PM Peak  
Giveaway / Yield (Two-Way)

Volume Display Method: Separate



|                          | All MCs | Light Vehicles (LV) | Heavy Vehicles (HV) |
|--------------------------|---------|---------------------|---------------------|
| S: Pacific Highway South | 957     | 815                 | 142                 |
| N: Pacific Highway North | 934     | 816                 | 118                 |
| W: Italia Road           | 96      | 74                  | 22                  |
| Total                    | 1987    | 1705                | 282                 |

# MOVEMENT SUMMARY

## ▽ Site: 1 [Italia Road and Pacific Highway - 10 years Post development - PM Peak]

Italia Road and Pacific Highway - 10 years Post development - PM Peak  
 Giveway / Yield (Two-Way)

### Movement Performance - Vehicles

| Mov ID                       | OD Mov | Demand Flows Total<br>veh/h | Flows HV<br>% | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue Vehicles<br>veh | Back of Queue Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
|------------------------------|--------|-----------------------------|---------------|------------------|----------------------|------------------|-----------------------------------|-----------------------------|--------------|--------------------------------|-----------------------|
| South: Pacific Highway South |        |                             |               |                  |                      |                  |                                   |                             |              |                                |                       |
| 1                            | L2     | 37                          | 57.1          | 0.027            | 9.9                  | LOS A            | 0.0                               | 0.0                         | 0.00         | 0.67                           | 77.1                  |
| 2                            | T1     | 971                         | 13.2          | 0.265            | 0.1                  | LOS A            | 0.0                               | 0.0                         | 0.00         | 0.00                           | 99.8                  |
| Approach                     |        | 1007                        | 14.8          | 0.265            | 0.5                  | NA               | 0.0                               | 0.0                         | 0.00         | 0.02                           | 98.8                  |
| North: Pacific Highway North |        |                             |               |                  |                      |                  |                                   |                             |              |                                |                       |
| 8                            | T1     | 940                         | 12.5          | 0.255            | 0.0                  | LOS A            | 0.0                               | 0.0                         | 0.00         | 0.00                           | 99.8                  |
| 9                            | R2     | 43                          | 14.6          | 0.124            | 17.9                 | LOS B            | 0.4                               | 3.4                         | 0.77         | 0.92                           | 57.1                  |
| Approach                     |        | 983                         | 12.6          | 0.255            | 0.8                  | NA               | 0.4                               | 3.4                         | 0.03         | 0.04                           | 98.5                  |
| West: Italia Road            |        |                             |               |                  |                      |                  |                                   |                             |              |                                |                       |
| 10                           | L2     | 41                          | 12.8          | 0.979            | 118.4                | LOS F            | 7.9                               | 65.8                        | 0.99         | 1.45                           | 19.2                  |
| 12                           | R2     | 60                          | 29.8          | 0.979            | 162.6                | LOS F            | 7.9                               | 65.8                        | 0.99         | 1.45                           | 36.6                  |
| Approach                     |        | 101                         | 22.9          | 0.979            | 144.7                | LOS F            | 7.9                               | 65.8                        | 0.99         | 1.45                           | 30.6                  |
| All Vehicles                 |        | 2092                        | 14.2          | 0.979            | 7.6                  | NA               | 7.9                               | 65.8                        | 0.06         | 0.10                           | 91.0                  |

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## Appendix E – Stage 5 Road Safety Audit



CLIENTS | PEOPLE | PERFORMANCE

**GHD Pty Ltd**

## **Pacific Highway / Italia Road Intersection**

**Existing Conditions (Stage Five) Road Safety Audit**

February 2016

**SAMSA CONSULTING**

TRANSPORT PLANNING & TRAFFIC ENGINEERING

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## Appendices

### **A   *Site Photos of Selected Safety Issues***

## EXECUTIVE SUMMARY

This report details an independently undertaken Existing Conditions (Stage Five) road safety audit for the Pacific Highway / Italia Road intersection and approaches north of Raymond Terrace.

