Heckington Fen Solar Park

EN010123

Outline Construction Environmental Management Plan

Applicant: Ecotricity (Heck Fen Solar) Limited

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OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

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Outline Construction Environmental Management Plan.

Land At Six Hundred Farm, Six Hundred Drove, East Heckington, Sleaford, Lincolnshire.

On Behalf of Ecotricity (Heck Fen Solar) Limited.

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1. Introduction

1.1. This Outline Construction Environmental Management Plan (oCEMP) has been prepared by Pegasus Group on behalf of Ecotricity (Heck Fen Solar) Limited (the Applicant). It is provided as part of a Development Consent Order (DCO) application for ground mounted solar panels, energy storage facility, below ground grid connection to, and extension to Bicker Fen Substation and all associated infrastructure works. The proposed development comprises a number of parts, but can be summarised into three main sections:

1. the 'Energy Park' which includes the solar panels, energy storage and associated equipment on the main site listed below.

2. the Grid Connection, and

3. extension works at National Grid's Bicker Fen Substation.

1.2. This report identifies necessary mitigation measures to reduce or prevent potential effects upon the environment and nearby sensitive receptors during the construction phase of the development. It should be read in conjunction with the Outline Construction Traffic Management Plan (oCTMP) (document reference 7.10) submitted with the DCO. Both the oCEMP and the oCTMP will be further developed once the appointment of the Contractor(s) for the project has been confirmed and a detailed construction programme has been developed. Submission and approval of the final CTMP is secured by DCO requirement (document reference 3.1).

1.3. The Proposed Development is located at land at Six Hundreds Farm, Six Hundreds Drove, East Heckington, Sleaford, Lincolnshire. The grid connection extends from Six Hundreds Farm to National Grid's Bicker Fen Substation 5.5km to the south (as the crow flies).

1.4. A Development Consent Order (document reference 3.1) has been prepared, alongside an Environmental Statement (document reference 6.1) for the submission to the Planning Inspectorate on behalf of the Secretary of State for the above Development. If approved the Development could start construction in 2025 and be operational in 2027. This Outline Construction Environmental Management Plan forms the starting point for the final CTMP which will provide a code of construction practice for the construction phase of the proposed development.

1.5. The Proposed Development will be set up and managed with consideration to the following principles: to be considerate of people and the environment; kept clean; be a good neighbour; be respectful, safe and responsible.

1.6. Contractors, delivery drivers and visitors will be advised of the measures set out within this oCEMP (and the final approved CTMP) prior to visiting the site.

1.7. It will be the appointed Contractor's responsibility to comply with all statutory regulations and guidelines, as appropriate in relation to the construction and movement activities for the scheme. The appointed Contractor(s) will also be responsible for ensuring the plan is adequately implemented.

oCEMP Structure

1.8. This oCEMP collates matters further to specialist input provided with various team members and includes:

a. Transport and Access – covered in **Sections 2 to 7**.

b. Landscape and Visual Amenity – covered in **Section 7** summarised from information provided by Pegasus Group.

c. Residential Amenity – covered in **Section 7** summarised from information provided by Pegasus Group.

d. Ecology and Ornithology – covered in **Section 7** summarised from information provided by Ecotricity.

e. Hydrology, Hydrogeology, Flood Risk and Drainage – covered in **Section 7** summarised from information provided by JBA Consulting.

f. Cultural Heritage – covered in **Section 7** summarised from information provided by Pegasus Group.

g. Socio-Economics – covered in **Section 7** summarised from information provided by Pegasus Group.

h. Noise and Vibration – covered in **Section 7** summarised from information provided by Hoare Lea and Ecotricity.

i. Lighting – covered in **Section 7** summarised from information provided by Ecotricity.

j. Waste Management – covered in **Section 7** summarised from information provided by Ecotricity.

k. Climate Change – covered in **Section 7** summarised from information provided by Land Use Consultants Limited.

l. Air Quality – covered in **Section 7** summarised from information provided by Hoare Lea.

m. Land Use and Agriculture – covered in **Section 7** summarised from information provided by Kernon Countryside Consultants.

n. Glint and Glare – covered in **Section 7** summarised from information provided by Wardell Armstrong.

o. Miscellaneous Issues – covered in **Section 7** summarised from information provided by Pegasus Group.

2. Site Characteristics

Site Location and Description

2.1. The Energy Park comprises fields to the north of the A17 within the vicinity of East Heckington. It is bound by undeveloped parcels of land and the Head Dike to the north, Sidebar Lane and undeveloped land to the west, the A17 to the south and Holland Dike to the east. The cable route comprises further agricultural fields and will require the crossing of infrastructure such as the A17, the railway, the South Forty Foot Drain, a gas pipeline and other roads and watercourses.

2.2. Planning permission for a wind farm at the site was previously granted consent and the highway authority offered no objection to those proposals. The form and location of the access arrangements agreed as part of the wind farm have been taken into consideration for the development of the Energy Park.

2.3. A site location plan is included at **Figure 2.1** and the proposed indicative site layout is included within the wider submission.

Local Highway Network – Energy Park Access

A17

2.4. The A17 is a single carriageway road which is routed between Newark-on-Trent to the north and Kings Lynn to the south. Locally, the A17 provides a connection between Sleaford and Boston and Spalding. It links with the A52 at a roundabout junction approximately seven kilometres south of the proposed Energy Park access and with the A15 at a roundabout junction approximately 15 kilometres north of the access. The road is subject to a 50mph speed limit within the vicinity of the Energy Park frontage.

2.5. The carriageway measures approximately eight metres wide at the Energy Park frontage. A footway measuring approximately two metres wide is located on the southern side of the carriageway between the Four Winds Service Station in the east to The Heathers House to the west.

2.6. The A17, A52, and A15 are all principal routes that are used by Heavy Goods Vehicles (HGVs) on a regular basis.

Local Highway Network – Cable Route Access

Triton Knoll Access Road

2.7. The Triton Knoll access road is located approximately 660 metres south of the lane leading to Royalty Farm, to the south of South Forty Foot Drain. It measures around 35 metres wide at the bellmouth and tapers to around seven metres wide within the site. There are no footways located along the access road.

Access Road North of South Forty Foot Drain

2.8. The access road to the north of the South Forty Foot Drain is located approximately 430 metres north of the junction between the A17 and the A1121. It measures around 24 metres wide at the bellmouth and varies in width within the site, although generally measures around 20 metres wide. There are no footways located along the access road.

Royalty Lane

2.9. The lane that runs to Royalty Farm from the A17 is a no through road located to the south of South Forty Foot Drain and is subject to the national speed limit (60mph). It measures around five metres wide for the first 200 metres before narrowing to around 2.5 metres wide. There are no footways located along the lane. It should be noted that the name of the lane is spelt a number of ways including Royalty Lane, Royality Lane, and Royalty Farm Lane.

Local Highway Network –Substation Access

2.10. Access to the Bicker Fen Substation is currently achieved via Bicker village or via a haul road from the A52, further detailed below. This will not change as a result of the Proposed Development. Access for construction vehicles associated with the extension to the Substation will continue to access via Bicker, in line with National Grid's existing arrangements.

National Grid Access Road

2.11. The National Grid access road is served from the A52 Bicker Bar, approximately 600 metres south west of the junction with Drury Lane. It measures around 55 metres wide at the bellmouth and tapers to around eleven metres wide internally. There are no footways located along the access road.

Recorded Traffic Flows and Speeds

2.12. Automatic Traffic Count (ATC) surveys were carried out on the approaches to the proposed Energy Park access point on the A17 between 24th March to 31st March 2022 to ascertain existing vehicle speeds. The full survey dataset is included at **Appendix A**.

2.13. The average 85th percentile speeds calculated in accordance with the Design Manual for Roads and Bridges (DMRB) 'CA 185 Vehicle Speed Measurement' equate to:

- 51.10mph for eastbound traffic; and
- 53mph for westbound traffic.

2.14. These speeds equate to a Stopping Sight Distance (SSD) of 164.23 metres eastbound (looking right out of the access junction) and 154.48 metres westbound (looking left out of the access junction).

Public Rights of Way

2.15. Public Right of Way (PRoW) footpath Heck/15/1 is located along the northern boundary of the Energy Park site. The footpath follows field boundaries along the Head Dike from the B1395 Sidebar Lane in the west towards Maryland Bank in the east. Access onto the Head Dike raised bank is no longer possible with a bridge crossing the drainage ditch no longer in existence.

2.16. In the vicinity of the off-site cable route corridor, PRoW footpath Swhd/14/1 and Bridleway Swhd/13/1 follow the alignment of the South Forty Foot Drain. Footpath Swhd/14/1 borders the north of the South Forty Foot Drain for approximately two kilometres and Bridleway Swhd/13/1 borders the south east of South Forty Foot Drain for approximately four kilometres.

Highway Safety

2.17. Personal Injury Collision (PIC) data has been obtained from Lincolnshire Road Safety Partnership for the most recent five-year period between 31/03/2018 and 31/03/2022. The study area comprises approximately 4.5 kilometres along the A17 between the junction with the A1121 to the east and the layby serving Garwick café to the west.

2.18. Lincolnshire Road Safety Partnership has confirmed that there has been a total of 14 slight, three serious and one fatal incident within this five-year study period within the study area. A summary of these incidents along with the full PIC reports are included at **Appendix B.**

2.19. With respect to the fatal incident which occurred on 16/04/2020 at 10:00, it is understood that two vehicles were involved, including a car and a 7.5 tonne goods vehicle. The incident appears to have occurred when the car, which was travelling westbound along the A17, drove towards the nearside kerb and when correcting the direction of the vehicle, entered the opposing side of the carriageway into the path of the goods vehicle. Road conditions were dry, daylight was present, and the weather was fine without high winds.

2.20. Assessment of these incidents confirms that they are generally randomly located and that there are no obvious highway safety patterns or problems within the study area.

2.21. Additional Personal Injury Collision (PIC) data has been obtained from CrashMap.com for the most recent five-year period for an area surrounding the Triton Knoll access. This confirms that there have been no recorded incidents within the most recent five-year period at this junction.

2.22. There is forecast to be a relatively limited increase in daily trips associated with the Proposed Development and the movement of construction vehicles will be strictly managed through the construction phase, as detailed in **Section 5**. Therefore, it is expected that there will not be any material impact on the safety of the local highway network arising from the scheme.

3. Development Proposals and Construction Phasing

Development Proposals

Proposed Energy Park

3.1. The proposed development comprises the construction, operation (including maintenance) and decommissioning of ground mounted solar PV panel arrays, an energy storage facility and supporting infrastructure. The connecting cable route extends from the Energy Park to the connection point at the National Grid Bicker Fen Substation, around nine kilometres to the south of the approximate centre of the Energy Park. National Grid Bicker Fen Substation will be extended as part of the scheme to connect the electricity generated by the Proposed Development into the National Grid infrastructure system Further details of the proposal and the technology used together with the proposed site layout are provided separately as part of the DCO application (for example, in ES Chapter 3 (document reference 6.1.3), ES Chapter 4 (document reference 6.1.4), and the Outline Design Principles (document reference 7.1).

3.2. Access to the site during the construction and operational phases is proposed from the A17 to the south of the site, approximately 900 metres northwest of the junction with Six Hundreds Drove. Whilst the proposed access is under construction, a temporary construction access will be provided via an existing junction with the A17, approximately 600 metres southeast of B1395 Sidebar Lane junction.

3.3. Access for the construction of the cable route is proposed in three locations. Access from the north of the South Forty Foot Drain is proposed via an existing junction with the A17 located approximately 430 metres north of the junction with the A1121; and access to the south of the drain is proposed via the Triton Knoll access with the A17. Localised access is also proposed via Royalty Lane and Timms Drove. However, the Triton Knoll access will predominantly form the southern access.

3.4. Access to the Bicker Fen Substation by National Grid is currently achieved via Bicker village and the A52 haul road. This will not change as a result of the Proposed Development. Access for construction vehicles associated with the extension to the Substation will continue to access via Bicker, in line with National Grid's existing arrangements.

Proposed Cable Route

3.5. The cable route will follow a southernly trajectory between the site and the National Grid Bicker Substation over agricultural land.

3.6. The cable route will cross the A17 south of the Energy Park before crossing agricultural land south of the A17 before crossing the Skegness to Grantham railway line and the South Forty Foot Drain.

3.7. The traditional trench and duct method is anticipated primarily at this stage. However, the Horizontal Directional Drilling (HDD) method is likely to be used where there are identified constraints including the A17, railway line, and South Forty Foot Drain. HDD allows for the required ductworks to be conducted and executed without the need to open, empty and backfill the traditional trenches. Crossing of the Internal Drainage Board maintained watercourses, PRoW, and landowner maintained watercourses will also be required. Further details setting out the proposed methodology for construction/ operational traffic to cross a watercourse is set out in **Appendix I – Outline Watercourse Crossing Method Statement**.

3.8. The exact location of the cable route within the A17 highway will be identified by the contractor who will produce a cable route feasibility report prior to commencement. Appropriate street works notices will be secured and suitable traffic management and procedures will be implemented along the route to minimise disruption to background traffic on the local highway network.

3.9. It will also be necessary for the cable to cross minor roads between the A17 in the north and the Substation, including (but not limited to) Bicker Drove, North Drove and Timms Drove.

Public Rights of Way

Energy Park

3.10. PRoW HECK/15/1 is located along the northern boundary of the site. Given its location on the periphery of the Energy Park, it is not anticipated that the proposals will materially affect access to the footpath. However, should it be considered necessary by the highway authority appropriate signage and fencing could be erected.

Cable Route

3.11. There are two PRoWs along the cable route which follow the alignment of the South Forty Foot Drain. As such, they will be unaffected by the cable routing as HDD will take place with no impacts on the surfacing of the PRoW. Therefore, no PRoWs are required to be excavated or altered as a result of the cable run.

Construction Compounds

Energy Park

3.12. Due to the size of the Energy Park, there will be multiple construction compounds located within the site. The compounds will be of suitable size for an articulated vehicle to enter, turn and exit in a forward gear.

3.13. A temporary car parking area (including space for minibuses) will be provided on the site within the contractor's compounds, as shown on the layout plan included with the submission. Parking will therefore be contained within the site and no unnecessary parking will occur on the local highway network. The compounds will also include areas for the storage of plant and equipment. No parking by contractors, visitors or delivery vehicles will be permitted on the access track leading to the site compound during the construction phase. Visitors will be advised of the parking arrangements in advance of travelling to the site.

Cable Route

3.14. Two primary construction compounds have been assessed on the cable route, including one at Royalty Farm and one at Bicker Fen Substation. These will be used for primary storage of materials, such as cable drums and welfare facilities. It may be appropriate to store materials and machinery in situ overnight alongside the grid route.

3.15. All contractor vehicles will park within the site compound in a designated parking area, available for both visitors and site operatives. Signage will be erected advising / designating where parking is available.

3.16. Where possible, plant and materials will be delivered to the compound in suitable sized loads to ensure vehicles have sufficient turning areas within the confines of the site. A banksman will assist any delivery vehicles in turning / entering / exiting the site.

4. Construction Programme and Vehicle Movements

Construction Phase

Energy Park

4.1. The Applicant has confirmed that the Energy Park will take approximately 30 months to complete, split roughly into four or five construction areas across the site. The cable route and works at Bicker Fen will take place within the same timeframe. Energy storage will be delivered over a two year period.

4.2. The construction phase includes the preparation of the site, the temporary access roads, erection of security fencing, assembly and erection of the PV strings, installation of the inverters/transformers/energy storage units and grid connection.

4.3. If considered necessary by local highway officers, construction traffic and delivery vehicles will be limited to outside of the AM and PM peak hours.

Construction Workers

4.4. A maximum of up to 400 construction workers are forecast to be on site during peak times during the construction period (assumed to be a six month period), with an average of 150 workers during typical periods of construction. As set out in **Section 3**, a temporary construction compound will be provided which will include car parking for contractors, ensuring that all parking associated with the construction is contained on site.

4.5. The location of where staff will travel from is unknown at this stage as it will depend on the appointed contractor. However, it is anticipated at this stage that any non-local workforce will stay at local accommodation and the vast majority of general operatives will be transported to the site by minibuses to minimise the impact on the local highway network. Assuming 14-seater minibuses are used, there could be around 29 crew minibuses during the peak time of construction (57 two-way trips) and around 11 crew minibuses per day (22 two-way trips) in non-peak times. The number of car trips to the site will be minimised to those senior staff such as project managers and the Health and Safety Executive.

Construction Deliveries

4.6. The construction period will include the use of HGVs to bring equipment onto the site and this will be strictly managed to ensure that vehicle movement is controlled and kept to a minimum. A small number of abnormal indivisible loads will be required to transfer heavier equipment such as transformers.

4.7. The route identified at **Section 5** for construction traffic means that large vehicles will only utilise A-roads for the whole construction route, with impacts on local residential areas minimised.

4.8. The Applicant has advised that following HGV movements could be associated with the construction period as set out in **Table 4.1**.

Table 4.1 Heavy Goods Vehicle Movements – Energy Park Construction Period

Activity	Type of Vehicle	Total Number of Construction Vehicles
Solar Park Components - Modules[1]	16.5 metre articulated	1,500
Solar Park Components - Frames		900
Energy Storage Units[2]		300
Energy Storage Supports[3]		200
Substation Components[4]		80
Cable		1,200
Spares Containers[5]		20
Compound Containers[6]		50
Building Components[7]		250
Materials[8]		4,195
Solar Park Components – Central Inverters[9]	12 metre rigid	130
Substation Transformers[10]	Abnormal Indivisible Load	7
Crane[11]		100
Access Tracks[12]	10 metre tipper trucks	2,100
General	16 metre Low Loader	50
Total		**11,082 (12,190 including 10% contingency)**

4.9. Assuming a 30-month construction period (total) and a six day working week (720 days total) equates to around 17 HGV deliveries per day on average (or up to 34 two-way movements per day). This could be higher or lower at times depending on the stage of construction. A 10% contingency has been applied to account for the fact that in reality, some deliveries could be made using smaller vehicles which would subsequently increase the overall number.

4.10. In addition to the HGV movements identified in **Table 4.1**, there will also be a small number of construction movements associated with smaller vehicles such as the collection of skips for waste management, the transport of construction workers and sub-contractors.

4.11. The Energy Park will be associated with fewer large, abnormal loads than the consented wind farm at the site.

[1] Assuming 930,000 modules delivered at 620 modules per container.

[2] Containers for energy storage, inverters, switchgear and transformers. Assuming 200 for each energy storage container and 100 for inverters and transformers.

[3] Steelwork for foundations for 400 containers.

[4] Components for 1 x 400kV substation including 4 high voltage substations.

[5] Assuming 1 HGV per container.

[6] Assuming 1 HGV per container.

[7] Blocks, tiles, doors, welfare etc for control rooms.

[8] Building materials for energy storage compound and substation including stone, reinforced concrete and fencing.

[9] Each inverter assumed to be transported individually.

[10] Assuming 3 x deliveries for main step-up and 4 x auxiliary deliveries.

[11] Assuming a crane will arrive at the site once a week for a period of 18 months.

[12] Assuming 19 kilometres of access track (comprising 10.3 kilometres new access track and 8.7 kilometres of existing).

Cable Route Corridor

4.12. The Applicant has advised that the construction of the cable route will be associated with a number of vehicles and machinery including 21 tonne, 13 tonne and 8 tonne excavators, 9 tonne dumpers, tractors, self-propelled tracked drill rigs and a small number of 16.5 metre articulated vehicles.

4.13. Vehicles/machinery will generally be brought to the site at the start of the project and stored overnight within a temporary fenced area within the vicinity of where works are being carried out. Light plant, fuel and staff vehicles would return to the compound on a daily basis. As such, the Applicant has advised that there will typically only be around five vehicles moving between the main Energy Park site and the cable route corridor each day (around ten two-way movements). This could be higher or lower at times depending on the stage of construction.

4.14. In addition to the movements identified at **paragraph 4.13** there will also be a small number of construction movements associated with smaller vehicles such as the transport of construction workers and sub-contractors. This is assumed to be one minibus arriving and departing each day (noting that there is anticipated to be a maximum of ten staff working on the cable route).

4.15. The construction phase will be temporary and, alongside traffic management and mitigation measures set out below, the impact of the works on the local highway network are therefore not considered to be severe.

National Grid Bicker Fen Substation Extension

4.16. The connection will require an extension to the existing substation at the National Grid Bicker Fen Substation. This extension will include a new Generation Bay, control room amid a section of perimeter access road. Within the new Generation Bay will be all of the electrical equipment required for connection to the Transmission system. The new equipment will look similar to the units of equipment already installed at the National Grid Bicker Fen Substation site.

4.17. The estimated length of works is 30 months. National Grid has provided an estimate of the number of vehicles that could be associated with the Proposed Development. This equates to a total of 361 vehicles over the 30-month period and an average of around one vehicle per day.

4.18. For the heavy and slow plant such as excavators, these would be brought to the site at the start of the project and stored overnight within the vicinity of where works are being carried out. Light plant, fuel and staff vehicles would return to the compound on a daily basis.

4.19. The construction phase will be temporary and, alongside traffic management and mitigation measures set out below, the impact of the works on the local highway network are therefore not considered to be severe.

Operational Phase

Energy Park

4.20. It is currently anticipated that once the site is operational, there will be approximately one to two visit(s) per day associated with a Shepherd (for sheep grazing on site) and for equipment maintenance. However, should replacement parts be required, or other significant maintenance require further staff onsite, there could be up to around 20 trips (40 two-way movements per day) for isolated periods of time.

4.21. The largest vehicles that are likely to be used during the operational phase is expected to be no larger than a 7.5t van or 4x4 vehicles. However, larger vehicles may be required to transport replacement parts, should it ultimately be necessary.

4.22. Whilst the contractor's compound will have been removed, space will remain within the site for such a vehicle to turn around to ensure that reversing will not occur onto the adjacent highway.

5. Construction Traffic Route and Access

Energy Park Access Arrangements

Temporary Construction Access

5.1. Whilst the proposed permanent construction and operational access is under construction, temporary construction access is proposed to be provided via an existing junction with the A17, approximately 600 metres southeast of B1395 Sidebar Lane junction.

5.2. The existing access, adjacent to Elm Grange, is shown at **Figure 5.1**. Visibility splays of 2.4 x 215 metres can be achieved in both directions to the nearside kerb, commensurate with speeds of 60mph (notwithstanding recorded speeds of less than this).

5.3. Access to a new school for children with Special Educational Needs and Disabilities (SEND) is provided in this location. Any vehicle movements associated with the construction of the Energy Park will be minimised and restricted to avoid the start and end of the school day (where it is understood that the majority of pupils arrive and depart by taxi). The Site Manager will liaise with the school on a regular basis to inform them of expected vehicle movements and to manage the arrival and departure of the largest vehicles.

5.4. The temporary construction access will only be in place until such a time that the permanent access is completed. This is estimated to be a period of around two months.

Main Construction and Operational Access

5.5. Vehicular access to the site during the construction and operational phases is proposed via a new priority junction with the A17 to the south of the site, approximately 900 metres northwest of the junction with Six Hundred Drove. The proposed junction arrangement is illustrated at **Figure 5.2**. This is in the approximate position agreed as part of the previous wind farm planning consent at the site.

5.6. Following pre-application discussions with highways officers, all construction traffic (including light and heavy vehicles) will be required to make a "left in – left out" manoeuvre at the site access. Drivers will be made aware of this upon arriving and departing the site and appropriate signage will be provided at the site access.

5.7. The junction will provide a seven metre wide access road, wide enough to accommodate two HGVs simultaneously. A wider bellmouth of up to approximately 43 metres is proposed to connect to the A17.

5.8. Junction radii of 12 metres on the north-western side and ten metres on the south-eastern side will be provided to accommodate the swept path of the largest vehicles associated with the proposed Energy Park.

5.9. All construction vehicles will enter and exit the Energy Park in forward gear. **Figure 5.2** demonstrates the Swept Path Analysis of a 16.5 metre articulated vehicle at the access. A 16.5m articulated HGV will access the site frequently during the construction phase. A low loader will be required to transport a small number of deliveries associated with energy storage units. These deliveries will be managed to ensure that the access road is clear at all times. **Figure 5.2** confirms that a low loader can manoeuvre appropriately at the site access.

5.10. Delivery vehicles seeking to access and egress the Site could be assisted by the use of banksmen, should it be considered necessary by local highway officers. However, **Figure 5.2** demonstrates that visibility splays of 215 metres can be provided to the nearside kerb in both directions. This is commensurate with vehicle speeds of 60mph and therefore in excess of the visibility splay requirements associated with the signed and recorded speeds in this location.

5.11. The extent of the access tracks within the site is shown on the site layout included as part of the wider submission.

Abnormal Indivisible Loads

5.12. A small number of abnormal indivisible load (AIL) will be required for the on-site step-up transformers which will be the largest vehicle accessing the site from the A17. The transformers measure around 300 tonnes which could require a 74-metre-long trailer (total AIL length approximately 79 metres).

5.13. A swept path assessment for the proposed site access has been undertaken to confirm the temporary works required at the access to accommodate the AILs. The vehicle will need to overrun the southern verge opposite the access and a scheme of temporary works, which has been included in the DCO (document reference 3.1), is proposed here to reinforce the grass verge to accommodate the AILs.

Proposed Energy Park Access Mitigation

5.14. The arrival and departure of HGVs at the site will be strictly managed by the Site Manager. Drivers will adhere to a delivery schedule and will be required to call ahead to ensure that any emerging HGVs can be held within the construction compound. No HGVs will be permitted to wait on the public highway.

5.15. As set out above, all vehicles will only be permitted to turn left in and left out of the site access junctions and banksmen can be located at the site access, if necessary, to assist the largest vehicles exiting the site.

5.16. Temporary signage will be erected in the vicinity of the Site during construction phase. Diagram 7301 'WORKS TRAFFIC ONLY' in the Traffic Signs Regulations and General Directions 2016 (TSRGD) will be used to indicate that heavy construction vehicles are turning. Signage will be white text and red background 1050 x 750mm mounted in 'A' frame, as illustrated at **Appendix C**.

5.17. Wheel washing may be required until the internal access tracks are completed. A drive through 'dry' wheel wash will be provided within the Site close to the A17 to ensure that vehicle's wheels are clear of mud and detritus before exiting on to the local highway network.

5.18. The contractor will dispose of any waste material arising from the works responsibly, ensuring compliance with all legislation including, but not limited to the Waste Duty of Care Code of Practice (2018). Any HGVs transporting materials off site will be covered to reduce the propensity of dust and dirt.

5.19. The contact details of the contractor and those of the highway department at Lincolnshire County Council will be exchanged before commencement of the works on site.

5.20. The contractor would be available to meet Lincolnshire County Council at regular intervals, as may be required, to ensure that the highway is reinstated according to standards. Inspections will take place during the works. The precise details will be confirmed in due course. However, this is expected to be six months following reinstatement, and within three months of the guarantee period (likely to be up to 3 years). The guarantee period defines the length of time that the Applicant/Contractor must return to bring the road surface back to normal if any defects occur.

Proposed Access to Cable Route and Substation Extension

5.21. Access for the construction of the cable route is proposed in three locations. Access from the north of the South Forty Foot Drain is proposed via an existing junction with the A17 located approximately 430 metres north of the junction with the A1121; and access to the south of the drain is proposed via the Triton Knoll access with the A17. Localised access is also proposed via Royalty Lane and Timms Drove. However, the Triton Knoll access will predominantly form the southern access.

Northern Cable Route Access

5.22. Access to the north of the drain is located approximately 430 metres northeast of the A17 junction with the A1121, as shown at **Figure 5.3**. The junction has been used previously for the construction of the Triton Knoll cable link and as such is considered suitable to accommodate the limited number of vehicles associated with the cable route construction.

5.23. All construction vehicles will enter and egress the site in a forward gear, as shown on **Figure 5.3** which shows a 16.5m HGV accessing and egressing the site from both directions. This is the largest vehicle that will need to access the site during the construction phase. **Figure 5.3** also shows that visibility splays of 2.4m x 160m to the nearside kerb in both directions can be achieved commensurate with DMRB requirements for the signed 50mph speed limit on the A17.

Southern (Triton Knoll) Access

5.24. South of the drain, access to the cable route will be taken via the existing Triton Knoll access road from the A17, around 800 metres southeast of the A17 junction with the A1121, as shown at **Figure 5.4**.

5.25. All construction vehicles will enter and egress the site in a forward gear, as shown on **Figure 5.4** and visibility splays of 2.4m x 160m can be achieved to the nearside kerb in both directions commensurate with DMRB requirements for the signed 50mph speed limit on the A17.

Royalty Lane Access

5.26. The Royalty Lane junction is located to the immediate south of the South Forty Foot Drain. All construction vehicles will enter and egress the site in a forward gear.

Access to Bicker Fen Substation

5.27. Access to the Bicker Fen Substation is currently achieved via Bicker village and Vicarage Drove. This will not change as a result of the Proposed Development. Access for construction vehicles associated with the extension to the Substation will continue to access via Bicker, in line with National Grid's existing arrangements.

Proposed Cable Route Access Mitigation

Traffic Management

5.28. It is envisaged at this stage that the cable run will be constructed outside of the peak construction periods for the proposed Energy Park, minimising the potential for conflicts and impacts on the highway network.

5.29. Before construction commences a letter to the nearest properties would be issued and vehicles will be prohibited from using any private driveways to turn around.

5.30. Where required, suitable traffic management would be implemented to ensure safe operation and to reduce as far as reasonably practicable the impact of the cable route works on the local highway network. It may be necessary to implement some night-time closures of the A17, in order to install the cable across the carriageway.

5.31. There will be appropriate signing, lighting and guarding of the temporary works as per the Code of Practice "Safety at Street Works and Road Works" and Chapter 8 of the Traffic Signs Manual 1991, as required by Section 65 of the New Roads and Street Works Act, 1991.

5.32. Detailed traffic management layouts, site specific risk assessments and method statements would be produced and agreed with Lincolnshire County Council for all traffic management and highways related construction activities. The precise nature and locations of signage would be agreed with Lincolnshire County Council and will remain in place for the duration of the construction period.

5.33. The following traffic management measures could be implemented along the cable route, depending on the nature of the carriageway within which the works are taking place, and whether the cable will be laid within the carriageway or where the cable route crosses the highway:

Give and Take:

5.34. On roads along the route where the speed limit is 30mph or less, a give and take arrangement will be implemented whereby traffic gives way to oncoming vehicles past the works.

Stop/Go boards:

5.35. On roads along the route where the speed limit does not exceed 60mph (and where adequate visibility and lighting is available), stop/go boards shall be used to manage the flow of traffic past the cable works. Use of Stop/Go boards would be restricted to daylight hours.

5.36. Where manually rotated signs are in use and the operatives are not in direct line of sight, then two-way radio communication between operators must be used.

Temporary traffic signals:

5.37. Two way and / or multi-phase traffic signals will be considered where Stop/Go and Give and Take methods cannot be implemented.

Road closure:

5.38. Whilst this would be avoided, where possible, if it becomes necessary a Temporary Traffic Regulation Order (TTRO) could be applied for by the contractor to close a road or part of a road along the construction route.

5.39. If necessary, pedestrian access to properties within the affected road/s will be maintained at all times.

5.40. Appropriate traffic control signage will be agreed and provided as part of any of the above traffic management measures, in line with the Traffic Signs Regulations and General Directions (TSRGD) 2016 and Traffic Signs Manual Chapter 8.

Construction Traffic Routing

5.41. The Applicant has confirmed that the solar farm components could be imported to the UK via Immingham. It is therefore likely that construction traffic will arrive at the site from the west via the A17, as shown at **Figure 2.1**.

5.42. In order to prevent construction traffic crossing opposing traffic on the A17, any vehicles approaching from the east (right in movements) will be required to turn at the roundabout junction with the A15 and A17 at Sleaford to the west of the site.

5.43. Vehicles leaving the site will only be permitted to turn left out. Therefore, any vehicle wishing to continue its journey to the west will be required to turn at the roundabout between the A17 and A52 at Bicker to the east or continue on routes to the east of the site such as the A52 and A15.

5.44. Construction vehicles will only access the Site via the designated construction route identified in this draft oCEMP. This route will ensure, as far as practicable, that heavy construction vehicles associated with the site will not unnecessarily pass through small villages in the vicinity of the site.

5.45. All roads along the designated routes are already used by HGVs. The local highway network within the immediate vicinity of the site is generally comprised of distributor roads, is not subject to any weight or height restrictions and is suitable to accommodate all types of vehicles including maximum articulated delivery vehicles. The route is therefore considered suitable for use by the relatively low number of HGVs that will be associated with the limited temporary construction period, details of which are set out at **Section 4.**

5.46. Drivers will be informed of the route prior to arriving at and / or departing from the Site. Drivers will be advised not to use Sat-Navs to reach the Site.

Abnormal Indivisible Loads

5.47. The routing of AILs will be subject to a detailed route assessment in due course.

5.48. All temporary works, such as removal of street furniture, will be subject to discussion with relevant authorities and form part of a delivery plan for each abnormal load. Each delivery will be planned in advance, escorted and managed such that any impacts are minimised. Such arrangements will be procured through standard processes with the relevant planning authority at the appropriate time.

6. Construction Principles, Site Rules and Communication with Third Parties

Security & Segregation

6.1. The Principal Contractor(s) will ensure their active works areas are fully enclosed with Heras fence (as a minimum) and controlled access gates, so the active work areas are completely autonomous from any surrounding areas, clearly defined and separated before any works commence on-site, to ensure they are fully secured from trespassers / members of the public / children. Any off-site work areas (such as highway works) will be secured with traffic barriers as a minimum.

6.2. Visitors will be directed (by signage at the entrance gate and by any personnel at the site gates) to the site office accessed via clearly defined pedestrian routes. Visitors will sign in and be inducted (as appropriate for the nature of their visit) by the Site Manager, prior to being permitted on-site.

Deliveries

6.3. Deliveries to site will be directed onto site by relevant signage. A banksman will be used if required, and drivers will be asked to report to the office during working hours.

6.4. All materials will be stored on site in areas designated – these areas will move as and when the route of build dictates. All plant delivered to site will be offloaded on site.

6.5. Delivery vehicles will not be permitted to wait, queue, or circulate on the public highway when the development site is not open for deliveries.

Working Hours

6.6. Core working hours are proposed to be 08:00 to 18:00, Monday to Friday and 08:00 to 13:00 on Saturdays unless in exceptional circumstances where the need arises, for example to ensure the continuous drilling of a HDD can be completed, as these cannot be stopped part way through. This may result in some night-time working. Some start up and closing down time may be required outside of these hours, for example between 07:00 - 08:00 and 18:00 - 19:00, which is likely to include teams arriving and leaving site. Equipment likely to cause a disturbance would not be used during these hours.

6.7. Until the new access from the A17 has been completed, the existing site entrance at Elm Grange will be used. Construction activities onto the Energy Park will be timed to avoid drop-off and pick-up of school students – e.g. between 09:00 – 09:30 and between 14:30 – 14:40. Further detail on transport timings is available in the outline Construction Traffic Management Plan.

Mobile Plant Certification

6.8. All plant will have the appropriate certification and checks with copies held on file on site.

6.9. Regular inspections of all plant will be carried out with copies held on file. All mobile plant will be stored within the site when not in use.

Protection of the Public

6.10. Construction risks to the public associated with this project will be covered as part of the Construction Phase Plan (CPP) developed for the project. The Principal Contractor(s) will be vigilant to the possibility of works areas being accessed by unauthorised persons and ensure that a high standard of housekeeping practices are implemented across the site to ensure they reduce the risk of potential injury to trespassers, if they manage to gain access to the site.

6.11. All materials, plant and tools will be fully secured/supervised when not in use and particularly at the end of the working day. Material storage/compound areas will also be fully secured inside the site.

Liaison with Public

6.12. A display board will be prominently displayed at the development site. All boards will detail the nature of the works being undertaken, a contact name, telephone number (including a telephone number to be used outside normal working hours), and a postal address where any enquiries can be sent.

6.13. The telephone number provided to local residents and businesses will be maintained at all times whilst the development works are taking place in order to respond to any enquiries and complaints.

6.14. Complaints resulting from the site should be addressed to the Site Manager.

6.15. Regular communication with neighbouring residents will be maintained throughout the duration of the works to provide updates on the scheduled works and any changes that may occur as a result of unforeseen circumstances.

6.16. A complaints register will be kept and will include complainant's details, date and time of the complaint, cause(s) of the complaint, action taken to resolve the complaint, date and time of action taken to resolve the complaint, and reasons for any unresolved complaints.

Signage

6.17. Appropriate Health and Safety Signage will be placed around the construction site guiding traffic and pedestrian routes, giving warnings of hazards and potential dangers (such as "Danger: Keep Out"; and public/pedestrian directional signage etc.) and instructing conduct within the site boundaries (such as "Do not remove security fencing" / "Appropriate PPE must be worn…" etc.).

Inductions

6.18. All operatives will be inducted prior to commencing work on this site and the relevant competencies checked, with copies held on site.

6.19. Site specific risk assessments and method statements will be produced for all activities, with copies held on site. All operatives will be briefed on their method statements prior to commencing work. Operatives and visitors will be asked to sign in and out every day.

Carriageway Cleaning

6.20. Pro-active measures will be undertaken to prevent spoil from vehicles leaving site during the works being deposited on the local highway network.

6.21. All construction vehicles gaining access and egress to the site will be via the construction access. There will be potential for delivery vehicles and other site traffic to carry mud and silt onto the public roads when exiting the site. This will be regularly monitored by site management team and if required wheel wash facilities will be located adjacent to the exit and will be used to wash down the wheels of vehicles prior to leaving the site to avoid the risk of mud/debris being deposited on the public highway. In addition to wheel wash facilities, the development will be able to call in a road sweeper to deal with any incidents involving mud being transferred onto the public highway.

6.22. If complaints arise or incidents of mud deposits occur, these will be investigated immediately, and appropriate action taken.

Welfare Provision and Health & Safety

6.23. The Principal Contractor(s) will provide full welfare facilities in accordance with Schedule 2 of the CDM Regulations 2015 – these facilities will be in place prior to construction works commencing on-site and this will be confirmed by the Principal Designer to the Client, following review of the Construction Phase Plan. Welfare facilities shall be placed in a convenient location on site and as a minimum these will comprise an office and canteen double, a toilet block and stores.

6.24. Comprehensive health and safety assessments are an essential part of the construction process and would be carried out prior to construction by the contractor in accordance with legislation. A Construction, Design and Management (CDM) co-ordinator will be appointed responsible for the provision of a pre-construction information pack, as required under the Construction (Design and Management) Regulations 2015 . The appointed contractor will be required to provide a construction phase plan.

6.25. A weekly meeting is to be held between the Client, Project Co-ordinator and designers. The Health & Safety Advisors will regularly visit site to carry out the sit Health & Safety Plan. Regular visits to the site will be carried out by our nominated Health & Safety Advisor. From these visits monitoring reports will be generated.

6.26. Reportable accidents and dangerous occurrences will be reported in accordance with RIDDOR.

6.27. It is recommended that during any groundworks, appropriately licenced contractors should be appointed, PPE/RPE should be worn as necessary by groundworkers, and a safe system of work established prior to commencement.

6.28. A watching brief should be maintained for contamination throughout the duration of the proposed development. In the event that any unforeseen gross or widespread contamination is encountered on site (i.e., hydrocarbons, ash, asbestos etc). Grange GeoConsulting Limited (or another appropriately qualified contaminated land specialist) should be contacted immediately. A representative will be able to attend site, examine any potentially contaminated materials, take soil samples as required, and provide specialist advice. This would be recorded and communicated to the Local Planning Authority (LPA) and an appropriate course of action determined.

6.29. Specialist contractors should be employed as necessary to advise on the management of unexpected contamination.

Emergency Contact Details

6.30. A notice displaying emergency contact details will be displayed in a prominent location onsite – such as within the site office. External notices will be placed at prominent locations around the perimeter of the site, for example near Elm Grange and Bicker Fen and along Timms Drove and Sidebar Lane where the public right of way meets the site boundary.

6.31. Should a pollution incident occur, the relevant external organisations would be contacted. The details will be completed on the relevant notices, for example with a spill kit, or held by the Project Manager overseeing the work. This could include:

- Environment Agency.
- Police.
- Fire and Rescue Service.
- National Grid.
- Natural England; and
- The Local Planning Authorities of North Kesteven District Council; Boston Borough Council and Lincolnshire County Council.

6.32. All accidents, incidents and near misses (including spills, dust, noise pollution etc) will be reported to the Site Manager immediately. These will be recorded and investigated as appropriate. Details to be recorded will include: a description of the incident, potential contributory causes, adverse effects, measures implemented to mitigate adverse effects, and effectiveness of measures implemented to prevent incidents happening again.

Fire Plan / Special Site Instructions

6.33. All site personnel will be advised of escape routes and firefighting equipment at induction stage and copy of the fire plan will be kept in the site file. Hot works permits will be issued as required.

6.34. Site perimeter fencing must be complete and intact to ensure security of the site.

6.35. All site waste material to be put into skips. Site to be always kept clean of any debris. Materials to be stored neatly in the designated storage areas on site.

Monitoring Arrangements

6.36. The Site Manager will be responsible for the day-to-day management of the site and will ensure that all restrictions / provisions noted in this CEMP are undertaken.

7. Environmental Control Measures

Landscape and Visual Amenity

7.1. The existing structural vegetation shall be retained and protected during the construction phase by implementing exclusion zones and tree protective fencing and retained post construction.

7.2. The Root Protection Area (RPA) shall inform the extent of the tree protection zones to be applied during the construction phase. The tree survey shall be included within an Arboricultural Impact Assessment (AIA) and shall be accompanied by an Arboriculture Method Statement which will set out the mitigation and protection measures to be undertaken during the construction phase.

7.3. There is potential for loss of vegetation during the construction phase of the Proposed Development. To avoid and control the potential removal or damage to the existing and retained vegetation the proposed construction compounds and new access tracks have been designed at sufficient distance from these features to avoid encroachment into their RPA.

7.4. The access arrangement into the Energy Park has been carefully considered in order to utilise the existing tracks within the Energy Park, in the most efficient way, with the vehicular access formed along the least constrained section of the A17, characterised by lack of boundary vegetation and open field boundaries.

7.5. The existing vegetation shall be managed, in accordance with best practice, where practicable to ensure its continued presence and to aid the screening of low-level views into the Energy Park.

7.6. Construction compounds have been located away from large concentrations of sensitive visual receptors. As the construction work progresses, it may be possible to consider other locations within the Proposed Development, if they benefit from a stronger sense of enclosure and visual separation from the nearby roads, PRoWs, and residential receptors.

7.7. Construction works to be carried out in phases in order to reduce the geographical extent of the activities within the Energy Park and movement in the landscape.

7.8. Any artificial lighting to be set to the minimum acceptable standards in terms of lux level, current at the time. The location of the lighting columns to be considered in the context of the retained vegetation, potential effects upon the nocturnal species, and to provide maximum screening from the sensitive visual receptors.

7.9. Any artificial lighting to be limited to the operational working hours only. Where security lighting is necessary this shall utilise passive infra-red (PIR) technology controlled and be triggered by movement only.

7.10. Lighting shall use directional fitting to reduce and minimise any potential light spill and glare. Lighting fittings shall be installed with light hoods/cowls to direct lighting below the horizontal plane. The height of the lighting units / columns to be as small as practical to reduce light spill and glare.

7.11. Lighting units to be directed towards the interior of the Energy Park and not outside of the boundaries of the Order Limits, see **Appendix H – Outline Artificial Light Emissions Plan** for further details on the management and control of artificial lighting at the Proposed Development.

7.12. It is envisaged that any construction works are unlikely to affect any of the perimeter vegetation present or abutting the boundaries of the Order Limits, taking into account the proposed offsets and tree/ hedgerow protection. In the unlikely event that the perimeter vegetation has to be removed / partially removed, replacement planting will be considered (as will be agreed within the Landscape Ecological Management Plan secured by Requirement 8 of the DCO (document reference 3.1)).

7.13. Where works in close proximity to retained trees cannot be practically avoided, these works shall be undertaken in accordance with the current best practice, defined in British Standard (BS) 5837: 2012 Trees in relation to design, demolition and construction – Recommendations and National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees, or guidance applicable at the time.

7.14. All necessary protective fencing shall be installed prior to the commencement of any site construction works.

7.15. The area for the proposed Community Orchard is to be excluded from any construction works and storage to avoid compacting the soil and degrading its quality.

Residential Amenity

7.16. The existing structural vegetation shall be retained and protected during the construction phase by implementing exclusion zones and tree protective fencing, and retained post decommissioning.

7.17. The existing vegetation shall be managed, in accordance with best practice, where practicable to ensure its continued presence and to aid the screening of low-level views into the Energy Park.

7.18. Construction compounds have been located away from large concentrations of sensitive residential receptors. As the construction work progresses, other locations within the Proposed Development to be considered, if they benefit from a stronger sense of enclosure and visual separation from the nearby roads, PRoWs, and residential receptors.

7.19. Any artificial lighting to be set to the minimum acceptable standards in terms of lux level, current at the time. The location of the lighting columns to be considered in the context of the retained vegetation, potential effects upon the nocturnal species, and to provide maximum screening from the sensitive visual receptors.

7.20. Any artificial lighting to be limited to the construction working hours only. Where security lighting is necessary this shall utilise passive infra-red (PIR) technology controlled and be triggered by movement only.

7.21. Lighting shall use directional fitting to reduce and minimise any potential light spill and glare. Lighting fittings shall be installed with light hoods/cowls to direct lighting below the horizontal plane. The height of the lighting units / columns to be as small as practical to reduce light spill and glare.

7.22. Lighting units to be directed towards the interior of the Energy Park and not outside of the boundaries of the Order Limit, see **Appendix H – Outline Artificial Light Emissions Plan** for further details on the management and control of artificial lighting at the Proposed Development.

Ecology and Ornithology

7.23. A series of ecological surveys have been completed for the Proposed Development, including breeding bird surveys, bats, badger, aquatic plants and phase I habitat surveys.

7.24. The Energy Park and associated grid connection will be situated within an intensively farmed landscape of low nature conservation value. The substation extension is within the National Grid land boundary, alongside the existing Bicker Fen Substation.

7.25. The large fields associated with the remainder of the Proposed Development are divided by wet ditches and Internal Drainage Board managed water courses. There are no sites of international, national or local importance within or adjacent to the Energy Park Site. There is one Local Wildlife Site (The South Forty Foot Drain) along the route of the off-site grid connection. The Wash SPA/SAC is approximately 15km from the Proposed Development. It is hydrologically connected to the Proposed Development via the drainage network which all enter the South Forty Foot Drain before it discharges into the Wash SPA/SAC 16km downstream.

7.26. There are four blocks of native woodland within the energy park and a small number of gappy hedgerows.

7.27. A total of 68 species were recorded breeding during the breeding bird surveys of which 56 species bred. Three Schedule 1 / Annex I species was found breeding in the area during the surveys (one pair of marsh harrier, three pairs of barn owl and one pair of kingfisher) Twelve Birds of Conservation Concern (BOCC) Red List species (Stanbury et al 2021) were found breeding: grey partridge, lapwing, skylark, starling, mistle thrush, tree sparrow, house sparrow, yellow wagtail, greenfinch, linnet, corn bunting and yellowhammer).

7.28. There was a low-level foraging activity of up to twelve species of bat recorded on the Energy Park and one small bat roost within the derelict buildings in the centre of the Energy Park. There was no evidence of water vole within the Proposed Development. There was no evidence of otter within the energy park but evidence of use of the South Forty Foot Drain which crosses the Grid Connection Corridor. There is an active Badger population within and around the Energy Park but not along the Grid Connection Corridor. There is brown hare throughout the Proposed Development.

7.29. At the start of construction, a kick-off meeting will be held with the Site Manager, and a suitably qualified and experienced ecologist to discuss best practice and legal requirements for protected species, including badgers, bats, hares and nesting birds and ensuring existing habitats such as woodlands, hedgerows, grasslands and ditches are protected from direct damage.

7.30. A further survey will check the Proposed Development for signs of protected species before construction commences in that area, for example badgers so their setts can be avoided (a 30m exclusion zone for heavy machinery or vibration). Where works are required in the breeding bird season (1 March to 31 August) impacted hedgerows will be checked for presence of nesting, prior to works commencing. If breeding birds are found an exclusion

zone will be enforced until the nest is vacated – the size of this zone will be determined by a qualified ornithologist.

7.31. A suitably experienced local ecologist will be appointed as the Ecological Clerk of Works (ECoW) to give tool box presentations to construction staff prior to construction in respect of the requirement to protect habitat and species during construction, conduct regular site visits during construction to check compliance with ecological mitigation, and to be on call through the construction period to advise and resolve any ecological risks to habitats or species.

Measures to Protect Designated Sites During Construction

7.32. Potential negative effects on the Wash SPA/SAC as a result of possible dust deposition or silt runoff into the drainage ditches within the Energy Park Site will be prevented by:

- Erection of fencing to establish stand off from all ditches 9m from Internal Drainage Board Managed ditches and 8 m from all other ditches.
- Restrict working during periods of heavy rain; and
- if required, the installation of silt fencing.

7.33. Potential negative effects on the South Forty Foot Drain will be mitigated by directional drilling beneath the drain.

Measures to Protect Habitats During Construction

Grasslands

7.34. The areas of grassland adjacent to watercourses will be fenced off from construction activity 9m from Internal Drainage Board Managed ditches and 8m from all other ditches.

Hedgerows

7.35. In order to minimise and avoid damage to boundary habitat from dust deposition and run-off the following measures will be implemented:

- Dust-generating activities will be avoided and when not practical water bowsers will be used to dampen soils and prevent dust blow onto boundary habitat.
- Ensuring stockpiles of spoil and site materials will be stored away from field boundaries; and
- Restrictions on working during periods of heavy rain and the installation of silt fencing and/or temporary drainage channels if necessary.

7.36. In order to avoid the risk of accidental direct damage to boundary habitat during construction:

- Fencing will be installed as the first item in the construction programme, in order to demarcate the buffer between the boundary and construction area and boundary habitat; and

- Construction crew will be informed that no materials should be stored, or vehicles driven within this area via a toolbox talk delivered to all key construction staff at the commencement of construction.

7.37. If any short section of hedgerow is to be removed during the laying of the Off-Site Grid Connection an ecological assessment by suitably qualified ecologist will be carried out prior to removal works. This works will be completed outside the bird breeding season and the hedgerow will be replanted in the next planting season following construction with the same hedgerow species.

Wetlands

7.38. The pond in the centre of the site will be protected from construction operations and the potential risk of silt run-off from the adjacent construction compound by bunding to prevent any flow into the pond.

7.39. Potential negative effects as a result of possible dust deposition or silt runoff into the drainage ditches within the Energy Park Site measure to prevent this will be:

- Erection of fencing to establish stand off from the pond and all ditches 9m from Internal Drainage Board managed ditches and 8m from all other ditches;
- Restrict working during prolonged periods of heavy rain; and
- If required, the installation of silt fencing.

7.40. Where the Off-Site Grid Connection will cross smaller field ditches that could be excavated rather than directionally drilled, in-ditch dams will be installed to ensure no run-off of silt and if wet, and requires water to be pumped out to install the grid connection cable. An ecological survey will be carried prior to any works to ensure this method is only used where there is no risk to protected species within the ditch up-stream or downstream of the crossing.

Woodlands

7.41. The construction of the Proposed Development will not result in any loss of woodland or encroachment of woodlands. However, there is potential for damage or compaction to tree roots when installing the fencing and array structures.

7.42. Root protection zones will be established in compliance with BS5837 (2012). Precautionary protection measures will be taken to fence all woodlands and individual trees to ensure no root damage and to avoid risk of accidental damage.

7.43. The fencing will be installed prior to construction commencing, in order to demarcate the root protection zone buffer between the woodland and construction area.

7.44. Construction crew will be informed that no materials should be stored, or vehicles driven within this area via a toolbox talk delivered to all key construction staff at the commencement of construction.

7.45. In order to minimise dust deposition and run-off which may affect the woodland habitat. The following measure will be implemented:

- Stockpiles of spoil and site materials will be stored away from woodlands field boundaries; and

- Restrictions on working close to woodlands during periods of heavy rain and the installation of silt fencing and/or temporary drainage channels if necessary.

Measures to Protect Species During Construction

Water Vole

7.46. Although not currently present in the proposed development, prior to any crossing of watercourses not via directional drilling, a water vole survey will be conducted in the appropriate season, in sufficient time, to ensure that if water vole recolonise the area appropriate mitigation measures can be implemented.

Badgers

7.47. Protection measures for badger setts during the installation of the Energy Park and associated infrastructure will include:

- Prior to each stage of construction, a badger survey will be conducted in sufficient time for appropriate mitigation measure be in place where there is a potential for disturbance;

- The creation of construction exclusion zones delineated by Heras fencing where appropriate to control direct impacts to setts;

- If necessary licenced temporary closure of a sett or licenced works within an agreed distance from the sett; and

- To prevent badgers and other mammals from becoming trapped the provision of ramps into any open excavations to allow any badger (or other mammals) that have fallen in to escape.

Bats

7.48. Whilst it is considered that there will be no significant effect of bats during construction, a precautionary approach will be taken including:

- Fencing to protect accidental access or accidental damage to identified roost site in the derelict farm building in the centre of eth Energy Park;

- Fencing to any accidental damage to potential roost site trees and woodlands;

- No security lighting spill onto to identified roost site or potential bats roost;

- Any lighting required during directional drilling operations is temporary and directed at the working areas to avoid light spill; and

- No security lighting spill onto identified important foraging areas in particular wet and water filled drainage ditches.

European Hare

7.49. Protection measures for European Hare during the construction of the Energy Park and associated infrastructure will include:

- Habitat manipulation to create suitable habitat for European Hare outside construction areas prior to commencement within each area of work;
- Habitat manipulation to minimise suitability for European Hare in construction area prior to each phase on construction;
- The provision of ramps into any open excavations to allow any European Hare (particularly leverets that have fallen in to escape);
- Contractor training and induction to ensure awareness and care during installation of solar arrays and associated infrastructure;
- Adopting a speed limit of 10mph across the site to reduce the possibility of incidental mortality; and
- Any leverts (young hares can run from birth) encountered during works should be allowed to move away of works.

Breeding Birds

7.50. Standard Good Practice to avoid impacts to nesting birds during works, including disturbance to Schedule 1 species nesting in building, will include:

- Appropriate timing of clearance works (i.e., outside of the breeding season between October and February inclusive) and pre-clearance nesting bird checks if required.
- Breeding bird surveys will be conducted prior to works during the bird breeding season.
- In the event that any active bird nest is discovered the ecological clerk of works will be contacted immediately and if consider it would be impacted by clearance/installation works, works will be deferred within a minimum radius of the nest until the nest is no longer active. The ecological clerk of works will determine the appropriate radius and period during which works will be deferred.
- Access to grass margins, ditches and woodland will be prevented by fencing to avoid accidental disturbance to nesting species.
- Access to buildings on site will be prevented by fencing to avoid accidental disturbance to nesting species.
- No development activities should be undertaken within 500m of any of the Schedule 1 / Annex I species' nest-sites during the breeding season (March-July); and
- All parts of the Proposed Development where any development work is planned to take place during March-July will be carefully surveyed for breeding Quail prior to any work commencing.

Wintering Birds

7.51. Construction works on Energy Site Park and Off-Site Grid Connection route could potentially cause temporary disturbance to pink-footed geese, wintering bird species contributing to the Wash Special Protection Area designation.

7.52. Once the timetable of the Off-site Grid route construction has been agreed and the timing of landowner access agreed it would also be possible to ensure there are alternative feeding areas for geese feeding the section of the grid connection route close to Swinehead.

Hydrology, Hydrogeology, Flood Risk and Drainage

7.53. Sediment and surface water run-off generated during the construction phase of the Proposed Development will be managed through good practice construction techniques. Major construction works such as large-scale earthworks, will be minimised during heavy precipitation events.

7.54. The design of the Energy Park has considered landowner managed, and Internal Drainage Board ditches, and included minimum buffer zone distances of 8m and 9m respectively. Crossings will utilise existing culverts, with the exception of a new one required at new site entrance of the A17, over a landowner managed ditch. Further details setting out the proposed methodology for construction/ operational traffic to cross a watercourse is set out in **Appendix I – Outline Watercourse Crossing Method Statement**.

7.55. Along the grid route the cable will pass, via horizontal directional drilling, under Internal Drainage Board ditches, as well as the South Forty Foot Drain. The impact on these features will not be significant.

7.56. Drainage on the Energy Park site will include elements of Sustainable Drainage Systems (SuDS) design, where appropriate. SuDS replicate natural drainage patterns and have a number of benefits – including, attenuating run-off, reducing peak flow and any flooding issues that might arise downstream (although none are predicted).

7.57. Prior to the Energy Park becoming operational, a flood incident preparedness, response and recovery plan will be prepared . The plan will identify operational 'trigger' levels and the roles and responsibilities of operational staff/managers.

Cultural Heritage

7.58. There could be potential truncation / loss, through plant movements, topsoil stripping or scraping, and groundworks for installation of arrays and cabling, provision of drainage, access, and landscaping, of buried archaeological remains of Roman ditches, pits, post-holes and evidence of salt-working within the Energy Park and Grid Connection.

7.59. This will be mitigated by completion of strip map sample excavations for, or diversion of discrete sections of the cable route around, selected areas of Roman archaeological interest as identified by previous survey works.

7.60. Further mitigation measures for some or all of those areas will be decided following completion of the strip map sample excavations but may include the following:

- Excluding development from, and securely fencing off, zones to ensure no plant access during the construction phase;
- Using above-ground technology i.e. ground mounted slabs and cable trays;
- Deploying lightweight plant and laying protective matting;
- Avoiding topsoil stripping/scraping and tilling – instead using hand-pushed seed spreader to establish new ground cover on bare earth; and
- Undertaking archaeological monitoring during any unavoidable groundworks e.g. HV cabling may have to be buried for H&S reasons.

7.61. Scope and methodology of strip map sample excavation to be formally agreed with the LPA Archaeological Advisors through submission of a detailed Written Scheme of Investigation in line with the Outline WSIs (document reference 7.13 and 7.14) submitted for the DCO.

7.62. Scope and methodology of further mitigation to be formally agreed with the LPA Archaeological Advisors through discussion and, as appropriate, submission of a revised development layout and/or landscape strategy, specifications and technical drawings of the chosen ground-mounted solution, and/or an Archaeological Mitigation or Management Plan and/or a detailed WSI for archaeological monitoring in line with the Outline WSI (document reference 7.14) submitted for the DCO.

7.63. There could also be truncation / loss, through plant movements, topsoil stripping or scraping, and groundworks for installation of arrays and cabling, provision of drainage, access, and landscaping, of buried archaeological remains of a post-medieval duck decoy.

7.64. This would be mitigated by avoiding topsoil stripping or levelling, deploying lightweight plant, and laying protective matting for plant movements for the installation of solar infrastructure here. There would also be Archaeological observation and recording during the excavation of cable trenches.

7.65. These impacts will be monitored by the submission to the LPA Archaeological Advisors of an Archaeological Mitigation and Management Plan and, if a need for archaeological observation and recording is confirmed, a detailed WSI for such works in line with the Outline WSI (document reference 7.14) submitted for the DCO.

7.66. There could be inadvertent damage, through plant movements and other operations, to the upstanding brick-built cottages and barn of Six Hundreds Farm, the boundary wall to the west of Elm Grange, and the drainage pump at Head Dike.

7.67. The extent of each protection zone is to be agreed with the LPA Archaeological Advisors and Conservation Officers and illustrated on plans forming part of the CEMP. Each protection zone is to be enclosed with Heras fencing prior to the commencement of enabling works. All contractors to be advised not to enter the zones during the construction phase.

7.68. This will be monitored by the inspection of fenced zones by LPA Archaeological Advisors and Conservation Officers once installed. Inspection of fenced zones to be included in the lead contractor's regular site checks. Any damage to fencing must be repaired as soon as possible. Any breaches of fencing resulting in damage to heritage assets should be reported to the LPA.

7.69. There could also be truncation / loss, through plant movements, topsoil stripping or scraping, and groundworks for installation of arrays and cabling, provision of drainage, access, and landscaping, of buried archaeological remains of former outfarms; and change to the setting of designated and non-designated heritage assets, through temporary increase in construction traffic and noise levels.

Socio-Economic

7.70. An Outline Supply, Employment and Skills Plan (OSESP) (Document 7.12) has been produced and submitted with this DCO application. In summary, the OSESP measures relevant to the CEMP are in relation to:

- The intention to use local labour where commercially viable and available;
- Where practically feasible, available and cost competitive, procure goods and services, known as the supply chain, from local contractors, sub-contractors and suppliers to support local employment;
- Recruitment and training opportunities involved in the development (construction and operation); and
- Supporting the development of skills in the local area.

Noise and Vibration

Construction Noise

7.71. Noise and vibration are likely to be generated by construction activities potentially causing annoyance at noise sensitive receptors. Construction traffic, plant and machinery noise therefore could be heard at nearby noise-sensitive receptors.

7.72. Construction works likely to generate substantial levels of noise, aside from potential trenchless works and HGV deliveries shall be limited to daytime hours of 08:00 to 18:00 during Monday to Friday, and 08:00 to 13:00 on Saturdays, unless otherwise agreed with the local authorities. Other construction activities unlikely to generate high noise levels (e.g. site access and inductions, light vehicle movements etc.) may continue during other day-time periods.

7.73. If percussive piling is used for the support structures/foundations: when undertaken within 400 metres of residential properties, this should be further restricted to no more than two periods of four hours each with at least one hour of no piling between these four-hour periods and restricted to the hours of 08:00 to 18:00 Monday to Friday and 08:00 to 13:00 on Saturdays.

7.74. The Energy Park access road surface will be checked and maintained prior to use; the new main construction access route from the A17 will be constructed at an early stage of the project. Consideration will also be given to traffic routing, timing and access points to the Order limits, as construction working methods are developed. Contractors will issue a project route map and delivery schedule to control construction traffic. Management of HGVs within the Order limits and being let onto the highway network will be managed through the CTMP.

7.75. Best Practicable Means (BPM) will be applied, as far as reasonably practicable, during construction works to minimise noise and vibration at noise sensitive receptors, including neighbouring residential properties and other sensitive receptors arising from construction activities. These include, as appropriate:

- Reference to the guidance in BS 5228 which all contractors should be familiar with.
- Mobile plant and stationary plant items to be routed or located to maximise separation distance from noise-sensitive receptors (where possible), accounting for site-specific constraints;
- Select quieter plant units where possible;
- All plant when not in use is to be switched off and unnecessary revving of engines will be avoided;
- Operate only well-maintained construction plant selected for the specific activity; and
- Provide site specific induction inclusive of good neighbourly behaviour and follow the Considerate Construction Scheme requirements.

7.76. The detailed CEMP will set out a scheme for the provision of monthly reporting of information to local residents to advise of potential noisy works that are due to take place. This will include users of public rights of way which will be informed of periods of noisy works during the construction.

7.77. In addition, specific engagement with Build-A-Future East Heckington will be undertaken to inform them of anticipated works periods, in particular the upgrade and temporary use of the track west of Elm Grange and any piling works within 600 metres.

7.78. The CEMP will also set out a scheme for the monitoring of noise complaints and reporting to the Applicant for immediate investigation and action. This would include setting up and publicising a dedicated contact point which neighbouring residents can contact in the event of a complaint.

~~7.78.~~7.79. Further details of the management and control of construction noise is set out in **Appendix G- Outline Construction Noise Management Plan**.

Horizontal Directional Drilling Noise

~~7.79.~~7.80. Noise from HDD or similar trenchless activities could generate noise when continuing at night and creating disturbance at nearby noise-sensitive receptors. Locations where HDD will be undertaken would be identified by the contractor prior to commencement.

~~7.80.~~7.81. Where possible, HDD works within 500 metres of residential receptors will be restricted to daytime working hours on weekdays (i.e. 08:00 to 18:00, Monday to Friday or 08:00 to 13:00 on Saturdays) and interrupted at night.

~~7.81.~~7.82. HDD locations will be chosen to maximise the separation distance with noise-sensitive locations where possible. Drilling locations within the Energy Park Site (to cross underground utilities) shall not be closer than 300 metres from properties located along the A17 and at

least 500 metres from other properties. No HDD will be carried out at locations along the off-site cable route within 100 metres of a residential property.

~~7.82.~~7.83. The duration of any trenchless works would be minimised within practical and safety constraints.

~~7.83.~~7.84. If HDD work is required to continue at night, it should be controlled if possible not to exceed a level of 50dB L_{Aeq} at the closest neighbouring residential properties (or 55 dB L_{Aeq} for properties located within 200 metres of the A17). If it is not possible to control HDD noise within these limits, the following measures will be investigated:

- Use of alternative techniques such as micro-bore/pipe jacking;
- Use of temporary noise barriers around trenchless compounds in order to provide screening for sources located at low heights (note however that it is likely to be impractical to provide noise barriers that are high enough to screen an entire HDD drilling rig, for example);
- Monitoring noise from the works and interrupting the noisiest drilling work at night; and
- Offering affected residents temporary re-housing for the duration of the trenchless works.

~~7.84.~~7.85. Local residents potentially affected will be kept informed of the likely period during which the work will take place, the times and durations of planned works and the measures that are being taken to avoid unnecessary noise. On completion of the trenchless works at a particular location, local residents will be informed that the works are complete and noise effects due to trenchless works will cease.

~~7.85.~~7.86. In consultation with the local authorities, noise monitoring may also be undertaken if required to control that noise from drilling at night-time periods (if relevant) does not exceed levels of 50 or 55dB L_{Aeq} during particular drilling periods at night.

Lighting

~~7.86.~~7.87. Whilst a vast majority of construction activities can be undertaken during daylight hours, at certain times of the year some construction lighting may be required to enable work to continue. In these instances, temporary lighting will be deployed, however this will be avoided as far as practical.

~~7.87.~~7.88. All construction lighting will be deployed to reduce or remove impacts on human and ecological receptors:

- The use of lighting will be minimised to that required for safe site operations;
- Lighting will utilise directional fittings to minimise outward light spill and glare; E.g., via the use of light hoods/cowls which direct light below the horizontal plane (preferably at an angle greater than 20° from horizontal); and
- Lighting will be directed towards the middle of the site rather than towards the boundaries.

~~7.88.~~7.89. Further details of the management and control of artificial lighting are set out in **Appendix H- Outline Artificial Light Emissions Plan.**

Waste Management

~~7.89.~~7.90. Waste will be generated from a variety of sources during construction, including:

- Welfare facilities.
- Chemicals, fuels and oils.
- Packaging.
- Metals including breakages; and
- Water.

~~7.90.~~**7.91.** Management and control of site waste and materials is further set out in **Appendix G – Outline Site Waste and Materials Management Plan.**

Welfare Facilities

~~7.91.~~7.92. Temporary welfare facilities will be provided during the construction phase, with permanent welfare facilities provided in the control room (toilet and hand basin). The construction phase facilities will include toilets, washing and drinking water. that would be periodically emptied and taken off site by a licensed operator. All on site welfare facilities will be clearly signposted and maintained.

~~7.92.~~7.93. Welfare facilities would be containerised and move around the site utilising the construction compound areas.

~~7.93.~~7.94. Excess surface water would be collected and treated prior to discharge.

~~7.94.~~7.95. Other waste will be collected in marked facilities which allow segregation of waste, and protection from animals and weather. This will be collected by a licenced contractor at relevant intervals.

~~7.95.~~7.96. The control room will house permanent welfare facilities with waste water treated via a septic tank.

7.96.7.97. Where a septic tank is used, this will be emptied on a regular basis and taken away by a registered waste disposal contractor.

Chemicals, Fuels and Oils

~~7.98.~~7.99. All fuel and oil will be stored within a specified area of the construction compound. The storage will either be integrally bunded, or utilise an external bund. The bund will be impermeable to water and oil. Any contaminated run-off within the bund will be disposed of at an appropriate waste management facility. Similarly, any used (contaminated) spill kits, absorbent granules, sheets or fibres will be disposed of in accordance with the COSHH Regulations.

Packaging

~~7.99.~~7.100. Construction waste generated is expected to be restricted to general construction waste, such as off cuts of timber, wire, cleaning cloths, paper, etc. which will be sorted and either recycled or disposed of off-site to an appropriately licenced landfill by the contractors. This approach uses the waste hierarchy (reduce, reuse, recycle, recovery, landfill) by encouraging reuse and recycling of materials, such as plastic, wood and paper.

Metals including Breakages

~~7.100.~~7.101. Some metal wastage might be generated from excess steel from the solar PV mounting structures or cuttings from underground cabling. These materials would be recycled.

Water

~~7.101.~~7.102. At the end of its operational life, the decommissioning of the Energy Park is considered to have similar effects upon the water environment as those during the construction stage. The potential impacts at decommissioning stage are:

i. Potential adverse effects on drainage patterns, surface water flows and aquifer recharge;

ii. Potential pollution of watercourses and underlying aquifers resulting from spilled hydrocarbons/petrochemicals from plant and the mobilisation of silts and contaminants during earthworks operations;

iii. Potential adverse effects upon the Head Dike/Skerth Drain flood defences;

iv. Potential adverse effects upon flood storage and flood flows/flood routing processes as a result of works within the floodplain; and

v. Potential adverse effects resulting from compaction of the ground caused by plant and the temporary increase in the extent of impermeable surfaces associated with access roads and compound areas.

~~7.102.~~7.103. In order to mitigate the potential adverse effects a number of measures will be implemented throughout the construction phase, these are as follows;

i. Best practice working methods to prevent both water pollution and adverse impacts upon the surface water drainage regime;

ii. Precautions would be in place to prevent silt laden run-off, arisings or chemicals entering watercourses;

iii. Any surface water potentially contaminated by hydrocarbons would be passed through oil interceptors prior to discharge

iv. Appropriate storage of hydrocarbons and petrochemicals in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002 and Control of Pollution (Oil Storage) (England) Regulations 2001;

v. A management system would be in place to adequately manage works within the floodplain and in the vicinity of flood defences;

vi. Where required, cables would be laid at a sufficient depth beneath watercourses/drains to avoid causing damage to the integrity of embankments during installation.

~~7.103.~~7.104. As well as this, should dewatering be required, for example where areas are excavated for foundations of the substation, or control room these would be pumped into settlement lagoons and discharged where appropriate on site, likely vegetated surfaces.

~~7.104.~~7.105. Wheel cleaning is proposed to be a dry clean, rather than a vehicle washing facility, however should this become a requirement, e.g. the ground becomes dry and dust is created, then the water will be pumped into a licenced carrier and disposed of off-site or discharged to vegetation if the quality meets Environment Agency requirements.

Climate Change

~~7.105.~~7.106. In order to mitigate the emission of greenhouse gases (GHGs), the following measures will be implemented:

- Designing, constructing and implementing the Proposed Development in such a way as to minimise the creation of waste and, where possible, maximise the use of alternative materials with lower embodied carbon, such as locally sourced products and materials with a higher recycled content where feasible.
- Reusing suitable infrastructure and resources already available within the site where possible to minimise the use of natural resources and unnecessary materials (e.g., reusing excavated soil for fill requirements).
- Increasing recyclability by segregating construction waste to be re-used and recycled where reasonably practicable.
- Adopting the Considerate Constructors Scheme (CCS) to assist in reducing pollution, including GHGs, from the Proposed Development by employing good industry practice measures.
- Implementing staff minibuses to transport construction personnel to site or using car sharing options where possible.
- Switching vehicles and plant off when not in use and ensuring construction vehicles conform to current UK emissions standards; and
- Conducting regular planned maintenance of the construction plant and machinery to optimise efficiency.

~~7.106.~~7.107. In order to mitigate the in-combination climate effects of flooding and drainage, the following measures will be implemented:

- Best practice construction methods to avoid water pollution/silt laden run-off and adverse effects on the surface water drainage regime; and
- The laying of cables at sufficient depth beneath watercourses/drains to avoid causing damage to the integrity of embankments.

~~7.107.~~7.108. In order to mitigate any colleague discomfort, the following measures will be implemented:

- During periods of extreme temperatures or increased precipitation, construction activities will be managed so that the hottest or wettest/coldest parts of the day are avoided to ensure worker safety, although it is noted that this may not always be possible during the construction phase; and

- The risk of overheating/hypothermia will be incorporated into the site risk assessment and the construction of the Proposed Development will comply with all relevant UK legislation related to the work environment including The Health and Safety at Work etc. Act 1974 and The Management of Health and Safety at Work Regulations 1999 (as amended). For example, this may include measures such as ensuring appropriate personal protective equipment (PPE) is worn for the site conditions and adequate water supplies are available to ensure staff stay hydrated during hotter weather.

Transport and Access

~~7.108.~~7.109. In order to reduce the impact of construction traffic, an outline Construction Traffic Management Plan (oCTMP) (document reference 7.10) has been prepared. The final version of this document will need to be approved prior to the commencement of the development, as secured by DCO requirement. The principal aims of the oCTMP are to ensure that the components of the Proposed Development are organised and delivered in a manner that avoids or reduces any impacts on local roads and the wider highway network, and safeguards highway safety and amenity to the area surrounding the site. The oCTMP provides details regarding site operations, operative staff and traffic generation, traffic management (HGV routing strategy), delivery of plant and materials and contractor staff parking.

Air Quality

~~7.109.~~7.110. In order to reduce the impact of dust emissions on sensitive receptors, mitigation measures as detailed in the Institute of Air Quality Management (IAQM) guidance[1] will be implemented. A Construction Dust Risk Assessment is included at **Appendix D**. Mitigation could include the following which will be managed by the Construction Contractor.

Communications:

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.

- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.

- Display the head or regional office contact information.

Site Management:

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the Local Authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book.

Monitoring:

- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling check of surfaces such as street furniture, cars, window sills within 100m of the site boundary, with cleaning to be provided if necessary.
- Carry out regular site inspections to monitor dust emissions record inspection results, and make an inspection log available to the Local Authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

Preparing and Maintaining the Site:

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.

Operating Vehicles/Machinery and Sustainable Travel:

- Ensure all vehicles switch off engines when stationary – no idling vehicles.
- Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.

- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the Local Authority, where applicable).

- Manage the sustainable delivery of goods and materials within the Construction Traffic Management Plan (CTMP).

Operations:

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.

- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

- Use enclosed chutes and conveyors and covered skips.

- Minimize drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.

- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Waste Management:

- Avoid bonfires and burning of waste materials.

Earthworks:

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.

- Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.

- Only remove the cover in small areas during work and not all at once.

Construction:

- Avoid scrabbling (roughening of concrete surfaces) if possible.

- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.

- For smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust.

Trackout:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being in continuous use.

- Avoid dry sweeping of large areas.

- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.

- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.

- Record all inspections of haul routes and any subsequent action in a site log book.

- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.

- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.

- Access gates to be located at least 10m from receptors where possible.

~~7.110.~~7.111. Construction traffic is expected to be below the Environmental Protection United Kingdom (EPUK)[2] and IAQM screening criteria for a detailed assessment. As such, it is effect to air quality is considered to be insignificant and will manage the impact of emissions associated with construction traffic on sensitive human receptors. The CTMP will manage construction traffic.

~~7.111.~~7.112. All Non-Road Mobile Machinery (NRMM) will adhere to European regulations (EU 2016/1628) demonstrating compliance with emission limits. In order to manage the impact on sensitive receptors. The implementation of measures should be managed by the Construction Contractor.

Land Use and Agriculture

~~7.112.~~7.113. The soils (topsoil and subsoil) will be protected during the construction phase, and any damage to soil structure will be rectified as part of the construction phase.

~~7.113.~~7.114. Temporary access areas and construction compounds will necessitate the removal of topsoil which will be stored in shallow bunds for restoration at the end of the construction process. So far as is practicable, the topsoil will be moved when it is not saturated, and will be restored in similarly-dry conditions. See the outline Soil Management Plan in **Appendix E**.

~~7.114.~~7.115. For the majority of the Energy Park site, where solar arrays will be installed, the potential for any significant damage to soils is limited, as the legs are simply rammed into the soil with no disturbance to soil profiles. The best practice for such works is set out in the outline Soil Management Plan for the Energy Park at **Appendix E**.

~~7.115.~~7.116. Areas for tracks and infrastructure will generally involve the need to remove topsoil and to add hardsurfacing, or concrete pads for the infrastructure. Topsoil will be stored carefully in managed bunds, so that it is available for reinstatement of these areas as part of the decommissioning phase. Further details are set out at **Appendix E**.

~~7.116.~~7.117. Trenching work is needed to install cables within the Energy Park. So far as practicable these works will be undertaken when the soils are dry, as this will minimise disturbance to the soil structure and will reduce the need for mechanical husbandry after backfilling.

~~7.117.~~7.118. The trenching need for the Cable Route will involve larger trenches than those within the Energy Park. The Cable Route will involve some deep excavations to pass under roads and the South Forty Foot Drain. Small fixed infrastructure will be required, which will be located at field edges so far as possible. The trenching works will, so far as practicable, follow the same principles with soils moved when not saturated, both for removal and reinstatement. This is set out in the outline Soil Management Plan for the Cable Route at **Appendix F**.

Glint and Glare

Rail Receptors

~~7.118.~~7.119. There is limited to no visibility from the railway tracks but in the unlikely event that offsite vegetation and buildings had been removed, there could be a potential safety issue from driver dazzle. The following mitigation/enhancement measures will be implemented to control this:

- Screening that is proposed surrounding the site will reduce visibility to reflective surfaces.
- Sections of the panels and legs to be added sequentially rather than all legs being deployed in advance of panels being mounted. This is to avoid having excessive amounts of exposed steel in situ that may cause reflections. That way the panels that have already been installed will help screen visibility to the sections of panels that are being installed.
- Panels and other infrastructure to be transported onsite only when ready to be deployed to avoid potential of having reflective surfaces visible in the environment for prolonged.

Road Receptors

~~7.119.~~7.120. Reflection from metal frames and construction equipment could create a potential safety issue from driver dazzle. The following mitigation/enhancement measures will be implemented to control this:

- Screening that is proposed surrounding the site will reduce visibility to reflective surfaces.
- Sections of the panels and legs to be added sequentially rather than all legs being deployed in advance of panels being mounted. This is to avoid having excessive amounts of exposed steel in situ that may cause reflections. That way the panels that have already been installed will help screen visibility to the sections of panels that are being installed.
- Panels and other infrastructure to be transported onsite only when ready to be deployed to avoid potential of having reflective surfaces visible in the environment for prolonged periods.

Aviation

~~7.120.~~7.121. Reflection from metal frames and construction equipment could create a potential safety issue from pilot dazzle or air traffic control tower dazzle. However, it should be noted that no aviation effects have been predicted to be present during construction or operation so no specific issues are expected. The following mitigation/enhancement measures will be implemented to control this:

- Sections of the panels and legs to be added sequentially rather than all legs being deployed in advance of panels being mounted. This is to avoid having excessive amounts of exposed steel in situ that may cause reflections. That way the panels that have already been installed will help screen visibility to the sections of panels that are being installed; and
- Panels and other infrastructure to be transported onsite only when ready to be deployed to avoid potential of having reflective surfaces visible in the environment for prolonged periods.

Dwellings

~~7.121.~~7.122. Reflection from metal frames and construction equipment could create nuisance caused by glint reflections visible from residential dwellings. The following mitigation/enhancement measures will be implemented to control this:

- Screening that is proposed surrounding the site will reduce visibility to reflective surfaces.
- Sections of the panels and legs to be added sequentially rather than all legs being deployed in advance of panels being mounted. This is to avoid having excessive amounts of exposed steel in situ that may cause reflections. That way the panels that have already been installed will help screen visibility to the sections of panels that are being installed.

- Panels and other infrastructure to be transported onsite only when ready to be deployed to avoid potential of having reflective surfaces visible in the environment for prolonged periods.

Miscellaneous Issues

Waste

~~7.122.~~7.123. There is a potential for risk to the health of sensitive receptors during the construction phase and associated waste generation, management of storage of waste and disposal of large volumes of waste. Sensitive receptors include humans, flora, fauna, and hydrological network.

~~7.123.~~7.124. The construction contractor will manage the construction phase and waste generation, and take into account the objectives of sustainable resource and waste management and seek to use material resources efficiently, reduce waste at source, reduce waste that requires final disposal to landfill and apply the principles of the Waste Hierarchy. This will include, where reasonably practical, working towards a cut and fill balance for excavations; segregation of materials onsite for appropriate re-use, recycling, and recovery, with landfill as a last resort. This will be achieved by a combination of the following measures:

- The construction contractor will prepare and implement a Construction Resource Management Plan (CRMP) as part of the CEMP(s) which will set out targets for fuel, waste, and energy consumption;
- All waste transported offsite will be delivered to the appropriately licensed receivers of such materials; and
- As part of the CRMP, the construction contractor will segregate construction waste to be re-used and recycled where reasonably practicable. All soil to be reused onsite or disposed of offsite will be appropriately characterised by the construction contractor.

~~7.124.~~7.125. To minimise impacts of waste on the surrounding environment, the following measures will be implemented:

- Off-site pre-fabrication, where reasonably practicable, including the use of pre-fabricated structural elements, cladding units, mechanical and electrical risers and packaged plant rooms. Pre-fabrication could be utilised for the office/warehouses and control rooms associated with the onsite substation;
- Burning of waste or unwanted materials will not be permitted onsite;
- All hazardous materials including chemicals, cleaning agents and solvent containing products to be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage areas;
- Materials requiring removal from the Order limits will be transported using licensed carriers and records kept, detailing the types and quantities of waste moved and the destinations of this waste, in accordance with the relevant regulations. An audit and careful checks will be undertaken to ensure that all carriers and facilities will be licensed, and that the appropriate permits and transfer notes are in place prior to removal of waste. Further information on these will be included within the CRMP; and

- Prior to construction start, suitable recycling and landfill facilities with sufficient capacity to receive the quantities of construction waste expected will be identified.

~~7.125.~~7.126. Management and control of site waste and materials is further set out in **Appendix G – Outline Site Waste and Materials Management Plan.**

Waste Hierarchy

~~7.126.~~7.127. The Waste (England and Wales) Regulations 2011 place a duty on all persons who produce, keep or manage waste to apply the 'Waste Hierarchy' in order to minimise waste production at every stage of the development. The 'Waste Hierarchy' promotes selection of the Best Practicable Environmental Option (BPEO) and preferred option for management of waste.

~~7.127.~~7.128. The core waste management principles of prevention, reuse, recycle, recover and disposal as defined in the 'Waste Hierarchy' will be embedded within the CEMP(s), produced prior to construction.

~~7.128.~~7.129. The separation of waste will be carried out at the source in order to maximise opportunities for reuse and recycling. Segregation of waste will require training, monitoring and enforcement.

~~7.129.~~7.130. All areas used for temporary storage of waste within the Order limits will comply with Defra and the Environment Agency (EA) guidelines relevant at the point of construction and will be clearly signed.

~~7.130.~~7.131. Waste storage facilities will be provided at source using the best environmental options available. Any hazardous or special waste will be stored in separate, secure containers and clearly identified as such.

Waste Disposal

~~7.131.~~7.132. Disposal activities will also be carried out in accordance with the relevant Pollution Prevention Guidelines (or any relevant successive guidance in place) in order to ensure compliance with current waste legislation.

~~7.132.~~7.133. All waste transported offsite will be delivered to the appropriately licenced receivers of such materials. Waste transportation will take place at regular intervals to avoid the accrual of waste.

~~7.133.~~7.134. Only registered waste carriers will be authorised to transport waste and subject to legislation at the point of construction, a Waste Transfer Note (WTN) will be completed for each load of waste, which must contain a record of their waste carrier registration number. Copies of each WTN will be filed as an Appendix to the CEMP(s) and held for a minimum of two years. The appropriate European Waste Catalogue (EWC) code will be noted on the WTN, in addition to how it is contained. All sites receiving waste must have an appropriate permit, licence or registration exemption, the details of which should also be recorded.

Hazardous Waste

~~7.134.~~7.135. If required, the EA will be advised in advance of any hazardous waste movements and Waste Consignment Notes (WCNs) will be purchased in advance for this type of waste transportation. These consignment notes will be held for a minimum of three years. Burning of waste or unwanted materials will not be permitted onsite. All hazardous materials including chemicals, cleaning agents and solvent containing products to be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage areas.

~~7.135.~~7.136. All fuel and oil will be stored within the Order limits and contained by a small bund constructed from material sourced onsite and lined with an impermeable membrane in order to prevent any contamination of the surrounding soils, vegetation and water table, in accordance with Defra and Environmental Agency Oil Storage Regulations for Businesses 2015 (as amended in 2020) (or latest guidance/legislation at the point of construction). Any contaminated runoff within the bund will be disposed of at an appropriate waste management facility.

~~7.136.~~7.137. Any used (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with the COSHH Regulations (or latest guidance/legislation at the point of construction) and in accordance with the Emergency Spillage Action Plan.

Waste from Welfare and Domestic Facilities

~~7.137.~~7.138. Temporary welfare facilities will be provided during the construction phase. These facilities will include toilets, washing and drinking water. This will include a septic tank that will be periodically emptied and taken offsite by a licensed waste operator. All onsite welfare facilities will be clearly signposted and maintained.

~~7.138.~~7.139. Where excess surface water occurs from the area of the buildings, this will be collected and treated in a Sustainable Drainage System (SuDS), prior to discharge.

~~7.139.~~7.140. Effluent and waste from onsite construction personnel will be treated at a package sewage treatment plant or a septic tank.

~~7.140.~~7.141. Where a septic tank is used, this will be emptied on a regular basis and taken away by a registered waste disposal contractor.

~~7.141.~~7.142. Collection facilities for other domestic refuse will be provided to segregate waste. These facilities will be clearly marked, positioned in appropriate locations and protected from the weather and animals.

Major Accidents and Disasters

~~7.142.~~7.143. There is potential for Major Accidents and Disasters and the health and safety of workers during the construction phase. The outline Energy Storage Safety Management Plan (oESSMP) (document reference 7.11) has been submitted as part of the DCO application and sets out the measures proposed to mitigate and manage all foreseeable hazards associated with the Energy Storage Systems, within the relevant regulatory frameworks. An ESSMP will be prepared in accordance with the oESSMP prior to commencement of the ESS, as secured by DCO requirement (document reference 3.1).

~~7.143.~~7.144. An Emergency Response Plan will be provided as part of the ESSMP (as noted in the oESSMP), containing information on water supplies, drainage plans, hazards associated with lithium-ion batteries, isolation of electrical sources to enable fire-fighting activities, measures to extinguish or cool batteries involved in fire, management of toxic or flammable gases, minimisation of the environmental impact of an incident, containment of fire water run-off, handling and responsibility for disposal of damaged batteries and establishment of regular onsite training exercises. A copy of this information could be included in an Information Box available onsite.

~~7.144.~~7.145. To minimise risks to health and safety all works will be undertaken in accordance with relevant Health and Safety legislation and guidance.

~~7.145.~~7.146. Details of fire, police, emergency services and hospitals will be publicised and included in the induction.

~~7.146.~~7.147. During construction, all works will be subject to relevant risk assessments and will be required and produced by the contractor prior to construction minimising the risk of major accidents and disasters on site.

~~7.147.~~7.148. The overall responsibility will be with the construction contractor. Specific responsibilities and details will be confirmed in the CEMP(s).

Telecommunications, Television Reception and Utilities

~~7.148.~~7.149. There is a risk of utilities to be affected through damage caused as a result of excavation and engineering operations.

~~7.149.~~7.150. Precautionary measures have been included as part of the embedded mitigation for the Proposed Development. These include:

- Locating the Proposed Development outside of utilities' protected zones;
- The use of ground penetrating radar before excavation to identify any unknown utilities;
- Consultation and agreement of methods prior to works commencing. The protective provisions to the DCO make provision for consultation and/or agreement in relation to works with the potential to impact utilities prior to works commencing; and
- Infrastructure that crosses the Proposed Development has been mapped and avoided through the design.

~~7.150.~~7.151. The overall responsibility will be with the construction contractor. Specific responsibilities and details will be confirmed in the CEMP(s).

Electric, Magnetic and Electromagnetic Fields

~~7.151.~~7.152. There is a risk of microshocks and other indirect effects of public exposure to electric fields.

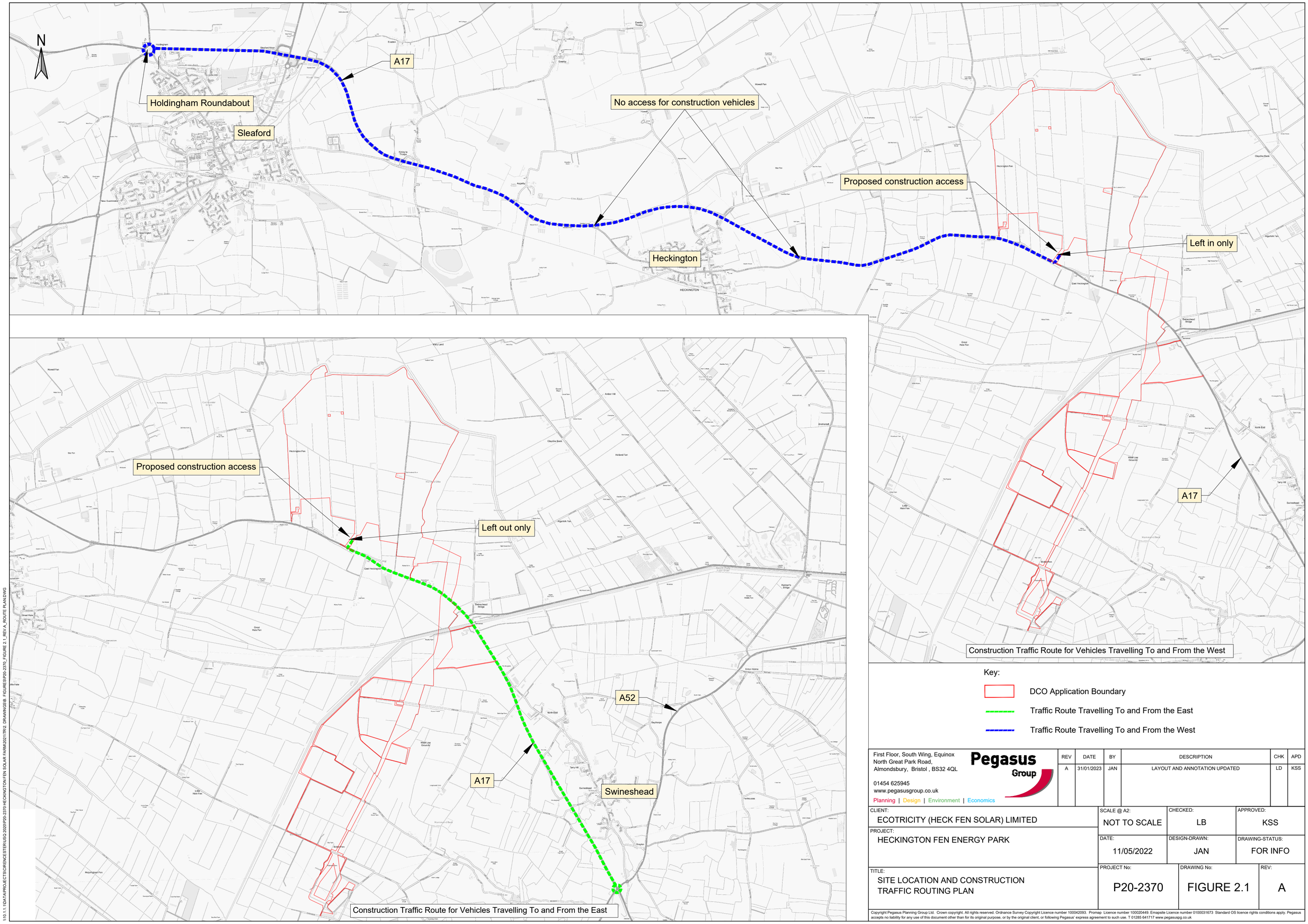
~~7.152.~~7.153. Cabling within the Order limits is proposed to be buried underground, thereby reducing Electromagnetic Fields (EMF) and the need for surface cable protection. Underground cables produce no external electrical field. Underground cables at voltages up to and including 132kv are not capable of exceeding International Commission on Non-Ionizing Radiation Protection (ICNIRP) exposure guidelines[13] for EMFs.

~~7.153.~~7.154. During the construction phase, the 400kV underground cable will not produce any significant EMFs until the Proposed Development is generating electricity when it is operational. The 400kV underground cable will be buried at a minimum depth of 1m and will not exceed (ICNIRP) exposure guidelines for EMFs.

~~7.154.~~7.155. The overall responsibility will be with the construction contractor. Specific responsibilities and details will be confirmed in the CEMP(s).

[13] ICNIRP (1998) ICNIRP Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic and Electromagnetic Fields (up to 300 GHz).

Figures



Key:

- DCO Application Boundary
- Traffic Route Travelling To and From the East
- Traffic Route Travelling To and From the West

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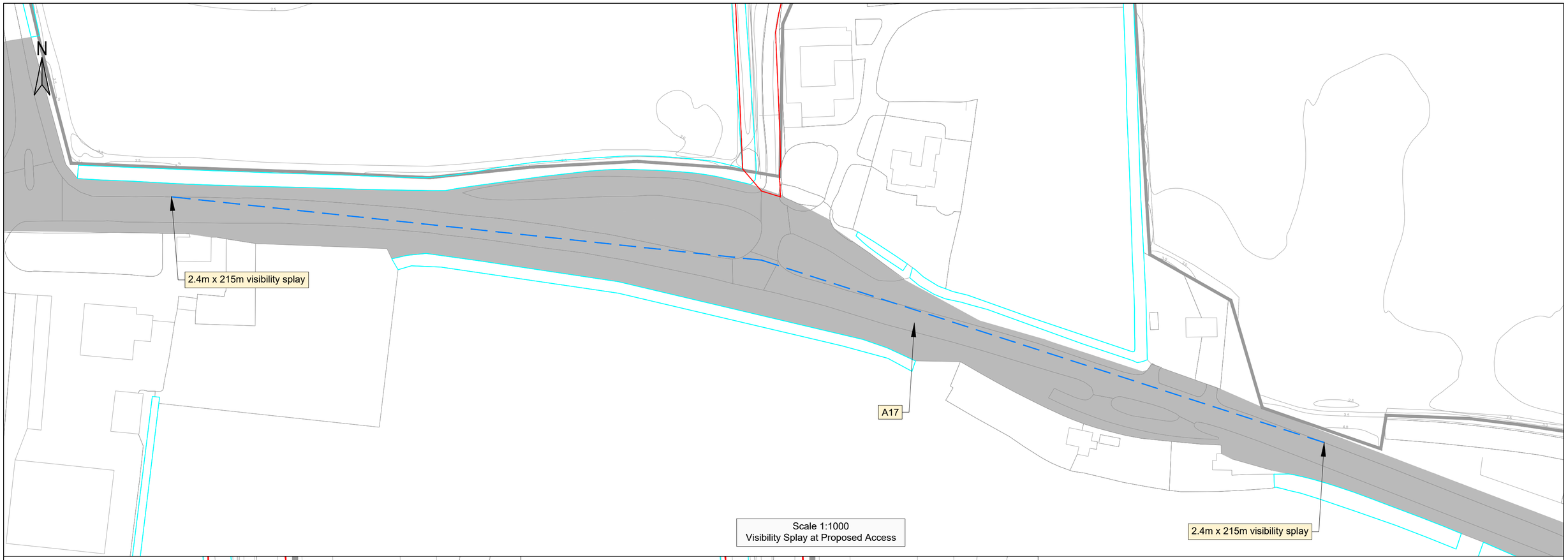
REV	DATE	BY	DESCRIPTION	CHK	APD
A	31/01/2023	JAN	LAYOUT AND ANNOTATION UPDATED	LD	KSS

CLIENT: ECOTRICITY (HECK FEN SOLAR) LIMITED

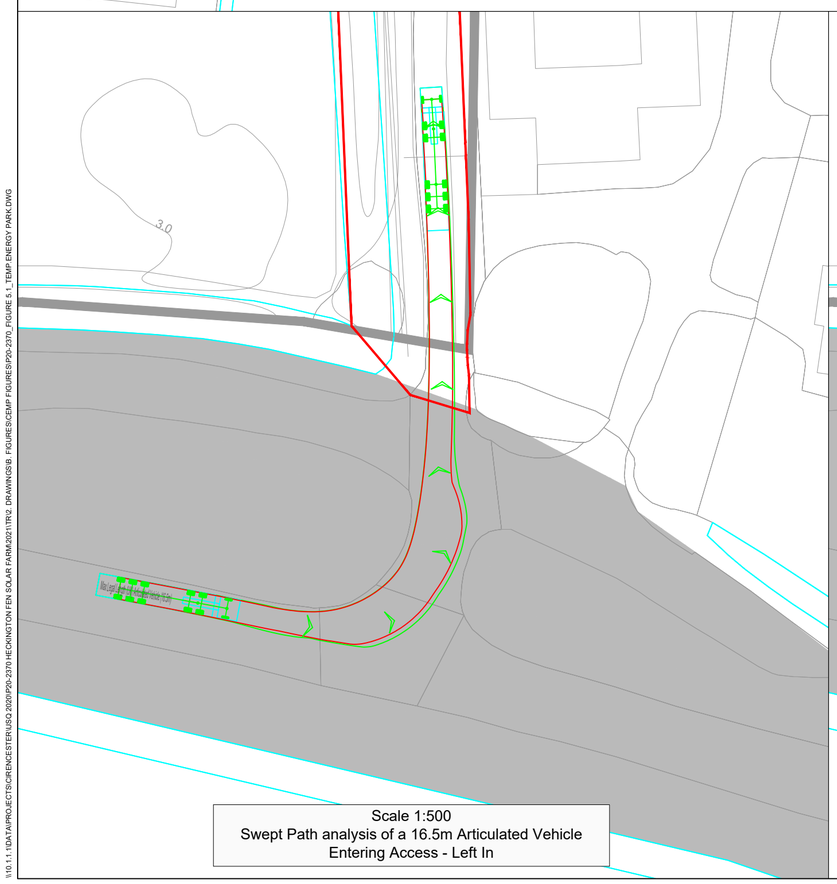
PROJECT: HECKINGTON FEN ENERGY PARK

TITLE: SITE LOCATION AND CONSTRUCTION TRAFFIC ROUTING PLAN

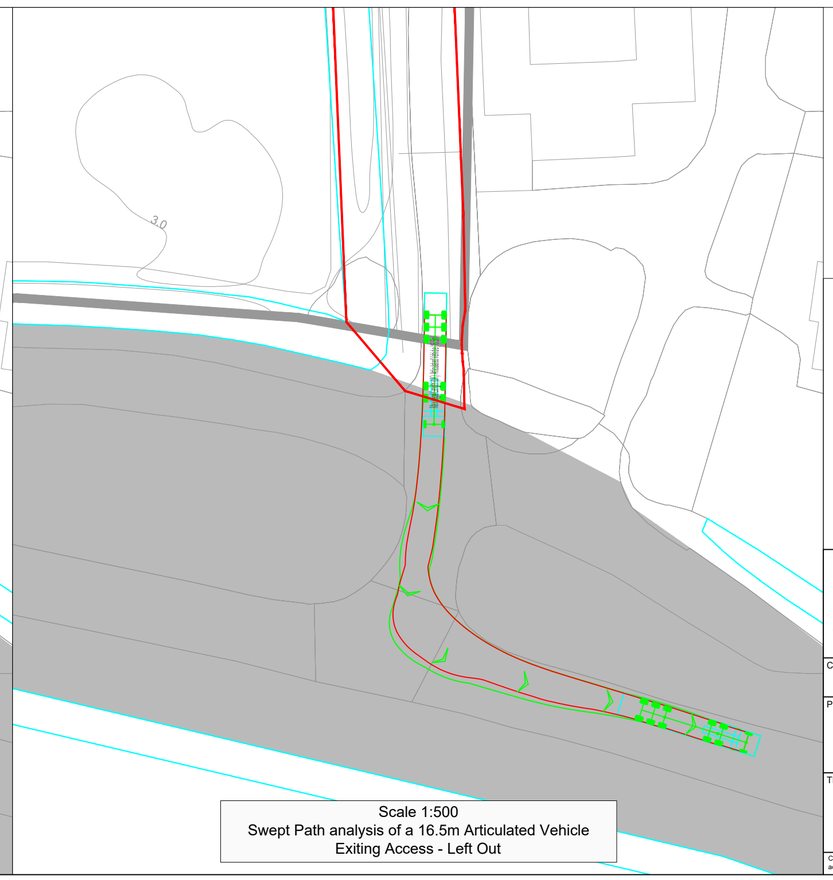
SCALE @ A2:	CHECKED:	APPROVED:
NOT TO SCALE	LB	KSS
DATE:	DESIGN-DRAWN:	DRAWING-STATUS:
11/05/2022	JAN	FOR INFO
PROJECT No:	DRAWING No:	REV:
P20-2370	FIGURE 2.1	A



Scale 1:1000
Visibility Splay at Proposed Access



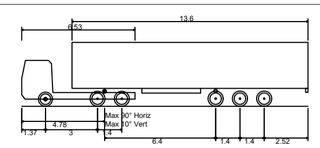
Scale 1:500
Swept Path analysis of a 16.5m Articulated Vehicle
Entering Access - Left In



Scale 1:500
Swept Path analysis of a 16.5m Articulated Vehicle
Exiting Access - Left Out

Key:

- DCO Application Boundary
- Approximate Extent of Adopted Highway
- Visibility Splay



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

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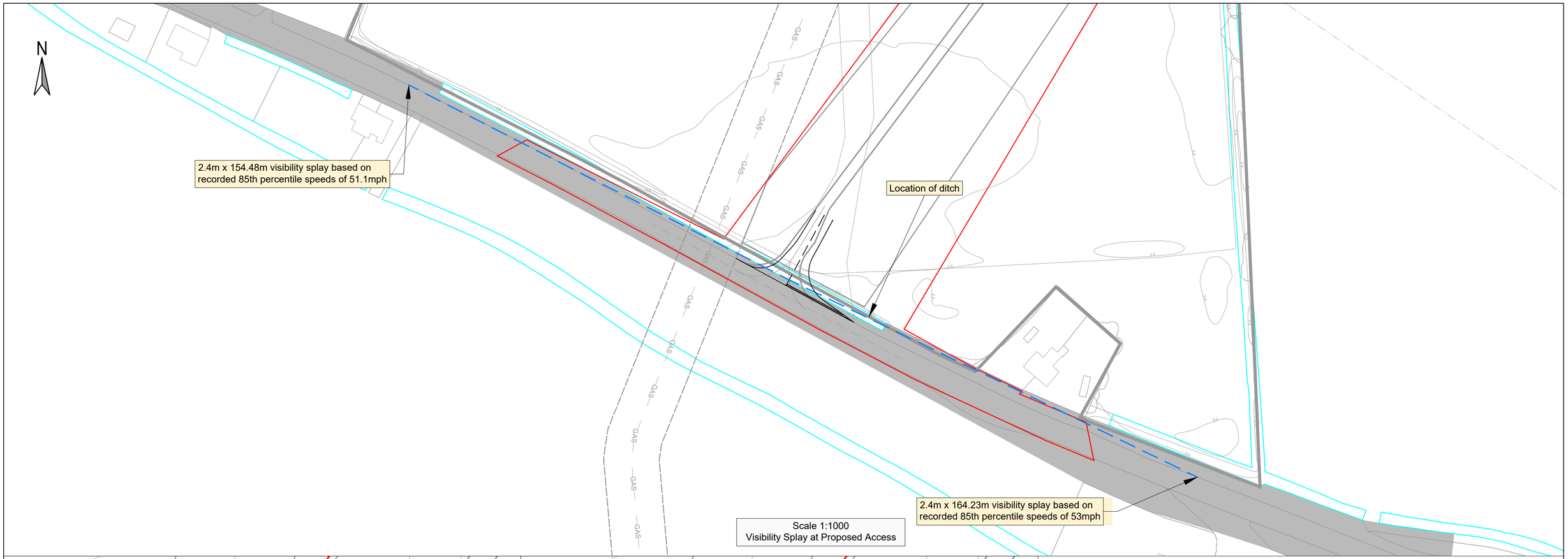
REV	DATE	BY	DESCRIPTION	CHK	APD

CLIENT: ECOTRICITY (HECK FEN SOLAR) LIMITED

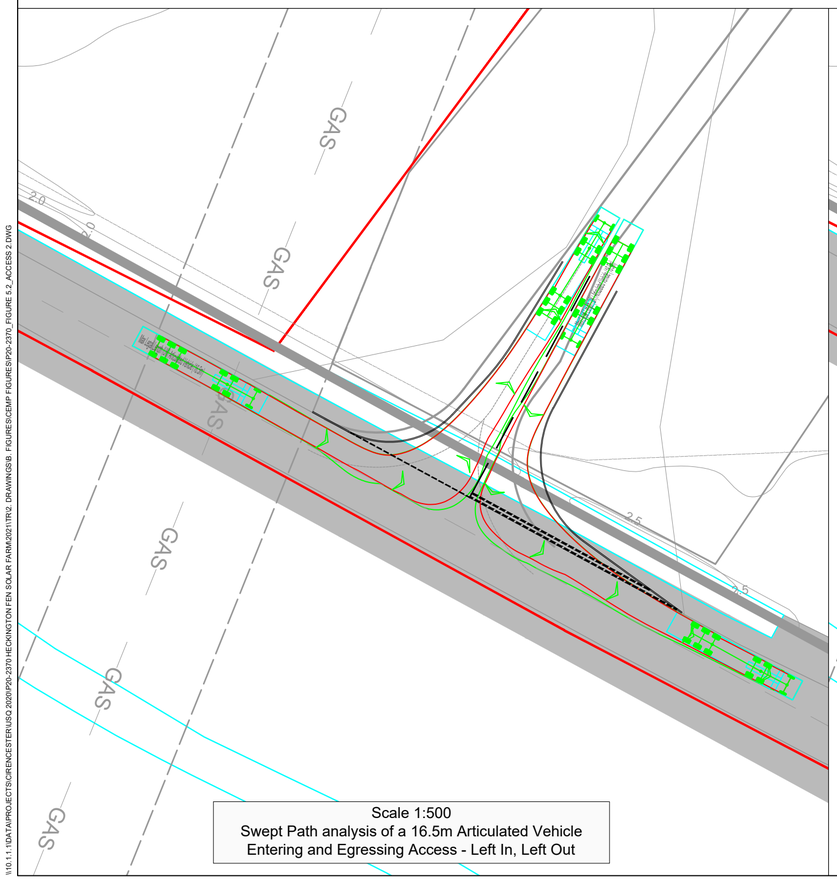
PROJECT: HECKINGTON FEN SOLAR FARM

TITLE: TEMPORARY ENERGY PARK ACCESS ARRANGEMENTS

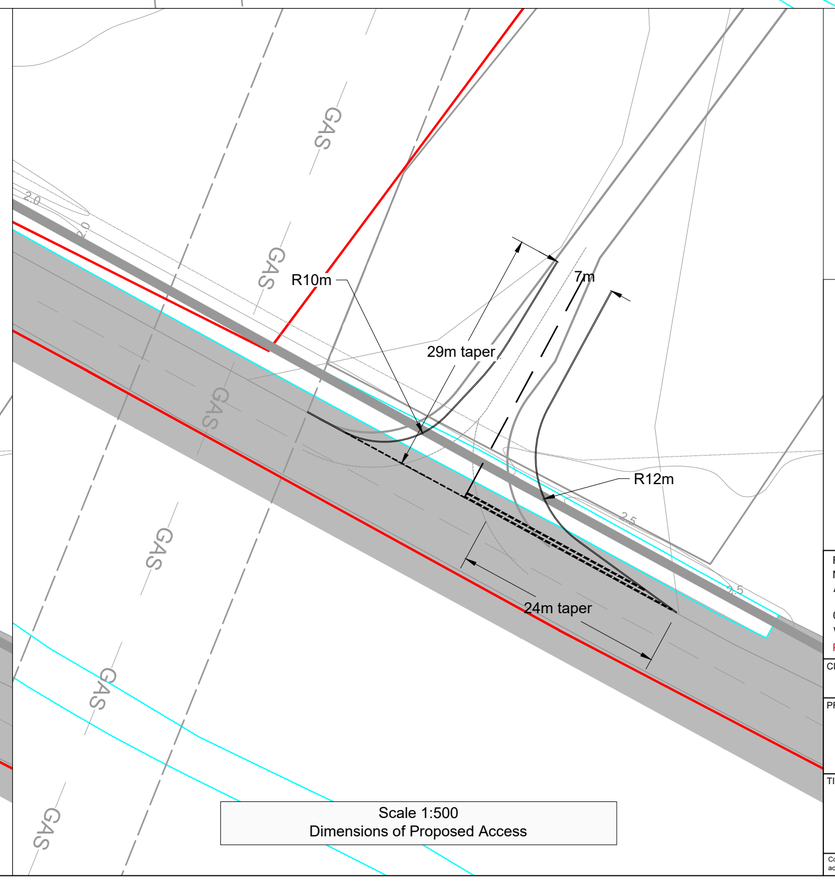
SCALE @ A2:	CHECKED:	APPROVED:
AS SHOWN	KSS	KSS
DATE:	DESIGN-DRAWN:	DRAWING-STATUS:
31/01/2023	JAN	SK
PROJECT No:	DRAWING No:	REV:
P20-2370	FIGURE 5.1	



Scale 1:1000
Visibility Splay at Proposed Access



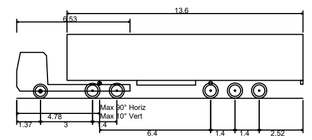
Scale 1:500
Swept Path analysis of a 16.5m Articulated Vehicle Entering and Egressing Access - Left In, Left Out



Scale 1:500
Dimensions of Proposed Access

Key:

- DCO Application Boundary
- Approximate Extent of Adopted Highway
- Visibility Splay



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Overall Body Height	3.681m
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Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

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REV	DATE	BY	DESCRIPTION	CHK	APD