While a number of minor road safety issues were identified, the principal concerns of the audit team relate to the following issues:

- There is no intersection control for Italia Road at the highway, which is exacerbated by faded 'hold' line pavement marking and lack of street lighting at the junction.
- Safe intersection sight distance (SISD) between the northbound highway travel lanes and the Italia Road junction is marginal for a car-to-car scenario and improved for a car-to-truck scenario.

# **1. Introduction**

## **1.1 Background**

---

The Italia Road intersection with Pacific Highway is used by haulage trucks operating out of a quarry located at Eagleton, approximately 10 km north of Raymond Terrace in the NSW Hunter Region. The quarry is located at Lot 2 (DP 1108702), Barleigh Ranch Way (formerly 13 Killaloe Lane), Eagleton.

Due to the potential increase in traffic operating out of the quarry, especially the haulage trucks, meetings were held with NSW Roads & Maritime Services (RMS) in relation to road safety concerns for the intersection. These mainly related to the right-turn movements into and out of Italia Road and the associated intersection sight distance to/from the south along the highway.

At the time, it was understood that RMS would undertake a wider review of the Pacific Highway / Italia Road intersection focussing on road safety and taking into account other potential impacts on the intersection.

This report details an independently undertaken existing conditions road safety audit for the Pacific Highway / Italia Road intersection. The audit was undertaken by *Samsa Consulting Pty Ltd*, Transport Planning & Traffic Engineering Consultants.

## **1.2 Project Details**

---

The Pacific Highway / Italia Road intersection is a 'seagull' layout with auxiliary lanes for all turn movements except for the Italia Road left-turn movement northbound onto the highway. At the intersection location, Pacific Highway is a four-lane divided road (two-lane carriageways in each direction) with a 100 km/h speed limit for northbound travel and 110 km/h speed limit for southbound travel.

Italia Road is a typical two-lane rural road with a paved width of approximately 8.5 m comprised of some 6.5 m width for the travel lanes and approximately 1.0 m shoulders. It has a 90 km/h speed limit and there is no street lighting at the intersection or in the vicinity.

The surrounding area generally comprises rural land uses with some rural residential lots and some minor recreational land uses nearby. The approximate extent and location of the road safety audit Project area is shown in *Figure 1* following.

## **1.3 Report Structure**

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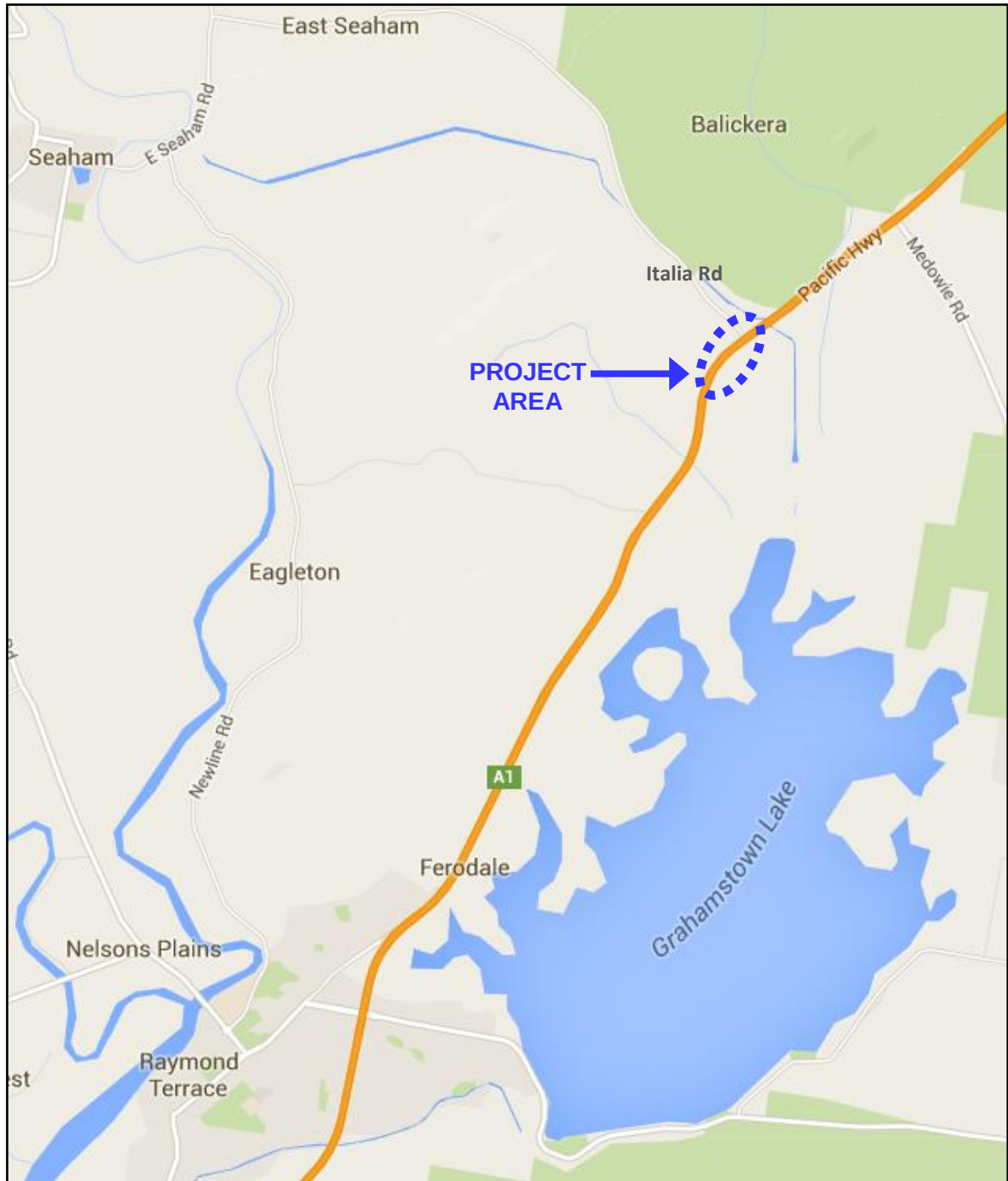
The remainder of this report is presented as follows:

**Chapter 2** describes details of the audit undertaken including the methodology, administration and documentation audited.

**Chapter 3** details the safety issues identified and audit findings.

**Chapter 4** presents conclusions to the audit.

**Chapter 5** provides a formal audit statement.



**Figure 1: Project Area and Location**

## 2. Audit Details

### 2.1 Audit Methodology

A road safety audit is "... a formal examination of a future road or traffic project or an existing road, in which an independent, qualified team reports on the project's crash potential and safety performance" (Austroads 2009).

This Existing Conditions (Stage 5) audit followed a standard practice in identifying safety related issues of the existing intersection and approaches. It involved identification of issues on site during both day and night site visits.

The road safety audit focussed on safety issues such as signage and linemarking, delineation, intersection layout, road network approach conditions, roadside hazards, lighting and sight distances (amongst other issues).

The audit is structured around a standard checklist provided in Austroads' "Guide to Road Safety, Part 6: Road Safety Audit" and RTA's (RMS) "Accident Reduction Guide – Part 2: Road Safety Audits".

An audit entry meeting was held with the GHD Project Manager where background information on the audit project area was discussed.

The site audit was undertaken on Wednesday 3<sup>rd</sup> February 2016 during daylight and night conditions. The weather was generally fine and dry.

An audit exit meeting was held at the completion of the road safety audit report.