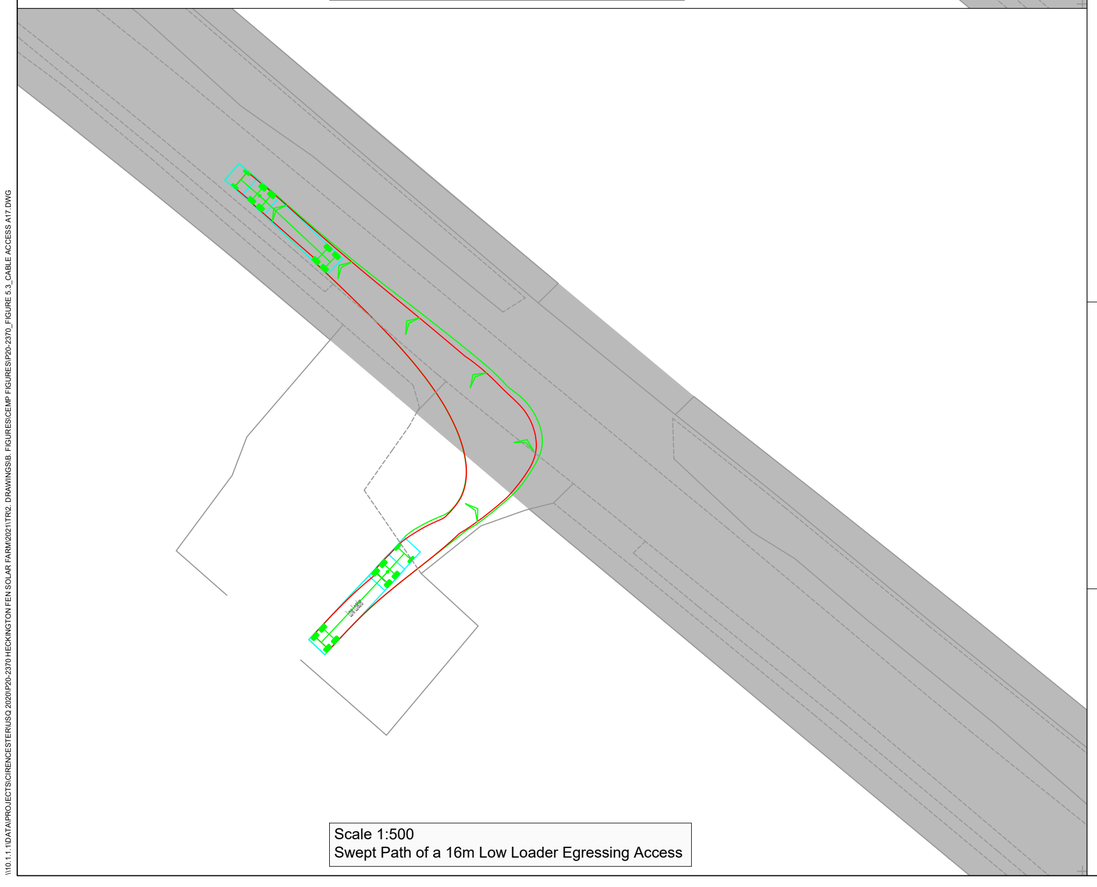
CLIENT: ECOTRICITY (HECK FEN SOLAR) LIMITED

PROJECT: HECKINGTON FEN SOLAR FARM

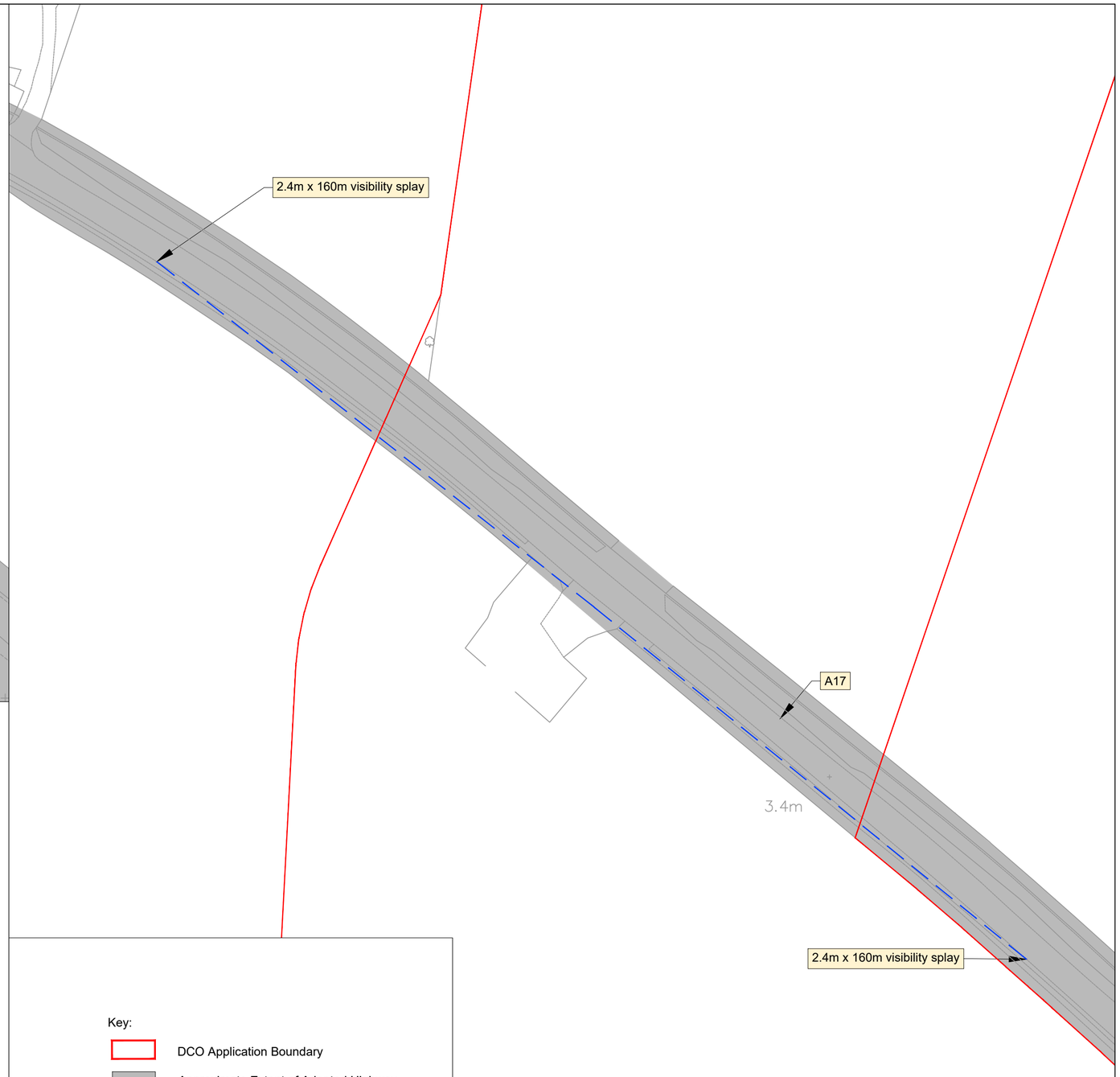
TITLE: PERMANENT ENERGY PARK ACCESS ARRANGEMENT

SCALE @ A2:	CHECKED:	APPROVED:
AS SHOWN	KSS	KSS
DATE:	DESIGN-DRAWN:	DRAWING-STATUS:
31/01/2023	JAN	SK
PROJECT No:	DRAWING No:	REV:
P20-2370	FIGURE 5.2	

Scale 1:500
Swept Path of a 16m Low Loader Entering Access



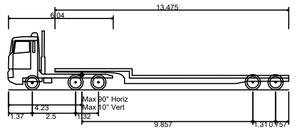
Scale 1:500
Swept Path of a 16m Low Loader Egressing Access



Scale 1:1000
Visibility Splay at Site Access

Key:

- DCO Application Boundary
- Approximate Extent of Adopted Highway
- Visibility Splay



Low Loader	
Overall Length	16.154m
Overall Width	2.520m
Overall Body Height	3.393m
Min Body Ground Clearance	0.318m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.990m

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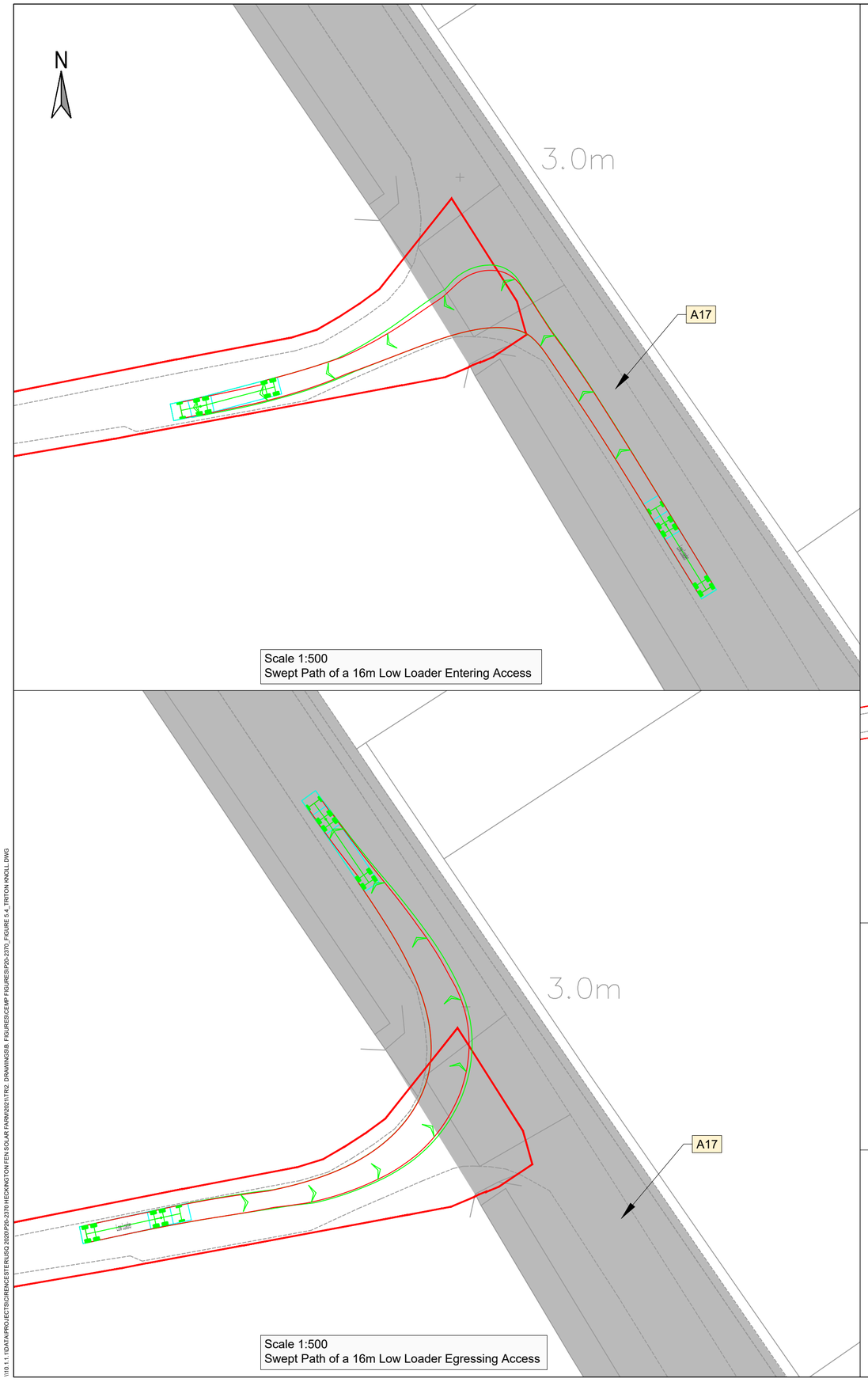
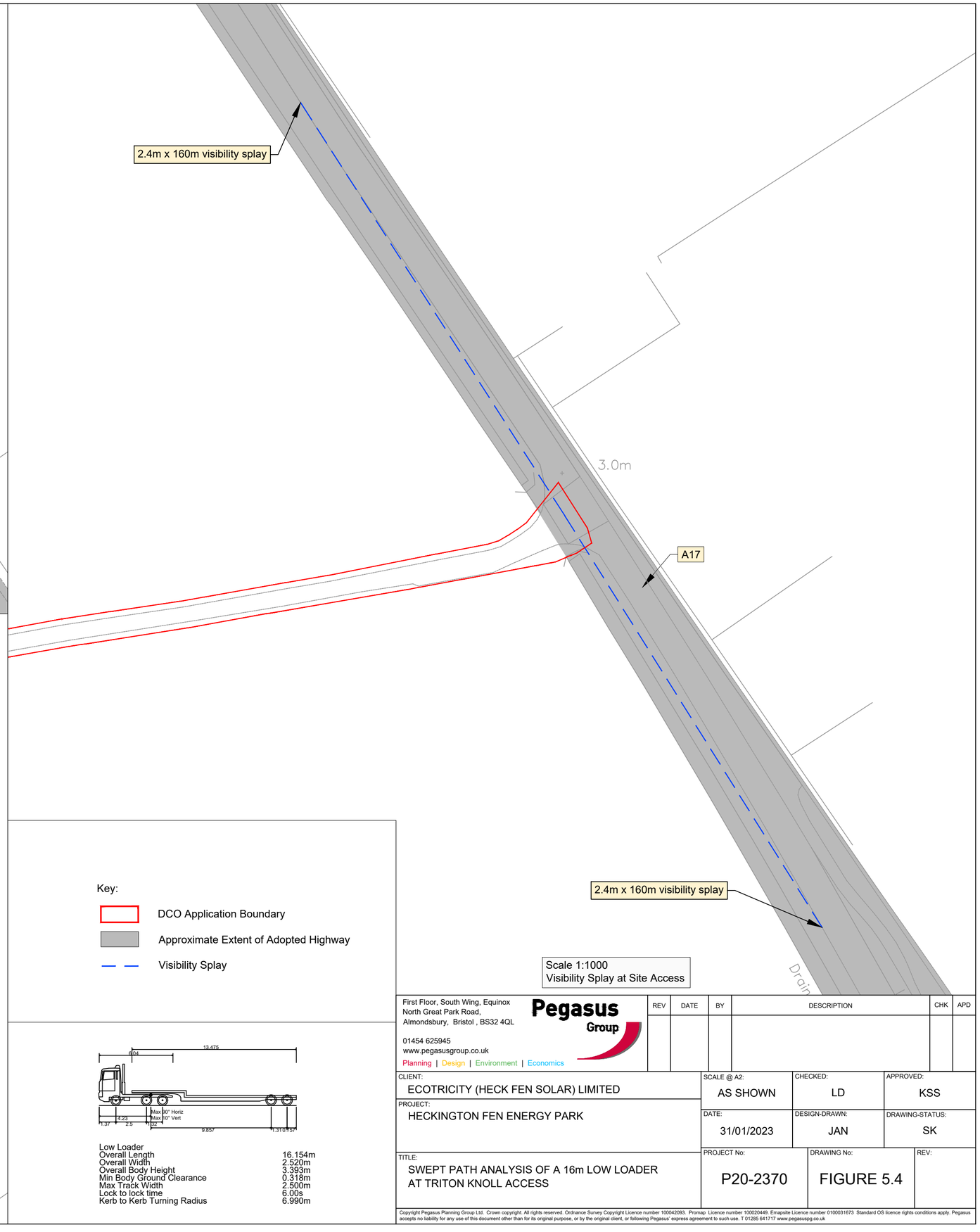
REV	DATE	BY	DESCRIPTION	CHK	APD

CLIENT: ECOTRICITY (HECK FEN SOLAR) LIMITED	SCALE @ A2: AS SHOWN	CHECKED: LD	APPROVED: KSS
PROJECT: HECKINGTON FEN ENERGY PARK	DATE: 31/01/2023	DESIGN-DRAWN: JAN	DRAWING-STATUS: SK
TITLE: SWEPT PATH ANALYSIS OF A 16m LOW LOADER AT NORTHERN CABLE ACCESS WITH A17	PROJECT No: P20-2370	DRAWING No: FIGURE 5.3	REV:





Key:

- DCO Application Boundary
- Approximate Extent of Adopted Highway
- Visibility Splay

Low Loader	
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Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.990m

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REV	DATE	BY	DESCRIPTION	CHK	APD

CLIENT: ECOTRICITY (HECK FEN SOLAR) LIMITED	SCALE @ A2: AS SHOWN	CHECKED: LD	APPROVED: KSS
PROJECT: HECKINGTON FEN ENERGY PARK	DATE: 31/01/2023	DESIGN-DRAWN: JAN	DRAWING-STATUS: SK
TITLE: SWEPT PATH ANALYSIS OF A 16m LOW LOADER AT TRITON KNOLL ACCESS	PROJECT No: P20-2370	DRAWING No: FIGURE 5.4	REV:

Appendix A

Date Printed - 13/04/2022

The LINCOLNSHIRE ROAD SAFETY Partnership

A17 East Heckington Area - 5 Years Injury Collisions (to 31/03/2022)

Data up to - 31/03/2022

0 500 1000 1500 2000 Metres

Fatal Injury
Serious Injury
Slight Injury

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 170161906

Road Number : A17 GRID REF: 518521,344459 SPEED LIMIT: 60
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Serious
POLICE DIVISION : West

LOCATION : 100YDS WEST OF B1395

DESCRIPTION : DRIVER LOST CONTROL VIA UNKNOWN REASONS AND VEERED NEARSIDE CLIPPING THE GRASS VERGE. HAS OVER CORRECTED AND ENDED UP ROLLING ON TO ROOF AND SPINNING ON THE ROOF IN THE MIDDLE OF THECARRIAGEWAY

DATE : 19/04/2017 - Wednesday TIME: 530

NUMBER OF VEHICLES : 1
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Loss of control
2.
3.
4.
5.
6.

VEHICLES:

1 Taxi / Private Hire Car Going ahead West To East Overturned Driver: Male 30 Breath Test: Not Requested

CASUALTIES:

1 Driver 30 Male Serious In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 170283523

Road Number : B1395 GRID REF: 518728,344459 SPEED LIMIT: 60
Road 2 Number : A17

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : EAST HECKINGTON- JUNCTION OF SIDEBAR LANE- B1395 AND A17 (GRID REF:518710, 344491).

DESCRIPTION : V2 WAITING TO GO AHEAD AT JUNCTION. V1 COLLIDED INTO REAR. NO VISIBLE PERMANANT DAMAGE. V2 DRIVER STATED SHE HAS BACK PAIN.

DATE : 04/07/2017 - Tuesday TIME: 1900

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Possible Failed to judge other person's path or speed
2.
3.
4.
5.
6.

VEHICLES:

1 Car Going ahead South To North No Skdng /Jck-Knfg /Ovrtrng Driver: Male 33 Breath Test: Negative
2 Car Going ahead South To North No Skdng /Jck-Knfg /Ovrtrng Driver: Female 36 Breath Test: Negative

CASUALTIES:

1 Driver 36 Female Slight In Vehicle 2

DATE PRINTED: 13/04/2022

CURRENT DATADATE: 31/03/2022

All Accidents

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 180591881

Road Number : A17 GRID REF: 518854,344452 SPEED LIMIT: 60
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : EAST HECKINGTON

DESCRIPTION : VEH 1 HAS VEERED ONTO THE OPPOSITE SIDE OF THE ROAD AND COLLIDED WITH VEH 002

DATE : 07/12/2018 - Friday TIME: 514

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Raining (Without High Wind)

LIGHT CONDITIONS : Dark - No street lighting

SURFACE CONDITIONS: Wet or Damp

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Careless/Reckless/In a hurry
2.V1 Possible Fatigue
3.
4.
5.
6.

VEHICLES:

1 Goods Vehicle - unknown weight Going ahead West To East Skidding Driver: Male 26
Breath Test: Negative
2 Goods Vehicle - unknown weight Going ahead East To West Skidding Driver: Male 54
Breath Test: Negative

CASUALTIES:

1 Driver 26 Male Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 190115936

Road Number : A17 GRID REF: 518976,344431 SPEED LIMIT: 60
Road 2 Number : D

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Serious
POLICE DIVISION : West

LOCATION : COUNTERFLOW TRAFFIC ROAD WITH NATIONAL SPEED LIMIT

DESCRIPTION : V2 HAS BEEN TRAVELLING ALONG THE A17 TOWARDS SLEAFORD FOLLOW A VAN. V2 HAS COME TO A STOP AS THE VAN HAS INDICATED TO TURN INTO A SIDE ROAD LEADING TO ELM GARAGE STUDIO AND SOME HOUSES. V2 HAS JUST APPLIED THEIR HAND BRAKE WHEN V1 HAS STRUCK V2 FROM BEHIND. V1 HAS JUST CAUGHT THE REAR NEAR SIDE OF V2 AND IT IS HIGHLY LIKELY THAT V1 HAS ATTEMPTED TO AVOID V2 LEADING TO V1 COMING OFF THE ROAD LANDING IN A DITCH

DATE : 06/03/2019 - Wednesday TIME: 1255

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Using Private drive or Entrance
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Raining (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Wet or Damp

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V2 Possible Careless/Reckless/In a hurry
2.V2 Possible Distraction in vehicle
3.V2 Possible Distraction outside vehicle
4.V2 Possible Exceeding speed limit
5.V2 Possible Fatigue
6.V2 Very Likely Failed to judge other person's path or speed

VEHICLES:

1 Car Going ahead South East To North West Skidding & Overturned Driver: Male 28
Breath Test: Not Requested
2 Goods Vehicle - unknown weight Stopping South East To North West No Skdng
/Jck-Knfg /Ovrtrng Driver: Male 55 Breath Test: Negative

CASUALTIES:

1 Driver 28 Male Serious In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 200502879

Road Number : A17 GRID REF: 518715,344462 SPEED LIMIT: 60
Road 2 Number : B1395

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : AT JUNCTION WITH B1395 SIDE BAR LANE

DESCRIPTION : IT WOULD APPEAR VEH 1 PULLED OUT OF SIDE ROAD JUNCTION AND INTO THE PATH OF VEH 2 TRAVELLING ON MAIN ROAD

DATE : 24/09/2020 - Thursday TIME: 1030

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 3

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to look properly
2.
3.
4.
5.
6.

VEHICLES:

1 Car Turning Right North To East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 50 Breath Test: Negative
2 Car Going ahead West To East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 47 Breath Test: Negative

CASUALTIES:

1 Driver 50 Female Slight In Vehicle 1
2 Driver 47 Male Slight In Vehicle 2
3 Veh Passenger 38 Female Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 170218632

Road Number : A17 GRID REF: 519916,344017 SPEED LIMIT: 50
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : EATS HECKINGTON

DESCRIPTION : V1 RAN INTO BACK OF V2, V2 WAS STATIC IN LINE OF TRAFFIC

DATE : 25/05/2017 - Thursday TIME: 1125

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to judge other person's path or speed
2.
3.
4.
5.
6.

VEHICLES:

1 Car Going ahead West To East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 90 Breath Test: Negative
2 Motorcycle over 500cc (Combination before 2004) Waitng to go ahead, held up Parked To Parked No Skdng /Jck-Knfg /Ovrtrng Driver: Male 44 Breath Test: Negative

CASUALTIES:

1 Driver 44 Male Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 180557125

Road Number : A17 GRID REF: 519815,344071 SPEED LIMIT: 60
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : APPROX 100 METERS SHORT OF SHELL GARAGE AT A SITE OF SMALL CENTRAL RESERVATION

DESCRIPTION : V1 WAS TRAVELLING EASTBOUND ON A17 THE VEHICLE MOVED ACROSS ITS LANE TOWARDS THE RIGHT AND CLIPPED THE CURB WITH THE FRONT OFFSIDE WHEEL CAUSING THE DRIVER TO LOOSE CONTROL AND THE VEHICLE TO COME TO A STOP BY ROLLING ONTO ITS PASSANGER SIDE STAYING IN THE SAME LANE

DATE : 17/11/2018 - Saturday TIME: 1734

NUMBER OF VEHICLES : 1
NUMBER OF CASUALTIES: 2

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Dark - No street lighting

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Dazzling headlights
2.
3.
4.
5.
6.

VEHICLES:

1 Car Going ahead West To East Overturned Driver: Female 18 Breath Test: Negative

CASUALTIES:

1 Veh Passenger 17 Female Slight In Vehicle 1
2 Veh Passenger 18 Male Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 190024430

Road Number : A17 GRID REF: 520167,343906 SPEED LIMIT: 50
Road 2 Number : D

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : CENTRAL RESERVATION TO THE EAST OF THE JUNCTION LEADING TO EAST HECKINGTON

DESCRIPTION : V1 HAS SWERVED TO AVOID AN ANIMAL IN THE CARRIAGEWAY AND COLLIDED WITH THE CENTRAL ISLAND

DATE : 16/01/2019 - Wednesday TIME: 130

NUMBER OF VEHICLES : 1
NUMBER OF CASUALTIES: 2

JUNCTION DETAIL : Crossroads
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Dark - No street lighting

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Possible Animal or object in carriageway
2.V1 Possible Swerved
3.
4.
5.
6.

VEHICLES:

1 Goods Vehicle - unknown weight Going ahead West To East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 59 Breath Test: Negative

CASUALTIES:

1 Driver 59 Male Slight In Vehicle 1
2 Veh Passenger 40 Male Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 200195427

Road Number : A17 GRID REF: 519052,344410 SPEED LIMIT: 50
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Fatal
POLICE DIVISION : West

LOCATION : 50M WEST OF EAST HECKINGTON

DESCRIPTION : VEH1 WAS TRAVELLING WEST ALONG THE A17 AND WAS SEEN BY WITNESSES TO DRIVE UP THE NEARSIDE KERB AND THE CORRECT ITSELF, CROSS THE CARRIAGEWAY DIRECTLY INTO THE PATH OF VEH2 WHICH COULD NOT AVOID A COLLISION.

DATE : 16/04/2020 - Thursday TIME: 1000

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Swerved
2.
3.
4.
5.
6.

VEHICLES:

1 Car Going ahead East To West No Skdng /Jck-Knfg /Ovrtrng Driver: Male 81 Breath Test: Not Requested
2 Goods vehicle 7.5 tonnes mgw and over Going ahead West To East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 57 Breath Test: Negative

CASUALTIES:

1 Driver 81 Male Fatal In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210211827

Road Number : A17 GRID REF: 520024,343974 SPEED LIMIT: 50
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : OPPOSITE JET SERVICE STATION ON A17

DESCRIPTION : VEH 2 HAS BEEN TRAVELLING FROM HECKINGTON TOWARDS SWINESHEAD BRIDGE. VEH HAS BEEN STATIONARY BEHIND ANOTHER VEH SIGNALLING TO TURN RIGHT INTO THE JET PETROL STATION. VEH 1 HAS BEEN TRAVELLING BEHIND VEH 2 AND COLLIDED INTO THE REAR OF VEH 2 CAUSING DAMAGE. DRIVER OF VEH 1 HAS PAIN IN HIS BACK AND IS TRAVELLING TO BOSTON HOSPITAL FOR EXAMINATION.

DATE : 18/04/2021 - Sunday TIME: 1300

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to judge other person's path or speed
2.
3.
4.
5.
6.

VEHICLES:

1 Motorcycle over 500cc (Combination before 2004) Going ahead North West To South East Skidding & Overturned Driver: Male 56 Breath Test: Negative
2 Car Waitng to go ahead, held up North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 21 Breath Test: Negative

CASUALTIES:

1 Driver 56 Male Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210464384

Road Number : A17 GRID REF: 519281,344335 SPEED LIMIT: 60
Road 2 Number : D

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : EAST HECKINGTON NEAR TO THE JET GARAGE

DESCRIPTION : VEH 1 CARRIED OUT POOR MANOEUVRE AND HIT THE CENTRAL RESERVATION AND LOST CONTROL COMING OFF HIS MOTORCYCLE, NO OTHER VEH'S INVOLVED

DATE : 18/08/2021 - Wednesday TIME: 755

NUMBER OF VEHICLES : 1
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to look properly
2.
3.
4.
5.
6.

VEHICLES:

1 Motorcycle over 50cc and up to 125cc Ovrtkg stry Veh on offside North West To South East Skidding Driver: Male 20 Breath Test: Negative

CASUALTIES:

1 Driver 20 Male Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210565608

Road Number : A17 GRID REF: 520016,343977 SPEED LIMIT: 60
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : OPPOSITE FOUR WINDS PETROL STATION

DESCRIPTION : VEH 1 RAN INTO THE BACK OF VEH 2, THE SUNLIGHT AND ANGLE OF THE SUN PLAYED A SIGNIFICANT PART IN THE RTC. AMBULANCE ARRIVED, CASUALTY WILL MAKE OWN WAY TO HOSPITAL TO GET XRAY ON WRIST.

DATE : 29/09/2021 - Wednesday TIME: 820

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 2

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Dazzling sun
2.
3.
4.
5.
6.

VEHICLES:

1 Car Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 42 Breath Test: Negative
2 Goods vehicle 7.5 tonnes mgw and over Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 54 Breath Test: Negative

CASUALTIES:

1 Driver 42 Female Slight In Vehicle 1
2 Veh Passenger 11 Female Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210570504

Road Number : A17 GRID REF: 519272,344333 SPEED LIMIT: 50
Road 2 Number : D

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : A17 WESTBOUND OUTSIDE JET PETROL SERVICES

DESCRIPTION : TRAFFIC SLOWING WESTBOUND ON A17 TO ENTER JET PETROL STATION IN EAST HECKINGTON. VEH 2 BEHIND A VEH THAT HAS DECIDED TO TURN INTO THE PETROL STATION LATE WHICH HAS MADE VEH 2 BRAKE HARD. VEH 1 BEHIND HAS HAD TO BRAKE HARD BUT HAD A TRAILER ON THE BACK WHICH HAS LOCKED UP AND VEH 1 HAS HIT THE REAR OF VEH 2.

DATE : 01/10/2021 - Friday TIME: 1055

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Other Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Wet or Damp

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Possible Following too close
2.V2 Possible Following too close
3.V2 Possible Failed to judge other person's path or speed
4.
5.
6.

VEHICLES:

1 Car Stopping South East To North West Skidding Driver: Female 31 Breath Test: Negative
2 Car Stopping South East To North West No Skdng /Jck-Knfg /Ovrtrng Driver: Female 29 Breath Test: Negative

CASUALTIES:

1 Driver 29 Female Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210222130

Road Number : A17 GRID REF: 520292,343819 SPEED LIMIT: 60
Road 2 Number :

PARISH : HECKINGTON DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : OUTSIDE SHELL GARAGE

DESCRIPTION : IT WOULD APPEAR VEH 3 WAS SLOWING DOWN IN TRAFFIC. VEH 2 BEHIND VEH 3 ALSO SLOWED. VEH 1 HAS FAILED TO SLOW AND DRIVEN INTO THE REAR OF VEH 2 WHICH WAS SHUNTED INTO THE REAR OF VEH 3

DATE : 23/04/2021 - Friday TIME: 800

NUMBER OF VEHICLES : 3
NUMBER OF CASUALTIES: 2

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Following too close
2.
3.
4.
5.
6.

VEHICLES:

1 Car Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 25 Breath Test: Negative
2 Car Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 38 Breath Test: Negative
3 Goods vehicle 7.5 tonnes mgw and over Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 52 Breath Test: Negative

CASUALTIES:

1 Driver 25 Female Slight In Vehicle 1
2 Driver 38 Female Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 170141596

Road Number : A17 GRID REF: 520527,343681 SPEED LIMIT: 50
Road 2 Number :

PARISH : GREAT HALE DIVISION: DISTRICT: North

POLICE SECTOR : Sleaford SEVERITY: Slight
POLICE DIVISION : West

LOCATION : EAST HECKINGTON- A17 OUTSIDE JET GARAGE (NO GRID REF).

DESCRIPTION : V2 HAS BEEN TRAVELLING S/E ON THE A17 AND HAS COME TO A STOP DUE TO A FUEL TANKER TURNING RIGHT INTO JET GARAGE. V1 HAS BEEN TRAVELLING DIRECTLY BEHIND V2 BUT HAS FAILED TO BRAKE IN TIME COLLIDING INTO THE REAR.

DATE : 04/04/2017 - Tuesday TIME: 1810

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to look properly
2.V1 Very Likely Sudden braking
3.V1 Very Likely Inexperienced or learner driver/rider
4.V1 Very Likely Nervous/Uncertain/ Panic
5.
6.

VEHICLES:

1 Car Stopping North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 18 Breath Test: Driver not contcted at time
2 Car Waitng to go ahead, held up North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 26 Breath Test: Not provided(Medical reasons)

CASUALTIES:

1 Driver 26 Female Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 200640620

Road Number : A17 GRID REF: 520820,343579 SPEED LIMIT: 60
Road 2 Number :

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Slight
POLICE DIVISION : East

LOCATION : OUTSIDE CARPENTERS COTTAGE, EAST HECKINGTON

DESCRIPTION : VEH 1 HAS PULLED OUT INTO PATH OF VEH 2 FAILING TO JUDGE THE APPROACHING VEH'S SPEED.

DATE : 03/12/2020 - Thursday TIME: 1510

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Using Private drive or Entrance
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Raining (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Wet or Damp

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to judge other person's path or speed
2.
3.
4.
5.
6.

VEHICLES:

1 Car Turning Left North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 60 Breath Test: Not Requested
2 Goods vehicle 7.5 tonnes mgw and over Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 37 Breath Test: Negative

CASUALTIES:

1 Driver 60 Female Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210425853

Road Number : A17 GRID REF: 521204,343417 SPEED LIMIT: 50
Road 2 Number : D

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Serious
POLICE DIVISION : East

LOCATION : A17

DESCRIPTION : DRIVER OF VEH 1 DRIVING AT EXCESSIVE SPEED ALONG THE A17 FROM BOSTON. VEH LEFT ROAD AND ROLLED ACROSS PRIVATE ROAD BRIDGE AND WENT INTO A DITCH. WITNESS STATED THEY HAS SEEN THEM DRIVING AGGRESSIVELY AND SPEEDING.

DATE : 29/07/2021 - Thursday TIME: 1915

NUMBER OF VEHICLES : 1
NUMBER OF CASUALTIES: 2

JUNCTION DETAIL : Using Private drive or Entrance
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Aggressive driving
2.
3.
4.
5.
6.

VEHICLES:

1 Goods vehicle 3.5 tonnes mgw and under Going ahead left hand bend South East To North West Overturned Driver: Male 21 Breath Test: Negative

CASUALTIES:

1 Driver 21 Male Slight In Vehicle 1
2 Veh Passenger 18 Male Serious In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 170303390

Road Number : A17 GRID REF: 521709,342992 SPEED LIMIT: 40
Road 2 Number : A1121

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Slight
POLICE DIVISION : East

LOCATION : BOSTON- JUNCTION OF A17 AND A1121 (NO GRID REF).

DESCRIPTION : V1 INVOLVED IN A PURSUIT. VEHICLE HAD FAILED TO STEP FOR A MARKED POLICE CAR EARLIER ON IN THE EVENING. SOME TIME LATER MARKED POLICE VEHICLE GOT BEHIND V1 AND AGAIN INDICATED FOR IT TO STOP. VEHICLE FAILED TO STOP AGAIN AND PURSUIT WAS AUTHORISED. VEHICLE HAS TRAVELLED A1121 BOARDSIDES AND APPROACHED JUNCTION A17. VEHICLE HAS FAILED TO NEGOTIATE THE T JUNCTION GOING STRAIGHT OVER AND HIT THE KERB, RESULTING IN VEHICLE FLIPPING ONTO ITS ROOF. DRIVER THEN DE-CAMPED AND DETAINED.

DATE : 16/07/2017 - Sunday TIME: 2249

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Dark - Lit Street Lights

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Vehicle in course of crime
2.V1 Very Likely Careless/Reckless/In a hurry
3.
4.
5.
6.

VEHICLES:

1 Car Turning Left South To West Skidding Driver: Male 24 Breath Test: Negative
2 Other Vehicle Going ahead South To West No Skdng /Jck-Knfg /Ovrtrng Driver: Male 35 Breath Test: Negative

CASUALTIES:

1 Veh Passenger 23 Female Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 180285069

Road Number : A1121 GRID REF: 521711,342983 SPEED LIMIT: 40
Road 2 Number : A17

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Slight
POLICE DIVISION : East

LOCATION : JUNCTION BETWEEN A17 AND A1121

DESCRIPTION : RTC AT JUNCTION SWINESHEAD. V1 TURNING RIGHT, COLLIDED INTO V2

DATE : 20/06/2018 - Wednesday TIME: 848

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 2

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Careless/Reckless/In a hurry
2.
3.
4.
5.
6.

VEHICLES:

1 Car Turning Right North To East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 63 Breath Test: Negative
2 Goods Vehicle - unknown weight Going ahead West To East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 68 Breath Test: Negative

CASUALTIES:

1 Driver 63 Male Slight In Vehicle 1
2 Driver 68 Male Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 180444373

Road Number : A17 GRID REF: 521786,342879 SPEED LIMIT: 50
Road 2 Number :

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Slight
POLICE DIVISION : East

LOCATION : SINGLE CARRIAGEWAY 50MPH ROAD. RELATIVELY STRAIGHT

DESCRIPTION : V2 WAS SLOWING DOWN DUE TO TRAFFIC AHEAD. V1 COLLIDED WITH THE REAR OF V2. V1 DID NOT STOP IN TIME.

DATE : 17/09/2018 - Monday TIME: 823

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Not at/within 20m of Junction.
JUNCTION CONTROL:

WEATHER : Raining (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Wet or Damp

DID AN OFFICER ATTEND THE SCENE? No

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Careless/Reckless/In a hurry
2.
3.
4.
5.
6.

VEHICLES:

1 Car Stopping East To West No Skdng /Jck-Knfg /Ovrtrng Driver: Female 40 Breath Test: Negative
2 Car Stopping East To West No Skdng /Jck-Knfg /Ovrtrng Driver: Male 22 Breath Test: Negative

CASUALTIES:

1 Driver 40 Female Slight In Vehicle 1

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 190024319

Road Number : A17 GRID REF: 521717,342982 SPEED LIMIT: 40
Road 2 Number : A1121

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Slight
POLICE DIVISION : East

LOCATION : JUNCTION OF A17 AND A1121

DESCRIPTION : V2 WAS TRAVELLINF ALONG A17 WHEN HE REACHED THE JUNCTION WITH A1121 V1 TURNED INFRONT OF V2 AND THE VEHICLES COLLIDED. V2 SPUN INTO THE OPPOSITE SIDE OF THE ROAD AND V3 THEN COLLIDED WITH V2

DATE : 15/01/2019 - Tuesday TIME: 1725

NUMBER OF VEHICLES : 3
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Dark - Lit Street Lights

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Careless/Reckless/In a hurry
2.
3.
4.
5.
6.

VEHICLES:

1 Car Changing Lane to Right South To North East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 55 Breath Test: Negative
2 Car Going ahead North To South No Skdng /Jck-Knfg /Ovrtrng Driver: Male 41 Breath Test: Negative
3 Car Going ahead South To North No Skdng /Jck-Knfg /Ovrtrng Driver: Female 26 Breath Test: Negative

CASUALTIES:

1 Veh Passenger 32 Female Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 190092020

Road Number : A17 GRID REF: 521742,342936 SPEED LIMIT: 60
Road 2 Number : A1121

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Slight
POLICE DIVISION : East

LOCATION : OUTSIDE THE BARGE PUBLIC HOUSE

DESCRIPTION : V2 TRAVELLING FROM SLEAFORD DIRECTION TOWARDS SUTTERTON. V1 HAS PULLED ACROSS THE FRONT AS IT WAS HEADING IN THE OPPOSITE DIRECTION

DATE : 21/02/2019 - Thursday TIME: 1823

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Dark - Lit Street Lights

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to judge other person's path or speed
2.
3.
4.
5.
6.

VEHICLES:

1 Car Turning Right East To North No Skdng /Jck-Knfg /Ovrtrng Driver: Male 35 Breath Test: Negative
2 Car Going ahead West To East No Skdng /Jck-Knfg /Ovrtrng Driver: Female 57 Breath Test: Negative

CASUALTIES:

1 Driver 57 Female Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210465669

Road Number : A17 GRID REF: 521711,342985 SPEED LIMIT: 40
Road 2 Number : A1121

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Slight
POLICE DIVISION : East

LOCATION : JUNCTION OF A17 AND A1121

DESCRIPTION : VEH 1 CUT ACROSS THE PATH OF VEH 2 WHEN CHANGING DIRECTION AT A JUNCTION.

DATE : 18/08/2021 - Wednesday TIME: 1654

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 1

JUNCTION DETAIL : Other Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Very Likely Failed to look properly
2.
3.
4.
5.
6.

VEHICLES:

1 Car Turning Right South East To North East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 69 Breath Test: Negative
2 Car Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 41 Breath Test: Negative

CASUALTIES:

1 Driver 41 Male Slight In Vehicle 2

LINCOLNSHIRE ROAD SAFETY PARTNERSHIP

ACCIDENT REFERENCE: 210632038

Road Number : A17 GRID REF: 521717,342981 SPEED LIMIT: 60
Road 2 Number : A1121

PARISH : SWINESHEAD DIVISION: DISTRICT: Boston

POLICE SECTOR : Boston-Rural SEVERITY: Serious
POLICE DIVISION : East

LOCATION : JUNCTION OF A17 STATION ROAD AND A1121 LINESIDE

DESCRIPTION : VEH 1 HAS BEEN TRAVELLING NORTH WEST ALONG TEH A17 STATION ROAD TOWARDS HECKINGTON. VEH 1 TURNED RIGHT ACROSS TRAFFIC TO TRAVEL DOWN LINSIDE CAUSING VEH 2 TO COLLIDE WITH IT. DAMAGE TO FRONT NEARSIDE OF VEH 1 ASN SEVERE DAMAGE TO FRONT BUMPER OF VEH 2, CAUSING AIRBAGS TO DEPLOY.

DATE : 30/10/2021 - Saturday TIME: 1546

NUMBER OF VEHICLES : 2
NUMBER OF CASUALTIES: 3

JUNCTION DETAIL : 'T' or Staggered Junction
JUNCTION CONTROL: Give Way or Uncontrolled

WEATHER : Fine (Without High Wind)

LIGHT CONDITIONS : Daylight

SURFACE CONDITIONS: Dry

DID AN OFFICER ATTEND THE SCENE? Yes

PRE 2005 CONTRIBUTORY FACTORS

CONTRIBUTORY FACTOR 1:
CONTRIBUTORY FACTOR 2:
CONTRIBUTORY FACTOR 3:

2005+ CONTRIBUTORY FACTORS

1.V1 Possible Uncorrected, defective eyesight
2.
3.
4.
5.
6.

VEHICLES:

1 Car Turning Right South East To North East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 83 Breath Test: Negative
2 Car Going ahead North West To South East No Skdng /Jck-Knfg /Ovrtrng Driver: Male 54 Breath Test: Negative

CASUALTIES:

1 Driver 83 Male Slight In Vehicle 1
2 Veh Passenger 87 Male Slight In Vehicle 1
3 Veh Passenger 62 Female Serious In Vehicle 2

Date / Time	Reference	Location	Severity	Conditions Weather/ Road	Involvement	Causation Factors
19/04/2017 05:30	170161906	100 yards west of B1395	Serious	Fine / Dry	1 Vehicle	Driver appears to have lost control and veered towards the nearside carriageway edge, clipping the grass verge. The driver appears to have over corrected the manoeuvre and subsequently the vehicle has overturned onto its roof.
04/07/2017 19:00	170283523	Junction of Sidebar Lane - B1395 and A17	Slight	Fine / Dry	2 Vehicles	Vehicle 2 appears to have been waiting to go ahead at junction. Vehicle 1 collided into rear of vehicle 2. It appears that the driver of vehicle 1 failed to judge the path or speed of Vehicle 2.
07/12/2018 05:14	180591881	East Heckington	Slight	Raining / Wet	2 Vehicles	Vehicle 1 appears to have veered onto the opposite side of the road and collided with vehicle 2. Vehicle 1 was reported to be driving carelessly / recklessly with possible fatigue.
06/03/2019 12:55	190115936	Counterflow traffic road with national speed limit	Serious	Raining / Wet	2 Vehicles	Vehicle 2 travelling along the A17 towards Sleaford has indicated to turn into a side road leading to Elm Grange Studio. Vehicle 2 braked and vehicle 1 appears to have collided with the rear of vehicle 2. Vehicle 2 was reported to be driving carelessly / recklessly, distracted, exceeding the speed limit and fatigued.
24/09/2020 10:30	200502879	Junction with B1395 Side Bar Lane	Slight	Fine / Dry	2 Vehicles	Vehicle 1 appears to have pulled out of Side Bar Lane into the path of vehicle 2 travelling on the A17. Vehicle 1 was reported to have failed to look properly.
25/05/2017 11:25	170218632	East Heckington	Slight	Fine / Dry	2 Vehicles	Vehicle 1 appears to have collided with the rear of vehicle 2. Vehicle 2 was static in a queue of traffic. Vehicle 1 appears to have failed to judge the path or speed of vehicle 2.

17/11/2018 17:34	180557125	Approx 100 metres short of Shell garage at a site of small central reservation	Slight	Fine / Dry	1 Vehicle	Vehicle 1 travelling eastbound on the A17 appears to have moved across its lane and clipped the curb with the front offside wheel. This appears to have caused the driver to lose control and the vehicle to roll onto its passenger side.
16/01/2019 01:30	190024430	Central reservation to the east of the junction leading to East Heckington	Slight	Fine / Dry	1 Vehicle	Vehicle 1 appears to have swerved to avoid an animal in the carriageway and collided with the central island.
18/04/2021 13:00	210211827	Opposite Jet service station on A17	Slight	Fine / Day	2 Vehicles	Vehicle 2 travelling from Heckington towards Swineshead Bridge appears to have been stationary behind another vehicle signalling to turn right into the Jet petrol station. Vehicle 1 appears to have collided with the rear of vehicle 2.
18/08/2021 07:55	210464384	East Heckington near to the Jet garage	Slight	Fine / Dry	1 Vehicles	Vehicle 1 appears to have collided with the central reservation and lost control, subsequently falling from their motorcycle.
29/09/2021 08:20	210565608	Opposite Four Winds petrol station	Slight	Fine / Dry	2 Vehicles	Vehicle 1 appears to have collided with the rear of vehicle 2. It is reported that the sunlight and angle of the sun played a significant part in the incident. It appears likely that vehicle 1 was dazzled by the sun.
01/10/2021 10:55	210570504	A17 westbound outside Jet garage	Slight	Fine / Wet	2 Vehicles	Traffic slowing westbound on A17 to enter Jet petrol station. Vehicle 2 travelling behind another appears to have braked following a late decision of the vehicle in front to turn. Vehicle 1 behind vehicle 2 appears to have also braked hard but collided with the rear of vehicle 2.
23/04/2021	10222130	Outside Shell garage	Slight	Fine / Dry	3 Vehicles	Vehicle 3 appears to have been braking in traffic. Vehicle 2 behind vehicle 3 also appears to have slowed. Vehicle 1 has failed to slow and

08:00						subsequently collided with the rear of vehicle 2, which was shunted into the rear of vehicle 3.
04/04/2017 18:10	170141596	East Heckington – A17 outside Jet garage	Slight	Fine / Dry	2 Vehicles	Vehicle 2 travelling southeastbound on the A17 appears to have stopped due to a fuel tanker turning right into jet garage. Vehicle 1 travelling behind vehicle 2 appears to have collided with the rear of vehicle 1.
03/12/2020 15:10	200640620	Outside Carpenters Cottage, East Heckington	Slight	Raining/ Wet	2 Vehicles	Vehicle 1 appears to have pulled out into path of vehicle 2, failing to judge the speed of vehicle 2.
29/07/2021 19:15	210425853	A17	Serious	Fine / Dry	1 Vehicle	Vehicle 1 appears to have been travelling at excessive speed along the A17 from Boston. Vehicle appears to have left the road and rolled across a private road bridge and into a ditch.
16/07/2017 22:49	170303390	Junction of A17 and A1121	Slight	Fine / Dry	2 Vehicles	Vehicle 1 involved in a police pursuit. Vehicle has travelled along the A1121 and approached the junction with the A17. Vehicle appears to have failed to negotiate the junction and travelled straight over and hit the kerb, resulting in the vehicle flipping onto its roof.
20/06/2018 08:48	180285069	Junction of A17 and A1121	Slight	Fine / Dry	2 Vehicles	Vehicle 1 turning right appears to have collided with vehicle 2.
17/09/2018 08:23	180444373	Single carriageway 50mph road.	Slight	Raining/ Wet	2 Vehicles	Vehicle 2 appears to have been slowing down due to traffic ahead. Vehicle 1 appears to have collided with the rear of vehicle 2.
15/01/2019 17:25	190024319	Junction of A17 and A1121	Slight	Fine / Dry	3 Vehicles	Vehicle 2 travelling along A17 at the junction with the A1121. Vehicle 1 appears to have turned into the path of vehicle 2 resulting in a collision.

						Vehicle 2 appears to have spun into the opposite side of the road and vehicle 3 then collided with vehicle 2.
21/02/2019 18:23	190092020	Outside the Barge public house	Slight	Fine / Dry	2 Vehicles	Vehicle 2 travelling from Sleaford towards Sutterton. Vehicle 1 has pulled across the front as it was heading in the opposite direction.
18/08/2021 16:54	210465669	Junction of A17 and A1121	Slight	Fine/ Dry	2 Vehicles	Vehicle 1 cut across the path of vehicle 2 when changing direction at a junction.
30/10/2021 15:46	210632038	Junction of A17 and A1121	Serious	Fine / Dry	2 Vehicles	Vehicle 1 travelling north west along the A17 towards Heckington. Vehicle 1 turned right across traffic which appears to have caused vehicle 2 to collide with it.