### 2.2 Audit Administration

GHD Project Manager: Barry Hancock

Road Safety Auditors: Alan Samsa (*RMS Accredited Level 3 Lead Road Safety Auditor*)  
(Auditor ID: RSA-02-0056, Certification Expiry 13/08/2016)

Carolyn Samsa (*RMS Accredited Level 3 Lead Road Safety Auditor*)  
(Auditor ID: RSA-02-0585, Certification Expiry 14/06/2016)

### 2.3 References & Documentation Audited

- Austroads "Guide to Road Design Part 3: Geometric Design (2<sup>nd</sup> Edition)", October 2010
- Austroads "Guide to Road Design Part 4A: Unsignalised and Signalised Intersections", October 2010
- Austroads "Guide to Road Safety, Part 6: Road Safety Audit", January 2009
- Austroads "Rural Road Design: A Guide to the Geometric Design of Rural Roads", 2003
- Castle Quarry Products "Proposed Quarry Eagleton: Review of Traffic Issues", undated
- RTA "Guidelines for Road Safety Audit Practices – Part 1: Road Safety Audit", July 2011
- RTA "Accident Reduction Guide – Part 2: Road Safety Audits", 2005
- RTA "Delineation Guidelines: Parts 1 to 19 & Appendices A & B", assorted dates

- Standards Australia “AS 1742.1 – 2003: *Manual of uniform traffic control devices, Part 1: General introduction and index of signs*”, 2003
- TPK & Associates “*Proposed Quarry Development, Lot 2 DP 1108702, Barleigh Ranch Way (Formerly 13 Killaloe Lane), Eagleton*”, September / October 2012

### 3. Identified Safety Issues

The audit of the project area focussed on providing an independent identification of potential safety hazards, regardless of current practices, standards and operations, to allow GHD to identify remedial measures as part of the project's design development.

In categorising and prioritising identified safety issues, a risk assessment process was adopted. Risk assessment is the overall process of risk identification, analysis and evaluation. Preliminary risk ratings for each identified issue are assessed based on subjective professional judgement by the Road Safety Audit team with guidance from Section 4.8 C of Austroads "Guide to Road Safety, Part 6: Road Safety Audit". The Austroads' document provides an indication of the level of risk and what response may be appropriate. The identified road safety issue is first categorised based on its likely frequency of occurrence and severity ('likelihood' and 'consequence' of crash potential) – refer to Figures 3.1 and 3.2 below (extracted from the Austroads' document).

| Frequency  | Description                                       |
|------------|---------------------------------------------------|
| Frequent   | Once or more per week                             |
| Probable   | Once or more per year (but less than once a week) |
| Occasional | Once every five or ten years                      |
| Improbable | Less often than once every ten years              |

**Figure 3.1: Likely Frequency of Issue**

| Severity     | Description                                   | Examples                                                                                                                                                  |
|--------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catastrophic | Likely multiple deaths                        | High-speed, multi-vehicle crash on a freeway.<br>Car runs into crowded bus stop.<br>Bus and petrol tanker collide.<br>Collapse of a bridge or tunnel.     |
| Serious      | Likely death or serious injury                | High or medium-speed vehicle/vehicle collision.<br>High or medium-speed collision with a fixed roadside object.<br>Pedestrian or cyclist struck by a car. |
| Minor        | Likely minor injury                           | Some low-speed vehicle collisions.<br>Cyclist falls from bicycle at low speed.<br>Left-turn rear-end crash in a slip lane.                                |
| Limited      | Likely trivial injury or property damage only | Some low-speed vehicle collisions.<br>Pedestrian walks into object (no head injury).<br>Car reverses into post.                                           |

**Figure 3.2: Likely Severity of Issue**

An appropriate risk rating is then selected from the risk categories in the risk matrix with a preferred treatment approach for each risk rating (refer to Figures 3.3 and 3.4 below, both extracted from Austroads).

|              | Frequent    | Probable    | Occasional  | Improbable |
|--------------|-------------|-------------|-------------|------------|
| Catastrophic | Intolerable | Intolerable | Intolerable | High       |
| Serious      | Intolerable | Intolerable | High        | Medium     |
| Minor        | Intolerable | High        | Medium      | Low        |
| Limited      | High        | Medium      | Low         | Low        |

**Figure 3.3: Risk Matrix**

| Risk        | Suggested treatment approach                                                                            |
|-------------|---------------------------------------------------------------------------------------------------------|
| Intolerable | Must be corrected.                                                                                      |
| High        | Should be corrected or the risk significantly reduced, even if the treatment costs is high.             |
| Medium      | Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high. |
| Low         | Should be corrected or the risk reduced, if the treatment cost is low.                                  |

**Figure 3.4: Treatment Approach**

The audit of the project area identified a number of potential road safety issues. The safety audit process requires that the safety issues identified during an audit be acknowledged by the Audit Team and accordingly responded to by GHD. The issues are characterised according to their risk, and detailed in *Table 3.1* following.

It should be noted that not all road safety issues identified may necessarily be within the scope of GHD's project area. This is because while the scope of the audit is generally within the project area described earlier, to complete a full audit of the project, the approaches and transitions to the area were also considered to identify potential safety issues that may affect road safety within the area. Therefore, any road safety issues that have been identified outside the project area may be the responsibility of the relevant controlling road authority.

**Table 3.1: Identified Safety Issues**

| No. | Description of Road Safety Issue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Risk Rating   | Category                                    | For completion by GHD |           |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------|-----------------------|-----------|
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                                             | Response              | Action by |
| 1.  | <p>There is no intersection control for Italia Road at the highway, which is exacerbated by faded 'hold' line pavement marking and lack of street lighting at the junction – refer to <i>Photos 1 &amp; 2</i> in <i>Appendix A</i>. The adoption of a 'Stop' control (rather than 'Give Way' control) is considered to be prudent due to sight distance restrictions at the junction.</p> <p>Moreover, the location of the intersection sightboard on the far (eastern) side of the highway could be improved because it sits low beyond the higher crested section of highway – refer to <i>Photo 1</i> in <i>Appendix A</i>. At night, it becomes even less conspicuous because vehicle headlights do not fully extend across highway alignment.</p>                                              | Medium - High | Intersections / Traffic signs / Delineation |                       |           |
| 2.  | <p>Sight distance to/from the northbound highway right (fast) lane to the Italia Road junction is estimated at approximately 250 m due to the combination of the crest vertical alignment and right curve horizontal alignment – refer to <i>Photos 3 &amp; 4</i> in <i>Appendix A</i>. This is marginal with respect to safe intersection sight distance (SISD) guidelines, which it is calculated would require approximately 270 m to/from an approaching northbound car along the highway.</p> <p>It is acknowledged that sight distance for truck drivers would be greater due to the higher driver position in the vehicle and that approaching northbound highway vehicles may be able to earlier sight trucks exiting the Italia Road junction due to the truck's larger (taller) size.</p> | Medium        | Road alignment                              |                       |           |

|     |                                                                                                                                                                                                                                                                                                                                          |              |                             | For completion by GHD |           |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------|-----------------------|-----------|
| No. | Description of Road Safety Issue                                                                                                                                                                                                                                                                                                         | Risk Rating  | Category                    | Response              | Action by |
| 3.  | For the southbound highway right-turn movement into Italia Road, the deceleration lane length is sub-standard for the 110 km/h highway speed zone. This may result in vehicles slowing down within the highway 'fast' lane.                                                                                                              | Low - Medium | Auxiliary lanes             |                       |           |
| 4.  | The northbound highway left-turn movement into Italia Road has adverse crossfall after a downhill approach.                                                                                                                                                                                                                              | Low - Medium | Road alignment              |                       |           |
| 5.  | There is no acceleration length for vehicles turning left out of Italia Road onto the highway northbound. This may impede (slow down) northbound highway traffic flow especially due to the downhill grade for northbound highway travel and the restricted sight distances to the south from Italia Road.                               | Low - Medium | Auxiliary lanes             |                       |           |
| 6.  | For southbound highway traffic approaching the Italia Road junction to turn right, there is no guidance on where to stop, ie. there is no 'hold' line across the 'seagull' layout, which would also act as continuity guidance for northbound highway travel past the junction.                                                          | Low          | Delineation / Intersections |                       |           |
| 7.  | For southbound highway traffic, a 'merging traffic' sign for the acceleration lane merge is located at the Italia Road intersection 'seagull' splitter island – refer to <i>Photo 5</i> in <i>Appendix A</i> . However, this is approximately 1.2 km prior to the actual merge with no follow-up signage downstream near the merge zone. | Low          | Traffic signs               |                       |           |
| 8.  | On the left (northern) side of Italia Road approaching the highway, there is an unprotected power pole within the clear zone – refer to <i>Photo 1</i> in <i>Appendix A</i> .                                                                                                                                                            | Low          | Roadside hazards            |                       |           |