Appendix B

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	108	128	84	72	77	65	115	99	93
01:00	84	99	74	50	41	54	74	70	68
02:00	89	73	70	0	53	86	76	75	64
03:00	79	71	64	36	57	87	112	81	72
04:00	166	198	84	39	113	161	166	161	132
05:00	300	373	160	83	299	305	357	327	268
06:00	770	727	287	136	723	719	623	712	569
07:00	1094	1016	348	173	1160	1235	1056	1112	869
08:00	925	812	455	236	1099	997	942	955	781
09:00	783	709	615	419	822	892	856	812	728
10:00	601	741	643	536	802	771	768	737	695
11:00	687	689	634	629	776	696	751	720	695
12:00	599	703	648	686	741	694	771	702	692
13:00	572	755	595	617	621	681	699	666	649
14:00	800	847	548	588	714	661	785	761	706
15:00	728	827	556	558	640	693	716	721	674
16:00	821	758	538	625	769	756	817	784	726
17:00	719	714	541	589	689	752	740	723	678
18:00	645	634	512	589	565	507	588	588	577
19:00	396	451	308	437	328	354	394	385	381
20:00	298	309	280	356	238	272	276	279	290
21:00	255	230	250	269	210	263	253	242	247
22:00	193	199	136	123	171	194	172	186	170
23:00	151	115	116	84	125	134	140	133	124
Total									
12H(7-19)	8974	9205	6633	6245	9398	9335	9489	9280	8468
16H(6-22)	10693	10922	7758	7443	10897	10943	11035	10898	9956
18H(6-24)	11037	11236	8010	7650	11193	11271	11347	11217	10249
24H(0-24)	11863	12178	8546	7930	11833	12029	12247	12030	10947
AM Peak	07:00	07:00	10:00	11:00	07:00	07:00	07:00	07:00	07:00
	1094	1016	643	629	1160	1235	1056	1112	869
PM Peak	16:00	14:00	12:00	12:00	16:00	16:00	16:00	16:00	16:00
	821	847	648	686	769	756	817	784	726

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Direction: Westbound

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	67	70	59	54	50	63	78	66	63
01:00	75	61	43	55	39	64	96	67	62
02:00	86	85	69	0	65	70	107	83	69
03:00	103	111	78	58	136	121	162	127	110
04:00	197	183	101	91	192	210	289	214	180
05:00	388	350	230	132	413	383	355	378	322
06:00	490	491	281	145	534	516	580	522	434
07:00	694	675	409	217	779	746	802	739	617
08:00	678	656	544	327	744	758	726	712	633
09:00	675	657	593	508	646	623	662	653	623
10:00	596	700	640	587	681	618	636	646	637
11:00	646	785	698	756	786	654	726	719	722
12:00	639	858	662	680	658	771	715	728	712
13:00	698	799	592	642	762	822	803	777	731
14:00	758	844	548	591	644	710	809	753	701
15:00	753	804	562	597	764	785	744	770	716
16:00	836	890	494	658	792	839	829	837	763
17:00	843	759	475	506	877	782	862	825	729
18:00	578	537	456	487	562	517	513	541	521
19:00	372	328	302	440	360	355	300	343	351
20:00	258	282	228	302	249	258	227	255	258
21:00	166	156	127	194	143	184	153	160	160
22:00	110	108	107	98	96	120	112	109	107
23:00	86	89	79	87	79	86	66	81	82
Total									
12H(7-19)	8394	8964	6673	6556	8695	8625	8827	8701	8105
16H(6-22)	9680	10221	7611	7637	9981	9938	10087	9981	9308
18H(6-24)	9876	10418	7797	7822	10156	10144	10265	10172	9497
24H(0-24)	10792	11278	8377	8212	11051	11055	11352	11106	10302
AM Peak	07:00	11:00	11:00	11:00	11:00	08:00	07:00	07:00	11:00
	694	785	698	756	786	758	802	739	722
PM Peak	17:00	16:00	12:00	12:00	17:00	16:00	17:00	16:00	16:00
	843	890	662	680	877	839	862	837	763

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Direction: Total Flow

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	175	198	143	126	127	128	193	164	156
01:00	159	160	117	105	80	118	170	137	130
02:00	175	158	139	0	118	156	183	158	133
03:00	182	182	142	94	193	208	274	208	182
04:00	363	381	185	130	305	371	455	375	313
05:00	688	723	390	215	712	688	712	705	590
06:00	1260	1218	568	281	1257	1235	1203	1235	1003
07:00	1788	1691	757	390	1939	1981	1858	1851	1486
08:00	1603	1468	999	563	1843	1755	1668	1667	1414
09:00	1458	1366	1208	927	1468	1515	1518	1465	1351
10:00	1197	1441	1283	1123	1483	1389	1404	1383	1331
11:00	1333	1474	1332	1385	1562	1350	1477	1439	1416
12:00	1238	1561	1310	1366	1399	1465	1486	1430	1404
13:00	1270	1554	1187	1259	1383	1503	1502	1442	1380
14:00	1558	1691	1096	1179	1358	1371	1594	1514	1407
15:00	1481	1631	1118	1155	1404	1478	1460	1491	1390
16:00	1657	1648	1032	1283	1561	1595	1646	1621	1489
17:00	1562	1473	1016	1095	1566	1534	1602	1547	1407
18:00	1223	1171	968	1076	1127	1024	1101	1129	1099
19:00	768	779	610	877	688	709	694	728	732
20:00	556	591	508	658	487	530	503	533	548
21:00	421	386	377	463	353	447	406	403	408
22:00	303	307	243	221	267	314	284	295	277
23:00	237	204	195	171	204	220	206	214	205
Total									
12H(7-19)	17368	18169	13306	12801	18093	17960	18316	17981	16573
16H(6-22)	20373	21143	15369	15080	20878	20881	21122	20879	19264
18H(6-24)	20913	21654	15807	15472	21349	21415	21612	21389	19746
24H(0-24)	22655	23456	16923	16142	22884	23084	23599	23136	21249
AM Peak	07:00	07:00	11:00	11:00	07:00	07:00	07:00	07:00	07:00
	1788	1691	1332	1385	1939	1981	1858	1851	1486
PM Peak	16:00	14:00	12:00	12:00	17:00	16:00	16:00	16:00	16:00
	1657	1691	1310	1366	1566	1595	1646	1621	1489

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East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	11863	10056	1300	426	81
Fri 25 Mar 2022	12178	10561	1212	352	53
Sat 26 Mar 2022	8546	7686	680	164	16
Sun 27 Mar 2022	7930	7341	493	84	12
Mon 28 Mar 2022	11833	10258	1161	366	48
Tue 29 Mar 2022	12029	10762	1015	214	38
Wed 30 Mar 2022	12247	11177	873	160	37
5 Day Ave.	12030	10563	1112	304	51
7 Day Ave.	10947	9692	962	252	41

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	84.8%	11.0%	3.6%	0.7%
Fri 25 Mar 2022	100.0%	86.7%	10.0%	2.9%	0.4%
Sat 26 Mar 2022	100.0%	89.9%	8.0%	1.9%	0.2%
Sun 27 Mar 2022	100.0%	92.6%	6.2%	1.1%	0.2%
Mon 28 Mar 2022	100.0%	86.7%	9.8%	3.1%	0.4%
Tue 29 Mar 2022	100.0%	89.5%	8.4%	1.8%	0.3%
Wed 30 Mar 2022	100.0%	91.3%	7.1%	1.3%	0.3%
5 Day Ave.	100.0%	87.8%	9.2%	2.5%	0.4%
7 Day Ave.	100.0%	88.5%	8.8%	2.3%	0.4%

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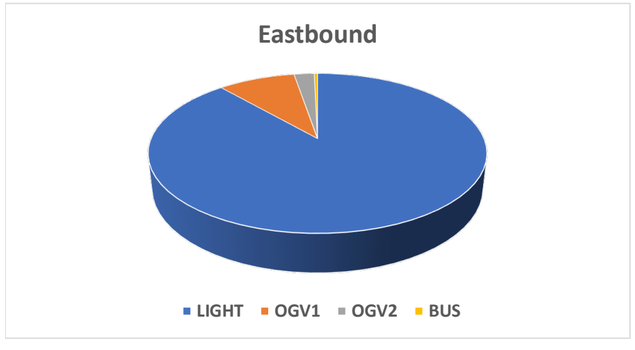

Direction: Westbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	10792	7771	1918	950	153
Fri 25 Mar 2022	11278	8508	1844	780	146
Sat 26 Mar 2022	8377	6927	1062	343	45
Sun 27 Mar 2022	8212	7018	871	291	32
Mon 28 Mar 2022	11051	8481	1717	727	126
Tue 29 Mar 2022	11055	8733	1567	639	116
Wed 30 Mar 2022	11352	9066	1602	559	125
5 Day Ave.	11106	8512	1730	731	133
7 Day Ave.	10302	8072	1512	613	106

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	72.0%	17.8%	8.8%	1.4%
Fri 25 Mar 2022	100.0%	75.4%	16.4%	6.9%	1.3%
Sat 26 Mar 2022	100.0%	82.7%	12.7%	4.1%	0.5%
Sun 27 Mar 2022	100.0%	85.5%	10.6%	3.5%	0.4%
Mon 28 Mar 2022	100.0%	76.7%	15.5%	6.6%	1.1%
Tue 29 Mar 2022	100.0%	79.0%	14.2%	5.8%	1.0%
Wed 30 Mar 2022	100.0%	79.9%	14.1%	4.9%	1.1%
5 Day Ave.	100.0%	76.6%	15.6%	6.6%	1.2%
7 Day Ave.	100.0%	78.4%	14.7%	5.9%	1.0%

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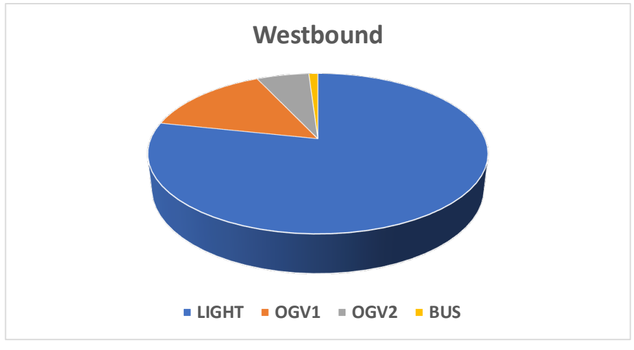

Direction: Total Flow

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	22655	17827	3218	1376	234
Fri 25 Mar 2022	23456	19069	3056	1132	199
Sat 26 Mar 2022	16923	14613	1742	507	61
Sun 27 Mar 2022	16142	14359	1364	375	44
Mon 28 Mar 2022	22884	18739	2878	1093	174
Tue 29 Mar 2022	23084	19495	2582	853	154
Wed 30 Mar 2022	23599	20243	2475	719	162
5 Day Ave.	23136	19075	2842	1035	185
7 Day Ave.	21249	17764	2474	865	147

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	78.7%	14.2%	6.1%	1.0%
Fri 25 Mar 2022	100.0%	81.3%	13.0%	4.8%	0.8%
Sat 26 Mar 2022	100.0%	86.3%	10.3%	3.0%	0.4%
Sun 27 Mar 2022	100.0%	89.0%	8.5%	2.3%	0.3%
Mon 28 Mar 2022	100.0%	81.9%	12.6%	4.8%	0.8%
Tue 29 Mar 2022	100.0%	84.5%	11.2%	3.7%	0.7%
Wed 30 Mar 2022	100.0%	85.8%	10.5%	3.0%	0.7%
5 Day Ave.	100.0%	82.4%	12.3%	4.5%	0.8%
7 Day Ave.	100.0%	83.6%	11.6%	4.1%	0.7%

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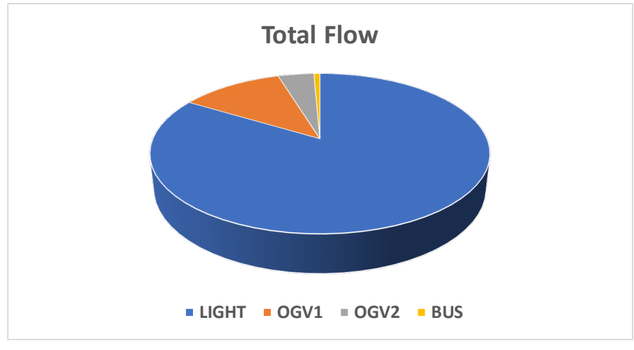

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	11863	49.8	44.2	5.5	1	10	199	512	1120	4213	4922	781	79	21	3	2
Fri 25 Mar 2022	12178	50.3	44.4	5.7	4	46	192	376	1085	4354	5007	965	106	32	6	5
Sat 26 Mar 2022	8546	50.9	45.6	5.1	0	2	88	118	579	2743	3922	939	101	42	11	1
Sun 27 Mar 2022	7930	50.5	46.1	4.3	0	0	4	45	375	2564	4018	777	93	47	5	2
Mon 28 Mar 2022	11833	49.8	43.1	6.4	6	144	259	623	1386	4547	4071	689	84	21	2	1
Tue 29 Mar 2022	12029	49.7	44.2	5.2	5	12	101	431	1253	4631	4631	830	104	26	1	4
Wed 30 Mar 2022	12247	49.7	44.4	5.1	2	12	108	328	1251	4675	4992	733	94	37	7	8
5 Day Ave.	12030	49.9	44.1	5.6	4	45	172	454	1219	4484	4725	800	93	27	4	4
7 Day Ave.	10947	50.1	44.6	5.3	3	32	136	348	1007	3961	4509	816	94	32	5	3

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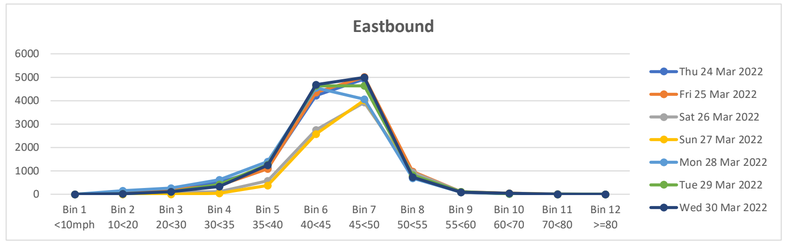

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	10792	54.9	47.0	7.6	6	88	310	402	433	1633	4214	3007	565	111	16	7
Fri 25 Mar 2022	11278	54.8	47.4	7.2	17	58	264	350	428	1697	4477	3259	575	133	17	3
Sat 26 Mar 2022	8377	55.5	49.0	6.2	0	27	55	130	177	1013	3371	2813	601	147	38	5
Sun 27 Mar 2022	8212	55.7	49.3	6.1	2	26	66	77	214	802	3342	2861	609	184	24	5
Mon 28 Mar 2022	11051	54.6	46.6	7.8	13	86	374	451	543	1704	4386	2852	501	115	20	6
Tue 29 Mar 2022	11055	54.7	47.4	7.1	10	61	277	305	391	1575	4647	3125	530	108	17	9
Wed 30 Mar 2022	11352	54.0	47.3	6.6	7	38	201	234	573	2039	4611	3000	520	111	17	1
5 Day Ave.	11106	54.6	47.1	7.2	11	66	285	348	474	1730	4467	3049	538	116	17	5
7 Day Ave.	10302	54.9	47.7	6.9	8	55	221	278	394	1495	4150	2988	557	130	21	5

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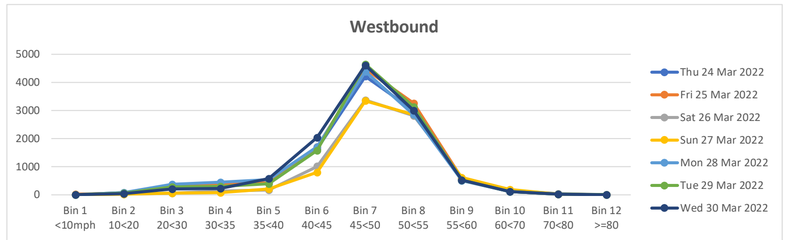

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	22655	52.5	45.5	6.7	7	98	509	914	1553	5846	9136	3788	644	132	19	9
Fri 25 Mar 2022	23456	52.7	45.8	6.6	21	104	456	726	1513	6051	9484	4224	681	165	23	8
Sat 26 Mar 2022	16923	53.4	47.3	5.9	0	29	143	248	756	3756	7293	3752	702	189	49	6
Sun 27 Mar 2022	16142	53.5	47.7	5.6	2	26	70	122	589	3366	7360	3638	702	231	29	7
Mon 28 Mar 2022	22884	52.4	44.8	7.3	19	230	633	1074	1929	6251	8457	3541	585	136	22	7
Tue 29 Mar 2022	23084	52.4	45.7	6.4	15	73	378	736	1644	6206	9278	3955	634	134	18	13
Wed 30 Mar 2022	23599	52.0	45.8	6.0	9	50	309	562	1824	6714	9603	3733	614	148	24	9
5 Day Ave.	23136	52.4	45.5	6.6	14	111	457	802	1693	6214	9192	3848	632	143	21	9
7 Day Ave.	21249	52.7	46.1	6.4	10	87	357	626	1401	5456	8659	3804	652	162	26	8

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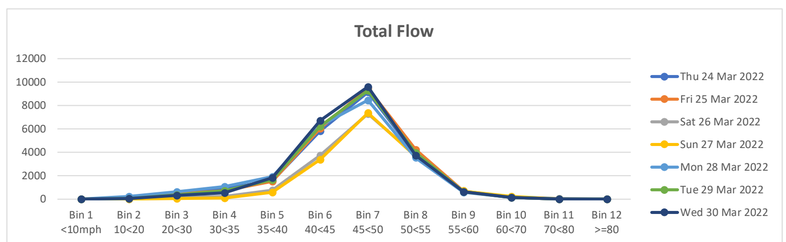

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1288	48.3	43.1	5.0	0	0	13	92	162	517	474	26	3	1	0	0
Fri 25 Mar 2022	1430	47.9	42.8	4.9	0	0	19	69	246	627	423	39	7	0	0	0
Sat 26 Mar 2022	1277	49.2	43.7	5.3	0	2	32	29	135	530	479	63	6	1	0	0
Sun 27 Mar 2022	1165	49.3	45.3	3.8	0	0	0	2	75	449	548	82	8	1	0	0
Mon 28 Mar 2022	1578	47.2	41.6	5.5	0	7	29	138	281	770	312	37	3	0	1	0
Tue 29 Mar 2022	1467	47.9	43.2	4.5	0	0	8	81	150	727	458	40	3	0	0	0
Wed 30 Mar 2022	1519	47.8	43.5	4.1	0	0	2	35	221	692	531	36	2	0	0	0
5 Day Ave.	1456	47.8	42.8	4.8	0	1	14	83	212	667	440	36	4	0	0	0
7 Day Ave.	1389	48.2	43.3	4.7	0	1	15	64	181	616	461	46	5	0	0	0

360 TSL Ltd

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1242	53.1	46.3	6.6	0	8	27	61	35	226	575	283	25	1	0	1
Fri 25 Mar 2022	1485	52.4	44.8	7.3	1	10	53	116	84	301	603	302	15	0	0	0
Sat 26 Mar 2022	1338	53.3	47.2	5.9	0	2	27	40	42	187	650	351	36	3	0	0
Sun 27 Mar 2022	1343	53.0	47.4	5.4	0	2	14	20	42	234	661	324	38	6	2	0
Mon 28 Mar 2022	1467	52.3	45.8	6.3	1	14	17	46	93	312	689	278	15	2	0	0
Tue 29 Mar 2022	1272	53.2	46.0	7.0	1	8	45	57	46	201	591	303	20	0	0	0
Wed 30 Mar 2022	1362	52.4	45.6	6.6	1	4	50	39	92	243	660	257	15	1	0	0
5 Day Ave.	1366	52.7	45.7	6.7	1	9	38	64	70	257	624	285	18	1	0	0
7 Day Ave.	1358	52.8	46.2	6.4	1	7	33	54	62	243	633	300	23	2	0	0

360 TSL Ltd

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	2530	50.9	44.6	6.1	0	8	40	153	197	743	1049	309	28	2	0	1
Fri 25 Mar 2022	2915	50.4	43.8	6.3	1	10	72	185	330	928	1026	341	22	0	0	0
Sat 26 Mar 2022	2615	51.6	45.5	5.9	0	4	59	69	177	717	1129	414	42	4	0	0
Sun 27 Mar 2022	2508	51.5	46.5	4.8	0	2	14	22	117	683	1209	406	46	7	2	0
Mon 28 Mar 2022	3045	50.1	43.6	6.2	1	21	46	184	374	1082	1001	315	18	2	1	0
Tue 29 Mar 2022	2739	50.7	44.5	5.9	1	8	53	138	196	928	1049	343	23	0	0	0
Wed 30 Mar 2022	2881	50.2	44.5	5.5	1	4	52	74	313	935	1191	293	17	1	0	0
5 Day Ave.	2822	50.4	44.2	6.0	1	10	53	147	282	923	1063	320	22	1	0	0
7 Day Ave.	2748	50.8	44.7	5.8	1	8	48	118	243	859	1093	346	28	2	0	0

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1528	48.7	42.1	6.4	0	9	68	121	183	643	439	60	4	1	0	0
Fri 25 Mar 2022	1674	49.3	42.8	6.3	0	25	50	61	175	693	620	46	4	0	0	0
Sat 26 Mar 2022	1104	49.8	44.7	4.9	0	0	17	23	97	369	515	76	7	0	0	0
Sun 27 Mar 2022	1146	50.0	45.8	4.1	0	0	0	16	63	354	595	110	5	3	0	0
Mon 28 Mar 2022	1354	49.5	43.5	5.8	1	2	42	68	120	491	562	68	0	0	0	0
Tue 29 Mar 2022	1354	49.0	44.1	4.7	0	0	15	21	170	519	555	69	4	1	0	0
Wed 30 Mar 2022	1501	48.0	43.2	4.6	0	0	16	74	166	716	486	43	0	0	0	0
5 Day Ave.	1482	48.9	43.1	5.5	0	7	38	69	163	612	532	57	2	0	0	0
7 Day Ave.	1380	49.2	43.7	5.2	0	5	30	55	139	541	539	67	3	1	0	0

360 TSL Ltd

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1511	53.2	45.7	7.2	0	9	46	84	99	291	560	378	42	1	1	0
Fri 25 Mar 2022	1648	53.7	46.6	6.9	2	16	30	44	61	356	650	422	58	9	0	0
Sat 26 Mar 2022	1110	55.1	49.0	5.9	0	7	3	19	24	116	444	411	66	20	0	0
Sun 27 Mar 2022	1188	55.4	48.7	6.4	0	7	21	13	29	104	496	435	62	20	0	1
Mon 28 Mar 2022	1408	54.1	46.4	7.5	1	23	31	51	48	240	605	356	46	6	1	0
Tue 29 Mar 2022	1495	53.1	45.6	7.2	0	10	64	49	109	238	660	338	23	4	0	0
Wed 30 Mar 2022	1553	52.3	46.6	5.5	0	5	15	16	70	391	715	306	26	5	4	0
5 Day Ave.	1523	53.3	46.2	6.9	1	13	37	49	77	303	638	360	39	5	1	0
7 Day Ave.	1416	53.9	47.0	6.7	0	11	30	39	63	248	590	378	46	9	1	0

360 TSL Ltd

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	3039	51.2	43.9	7.1	0	18	114	205	282	934	999	438	46	2	1	0
Fri 25 Mar 2022	3322	51.8	44.7	6.8	2	41	80	105	236	1049	1270	468	62	9	0	0
Sat 26 Mar 2022	2214	52.9	46.9	5.9	0	7	20	42	121	485	959	487	73	20	0	0
Sun 27 Mar 2022	2334	53.1	47.3	5.6	0	7	21	29	92	458	1091	545	67	23	0	1
Mon 28 Mar 2022	2762	52.1	45.0	6.8	2	25	73	119	168	731	1167	424	46	6	1	0
Tue 29 Mar 2022	2849	51.3	44.9	6.2	0	10	79	70	279	757	1215	407	27	5	0	0
Wed 30 Mar 2022	3054	50.5	44.9	5.4	0	5	31	90	236	1107	1201	349	26	5	4	0
5 Day Ave.	3005	51.4	44.7	6.5	1	20	75	118	240	916	1170	417	41	5	1	0
7 Day Ave.	2796	51.8	45.4	6.2	1	16	60	94	202	789	1129	445	50	10	1	0

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

24/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	108	93	9	6	0
01:00	84	68	10	5	1
02:00	89	77	5	7	0
03:00	79	68	5	6	0
04:00	166	142	17	6	1
05:00	300	266	24	6	4
06:00	770	702	55	12	1
07:00	1094	967	112	7	8
08:00	925	773	127	23	2
09:00	783	627	109	40	7
10:00	601	458	93	40	10
11:00	687	510	105	62	10
12:00	599	467	86	39	7
13:00	572	455	72	36	9
14:00	800	669	88	39	4
15:00	728	599	93	31	5
16:00	821	703	91	22	5
17:00	719	633	74	11	1
18:00	645	598	39	6	2
19:00	396	366	25	2	3
20:00	298	267	25	5	1
21:00	255	233	17	5	0
22:00	193	175	11	7	0
23:00	151	140	8	3	0
Total 12H(7-19)	8974	7459	1089	356	70
16H(6-22)	10693	9027	1211	380	75
18H(6-24)	11037	9342	1230	390	75
24H(0-24)	11863	10056	1300	426	81
AM Peak	07:00	07:00	08:00	11:00	10:00
	1094	967	127	62	10
PM Peak	16:00	16:00	15:00	12:00	13:00
	821	703	93	39	9

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	67	40	14	12	1
01:00	75	35	10	30	0
02:00	86	42	11	31	2
03:00	103	58	10	34	1
04:00	197	125	20	46	6
05:00	388	262	67	54	5
06:00	490	317	111	54	8
07:00	694	517	133	38	6
08:00	678	479	140	50	9
09:00	675	458	145	61	11
10:00	596	409	107	59	21
11:00	646	442	120	73	11
12:00	639	460	107	62	10
13:00	698	486	154	46	12
14:00	758	556	144	44	14
15:00	753	538	151	51	13
16:00	836	632	151	46	7
17:00	843	693	118	29	3
18:00	578	467	78	29	4
19:00	372	297	47	25	3
20:00	258	208	30	18	2
21:00	166	126	21	15	4
22:00	110	77	12	21	0
23:00	86	47	17	22	0
Total 12H(7-19)	8394	6137	1548	588	121
16H(6-22)	9680	7085	1757	700	138
18H(6-24)	9876	7209	1786	743	138
24H(0-24)	10792	7771	1918	950	153
AM Peak	07:00	07:00	09:00	11:00	10:00
	694	517	145	73	21
PM Peak	17:00	17:00	13:00	12:00	14:00
	843	693	154	62	14

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	175	133	23	18	1
01:00	159	103	20	35	1
02:00	175	119	16	38	2
03:00	182	126	15	40	1
04:00	363	267	37	52	7
05:00	688	528	91	60	9
06:00	1260	1019	166	66	9
07:00	1788	1484	245	45	14
08:00	1603	1252	267	73	11
09:00	1458	1085	254	101	18
10:00	1197	867	200	99	31
11:00	1333	952	225	135	21
12:00	1238	927	193	101	17
13:00	1270	941	226	82	21
14:00	1558	1225	232	83	18
15:00	1481	1137	244	82	18
16:00	1657	1335	242	68	12
17:00	1562	1326	192	40	4
18:00	1223	1065	117	35	6
19:00	768	663	72	27	6
20:00	556	475	55	23	3
21:00	421	359	38	20	4
22:00	303	252	23	28	0
23:00	237	187	25	25	0
Total 12H(7-19)	17368	13596	2637	944	191
16H(6-22)	20373	16112	2968	1080	213
18H(6-24)	20913	16551	3016	1133	213
24H(0-24)	22655	17827	3218	1376	234
AM Peak	07:00	07:00	08:00	11:00	10:00
	1788	1484	267	135	31
PM Peak	16:00	16:00	15:00	12:00	13:00
	1657	1335	244	101	21

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

25/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	128	123	2	3	0
01:00	99	82	8	8	1
02:00	73	60	6	6	1
03:00	71	58	9	3	1
04:00	198	179	14	4	1
05:00	373	333	32	4	4
06:00	727	658	64	4	1
07:00	1016	894	106	8	8
08:00	812	694	97	19	2
09:00	709	565	101	38	5
10:00	741	614	83	40	4
11:00	689	573	83	28	5
12:00	703	563	95	40	5
13:00	755	635	79	35	6
14:00	847	728	90	26	3
15:00	827	706	83	36	2
16:00	758	664	84	8	2
17:00	714	643	60	11	0
18:00	634	592	31	10	1
19:00	451	406	37	8	0
20:00	309	291	17	1	0
21:00	230	212	12	6	0
22:00	199	182	12	4	1
23:00	115	106	7	2	0
Total 12H(7-19)	9205	7871	992	299	43
16H(6-22)	10922	9438	1122	318	44
18H(6-24)	11236	9726	1141	324	45
24H(0-24)	12178	10561	1212	352	53
AM Peak	07:00	07:00	07:00	10:00	07:00
	1016	894	106	40	8
PM Peak	14:00	14:00	12:00	12:00	13:00
	847	728	95	40	6

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	70	38	11	19	2
01:00	61	26	8	24	3
02:00	85	40	10	35	0
03:00	111	67	18	26	0
04:00	183	115	28	38	2
05:00	350	246	44	52	8
06:00	491	345	100	43	3
07:00	675	495	129	42	9
08:00	656	459	127	53	17
09:00	657	458	122	63	14
10:00	700	523	114	53	10
11:00	785	591	132	47	15
12:00	858	667	141	40	10
13:00	799	598	152	42	7
14:00	844	649	146	39	10
15:00	804	603	141	50	10
16:00	890	717	139	22	12
17:00	759	656	89	11	3
18:00	537	455	67	11	4
19:00	328	266	45	11	6
20:00	282	228	36	17	1
21:00	156	125	16	15	0
22:00	108	80	14	14	0
23:00	89	61	15	13	0
Total 12H(7-19)	8964	6871	1499	473	121
16H(6-22)	10221	7835	1696	559	131
18H(6-24)	10418	7976	1725	586	131
24H(0-24)	11278	8508	1844	780	146
AM Peak	11:00	11:00	11:00	09:00	08:00
	785	591	132	63	17
PM Peak	16:00	16:00	13:00	15:00	16:00
	890	717	152	50	12

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	198	161	13	22	2
01:00	160	108	16	32	4
02:00	158	100	16	41	1
03:00	182	125	27	29	1
04:00	381	294	42	42	3
05:00	723	579	76	56	12
06:00	1218	1003	164	47	4
07:00	1691	1389	235	50	17
08:00	1468	1153	224	72	19
09:00	1366	1023	223	101	19
10:00	1441	1137	197	93	14
11:00	1474	1164	215	75	20
12:00	1561	1230	236	80	15
13:00	1554	1233	231	77	13
14:00	1691	1377	236	65	13
15:00	1631	1309	224	86	12
16:00	1648	1381	223	30	14
17:00	1473	1299	149	22	3
18:00	1171	1047	98	21	5
19:00	779	672	82	19	6
20:00	591	519	53	18	1
21:00	386	337	28	21	0
22:00	307	262	26	18	1
23:00	204	167	22	15	0
Total 12H(7-19)	18169	14742	2491	772	164
16H(6-22)	21143	17273	2818	877	175
18H(6-24)	21654	17702	2866	910	176
24H(0-24)	23456	19069	3056	1132	199
AM Peak	07:00	07:00	07:00	09:00	11:00
	1691	1389	235	101	20
PM Peak	14:00	16:00	12:00	15:00	12:00
	1691	1381	236	86	15

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

26/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	84	70	7	6	1
01:00	74	66	4	4	0
02:00	70	57	11	2	0
03:00	64	49	7	8	0
04:00	84	63	12	9	0
05:00	160	140	15	4	1
06:00	287	258	23	4	2
07:00	348	297	47	4	0
08:00	455	399	50	4	2
09:00	615	549	50	15	1
10:00	643	583	50	7	3
11:00	634	563	51	20	0
12:00	648	581	51	15	1
13:00	595	539	40	16	0
14:00	548	505	38	4	1
15:00	556	500	49	7	0
16:00	538	494	37	7	0
17:00	541	493	41	5	2
18:00	512	482	24	6	0
19:00	308	285	22	1	0
20:00	280	257	18	5	0
21:00	250	229	18	3	0
22:00	136	122	9	4	1
23:00	116	105	6	4	1
Total					
12H(7-19)	6633	5985	528	110	10
16H(6-22)	7758	7014	609	123	12
18H(6-24)	8010	7241	624	131	14
24H(0-24)	8546	7686	680	164	16
AM Peak	10:00	10:00	11:00	11:00	10:00
	643	583	51	20	3
PM Peak	12:00	12:00	12:00	13:00	17:00
	648	581	51	16	2

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	59	37	9	13	0
01:00	43	21	7	15	0
02:00	69	44	6	18	1
03:00	78	38	15	23	2
04:00	101	52	20	27	2
05:00	230	169	35	22	4
06:00	281	217	40	19	5
07:00	409	315	61	31	2
08:00	544	448	71	23	2
09:00	593	495	74	22	2
10:00	640	551	65	20	4
11:00	698	598	86	13	1
12:00	662	569	76	14	3
13:00	592	488	90	12	2
14:00	548	459	72	14	3
15:00	562	491	61	9	1
16:00	494	424	62	5	3
17:00	475	414	49	9	3
18:00	456	397	52	3	4
19:00	302	260	37	4	1
20:00	228	199	24	5	0
21:00	127	97	25	5	0
22:00	107	80	19	8	0
23:00	79	64	6	9	0
Total					
12H(7-19)	6673	5649	819	175	30
16H(6-22)	7611	6422	945	208	36
18H(6-24)	7797	6566	970	225	36
24H(0-24)	8377	6927	1062	343	45
AM Peak	11:00	11:00	11:00	07:00	06:00
	698	598	86	31	5
PM Peak	12:00	12:00	13:00	12:00	18:00
	662	569	90	14	4

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	143	107	16	19	1
01:00	117	87	11	19	0
02:00	139	101	17	20	1
03:00	142	87	22	31	2
04:00	185	115	32	36	2
05:00	390	309	50	26	5
06:00	568	475	63	23	7
07:00	757	612	108	35	2
08:00	999	847	121	27	4
09:00	1208	1044	124	37	3
10:00	1283	1134	115	27	7
11:00	1332	1161	137	33	1
12:00	1310	1150	127	29	4
13:00	1187	1027	130	28	2
14:00	1096	964	110	18	4
15:00	1118	991	110	16	1
16:00	1032	918	99	12	3
17:00	1016	907	90	14	5
18:00	968	879	76	9	4
19:00	610	545	59	5	1
20:00	508	456	42	10	0
21:00	377	326	43	8	0
22:00	243	202	28	12	1
23:00	195	169	12	13	1
Total					
12H(7-19)	13306	11634	1347	285	40
16H(6-22)	15369	13436	1554	331	48
18H(6-24)	15807	13807	1594	356	50
24H(0-24)	16923	14613	1742	507	61
AM Peak	11:00	11:00	11:00	09:00	06:00
	1332	1161	137	37	7
PM Peak	12:00	12:00	13:00	12:00	17:00
	1310	1150	130	29	5

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

27/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	72	65	3	4	0
01:00	50	42	5	3	0
02:00	0	0	0	0	0
03:00	36	27	4	4	1
04:00	39	32	2	5	0
05:00	83	72	9	2	0
06:00	136	122	14	0	0
07:00	173	153	18	1	1
08:00	236	211	22	3	0
09:00	419	386	28	5	0
10:00	536	499	36	1	0
11:00	629	591	34	4	0
12:00	686	629	50	5	2
13:00	617	572	40	3	2
14:00	588	546	32	8	2
15:00	558	525	27	5	1
16:00	625	589	31	5	0
17:00	589	549	37	3	0
18:00	589	553	29	6	1
19:00	437	411	22	4	0
20:00	356	335	20	1	0
21:00	269	243	22	4	0
22:00	123	110	8	4	1
23:00	84	79	0	4	1
Total 12H(7-19)	6245	5803	384	49	9
16H(6-22)	7443	6914	462	58	9
18H(6-24)	7650	7103	470	66	11
24H(0-24)	7930	7341	493	84	12
AM Peak	11:00	11:00	10:00	04:00	03:00
	629	591	36	5	1
PM Peak	12:00	12:00	12:00	14:00	12:00
	686	629	50	8	2

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	54	32	15	7	0
01:00	55	39	5	10	1
02:00	0	0	0	0	0
03:00	58	36	5	17	0
04:00	91	64	5	20	2
05:00	132	94	24	14	0
06:00	145	101	29	14	1
07:00	217	168	34	15	0
08:00	327	251	60	14	2
09:00	508	424	63	21	0
10:00	587	504	55	26	2
11:00	756	664	68	22	2
12:00	680	615	47	16	2
13:00	642	561	65	15	1
14:00	591	525	55	10	1
15:00	597	525	62	7	3
16:00	658	607	41	6	4
17:00	506	453	47	5	1
18:00	487	422	53	9	3
19:00	440	362	66	9	3
20:00	302	262	30	7	3
21:00	194	168	17	9	0
22:00	98	77	12	9	0
23:00	87	64	13	9	1
Total 12H(7-19)	6556	5719	650	166	21
16H(6-22)	7637	6612	792	205	28
18H(6-24)	7822	6753	817	223	29
24H(0-24)	8212	7018	871	291	32
AM Peak	11:00	11:00	11:00	10:00	04:00
	756	664	68	26	2
PM Peak	12:00	12:00	19:00	12:00	16:00
	680	615	66	16	4

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	126	97	18	11	0
01:00	105	81	10	13	1
02:00	0	0	0	0	0
03:00	94	63	9	21	1
04:00	130	96	7	25	2
05:00	215	166	33	16	0
06:00	281	223	43	14	1
07:00	390	321	52	16	1
08:00	563	462	82	17	2
09:00	927	810	91	26	0
10:00	1123	1003	91	27	2
11:00	1385	1255	102	26	2
12:00	1366	1244	97	21	4
13:00	1259	1133	105	18	3
14:00	1179	1071	87	18	3
15:00	1155	1050	89	12	4
16:00	1283	1196	72	11	4
17:00	1095	1002	84	8	1
18:00	1076	975	82	15	4
19:00	877	773	88	13	3
20:00	658	597	50	8	3
21:00	463	411	39	13	0
22:00	221	187	20	13	1
23:00	171	143	13	13	2
Total 12H(7-19)	12801	11522	1034	215	30
16H(6-22)	15080	13526	1254	263	37
18H(6-24)	15472	13856	1287	289	40
24H(0-24)	16142	14359	1364	375	44
AM Peak	11:00	11:00	11:00	10:00	04:00
	1385	1255	102	27	2
PM Peak	12:00	12:00	13:00	12:00	12:00
	1366	1244	105	21	4

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

28/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	77	63	3	11	0
01:00	41	33	3	5	0
02:00	53	41	8	4	0
03:00	57	47	6	4	0
04:00	113	100	8	5	0
05:00	299	269	22	5	3
06:00	723	658	56	7	2
07:00	1160	1065	89	6	0
08:00	1099	999	91	7	2
09:00	822	704	96	19	3
10:00	802	658	109	31	4
11:00	776	637	99	31	9
12:00	741	598	92	49	2
13:00	621	499	69	46	7
14:00	714	582	77	50	5
15:00	640	539	76	23	2
16:00	769	669	74	22	4
17:00	689	599	78	11	1
18:00	565	514	35	15	1
19:00	328	298	26	3	1
20:00	238	221	15	2	0
21:00	210	187	19	4	0
22:00	171	160	5	4	2
23:00	125	118	5	2	0
Total 12H(7-19)	9398	8063	985	310	40
16H(6-22)	10897	9427	1101	326	43
18H(6-24)	11193	9705	1111	332	45
24H(0-24)	11833	10258	1161	366	48
AM Peak	07:00	07:00	10:00	10:00	11:00
	1160	1065	109	31	9
PM Peak	16:00	16:00	12:00	14:00	13:00
	769	669	92	50	7

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	50	33	4	13	0
01:00	39	21	7	10	1
02:00	65	25	9	31	0
03:00	136	83	21	31	1
04:00	192	128	23	36	5
05:00	413	330	44	33	6
06:00	534	401	83	43	7
07:00	779	633	106	32	8
08:00	744	601	101	37	5
09:00	646	490	102	51	3
10:00	681	522	103	51	5
11:00	786	607	121	50	8
12:00	658	492	112	38	16
13:00	762	564	134	50	14
14:00	644	465	133	39	7
15:00	764	566	148	36	14
16:00	792	608	147	29	8
17:00	877	710	125	35	7
18:00	562	455	76	24	7
19:00	360	298	45	15	2
20:00	249	213	27	9	0
21:00	143	110	24	9	0
22:00	96	66	16	13	1
23:00	79	60	6	12	1
Total 12H(7-19)	8695	6713	1408	472	102
16H(6-22)	9981	7735	1587	548	111
18H(6-24)	10156	7861	1609	573	113
24H(0-24)	11051	8481	1717	727	126
AM Peak	11:00	07:00	11:00	09:00	07:00
	786	633	121	51	8
PM Peak	17:00	17:00	15:00	13:00	12:00
	877	710	148	50	16

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	127	96	7	24	0
01:00	80	54	10	15	1
02:00	118	66	17	35	0
03:00	193	130	27	35	1
04:00	305	228	31	41	5
05:00	712	599	66	38	9
06:00	1257	1059	139	50	9
07:00	1939	1698	195	38	8
08:00	1843	1600	192	44	7
09:00	1468	1194	198	70	6
10:00	1483	1180	212	82	9
11:00	1562	1244	220	81	17
12:00	1399	1090	204	87	18
13:00	1383	1063	203	96	21
14:00	1358	1047	210	89	12
15:00	1404	1105	224	59	16
16:00	1561	1277	221	51	12
17:00	1566	1309	203	46	8
18:00	1127	969	111	39	8
19:00	688	596	71	18	3
20:00	487	434	42	11	0
21:00	353	297	43	13	0
22:00	267	226	21	17	3
23:00	204	178	11	14	1
Total 12H(7-19)	18093	14776	2393	782	142
16H(6-22)	20878	17162	2688	874	154
18H(6-24)	21349	17566	2720	905	158
24H(0-24)	22884	18739	2878	1093	174
AM Peak	07:00	07:00	11:00	10:00	11:00
	1939	1698	220	82	17
PM Peak	17:00	17:00	15:00	13:00	13:00
	1566	1309	224	96	21

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

29/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	65	62	2	1	0
01:00	54	49	4	1	0
02:00	86	79	3	4	0
03:00	87	79	8	0	0
04:00	161	144	12	5	0
05:00	305	277	21	6	1
06:00	719	664	42	11	2
07:00	1235	1132	88	11	4
08:00	997	898	85	11	3
09:00	892	790	88	11	3
10:00	771	667	84	15	5
11:00	696	606	75	13	2
12:00	694	615	59	20	0
13:00	681	604	60	15	2
14:00	661	565	65	25	6
15:00	693	604	65	20	4
16:00	756	672	71	9	4
17:00	752	674	68	9	1
18:00	507	457	39	11	0
19:00	354	320	26	7	1
20:00	272	254	18	0	0
21:00	263	245	16	2	0
22:00	194	176	12	6	0
23:00	134	129	4	1	0
Total					
12H(7-19)	9335	8284	847	170	34
16H(6-22)	10943	9767	949	190	37
18H(6-24)	11271	10072	965	197	37
24H(0-24)	12029	10762	1015	214	38
AM Peak	07:00	07:00	07:00	10:00	10:00
	1235	1132	88	15	5
PM Peak	16:00	17:00	16:00	14:00	14:00
	756	674	71	25	6

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	63	41	9	11	2
01:00	64	39	7	18	0
02:00	70	45	5	19	1
03:00	121	79	16	24	2
04:00	210	152	23	33	2
05:00	383	303	46	32	2
06:00	516	412	79	23	2
07:00	746	619	101	18	8
08:00	758	627	102	24	5
09:00	623	493	91	34	5
10:00	618	489	80	40	9
11:00	654	493	103	47	11
12:00	771	613	114	35	9
13:00	822	631	109	68	14
14:00	710	524	129	47	10
15:00	785	606	138	36	5
16:00	839	653	149	24	13
17:00	782	653	98	26	5
18:00	517	437	60	16	4
19:00	355	296	38	18	3
20:00	258	224	22	11	1
21:00	184	153	22	8	1
22:00	120	90	18	11	1
23:00	86	61	8	16	1
Total					
12H(7-19)	8625	6838	1274	415	98
16H(6-22)	9938	7923	1435	475	105
18H(6-24)	10144	8074	1461	502	107
24H(0-24)	11055	8733	1567	639	116
AM Peak	08:00	08:00	11:00	11:00	11:00
	758	627	103	47	11
PM Peak	16:00	16:00	16:00	13:00	13:00
	839	653	149	68	14

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	128	103	11	12	2
01:00	118	88	11	19	0
02:00	156	124	8	23	1
03:00	208	158	24	24	2
04:00	371	296	35	38	2
05:00	688	580	67	38	3
06:00	1235	1076	121	34	4
07:00	1981	1751	189	29	12
08:00	1755	1525	187	35	8
09:00	1515	1283	179	45	8
10:00	1389	1156	164	55	14
11:00	1350	1099	178	60	13
12:00	1465	1228	173	55	9
13:00	1503	1235	169	83	16
14:00	1371	1089	194	72	16
15:00	1478	1210	203	56	9
16:00	1595	1325	220	33	17
17:00	1534	1327	166	35	6
18:00	1024	894	99	27	4
19:00	709	616	64	25	4
20:00	530	478	40	11	1
21:00	447	398	38	10	1
22:00	314	266	30	17	1
23:00	220	190	12	17	1
Total					
12H(7-19)	17960	15122	2121	585	132
16H(6-22)	20881	17690	2384	665	142
18H(6-24)	21415	18146	2426	699	144
24H(0-24)	23084	19495	2582	853	154
AM Peak	07:00	07:00	07:00	11:00	10:00
	1981	1751	189	60	14
PM Peak	16:00	17:00	16:00	13:00	16:00
	1595	1327	220	83	17

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

30/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	115	106	4	5	0
01:00	74	66	6	2	0
02:00	76	70	3	3	0
03:00	112	106	4	2	0
04:00	166	146	16	4	0
05:00	357	336	13	5	3
06:00	623	572	45	5	1
07:00	1056	964	79	8	5
08:00	942	822	98	16	6
09:00	856	766	80	9	1
10:00	768	672	80	12	4
11:00	751	660	65	23	3
12:00	771	716	43	10	2
13:00	699	636	50	11	2
14:00	785	720	49	13	3
15:00	716	667	41	6	2
16:00	817	764	46	7	0
17:00	740	692	45	2	1
18:00	588	548	32	7	1
19:00	394	367	25	2	0
20:00	276	260	15	0	1
21:00	253	229	21	2	1
22:00	172	162	8	2	0
23:00	140	130	5	4	1
Total 12H(7-19)	9489	8627	708	124	30
16H(6-22)	11035	10055	814	133	33
18H(6-24)	11347	10347	827	139	34
24H(0-24)	12247	11177	873	160	37
AM Peak	07:00	07:00	08:00	11:00	08:00
	1056	**964**	**98**	**23**	**6**
PM Peak	16:00	16:00	13:00	14:00	14:00
	817	**764**	**50**	**13**	**3**

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	78	60	10	7	1
01:00	96	71	5	17	3
02:00	107	83	10	12	2
03:00	162	116	27	17	2
04:00	289	239	29	19	2
05:00	355	291	29	28	7
06:00	580	455	98	26	1
07:00	802	662	96	33	11
08:00	726	603	96	20	7
09:00	662	525	97	31	9
10:00	636	483	99	44	10
11:00	726	568	102	48	8
12:00	715	564	99	43	9
13:00	803	621	135	38	9
14:00	809	646	128	28	7
15:00	744	568	143	21	12
16:00	829	660	125	34	10
17:00	862	736	103	21	2
18:00	513	424	68	16	5
19:00	300	248	38	11	3
20:00	227	182	26	19	0
21:00	153	129	17	5	2
22:00	112	88	13	8	3
23:00	66	44	9	13	0
Total 12H(7-19)	8827	7060	1291	377	99
16H(6-22)	10087	8074	1470	438	105
18H(6-24)	10265	8206	1492	459	108
24H(0-24)	11352	9066	1602	559	125
AM Peak	07:00	07:00	11:00	11:00	07:00
	802	**662**	**102**	**48**	**11**
PM Peak	17:00	17:00	15:00	12:00	15:00
	862	**736**	**143**	**43**	**12**

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	193	166	14	12	1
01:00	170	137	11	19	3
02:00	183	153	13	15	2
03:00	274	222	31	19	2
04:00	455	385	45	23	2
05:00	712	627	42	33	10
06:00	1203	1027	143	31	2
07:00	1858	1626	175	41	16
08:00	1668	1425	194	36	13
09:00	1518	1291	177	40	10
10:00	1404	1155	179	56	14
11:00	1477	1228	167	71	11
12:00	1486	1280	142	53	11
13:00	1502	1257	185	49	11
14:00	1594	1366	177	41	10
15:00	1460	1235	184	27	14
16:00	1646	1424	171	41	10
17:00	1602	1428	148	23	3
18:00	1101	972	100	23	6
19:00	694	615	63	13	3
20:00	503	442	41	19	1
21:00	406	358	38	7	3
22:00	284	250	21	10	3
23:00	206	174	14	17	1
Total 12H(7-19)	18316	15687	1999	501	129
16H(6-22)	21122	18129	2284	571	138
18H(6-24)	21612	18553	2319	598	142
24H(0-24)	23599	20243	2475	719	162
AM Peak	07:00	07:00	08:00	11:00	07:00
	1858	**1626**	**194**	**71**	**16**
PM Peak	16:00	17:00	13:00	12:00	15:00
	1646	**1428**	**185**	**53**	**14**

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

24/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	108	53.0	47.9	4.9	0	0	0	2	7	4	69	20	5	1	0	0
01:00	84	53.3	49.9	3.4	0	0	0	0	0	2	45	34	2	1	0	0
02:00	89	51.0	48.1	2.9	0	0	0	0	0	7	68	11	3	0	0	0
03:00	79	55.0	50.3	4.5	0	0	0	0	1	4	37	25	11	1	0	0
04:00	166	52.7	49.0	3.6	0	0	0	0	1	9	105	45	4	2	0	0
05:00	300	50.8	47.8	2.9	0	0	0	0	1	26	234	36	2	0	1	0
06:00	770	49.7	45.6	4.0	0	0	0	12	43	228	430	52	4	1	0	0
07:00	1094	48.6	44.0	4.4	1	0	20	8	57	568	396	44	0	0	0	0
08:00	925	47.6	41.5	5.8	0	0	37	91	151	387	242	14	3	0	0	0
09:00	783	48.5	42.5	5.8	0	0	13	63	137	302	249	14	1	2	0	2
10:00	601	48.3	43.3	4.8	0	0	3	42	64	258	221	9	3	1	0	0
11:00	687	48.3	42.9	5.2	0	0	10	50	98	259	253	17	0	0	0	0
12:00	599	49.2	44.1	4.9	0	0	2	20	88	208	239	37	4	1	0	0
13:00	572	49.4	42.4	6.7	0	0	37	36	57	242	162	32	3	3	0	0
14:00	800	48.0	40.6	7.2	0	9	62	82	118	321	178	29	1	0	0	0
15:00	728	48.7	43.7	4.9	0	0	6	39	65	322	261	31	3	1	0	0
16:00	821	48.7	43.6	4.9	0	0	4	45	113	304	319	32	4	0	0	0
17:00	719	50.0	46.0	3.9	0	1	0	0	35	214	396	68	4	1	0	0
18:00	645	49.6	44.7	4.7	0	0	3	17	54	235	302	29	2	1	2	0
19:00	396	49.6	45.4	4.1	0	0	2	5	20	137	200	31	1	0	0	0
20:00	298	51.2	46.9	4.1	0	0	0	0	7	85	153	43	9	1	0	0
21:00	255	51.1	47.7	3.3	0	0	0	0	1	40	169	41	3	1	0	0
22:00	193	51.5	47.9	3.4	0	0	0	0	1	26	130	30	5	1	0	0
23:00	151	53.2	48.9	4.2	0	0	0	0	1	25	64	57	2	2	0	0
Total 2H(10-12)	1288	48.3	43.1	5.0	0	0	13	92	162	517	474	26	3	1	0	0
2H(14-16)	1528	48.7	42.1	6.4	0	9	68	121	183	643	439	60	4	1	0	0
12H(7-19)	8974	48.9	43.2	5.5	1	10	197	493	1037	3620	3218	356	28	10	2	2
24H(0-24)	11863	49.8	44.2	5.5	1	10	199	512	1120	4213	4922	781	79	21	3	2
AM Peak	07:00	03:00	03:00	08:00	07:00	00:00	08:00	08:00	08:00	07:00	06:00	06:00	03:00	04:00	05:00	09:00
	1094	55.0	50.3	5.8	1	0	37	91	151	568	430	52	11	2	1	2
PM Peak	16:00	23:00	23:00	14:00	12:00	14:00	14:00	14:00	14:00	15:00	17:00	17:00	20:00	13:00	18:00	12:00
	821	53.2	48.9	7.2	0	9	62	82	118	322	396	68	9	3	2	0

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	67	57.7	53.2	4.3	0	0	0	0	0	2	9	38	15	3	0	0
01:00	75	57.9	53.0	4.7	0	0	0	0	0	1	16	37	19	1	1	0
02:00	86	60.3	53.5	6.6	0	0	0	0	1	4	17	33	26	3	1	1
03:00	103	56.8	53.0	3.7	0	0	0	0	0	2	11	69	18	3	0	0
04:00	197	58.4	52.8	5.5	0	0	0	0	0	10	43	95	37	9	3	0
05:00	388	58.0	48.1	9.6	0	8	20	10	16	29	100	155	40	7	3	0
06:00	490	55.5	48.4	6.8	1	1	5	30	3	43	195	166	40	6	0	0
07:00	694	54.5	48.2	6.1	0	0	15	13	17	77	317	208	41	5	1	0
08:00	678	53.4	46.0	7.0	0	0	26	29	35	143	266	150	21	8	0	0
09:00	675	52.9	47.2	5.5	0	1	5	20	21	113	338	156	18	2	1	0
10:00	596	53.8	46.8	6.8	0	3	14	33	8	93	268	158	18	0	0	1
11:00	646	52.4	45.8	6.4	0	5	13	28	27	133	307	125	7	1	0	0
12:00	639	53.8	46.0	7.6	0	6	19	42	16	120	270	140	20	5	0	1
13:00	698	54.0	45.8	7.8	0	12	26	32	23	102	320	162	18	3	0	0
14:00	758	52.8	44.9	7.7	0	4	32	63	57	130	287	165	20	0	0	0
15:00	753	53.5	46.6	6.7	0	5	14	21	42	161	273	213	22	1	1	0
16:00	836	54.1	44.7	9.1	1	11	64	55	54	115	294	212	25	5	0	0
17:00	843	55.3	46.1	8.9	2	22	41	9	40	113	343	241	22	8	1	1
18:00	578	54.1	46.5	7.4	1	7	11	8	43	121	218	135	28	5	1	0
19:00	372	54.7	48.6	5.8	0	2	1	3	13	61	126	142	21	2	1	0
20:00	258	56.5	48.9	7.4	1	1	1	5	10	43	83	74	31	8	1	0
21:00	166	60.0	51.1	8.6	0	0	3	1	6	13	52	57	17	14	0	3
22:00	110	59.0	53.6	5.2	0	0	0	0	0	3	20	51	28	7	1	0
23:00	86	56.7	51.3	5.2	0	0	0	0	1	1	41	25	13	5	0	0
Total 2H(10-12)	1242	53.1	46.3	6.6	0	8	27	61	35	226	575	283	25	1	0	1
2H(14-16)	1511	53.2	45.7	7.2	0	9	46	84	99	291	560	378	42	1	1	0
12H(7-19)	8394	53.9	46.2	7.4	4	76	280	353	383	1421	3501	2065	260	43	5	3
24H(0-24)	10792	54.9	47.0	7.6	6	88	310	402	433	1633	4214	3007	565	111	16	7
AM Peak	07:00	02:00	02:00	05:00	06:00	05:00	08:00	10:00	08:00	08:00	09:00	07:00	07:00	04:00	04:00	02:00
	694	60.3	53.5	9.6	1	8	26	33	35	143	338	208	41	9	3	1
PM Peak	17:00	21:00	22:00	16:00	17:00	17:00	16:00	14:00	14:00	15:00	17:00	17:00	20:00	21:00	15:00	21:00
	843	60.0	53.6	9.1	2	22	64	63	57	161	343	241	31	14	1	3

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	175	55.5	50.0	5.3	0	0	0	2	7	6	78	58	20	4	0	0
01:00	159	55.8	51.4	4.3	0	0	0	0	0	3	61	71	21	2	1	0
02:00	175	56.6	50.7	5.7	0	0	0	0	1	11	85	44	29	3	1	1
03:00	182	56.3	51.8	4.3	0	0	0	0	1	6	48	94	29	4	0	0
04:00	363	56.3	51.0	5.1	0	0	0	0	1	19	148	140	41	11	3	0
05:00	688	55.6	47.9	7.4	0	8	20	10	17	55	334	191	42	7	4	0
06:00	1260	52.4	46.7	5.4	1	1	5	42	46	271	625	218	44	7	0	0
07:00	1788	51.3	45.6	5.5	1	0	35	21	74	645	713	252	41	5	1	0
08:00	1603	50.4	43.4	6.8	0	0	63	120	186	530	508	164	24	8	0	0
09:00	1458	51.0	44.7	6.1	0	1	18	83	158	415	587	170	19	4	1	2
10:00	1197	51.4	45.0	6.1	0	3	17	75	72	351	489	167	21	1	0	1
11:00	1333	50.5	44.3	6.0	0	5	23	78	125	392	560	142	7	1	0	0
12:00	1238	51.8	45.1	6.5	0	6	21	62	104	328	509	177	24	6	0	1
13:00	1270	52.1	44.3	7.5	0	12	63	68	80	344	482	194	21	6	0	0
14:00	1558	50.7	42.7	7.7	0	13	94	145	175	451	465	194	21	0	0	0
15:00	1481	51.4	45.2	6.0	0	5	20	60	107	483	534	244	25	2	1	0
16:00	1657	51.7	44.1	7.3	1	11	68	100	167	419	613	244	29	5	0	0
17:00	1562	53.4	46.1	7.1	2	23	41	9	75	327	739	309	26	9	1	1
18:00	1223	51.9	45.5	6.2	1	7	14	25	97	356	520	164	30	6	3	0
19:00	768	52.4	46.9	5.3	0	2	3	8	33	198	326	173	22	2	1	0
20:00	556	54.0	47.8	5.9	1	1	1	5	17	128	236	117	40	9	1	0
21:00	421	55.4	49.0	6.2	0	0	3	1	7	53	221	98	20	15	0	3
22:00	303	55.1	50.0	5.0	0	0	0	0	1	29	150	81	33	8	1	0
23:00	237	54.7	49.7	4.8	0	0	0	0	2	26	105	82	15	7	0	0
Total 2H(10-12)	2530	50.9	44.6	6.1	0	8	40	153	197	743	1049	309	28	2	0	1
2H(14-16)	3039	51.2	43.9	7.1	0	18	114	205	282	934	999	438	46	2	1	0
12H(7-19)	17368	51.6	44.6	6.7	5	86	477	846	1420	5041	6719	2421	288	53	7	5
24H(0-24)	22655	52.5	45.5	6.7	7	98	509	914	1553	5846	9136	3788	644	132	19	9
AM Peak	07:00	02:00	03:00	05:00	06:00	05:00	08:00	08:00	08:00	07:00	07:00	07:00	06:00	04:00	05:00	09:00
	1788	56.6	51.8	7.4	1	8	63	120	186	645	713	252	44	11	4	2
PM Peak	16:00	21:00	22:00	14:00	17:00	17:00	14:00	14:00	14:00	15:00	17:00	17:00	20:00	21:00	18:00	21:00
	1657	55.4	50.0	7.7	2	23	94	145	175	483	739	309	40	15	3	3