|     |                                                                                                                                                                                                                                                                                                      |             |                 | For completion by GHD |           |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|-----------------------|-----------|
| No. | Description of Road Safety Issue                                                                                                                                                                                                                                                                     | Risk Rating | Category        | Response              | Action by |
| 9.  | There are faded pavement markings (particularly pavement turn arrows and edgeline) at the intersection including for the highway southbound right-turn lane and northbound left-turn lane into Italia Road – refer to <i>Photos 5 &amp; 6</i> in <i>Appendix A</i> .                                 | Low         | Delineation     |                       |           |
| 10. | There is no street lighting at the junction, which reduces guidance and delineation at night, especially for the Italia Road approach to the highway. This also reduces the conspicuousness of the junction when approaching along the highway.                                                      | Low         | Lighting        |                       |           |
| 11. | For the right-turn movement out of Italia Road onto the highway southbound, the length of the acceleration lane is marginal with respect to heavy vehicles. It is acknowledged that the acceleration of loaded heavy vehicles may be problematic, especially for the initial uphill grade alignment. | Low         | Auxiliary lanes |                       |           |
| 12. | For the Italia Road approach to the highway, directional signage has only been provided for directions to the north (left) along the highway.                                                                                                                                                        | Low         | Traffic signs   |                       |           |
| 13. | There is inconsistency in the highway speed zoning with 100 km/h for northbound travel and 110 km/h for southbound travel, which may cause confusion for motorists.                                                                                                                                  | Low         | Speed zones     |                       |           |
| 14. | For southbound highway travel approaching the Italia Road junction, the side road junction signage is partially obstructed by roadside vegetation from the left (slow) lane.                                                                                                                         | Low         | Traffic signs   |                       |           |

## 4. Conclusions

While a number of minor road safety issues were identified, the principal concerns of the audit team relate to the following issues:

- There is no intersection control for Italia Road at the highway, which is exacerbated by faded 'hold' line pavement marking and lack of street lighting at the junction.
- Safe intersection sight distance (SISD) between the northbound highway travel lanes and the Italia Road junction is marginal for a car-to-car scenario and improved for a car-to-truck scenario.

## 5. Formal Audit Statement

This road safety audit has been undertaken by *Samsa Consulting Pty Ltd*, using the references and documentation detailed previously and site visits of the surrounding and approach road network during daylight and night conditions.

While the road safety audit may provide recommendations about possible remedial measures in response to identified road safety issues, it is ultimately the responsibility of GHD and the relevant road authority to determine how best to respond to each identified safety issue.

The audit has been undertaken for the sole purpose of identifying any safety-deficient features of the project area. Every effort was made to ensure that all relevant road safety issues were considered and the findings are the opinion and judgement of the audit team.

 5<sup>th</sup> February 2016

ALAN SAMSA

*RMS Accredited Road Safety Auditor: Level 3 Lead Auditor  
(Auditor ID: RSA-02-0056, Certification Expiry 13/08/2016)*