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

25/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	128	54.4	50.0	4.2	0	0	0	0	2	11	44	65	4	2	0	0
01:00	99	54.2	49.8	4.3	0	0	0	0	0	4	56	34	3	1	1	0
02:00	73	54.3	50.5	3.6	0	0	0	0	0	2	32	34	4	1	0	0
03:00	71	53.0	49.3	3.6	0	0	0	0	1	3	41	22	4	0	0	0
04:00	198	54.7	50.4	4.1	0	0	0	0	1	8	88	80	18	3	0	0
05:00	373	52.3	48.6	3.6	0	0	0	0	2	38	224	96	11	2	0	0
06:00	727	51.2	45.8	5.2	0	0	16	3	55	151	423	64	13	2	0	0
07:00	1016	50.3	43.7	6.4	1	2	24	70	89	345	435	42	3	1	0	4
08:00	812	48.6	43.3	5.1	1	2	11	34	80	371	288	24	1	0	0	0
09:00	709	49.2	44.0	5.1	0	2	10	21	35	349	271	14	0	6	1	0
10:00	741	47.9	43.2	4.5	0	0	3	33	103	348	231	17	6	0	0	0
11:00	689	47.8	42.3	5.3	0	0	16	36	143	279	192	22	1	0	0	0
12:00	703	48.9	42.3	6.3	1	15	16	10	98	344	197	21	1	0	0	0
13:00	755	48.5	41.9	6.3	0	0	40	65	104	284	234	28	0	0	0	0
14:00	847	49.7	42.1	7.4	0	24	34	45	81	350	277	34	2	0	0	0
15:00	827	48.6	43.6	4.8	0	1	16	16	94	343	343	12	2	0	0	0
16:00	758	49.2	44.9	4.2	0	0	0	14	64	288	339	51	1	1	0	0
17:00	714	50.2	45.1	4.9	1	0	6	20	40	240	334	69	4	0	0	0
18:00	634	49.8	45.8	3.8	0	0	0	0	41	198	334	54	7	0	0	0
19:00	451	49.3	44.9	4.2	0	0	0	6	31	210	154	49	0	1	0	0
20:00	309	51.1	46.6	4.4	0	0	0	2	6	96	165	28	8	4	0	0
21:00	230	50.1	46.2	3.7	0	0	0	0	14	57	137	19	3	0	0	0
22:00	199	54.6	49.0	5.4	0	0	0	1	0	29	107	49	7	4	1	1
23:00	115	56.5	50.3	6.0	0	0	0	0	1	6	61	37	3	4	3	0
Total 2H(10-12)	1430	47.9	42.8	4.9	0	0	19	69	246	627	423	39	7	0	0	0
2H(14-16)	1674	49.3	42.8	6.3	0	25	50	61	175	693	620	46	4	0	0	0
12H(7-19)	9205	49.3	43.5	5.6	4	46	176	364	972	3739	3475	388	28	8	1	4
24H(0-24)	12178	50.3	44.4	5.7	4	46	192	376	1085	4354	5007	965	106	32	6	5
AM Peak	07:00	04:00	02:00	07:00	07:00	07:00	07:00	07:00	11:00	08:00	07:00	05:00	04:00	09:00	01:00	07:00
	1016	54.7	50.5	6.4	1	2	24	70	143	371	435	96	18	6	1	4
PM Peak	14:00	23:00	23:00	14:00	12:00	14:00	13:00	13:00	13:00	14:00	15:00	17:00	20:00	20:00	23:00	22:00
	847	56.5	50.3	7.4	1	24	40	65	104	350	343	69	8	4	3	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	70	59.6	52.9	6.4	0	0	0	1	0	3	18	25	17	5	1	0
01:00	61	57.8	53.6	4.0	0	0	0	0	0	0	10	30	19	2	0	0
02:00	85	59.0	53.5	5.3	0	0	0	0	0	4	14	38	24	4	1	0
03:00	111	59.8	54.0	5.6	0	0	0	0	0	4	16	54	25	11	1	0
04:00	183	58.5	53.2	5.1	0	0	0	0	0	3	45	81	41	12	1	0
05:00	350	58.9	51.3	7.4	1	0	8	0	1	25	88	156	53	13	4	1
06:00	491	56.1	50.1	5.8	1	0	4	4	7	31	178	219	35	11	0	1
07:00	675	55.0	47.7	7.0	1	0	30	3	29	67	291	211	35	8	0	0
08:00	656	53.8	46.3	7.2	1	3	21	41	23	85	283	185	13	1	0	0
09:00	657	52.8	45.8	6.8	0	5	7	45	38	133	268	145	13	3	0	0
10:00	700	52.6	44.5	7.9	0	9	38	40	45	129	294	141	4	0	0	0
11:00	785	52.1	45.1	6.8	1	1	15	76	39	172	309	161	11	0	0	0
12:00	858	52.4	44.5	7.7	4	3	38	57	71	165	354	153	11	2	0	0
13:00	799	53.9	46.2	7.4	1	5	44	16	25	112	374	208	11	3	0	0
14:00	844	53.1	45.6	7.2	2	15	16	22	34	215	350	173	15	2	0	0
15:00	804	54.2	47.7	6.3	0	1	14	22	27	141	300	249	43	7	0	0
16:00	890	53.8	48.0	5.6	0	7	4	8	28	115	411	281	34	2	0	0
17:00	759	54.6	47.2	7.2	3	9	10	7	34	122	337	198	32	4	3	0
18:00	537	55.3	48.3	6.8	2	0	13	7	10	71	222	176	23	12	1	0
19:00	328	54.3	48.6	5.4	0	0	0	0	13	66	124	97	21	6	1	0
20:00	282	56.0	50.9	4.9	0	0	0	0	3	17	99	128	27	6	2	0
21:00	156	57.0	51.3	5.5	0	0	0	1	1	11	51	66	16	10	0	0
22:00	108	59.9	52.5	7.1	0	0	2	0	0	2	28	52	15	7	1	1
23:00	89	59.2	53.9	5.1	0	0	0	0	0	4	13	32	37	2	1	0
Total 2H(10-12)	1485	52.4	44.8	7.3	1	10	53	116	84	301	603	302	15	0	0	0
2H(14-16)	1648	53.7	46.6	6.9	2	16	30	44	61	356	650	422	58	9	0	0
12H(7-19)	8964	53.7	46.4	7.1	15	58	250	344	403	1527	3793	2281	245	44	4	0
24H(0-24)	11278	54.8	47.4	7.2	17	58	264	350	428	1697	4477	3259	575	133	17	3
AM Peak	11:00	03:00	03:00	10:00	05:00	10:00	10:00	11:00	10:00	11:00	11:00	06:00	05:00	05:00	05:00	05:00
	785	59.8	54.0	7.9	1	9	38	76	45	172	309	219	53	13	4	1
PM Peak	16:00	22:00	23:00	12:00	12:00	14:00	13:00	12:00	12:00	14:00	16:00	16:00	15:00	18:00	17:00	22:00
	890	59.9	53.9	7.7	4	15	44	57	71	215	411	281	43	12	3	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	198	56.5	51.1	5.3	0	0	0	1	2	14	62	90	21	7	1	0
01:00	160	56.0	51.3	4.6	0	0	0	0	0	4	66	64	22	3	1	0
02:00	158	57.1	52.1	4.9	0	0	0	0	0	6	46	72	28	5	1	0
03:00	182	57.7	52.1	5.4	0	0	0	0	1	7	57	76	29	11	1	0
04:00	381	56.7	51.8	4.8	0	0	0	0	1	11	133	161	59	15	1	0
05:00	723	56.0	49.9	5.9	1	0	8	0	3	63	312	252	64	15	4	1
06:00	1218	53.6	47.5	5.8	1	0	20	7	62	182	601	283	48	13	0	1
07:00	1691	52.5	45.3	6.9	2	2	54	73	118	412	726	253	38	9	0	4
08:00	1468	51.2	44.6	6.3	2	5	32	75	103	456	571	209	14	1	0	0
09:00	1366	51.1	44.8	6.0	0	7	17	66	73	482	539	159	13	9	1	0
10:00	1441	50.5	43.8	6.4	0	9	41	73	148	477	525	158	10	0	0	0
11:00	1474	50.3	43.8	6.3	1	1	31	112	182	451	501	183	12	0	0	0
12:00	1561	51.0	43.5	7.2	5	18	54	67	169	509	551	174	12	2	0	0
13:00	1554	51.6	44.1	7.2	1	5	84	81	129	396	608	236	11	3	0	0
14:00	1691	51.6	43.8	7.5	2	39	50	67	115	565	627	207	17	2	0	0
15:00	1631	51.8	45.6	5.9	0	2	30	38	121	484	643	261	45	7	0	0
16:00	1648	52.0	46.6	5.2	0	7	4	22	92	403	750	332	35	3	0	0
17:00	1473	52.7	46.2	6.3	4	9	16	27	74	362	671	267	36	4	3	0
18:00	1171	52.7	47.0	5.5	2	0	13	7	51	269	556	230	30	12	1	0
19:00	779	51.8	46.4	5.1	0	0	0	6	44	276	278	146	21	7	1	0
20:00	591	53.9	48.6	5.1	0	0	0	2	9	113	264	156	35	10	2	0
21:00	386	53.6	48.2	5.2	0	0	0	1	15	68	188	85	19	10	0	0
22:00	307	56.7	50.2	6.3	0	0	2	1	0	31	135	101	22	11	2	2
23:00	204	58.0	51.9	5.9	0	0	0	0	1	10	74	69	40	6	4	0
Total 2H(10-12)	2915	50.4	43.8	6.3	1	10	72	185	330	928	1026	341	22	0	0	0
2H(14-16)	3322	51.8	44.7	6.8	2	41	80	105	236	1049	1270	468	62	9	0	0
12H(7-19)	18169	51.7	44.9	6.6	19	104	426	708	1375	5266	7268	2669	273	52	5	4
24H(0-24)	23456	52.7	45.8	6.6	21	104	456	726	1513	6051	9484	4224	681	165	23	8
AM Peak	07:00	03:00	03:00	07:00	07:00	10:00	07:00	11:00	11:00	09:00	07:00	06:00	05:00	04:00	05:00	07:00
	1691	57.7	52.1	6.9	2	9	54	112	182	482	726	283	64	15	4	4
PM Peak	14:00	23:00	23:00	14:00	12:00	14:00	13:00	13:00	12:00	14:00	16:00	16:00	15:00	18:00	23:00	22:00
	1691	58.0	51.9	7.5	5	39	84	81	169	565	750	332	45	12	4	2

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

26/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	84	56.2	50.6	5.4	0	0	0	0	0	4	36	40	1	2	0	1
01:00	74	53.5	49.5	3.9	0	0	0	0	0	4	43	24	1	2	0	0
02:00	70	59.8	53.0	6.6	0	0	0	0	0	3	17	37	6	4	3	0
03:00	64	55.0	49.1	5.7	0	0	0	0	3	6	33	17	1	4	0	0
04:00	84	55.5	50.4	4.9	0	0	0	0	1	9	28	35	9	2	0	0
05:00	160	52.5	48.5	3.8	0	0	0	0	0	24	87	43	5	1	0	0
06:00	287	52.4	48.2	4.1	0	0	0	0	0	51	165	58	11	1	1	0
07:00	348	51.1	45.4	5.4	0	0	1	13	24	124	128	48	7	3	0	0
08:00	455	49.4	45.6	3.7	0	0	0	0	12	196	209	34	2	2	0	0
09:00	615	48.7	43.5	5.0	0	0	10	22	78	258	217	27	3	0	0	0
10:00	643	48.9	44.0	4.7	0	0	9	18	57	275	251	30	3	0	0	0
11:00	634	49.4	43.4	5.8	0	2	23	11	78	255	228	33	3	1	0	0
12:00	648	49.3	44.6	4.5	0	0	6	2	65	261	269	40	3	2	0	0
13:00	595	50.8	44.7	5.9	0	0	20	16	45	181	272	56	1	4	0	0
14:00	548	49.4	44.8	4.4	0	0	2	14	43	201	249	35	4	0	0	0
15:00	556	50.1	44.6	5.3	0	0	15	9	54	168	266	41	3	0	0	0
16:00	538	49.9	45.5	4.3	0	0	2	8	30	179	275	38	5	1	0	0
17:00	541	50.2	46.0	4.1	0	0	0	0	31	177	273	53	5	1	1	0
18:00	512	50.3	46.0	4.2	0	0	0	0	41	137	280	49	3	1	1	0
19:00	308	50.9	46.9	3.8	0	0	0	1	2	83	175	43	3	0	1	0
20:00	280	52.4	47.6	4.6	0	0	0	0	3	67	151	51	1	6	1	0
21:00	250	52.0	47.5	4.3	0	0	0	1	12	36	145	52	3	0	1	0
22:00	136	53.5	48.1	5.3	0	0	0	3	0	28	68	28	5	4	0	0
23:00	116	55.5	49.7	5.6	0	0	0	0	0	16	57	27	13	1	2	0
Total																
2H(10-12)	1277	49.2	43.7	5.3	0	2	32	29	135	530	479	63	6	1	0	0
2H(14-16)	1104	49.8	44.7	4.9	0	0	17	23	97	369	515	76	7	0	0	0
12H(7-19)	6633	49.9	44.8	4.9	0	2	88	113	558	2412	2917	484	42	15	2	0
24H(0-24)	8546	50.9	45.6	5.1	0	2	88	118	579	2743	3922	939	101	42	11	1
AM Peak	10:00	02:00	02:00	02:00	00:00	11:00	11:00	09:00	09:00	10:00	10:00	06:00	06:00	02:00	02:00	00:00
	643	**59.8**	**53.0**	**6.6**	**0**	**2**	**23**	**22**	**78**	**275**	**251**	**58**	**11**	**4**	**3**	**1**
PM Peak	12:00	23:00	23:00	13:00	12:00	12:00	13:00	13:00	12:00	12:00	18:00	13:00	23:00	20:00	23:00	12:00
	648	**55.5**	**49.7**	**5.9**	**0**	**0**	**20**	**16**	**65**	**261**	**280**	**56**	**13**	**6**	**2**	**0**

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	59	60.8	53.9	6.7	0	0	0	0	0	0	17	26	7	7	2	0
01:00	43	59.8	53.6	6.0	0	0	0	0	0	2	9	16	13	2	1	0
02:00	69	59.2	54.1	4.9	0	0	0	0	0	2	7	33	24	2	1	0
03:00	78	59.7	54.0	5.5	0	0	0	0	1	0	10	44	17	4	2	0
04:00	101	62.4	53.7	8.4	0	0	0	0	0	9	19	47	14	5	5	2
05:00	230	60.0	52.4	7.4	0	0	3	1	4	17	38	109	38	14	6	0
06:00	281	58.5	51.4	6.8	0	0	0	9	5	18	59	134	45	7	2	2
07:00	409	56.0	50.8	5.0	0	0	0	6	1	22	144	181	44	10	1	0
08:00	544	54.5	49.4	4.8	0	0	3	2	2	56	250	183	41	6	1	0
09:00	593	54.2	47.7	6.4	0	2	5	22	22	87	254	166	28	5	2	0
10:00	640	53.5	46.2	7.1	0	1	25	39	21	88	297	148	18	3	0	0
11:00	698	52.6	48.1	4.4	0	1	2	1	21	99	353	203	18	0	0	0
12:00	662	52.7	47.0	5.5	0	2	3	8	27	161	297	142	16	5	0	1
13:00	592	54.2	49.3	4.7	0	0	1	2	5	71	260	214	28	10	1	0
14:00	548	55.5	49.7	5.6	0	1	1	12	9	40	210	226	35	14	0	0
15:00	562	54.7	48.3	6.2	0	6	2	7	15	76	234	185	31	6	0	0
16:00	494	55.7	48.6	6.9	0	6	2	13	9	61	194	162	36	11	0	0
17:00	475	54.8	49.3	5.3	0	1	3	1	6	50	216	155	35	7	1	0
18:00	456	53.8	48.8	4.8	0	0	3	1	7	55	216	149	22	2	1	0
19:00	302	54.4	48.3	5.9	0	1	1	2	10	61	112	90	21	3	1	0
20:00	228	57.8	49.6	7.9	0	4	1	3	7	16	84	80	23	7	3	0
21:00	127	59.6	53.1	6.3	0	0	0	0	2	4	33	52	22	12	2	0
22:00	107	60.1	52.5	7.3	0	1	0	0	0	8	22	50	19	3	4	0
23:00	79	57.1	48.9	7.9	0	1	0	1	3	10	36	18	6	2	2	0
Total																
2H(10-12)	1338	53.3	47.2	5.9	0	2	27	40	42	187	650	351	36	3	0	0
2H(14-16)	1110	55.1	49.0	5.9	0	7	3	19	24	116	444	411	66	20	0	0
12H(7-19)	6673	54.4	48.5	5.8	0	20	50	114	145	866	2925	2114	352	79	7	1
24H(0-24)	8377	55.5	49.0	6.2	0	27	55	130	177	1013	3371	2813	601	147	38	5
AM Peak	11:00	04:00	02:00	04:00	00:00	09:00	10:00	10:00	09:00	11:00	11:00	11:00	06:00	05:00	05:00	04:00
	698	**62.4**	**54.1**	**8.4**	**0**	**2**	**25**	**39**	**22**	**99**	**353**	**203**	**45**	**14**	**6**	**2**
PM Peak	12:00	22:00	21:00	20:00	12:00	15:00	12:00	16:00	12:00	12:00	12:00	14:00	16:00	14:00	22:00	12:00
	662	**60.1**	**53.1**	**7.9**	**0**	**6**	**3**	**13**	**27**	**161**	**297**	**226**	**36**	**14**	**4**	**1**

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	143	58.3	52.0	6.1	0	0	0	0	0	4	53	66	8	9	2	1
01:00	117	56.4	51.0	5.2	0	0	0	0	0	6	52	40	14	4	1	0
02:00	139	59.6	53.5	5.8	0	0	0	0	0	5	24	70	30	6	4	0
03:00	142	58.1	51.8	6.1	0	0	0	0	4	6	43	61	18	8	2	0
04:00	185	59.7	52.2	7.2	0	0	0	0	1	18	47	82	23	7	5	2
05:00	390	57.5	50.8	6.4	0	0	3	1	4	41	125	152	43	15	6	0
06:00	568	55.8	49.8	5.8	0	0	0	9	5	69	224	192	56	8	3	2
07:00	757	54.4	48.3	5.9	0	0	1	19	25	146	272	229	51	13	1	0
08:00	999	52.6	47.7	4.8	0	0	3	2	14	252	459	217	43	8	1	0
09:00	1208	51.8	45.5	6.1	0	2	15	44	100	345	471	193	31	5	2	0
10:00	1283	51.4	45.1	6.1	0	1	34	57	78	363	548	178	21	3	0	0
11:00	1332	51.7	45.9	5.6	0	3	25	12	99	354	581	236	21	1	0	0
12:00	1310	51.2	45.8	5.2	0	2	9	10	92	422	566	182	19	7	0	1
13:00	1187	53.1	47.0	5.8	0	0	21	18	50	252	532	270	29	14	1	0
14:00	1096	53.0	47.2	5.6	0	1	3	26	52	241	459	261	39	14	0	0
15:00	1118	52.8	46.5	6.1	0	6	17	16	69	244	500	226	34	6	0	0
16:00	1032	53.0	46.9	5.9	0	6	4	21	39	240	469	200	41	12	0	0
17:00	1016	52.7	47.5	5.0	0	1	3	1	37	227	489	208	40	8	2	0
18:00	968	52.2	47.3	4.7	0	0	3	1	48	192	496	198	25	3	2	0
19:00	610	52.8	47.6	5.0	0	1	1	3	12	144	287	133	24	3	2	0
20:00	508	55.1	48.5	6.4	0	4	1	3	10	83	235	131	24	13	4	0
21:00	377	55.3	49.4	5.7	0	0	0	1	14	40	178	104	25	12	3	0
22:00	243	56.9	50.0	6.6	0	1	0	3	0	36	90	78	24	7	4	0
23:00	195	56.3	49.4	6.6	0	1	0	1	3	26	93	45	19	3	4	0
Total																
2H(10-12)	2615	51.6	45.5	5.9	0	4	59	69	177	717	1129	414	42	4	0	0
2H(14-16)	2214	52.9	46.9	5.9	0	7	20	42	121	485	959	487	73	20	0	0
12H(7-19)	13306	52.5	46.6	5.7	0	22	138	227	703	3278	5842	2598	394	94	9	1
24H(0-24)	16923	53.4	47.3	5.9	0	29	143	248	756	3756	7293	3752	702	189	49	6
AM Peak	11:00	04:00	02:00	04:00	00:00	11:00	10:00	10:00	09:00	10:00	11:00	11:00	06:00	05:00	05:00	04:00
	1332	**59.7**	**53.5**	**7.2**	**0**	**3**	**34**	**57**	**100**	**363**	**581**	**236**	**56**	**15**	**6**	**2**
PM Peak	12:00	22:00	22:00	22:00	12:00	15:00	13:00	14:00	12:00	12:00	12:00	13:00	16:00	13:00	20:00	12:00
	1310	**56.9**	**50.0**	**6.6**	**0**	**6**	**21**	**26**	**92**	**422**	**566**	**270**	**41**	**14**	**4**	**1**

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

27/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	72	54.0	48.2	5.6	0	0	0	0	4	14	32	15	5	2	0	0
01:00	50	56.4	49.9	6.3	0	0	0	0	1	7	21	16	2	2	1	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	36	55.7	48.4	7.0	0	0	0	2	0	6	18	6	1	3	0	0
04:00	39	54.8	49.6	5.1	0	0	0	0	0	4	22	9	2	2	0	0
05:00	83	56.0	50.8	5.0	0	0	0	0	0	7	33	28	12	3	0	0
06:00	136	54.8	48.8	5.8	0	0	0	0	4	15	85	18	8	4	2	0
07:00	173	53.0	48.7	4.1	0	0	0	0	2	20	101	39	9	2	0	0
08:00	236	52.1	47.8	4.1	0	0	0	1	3	42	135	46	7	2	0	0
09:00	419	49.8	45.7	3.9	0	0	1	5	17	132	231	30	3	0	0	0
10:00	536	49.5	45.6	3.8	0	0	0	1	32	185	277	37	3	1	0	0
11:00	629	49.1	45.1	3.8	0	0	0	1	43	264	271	45	5	0	0	0
12:00	686	48.6	44.9	3.6	0	0	0	8	36	298	310	34	0	0	0	0
13:00	617	48.6	44.8	3.7	0	0	0	1	39	292	254	27	2	2	0	0
14:00	588	49.5	45.0	4.4	0	0	0	15	50	196	284	39	3	1	0	0
15:00	558	50.4	46.6	3.7	0	0	0	1	13	158	311	71	2	2	0	0
16:00	625	49.7	45.4	4.1	0	0	3	5	30	231	306	46	2	2	0	0
17:00	589	50.1	45.8	4.1	0	0	0	1	29	205	301	46	4	1	2	0
18:00	589	50.1	45.9	4.1	0	0	0	2	52	138	338	55	3	1	0	0
19:00	437	49.9	46.0	3.8	0	0	0	1	15	148	227	41	4	1	0	0
20:00	356	50.2	46.5	3.5	0	0	0	1	4	105	204	37	5	0	0	0
21:00	269	53.8	48.1	5.4	0	0	0	0	0	70	130	54	4	10	0	1
22:00	123	54.1	48.8	5.2	0	0	0	0	1	20	69	22	5	6	0	0
23:00	84	53.9	48.7	5.0	0	0	0	0	0	7	58	16	2	0	0	1
Total 2H(10-12)	1165	49.3	45.3	3.8	0	0	0	2	75	449	548	82	8	1	0	0
2H(14-16)	1146	50.0	45.8	4.1	0	0	0	16	63	354	595	110	5	3	0	0
12H(7-19)	6245	49.8	45.6	4.0	0	0	4	41	346	2161	3119	515	43	14	2	0
24H(0-24)	7930	50.5	46.1	4.3	0	0	4	45	375	2564	4018	777	93	47	5	2
AM Peak	11:00	01:00	05:00	03:00	00:00	00:00	09:00	09:00	11:00	11:00	10:00	08:00	05:00	06:00	06:00	00:00
	629	56.4	50.8	7.0	0	0	1	5	43	264	277	46	12	4	2	0
PM Peak	12:00	22:00	22:00	21:00	12:00	12:00	16:00	14:00	18:00	12:00	18:00	15:00	20:00	21:00	17:00	21:00
	686	54.1	48.8	5.4	0	0	3	15	52	298	338	71	5	10	2	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	54	60.5	52.4	7.8	0	0	0	2	1	2	10	25	10	3	0	1
01:00	55	60.3	53.5	6.5	0	0	0	0	1	4	8	21	16	4	1	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	58	57.2	52.4	4.7	0	0	0	0	0	4	8	36	7	3	0	0
04:00	91	60.1	53.8	6.1	0	0	0	0	0	4	16	40	23	7	0	1
05:00	132	61.2	52.8	8.1	0	0	0	0	1	17	34	46	10	19	5	0
06:00	145	58.2	52.3	5.7	0	0	0	1	3	4	37	63	29	7	1	0
07:00	217	56.2	50.7	5.3	0	0	0	0	1	20	83	80	26	5	2	0
08:00	327	55.0	50.3	4.6	0	0	1	1	1	20	135	137	25	7	0	0
09:00	508	55.7	47.8	7.6	0	5	15	10	23	52	204	153	35	11	0	0
10:00	587	53.8	47.1	6.5	0	1	14	20	28	84	253	158	27	2	0	0
11:00	756	52.2	47.7	4.3	0	1	0	0	14	150	408	166	11	4	2	0
12:00	680	53.2	48.6	4.5	0	1	0	2	14	89	331	213	26	4	0	0
13:00	642	53.9	48.7	5.0	0	0	4	3	11	90	297	201	29	5	2	0
14:00	591	55.8	48.1	7.4	0	5	19	11	15	49	255	198	26	12	0	1
15:00	597	54.8	49.4	5.2	0	2	2	2	14	55	241	237	36	8	0	0
16:00	658	55.5	49.1	6.2	0	4	2	8	38	31	281	228	53	13	0	0
17:00	506	56.3	50.4	5.7	0	3	0	3	9	22	188	223	43	13	2	0
18:00	487	56.2	50.0	6.0	1	2	1	6	9	30	180	205	41	11	1	0
19:00	440	56.7	49.5	6.9	0	0	6	6	26	41	132	170	42	15	2	0
20:00	302	56.1	49.6	6.3	1	1	1	2	4	26	136	93	30	6	2	0
21:00	194	58.0	52.1	5.7	0	1	1	0	0	2	57	91	31	11	0	0
22:00	98	61.9	53.6	8.0	0	0	0	0	1	4	26	41	14	7	3	2
23:00	87	59.2	53.4	5.7	0	0	0	0	0	2	22	36	19	7	1	0
Total 2H(10-12)	1343	53.0	47.4	5.4	0	2	14	20	42	234	661	324	38	6	2	0
2H(14-16)	1188	55.4	48.7	6.4	0	7	21	13	29	104	496	435	62	20	0	1
12H(7-19)	6556	54.9	48.8	5.9	1	24	58	66	177	692	2856	2199	378	95	9	1
24H(0-24)	8212	55.7	49.3	6.1	2	26	66	77	214	802	3342	2861	609	184	24	5
AM Peak	11:00	05:00	04:00	05:00	00:00	09:00	09:00	10:00	10:00	11:00	11:00	11:00	09:00	05:00	05:00	00:00
	756	61.2	53.8	8.1	0	5	15	20	28	150	408	166	35	19	5	1
PM Peak	12:00	22:00	22:00	22:00	18:00	14:00	14:00	14:00	16:00	13:00	12:00	15:00	16:00	19:00	22:00	22:00
	680	61.9	53.6	8.0	1	5	19	11	38	90	331	237	53	15	3	2

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	126	57.2	50.0	6.9	0	0	0	2	5	16	42	40	15	5	0	1
01:00	105	58.7	51.8	6.7	0	0	0	0	2	11	29	37	18	6	2	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	94	57.1	50.9	6.0	0	0	0	2	0	10	26	42	8	6	0	0
04:00	130	58.8	52.5	6.1	0	0	0	0	0	8	38	49	25	9	0	1
05:00	215	59.4	52.1	7.1	0	0	0	0	1	24	67	74	22	22	5	0
06:00	281	56.8	50.6	6.0	0	0	0	1	7	19	122	81	37	11	3	0
07:00	390	54.9	49.8	4.9	0	0	0	0	3	40	184	119	35	7	2	0
08:00	563	54.0	49.3	4.6	0	0	1	2	4	62	270	183	32	9	0	0
09:00	927	53.4	46.9	6.3	0	5	16	15	40	184	435	183	38	11	0	0
10:00	1123	52.0	46.4	5.4	0	1	14	21	60	269	530	195	30	3	0	0
11:00	1385	51.0	46.5	4.3	0	1	0	1	57	414	679	211	16	4	2	0
12:00	1366	51.4	46.7	4.5	0	1	0	10	50	387	641	247	26	4	0	0
13:00	1259	51.8	46.8	4.8	0	0	4	4	50	382	551	228	31	7	2	0
14:00	1179	53.1	46.6	6.3	0	5	19	26	65	245	539	237	29	13	0	1
15:00	1155	52.9	48.0	4.8	0	2	2	3	27	213	552	308	38	10	0	0
16:00	1283	53.1	47.3	5.6	0	4	5	13	68	262	587	274	55	15	0	0
17:00	1095	53.6	48.0	5.4	0	3	0	4	38	227	489	269	47	14	4	0
18:00	1076	53.4	47.8	5.4	1	2	1	8	61	168	518	260	44	12	1	0
19:00	877	53.8	47.8	5.8	0	0	6	7	41	189	359	211	46	16	2	0
20:00	658	53.3	47.9	5.2	1	1	1	3	8	131	340	130	35	6	2	0
21:00	463	55.9	49.8	5.9	0	1	1	0	0	72	187	145	35	21	0	1
22:00	221	58.2	50.9	7.0	0	0	0	0	2	24	95	63	19	13	3	2
23:00	171	57.1	51.1	5.8	0	0	0	0	0	9	80	52	21	7	1	1
Total 2H(10-12)	2508	51.5	46.5	4.8	0	2	14	22	117	683	1209	406	46	7	2	0
2H(14-16)	2334	53.1	47.3	5.6	0	7	21	29	92	458	1091	545	67	23	0	1
12H(7-19)	12801	52.7	47.2	5.3	1	24	62	107	523	2853	5975	2714	421	109	11	1
24H(0-24)	16142	53.5	47.7	5.6	2	26	70	122	589	3366	7360	3638	702	231	29	7
AM Peak	11:00	05:00	04:00	05:00	00:00	09:00	09:00	10:00	10:00	11:00	11:00	11:00	09:00	05:00	05:00	00:00
	1385	59.4	52.5	7.1	0	5	16	21	60	414	679	211	38	22	5	1
PM Peak	12:00	22:00	23:00	22:00	18:00	14:00	14:00	14:00	16:00	12:00	12:00	15:00	16:00	21:00	17:00	22:00
	1366	58.2	51.1	7.0	1	5	19	26	68	387	641	308	55	21	4	2

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

28/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	77	54.6	48.6	5.7	0	0	0	0	2	7	52	9	6	0	0	1
01:00	41	54.5	49.3	5.0	0	0	0	0	1	6	16	15	2	1	0	0
02:00	53	54.7	50.8	3.8	0	0	0	0	0	2	20	27	3	1	0	0
03:00	57	56.4	50.7	5.5	0	0	0	0	0	5	26	17	5	4	0	0
04:00	113	53.9	50.4	3.4	0	0	0	0	0	2	52	52	6	1	0	0
05:00	299	51.5	48.1	3.3	0	0	0	0	1	29	217	41	9	2	0	0
06:00	723	48.4	44.3	4.0	0	0	0	8	81	318	278	37	1	0	0	0
07:00	1160	48.6	38.3	9.9	1	104	108	91	130	440	275	10	1	0	0	0
08:00	1099	46.5	41.7	4.6	0	1	7	84	229	545	221	11	0	1	0	0
09:00	822	47.3	42.8	4.3	0	0	1	50	90	456	200	24	1	0	0	0
10:00	802	47.3	42.8	4.4	0	1	3	30	136	390	226	15	1	0	0	0
11:00	776	46.6	40.3	6.1	0	6	26	108	145	380	86	22	2	0	1	0
12:00	741	47.6	40.1	7.2	0	22	32	72	155	299	148	12	0	1	0	0
13:00	621	49.0	41.6	7.1	0	8	33	49	99	218	182	29	3	0	0	0
14:00	714	49.3	43.1	6.0	1	2	24	42	71	264	281	29	0	0	0	0
15:00	640	49.6	44.0	5.4	0	0	18	26	49	227	281	39	0	0	0	0
16:00	769	49.2	43.6	5.4	2	0	6	35	88	327	266	38	5	1	1	0
17:00	689	50.3	45.2	4.9	2	0	0	25	43	202	360	52	3	2	0	0
18:00	565	49.8	46.1	3.6	0	0	0	1	14	185	313	45	6	1	0	0
19:00	328	50.7	46.5	4.0	0	0	0	0	20	75	188	40	4	1	0	0
20:00	238	49.4	45.4	3.8	0	0	1	1	10	90	118	17	1	0	0	0
21:00	210	51.1	47.2	3.8	0	0	0	0	6	44	121	35	4	0	0	0
22:00	171	53.7	49.1	4.4	0	0	0	0	0	23	89	44	12	3	0	0
23:00	125	53.9	47.7	5.9	0	0	0	1	16	13	55	29	9	2	0	0
Total 2H(10-12)	1578	47.2	41.6	5.5	0	7	29	138	281	770	312	37	3	0	1	0
2H(14-16)	1354	49.5	43.5	5.8	1	2	42	68	120	491	562	68	0	0	0	0
12H(7-19)	9398	48.9	42.2	6.5	6	144	258	613	1249	3933	2839	326	22	6	2	0
24H(0-24)	11833	49.8	43.1	6.4	6	144	259	623	1386	4547	4071	689	84	21	2	1
AM Peak	07:00	03:00	02:00	07:00	07:00	07:00	07:00	11:00	08:00	08:00	06:00	04:00	05:00	03:00	11:00	00:00
	1160	56.4	50.8	9.9	1	104	108	108	229	545	278	52	9	4	1	1
PM Peak	16:00	23:00	22:00	12:00	16:00	12:00	13:00	12:00	12:00	16:00	17:00	17:00	22:00	22:00	16:00	12:00
	769	53.9	49.1	7.2	2	22	33	72	155	327	360	52	12	3	1	0

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	50	58.8	52.9	5.7	0	0	0	0	0	1	13	25	7	3	1	0
01:00	39	59.0	54.6	4.2	0	0	0	0	0	2	1	16	19	1	0	0
02:00	65	58.0	53.2	4.7	0	0	0	0	0	3	10	32	17	3	0	0
03:00	136	59.2	54.0	5.1	0	0	0	0	1	0	14	80	34	5	1	1
04:00	192	60.3	53.9	6.2	0	0	0	0	0	3	44	86	38	15	6	0
05:00	413	57.1	48.3	8.5	0	2	30	1	12	23	140	159	38	7	1	0
06:00	534	53.9	46.0	7.7	0	0	25	41	28	62	217	139	20	1	1	0
07:00	779	52.6	42.6	9.6	0	8	115	41	59	120	298	124	6	8	0	0
08:00	744	53.2	46.8	6.2	1	1	14	17	25	148	356	159	18	3	1	1
09:00	646	53.1	44.7	8.1	0	3	40	37	53	130	220	148	11	3	0	1
10:00	681	52.3	46.7	5.3	0	2	7	18	18	133	353	138	11	1	0	0
11:00	786	52.1	45.0	6.9	1	12	10	28	75	179	336	140	4	1	0	0
12:00	658	52.8	44.1	8.4	2	17	17	66	30	127	269	122	8	0	0	0
13:00	762	53.2	44.2	8.7	5	8	42	61	51	124	304	159	4	3	1	0
14:00	644	53.7	47.3	6.1	0	3	4	27	19	112	269	178	29	3	0	0
15:00	764	54.2	45.6	8.3	1	20	27	24	29	128	336	178	17	3	1	0
16:00	792	53.4	45.5	7.7	0	4	26	61	62	117	310	185	25	0	1	1
17:00	877	52.9	47.3	5.4	0	1	4	13	59	162	375	227	34	2	0	0
18:00	562	56.2	48.7	7.2	3	0	11	13	12	57	214	205	33	12	1	1
19:00	360	55.6	49.6	5.8	0	3	0	1	8	34	139	132	38	5	0	0
20:00	249	56.8	50.6	5.9	0	1	1	2	0	25	73	110	29	7	1	0
21:00	143	59.3	51.8	7.2	0	1	1	0	1	6	50	49	22	11	2	0
22:00	96	59.7	52.8	6.7	0	0	0	0	0	4	30	37	18	4	2	1
23:00	79	61.3	54.4	6.6	0	0	0	0	1	4	15	24	21	14	0	0
Total 2H(10-12)	1467	52.3	45.8	6.3	1	14	17	46	93	312	689	278	15	2	0	0
2H(14-16)	1408	54.1	46.4	7.5	1	23	31	51	48	240	605	356	46	6	1	0
12H(7-19)	8695	53.5	45.6	7.6	13	79	317	406	492	1537	3640	1963	200	39	5	4
24H(0-24)	11051	54.6	46.6	7.8	13	86	374	451	543	1704	4386	2852	501	115	20	6
AM Peak	11:00	04:00	01:00	07:00	08:00	11:00	07:00	06:00	11:00	11:00	08:00	05:00	04:00	04:00	04:00	03:00
	786	60.3	54.6	9.6	1	12	115	41	75	179	356	159	38	15	6	1
PM Peak	17:00	23:00	23:00	13:00	13:00	15:00	13:00	12:00	16:00	17:00	17:00	17:00	19:00	23:00	21:00	16:00
	877	61.3	54.4	8.7	5	20	42	66	62	162	375	227	38	14	2	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	127	56.6	50.3	6.1	0	0	0	0	2	8	65	34	13	3	1	1
01:00	80	57.4	51.9	5.3	0	0	0	0	1	8	17	31	21	2	0	0
02:00	118	56.7	52.1	4.5	0	0	0	0	0	5	30	59	20	4	0	0
03:00	193	58.6	53.0	5.4	0	0	0	0	1	5	40	97	39	9	1	1
04:00	305	58.4	52.6	5.6	0	0	0	0	0	5	96	138	44	16	6	0
05:00	712	55.3	48.2	6.8	0	2	30	1	13	52	357	200	47	9	1	0
06:00	1257	51.1	45.0	5.9	0	0	25	49	109	380	495	176	21	1	1	0
07:00	1939	50.4	40.0	10.0	1	112	223	132	189	560	573	134	7	8	0	0
08:00	1843	49.8	43.7	5.9	1	2	21	101	254	693	577	170	18	4	1	1
09:00	1468	50.2	43.7	6.3	0	3	41	87	143	586	420	172	12	3	0	1
10:00	1483	50.0	44.6	5.2	0	3	10	48	154	523	579	153	12	1	0	0
11:00	1562	49.8	42.7	6.9	1	18	36	136	220	559	422	162	6	1	1	0
12:00	1399	50.3	42.0	8.1	2	39	49	138	185	426	417	134	8	1	0	0
13:00	1383	51.4	43.0	8.1	5	16	75	110	150	342	486	188	7	3	1	0
14:00	1358	51.8	45.1	6.4	1	5	28	69	90	376	550	207	29	3	0	0
15:00	1404	52.3	44.9	7.2	1	20	45	50	78	355	617	217	17	3	1	0
16:00	1561	51.5	44.6	6.7	2	4	32	96	150	444	576	223	30	1	2	1
17:00	1566	51.9	46.4	5.3	2	1	4	38	102	364	735	279	37	4	0	0
18:00	1127	53.4	47.4	5.8	3	0	11	14	26	242	527	250	39	13	1	1
19:00	688	53.6	48.2	5.3	0	3	0	1	28	109	327	172	42	6	0	0
20:00	487	53.9	48.1	5.7	0	1	2	3	10	115	191	127	30	7	1	0
21:00	353	55.2	49.1	5.9	0	1	1	0	7	50	171	84	26	11	2	0
22:00	267	56.3	50.4	5.6	0	0	0	0	0	27	119	81	30	7	2	1
23:00	204	57.6	50.3	7.0	0	0	0	1	17	17	70	53	30	16	0	0
Total 2H(10-12)	3045	50.1	43.6	6.2	1	21	46	184	374	1082	1001	315	18	2	1	0
2H(14-16)	2762	52.1	45.0	6.8	2	25	73	119	168	731	1167	424	46	6	1	0
12H(7-19)	18093	51.4	43.8	7.3	19	223	575	1019	1741	5470	6479	2289	222	45	7	4
24H(0-24)	22884	52.4	44.8	7.3	19	230	633	1074	1929	6251	8457	3541	585	136	22	7
AM Peak	07:00	03:00	03:00	07:00	07:00	07:00	07:00	11:00	08:00	08:00	10:00	05:00	05:00	04:00	04:00	00:00
	1939	58.6	53.0	10.0	1	112	223	136	254	693	579	200	47	16	6	1
PM Peak	17:00	23:00	22:00	13:00	13:00	12:00	13:00	12:00	12:00	16:00	17:00	17:00	19:00	23:00	16:00	16:00
	1566	57.6	50.4	8.1	5	39	75	138	185	444	735	279	42	16	2	1

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

29/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	65	51.9	47.2	4.5	0	0	0	0	0	19	37	4	4	1	0	0
01:00	54	55.2	50.8	4.3	0	0	0	0	0	2	24	20	7	1	0	0
02:00	86	52.5	48.6	3.8	0	0	0	0	1	11	45	26	3	0	0	0
03:00	87	55.5	51.2	4.2	0	0	0	0	0	0	41	31	13	2	0	0
04:00	161	53.0	48.4	4.4	0	0	0	0	4	28	69	55	4	1	0	0
05:00	305	50.6	46.6	3.9	0	0	0	2	5	92	161	41	3	1	0	0
06:00	719	49.9	45.1	4.6	0	0	0	2	57	322	267	58	7	5	0	1
07:00	1235	46.2	40.2	5.8	3	10	31	124	323	573	153	17	0	0	1	0
08:00	997	48.0	43.0	4.8	0	0	17	46	126	445	346	17	0	0	0	0
09:00	892	48.2	43.4	4.6	1	0	1	42	113	387	322	24	2	0	0	0
10:00	771	48.0	43.3	4.5	0	0	4	42	73	380	248	22	2	0	0	0
11:00	696	47.7	43.1	4.5	0	0	4	39	77	347	210	18	1	0	0	0
12:00	694	48.8	43.2	5.5	0	0	2	44	116	271	242	14	2	0	0	3
13:00	681	48.4	44.3	3.9	0	0	2	15	48	313	280	22	1	0	0	0
14:00	661	48.9	43.8	4.9	0	0	11	18	79	261	257	34	1	0	0	0
15:00	693	49.0	44.5	4.4	0	0	4	3	91	258	298	35	3	1	0	0
16:00	756	49.5	44.6	4.7	0	0	5	27	51	289	328	51	4	1	0	0
17:00	752	49.7	45.3	4.3	0	2	2	8	37	281	358	61	3	0	0	0
18:00	507	51.9	45.5	6.1	1	0	16	15	18	125	257	65	8	2	0	0
19:00	354	51.0	46.3	4.6	0	0	0	1	28	83	199	35	3	5	0	0
20:00	272	50.9	47.3	3.4	0	0	0	0	1	64	155	49	3	0	0	0
21:00	263	51.1	46.7	4.3	0	0	2	3	1	65	160	25	6	1	0	0
22:00	194	52.9	49.2	3.6	0	0	0	0	4	7	111	66	5	1	0	0
23:00	134	55.6	50.6	4.8	0	0	0	0	0	8	63	40	19	4	0	0
Total 2H(10-12)	1467	47.9	43.2	4.5	0	0	8	81	150	727	458	40	3	0	0	0
2H(14-16)	1354	49.0	44.1	4.7	0	0	15	21	170	519	555	69	4	1	0	0
12H(7-19)	9335	48.7	43.4	5.1	5	12	99	423	1152	3930	3299	380	27	4	1	3
24H(0-24)	12029	49.7	44.2	5.2	5	12	101	431	1253	4631	4631	830	104	26	1	4
AM Peak	07:00	03:00	03:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	08:00	06:00	03:00	06:00	07:00	06:00
	1235	55.5	51.2	5.8	3	10	31	124	323	573	346	58	13	5	1	1
PM Peak	16:00	23:00	23:00	18:00	18:00	17:00	18:00	12:00	12:00	13:00	17:00	22:00	23:00	19:00	12:00	12:00
	756	55.6	50.6	6.1	1	2	16	44	116	313	358	66	19	5	0	3

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	63	59.2	53.7	5.3	0	0	0	0	0	1	11	33	13	4	1	0
01:00	64	56.4	51.4	4.8	0	0	0	0	1	4	16	33	8	2	0	0
02:00	70	56.7	50.9	5.6	0	0	0	0	1	11	16	27	13	2	0	0
03:00	121	58.0	53.5	4.3	0	0	0	0	0	2	14	72	28	4	1	0
04:00	210	56.1	51.4	4.5	0	0	0	0	2	10	63	95	37	3	0	0
05:00	383	55.8	48.2	7.3	1	0	15	2	11	51	138	130	29	5	1	0
06:00	516	53.9	47.7	6.0	1	0	2	22	10	85	210	167	16	2	0	1
07:00	746	53.9	46.1	7.5	6	7	13	7	35	173	343	143	14	1	0	4
08:00	758	53.2	45.6	7.4	0	9	31	29	26	140	349	157	16	1	0	0
09:00	623	52.0	46.4	5.4	0	1	1	24	41	119	308	111	16	2	0	0
10:00	618	52.2	47.0	5.0	0	1	2	20	19	114	306	148	8	0	0	0
11:00	654	53.7	45.1	8.3	1	7	43	37	27	87	285	155	12	0	0	0
12:00	771	53.1	44.4	8.4	0	8	65	34	30	154	330	132	14	3	1	0
13:00	822	53.5	46.6	6.7	0	7	24	24	17	130	396	206	17	1	0	0
14:00	710	52.6	46.5	5.8	0	1	3	39	41	120	325	164	14	3	0	0
15:00	785	53.3	44.8	8.2	0	9	61	10	68	118	335	174	9	1	0	0
16:00	839	54.1	48.3	5.6	1	5	7	14	15	66	419	282	28	2	0	0
17:00	782	54.7	49.1	5.4	0	2	2	20	21	48	326	312	47	4	0	0
18:00	517	57.7	49.4	8.0	0	3	5	20	12	64	159	177	55	13	7	2
19:00	355	56.6	49.8	6.5	0	1	0	1	10	47	129	128	21	15	1	2
20:00	258	56.6	51.1	5.3	0	0	0	2	2	16	84	112	32	9	1	0
21:00	184	57.2	51.3	5.7	0	0	2	0	2	9	54	85	25	6	1	0
22:00	120	62.0	54.9	6.9	0	0	1	0	0	3	17	50	27	20	2	0
23:00	86	59.7	54.1	5.4	0	0	0	0	0	3	14	32	31	5	1	0
Total 2H(10-12)	1272	53.2	46.0	7.0	1	8	45	57	46	201	591	303	20	0	0	0
2H(14-16)	1495	53.1	45.6	7.2	0	10	64	49	109	238	660	338	23	4	0	0
12H(7-19)	8625	53.9	46.6	7.1	8	60	257	278	352	1333	3881	2161	250	31	8	6
24H(0-24)	11055	54.7	47.4	7.1	10	61	277	305	391	1575	4647	3125	530	108	17	9
AM Peak	08:00	00:00	00:00	11:00	07:00	08:00	11:00	11:00	09:00	07:00	08:00	06:00	04:00	05:00	00:00	07:00
	758	59.2	53.7	8.3	6	9	43	37	41	173	349	167	37	5	1	4
PM Peak	16:00	22:00	22:00	12:00	16:00	15:00	12:00	14:00	15:00	12:00	16:00	17:00	18:00	22:00	18:00	18:00
	839	62.0	54.9	8.4	1	9	65	39	68	154	419	312	55	20	7	2

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	128	56.5	50.4	5.8	0	0	0	0	0	20	48	37	17	5	1	0
01:00	118	55.9	51.1	4.6	0	0	0	0	1	6	40	53	15	3	0	0
02:00	156	54.6	49.6	4.8	0	0	0	0	2	22	61	53	16	2	0	0
03:00	208	57.1	52.5	4.4	0	0	0	0	0	2	55	103	41	6	1	0
04:00	371	55.0	50.1	4.7	0	0	0	0	6	38	132	150	41	4	0	0
05:00	688	53.8	47.5	6.1	1	0	15	4	16	143	299	171	32	6	1	0
06:00	1235	51.8	46.2	5.4	1	0	2	24	67	407	477	225	23	7	0	2
07:00	1981	49.8	42.4	7.1	9	17	44	131	358	746	496	160	14	1	1	4
08:00	1755	50.5	44.1	6.2	0	9	48	75	152	585	695	174	16	1	0	0
09:00	1515	50.0	44.7	5.2	1	1	2	66	154	506	630	135	18	2	0	0
10:00	1389	50.2	45.0	5.1	0	1	6	62	92	494	554	170	10	0	0	0
11:00	1350	51.0	44.0	6.7	1	7	47	76	104	434	495	173	13	0	0	0
12:00	1465	51.3	43.8	7.2	0	8	67	78	146	425	572	146	16	3	1	3
13:00	1503	51.5	45.6	5.7	0	7	26	39	65	443	676	228	18	1	0	0
14:00	1371	51.0	45.2	5.6	0	1	14	57	120	381	582	198	15	3	0	0
15:00	1478	51.6	44.6	6.7	0	9	65	13	159	376	633	209	12	2	0	0
16:00	1595	52.3	46.6	5.5	1	5	12	41	66	355	747	333	32	3	0	0
17:00	1534	52.6	47.2	5.2	0	4	4	28	58	329	684	373	50	4	0	0
18:00	1024	55.2	47.5	7.4	1	3	21	35	30	189	416	242	63	15	7	2
19:00	709	54.2	48.1	5.9	0	1	0	2	38	130	328	163	24	20	1	2
20:00	530	54.2	49.2	4.8	0	0	0	2	3	80	239	161	35	9	1	0
21:00	447	54.2	48.6	5.4	0	0	4	3	3	74	214	110	31	7	1	0
22:00	314	57.4	51.4	5.8	0	0	1	0	4	10	128	116	32	21	2	0
23:00	220	57.5	52.0	5.3	0	0	0	0	0	11	77	72	50	9	1	0
Total 2H(10-12)	2739	50.7	44.5	5.9	1	8	53	138	196	928	1049	343	23	0	0	0
2H(14-16)	2849	51.3	44.9	6.2	0	10	79	70	279	757	1215	407	27	5	0	0
12H(7-19)	17960	51.5	44.9	6.3	13	72	356	701	1504	5263	7180	2541	277	35	9	9
24H(0-24)	23084	52.4	45.7	6.4	15	73	378	736	1644	6206	9278	3955	634	134	18	13
AM Peak	07:00	03:00	03:00	07:00	07:00	07:00	08:00	07:00	07:00	07:00	08:00	06:00	03:00	06:00	00:00	07:00
	1981	57.1	52.5	7.1	9	17	48	131	358	746	695	225	41	7	1	4
PM Peak	16:00	23:00	23:00	18:00	16:00	15:00	12:00	12:00	15:00	13:00	16:00	17:00	18:00	22:00	18:00	12:00
	1595	57.5	52.0	7.4	1	9	67	78	159	443	747	373	63	21	7	3

360 TSL Ltd

East Heckington ATC, A17 (Eastern Site)

Direction: Eastbound

30/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	115	51.9	48.7	3.0	0	0	0	0	0	5	80	28	1	1	0	0
01:00	74	57.5	51.2	6.1	0	0	1	0	0	1	35	23	8	6	0	0
02:00	76	56.9	52.0	4.8	0	0	0	0	0	2	23	37	12	1	1	0
03:00	112	55.6	51.3	4.2	0	0	0	0	0	3	43	48	16	2	0	0
04:00	166	52.4	49.1	3.1	0	0	0	0	0	6	108	44	8	0	0	0
05:00	357	51.0	47.8	3.1	0	0	0	0	1	52	236	65	2	1	0	0
06:00	623	51.0	45.1	5.7	0	1	0	14	62	213	288	33	2	6	1	3
07:00	1056	48.3	42.4	5.7	0	5	32	63	141	443	355	17	0	0	0	0
08:00	942	48.6	43.8	4.7	2	0	9	14	135	355	406	21	0	0	0	0
09:00	856	47.9	43.0	4.8	0	0	6	33	148	390	250	22	4	3	0	0
10:00	768	48.2	44.3	3.8	0	0	0	16	56	350	327	17	2	0	0	0
11:00	751	47.1	42.7	4.3	0	0	2	19	165	342	204	19	0	0	0	0
12:00	771	47.2	41.2	5.7	0	0	40	59	126	364	175	6	1	0	0	0
13:00	699	47.8	43.7	3.9	0	0	1	18	70	344	251	15	0	0	0	0
14:00	785	47.4	42.7	4.6	0	0	6	53	102	380	233	11	0	0	0	0
15:00	716	48.5	43.7	4.6	0	0	10	21	64	336	253	32	0	0	0	0
16:00	817	49.9	44.7	5.0	0	0	1	6	78	357	341	26	1	2	0	5
17:00	740	49.9	44.8	4.9	0	6	0	11	67	250	361	39	5	1	0	0
18:00	588	50.9	46.4	4.3	0	0	0	0	22	161	353	43	3	1	5	0
19:00	394	49.2	45.7	3.4	0	0	0	0	8	163	187	35	1	0	0	0
20:00	276	50.3	46.5	3.7	0	0	0	0	2	96	142	31	4	1	0	0
21:00	253	50.8	47.5	3.2	0	0	0	0	2	44	164	40	3	0	0	0
22:00	172	56.5	50.9	5.4	0	0	0	0	2	9	76	56	18	11	0	0
23:00	140	51.8	48.3	3.4	0	0	0	1	0	9	101	25	3	1	0	0
Total 2H(10-12)	1519	47.8	43.5	4.1	0	0	2	35	221	692	531	36	2	0	0	0
2H(14-16)	1501	48.0	43.2	4.6	0	0	16	74	166	716	486	43	0	0	0	0
12H(7-19)	9489	48.6	43.5	4.9	2	11	107	313	1174	4072	3509	268	16	7	5	5
24H(0-24)	12247	49.7	44.4	5.1	2	12	108	328	1251	4675	4992	733	94	37	7	8
AM Peak	07:00	01:00	02:00	01:00	08:00	07:00	07:00	07:00	11:00	07:00	08:00	05:00	03:00	01:00	02:00	06:00
	1056	**57.5**	**52.0**	**6.1**	**2**	**5**	**32**	**63**	**165**	**443**	**406**	**65**	**16**	**6**	**1**	**3**
PM Peak	16:00	22:00	22:00	12:00	12:00	17:00	12:00	12:00	12:00	14:00	17:00	22:00	22:00	22:00	18:00	16:00
	817	**56.5**	**50.9**	**5.7**	**0**	**6**	**40**	**59**	**126**	**380**	**361**	**56**	**18**	**11**	**5**	**5**

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	78	60.2	53.8	6.1	0	0	0	0	0	1	20	30	19	6	2	0
01:00	96	59.0	54.6	4.3	0	0	0	0	0	1	7	50	31	7	0	0
02:00	107	58.2	53.7	4.3	0	0	0	0	1	1	14	53	34	4	0	0
03:00	162	58.1	53.8	4.2	0	0	0	0	1	4	12	90	49	6	0	0
04:00	289	57.7	53.1	4.5	0	0	0	0	1	5	46	166	59	10	2	0
05:00	355	56.5	51.3	5.0	0	0	0	0	2	27	94	185	33	12	2	0
06:00	580	55.8	48.4	7.1	0	5	4	26	14	57	232	195	26	21	0	0
07:00	802	54.2	46.5	7.4	2	3	26	40	49	89	318	256	14	5	0	0
08:00	726	52.9	44.2	8.4	1	11	43	37	95	72	316	138	13	0	0	0
09:00	662	52.2	46.5	5.5	0	1	9	20	17	155	314	129	16	1	0	0
10:00	636	53.0	45.8	6.9	0	2	27	25	36	92	307	135	11	1	0	0
11:00	726	51.9	45.4	6.2	1	2	23	14	56	151	353	122	4	0	0	0
12:00	715	50.6	45.1	5.3	0	1	11	14	57	238	304	80	10	0	0	0
13:00	803	51.7	45.5	6.0	2	2	12	17	50	265	298	143	13	1	0	0
14:00	809	51.0	46.7	4.2	0	0	0	0	24	263	364	148	5	5	0	0
15:00	744	53.4	46.5	6.6	0	5	15	16	46	128	351	158	21	0	4	0
16:00	829	52.6	46.6	5.8	0	0	22	8	35	188	367	190	17	2	0	0
17:00	862	52.2	46.9	5.2	1	1	0	10	59	193	380	191	26	1	0	0
18:00	513	55.6	49.6	5.8	0	3	1	1	12	45	212	194	33	9	3	0
19:00	300	55.6	48.9	6.4	0	1	5	6	7	32	106	113	27	3	0	0
20:00	227	55.4	49.9	5.3	0	0	1	0	9	14	89	87	24	2	1	0
21:00	153	56.9	50.6	6.1	0	1	1	0	1	4	62	70	8	4	2	0
22:00	112	59.5	52.5	6.7	0	0	0	0	0	12	27	42	20	10	0	1
23:00	66	57.5	51.3	6.0	0	0	1	0	1	2	18	35	7	1	1	0
Total 2H(10-12)	1362	52.4	45.6	6.6	1	4	50	39	92	243	660	257	15	1	0	0
2H(14-16)	1553	52.3	46.6	5.5	0	5	15	16	70	391	715	306	26	5	4	0
12H(7-19)	8827	52.7	46.2	6.3	7	31	189	202	536	1879	3884	1884	183	25	7	0
24H(0-24)	11352	54.0	47.3	6.6	7	38	201	234	573	2039	4611	3000	520	111	17	1
AM Peak	07:00	00:00	01:00	08:00	07:00	08:00	08:00	07:00	08:00	09:00	11:00	07:00	04:00	06:00	00:00	00:00
	802	**60.2**	**54.6**	**8.4**	**2**	**11**	**43**	**40**	**95**	**155**	**353**	**256**	**59**	**21**	**2**	**0**
PM Peak	17:00	22:00	22:00	22:00	13:00	15:00	16:00	13:00	17:00	13:00	17:00	18:00	18:00	22:00	15:00	22:00
	862	**59.5**	**52.5**	**6.7**	**2**	**5**	**22**	**17**	**59**	**265**	**380**	**194**	**33**	**10**	**4**	**1**

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	193	56.2	50.8	5.2	0	0	0	0	0	6	100	58	20	7	2	0
01:00	170	58.7	53.1	5.4	0	0	1	0	0	2	42	73	39	13	0	0
02:00	183	57.7	53.0	4.6	0	0	0	0	1	3	37	90	46	5	1	0
03:00	274	57.2	52.7	4.3	0	0	0	0	1	7	55	138	65	8	0	0
04:00	455	56.3	51.6	4.5	0	0	0	0	1	11	154	210	67	10	2	0
05:00	712	54.2	49.5	4.5	0	0	0	0	3	79	330	250	35	13	2	0
06:00	1203	53.6	46.7	6.6	0	6	4	40	76	270	520	228	28	27	1	3
07:00	1858	51.2	44.2	6.8	2	8	58	103	190	532	673	273	14	5	0	0
08:00	1668	50.8	44.0	6.6	3	11	52	51	230	427	722	159	13	0	0	0
09:00	1518	50.1	44.5	5.4	0	1	15	53	165	545	564	151	20	4	0	0
10:00	1404	50.7	45.0	5.5	0	2	27	41	92	442	634	152	13	1	0	0
11:00	1477	49.7	44.1	5.5	1	2	25	33	221	493	557	141	4	0	0	0
12:00	1486	49.1	43.1	5.8	0	1	51	73	183	602	479	86	11	0	0	0
13:00	1502	50.0	44.7	5.2	2	2	13	35	120	609	549	158	13	1	0	0
14:00	1594	49.7	44.7	4.8	0	0	6	53	126	643	597	159	5	5	0	0
15:00	1460	51.3	45.2	5.9	0	5	25	37	110	464	604	190	21	0	4	0
16:00	1646	51.3	45.6	5.5	0	0	23	14	113	545	708	216	18	4	0	5
17:00	1602	51.3	45.9	5.2	1	7	0	21	126	443	741	230	31	2	0	0
18:00	1101	53.4	47.9	5.3	0	3	1	1	34	206	565	237	36	10	8	0
19:00	694	52.5	47.1	5.2	0	1	5	6	15	195	293	148	28	3	0	0
20:00	503	53.0	48.0	4.8	0	0	1	0	11	110	231	118	28	3	1	0
21:00	406	53.6	48.6	4.7	0	1	1	0	3	48	226	110	11	4	2	0
22:00	284	57.8	51.5	6.0	0	0	0	0	2	21	103	98	38	21	0	1
23:00	206	54.0	49.2	4.6	0	0	1	1	1	11	119	60	10	2	1	0
Total 2H(10-12)	2881	50.2	44.5	5.5	1	4	52	74	313	935	1191	293	17	1	0	0
2H(14-16)	3054	50.5	44.9	5.4	0	5	31	90	236	1107	1201	349	26	5	4	0
12H(7-19)	18316	50.8	44.8	5.8	9	42	296	515	1710	5951	7393	2152	199	32	12	5
24H(0-24)	23599	52.0	45.8	6.0	9	50	309	562	1824	6714	9603	3733	614	148	24	9
AM Peak	07:00	01:00	01:00	07:00	08:00	08:00	07:00	07:00	08:00	09:00	08:00	07:00	04:00	06:00	00:00	06:00
	1858	**58.7**	**53.1**	**6.8**	**3**	**11**	**58**	**103**	**230**	**545**	**722**	**273**	**67**	**27**	**2**	**3**
PM Peak	16:00	22:00	22:00	22:00	13:00	17:00	12:00	12:00	12:00	14:00	17:00	18:00	22:00	22:00	18:00	16:00
	1646	**57.8**	**51.5**	**6.0**	**2**	**7**	**51**	**73**	**183**	**643**	**741**	**237**	**38**	**21**	**8**	**5**

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	86	78	73	66	58	32	77	66	67
01:00	47	73	46	43	31	34	60	49	48
02:00	64	65	50	0	34	44	52	52	44
03:00	74	55	55	37	45	54	71	60	56
04:00	103	147	72	43	87	112	114	113	97
05:00	229	292	134	58	247	231	281	256	210
06:00	590	629	244	117	603	613	513	590	473
07:00	1037	907	342	158	1046	1060	960	1002	787
08:00	939	826	497	211	967	896	892	904	747
09:00	760	707	635	405	740	762	731	740	677
10:00	656	758	665	512	804	692	683	719	681
11:00	701	725	619	619	745	575	660	681	663
12:00	639	767	684	698	770	661	651	698	696
13:00	639	794	602	594	672	642	634	676	654
14:00	813	829	536	602	687	624	704	731	685
15:00	722	880	552	553	662	664	681	722	673
16:00	825	734	513	622	726	704	779	754	700
17:00	655	698	498	578	667	722	673	683	642
18:00	614	598	498	571	523	467	544	549	545
19:00	326	410	289	401	283	343	327	338	340
20:00	271	289	247	318	213	211	235	244	255
21:00	220	191	211	245	179	197	201	198	206
22:00	157	175	128	103	153	163	142	158	146
23:00	112	90	100	79	91	91	103	97	95
Total									
12H(7-19)	9000	9223	6641	6123	9009	8469	8592	8859	8151
16H(6-22)	10407	10742	7632	7204	10287	9833	9868	10227	9425
18H(6-24)	10676	11007	7860	7386	10531	10087	10113	10483	9666
24H(0-24)	11279	11717	8290	7633	11033	10594	10768	11078	10188
AM Peak	07:00	07:00	10:00	11:00	07:00	07:00	07:00	07:00	07:00
	1037	907	665	619	1046	1060	960	1002	787
PM Peak	16:00	15:00	12:00	12:00	12:00	17:00	16:00	16:00	16:00
	825	880	684	698	770	722	779	754	700

360 TSL Ltd

Direction: Westbound

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	78	93	69	77	67	68	93	80	78
01:00	120	84	64	75	65	84	115	94	87
02:00	97	123	73	0	89	95	118	104	85
03:00	123	133	111	81	159	124	209	150	134
04:00	259	203	142	113	236	230	280	242	209
05:00	442	421	252	139	467	436	430	439	370
06:00	593	550	277	165	601	508	612	573	472
07:00	744	768	446	225	836	812	829	798	666
08:00	723	761	574	337	823	787	774	774	683
09:00	810	741	655	542	767	666	706	738	698
10:00	652	773	630	634	721	653	706	701	681
11:00	713	851	744	779	836	783	841	805	792
12:00	723	875	684	695	714	843	799	791	762
13:00	738	832	589	679	818	872	877	827	772
14:00	823	882	568	592	677	810	854	809	744
15:00	817	843	575	601	787	807	813	813	749
16:00	937	910	498	642	855	875	920	899	805
17:00	959	800	495	509	897	808	915	876	769
18:00	626	561	476	487	611	560	530	578	550
19:00	422	359	298	452	337	350	311	356	361
20:00	270	293	222	301	232	275	263	267	265
21:00	198	170	132	191	141	208	170	177	173
22:00	124	129	114	116	104	121	112	118	117
23:00	112	100	91	86	96	115	79	100	97
Total									
12H(7-19)	9265	9597	6934	6722	9342	9276	9564	9409	8671
16H(6-22)	10748	10969	7863	7831	10653	10617	10920	10781	9943
18H(6-24)	10984	11198	8068	8033	10853	10853	11111	11000	10157
24H(0-24)	12103	12255	8779	8518	11936	11890	12356	12108	11120
AM Peak	09:00	11:00	11:00	11:00	07:00	07:00	11:00	11:00	11:00
	810	851	744	779	836	812	841	805	792
PM Peak	17:00	16:00	12:00	12:00	17:00	16:00	16:00	16:00	16:00
	959	910	684	695	897	875	920	899	805

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	164	171	142	143	125	100	170	146	145
01:00	167	157	110	118	96	118	175	143	134
02:00	161	188	123	0	123	139	170	156	129
03:00	197	188	166	118	204	178	280	209	190
04:00	362	350	214	156	323	342	394	354	306
05:00	671	713	386	197	714	667	711	695	580
06:00	1183	1179	521	282	1204	1121	1125	1162	945
07:00	1781	1675	788	383	1882	1872	1789	1800	1453
08:00	1662	1587	1071	548	1790	1683	1666	1678	1430
09:00	1570	1448	1290	947	1507	1428	1437	1478	1375
10:00	1308	1531	1295	1146	1525	1345	1389	1420	1363
11:00	1414	1576	1363	1398	1581	1358	1501	1486	1456
12:00	1362	1642	1368	1393	1484	1504	1450	1488	1458
13:00	1377	1626	1191	1273	1490	1514	1511	1504	1426
14:00	1636	1711	1104	1194	1364	1434	1558	1541	1429
15:00	1539	1723	1127	1154	1449	1471	1494	1535	1422
16:00	1762	1644	1011	1264	1581	1579	1699	1653	1506
17:00	1614	1498	993	1087	1564	1530	1588	1559	1411
18:00	1240	1159	974	1058	1134	1027	1074	1127	1095
19:00	748	769	587	853	620	693	638	694	701
20:00	541	582	469	619	445	486	498	510	520
21:00	418	361	343	436	320	405	371	375	379
22:00	281	304	242	219	257	284	254	276	263
23:00	224	190	191	165	187	206	182	198	192
Total									
12H(7-19)	18265	18820	13575	12845	18351	17745	18156	18267	16822
16H(6-22)	21155	21711	15495	15035	20940	20450	20788	21009	19368
18H(6-24)	21660	22205	15928	15419	21384	20940	21224	21483	19823
24H(0-24)	23382	23972	17069	16151	22969	22484	23124	23186	21307
AM Peak	07:00	07:00	11:00	11:00	07:00	07:00	07:00	07:00	11:00
	1781	1675	1363	1398	1882	1872	1789	1800	1456
PM Peak	16:00	15:00	12:00	12:00	16:00	16:00	16:00	16:00	16:00
	1762	1723	1368	1393	1581	1579	1699	1653	1506

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	11279	8790	1726	646	117
Fri 25 Mar 2022	11717	9498	1543	576	100
Sat 26 Mar 2022	8290	7051	905	295	39
Sun 27 Mar 2022	7633	6668	703	233	29
Mon 28 Mar 2022	11033	8704	1628	585	116
Tue 29 Mar 2022	10594	8162	1662	665	105
Wed 30 Mar 2022	10768	8473	1578	614	103
5 Day Ave.	11078	8725	1627	617	108
7 Day Ave.	10188	8192	1392	516	87

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	77.9%	15.3%	5.7%	1.0%
Fri 25 Mar 2022	100.0%	81.1%	13.2%	4.9%	0.9%
Sat 26 Mar 2022	100.0%	85.1%	10.9%	3.6%	0.5%
Sun 27 Mar 2022	100.0%	87.4%	9.2%	3.1%	0.4%
Mon 28 Mar 2022	100.0%	78.9%	14.8%	5.3%	1.1%
Tue 29 Mar 2022	100.0%	77.0%	15.7%	6.3%	1.0%
Wed 30 Mar 2022	100.0%	78.7%	14.7%	5.7%	1.0%
5 Day Ave.	100.0%	78.8%	14.7%	5.6%	1.0%
7 Day Ave.	100.0%	80.4%	13.7%	5.1%	0.9%

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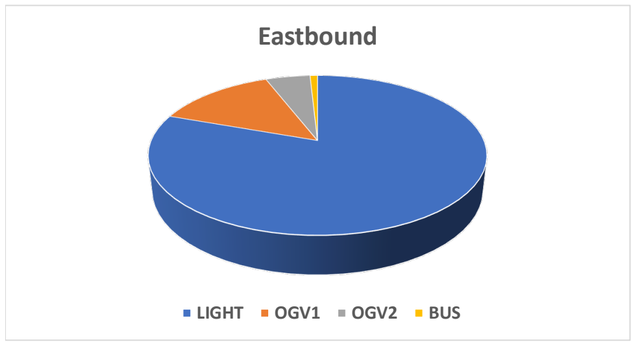

Direction: Westbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	12103	10168	1447	417	71
Fri 25 Mar 2022	12255	10476	1354	339	86
Sat 26 Mar 2022	8779	7823	781	152	23
Sun 27 Mar 2022	8518	7771	618	116	13
Mon 28 Mar 2022	11936	10188	1309	378	61
Tue 29 Mar 2022	11890	10256	1230	331	73
Wed 30 Mar 2022	12356	10715	1272	320	49
5 Day Ave.	12108	10361	1322	357	68
7 Day Ave.	11120	9628	1144	293	54

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	84.0%	12.0%	3.4%	0.6%
Fri 25 Mar 2022	100.0%	85.5%	11.0%	2.8%	0.7%
Sat 26 Mar 2022	100.0%	89.1%	8.9%	1.7%	0.3%
Sun 27 Mar 2022	100.0%	91.2%	7.3%	1.4%	0.2%
Mon 28 Mar 2022	100.0%	85.4%	11.0%	3.2%	0.5%
Tue 29 Mar 2022	100.0%	86.3%	10.3%	2.8%	0.6%
Wed 30 Mar 2022	100.0%	86.7%	10.3%	2.6%	0.4%
5 Day Ave.	100.0%	85.6%	10.9%	2.9%	0.6%
7 Day Ave.	100.0%	86.6%	10.3%	2.6%	0.5%

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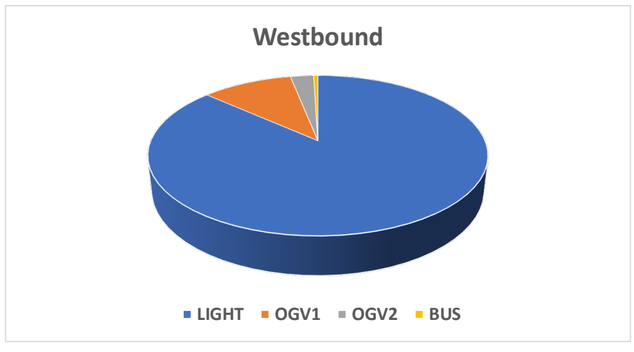

Direction: Total Flow

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	23382	18958	3173	1063	188
Fri 25 Mar 2022	23972	19974	2897	915	186
Sat 26 Mar 2022	17069	14874	1686	447	62
Sun 27 Mar 2022	16151	14439	1321	349	42
Mon 28 Mar 2022	22969	18892	2937	963	177
Tue 29 Mar 2022	22484	18418	2892	996	178
Wed 30 Mar 2022	23124	19188	2850	934	152
5 Day Ave.	23186	19086	2950	974	176
7 Day Ave.	21307	17820	2537	810	141

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	81.1%	13.6%	4.5%	0.8%
Fri 25 Mar 2022	100.0%	83.3%	12.1%	3.8%	0.8%
Sat 26 Mar 2022	100.0%	87.1%	9.9%	2.6%	0.4%
Sun 27 Mar 2022	100.0%	89.4%	8.2%	2.2%	0.3%
Mon 28 Mar 2022	100.0%	82.2%	12.8%	4.2%	0.8%
Tue 29 Mar 2022	100.0%	81.9%	12.9%	4.4%	0.8%
Wed 30 Mar 2022	100.0%	83.0%	12.3%	4.0%	0.7%
5 Day Ave.	100.0%	82.3%	12.7%	4.2%	0.8%
7 Day Ave.	100.0%	83.6%	11.9%	3.8%	0.7%

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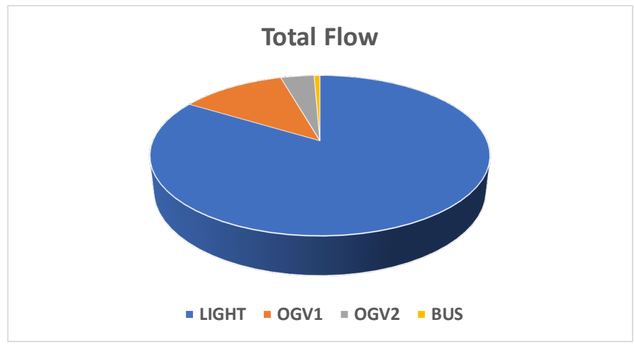

East Heckington, A17 (Middle Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	11279	52.7	45.8	6.7	1	46	336	431	543	2434	5273	1841	295	74	4	1
Fri 25 Mar 2022	11717	52.9	45.9	6.8	7	80	301	332	640	2572	5455	1959	263	86	17	5
Sat 26 Mar 2022	8290	53.3	47.2	5.9	0	14	110	124	244	1759	4002	1569	359	89	14	6
Sun 27 Mar 2022	7633	53.1	47.7	5.2	3	11	32	43	256	1375	4002	1521	293	80	12	5
Mon 28 Mar 2022	11033	52.8	45.1	7.5	24	141	323	471	668	2500	4904	1711	225	55	6	5
Tue 29 Mar 2022	10594	51.9	45.8	5.9	0	4	196	364	670	2650	4781	1653	203	68	3	2
Wed 30 Mar 2022	10768	52.0	45.5	6.3	3	53	204	307	727	2924	4805	1471	184	79	8	3
5 Day Ave.	11078	52.4	45.6	6.6	7	65	272	381	650	2616	5044	1727	234	72	8	3
7 Day Ave.	10188	52.7	46.1	6.3	5	50	215	296	535	2316	4746	1675	260	76	9	4

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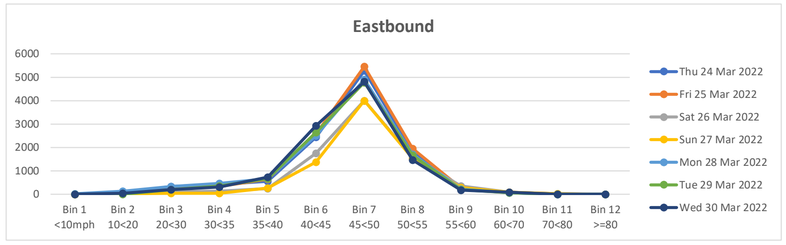

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	12103	52.3	45.5	6.5	7	26	296	532	706	2936	5362	1876	281	69	10	2
Fri 25 Mar 2022	12255	52.0	45.9	5.9	2	6	179	388	811	3118	5546	1846	257	84	15	3
Sat 26 Mar 2022	8779	52.8	47.3	5.3	1	2	48	84	320	1933	4271	1714	303	85	14	4
Sun 27 Mar 2022	8518	52.8	47.6	5.0	0	3	19	52	303	1630	4393	1713	307	81	12	5
Mon 28 Mar 2022	11936	52.2	45.5	6.5	7	30	257	528	820	2790	5376	1777	264	70	10	7
Tue 29 Mar 2022	11890	52.5	45.9	6.3	6	34	241	302	778	2721	5573	1840	298	68	24	5
Wed 30 Mar 2022	12356	51.8	45.3	6.3	28	45	183	319	1006	3548	5228	1676	237	74	8	4
5 Day Ave.	12108	52.2	45.6	6.3	10	28	231	414	824	3023	5417	1803	267	73	13	4
7 Day Ave.	11120	52.3	46.2	6.0	7	21	175	315	678	2668	5107	1777	278	76	13	4

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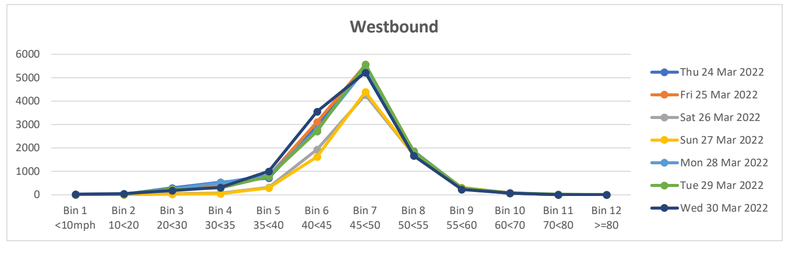

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	23382	52.5	45.6	6.6	8	72	632	963	1249	5370	10635	3717	576	143	14	3
Fri 25 Mar 2022	23972	52.4	45.9	6.4	9	86	480	720	1451	5690	11001	3805	520	170	32	8
Sat 26 Mar 2022	17069	53.0	47.3	5.6	1	16	158	208	564	3692	8273	3283	662	174	28	10
Sun 27 Mar 2022	16151	52.9	47.6	5.1	3	14	51	95	559	3005	8395	3234	600	161	24	10
Mon 28 Mar 2022	22969	52.5	45.3	7.0	31	171	580	999	1488	5290	10280	3488	489	125	16	12
Tue 29 Mar 2022	22484	52.2	45.9	6.1	6	38	437	666	1448	5371	10354	3493	501	136	27	7
Wed 30 Mar 2022	23124	51.9	45.4	6.3	31	98	387	626	1733	6472	10033	3147	421	153	16	7
5 Day Ave.	23186	52.3	45.6	6.5	17	93	503	795	1474	5639	10461	3530	501	145	21	7
7 Day Ave.	21307	52.5	46.1	6.1	13	71	389	611	1213	4984	9853	3452	538	152	22	8

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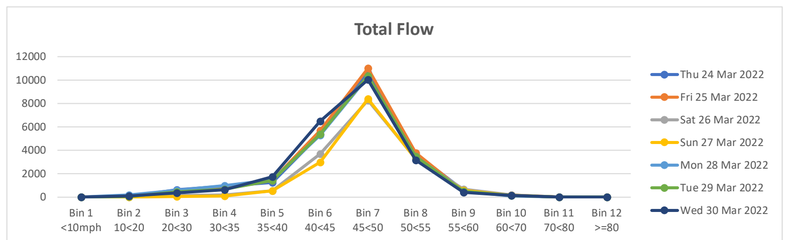

East Heckington, A17 (Middle Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1357	50.3	44.8	5.3	0	0	8	86	112	363	654	122	9	3	0	0
Fri 25 Mar 2022	1483	51.1	43.6	7.3	0	23	52	83	145	418	608	137	15	1	0	1
Sat 26 Mar 2022	1284	51.1	45.0	5.9	0	0	38	48	77	347	620	133	18	3	0	0
Sun 27 Mar 2022	1131	51.0	46.7	4.1	0	0	0	8	42	274	626	156	23	2	0	0
Mon 28 Mar 2022	1549	50.2	42.3	7.6	2	39	62	95	162	550	547	78	11	3	0	0
Tue 29 Mar 2022	1267	50.5	44.1	6.1	0	3	39	61	107	406	522	115	13	1	0	0
Wed 30 Mar 2022	1343	50.0	44.9	5.0	0	0	7	31	140	470	547	137	7	3	0	1
5 Day Ave.	1400	50.4	43.9	6.3	0	13	34	71	133	441	576	118	11	2	0	0
7 Day Ave.	1345	50.6	44.5	5.9	0	9	29	59	112	404	589	125	14	2	0	0

360 TSL Ltd

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1365	51.4	44.2	7.0	7	9	37	99	69	356	643	134	10	1	0	0
Fri 25 Mar 2022	1624	49.5	43.1	6.2	0	4	34	158	195	505	610	111	7	0	0	0
Sat 26 Mar 2022	1374	51.1	45.9	5.1	0	1	21	14	73	384	687	172	19	3	0	0
Sun 27 Mar 2022	1413	51.0	45.8	5.1	0	0	13	25	94	402	688	159	25	7	0	0
Mon 28 Mar 2022	1557	51.1	44.0	6.8	7	26	20	73	122	435	756	113	3	2	0	0
Tue 29 Mar 2022	1436	50.1	44.8	5.1	1	0	12	36	143	463	648	117	12	4	0	0
Wed 30 Mar 2022	1547	49.6	43.9	5.5	0	2	12	82	230	452	673	79	14	2	1	0
5 Day Ave.	1506	50.3	44.0	6.1	3	8	23	90	152	442	666	111	9	2	0	0
7 Day Ave.	1474	50.5	44.5	5.8	2	6	21	70	132	428	672	126	13	3	0	0

360 TSL Ltd

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	2722	50.9	44.5	6.2	7	9	45	185	181	719	1297	256	19	4	0	0
Fri 25 Mar 2022	3107	50.3	43.3	6.7	0	27	86	241	340	923	1218	248	22	1	0	1
Sat 26 Mar 2022	2658	51.1	45.5	5.5	0	1	59	62	150	731	1307	305	37	6	0	0
Sun 27 Mar 2022	2544	51.0	46.2	4.7	0	0	13	33	136	676	1314	315	48	9	0	0
Mon 28 Mar 2022	3106	50.7	43.2	7.3	9	65	82	168	284	985	1303	191	14	5	0	0
Tue 29 Mar 2022	2703	50.3	44.5	5.6	1	3	51	97	250	869	1170	232	25	5	0	0
Wed 30 Mar 2022	2890	49.8	44.4	5.3	0	2	19	113	370	922	1220	216	21	5	1	1
5 Day Ave.	2906	50.4	44.0	6.2	3	21	57	161	285	884	1242	229	20	4	0	0
7 Day Ave.	2819	50.6	44.5	5.9	2	15	51	128	244	832	1261	252	27	5	0	0

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1535	51.2	43.5	7.5	0	10	107	77	109	448	598	165	19	2	0	0
Fri 25 Mar 2022	1709	52.1	45.1	6.8	0	20	52	55	100	391	843	224	18	5	1	0
Sat 26 Mar 2022	1088	52.9	46.6	6.1	0	13	22	5	22	210	597	190	27	2	0	0
Sun 27 Mar 2022	1155	52.3	47.6	4.5	0	0	2	9	34	195	651	219	36	8	1	0
Mon 28 Mar 2022	1349	53.8	44.0	9.5	10	41	97	45	39	232	637	226	20	1	0	1
Tue 29 Mar 2022	1288	51.5	45.5	5.9	0	0	18	60	117	270	613	183	22	5	0	0
Wed 30 Mar 2022	1385	50.3	44.6	5.5	0	1	35	43	106	432	649	110	8	1	0	0
5 Day Ave.	1453	51.8	44.5	7.0	2	14	62	56	94	355	668	182	17	3	0	0
7 Day Ave.	1358	52.0	45.3	6.5	1	12	48	42	75	311	655	188	21	3	0	0

360 TSL Ltd

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1640	50.5	44.1	6.2	0	4	43	84	170	517	660	135	22	4	1	0
Fri 25 Mar 2022	1725	49.8	44.1	5.5	0	2	39	53	181	629	687	119	13	2	0	0
Sat 26 Mar 2022	1143	52.0	46.8	5.1	0	0	7	17	50	257	603	168	31	8	2	0
Sun 27 Mar 2022	1193	51.4	47.0	4.3	0	1	0	5	43	268	667	178	27	3	1	0
Mon 28 Mar 2022	1464	51.0	45.4	5.3	0	0	16	58	75	441	683	159	26	6	0	0
Tue 29 Mar 2022	1617	51.6	44.4	7.0	4	17	59	36	151	406	745	183	15	1	0	0
Wed 30 Mar 2022	1667	48.8	44.2	4.5	0	4	7	26	178	724	633	90	4	1	0	0
5 Day Ave.	1623	50.3	44.4	5.7	1	5	33	51	151	543	682	137	16	3	0	0
7 Day Ave.	1493	50.7	45.1	5.4	1	4	24	40	121	463	668	147	20	4	1	0

360 TSL Ltd

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	3175	50.9	43.8	6.9	0	14	150	161	279	965	1258	300	41	6	1	0
Fri 25 Mar 2022	3434	51.0	44.6	6.2	0	22	91	108	281	1020	1530	343	31	7	1	0
Sat 26 Mar 2022	2231	52.5	46.7	5.6	0	13	29	22	72	467	1200	358	58	10	2	0
Sun 27 Mar 2022	2348	51.8	47.3	4.4	0	1	2	14	77	463	1318	397	63	11	2	0
Mon 28 Mar 2022	2813	52.6	44.7	7.6	10	41	113	103	114	673	1320	385	46	7	0	1
Tue 29 Mar 2022	2905	51.6	44.9	6.5	4	17	77	96	268	676	1358	366	37	6	0	0
Wed 30 Mar 2022	3052	49.5	44.4	5.0	0	5	42	69	284	1156	1282	200	12	2	0	0
5 Day Ave.	3076	51.1	44.5	6.4	3	20	95	107	245	898	1350	319	33	6	0	0
7 Day Ave.	2851	51.4	45.2	6.0	2	16	72	82	196	774	1324	336	41	7	1	0

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

24/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	86	59	11	15	1
01:00	47	20	12	15	0
02:00	64	39	10	14	1
03:00	74	53	11	9	1
04:00	103	58	24	18	3
05:00	229	169	35	19	6
06:00	590	434	108	42	6
07:00	1037	805	187	32	13
08:00	939	731	164	42	2
09:00	760	589	124	36	11
10:00	656	494	114	38	10
11:00	701	516	121	53	11
12:00	639	480	107	45	7
13:00	639	522	74	34	9
14:00	813	655	104	46	8
15:00	722	564	113	35	10
16:00	825	672	124	26	3
17:00	655	535	92	22	6
18:00	614	524	64	20	6
19:00	326	267	36	22	1
20:00	271	221	34	16	0
21:00	220	178	25	17	0
22:00	157	119	18	19	1
23:00	112	86	14	11	1
Total					
12H(7-19)	9000	7087	1388	429	96
16H(6-22)	10407	8187	1591	526	103
18H(6-24)	10676	8392	1623	556	105
24H(0-24)	11279	8790	1726	646	117
AM Peak	07:00	07:00	07:00	11:00	07:00
	1037	**805**	**187**	**53**	**13**
PM Peak	16:00	16:00	16:00	14:00	15:00
	825	**672**	**124**	**46**	**10**

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	78	65	10	2	1
01:00	120	98	8	14	0
02:00	97	69	7	20	1
03:00	123	99	10	14	0
04:00	259	220	16	21	2
05:00	442	361	50	30	1
06:00	593	491	73	26	3
07:00	744	625	89	24	6
08:00	723	595	103	22	3
09:00	810	663	111	33	3
10:00	652	539	81	23	9
11:00	713	574	103	30	6
12:00	723	601	84	29	9
13:00	738	589	120	21	8
14:00	823	678	120	21	4
15:00	817	666	120	24	7
16:00	937	796	123	13	5
17:00	959	870	82	5	2
18:00	626	558	51	16	1
19:00	422	376	38	8	0
20:00	270	247	18	5	0
21:00	198	181	14	3	0
22:00	124	114	6	4	0
23:00	112	93	10	9	0
Total					
12H(7-19)	9265	7754	1187	261	63
16H(6-22)	10748	9049	1330	303	66
18H(6-24)	10984	9256	1346	316	66
24H(0-24)	12103	10168	1447	417	71
AM Peak	09:00	09:00	09:00	09:00	10:00
	810	**663**	**111**	**33**	**9**
PM Peak	17:00	17:00	16:00	12:00	12:00
	959	**870**	**123**	**29**	**9**

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	164	124	21	17	2
01:00	167	118	20	29	0
02:00	161	108	17	34	2
03:00	197	152	21	23	1
04:00	362	278	40	39	5
05:00	671	530	85	49	7
06:00	1183	925	181	68	9
07:00	1781	1430	276	56	19
08:00	1662	1326	267	64	5
09:00	1570	1252	235	69	14
10:00	1308	1033	195	61	19
11:00	1414	1090	224	83	17
12:00	1362	1081	191	74	16
13:00	1377	1111	194	55	17
14:00	1636	1333	224	67	12
15:00	1539	1230	233	59	17
16:00	1762	1468	247	39	8
17:00	1614	1405	174	27	8
18:00	1240	1082	115	36	7
19:00	748	643	74	30	1
20:00	541	468	52	21	0
21:00	418	359	39	20	0
22:00	281	233	24	23	1
23:00	224	179	24	20	1
Total					
12H(7-19)	18265	14841	2575	690	159
16H(6-22)	21155	17236	2921	829	169
18H(6-24)	21660	17648	2969	872	171
24H(0-24)	23382	18958	3173	1063	188
AM Peak	07:00	07:00	07:00	11:00	07:00
	1781	**1430**	**276**	**83**	**19**
PM Peak	16:00	16:00	16:00	12:00	13:00
	1762	**1468**	**247**	**74**	**17**

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

25/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	78	51	8	18	1
01:00	73	55	11	5	2
02:00	65	45	9	10	1
03:00	55	34	13	7	1
04:00	147	113	17	12	5
05:00	292	223	45	15	9
06:00	629	486	103	33	7
07:00	907	711	150	37	9
08:00	826	646	140	34	6
09:00	707	546	101	49	11
10:00	758	616	91	45	6
11:00	725	595	93	31	6
12:00	767	616	104	38	9
13:00	794	662	92	34	6
14:00	829	682	103	38	6
15:00	880	733	111	32	4
16:00	734	625	89	17	3
17:00	698	590	85	22	1
18:00	598	516	50	26	6
19:00	410	328	56	26	0
20:00	289	250	26	13	0
21:00	191	150	21	19	1
22:00	175	151	16	8	0
23:00	90	74	9	7	0
Total 12H(7-19)	9223	7538	1209	403	73
16H(6-22)	10742	8752	1415	494	81
18H(6-24)	11007	8977	1440	509	81
24H(0-24)	11717	9498	1543	576	100
AM Peak	07:00	07:00	07:00	09:00	09:00
	907	711	150	49	11
PM Peak	15:00	15:00	15:00	12:00	12:00
	880	733	111	38	9

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	93	78	7	8	0
01:00	84	66	5	10	3
02:00	123	103	8	12	0
03:00	133	110	17	6	0
04:00	203	163	25	15	0
05:00	421	375	25	17	4
06:00	550	473	63	10	4
07:00	768	684	66	17	1
08:00	761	660	77	19	5
09:00	741	628	87	22	4
10:00	773	649	88	25	11
11:00	851	714	105	21	11
12:00	875	721	118	28	8
13:00	832	690	116	21	5
14:00	882	724	119	32	7
15:00	843	689	124	25	5
16:00	910	787	104	12	7
17:00	800	721	70	5	4
18:00	561	512	45	2	2
19:00	359	322	30	4	3
20:00	293	258	27	6	2
21:00	170	157	7	6	0
22:00	129	114	9	6	0
23:00	100	78	12	10	0
Total 12H(7-19)	9597	8179	1119	229	70
16H(6-22)	10969	9389	1246	255	79
18H(6-24)	11198	9581	1267	271	79
24H(0-24)	12255	10476	1354	339	86
AM Peak	11:00	11:00	11:00	10:00	10:00
	851	714	105	25	11
PM Peak	16:00	16:00	15:00	14:00	12:00
	910	787	124	32	8

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	171	129	15	26	1
01:00	157	121	16	15	5
02:00	188	148	17	22	1
03:00	188	144	30	13	1
04:00	350	276	42	27	5
05:00	713	598	70	32	13
06:00	1179	959	166	43	11
07:00	1675	1395	216	54	10
08:00	1587	1306	217	53	11
09:00	1448	1174	188	71	15
10:00	1531	1265	179	70	17
11:00	1576	1309	198	52	17
12:00	1642	1337	222	66	17
13:00	1626	1352	208	55	11
14:00	1711	1406	222	70	13
15:00	1723	1422	235	57	9
16:00	1644	1412	193	29	10
17:00	1498	1311	155	27	5
18:00	1159	1028	95	28	8
19:00	769	650	86	30	3
20:00	582	508	53	19	2
21:00	361	307	28	25	1
22:00	304	265	25	14	0
23:00	190	152	21	17	0
Total 12H(7-19)	18820	15717	2328	632	143
16H(6-22)	21711	18141	2661	749	160
18H(6-24)	22205	18558	2707	780	160
24H(0-24)	23972	19974	2897	915	186
AM Peak	07:00	07:00	08:00	09:00	10:00
	1675	1395	217	71	17
PM Peak	15:00	15:00	15:00	14:00	12:00
	1723	1422	235	70	17

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

26/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	73	56	10	6	1
01:00	46	28	7	11	0
02:00	50	28	13	7	2
03:00	55	33	11	11	0
04:00	72	39	19	13	1
05:00	134	104	22	6	2
06:00	244	194	26	21	3
07:00	342	265	55	15	7
08:00	497	416	67	11	3
09:00	635	542	72	19	2
10:00	665	599	50	12	4
11:00	619	534	69	16	0
12:00	684	590	72	20	2
13:00	602	537	49	14	2
14:00	536	478	42	14	2
15:00	552	470	66	14	2
16:00	513	448	54	11	0
17:00	498	423	54	16	5
18:00	498	443	43	12	0
19:00	289	243	33	13	0
20:00	247	211	24	12	0
21:00	211	174	28	9	0
22:00	128	116	7	4	1
23:00	100	80	12	8	0
Total					
12H(7-19)	6641	5745	693	174	29
16H(6-22)	7632	6567	804	229	32
18H(6-24)	7860	6763	823	241	33
24H(0-24)	8290	7051	905	295	39
AM Peak	10:00	10:00	09:00	06:00	07:00
	665	599	72	21	7
PM Peak	12:00	12:00	12:00	12:00	17:00
	684	590	72	20	5

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	69	56	7	6	0
01:00	64	52	2	9	1
02:00	73	59	6	8	0
03:00	111	89	13	6	3
04:00	142	118	14	9	1
05:00	252	216	27	7	2
06:00	277	227	37	10	3
07:00	446	387	51	7	1
08:00	574	527	42	5	0
09:00	655	593	51	10	1
10:00	630	567	48	13	2
11:00	744	678	59	6	1
12:00	684	616	59	8	1
13:00	589	506	67	13	3
14:00	568	504	61	3	0
15:00	575	519	49	6	1
16:00	498	445	49	4	0
17:00	495	453	36	6	0
18:00	476	442	31	1	2
19:00	298	271	22	4	1
20:00	222	200	20	2	0
21:00	132	113	16	3	0
22:00	114	98	12	4	0
23:00	91	87	2	2	0
Total					
12H(7-19)	6934	6237	603	82	12
16H(6-22)	7863	7048	698	101	16
18H(6-24)	8068	7233	712	107	16
24H(0-24)	8779	7823	781	152	23
AM Peak	11:00	11:00	11:00	10:00	03:00
	744	678	59	13	3
PM Peak	12:00	12:00	13:00	13:00	13:00
	684	616	67	13	3

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	142	112	17	12	1
01:00	110	80	9	20	1
02:00	123	87	19	15	2
03:00	166	122	24	17	3
04:00	214	157	33	22	2
05:00	386	320	49	13	4
06:00	521	421	63	31	6
07:00	788	652	106	22	8
08:00	1071	943	109	16	3
09:00	1290	1135	123	29	3
10:00	1295	1166	98	25	6
11:00	1363	1212	128	22	1
12:00	1368	1206	131	28	3
13:00	1191	1043	116	27	5
14:00	1104	982	103	17	2
15:00	1127	989	115	20	3
16:00	1011	893	103	15	0
17:00	993	876	90	22	5
18:00	974	885	74	13	2
19:00	587	514	55	17	1
20:00	469	411	44	14	0
21:00	343	287	44	12	0
22:00	242	214	19	8	1
23:00	191	167	14	10	0
Total					
12H(7-19)	13575	11982	1296	256	41
16H(6-22)	15495	13615	1502	330	48
18H(6-24)	15928	13996	1535	348	49
24H(0-24)	17069	14874	1686	447	62
AM Peak	11:00	11:00	11:00	06:00	07:00
	1363	1212	128	31	8
PM Peak	12:00	12:00	12:00	12:00	13:00
	1368	1206	131	28	5

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

27/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	66	55	5	6	0
01:00	43	30	7	6	0
02:00	0	0	0	0	0
03:00	37	23	7	5	2
04:00	43	35	4	4	0
05:00	58	42	9	7	0
06:00	117	94	18	4	1
07:00	158	119	29	9	1
08:00	211	167	33	11	0
09:00	405	352	44	9	0
10:00	512	445	53	12	2
11:00	619	561	49	9	0
12:00	698	617	68	10	3
13:00	594	531	49	13	1
14:00	602	545	44	9	4
15:00	553	496	38	16	3
16:00	622	560	43	17	2
17:00	578	518	44	11	5
18:00	571	512	37	20	2
19:00	401	349	37	15	0
20:00	318	276	33	9	0
21:00	245	196	36	12	1
22:00	103	79	14	9	1
23:00	79	66	2	10	1
Total 12H(7-19)	6123	5423	531	146	23
16H(6-22)	7204	6338	655	186	25
18H(6-24)	7386	6483	671	205	27
24H(0-24)	7633	6668	703	233	29
AM Peak	11:00	11:00	10:00	10:00	03:00
	619	561	53	12	2
PM Peak	12:00	12:00	12:00	18:00	17:00
	698	617	68	20	5

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	77	66	9	2	0
01:00	75	68	4	2	1
02:00	0	0	0	0	0
03:00	81	66	7	8	0
04:00	113	102	2	8	1
05:00	139	115	15	8	1
06:00	165	127	31	6	1
07:00	225	191	26	8	0
08:00	337	282	48	7	0
09:00	542	500	36	6	0
10:00	634	584	45	5	0
11:00	779	728	44	6	1
12:00	695	658	31	4	2
13:00	679	626	46	6	1
14:00	592	552	32	6	2
15:00	601	552	42	6	1
16:00	642	610	30	2	0
17:00	509	477	30	1	1
18:00	487	445	36	6	0
19:00	452	407	44	1	0
20:00	301	269	29	2	1
21:00	191	172	15	4	0
22:00	116	108	6	2	0
23:00	86	66	10	10	0
Total 12H(7-19)	6722	6205	446	63	8
16H(6-22)	7831	7180	565	76	10
18H(6-24)	8033	7354	581	88	10
24H(0-24)	8518	7771	618	116	13
AM Peak	11:00	11:00	08:00	03:00	01:00
	779	728	48	8	1
PM Peak	12:00	12:00	13:00	23:00	12:00
	695	658	46	10	2

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	143	121	14	8	0
01:00	118	98	11	8	1
02:00	0	0	0	0	0
03:00	118	89	14	13	2
04:00	156	137	6	12	1
05:00	197	157	24	15	1
06:00	282	221	49	10	2
07:00	383	310	55	17	1
08:00	548	449	81	18	0
09:00	947	852	80	15	0
10:00	1146	1029	98	17	2
11:00	1398	1289	93	15	1
12:00	1393	1275	99	14	5
13:00	1273	1157	95	19	2
14:00	1194	1097	76	15	6
15:00	1154	1048	80	22	4
16:00	1264	1170	73	19	2
17:00	1087	995	74	12	6
18:00	1058	957	73	26	2
19:00	853	756	81	16	0
20:00	619	545	62	11	1
21:00	436	368	51	16	1
22:00	219	187	20	11	1
23:00	165	132	12	20	1
Total 12H(7-19)	12845	11628	977	209	31
16H(6-22)	15035	13518	1220	262	35
18H(6-24)	15419	13837	1252	293	37
24H(0-24)	16151	14439	1321	349	42
AM Peak	11:00	11:00	10:00	08:00	03:00
	1398	1289	98	18	2
PM Peak	12:00	12:00	12:00	18:00	14:00
	1393	1275	99	26	6

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

28/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	58	39	9	10	0
01:00	31	20	4	7	0
02:00	34	15	12	7	0
03:00	45	24	10	11	0
04:00	87	59	11	16	1
05:00	247	182	45	16	4
06:00	603	465	95	30	13
07:00	1046	857	154	25	10
08:00	967	754	173	30	10
09:00	740	551	135	42	12
10:00	804	628	127	39	10
11:00	745	578	115	41	11
12:00	770	602	104	59	5
13:00	672	554	76	33	9
14:00	687	547	97	38	5
15:00	662	528	98	31	5
16:00	726	592	106	21	7
17:00	667	536	98	31	2
18:00	523	447	48	24	4
19:00	283	221	39	19	4
20:00	213	174	23	15	1
21:00	179	132	28	17	2
22:00	153	127	13	13	0
23:00	91	72	8	10	1
Total					
12H(7-19)	9009	7174	1331	414	90
16H(6-22)	10287	8166	1516	495	110
18H(6-24)	10531	8365	1537	518	111
24H(0-24)	11033	8704	1628	585	116
AM Peak	07:00	07:00	08:00	09:00	06:00
	1046	857	173	42	13
PM Peak	12:00	12:00	16:00	12:00	13:00
	770	602	106	59	9

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	67	56	3	8	0
01:00	65	56	6	2	1
02:00	89	63	7	19	0
03:00	159	122	14	23	0
04:00	236	199	16	19	2
05:00	467	417	38	10	2
06:00	601	531	61	8	1
07:00	836	747	76	9	4
08:00	823	736	75	12	0
09:00	767	673	74	18	2
10:00	721	621	78	19	3
11:00	836	717	84	27	8
12:00	714	604	84	18	8
13:00	818	673	101	36	8
14:00	677	546	101	25	5
15:00	787	618	133	30	6
16:00	855	702	128	22	3
17:00	897	786	88	20	3
18:00	611	544	55	10	2
19:00	337	297	27	11	2
20:00	232	200	22	10	0
21:00	141	116	21	4	0
22:00	104	84	14	6	0
23:00	96	80	3	12	1
Total					
12H(7-19)	9342	7967	1077	246	52
16H(6-22)	10653	9111	1208	279	55
18H(6-24)	10853	9275	1225	297	56
24H(0-24)	11936	10188	1309	378	61
AM Peak	07:00	07:00	11:00	11:00	11:00
	836	747	84	27	8
PM Peak	17:00	17:00	15:00	13:00	12:00
	897	786	133	36	8

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	125	95	12	18	0
01:00	96	76	10	9	1
02:00	123	78	19	26	0
03:00	204	146	24	34	0
04:00	323	258	27	35	3
05:00	714	599	83	26	6
06:00	1204	996	156	38	14
07:00	1882	1604	230	34	14
08:00	1790	1490	248	42	10
09:00	1507	1224	209	60	14
10:00	1525	1249	205	58	13
11:00	1581	1295	199	68	19
12:00	1484	1206	188	77	13
13:00	1490	1227	177	69	17
14:00	1364	1093	198	63	10
15:00	1449	1146	231	61	11
16:00	1581	1294	234	43	10
17:00	1564	1322	186	51	5
18:00	1134	991	103	34	6
19:00	620	518	66	30	6
20:00	445	374	45	25	1
21:00	320	248	49	21	2
22:00	257	211	27	19	0
23:00	187	152	11	22	2
Total					
12H(7-19)	18351	15141	2408	660	142
16H(6-22)	20940	17277	2724	774	165
18H(6-24)	21384	17640	2762	815	167
24H(0-24)	22969	18892	2937	963	177
AM Peak	07:00	07:00	08:00	11:00	11:00
	1882	1604	248	68	19
PM Peak	16:00	17:00	16:00	12:00	13:00
	1581	1322	234	77	17

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

29/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	32	21	2	9	0
01:00	34	15	8	9	2
02:00	44	22	8	13	1
03:00	54	30	16	8	0
04:00	112	73	18	21	0
05:00	231	175	31	20	5
06:00	613	476	94	39	4
07:00	1060	827	188	37	8
08:00	896	681	166	34	15
09:00	762	560	150	44	8
10:00	692	510	125	46	11
11:00	575	416	115	37	7
12:00	661	508	87	60	6
13:00	642	495	95	40	12
14:00	624	502	86	32	4
15:00	664	538	83	40	3
16:00	704	564	106	24	10
17:00	722	581	100	38	3
18:00	467	367	68	30	2
19:00	343	281	41	21	0
20:00	211	171	27	10	3
21:00	197	151	25	20	1
22:00	163	129	15	19	0
23:00	91	69	8	14	0
Total 12H(7-19)	8469	6549	1369	462	89
16H(6-22)	9833	7628	1556	552	97
18H(6-24)	10087	7826	1579	585	97
24H(0-24)	10594	8162	1662	665	105
AM Peak	07:00	07:00	07:00	10:00	08:00
	1060	827	188	46	15
PM Peak	17:00	17:00	16:00	12:00	13:00
	722	581	106	60	12

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	68	48	7	11	2
01:00	84	65	6	12	1
02:00	95	84	1	9	1
03:00	124	92	16	14	2
04:00	230	186	20	24	0
05:00	436	388	36	12	0
06:00	508	423	64	18	3
07:00	812	713	80	18	1
08:00	787	697	68	18	4
09:00	666	581	60	19	6
10:00	653	559	60	24	10
11:00	783	667	91	19	6
12:00	843	726	100	10	7
13:00	872	744	95	24	9
14:00	810	678	106	21	5
15:00	807	667	118	18	4
16:00	875	752	106	12	5
17:00	808	722	77	8	1
18:00	560	506	46	7	1
19:00	350	313	31	3	3
20:00	275	245	20	10	0
21:00	208	193	9	5	1
22:00	121	102	10	8	1
23:00	115	105	3	7	0
Total 12H(7-19)	9276	8012	1007	198	59
16H(6-22)	10617	9186	1131	234	66
18H(6-24)	10853	9393	1144	249	67
24H(0-24)	11890	10256	1230	331	73
AM Peak	07:00	07:00	11:00	04:00	10:00
	812	713	91	24	10
PM Peak	16:00	16:00	15:00	13:00	13:00
	875	752	118	24	9

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	100	69	9	20	2
01:00	118	80	14	21	3
02:00	139	106	9	22	2
03:00	178	122	32	22	2
04:00	342	259	38	45	0
05:00	667	563	67	32	5
06:00	1121	899	158	57	7
07:00	1872	1540	268	55	9
08:00	1683	1378	234	52	19
09:00	1428	1141	210	63	14
10:00	1345	1069	185	70	21
11:00	1358	1083	206	56	13
12:00	1504	1234	187	70	13
13:00	1514	1239	190	64	21
14:00	1434	1180	192	53	9
15:00	1471	1205	201	58	7
16:00	1579	1316	212	36	15
17:00	1530	1303	177	46	4
18:00	1027	873	114	37	3
19:00	693	594	72	24	3
20:00	486	416	47	20	3
21:00	405	344	34	25	2
22:00	284	231	25	27	1
23:00	206	174	11	21	0
Total 12H(7-19)	17745	14561	2376	660	148
16H(6-22)	20450	16814	2687	786	163
18H(6-24)	20940	17219	2723	834	164
24H(0-24)	22484	18418	2892	996	178
AM Peak	07:00	07:00	07:00	10:00	10:00
	1872	1540	268	70	21
PM Peak	16:00	16:00	16:00	12:00	13:00
	1579	1316	212	70	21

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

30/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	77	55	9	12	1
01:00	60	44	7	9	0
02:00	52	37	7	7	1
03:00	71	43	14	13	1
04:00	114	78	19	16	1
05:00	281	214	44	19	4
06:00	513	392	81	34	6
07:00	960	758	148	40	14
08:00	892	667	175	36	14
09:00	731	512	156	57	6
10:00	683	519	107	49	8
11:00	660	503	107	41	9
12:00	651	519	85	40	7
13:00	634	521	85	24	4
14:00	704	545	108	45	6
15:00	681	568	81	28	4
16:00	779	646	97	30	6
17:00	673	569	74	29	1
18:00	544	463	53	25	3
19:00	327	261	47	18	1
20:00	235	192	29	12	2
21:00	201	161	26	11	3
22:00	142	124	8	10	0
23:00	103	82	11	9	1
Total 12H(7-19)	8592	6790	1276	444	82
16H(6-22)	9868	7796	1459	519	94
18H(6-24)	10113	8002	1478	538	95
24H(0-24)	10768	8473	1578	614	103
AM Peak	07:00	07:00	08:00	09:00	07:00
	960	758	175	57	14
PM Peak	16:00	16:00	14:00	14:00	12:00
	779	646	108	45	7

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	93	82	9	2	0
01:00	115	102	7	5	1
02:00	118	96	9	12	1
03:00	209	173	23	10	3
04:00	280	249	19	12	0
05:00	430	380	25	21	4
06:00	612	518	75	19	0
07:00	829	723	90	16	0
08:00	774	682	74	16	2
09:00	706	596	94	12	4
10:00	706	603	78	21	4
11:00	841	731	83	22	5
12:00	799	696	82	17	4
13:00	877	738	104	25	10
14:00	854	728	98	27	1
15:00	813	681	107	18	7
16:00	920	808	101	10	1
17:00	915	834	68	12	1
18:00	530	470	46	13	1
19:00	311	271	28	12	0
20:00	263	231	25	7	0
21:00	170	159	10	1	0
22:00	112	100	8	4	0
23:00	79	64	9	6	0
Total 12H(7-19)	9564	8290	1025	209	40
16H(6-22)	10920	9469	1163	248	40
18H(6-24)	11111	9633	1180	258	40
24H(0-24)	12356	10715	1272	320	49
AM Peak	11:00	11:00	09:00	11:00	11:00
	841	731	94	22	5
PM Peak	16:00	17:00	15:00	14:00	13:00
	920	834	107	27	10

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	170	137	18	14	1
01:00	175	146	14	14	1
02:00	170	133	16	19	2
03:00	280	216	37	23	4
04:00	394	327	38	28	1
05:00	711	594	69	40	8
06:00	1125	910	156	53	6
07:00	1789	1481	238	56	14
08:00	1666	1349	249	52	16
09:00	1437	1108	250	69	10
10:00	1389	1122	185	70	12
11:00	1501	1234	190	63	14
12:00	1450	1215	167	57	11
13:00	1511	1259	189	49	14
14:00	1558	1273	206	72	7
15:00	1494	1249	188	46	11
16:00	1699	1454	198	40	7
17:00	1588	1403	142	41	2
18:00	1074	933	99	38	4
19:00	638	532	75	30	1
20:00	498	423	54	19	2
21:00	371	320	36	12	3
22:00	254	224	16	14	0
23:00	182	146	20	15	1
Total 12H(7-19)	18156	15080	2301	653	122
16H(6-22)	20788	17265	2622	767	134
18H(6-24)	21224	17635	2658	796	135
24H(0-24)	23124	19188	2850	934	152
AM Peak	07:00	07:00	09:00	10:00	08:00
	1789	1481	250	70	16
PM Peak	16:00	16:00	14:00	14:00	13:00
	1699	1454	206	72	14