 5<sup>th</sup> February 2016

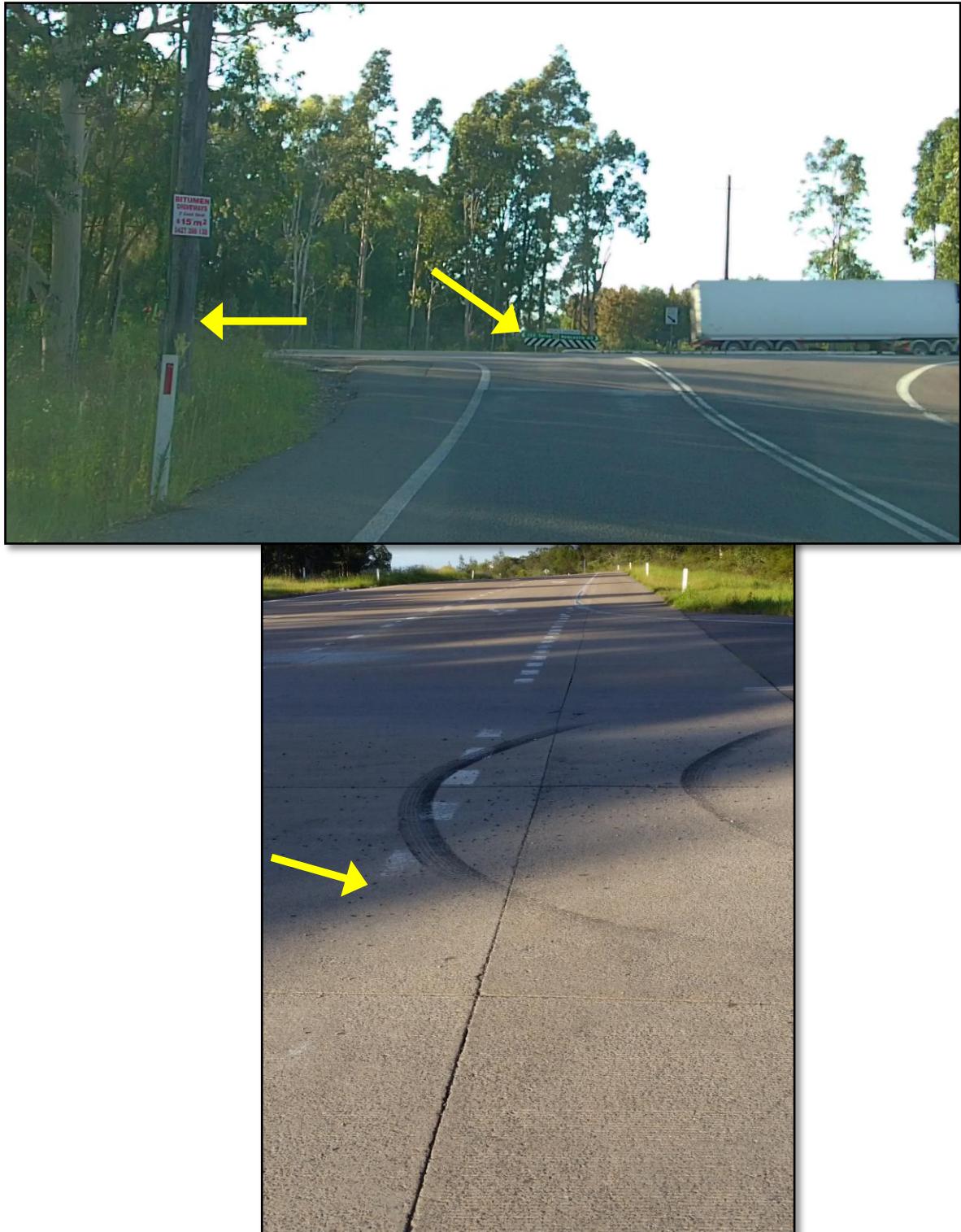
CAROLYN SAMSA

*RMS Accredited Road Safety Auditor: Level 3 Lead Auditor  
(Auditor ID: RSA-02-0585, Certification Expiry 14/06/2016)*