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

24/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	86	59.4	52.7	6.4	0	0	0	0	1	6	21	36	10	12	0	0
01:00	47	57.7	51.5	6.0	0	0	0	0	0	2	21	15	6	2	1	0
02:00	64	55.7	51.3	4.3	0	0	0	0	0	2	24	29	7	2	0	0
03:00	74	57.9	52.8	5.0	0	0	0	0	0	2	21	28	19	4	0	0
04:00	103	56.8	52.1	4.5	0	0	0	0	0	3	29	50	17	4	0	0
05:00	229	55.9	50.7	5.0	0	0	0	0	0	14	96	92	21	4	1	1
06:00	590	52.6	47.3	5.1	0	0	0	23	18	84	325	118	18	4	0	0
07:00	1037	50.7	46.1	4.4	0	0	3	6	57	324	489	137	20	1	0	0
08:00	939	50.4	43.2	6.9	1	2	43	84	98	223	414	66	8	0	0	0
09:00	760	51.1	43.7	7.2	0	0	55	47	39	199	345	71	2	1	1	0
10:00	656	50.4	45.0	5.3	0	0	2	39	57	176	311	62	8	1	0	0
11:00	701	50.3	44.7	5.4	0	0	6	47	55	187	343	60	1	2	0	0
12:00	639	52.1	44.5	7.4	0	5	34	39	29	126	323	69	14	0	0	0
13:00	639	53.1	43.7	9.1	0	20	54	19	16	136	302	78	11	3	0	0
14:00	813	51.0	42.1	8.6	0	10	97	32	66	255	257	86	9	1	0	0
15:00	722	50.9	45.0	5.7	0	0	10	45	43	193	341	79	10	1	0	0
16:00	825	52.4	45.2	6.9	0	9	29	39	21	176	415	127	7	2	0	0
17:00	655	52.5	48.5	3.8	0	0	1	0	2	92	356	181	21	2	0	0
18:00	614	51.4	46.5	4.8	0	0	1	11	32	152	304	98	14	2	0	0
19:00	326	53.1	48.8	4.2	0	0	0	0	7	37	171	91	18	2	0	0
20:00	271	54.1	49.3	4.7	0	0	0	0	2	28	149	67	19	5	1	0
21:00	220	55.7	50.7	4.8	0	0	1	0	0	7	101	82	21	8	0	0
22:00	157	54.7	50.5	4.1	0	0	0	0	0	6	68	73	5	5	0	0
23:00	112	56.1	51.1	4.8	0	0	0	0	0	4	47	46	9	6	0	0
Total 2H(10-12)	1357	50.3	44.8	5.3	0	0	8	86	112	363	654	122	9	3	0	0
2H(14-16)	1535	51.2	43.5	7.5	0	10	107	77	109	448	598	165	19	2	0	0
12H(7-19)	9000	51.7	44.8	6.7	1	46	335	408	515	2239	4200	1114	125	16	1	0
24H(0-24)	11279	52.7	45.8	6.7	1	46	336	431	543	2434	5273	1841	295	74	4	1
AM Peak	07:00	00:00	03:00	09:00	08:00	08:00	09:00	08:00	08:00	07:00	07:00	07:00	05:00	00:00	01:00	05:00
	1037	59.4	52.8	7.2	1	2	55	84	98	324	489	137	21	12	1	1
PM Peak	16:00	23:00	23:00	13:00	12:00	13:00	14:00	15:00	14:00	14:00	16:00	17:00	17:00	21:00	20:00	12:00
	825	56.1	51.1	9.1	0	20	97	45	66	255	415	181	21	8	1	0

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	78	57.3	52.4	4.8	0	0	0	0	0	3	20	37	14	4	0	0
01:00	120	55.8	51.4	4.2	0	0	0	0	0	2	44	55	18	0	1	0
02:00	97	56.2	51.1	4.9	0	0	0	0	0	6	35	43	10	2	1	0
03:00	123	54.0	49.9	4.0	0	0	0	0	2	7	53	54	6	1	0	0
04:00	259	55.6	51.0	4.5	0	0	0	0	0	15	97	109	31	7	0	0
05:00	442	54.1	44.4	9.4	0	0	57	28	11	51	187	90	12	5	1	0
06:00	593	52.6	46.5	5.9	0	0	3	50	18	73	312	126	8	3	0	0
07:00	744	52.0	46.3	5.5	0	0	9	17	47	170	342	137	21	1	0	0
08:00	723	50.4	45.1	5.0	0	1	9	23	24	269	307	87	3	0	0	0
09:00	810	51.5	45.4	5.9	0	0	19	32	37	221	390	89	20	1	1	0
10:00	652	52.3	44.5	7.4	5	9	21	26	12	168	343	60	7	1	0	0
11:00	713	50.6	43.8	6.5	2	0	16	73	57	188	300	74	3	0	0	0
12:00	723	50.8	43.3	7.2	0	1	54	47	48	202	298	71	2	0	0	0
13:00	738	51.5	44.9	6.3	0	2	15	46	47	176	365	72	10	4	1	0
14:00	823	50.4	43.4	6.8	0	4	38	45	70	297	294	67	5	2	1	0
15:00	817	50.4	44.7	5.5	0	0	5	39	100	220	366	68	17	2	0	0
16:00	937	50.2	43.2	6.7	0	9	26	79	83	303	372	53	9	3	0	0
17:00	959	51.4	45.4	5.8	0	0	23	19	82	229	479	111	10	5	1	0
18:00	626	50.8	46.2	4.4	0	0	0	2	41	188	292	94	7	1	1	0
19:00	422	52.5	47.6	4.7	0	0	1	2	19	88	174	127	11	0	0	0
20:00	270	54.8	49.6	5.0	0	0	0	1	2	26	131	87	17	5	0	1
21:00	198	57.6	50.4	7.0	0	0	0	3	5	15	92	51	16	13	2	1
22:00	124	56.8	51.8	4.9	0	0	0	0	1	7	30	66	14	6	0	0
23:00	112	55.3	50.5	4.7	0	0	0	0	0	12	39	48	10	3	0	0
Total 2H(10-12)	1365	51.4	44.2	7.0	7	9	37	99	69	356	643	134	10	1	0	0
2H(14-16)	1640	50.5	44.1	6.2	0	4	43	84	170	517	660	135	22	4	1	0
12H(7-19)	9265	51.1	44.7	6.2	7	26	235	448	648	2631	4148	983	114	20	5	0
24H(0-24)	12103	52.3	45.5	6.5	7	26	296	532	706	2936	5362	1876	281	69	10	2
AM Peak	09:00	00:00	00:00	05:00	10:00	10:00	05:00	11:00	11:00	08:00	09:00	07:00	04:00	04:00	01:00	00:00
	810	57.3	52.4	9.4	5	9	57	73	57	269	390	137	31	7	1	0
PM Peak	17:00	21:00	22:00	12:00	12:00	16:00	12:00	16:00	15:00	16:00	17:00	19:00	15:00	21:00	21:00	20:00
	959	57.6	51.8	7.2	0	9	54	79	100	303	479	127	17	13	2	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	164	58.4	52.6	5.7	0	0	0	0	1	9	41	73	24	16	0	0
01:00	167	56.4	51.5	4.8	0	0	0	0	0	4	65	70	24	2	2	0
02:00	161	56.0	51.1	4.7	0	0	0	0	0	8	59	72	17	4	1	0
03:00	197	55.7	51.0	4.6	0	0	0	0	2	9	74	82	25	5	0	0
04:00	362	56.0	51.3	4.5	0	0	0	0	0	18	126	159	48	11	0	0
05:00	671	55.6	46.5	8.7	0	0	57	28	11	65	283	182	33	9	2	1
06:00	1183	52.6	46.9	5.5	0	0	3	73	36	157	637	244	26	7	0	0
07:00	1781	51.3	46.2	4.9	0	0	12	23	104	494	831	274	41	2	0	0
08:00	1662	50.5	44.1	6.3	1	3	52	107	122	492	721	153	11	0	0	0
09:00	1570	51.4	44.6	6.6	0	0	74	79	76	420	735	160	22	2	2	0
10:00	1308	51.4	44.7	6.4	5	9	23	65	69	344	654	122	15	2	0	0
11:00	1414	50.5	44.2	6.0	2	0	22	120	112	375	643	134	4	2	0	0
12:00	1362	51.4	43.8	7.3	0	6	88	86	77	328	621	140	16	0	0	0
13:00	1377	52.4	44.4	7.7	0	22	69	65	63	312	667	150	21	7	1	0
14:00	1636	50.8	42.7	7.7	0	14	135	77	136	552	551	153	14	3	1	0
15:00	1539	50.7	44.9	5.6	0	0	15	84	143	413	707	147	27	3	0	0
16:00	1762	51.3	44.2	6.9	0	18	55	118	104	479	787	180	16	5	0	0
17:00	1614	52.1	46.7	5.3	0	0	24	19	84	321	835	292	31	7	1	0
18:00	1240	51.1	46.4	4.6	0	0	1	13	73	340	596	192	21	3	1	0
19:00	748	52.8	48.1	4.5	0	0	1	2	26	125	345	218	29	2	0	0
20:00	541	54.4	49.4	4.8	0	0	0	1	4	54	280	154	36	10	1	1
21:00	418	56.7	50.5	5.9	0	0	1	3	5	22	193	133	37	21	2	1
22:00	281	55.7	51.1	4.5	0	0	0	0	1	13	98	139	19	11	0	0
23:00	224	55.7	50.8	4.7	0	0	0	0	0	16	86	94	19	9	0	0
Total 2H(10-12)	2722	50.9	44.5	6.2	7	9	45	185	181	719	1297	256	19	4	0	0
2H(14-16)	3175	50.9	43.8	6.9	0	14	150	161	279	965	1258	300	41	6	1	0
12H(7-19)	18265	51.4	44.7	6.4	8	72	570	856	1163	4870	8348	2097	239	36	6	0
24H(0-24)	23382	52.5	45.6	6.6	8	72	632	963	1249	5370	10635	3717	576	143	14	3
AM Peak	07:00	00:00	00:00	05:00	10:00	10:00	09:00	11:00	08:00	07:00	07:00	07:00	04:00	00:00	01:00	05:00
	1781	58.4	52.6	8.7	5	9	74	120	122	494	831	274	48	16	2	1
PM Peak	16:00	21:00	22:00	14:00	12:00	13:00	14:00	16:00	15:00	14:00	17:00	17:00	21:00	21:00	21:00	20:00
	1762	56.7	51.1	7.7	0	22	135	118	143	552	835	292	37	21	2	1

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

25/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	78	56.8	49.8	6.7	0	0	0	0	3	16	19	31	6	1	2	0
01:00	73	57.9	51.1	6.6	0	0	0	0	2	2	29	34	2	2	1	1
02:00	65	59.0	52.6	6.2	0	0	0	0	0	2	23	24	9	6	1	0
03:00	55	56.3	50.8	5.3	0	0	0	0	1	4	19	24	4	3	0	0
04:00	147	59.3	52.5	6.6	0	0	1	0	3	2	43	62	22	13	0	1
05:00	292	54.8	49.6	5.0	0	0	0	0	0	45	127	86	25	9	0	0
06:00	629	53.7	47.9	5.5	0	6	5	0	2	94	346	148	21	7	0	0
07:00	907	51.8	45.1	6.5	0	0	49	20	35	230	446	117	7	2	1	0
08:00	826	51.4	45.7	5.5	0	1	15	44	17	181	459	103	5	1	0	0
09:00	707	51.4	45.9	5.3	0	0	15	14	12	201	367	91	5	0	2	0
10:00	758	49.9	44.5	5.3	0	1	10	20	89	248	316	71	2	1	0	0
11:00	725	51.7	42.6	8.8	0	22	42	63	56	170	292	66	13	0	0	1
12:00	767	49.9	43.4	6.2	0	8	21	15	109	274	288	45	6	1	0	0
13:00	794	51.4	41.5	9.6	7	21	82	38	92	192	274	81	6	0	0	1
14:00	829	52.4	45.2	6.9	0	11	30	9	42	203	416	100	13	5	0	0
15:00	880	51.9	44.9	6.7	0	9	22	46	58	188	427	124	5	0	1	0
16:00	734	51.7	46.6	5.0	0	1	0	12	44	173	360	124	15	5	0	0
17:00	698	52.6	46.4	6.0	0	0	9	36	44	119	317	153	18	2	0	0
18:00	598	51.7	47.8	3.7	0	0	0	1	9	93	350	138	6	0	1	0
19:00	410	53.4	47.7	5.5	0	0	0	13	22	58	193	102	16	6	0	0
20:00	289	53.8	48.8	4.7	0	0	0	0	0	46	151	73	13	4	2	0
21:00	191	54.1	49.6	4.4	0	0	0	1	0	16	97	62	11	4	0	0
22:00	175	57.1	51.4	5.4	0	0	0	0	0	7	67	78	13	7	3	0
23:00	90	61.5	53.2	8.0	0	0	0	0	0	8	29	22	20	7	3	1
Total 2H(10-12)	1483	51.1	43.6	7.3	0	23	52	83	145	418	608	137	15	1	0	1
2H(14-16)	1709	52.1	45.1	6.8	0	20	52	55	100	391	843	224	18	5	1	0
12H(7-19)	9223	51.9	44.9	6.7	7	74	295	318	607	2272	4312	1213	101	17	5	2
24H(0-24)	11717	52.9	45.9	6.8	7	80	301	332	640	2572	5455	1959	263	86	17	5
AM Peak	07:00	04:00	02:00	11:00	00:00	11:00	07:00	11:00	10:00	10:00	08:00	06:00	05:00	04:00	00:00	01:00
	907	59.3	52.6	8.8	0	22	49	63	89	248	459	148	25	13	2	1
PM Peak	15:00	23:00	23:00	13:00	13:00	13:00	13:00	15:00	12:00	12:00	15:00	17:00	23:00	22:00	22:00	13:00
	880	61.5	53.2	9.6	7	21	82	46	109	274	427	153	20	7	3	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	93	57.0	51.8	5.1	0	0	0	0	0	4	28	48	8	4	1	0
01:00	84	55.4	51.8	3.5	0	0	0	0	1	1	17	57	7	1	0	0
02:00	123	56.4	51.0	5.2	0	0	0	0	2	13	35	48	22	3	0	0
03:00	133	55.6	50.8	4.6	0	0	0	0	0	6	56	54	14	2	1	0
04:00	203	56.0	50.3	5.5	1	0	0	0	2	12	84	79	19	6	0	0
05:00	421	57.5	49.1	8.1	0	0	9	19	3	50	156	130	32	14	6	2
06:00	550	52.4	47.5	4.8	0	0	0	7	35	73	299	120	11	5	0	0
07:00	768	51.6	46.9	4.5	0	0	3	11	24	161	421	135	10	3	0	0
08:00	761	50.8	46.2	4.4	0	0	1	16	40	179	411	109	4	1	0	0
09:00	741	51.4	44.8	6.3	0	0	28	35	19	255	304	75	23	2	0	0
10:00	773	49.6	43.3	6.1	0	1	26	48	88	261	291	55	3	0	0	0
11:00	851	49.4	42.9	6.2	0	3	8	110	107	244	319	56	4	0	0	0
12:00	875	49.2	43.7	5.4	0	0	12	37	125	326	321	48	2	3	1	0
13:00	832	50.5	44.8	5.5	0	0	21	30	54	252	392	78	4	1	0	0
14:00	882	49.0	43.8	5.1	0	0	13	30	113	345	328	45	8	0	0	0
15:00	843	50.5	44.4	5.9	0	2	26	23	68	284	359	74	5	2	0	0
16:00	910	51.3	45.4	5.7	0	0	32	9	47	246	465	100	7	4	0	0
17:00	800	50.8	46.7	4.0	0	0	0	3	42	166	468	109	11	1	0	0
18:00	561	51.7	47.5	4.1	0	0	0	4	10	107	320	109	8	2	1	0
19:00	359	52.8	47.3	5.4	0	0	0	5	21	72	173	73	11	3	0	1
20:00	293	54.5	48.9	5.3	1	0	0	1	6	28	154	82	15	5	1	0
21:00	170	56.1	50.2	5.7	0	0	0	0	4	23	57	65	11	10	0	0
22:00	129	57.8	51.5	6.1	0	0	0	0	0	8	49	54	8	7	3	0
23:00	100	57.1	51.7	5.2	0	0	0	0	0	2	39	43	10	5	1	0
Total 2H(10-12)	1624	49.5	43.1	6.2	0	4	34	158	195	505	610	111	7	0	0	0
2H(14-16)	1725	49.8	44.1	5.5	0	2	39	53	181	629	687	119	13	2	0	0
12H(7-19)	9597	50.7	44.9	5.5	0	6	170	356	737	2826	4399	993	89	19	2	0
24H(0-24)	12255	52.0	45.9	5.9	2	6	179	388	811	3118	5546	1846	257	84	15	3
AM Peak	11:00	05:00	00:00	05:00	04:00	11:00	09:00	11:00	11:00	10:00	07:00	07:00	05:00	05:00	05:00	05:00
	851	57.5	51.8	8.1	1	3	28	110	107	261	421	135	32	14	6	2
PM Peak	16:00	22:00	23:00	22:00	20:00	15:00	16:00	12:00	12:00	14:00	17:00	17:00	20:00	21:00	22:00	19:00
	910	57.8	51.7	6.1	1	2	32	37	125	345	468	109	15	10	3	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	171	57.0	50.9	6.0	0	0	0	0	3	20	47	79	14	5	3	0
01:00	157	56.8	51.4	5.2	0	0	0	0	3	3	46	91	9	3	1	1
02:00	188	57.4	51.5	5.6	0	0	0	0	2	15	58	72	31	9	1	0
03:00	188	55.8	50.8	4.8	0	0	0	0	1	10	75	78	18	5	1	0
04:00	350	57.5	51.2	6.1	1	0	1	0	5	14	127	141	41	19	0	1
05:00	713	56.6	49.3	7.0	0	0	9	19	3	95	283	216	57	23	6	2
06:00	1179	53.1	47.7	5.2	0	6	5	7	37	167	645	268	32	12	0	0
07:00	1675	51.9	45.9	5.7	0	0	52	31	59	391	867	252	17	5	1	0
08:00	1587	51.2	45.9	5.0	0	1	16	60	57	360	870	212	9	2	0	0
09:00	1448	51.4	45.4	5.9	0	0	43	49	31	456	671	166	28	2	2	0
10:00	1531	49.8	43.9	5.7	0	2	36	68	177	509	607	126	5	1	0	0
11:00	1576	50.6	42.8	7.5	0	25	50	173	163	414	611	122	17	0	0	1
12:00	1642	49.5	43.6	5.8	0	8	33	52	234	600	609	93	8	4	1	0
13:00	1626	51.4	43.2	7.9	7	21	103	68	146	444	666	159	10	1	0	1
14:00	1711	50.8	44.5	6.1	0	11	43	39	155	548	744	145	21	5	0	0
15:00	1723	51.2	44.6	6.3	0	11	48	69	126	472	786	198	10	2	1	0
16:00	1644	51.5	45.9	5.4	0	1	32	21	91	419	825	224	22	9	0	0
17:00	1498	51.8	46.6	5.0	0	0	9	39	86	285	785	262	29	3	0	0
18:00	1159	51.7	47.7	3.9	0	0	0	5	19	200	670	247	14	2	2	0
19:00	769	53.1	47.5	5.5	0	0	0	18	43	130	366	175	27	9	0	1
20:00	582	54.1	48.9	5.0	1	0	0	1	6	74	305	155	28	9	3	0
21:00	361	55.1	49.9	5.1	0	0	0	1	4	39	154	127	22	14	0	0
22:00	304	57.4	51.5	5.7	0	0	0	0	0	15	116	132	21	14	6	0
23:00	190	59.3	52.4	6.7	0	0	0	0	0	10	68	65	30	12	4	1
Total 2H(10-12)	3107	50.3	43.3	6.7	0	27	86	241	340	923	1218	248	22	1	0	1
2H(14-16)	3434	51.0	44.6	6.2	0	22	91	108	281	1020	1530	343	31	7	1	0
12H(7-19)	18820	51.3	44.9	6.2	7	80	465	674	1344	5098	8711	2206	190	36	7	2
24H(0-24)	23972	52.4	45.9	6.4	9	86	480	720	1451	5690	11001	3805	520	170	32	8
AM Peak	07:00	04:00	02:00	11:00	04:00	11:00	07:00	11:00	10:00	10:00	08:00	06:00	05:00	05:00	05:00	05:00
	1675	57.5	51.5	7.5	1	25	52	173	177	509	870	268	57	23	6	2
PM Peak	15:00	23:00	23:00	13:00	13:00	13:00	13:00	15:00	12:00	12:00	16:00	17:00	23:00	21:00	22:00	13:00
	1723	59.3	52.4	7.9	7	21	103	69	234	600	825	262	30	14	6	1

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

26/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	73	58.2	52.5	5.4	0	0	0	0	0	2	21	34	11	4	1	0
01:00	46	56.7	51.6	4.9	0	0	0	0	0	2	15	23	3	3	0	0
02:00	50	65.1	55.2	9.6	0	0	0	0	0	3	9	19	13	2	1	3
03:00	55	59.0	53.3	5.5	0	0	0	0	0	3	9	26	14	2	1	0
04:00	72	58.2	53.0	5.1	0	0	0	0	0	2	18	31	16	5	0	0
05:00	134	55.2	50.0	5.0	0	0	0	0	2	8	68	39	14	2	1	0
06:00	244	56.3	50.0	6.1	0	1	0	2	2	19	119	64	28	8	0	1
07:00	342	53.7	47.4	6.0	0	0	1	17	7	70	146	81	12	8	0	0
08:00	497	51.7	47.3	4.3	0	0	0	1	6	135	255	76	21	3	0	0
09:00	635	50.8	45.2	5.4	0	0	9	27	42	174	304	72	7	0	0	0
10:00	665	50.7	45.2	5.2	0	0	8	26	46	175	339	62	8	1	0	0
11:00	619	51.5	44.8	6.5	0	0	30	22	31	172	281	71	10	2	0	0
12:00	684	51.6	45.8	5.6	0	0	26	0	20	191	344	91	11	1	0	0
13:00	602	51.7	46.0	5.4	0	0	12	14	18	165	292	85	15	1	0	0
14:00	536	51.7	47.7	3.8	0	0	0	1	7	96	310	109	11	2	0	0
15:00	552	53.3	45.4	7.6	0	13	22	4	15	114	287	81	16	0	0	0
16:00	513	52.6	47.9	4.6	0	0	0	3	15	96	264	103	29	3	0	0
17:00	498	52.2	47.1	4.9	0	0	0	6	13	139	230	90	14	5	1	0
18:00	498	52.4	47.8	4.4	0	0	0	0	12	106	255	99	22	4	0	0
19:00	289	53.7	48.8	4.7	0	0	0	0	3	41	147	81	13	2	2	0
20:00	247	57.1	50.7	6.2	0	0	2	1	0	11	122	70	27	10	4	0
21:00	211	55.4	50.2	5.0	0	0	0	0	5	15	82	87	17	4	1	0
22:00	128	57.2	51.1	5.9	0	0	0	0	0	12	49	46	13	6	2	0
23:00	100	60.6	52.6	7.7	0	0	0	0	0	8	36	29	14	11	0	2
Total 2H(10-12)	1284	51.1	45.0	5.9	0	0	38	48	77	347	620	133	18	3	0	0
2H(14-16)	1088	52.9	46.6	6.1	0	13	22	5	22	210	597	190	27	2	0	0
12H(7-19)	6641	52.1	46.3	5.5	0	13	108	121	232	1633	3307	1020	176	30	1	0
24H(0-24)	8290	53.3	47.2	5.9	0	14	110	124	244	1759	4002	1569	359	89	14	6
AM Peak	10:00	02:00	02:00	02:00	00:00	06:00	11:00	09:00	10:00	10:00	10:00	07:00	06:00	06:00	00:00	02:00
	665	65.1	55.2	9.6	0	1	30	27	46	175	339	81	28	8	1	3
PM Peak	12:00	23:00	23:00	23:00	12:00	15:00	12:00	13:00	12:00	12:00	12:00	14:00	16:00	23:00	20:00	23:00
	684	60.6	52.6	7.7	0	13	26	14	20	191	344	109	29	11	4	2

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	69	56.8	49.1	7.4	0	0	1	0	5	8	33	7	10	5	0	0
01:00	64	53.3	49.8	3.4	0	0	0	0	1	2	30	29	2	0	0	0
02:00	73	57.1	51.8	5.2	0	0	0	0	0	5	20	36	7	5	0	0
03:00	111	57.1	51.4	5.6	0	0	0	1	3	7	27	50	19	4	0	0
04:00	142	58.1	52.0	5.9	0	0	0	0	1	10	37	64	24	4	1	1
05:00	252	56.4	49.1	7.1	0	0	9	5	1	17	108	82	25	3	2	0
06:00	277	55.0	49.0	5.8	0	0	0	7	2	27	143	80	10	5	2	1
07:00	446	54.8	49.1	5.4	0	0	0	6	5	46	227	133	17	9	1	2
08:00	574	51.9	47.7	4.0	0	0	0	1	13	107	306	134	11	2	0	0
09:00	655	52.1	46.5	5.5	0	0	7	20	32	140	322	115	15	4	0	0
10:00	630	51.6	45.3	6.1	0	1	21	14	43	155	307	76	12	1	0	0
11:00	744	50.4	46.3	3.9	0	0	0	0	30	229	380	96	7	2	0	0
12:00	684	50.3	45.3	4.9	1	1	1	5	59	257	268	81	11	0	0	0
13:00	589	51.1	46.4	4.5	0	0	0	5	18	191	288	70	10	7	0	0
14:00	568	53.0	47.0	5.8	0	0	7	11	22	117	285	94	23	8	1	0
15:00	575	50.9	46.5	4.3	0	0	0	6	28	140	318	74	8	0	1	0
16:00	498	51.6	46.8	4.6	0	0	0	2	18	151	233	75	14	5	0	0
17:00	495	51.4	47.2	4.0	0	0	0	0	15	112	274	83	8	3	0	0
18:00	476	51.9	47.3	4.4	0	0	2	1	7	100	278	73	11	3	1	0
19:00	298	52.7	47.8	4.8	0	0	0	0	11	63	142	69	8	5	0	0
20:00	222	53.6	49.3	4.2	0	0	0	0	1	23	112	74	10	1	1	0
21:00	132	56.1	50.9	4.9	0	0	0	0	2	6	53	47	20	4	0	0
22:00	114	56.2	50.8	5.3	0	0	0	0	2	9	39	47	14	2	1	0
23:00	91	57.4	50.4	6.8	0	0	0	0	1	11	41	25	7	3	3	0
Total 2H(10-12)	1374	51.1	45.9	5.1	0	1	21	14	73	384	687	172	19	3	0	0
2H(14-16)	1143	52.0	46.8	5.1	0	0	7	17	50	257	603	168	31	8	2	0
12H(7-19)	6934	51.8	46.7	4.9	1	2	38	71	290	1745	3486	1104	147	44	4	2
24H(0-24)	8779	52.8	47.3	5.3	1	2	48	84	320	1933	4271	1714	303	85	14	4
AM Peak	11:00	04:00	04:00	00:00	00:00	10:00	10:00	09:00	10:00	11:00	11:00	08:00	05:00	07:00	05:00	07:00
	744	58.1	52.0	7.4	0	1	21	20	43	229	380	134	25	9	2	2
PM Peak	12:00	23:00	21:00	23:00	12:00	12:00	14:00	14:00	12:00	12:00	15:00	14:00	14:00	14:00	23:00	12:00
	684	57.4	50.9	6.8	1	1	7	11	59	257	318	94	23	8	3	0

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	142	57.8	50.9	6.7	0	0	1	0	5	10	54	41	21	9	1	0
01:00	110	54.9	50.5	4.2	0	0	0	0	1	4	45	52	5	3	0	0
02:00	123	60.9	53.2	7.4	0	0	0	0	0	8	29	55	20	7	1	3
03:00	166	57.8	52.0	5.6	0	0	0	1	3	10	36	76	33	6	1	0
04:00	214	58.1	52.3	5.6	0	0	0	0	1	12	55	95	40	9	1	1
05:00	386	56.1	49.4	6.4	0	0	9	5	3	25	176	121	39	5	3	0
06:00	521	55.6	49.5	5.9	0	1	0	9	4	46	262	144	38	13	2	2
07:00	788	54.4	48.4	5.8	0	0	1	23	12	116	373	214	29	17	1	2
08:00	1071	51.8	47.5	4.1	0	0	0	2	19	242	561	210	32	5	0	0
09:00	1290	51.5	45.8	5.5	0	0	16	47	74	314	626	187	22	4	0	0
10:00	1295	51.1	45.3	5.7	0	1	29	40	89	330	646	138	20	2	0	0
11:00	1363	51.2	45.6	5.3	0	0	30	22	61	401	661	167	17	4	0	0
12:00	1368	51.0	45.5	5.3	1	1	27	5	79	448	612	172	22	1	0	0
13:00	1191	51.4	46.2	5.0	0	0	12	19	36	356	580	155	25	8	0	0
14:00	1104	52.5	47.4	4.9	0	0	7	12	29	213	595	203	34	10	1	0
15:00	1127	52.3	46.0	6.1	0	13	22	10	43	254	605	155	24	0	1	0
16:00	1011	52.1	47.3	4.6	0	0	0	5	33	247	497	178	43	8	0	0
17:00	993	51.8	47.1	4.5	0	0	0	6	28	251	504	173	22	8	1	0
18:00	974	52.1	47.6	4.4	0	0	2	1	19	206	533	172	33	7	1	0
19:00	587	53.2	48.3	4.7	0	0	0	0	14	104	289	150	21	7	2	0
20:00	469	55.6	50.0	5.4	0	0	2	1	1	34	234	144	37	11	5	0
21:00	343	55.6	50.5	4.9	0	0	0	0	7	21	135	134	37	8	1	0
22:00	242	56.8	50.9	5.6	0	0	0	0	2	21	88	93	27	8	3	0
23:00	191	59.2	51.6	7.3	0	0	0	0	1	19	77	54	21	14	3	2
Total 2H(10-12)	2658	51.1	45.5	5.5	0	1	59	62	150	731	1307	305	37	6	0	0
2H(14-16)	2231	52.5	46.7	5.6	0	13	29	22	72	467	1200	358	58	10	2	0
12H(7-19)	13575	51.9	46.5	5.2	1	15	146	192	522	3378	6793	2124	323	74	5	2
24H(0-24)	17069	53.0	47.3	5.6	1	16	158	208	564	3692	8273	3283	662	174	28	10
AM Peak	11:00	02:00	02:00	02:00	00:00	06:00	11:00	09:00	10:00	11:00	11:00	07:00	04:00	07:00	05:00	02:00
	1363	60.9	53.2	7.4	0	1	30	47	89	401	661	214	40	17	3	3
PM Peak	12:00	23:00	23:00	23:00	12:00	15:00	12:00	13:00	12:00	12:00	12:00	14:00	16:00	23:00	20:00	23:00
	1368	59.2	51.6	7.3	1	13	27	19	79	448	612	203	43	14	5	2

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

27/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	66	57.4	50.8	6.4	0	0	0	0	3	3	26	25	4	4	1	0
01:00	43	60.6	52.0	8.3	0	0	0	0	0	2	23	9	4	3	1	1
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	37	61.2	52.8	8.1	0	0	0	0	0	4	9	17	3	1	3	0
04:00	43	57.3	51.6	5.5	0	0	0	0	1	3	9	24	3	3	0	0
05:00	58	58.6	53.1	5.3	0	0	0	0	0	1	15	27	9	6	0	0
06:00	117	56.7	50.4	6.1	0	0	0	0	2	7	61	29	12	5	0	1
07:00	158	55.9	50.6	5.1	0	0	0	0	0	8	80	49	11	10	0	0
08:00	211	55.8	50.3	5.3	0	0	0	0	0	18	108	50	24	11	0	0
09:00	405	52.7	47.5	5.0	0	0	4	7	9	61	231	70	22	1	0	0
10:00	512	51.2	47.2	3.9	0	0	0	0	13	112	297	76	12	2	0	0
11:00	619	50.7	46.4	4.2	0	0	0	8	29	162	329	80	11	0	0	0
12:00	698	52.3	44.8	7.2	3	11	25	9	29	190	346	71	14	0	0	0
13:00	594	51.5	46.4	4.9	0	0	0	3	51	154	269	104	12	0	0	1
14:00	602	51.8	46.9	4.8	0	0	2	8	31	110	352	79	15	4	1	0
15:00	553	52.6	48.4	4.0	0	0	0	1	3	85	299	140	21	4	0	0
16:00	622	51.4	47.5	3.8	0	0	0	0	11	121	366	108	14	2	0	0
17:00	578	52.2	47.1	4.9	0	0	0	2	40	128	271	114	19	3	1	0
18:00	571	52.6	47.7	4.7	0	0	1	5	28	76	310	130	16	5	0	0
19:00	401	51.6	47.7	3.8	0	0	0	0	4	83	222	83	7	2	0	0
20:00	318	53.2	49.0	4.0	0	0	0	0	0	32	186	75	22	3	0	0
21:00	245	56.3	50.7	5.4	0	0	0	0	1	10	114	92	20	4	3	1
22:00	103	56.7	51.0	5.5	0	0	0	0	1	3	49	34	10	5	1	0
23:00	79	58.3	51.9	6.2	0	0	0	0	0	2	30	35	8	2	1	1
Total 2H(10-12)	1131	51.0	46.7	4.1	0	0	0	8	42	274	626	156	23	2	0	0
2H(14-16)	1155	52.3	47.6	4.5	0	0	2	9	34	195	651	219	36	8	1	0
12H(7-19)	6123	52.4	47.1	5.1	3	11	32	43	244	1225	3258	1071	191	42	2	1
24H(0-24)	7633	53.1	47.7	5.2	3	11	32	43	256	1375	4002	1521	293	80	12	5
AM Peak	11:00	03:00	05:00	01:00	00:00	00:00	09:00	11:00	11:00	11:00	11:00	11:00	08:00	08:00	03:00	01:00
	619	61.2	53.1	8.3	0	0	4	8	29	162	329	80	24	11	3	1
PM Peak	12:00	23:00	23:00	12:00	12:00	12:00	12:00	12:00	13:00	12:00	16:00	15:00	20:00	18:00	21:00	13:00
	698	58.3	51.9	7.2	3	11	25	9	51	190	366	140	22	5	3	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	77	55.8	51.5	4.2	0	0	0	0	0	4	21	42	8	2	0	0
01:00	75	56.9	50.4	6.3	0	0	0	2	0	12	22	20	17	2	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	81	57.2	51.7	5.3	0	0	0	0	3	6	15	36	20	1	0	0
04:00	113	61.7	53.7	7.7	0	0	0	0	0	8	22	57	9	11	5	1
05:00	139	57.6	51.0	6.4	0	0	0	0	6	13	40	53	20	5	2	0
06:00	165	54.9	49.9	4.8	0	0	0	0	3	18	65	60	16	3	0	0
07:00	225	54.3	49.1	5.0	0	0	0	1	0	25	132	49	9	8	1	0
08:00	337	52.8	48.7	3.9	0	0	0	0	8	20	213	77	16	3	0	0
09:00	542	52.1	47.5	4.4	0	1	0	0	14	102	313	93	15	3	1	0
10:00	634	52.0	45.8	5.9	0	0	11	18	55	132	317	79	15	7	0	0
11:00	779	50.1	45.7	4.2	0	0	2	7	39	270	371	80	10	0	0	0
12:00	695	50.9	47.0	3.8	0	0	0	2	21	153	405	102	11	1	0	0
13:00	679	51.4	47.4	3.9	0	0	0	1	11	148	378	129	9	3	0	0
14:00	592	51.3	46.8	4.3	0	1	0	1	23	146	324	80	15	2	0	0
15:00	601	51.5	47.1	4.2	0	0	0	4	20	122	343	98	12	1	1	0
16:00	642	51.2	46.6	4.5	0	0	0	2	40	165	315	106	11	3	0	0
17:00	509	52.5	48.0	4.4	0	0	0	5	16	61	298	109	17	2	1	0
18:00	487	52.2	47.5	4.5	0	0	3	0	15	97	244	114	13	1	0	0
19:00	452	53.2	47.6	5.4	0	1	1	8	26	61	225	110	16	4	0	0
20:00	301	54.1	49.3	4.6	0	0	0	0	2	31	157	92	11	7	1	0
21:00	191	55.2	50.2	4.9	0	0	1	0	1	14	81	71	19	4	0	0
22:00	116	58.8	50.2	8.3	0	0	1	0	0	13	60	32	2	4	0	4
23:00	86	56.9	50.9	5.8	0	0	0	1	0	9	32	24	16	4	0	0
Total 2H(10-12)	1413	51.0	45.8	5.1	0	0	13	25	94	402	688	159	25	7	0	0
2H(14-16)	1193	51.4	47.0	4.3	0	1	0	5	43	268	667	178	27	3	1	0
12H(7-19)	6722	51.7	47.0	4.5	0	2	16	41	262	1441	3653	1116	153	34	4	0
24H(0-24)	8518	52.8	47.6	5.0	0	3	19	52	303	1630	4393	1713	307	81	12	5
AM Peak	11:00	04:00	04:00	04:00	00:00	09:00	10:00	10:00	10:00	11:00	11:00	09:00	03:00	04:00	04:00	04:00
	779	61.7	53.7	7.7	0	1	11	18	55	270	371	93	20	11	5	1
PM Peak	12:00	22:00	23:00	22:00	12:00	14:00	18:00	19:00	16:00	16:00	12:00	13:00	21:00	20:00	15:00	22:00
	695	58.8	50.9	8.3	0	1	3	8	40	165	405	129	19	7	1	4

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	143	56.7	51.2	5.3	0	0	0	0	3	7	47	67	12	6	1	0
01:00	118	58.3	51.0	7.1	0	0	0	2	0	14	45	29	21	5	1	1
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	118	58.5	52.0	6.3	0	0	0	0	3	10	24	53	23	2	3	0
04:00	156	60.6	53.1	7.2	0	0	0	0	1	11	31	81	12	14	5	1
05:00	197	58.0	51.6	6.2	0	0	0	0	6	14	55	80	29	11	2	0
06:00	282	55.7	50.1	5.4	0	0	0	0	5	25	126	89	28	8	0	1
07:00	383	55.0	49.7	5.1	0	0	0	1	0	33	212	98	20	18	1	0
08:00	548	54.1	49.3	4.6	0	0	0	0	8	38	321	127	40	14	0	0
09:00	947	52.4	47.5	4.7	0	1	4	7	23	163	544	163	37	4	1	0
10:00	1146	51.8	46.4	5.2	0	0	11	18	68	244	614	155	27	9	0	0
11:00	1398	50.4	46.0	4.2	0	0	2	15	68	432	700	160	21	0	0	0
12:00	1393	52.0	45.9	5.9	3	11	25	11	50	343	751	173	25	1	0	0
13:00	1273	51.5	46.9	4.4	0	0	0	4	62	302	647	233	21	3	0	1
14:00	1194	51.6	46.8	4.6	0	1	2	9	54	256	676	159	30	6	1	0
15:00	1154	52.1	47.8	4.2	0	0	0	5	23	207	642	238	33	5	1	0
16:00	1264	51.4	47.1	4.2	0	0	0	2	51	286	681	214	25	5	0	0
17:00	1087	52.4	47.5	4.7	0	0	0	7	56	189	569	223	36	5	2	0
18:00	1058	52.4	47.6	4.6	0	0	4	5	43	173	554	244	29	6	0	0
19:00	853	52.5	47.6	4.7	0	1	1	8	30	144	447	193	23	6	0	0
20:00	619	53.6	49.2	4.3	0	0	0	0	2	63	343	167	33	10	1	0
21:00	436	55.8	50.5	5.1	0	0	1	0	2	24	195	163	39	8	3	1
22:00	219	57.9	50.6	7.1	0	0	1	0	1	16	109	66	12	9	1	4
23:00	165	57.6	51.3	6.0	0	0	0	1	0	11	62	59	24	6	1	1
Total 2H(10-12)	2544	51.0	46.2	4.7	0	0	13	33	136	676	1314	315	48	9	0	0
2H(14-16)	2348	51.8	47.3	4.4	0	1	2	14	77	463	1318	397	63	11	2	0
12H(7-19)	12845	52.0	47.1	4.8	3	13	48	84	506	2666	6911	2187	344	76	6	1
24H(0-24)	16151	52.9	47.6	5.1	3	14	51	95	559	3005	8395	3234	600	161	24	10
AM Peak	11:00	04:00	04:00	04:00	00:00	09:00	10:00	10:00	10:00	11:00	11:00	09:00	08:00	07:00	04:00	01:00
	1398	60.6	53.1	7.2	0	1	11	18	68	432	700	163	40	18	5	1
PM Peak	12:00	22:00	23:00	22:00	12:00	12:00	12:00	12:00	13:00	12:00	12:00	18:00	21:00	20:00	21:00	22:00
	1393	57.9	51.3	7.1	3	11	25	11	62	343	751	244	39	10	3	4

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

28/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	58	56.8	50.0	6.6	0	0	0	0	2	4	27	20	3	1	0	1
01:00	31	56.7	49.6	6.9	0	0	0	0	2	5	12	5	5	2	0	0
02:00	34	57.7	50.6	6.8	0	0	0	0	2	2	12	14	2	1	1	0
03:00	45	59.8	53.0	6.6	0	0	0	0	0	3	12	17	8	4	1	0
04:00	87	56.1	51.8	4.2	0	0	0	0	0	3	24	45	13	2	0	0
05:00	247	55.7	50.9	4.6	0	0	0	0	0	9	112	89	30	6	1	0
06:00	603	51.3	47.2	4.0	0	0	0	0	25	125	324	123	4	2	0	0
07:00	1046	51.9	43.8	7.8	11	11	30	67	85	248	455	132	7	0	0	0
08:00	967	51.0	44.6	6.2	0	0	27	67	62	260	420	125	6	0	0	0
09:00	740	50.0	44.1	5.7	0	1	13	49	53	253	305	63	3	0	0	0
10:00	804	50.7	42.3	8.0	1	32	25	37	79	287	299	36	7	1	0	0
11:00	745	49.8	42.4	7.1	1	7	37	58	83	263	248	42	4	2	0	0
12:00	770	50.0	40.4	9.3	1	38	64	63	104	204	250	44	2	0	0	0
13:00	672	51.2	44.2	6.8	0	10	15	32	68	163	308	71	5	0	0	0
14:00	687	53.3	41.6	11.3	10	41	72	31	22	117	288	99	6	1	0	0
15:00	662	52.9	46.4	6.2	0	0	25	14	17	115	349	127	14	0	0	1
16:00	726	52.4	46.9	5.3	0	0	1	18	31	152	381	125	13	2	0	3
17:00	667	52.7	46.7	5.8	0	0	12	33	17	98	347	144	15	1	0	0
18:00	523	52.8	48.4	4.3	0	0	0	1	5	75	304	103	29	6	0	0
19:00	283	53.1	48.2	4.7	0	0	2	0	6	42	143	82	4	4	0	0
20:00	213	52.6	48.4	4.0	0	0	0	1	0	30	123	49	8	2	0	0
21:00	179	55.3	50.1	5.0	0	1	0	0	0	9	84	68	12	5	0	0
22:00	153	56.5	51.5	4.9	0	0	0	0	0	7	55	63	23	4	1	0
23:00	91	57.8	49.5	8.1	0	0	0	0	5	26	22	25	2	9	2	0
Total 2H(10-12)	1549	50.2	42.3	7.6	2	39	62	95	162	550	547	78	11	3	0	0
2H(14-16)	1349	53.8	44.0	9.5	10	41	97	45	39	232	637	226	20	1	0	1
12H(7-19)	9009	52.0	44.2	7.6	24	140	321	470	626	2235	3954	1111	111	13	0	4
24H(0-24)	11033	52.8	45.1	7.5	24	141	323	471	668	2500	4904	1711	225	55	6	5
AM Peak	07:00	03:00	03:00	10:00	07:00	10:00	11:00	07:00	07:00	10:00	07:00	07:00	05:00	05:00	02:00	00:00
	1046	59.8	53.0	8.0	11	32	37	67	85	287	455	132	30	6	1	1
PM Peak	12:00	23:00	22:00	14:00	14:00	14:00	14:00	12:00	12:00	12:00	16:00	17:00	18:00	23:00	23:00	16:00
	770	57.8	51.5	11.3	10	41	72	63	104	204	381	144	29	9	2	3

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	67	55.6	50.9	4.6	0	0	0	0	0	4	27	26	8	2	0	0
01:00	65	55.1	50.7	4.2	0	0	0	0	1	2	25	30	6	1	0	0
02:00	89	54.8	51.2	3.5	0	0	0	0	0	3	25	55	5	1	0	0
03:00	159	55.7	50.5	5.1	0	0	0	0	2	8	74	55	14	5	1	0
04:00	236	57.0	51.3	5.5	0	0	0	1	6	3	87	101	27	9	2	0
05:00	467	55.7	47.3	8.1	0	0	34	6	15	42	189	156	18	5	1	1
06:00	601	53.3	46.1	7.0	0	0	10	23	51	115	299	86	5	6	1	5
07:00	836	50.5	42.3	8.0	0	0	89	70	76	200	326	66	8	1	0	0
08:00	823	51.1	45.5	5.4	0	1	13	42	21	203	444	89	10	0	0	0
09:00	767	49.5	43.1	6.1	0	0	9	103	91	200	308	51	5	0	0	0
10:00	721	51.7	43.4	8.1	6	24	10	37	43	203	347	49	1	1	0	0
11:00	836	50.3	44.6	5.5	1	2	10	36	79	232	409	64	2	1	0	0
12:00	714	49.5	44.0	5.3	0	0	4	32	116	220	291	44	5	1	1	0
13:00	818	50.1	43.3	6.6	0	0	51	41	70	260	342	49	4	1	0	0
14:00	677	51.2	45.9	5.1	0	0	3	25	30	198	311	96	12	2	0	0
15:00	787	50.8	45.1	5.5	0	0	13	33	45	243	372	63	14	4	0	0
16:00	855	50.9	44.9	5.8	0	0	4	55	93	206	381	99	15	1	1	0
17:00	897	51.8	46.2	5.4	0	3	6	18	50	235	403	167	12	2	1	0
18:00	611	52.4	47.9	4.4	0	0	1	5	13	100	316	157	17	2	0	0
19:00	337	52.8	48.4	4.3	0	0	0	0	4	53	183	80	12	5	0	0
20:00	232	53.9	48.8	5.0	0	0	0	0	7	35	109	62	14	5	0	0
21:00	141	57.4	51.4	5.8	0	0	0	0	2	10	51	44	27	6	1	0
22:00	104	58.6	51.2	7.1	0	0	0	1	1	9	42	29	14	6	1	1
23:00	96	56.6	51.3	5.1	0	0	0	0	4	6	15	59	9	3	0	0
Total 2H(10-12)	1557	51.1	44.0	6.8	7	26	20	73	122	435	756	113	3	2	0	0
2H(14-16)	1464	51.0	45.4	5.3	0	0	16	58	75	441	683	159	26	6	0	0
12H(7-19)	9342	51.1	44.6	6.2	7	30	213	497	727	2500	4250	994	105	16	3	0
24H(0-24)	11936	52.2	45.5	6.5	7	30	257	528	820	2790	5376	1777	264	70	10	7
AM Peak	07:00	04:00	04:00	05:00	10:00	10:00	07:00	09:00	09:00	11:00	08:00	05:00	04:00	04:00	04:00	06:00
	836	57.0	51.3	8.1	6	24	89	103	91	232	444	156	27	9	2	5
PM Peak	17:00	22:00	21:00	22:00	12:00	17:00	13:00	16:00	12:00	13:00	17:00	17:00	21:00	21:00	12:00	22:00
	897	58.6	51.4	7.1	0	3	51	55	116	260	403	167	27	6	1	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	125	56.3	50.5	5.6	0	0	0	0	2	8	54	46	11	3	0	1
01:00	96	55.8	50.3	5.2	0	0	0	0	3	7	37	35	11	3	0	0
02:00	123	55.8	51.0	4.6	0	0	0	0	2	5	37	69	7	2	1	0
03:00	204	56.8	51.0	5.5	0	0	0	0	2	11	86	72	22	9	2	0
04:00	323	56.8	51.4	5.1	0	0	0	1	6	6	111	146	40	11	2	0
05:00	714	56.1	48.5	7.3	0	0	34	6	15	51	301	245	48	11	2	1
06:00	1204	52.6	46.6	5.7	0	0	10	23	76	240	623	209	9	8	1	5
07:00	1882	51.3	43.1	7.9	11	11	119	137	161	448	781	198	15	1	0	0
08:00	1790	51.1	45.0	5.9	0	1	40	109	83	463	864	214	16	0	0	0
09:00	1507	49.8	43.6	5.9	0	1	22	152	144	453	613	114	8	0	0	0
10:00	1525	51.2	42.8	8.1	7	56	35	74	122	490	646	85	8	2	0	0
11:00	1581	50.2	43.5	6.4	2	9	47	94	162	495	657	106	6	3	0	0
12:00	1484	50.2	42.1	7.8	1	38	68	95	220	424	541	88	7	1	1	0
13:00	1490	50.6	43.7	6.7	0	10	66	73	138	423	650	120	9	1	0	0
14:00	1364	53.1	43.7	9.0	10	41	75	56	52	315	599	195	18	3	0	0
15:00	1449	51.8	45.7	5.9	0	0	38	47	62	358	721	190	28	4	0	1
16:00	1581	51.7	45.8	5.6	0	0	5	73	124	358	762	224	28	3	1	3
17:00	1564	52.2	46.4	5.6	0	3	18	51	67	333	750	311	27	3	1	0
18:00	1134	52.6	48.1	4.3	0	0	1	6	18	175	620	260	46	8	0	0
19:00	620	53.0	48.3	4.5	0	0	2	0	10	95	326	162	16	9	0	0
20:00	445	53.3	48.6	4.5	0	0	0	1	7	65	232	111	22	7	0	0
21:00	320	56.3	50.7	5.4	0	1	0	0	2	19	135	112	39	11	1	0
22:00	257	57.5	51.4	5.9	0	0	0	1	1	16	97	92	37	10	2	1
23:00	187	57.4	50.4	6.8	0	0	0	0	9	32	37	84	11	12	2	0
Total 2H(10-12)	3106	50.7	43.2	7.3	9	65	82	168	284	985	1303	191	14	5	0	0
2H(14-16)	2813	52.6	44.7	7.6	10	41	113	103	114	673	1320	385	46	7	0	1
12H(7-19)	18351	51.6	44.4	6.9	31	170	534	967	1353	4735	8204	2105	216	29	3	4
24H(0-24)	22969	52.5	45.3	7.0	31	171	580	999	1488	5290	10280	3488	489	125	16	12
AM Peak	07:00	04:00	04:00	10:00	07:00	10:00	07:00	09:00	11:00	11:00	08:00	05:00	05:00	04:00	03:00	06:00
	1882	56.8	51.4	8.1	11	56	119	152	162	495	864	245	48	11	2	5
PM Peak	16:00	22:00	22:00	14:00	14:00	14:00	14:00	12:00	12:00	12:00	16:00	17:00	18:00	23:00	22:00	16:00
	1581	57.5	51.4	9.0	10	41	75	95	220	424	762	311	46	12	2	3

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

29/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	32	55.1	49.6	5.3	0	0	0	0	1	4	12	12	2	1	0	0
01:00	34	56.6	51.6	4.8	0	0	0	0	0	1	12	16	3	2	0	0
02:00	44	55.7	51.5	4.1	0	0	0	0	1	0	14	21	8	0	0	0
03:00	54	59.8	52.6	7.0	0	0	0	1	0	1	12	30	8	0	1	1
04:00	112	55.9	51.0	4.7	0	0	0	0	0	12	31	53	13	3	0	0
05:00	231	53.7	49.4	4.1	0	0	0	0	6	19	98	97	10	1	0	0
06:00	613	51.6	47.2	4.2	0	0	0	0	26	142	306	126	11	2	0	0
07:00	1060	48.8	41.7	6.8	0	1	73	87	163	373	306	52	4	1	0	0
08:00	896	49.6	43.6	5.8	0	0	29	54	61	337	362	49	3	1	0	0
09:00	762	49.9	45.1	4.6	0	0	6	26	28	262	389	42	8	1	0	0
10:00	692	50.6	44.3	6.1	0	2	24	22	53	240	278	64	8	1	0	0
11:00	575	50.4	44.0	6.1	0	1	15	39	54	166	244	51	5	0	0	0
12:00	661	50.4	44.8	5.3	0	0	13	30	33	199	328	54	4	0	0	0
13:00	642	50.6	46.1	4.3	0	0	0	6	42	180	319	89	5	1	0	0
14:00	624	51.9	44.9	6.7	0	0	18	45	64	103	281	99	14	0	0	0
15:00	664	51.0	46.0	4.9	0	0	0	15	53	167	332	84	8	5	0	0
16:00	704	51.7	46.6	4.9	0	0	7	11	32	147	371	126	7	3	0	0
17:00	722	51.7	46.8	4.7	0	0	7	8	35	135	386	146	5	0	0	0
18:00	467	54.3	48.0	6.0	0	0	4	20	7	54	238	111	21	12	0	0
19:00	343	54.1	48.8	5.1	0	0	0	0	9	46	181	87	6	13	1	0
20:00	211	53.8	49.4	4.3	0	0	0	0	1	22	105	66	14	3	0	0
21:00	197	54.4	49.7	4.5	0	0	0	0	1	20	89	71	11	5	0	0
22:00	163	56.2	50.9	5.1	0	0	0	0	0	16	56	67	16	8	0	0
23:00	91	58.8	52.1	6.4	0	0	0	0	0	4	31	40	9	5	1	1
Total 2H(10-12)	1267	50.5	44.1	6.1	0	3	39	61	107	406	522	115	13	1	0	0
2H(14-16)	1288	51.5	45.5	5.9	0	0	18	60	117	270	613	183	22	5	0	0
12H(7-19)	8469	51.0	44.9	5.9	0	4	196	363	625	2363	3834	967	92	25	0	0
24H(0-24)	10594	51.9	45.8	5.9	0	4	196	364	670	2650	4781	1653	203	68	3	2
AM Peak	07:00	03:00	03:00	03:00	00:00	10:00	07:00	07:00	07:00	07:00	09:00	06:00	04:00	04:00	03:00	03:00
	1060	59.8	52.6	7.0	0	2	73	87	163	373	389	126	13	3	1	1
PM Peak	17:00	23:00	23:00	14:00	12:00	12:00	14:00	14:00	14:00	12:00	17:00	17:00	18:00	19:00	19:00	23:00
	722	58.8	52.1	6.7	0	0	18	45	64	199	386	146	21	13	1	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	68	56.6	50.8	5.7	0	0	0	1	2	1	28	24	9	3	0	0
01:00	84	55.0	50.1	4.7	0	0	0	0	6	1	27	43	7	0	0	0
02:00	95	55.1	50.8	4.1	0	0	0	0	0	6	34	43	11	1	0	0
03:00	124	57.3	51.8	5.4	0	0	0	0	2	2	41	62	8	8	1	0
04:00	230	59.1	51.3	7.5	0	0	0	1	7	22	72	91	15	14	7	1
05:00	436	53.6	46.5	6.8	0	0	15	10	25	78	199	84	22	1	2	0
06:00	508	51.4	45.1	6.1	0	0	12	25	47	112	226	81	5	0	0	0
07:00	812	50.8	45.7	4.9	0	0	0	22	68	216	408	88	6	1	3	0
08:00	787	51.1	43.1	7.7	0	0	76	57	35	187	370	52	8	2	0	0
09:00	666	51.8	45.1	6.5	1	5	4	26	43	216	294	65	5	0	7	0
10:00	653	50.1	45.4	4.6	0	0	0	13	67	178	322	67	6	0	0	0
11:00	783	50.0	44.4	5.4	1	0	12	23	76	285	326	50	6	4	0	0
12:00	843	50.6	43.4	6.9	0	10	40	22	81	290	330	62	7	1	0	0
13:00	872	50.0	45.3	4.5	0	0	0	22	77	261	418	86	8	0	0	0
14:00	810	50.3	45.4	4.8	0	0	0	23	85	217	385	90	10	0	0	0
15:00	807	52.2	43.4	8.5	4	17	59	13	66	189	360	93	5	1	0	0
16:00	875	52.2	46.8	5.2	0	0	7	8	29	199	488	125	13	2	0	4
17:00	808	52.2	46.8	5.2	0	2	11	18	28	121	467	150	10	1	0	0
18:00	560	54.6	48.2	6.1	0	0	5	13	27	69	245	152	40	7	2	0
19:00	350	52.7	48.8	3.8	0	0	0	0	2	41	191	103	10	3	0	0
20:00	275	54.5	49.6	4.8	0	0	0	1	3	16	159	66	23	6	1	0
21:00	208	55.4	50.0	5.3	0	0	0	4	1	7	112	56	22	5	1	0
22:00	121	56.6	51.7	4.7	0	0	0	0	1	5	32	66	11	6	0	0
23:00	115	56.8	52.2	4.4	0	0	0	0	0	2	39	41	31	2	0	0
Total 2H(10-12)	1436	50.1	44.8	5.1	1	0	12	36	143	463	648	117	12	4	0	0
2H(14-16)	1617	51.6	44.4	7.0	4	17	59	36	151	406	745	183	15	1	0	0
12H(7-19)	9276	51.5	45.2	6.1	6	34	214	260	682	2428	4413	1080	124	19	12	4
24H(0-24)	11890	52.5	45.9	6.3	6	34	241	302	778	2721	5573	1840	298	68	24	5
AM Peak	07:00	04:00	03:00	08:00	09:00	09:00	08:00	08:00	11:00	11:00	07:00	04:00	05:00	04:00	04:00	04:00
	812	59.1	51.8	7.7	1	5	76	57	76	285	408	91	22	14	7	1
PM Peak	16:00	23:00	23:00	15:00	15:00	15:00	15:00	14:00	14:00	12:00	16:00	18:00	18:00	18:00	18:00	16:00
	875	56.8	52.2	8.5	4	17	59	23	85	290	488	152	40	7	2	4