## **Appendix A**

### **Site Photos of Selected Safety Issues**

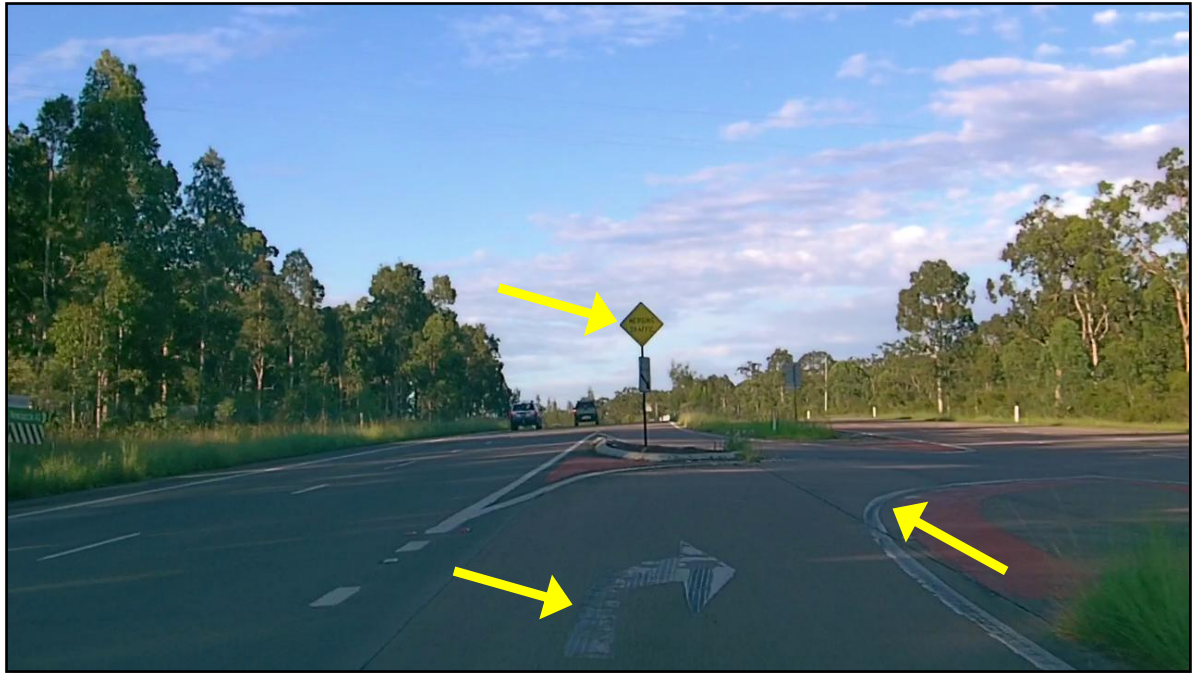
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**Photos 1 & 2:** There is no intersection control for Italia Road at the highway (top photo), which is exacerbated by faded 'hold' line pavement marking (bottom photo). Moreover, the intersection sightboard on the far side of the highway is located beyond the crested section of highway making it less conspicuous, especially at night. Also, note the unprotected power pole within the clear zone on the left side of Italia Road approaching the highway junction (top photo).



**Photos 3 & 4:** Safe intersection sight distance between the northbound highway travel lanes and the Italia Road junction is marginal (top photo – northbound highway approach to the Italia Road junction, bottom photo – looking south from the Italia Road junction). It is acknowledged that sight distance for truck drivers would be greater due to the higher driver position in the vehicle and that approaching northbound highway vehicles may be able to earlier sight trucks exiting the Italia Road junction due to the truck's larger (taller) size.



**Photo 5:** For southbound highway traffic, a 'merging traffic' sign is located at the Italia Road intersection 'seagull' splitter island for the acceleration lane merge, which is approximately 1.2 km prior to the actual merge. Also, note the faded pavement markings (pavement turn arrows and edgeline) at the intersection.



**Photo 6:** There are faded pavement markings (pavement turn arrows and edgeline) at the Italia Road intersection for the highway northbound left-turn lane.



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| 1       | N Hincks | B Hancock | <i>B Hancock *</i> | S Jamieson         | <i>S Jamieson *</i> | 16/12/2016 |
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