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	100	56.1	50.4	5.5	0	0	0	1	3	5	40	36	11	4	0	0
01:00	118	55.5	50.6	4.7	0	0	0	0	6	2	39	59	10	2	0	0
02:00	139	55.3	51.0	4.1	0	0	0	0	1	6	48	64	19	1	0	0
03:00	178	58.1	52.0	5.9	0	0	0	1	2	3	53	92	16	8	2	1
04:00	342	58.2	51.2	6.7	0	0	0	1	7	34	103	144	28	17	7	1
05:00	667	53.9	47.5	6.2	0	0	15	10	31	97	297	181	32	2	2	0
06:00	1121	51.7	46.2	5.3	0	0	12	25	73	254	532	207	16	2	0	0
07:00	1872	50.0	43.4	6.4	0	1	73	109	231	589	714	140	10	2	3	0
08:00	1683	50.4	43.4	6.8	0	0	105	111	96	524	732	101	11	3	0	0
09:00	1428	50.9	45.1	5.6	1	5	10	52	71	478	683	107	13	1	7	0
10:00	1345	50.5	44.8	5.4	0	2	24	35	120	418	600	131	14	1	0	0
11:00	1358	50.1	44.2	5.7	1	1	27	62	130	451	570	101	11	4	0	0
12:00	1504	50.6	44.1	6.3	0	10	53	52	114	489	658	116	11	1	0	0
13:00	1514	50.3	45.7	4.5	0	0	0	28	119	441	737	175	13	1	0	0
14:00	1434	51.1	45.2	5.7	0	0	18	68	149	320	666	189	24	0	0	0
15:00	1471	52.0	44.6	7.2	4	17	59	28	119	356	692	177	13	6	0	0
16:00	1579	52.0	46.7	5.1	0	0	14	19	61	346	859	251	20	5	0	4
17:00	1530	51.9	46.8	5.0	0	2	18	26	63	256	853	296	15	1	0	0
18:00	1027	54.5	48.1	6.1	0	0	9	33	34	123	483	263	61	19	2	0
19:00	693	53.5	48.8	4.5	0	0	0	0	11	87	372	190	16	16	1	0
20:00	486	54.2	49.5	4.6	0	0	0	1	4	38	264	132	37	9	1	0
21:00	405	55.0	49.9	4.9	0	0	0	4	2	27	201	127	33	10	1	0
22:00	284	56.4	51.3	5.0	0	0	0	0	1	21	88	133	27	14	0	0
23:00	206	57.8	52.2	5.4	0	0	0	0	0	6	70	81	40	7	1	1
Total 2H(10-12)	2703	50.3	44.5	5.6	1	3	51	97	250	869	1170	232	25	5	0	0
2H(14-16)	2905	51.6	44.9	6.5	4	17	77	96	268	676	1358	366	37	6	0	0
12H(7-19)	17745	51.3	45.1	6.0	6	38	410	623	1307	4791	8247	2047	216	44	12	4
24H(0-24)	22484	52.2	45.9	6.1	6	38	437	666	1448	5371	10354	3493	501	136	27	7
AM Peak	07:00	04:00	03:00	08:00	09:00	09:00	08:00	08:00	07:00	07:00	08:00	06:00	05:00	04:00	04:00	03:00
	1872	58.2	52.0	6.8	1	5	105	111	231	589	732	207	32	17	7	1
PM Peak	16:00	23:00	23:00	15:00	15:00	15:00	15:00	14:00	14:00	12:00	16:00	17:00	18:00	18:00	18:00	16:00
	1579	57.8	52.2	7.2	4	17	59	68	149	489	859	296	61	19	2	4

360 TSL Ltd

East Heckington, A17 (Middle Site)

Direction: Eastbound

30/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	77	55.8	51.5	4.1	0	0	0	0	0	1	28	36	10	2	0	0
01:00	60	60.3	54.0	6.1	0	0	0	0	0	2	9	34	6	8	1	0
02:00	52	59.8	54.1	5.5	0	0	0	0	0	0	4	36	9	2	0	1
03:00	71	57.9	52.7	5.0	0	0	0	0	0	2	17	37	9	6	0	0
04:00	114	54.5	51.2	3.2	0	0	0	0	0	3	33	69	9	0	0	0
05:00	281	53.3	49.5	3.6	0	0	0	0	1	15	150	103	9	3	0	0
06:00	513	51.7	47.2	4.3	0	0	0	1	14	124	273	84	12	5	0	0
07:00	960	51.1	42.9	7.9	1	22	55	44	66	301	385	83	3	0	0	0
08:00	892	49.6	44.2	5.3	0	0	10	47	103	274	393	62	2	1	0	0
09:00	731	49.4	43.1	6.1	0	0	32	46	71	265	281	31	5	0	0	0
10:00	683	50.1	45.5	4.5	0	0	1	16	27	254	306	73	3	3	0	0
11:00	660	49.8	44.2	5.4	0	0	6	15	113	216	241	64	4	0	0	1
12:00	651	49.5	42.5	6.8	0	2	34	60	61	233	219	39	1	2	0	0
13:00	634	50.2	44.6	5.4	0	0	10	22	53	215	279	50	3	0	2	0
14:00	704	50.6	44.0	6.4	0	1	35	33	42	208	333	49	2	1	0	0
15:00	681	49.7	45.2	4.4	0	0	0	10	64	224	316	61	6	0	0	0
16:00	779	50.1	45.2	4.8	0	0	11	8	63	248	372	71	6	0	0	0
17:00	673	53.8	45.5	7.9	2	28	6	1	14	126	400	84	6	6	0	0
18:00	544	52.4	47.1	5.1	0	0	4	3	26	106	294	96	8	6	0	1
19:00	327	52.7	48.2	4.3	0	0	0	1	5	48	186	71	12	4	0	0
20:00	235	54.9	49.4	5.4	0	0	0	0	0	41	106	64	14	9	1	0
21:00	201	54.9	50.3	4.5	0	0	0	0	2	9	88	87	10	4	1	0
22:00	142	59.9	53.3	6.3	0	0	0	0	0	4	44	49	29	13	3	0
23:00	103	55.2	50.2	4.8	0	0	0	0	2	5	48	38	6	4	0	0
Total 2H(10-12)	1343	50.0	44.9	5.0	0	0	7	31	140	470	547	137	7	3	0	1
2H(14-16)	1385	50.3	44.6	5.5	0	1	35	43	106	432	649	110	8	1	0	0
12H(7-19)	8592	50.7	44.4	6.1	3	53	204	305	703	2670	3819	763	49	19	2	2
24H(0-24)	10768	52.0	45.5	6.3	3	53	204	307	727	2924	4805	1471	184	79	8	3
AM Peak	07:00	01:00	02:00	07:00	07:00	07:00	07:00	08:00	11:00	07:00	08:00	05:00	06:00	01:00	01:00	02:00
	960	60.3	54.1	7.9	1	22	55	47	113	301	393	103	12	8	1	1
PM Peak	16:00	22:00	22:00	17:00	17:00	17:00	14:00	12:00	15:00	16:00	17:00	18:00	22:00	22:00	22:00	18:00
	779	59.9	53.3	7.9	2	28	35	60	64	248	400	96	29	13	3	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	93	55.9	51.2	4.5	0	0	0	1	0	1	34	45	9	3	0	0
01:00	115	59.0	54.4	4.4	0	0	0	0	0	0	8	71	27	8	1	0
02:00	118	57.5	52.0	5.3	0	0	0	0	0	11	28	49	24	6	0	0
03:00	209	55.8	51.6	4.0	0	0	0	0	0	12	47	123	23	4	0	0
04:00	280	56.6	51.1	5.3	0	0	0	0	5	16	99	119	26	14	1	0
05:00	430	55.4	49.8	5.4	2	0	0	0	7	26	194	170	20	9	2	0
06:00	612	52.2	46.7	5.3	0	0	3	26	28	105	311	127	10	2	0	0
07:00	829	51.2	45.1	5.9	0	0	31	17	59	188	437	90	7	0	0	0
08:00	774	49.9	43.4	6.3	0	0	30	55	96	195	346	49	3	0	0	0
09:00	706	50.5	44.8	5.5	0	3	4	33	48	227	322	62	2	5	0	0
10:00	706	50.2	44.1	6.0	0	2	11	40	99	176	320	48	9	1	0	0
11:00	841	49.0	43.8	5.0	0	0	1	42	131	276	353	31	5	1	1	0
12:00	799	47.8	43.2	4.4	0	0	0	35	130	345	266	21	2	0	0	0
13:00	877	50.0	42.8	7.0	3	7	41	19	88	419	253	40	1	3	0	3
14:00	854	48.1	43.8	4.1	0	0	0	21	103	408	283	38	0	1	0	0
15:00	813	49.6	44.6	4.8	0	4	7	5	75	316	350	52	4	0	0	0
16:00	920	52.0	41.9	9.8	23	29	55	18	76	287	353	72	6	1	0	0
17:00	915	49.7	45.8	3.8	0	0	0	1	42	333	443	87	9	0	0	0
18:00	530	52.2	48.0	4.0	0	0	0	0	6	87	314	100	20	2	1	0
19:00	311	52.8	48.0	4.7	0	0	0	2	8	46	172	77	2	3	0	1
20:00	263	53.5	48.6	4.7	0	0	0	4	5	32	127	83	9	3	0	0
21:00	170	54.9	50.0	4.8	0	0	0	0	0	12	88	57	6	6	1	0
22:00	112	54.5	49.7	4.6	0	0	0	0	0	17	42	43	8	2	0	0
23:00	79	54.2	49.1	5.0	0	0	0	0	0	13	38	22	5	0	1	0
Total 2H(10-12)	1547	49.6	43.9	5.5	0	2	12	82	230	452	673	79	14	2	1	0
2H(14-16)	1667	48.8	44.2	4.5	0	4	7	26	178	724	633	90	4	1	0	0
12H(7-19)	9564	50.4	44.1	6.0	26	45	180	286	953	3257	4040	690	68	14	2	3
24H(0-24)	12356	51.8	45.3	6.3	28	45	183	319	1006	3548	5228	1676	237	74	8	4
AM Peak	11:00	01:00	01:00	08:00	05:00	09:00	07:00	08:00	11:00	11:00	07:00	05:00	01:00	04:00	05:00	00:00
	841	59.0	54.4	6.3	2	3	31	55	131	276	437	170	27	14	2	0
PM Peak	16:00	21:00	21:00	16:00	16:00	16:00	16:00	12:00	12:00	13:00	17:00	18:00	18:00	21:00	18:00	13:00
	920	54.9	50.0	9.8	23	29	55	35	130	419	443	100	20	6	1	3

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	170	55.9	51.4	4.3	0	0	0	1	0	2	62	81	19	5	0	0
01:00	175	59.5	54.2	5.0	0	0	0	0	0	2	17	105	33	16	2	0
02:00	170	58.3	52.7	5.5	0	0	0	0	0	11	32	85	33	8	0	1
03:00	280	56.4	51.9	4.3	0	0	0	0	0	14	64	160	32	10	0	0
04:00	394	56.1	51.1	4.8	0	0	0	0	5	19	132	188	35	14	1	0
05:00	711	54.7	49.7	4.8	2	0	0	0	8	41	344	273	29	12	2	0
06:00	1125	52.0	46.9	4.9	0	0	3	27	42	229	584	211	22	7	0	0
07:00	1789	51.3	44.0	7.1	1	22	86	61	125	489	822	173	10	0	0	0
08:00	1666	49.8	43.8	5.8	0	0	40	102	199	469	739	111	5	1	0	0
09:00	1437	50.0	43.9	5.9	0	3	36	79	119	492	603	93	7	5	0	0
10:00	1389	50.3	44.8	5.3	0	2	12	56	126	430	626	121	12	4	0	0
11:00	1501	49.4	44.0	5.2	0	0	7	57	244	492	594	95	9	1	1	1
12:00	1450	48.7	42.9	5.6	0	2	34	95	191	578	485	60	3	2	0	0
13:00	1511	50.2	43.5	6.4	3	7	51	41	141	634	532	90	4	3	2	3
14:00	1558	49.3	43.9	5.3	0	1	35	54	145	616	616	87	2	2	0	0
15:00	1494	49.7	44.9	4.6	0	4	7	15	139	540	666	113	10	0	0	0
16:00	1699	51.8	43.4	8.0	23	29	66	26	139	535	725	143	12	1	0	0
17:00	1588	51.8	45.7	5.9	2	28	6	2	56	459	843	171	15	6	0	0
18:00	1074	52.3	47.5	4.6	0	0	4	3	32	193	608	196	28	8	1	1
19:00	638	52.8	48.1	4.5	0	0	0	3	13	94	358	148	14	7	0	1
20:00	498	54.2	49.0	5.0	0	0	0	4	5	73	233	147	23	12	1	0
21:00	371	54.9	50.2	4.6	0	0	0	0	2	21	176	144	16	10	2	0
22:00	254	57.9	51.7	5.9	0	0	0	0	0	21	86	92	37	15	3	0
23:00	182	54.8	49.7	4.9	0	0	0	0	2	18	86	60	11	4	1	0
Total 2H(10-12)	2890	49.8	44.4	5.3	0	2	19	113	370	922	1220	216	21	5	1	1
2H(14-16)	3052	49.5	44.4	5.0	0	5	42	69	284	1156	1282	200	12	2	0	0
12H(7-19)	18156	50.6	44.3	6.1	29	98	384	591	1656	5927	7859	1453	117	33	4	5
24H(0-24)	23124	51.9	45.4	6.3	31	98	387	626	1733	6472	10033	3147	421	153	16	7
AM Peak	07:00	01:00	01:00	07:00	05:00	07:00	07:00	08:00	11:00	09:00	07:00	05:00	04:00	01:00	01:00	02:00
	1789	59.5	54.2	7.1	2	22	86	102	244	492	822	273	35	16	2	1
PM Peak	16:00	22:00	22:00	16:00	16:00	16:00	16:00	12:00	12:00	13:00	17:00	18:00	22:00	22:00	22:00	13:00
	1699	57.9	51.7	8.0	23	29	66	95	191	634	843	196	37	15	3	3

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	75	63	62	61	58	32	66	59	60
01:00	47	52	39	44	26	36	44	41	41
02:00	51	53	47	0	35	45	40	45	39
03:00	60	50	47	34	48	48	60	53	50
04:00	112	106	67	33	80	101	98	99	85
05:00	218	233	120	56	221	222	221	223	184
06:00	535	550	226	107	556	507	480	526	423
07:00	981	870	326	143	1052	1047	915	973	762
08:00	816	727	458	209	877	854	877	830	688
09:00	735	665	613	397	698	734	691	705	648
10:00	596	707	650	489	769	647	643	672	643
11:00	667	673	635	614	744	569	617	654	646
12:00	608	739	658	676	682	652	598	656	659
13:00	561	735	590	581	630	604	586	623	612
14:00	730	755	549	576	633	591	656	673	641
15:00	690	781	552	542	619	619	633	668	634
16:00	762	740	487	601	703	703	709	723	672
17:00	627	681	522	561	648	696	622	655	622
18:00	570	599	469	559	492	460	505	525	522
19:00	308	375	287	397	262	293	302	308	318
20:00	237	291	237	303	188	203	202	224	237
21:00	195	180	209	234	155	189	170	178	190
22:00	141	157	121	108	152	152	114	143	135
23:00	99	83	99	75	72	80	80	83	84
Total									
12H(7-19)	8343	8672	6509	5948	8547	8176	8052	8358	7750
16H(6-22)	9618	10068	7468	6989	9708	9368	9206	9594	8918
18H(6-24)	9858	10308	7688	7172	9932	9600	9400	9820	9137
24H(0-24)	10421	10865	8070	7400	10400	10084	9929	10340	9596
AM Peak	07:00	07:00	10:00	11:00	07:00	07:00	07:00	07:00	07:00
	981	870	650	614	1052	1047	915	973	762
PM Peak	16:00	15:00	12:00	12:00	16:00	16:00	16:00	16:00	16:00
	762	781	658	676	703	703	709	723	672

360 TSL Ltd

Direction: Westbound

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	68	75	60	56	54	79	86	72	68
01:00	92	80	54	54	42	77	94	77	70
02:00	108	118	69	0	87	90	114	103	84
03:00	120	118	91	47	146	127	177	138	118
04:00	239	222	142	108	231	221	253	233	202
05:00	509	425	238	132	472	418	385	442	368
06:00	625	546	266	169	555	524	567	563	465
07:00	764	754	452	220	856	822	808	801	668
08:00	775	803	540	328	777	838	712	781	682
09:00	784	716	621	559	714	630	656	700	669
10:00	662	743	638	608	658	627	675	673	659
11:00	689	764	714	786	787	691	751	736	740
12:00	652	822	650	661	680	681	771	721	702
13:00	721	847	580	662	745	782	893	798	747
14:00	796	902	551	592	667	747	869	796	732
15:00	783	884	544	588	756	787	796	801	734
16:00	902	869	501	632	822	836	944	875	787
17:00	903	779	475	497	870	796	931	856	750
18:00	623	556	462	496	568	541	584	574	547
19:00	390	328	297	441	356	340	318	346	353
20:00	263	275	217	305	248	275	271	266	265
21:00	179	164	120	174	150	215	165	175	167
22:00	136	124	110	100	97	131	106	119	115
23:00	106	83	73	68	86	90	92	91	85
Total									
12H(7-19)	9054	9439	6728	6629	8900	8778	9390	9112	8417
16H(6-22)	10511	10752	7628	7718	10209	10132	10711	10463	9666
18H(6-24)	10753	10959	7811	7886	10392	10353	10909	10673	9866
24H(0-24)	11889	11997	8465	8283	11424	11365	12018	11739	10777
AM Peak	09:00	08:00	11:00	11:00	07:00	08:00	07:00	07:00	11:00
	784	803	714	786	856	838	808	801	740
PM Peak	17:00	14:00	12:00	13:00	17:00	16:00	16:00	16:00	16:00
	903	902	650	662	870	836	944	875	787

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Thu 24/03/2022	Fri 25/03/2022	Sat 26/03/2022	Sun 27/03/2022	Mon 28/03/2022	Tue 29/03/2022	Wed 30/03/2022	5-Day Ave.	7-Day Ave.
00:00	143	138	122	117	112	111	152	131	128
01:00	139	132	93	98	68	113	138	118	112
02:00	159	171	116	0	122	135	154	148	122
03:00	180	168	138	81	194	175	237	191	168
04:00	351	328	209	141	311	322	351	333	288
05:00	727	658	358	188	693	640	606	665	553
06:00	1160	1096	492	276	1111	1031	1047	1089	888
07:00	1745	1624	778	363	1908	1869	1723	1774	1430
08:00	1591	1530	998	537	1654	1692	1589	1611	1370
09:00	1519	1381	1234	956	1412	1364	1347	1405	1316
10:00	1258	1450	1288	1097	1427	1274	1318	1345	1302
11:00	1356	1437	1349	1400	1531	1260	1368	1390	1386
12:00	1260	1561	1308	1337	1362	1333	1369	1377	1361
13:00	1282	1582	1170	1243	1375	1386	1479	1421	1360
14:00	1526	1657	1100	1168	1300	1338	1525	1469	1373
15:00	1473	1665	1096	1130	1375	1406	1429	1470	1368
16:00	1664	1609	988	1233	1525	1539	1653	1598	1459
17:00	1530	1460	997	1058	1518	1492	1553	1511	1373
18:00	1193	1155	931	1055	1060	1001	1089	1100	1069
19:00	698	703	584	838	618	633	620	654	671
20:00	500	566	454	608	436	478	473	491	502
21:00	374	344	329	408	305	404	335	352	357
22:00	277	281	231	208	249	283	220	262	250
23:00	205	166	172	143	158	170	172	174	169
Total									
12H(7-19)	17397	18111	13237	12577	17447	16954	17442	17470	16166
16H(6-22)	20129	20820	15096	14707	19917	19500	19917	20057	18584
18H(6-24)	20611	21267	15499	15058	20324	19953	20309	20493	19003
24H(0-24)	22310	22862	16535	15683	21824	21449	21947	22078	20373
AM Peak	07:00	07:00	11:00	11:00	07:00	07:00	07:00	07:00	07:00
	1745	1624	1349	1400	1908	1869	1723	1774	1430
PM Peak	16:00	15:00	12:00	12:00	16:00	16:00	16:00	16:00	16:00
	1664	1665	1308	1337	1525	1539	1653	1598	1459

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	10421	7137	2026	1099	159
Fri 25 Mar 2022	10865	7903	1842	977	143
Sat 26 Mar 2022	8070	6463	1110	456	41
Sun 27 Mar 2022	7400	6141	881	348	30
Mon 28 Mar 2022	10400	7379	1940	940	141
Tue 29 Mar 2022	10084	6932	2021	989	142
Wed 30 Mar 2022	9929	6859	1922	1000	148
5 Day Ave.	10340	7242	1950	1001	147
7 Day Ave.	9596	6973	1677	830	115

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	68.5%	19.4%	10.5%	1.5%
Fri 25 Mar 2022	100.0%	72.7%	17.0%	9.0%	1.3%
Sat 26 Mar 2022	100.0%	80.1%	13.8%	5.7%	0.5%
Sun 27 Mar 2022	100.0%	83.0%	11.9%	4.7%	0.4%
Mon 28 Mar 2022	100.0%	71.0%	18.7%	9.0%	1.4%
Tue 29 Mar 2022	100.0%	68.7%	20.0%	9.8%	1.4%
Wed 30 Mar 2022	100.0%	69.1%	19.4%	10.1%	1.5%
5 Day Ave.	100.0%	70.0%	18.9%	9.7%	1.4%
7 Day Ave.	100.0%	72.7%	17.5%	8.6%	1.2%

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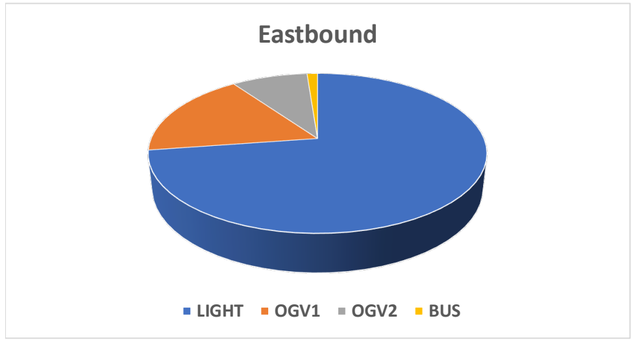

Direction: Westbound

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	11889	9759	1561	472	97
Fri 25 Mar 2022	11997	9943	1535	428	91
Sat 26 Mar 2022	8465	7266	946	230	23
Sun 27 Mar 2022	8283	7268	814	182	19
Mon 28 Mar 2022	11424	9375	1528	450	71
Tue 29 Mar 2022	11365	9433	1427	425	80
Wed 30 Mar 2022	12018	10301	1273	372	72
5 Day Ave.	11739	9762	1465	429	82
7 Day Ave.	10777	9049	1298	366	65

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	82.1%	13.1%	4.0%	0.8%
Fri 25 Mar 2022	100.0%	82.9%	12.8%	3.6%	0.8%
Sat 26 Mar 2022	100.0%	85.8%	11.2%	2.7%	0.3%
Sun 27 Mar 2022	100.0%	87.7%	9.8%	2.2%	0.2%
Mon 28 Mar 2022	100.0%	82.1%	13.4%	3.9%	0.6%
Tue 29 Mar 2022	100.0%	83.0%	12.6%	3.7%	0.7%
Wed 30 Mar 2022	100.0%	85.7%	10.6%	3.1%	0.6%
5 Day Ave.	100.0%	83.2%	12.5%	3.7%	0.7%
7 Day Ave.	100.0%	84.0%	12.0%	3.4%	0.6%

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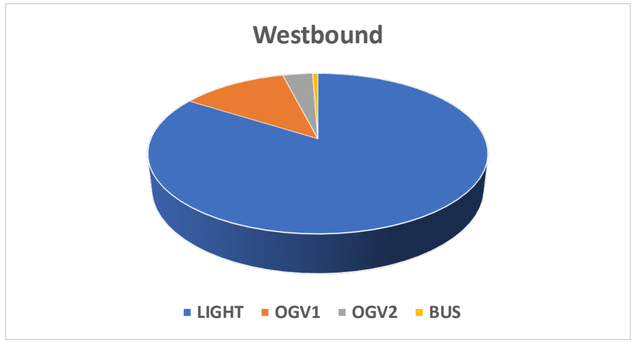

Direction: Total Flow

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	22310	16896	3587	1571	256
Fri 25 Mar 2022	22862	17846	3377	1405	234
Sat 26 Mar 2022	16535	13729	2056	686	64
Sun 27 Mar 2022	15683	13409	1695	530	49
Mon 28 Mar 2022	21824	16754	3468	1390	212
Tue 29 Mar 2022	21449	16365	3448	1414	222
Wed 30 Mar 2022	21947	17160	3195	1372	220
5 Day Ave.	22078	17004	3415	1430	229
7 Day Ave.	20373	16023	2975	1195	180

	Total Volume	LIGHT	OGV1	OGV2	BUS
Thu 24 Mar 2022	100.0%	75.7%	16.1%	7.0%	1.1%
Fri 25 Mar 2022	100.0%	78.1%	14.8%	6.1%	1.0%
Sat 26 Mar 2022	100.0%	83.0%	12.4%	4.1%	0.4%
Sun 27 Mar 2022	100.0%	85.5%	10.8%	3.4%	0.3%
Mon 28 Mar 2022	100.0%	76.8%	15.9%	6.4%	1.0%
Tue 29 Mar 2022	100.0%	76.3%	16.1%	6.6%	1.0%
Wed 30 Mar 2022	100.0%	78.2%	14.6%	6.3%	1.0%
5 Day Ave.	100.0%	77.0%	15.5%	6.5%	1.0%
7 Day Ave.	100.0%	78.6%	14.6%	5.9%	0.9%

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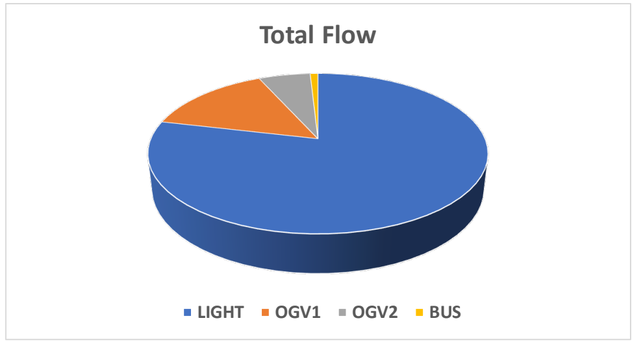

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	10421	53.6	45.5	7.8	2	44	554	388	630	2142	4171	1996	386	90	8	10
Fri 25 Mar 2022	10865	53.5	45.5	7.7	6	60	524	440	669	2254	4338	2089	383	81	17	4
Sat 26 Mar 2022	8070	54.6	46.5	7.8	0	19	394	250	255	1569	3318	1670	448	109	26	12
Sun 27 Mar 2022	7400	54.3	46.9	7.1	2	11	281	143	319	1273	3286	1603	354	109	13	6
Mon 28 Mar 2022	10400	53.1	44.7	8.1	33	61	523	649	703	2136	4139	1785	280	77	11	3
Tue 29 Mar 2022	10084	52.5	45.0	7.3	0	19	488	415	699	2591	3913	1567	309	74	8	1
Wed 30 Mar 2022	9929	52.4	44.9	7.3	1	36	492	391	676	2521	3975	1527	247	55	8	0
5 Day Ave.	10340	53.0	45.1	7.6	8	44	516	457	675	2329	4107	1793	321	75	10	4
7 Day Ave.	9596	53.4	45.6	7.6	6	36	465	382	564	2069	3877	1748	344	85	13	5

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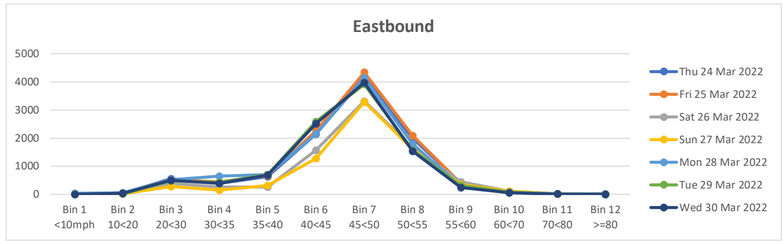

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	11889	53.8	45.5	8.0	2	53	579	828	829	1580	4722	2811	397	78	7	3
Fri 25 Mar 2022	11997	54.0	45.9	7.8	3	93	487	610	800	1593	5012	2889	414	78	14	4
Sat 26 Mar 2022	8465	55.4	48.2	7.0	0	5	185	317	339	846	3382	2649	578	138	20	6
Sun 27 Mar 2022	8283	55.3	48.9	6.2	0	3	100	201	269	733	3396	2832	568	168	10	3
Mon 28 Mar 2022	11424	53.9	46.3	7.4	0	12	332	807	817	1435	4467	2963	493	87	10	1
Tue 29 Mar 2022	11365	53.9	46.6	7.1	0	10	296	644	731	1646	4495	2959	486	84	11	3
Wed 30 Mar 2022	12018	53.3	45.7	7.3	3	53	380	630	955	1974	5030	2512	397	76	8	0
5 Day Ave.	11739	53.8	46.0	7.5	2	44	415	704	826	1646	4745	2827	437	81	10	2
7 Day Ave.	10777	54.2	46.7	7.2	1	33	337	577	677	1401	4358	2802	476	101	11	3

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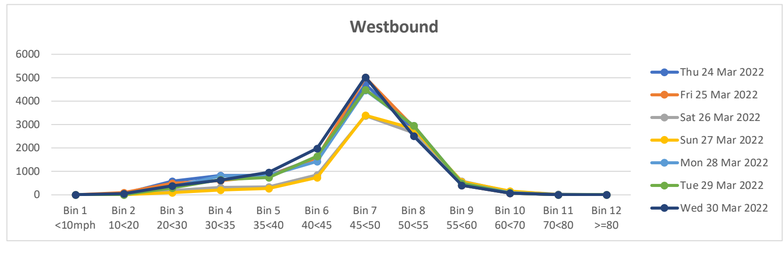

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	22310	53.7	45.5	7.9	4	97	1133	1216	1459	3722	8893	4807	783	168	15	13
Fri 25 Mar 2022	22862	53.8	45.7	7.8	9	153	1011	1050	1469	3847	9350	4978	797	159	31	8
Sat 26 Mar 2022	16535	55.1	47.4	7.4	0	24	579	567	594	2415	6700	4319	1026	247	46	18
Sun 27 Mar 2022	15683	54.9	47.9	6.7	2	14	381	344	588	2006	6682	4435	922	277	23	9
Mon 28 Mar 2022	21824	53.6	45.5	7.8	33	73	855	1456	1520	3571	8606	4748	773	164	21	4
Tue 29 Mar 2022	21449	53.3	45.8	7.2	0	29	784	1059	1430	4237	8408	4526	795	158	19	4
Wed 30 Mar 2022	21947	52.9	45.3	7.3	4	89	872	1021	1631	4495	9005	4039	644	131	16	0
5 Day Ave.	22078	53.4	45.6	7.6	10	88	931	1160	1502	3974	8852	4620	758	156	20	6
7 Day Ave.	20373	53.9	46.2	7.4	7	68	802	959	1242	3470	8235	4550	820	186	24	8

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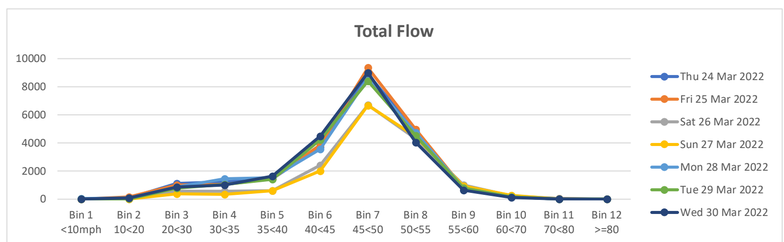

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1263	52.8	45.0	7.4	0	9	67	35	65	293	576	193	16	6	0	3
Fri 25 Mar 2022	1380	51.9	44.4	7.3	0	4	77	67	124	322	532	230	24	0	0	0
Sat 26 Mar 2022	1285	52.3	44.7	7.3	0	1	66	76	72	352	460	207	46	5	0	0
Sun 27 Mar 2022	1103	52.7	45.9	6.5	0	1	39	27	70	218	509	210	22	7	0	0
Mon 28 Mar 2022	1513	51.4	41.8	9.3	30	27	89	120	156	423	510	146	9	3	0	0
Tue 29 Mar 2022	1216	51.2	44.0	7.0	0	2	67	59	99	360	466	143	17	3	0	0
Wed 30 Mar 2022	1260	51.9	44.4	7.2	0	7	79	37	68	347	529	177	14	2	0	0
5 Day Ave.	1326	51.8	43.9	7.6	6	10	76	64	102	349	523	178	16	3	0	1
7 Day Ave.	1289	52.0	44.3	7.4	4	7	69	60	93	331	512	187	21	4	0	0

360 TSL Ltd

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1351	52.4	44.8	7.3	0	5	46	150	74	182	632	239	22	1	0	0
Fri 25 Mar 2022	1507	52.6	44.4	7.9	0	15	75	127	102	240	643	288	15	2	0	0
Sat 26 Mar 2022	1352	54.2	47.1	6.9	0	0	51	51	53	118	664	356	48	10	0	1
Sun 27 Mar 2022	1394	53.9	47.1	6.6	0	0	42	55	60	170	628	374	55	10	0	0
Mon 28 Mar 2022	1445	52.6	45.5	6.9	0	6	39	99	109	209	651	312	19	1	0	0
Tue 29 Mar 2022	1318	52.9	45.7	6.9	0	0	37	85	112	208	534	299	39	4	0	0
Wed 30 Mar 2022	1426	51.9	43.8	7.8	1	10	97	82	137	251	632	203	11	2	0	0
5 Day Ave.	1409	52.5	44.8	7.4	0	7	59	109	107	218	618	268	21	2	0	0
7 Day Ave.	1399	52.9	45.5	7.2	0	5	55	93	92	197	626	296	30	4	0	0

360 TSL Ltd

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	2614	52.6	44.9	7.4	0	14	113	185	139	475	1208	432	38	7	0	3
Fri 25 Mar 2022	2887	52.3	44.4	7.6	0	19	152	194	226	562	1175	518	39	2	0	0
Sat 26 Mar 2022	2637	53.4	45.9	7.2	0	1	117	127	125	470	1124	563	94	15	0	1
Sun 27 Mar 2022	2497	53.4	46.6	6.6	0	1	81	82	130	388	1137	584	77	17	0	0
Mon 28 Mar 2022	2958	52.3	43.6	8.4	30	33	128	219	265	632	1161	458	28	4	0	0
Tue 29 Mar 2022	2534	52.1	44.9	7.0	0	2	104	144	211	568	1000	442	56	7	0	0
Wed 30 Mar 2022	2686	51.9	44.1	7.5	1	17	176	119	205	598	1161	380	25	4	0	0
5 Day Ave.	2736	52.2	44.4	7.6	6	17	135	172	209	567	1141	446	37	5	0	1
7 Day Ave.	2688	52.6	44.9	7.4	4	12	124	153	186	528	1138	482	51	8	0	1

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1420	52.0	43.6	8.2	0	4	122	59	163	359	456	209	40	7	1	0
Fri 25 Mar 2022	1536	52.9	44.8	7.8	0	18	76	71	82	354	635	249	40	10	1	0
Sat 26 Mar 2022	1101	53.4	45.5	7.7	0	7	69	26	48	214	498	194	38	6	1	0
Sun 27 Mar 2022	1118	54.2	46.7	7.2	2	0	55	19	38	170	517	258	48	10	1	0
Mon 28 Mar 2022	1252	53.0	45.3	7.5	0	2	66	70	84	201	544	248	31	5	1	0
Tue 29 Mar 2022	1210	52.7	44.6	7.8	0	5	64	86	84	260	450	218	37	6	0	0
Wed 30 Mar 2022	1289	50.9	43.5	7.1	0	5	80	69	107	370	518	124	16	0	0	0
5 Day Ave.	1341	52.3	44.4	7.7	0	7	82	71	104	309	521	210	33	6	1	0
7 Day Ave.	1275	52.7	44.9	7.6	0	6	76	57	87	275	517	214	36	6	1	0

360 TSL Ltd

Direction: Westbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	1579	52.0	44.1	7.7	2	9	67	140	145	312	612	266	21	5	0	0
Fri 25 Mar 2022	1786	52.3	44.1	7.9	1	9	125	110	153	304	783	274	22	4	0	1
Sat 26 Mar 2022	1095	54.9	47.6	7.0	0	1	27	49	51	114	446	317	77	12	1	0
Sun 27 Mar 2022	1180	55.1	48.8	6.1	0	0	16	28	31	118	469	430	63	24	1	0
Mon 28 Mar 2022	1423	53.2	47.1	5.8	0	1	13	60	72	192	658	375	51	1	0	0
Tue 29 Mar 2022	1534	52.8	44.9	7.6	0	9	69	116	113	233	648	317	27	2	0	0
Wed 30 Mar 2022	1665	51.5	45.4	5.9	0	1	25	80	144	348	786	250	31	0	0	0
5 Day Ave.	1597	52.4	45.1	7.0	1	6	60	101	125	278	697	296	30	2	0	0
7 Day Ave.	1466	53.1	46.0	6.8	0	4	49	83	101	232	629	318	42	7	0	0

360 TSL Ltd

Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Thu 24 Mar 2022	2999	52.0	43.8	7.9	2	13	189	199	308	671	1068	475	61	12	1	0
Fri 25 Mar 2022	3322	52.6	44.4	7.9	1	27	201	181	235	658	1418	523	62	14	1	1
Sat 26 Mar 2022	2196	54.2	46.5	7.4	0	8	96	75	99	328	944	511	115	18	2	0
Sun 27 Mar 2022	2298	54.8	47.8	6.7	2	0	71	47	69	288	986	688	111	34	2	0
Mon 28 Mar 2022	2675	53.2	46.3	6.7	0	3	79	130	156	393	1202	623	82	6	1	0
Tue 29 Mar 2022	2744	52.7	44.8	7.7	0	14	133	202	197	493	1098	535	64	8	0	0
Wed 30 Mar 2022	2954	51.4	44.6	6.5	0	6	105	149	251	718	1304	374	47	0	0	0
5 Day Ave.	2939	52.4	44.8	7.3	1	13	141	172	229	587	1218	506	63	8	1	0
7 Day Ave.	2741	53.0	45.5	7.3	1	10	125	140	188	507	1146	533	77	13	1	0

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

24/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	75	36	14	23	2
01:00	47	14	13	20	0
02:00	51	16	10	24	1
03:00	60	30	13	16	1
04:00	112	49	29	29	5
05:00	218	122	44	43	9
06:00	535	332	121	72	10
07:00	981	671	224	71	15
08:00	816	556	194	60	6
09:00	735	505	153	59	18
10:00	596	397	130	56	13
11:00	667	432	136	85	14
12:00	608	415	123	60	10
13:00	561	398	92	60	11
14:00	730	528	118	77	7
15:00	690	500	124	57	9
16:00	762	563	148	45	6
17:00	627	476	110	35	6
18:00	570	440	75	47	8
19:00	308	219	45	41	3
20:00	237	159	45	32	1
21:00	195	134	26	35	0
22:00	141	87	21	30	3
23:00	99	58	18	22	1
Total 12H(7-19)	8343	5881	1627	712	123
16H(6-22)	9618	6725	1864	892	137
18H(6-24)	9858	6870	1903	944	141
24H(0-24)	10421	7137	2026	1099	159
AM Peak	07:00	07:00	07:00	11:00	09:00
	981	671	224	85	18
PM Peak	16:00	16:00	16:00	14:00	13:00
	762	563	148	77	11

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	68	41	10	16	1
01:00	92	56	8	27	1
02:00	108	77	7	22	2
03:00	120	87	9	23	1
04:00	239	189	16	29	5
05:00	509	439	40	29	1
06:00	625	528	69	26	2
07:00	764	656	89	15	4
08:00	775	656	96	18	5
09:00	784	640	113	25	6
10:00	662	532	97	25	8
11:00	689	520	117	41	11
12:00	652	507	103	35	7
13:00	721	556	130	20	15
14:00	796	631	142	16	7
15:00	783	632	127	19	5
16:00	902	740	140	14	8
17:00	903	798	94	10	1
18:00	623	560	51	11	1
19:00	390	338	39	12	1
20:00	263	226	25	11	1
21:00	179	146	18	11	4
22:00	136	119	10	7	0
23:00	106	85	11	10	0
Total 12H(7-19)	9054	7428	1299	249	78
16H(6-22)	10511	8666	1450	309	86
18H(6-24)	10753	8870	1471	326	86
24H(0-24)	11889	9759	1561	472	97
AM Peak	09:00	07:00	11:00	11:00	11:00
	784	656	117	41	11
PM Peak	17:00	17:00	14:00	12:00	13:00
	903	798	142	35	15

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	143	77	24	39	3
01:00	139	70	21	47	1
02:00	159	93	17	46	3
03:00	180	117	22	39	2
04:00	351	238	45	58	10
05:00	727	561	84	72	10
06:00	1160	860	190	98	12
07:00	1745	1327	313	86	19
08:00	1591	1212	290	78	11
09:00	1519	1145	266	84	24
10:00	1258	929	227	81	21
11:00	1356	952	253	126	25
12:00	1260	922	226	95	17
13:00	1282	954	222	80	26
14:00	1526	1159	260	93	14
15:00	1473	1132	251	76	14
16:00	1664	1303	288	59	14
17:00	1530	1274	204	45	7
18:00	1193	1000	126	58	9
19:00	698	557	84	53	4
20:00	500	385	70	43	2
21:00	374	280	44	46	4
22:00	277	206	31	37	3
23:00	205	143	29	32	1
Total 12H(7-19)	17397	13309	2926	961	201
16H(6-22)	20129	15391	3314	1201	223
18H(6-24)	20611	15740	3374	1270	227
24H(0-24)	22310	16896	3587	1571	256
AM Peak	07:00	07:00	07:00	11:00	11:00
	1745	1327	313	126	25
PM Peak	16:00	16:00	16:00	12:00	13:00
	1664	1303	288	95	26

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

25/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	63	23	11	28	1
01:00	52	18	11	21	2
02:00	53	23	11	16	3
03:00	50	24	15	9	2
04:00	106	41	22	38	5
05:00	233	126	51	46	10
06:00	550	348	120	74	8
07:00	870	608	182	63	17
08:00	727	484	170	59	14
09:00	665	449	129	72	15
10:00	707	519	114	65	9
11:00	673	499	112	55	7
12:00	739	544	124	59	12
13:00	735	560	117	49	9
14:00	755	565	131	53	6
15:00	781	597	124	57	3
16:00	740	607	99	27	7
17:00	681	552	90	35	4
18:00	599	496	63	36	4
19:00	375	290	52	32	1
20:00	291	236	36	18	1
21:00	180	124	25	29	2
22:00	157	119	18	19	1
23:00	83	51	15	17	0
Total 12H(7-19)	8672	6480	1455	630	107
16H(6-22)	10068	7478	1688	783	119
18H(6-24)	10308	7648	1721	819	120
24H(0-24)	10865	7903	1842	977	143
AM Peak	07:00	07:00	07:00	06:00	07:00
	870	608	182	74	17
PM Peak	15:00	16:00	14:00	12:00	12:00
	781	607	131	59	12

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	75	41	11	20	3
01:00	80	54	7	16	3
02:00	118	85	12	21	0
03:00	118	84	16	16	2
04:00	222	172	22	25	3
05:00	425	370	32	21	2
06:00	546	451	73	20	2
07:00	754	657	81	13	3
08:00	803	679	99	18	7
09:00	716	578	102	27	9
10:00	743	605	97	29	12
11:00	764	613	110	32	9
12:00	822	651	130	35	6
13:00	847	697	122	23	5
14:00	902	757	124	15	6
15:00	884	726	133	20	5
16:00	869	731	120	12	6
17:00	779	687	79	11	2
18:00	556	497	54	4	1
19:00	328	275	43	7	3
20:00	275	234	31	9	1
21:00	164	140	12	12	0
22:00	124	103	10	10	1
23:00	83	56	15	12	0
Total 12H(7-19)	9439	7878	1251	239	71
16H(6-22)	10752	8978	1410	287	77
18H(6-24)	10959	9137	1435	309	78
24H(0-24)	11997	9943	1535	428	91
AM Peak	08:00	08:00	11:00	11:00	10:00
	803	679	110	32	12
PM Peak	14:00	14:00	15:00	12:00	12:00
	902	757	133	35	6

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	138	64	22	48	4
01:00	132	72	18	37	5
02:00	171	108	23	37	3
03:00	168	108	31	25	4
04:00	328	213	44	63	8
05:00	658	496	83	67	12
06:00	1096	799	193	94	10
07:00	1624	1265	263	76	20
08:00	1530	1163	269	77	21
09:00	1381	1027	231	99	24
10:00	1450	1124	211	94	21
11:00	1437	1112	222	87	16
12:00	1561	1195	254	94	18
13:00	1582	1257	239	72	14
14:00	1657	1322	255	68	12
15:00	1665	1323	257	77	8
16:00	1609	1338	219	39	13
17:00	1460	1239	169	46	6
18:00	1155	993	117	40	5
19:00	703	565	95	39	4
20:00	566	470	67	27	2
21:00	344	264	37	41	2
22:00	281	222	28	29	2
23:00	166	107	30	29	0
Total 12H(7-19)	18111	14358	2706	869	178
16H(6-22)	20820	16456	3098	1070	196
18H(6-24)	21267	16785	3156	1128	198
24H(0-24)	22862	17846	3377	1405	234
AM Peak	07:00	07:00	08:00	09:00	09:00
	1624	1265	269	99	24
PM Peak	15:00	16:00	15:00	12:00	12:00
	1665	1338	257	94	18

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

26/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	62	37	10	14	1
01:00	39	14	7	18	0
02:00	47	20	14	11	2
03:00	47	19	13	15	0
04:00	67	28	19	18	2
05:00	120	69	30	18	3
06:00	226	149	36	37	4
07:00	326	232	73	16	5
08:00	458	350	82	23	3
09:00	613	497	87	25	4
10:00	650	565	66	17	2
11:00	635	524	89	22	0
12:00	658	544	81	31	2
13:00	590	506	63	21	0
14:00	549	474	54	19	2
15:00	552	453	74	22	3
16:00	487	411	58	17	1
17:00	522	425	73	20	4
18:00	469	395	54	20	0
19:00	287	232	37	17	1
20:00	237	189	32	16	0
21:00	209	154	34	21	0
22:00	121	103	10	7	1
23:00	99	73	14	11	1
Total					
12H(7-19)	6509	5376	854	253	26
16H(6-22)	7468	6100	993	344	31
18H(6-24)	7688	6276	1017	362	33
24H(0-24)	8070	6463	1110	456	41
AM Peak	10:00	10:00	11:00	06:00	07:00
	650	565	89	37	5
PM Peak	12:00	12:00	12:00	12:00	17:00
	658	544	81	31	4

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	60	38	9	13	0
01:00	54	36	4	13	1
02:00	69	47	8	14	0
03:00	91	59	12	18	2
04:00	142	114	17	9	2
05:00	238	193	27	16	2
06:00	266	211	43	11	1
07:00	452	380	57	14	1
08:00	540	473	54	12	1
09:00	621	539	63	17	2
10:00	638	564	59	12	3
11:00	714	635	69	9	1
12:00	650	569	69	11	1
13:00	580	489	82	7	2
14:00	551	481	60	10	0
15:00	544	487	54	3	0
16:00	501	428	70	3	0
17:00	475	423	45	5	2
18:00	462	411	46	4	1
19:00	297	262	32	2	1
20:00	217	180	31	6	0
21:00	120	93	22	5	0
22:00	110	91	11	8	0
23:00	73	63	2	8	0
Total					
12H(7-19)	6728	5879	728	107	14
16H(6-22)	7628	6625	856	131	16
18H(6-24)	7811	6779	869	147	16
24H(0-24)	8465	7266	946	230	23
AM Peak	11:00	11:00	11:00	03:00	10:00
	714	635	69	18	3
PM Peak	12:00	12:00	13:00	12:00	13:00
	650	569	82	11	2

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	122	75	19	27	1
01:00	93	50	11	31	1
02:00	116	67	22	25	2
03:00	138	78	25	33	2
04:00	209	142	36	27	4
05:00	358	262	57	34	5
06:00	492	360	79	48	5
07:00	778	612	130	30	6
08:00	998	823	136	35	4
09:00	1234	1036	150	42	6
10:00	1288	1129	125	29	5
11:00	1349	1159	158	31	1
12:00	1308	1113	150	42	3
13:00	1170	995	145	28	2
14:00	1100	955	114	29	2
15:00	1096	940	128	25	3
16:00	988	839	128	20	1
17:00	997	848	118	25	6
18:00	931	806	100	24	1
19:00	584	494	69	19	2
20:00	454	369	63	22	0
21:00	329	247	56	26	0
22:00	231	194	21	15	1
23:00	172	136	16	19	1
Total					
12H(7-19)	13237	11255	1582	360	40
16H(6-22)	15096	12725	1849	475	47
18H(6-24)	15499	13055	1886	509	49
24H(0-24)	16535	13729	2056	686	64
AM Peak	11:00	11:00	11:00	06:00	07:00
	1349	1159	158	48	6
PM Peak	12:00	12:00	12:00	12:00	17:00
	1308	1113	150	42	6

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

27/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	61	47	7	7	0
01:00	44	23	12	9	0
02:00	0	0	0	0	0
03:00	34	16	9	7	2
04:00	33	21	5	7	0
05:00	56	28	14	14	0
06:00	107	82	15	9	1
07:00	143	90	36	15	2
08:00	209	155	36	18	0
09:00	397	322	62	13	0
10:00	489	411	61	14	3
11:00	614	538	63	13	0
12:00	676	573	81	18	4
13:00	581	493	63	22	3
14:00	576	508	51	14	3
15:00	542	476	46	16	4
16:00	601	519	60	20	2
17:00	561	473	66	21	1
18:00	559	485	48	24	2
19:00	397	331	45	21	0
20:00	303	242	37	24	0
21:00	234	172	45	16	1
22:00	108	80	15	12	1
23:00	75	56	4	14	1
Total					
12H(7-19)	5948	5043	673	208	24
16H(6-22)	6989	5870	815	278	26
18H(6-24)	7172	6006	834	304	28
24H(0-24)	7400	6141	881	348	30
AM Peak	11:00	11:00	11:00	08:00	10:00
	614	538	63	18	3
PM Peak	12:00	12:00	12:00	18:00	12:00
	676	573	81	24	4

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	56	31	15	10	0
01:00	54	35	4	14	1
02:00	0	0	0	0	0
03:00	47	20	8	19	0
04:00	108	91	4	12	1
05:00	132	103	19	10	0
06:00	169	131	29	8	1
07:00	220	178	31	11	0
08:00	328	272	48	6	2
09:00	559	495	59	5	0
10:00	608	542	59	7	0
11:00	786	715	64	6	1
12:00	661	606	47	6	2
13:00	662	591	61	10	0
14:00	592	533	54	4	1
15:00	588	519	59	8	2
16:00	632	587	37	6	2
17:00	497	448	46	1	2
18:00	496	451	41	2	2
19:00	441	386	53	2	0
20:00	305	262	35	7	1
21:00	174	149	16	9	0
22:00	100	82	13	5	0
23:00	68	41	12	14	1
Total					
12H(7-19)	6629	5937	606	72	14
16H(6-22)	7718	6865	739	98	16
18H(6-24)	7886	6988	764	117	17
24H(0-24)	8283	7268	814	182	19
AM Peak	11:00	11:00	11:00	03:00	08:00
	786	715	64	19	2
PM Peak	13:00	12:00	13:00	23:00	12:00
	662	606	61	14	2

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	117	78	22	17	0
01:00	98	58	16	23	1
02:00	0	0	0	0	0
03:00	81	36	17	26	2
04:00	141	112	9	19	1
05:00	188	131	33	24	0
06:00	276	213	44	17	2
07:00	363	268	67	26	2
08:00	537	427	84	24	2
09:00	956	817	121	18	0
10:00	1097	953	120	21	3
11:00	1400	1253	127	19	1
12:00	1337	1179	128	24	6
13:00	1243	1084	124	32	3
14:00	1168	1041	105	18	4
15:00	1130	995	105	24	6
16:00	1233	1106	97	26	4
17:00	1058	921	112	22	3
18:00	1055	936	89	26	4
19:00	838	717	98	23	0
20:00	608	504	72	31	1
21:00	408	321	61	25	1
22:00	208	162	28	17	1
23:00	143	97	16	28	2
Total					
12H(7-19)	12577	10980	1279	280	38
16H(6-22)	14707	12735	1554	376	42
18H(6-24)	15058	12994	1598	421	45
24H(0-24)	15683	13409	1695	530	49
AM Peak	11:00	11:00	11:00	03:00	10:00
	1400	1253	127	26	3
PM Peak	12:00	12:00	12:00	13:00	12:00
	1337	1179	128	32	6

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

28/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	58	30	10	17	1
01:00	26	11	4	11	0
02:00	35	14	13	8	0
03:00	48	24	12	11	1
04:00	80	47	13	18	2
05:00	221	149	46	21	5
06:00	556	370	120	53	13
07:00	1052	786	214	36	16
08:00	877	595	205	63	14
09:00	698	455	163	62	18
10:00	769	543	149	67	10
11:00	744	541	126	64	13
12:00	682	474	118	81	9
13:00	630	479	93	54	4
14:00	633	450	109	66	8
15:00	619	452	110	49	8
16:00	703	518	126	53	6
17:00	648	502	111	33	2
18:00	492	370	65	54	3
19:00	262	183	47	28	4
20:00	188	128	30	29	1
21:00	155	103	27	24	1
22:00	152	109	20	21	2
23:00	72	46	9	17	0
Total					
12H(7-19)	8547	6165	1589	682	111
16H(6-22)	9708	6949	1813	816	130
18H(6-24)	9932	7104	1842	854	132
24H(0-24)	10400	7379	1940	940	141
AM Peak	07:00	07:00	07:00	10:00	09:00
	1052	786	214	67	18
PM Peak	16:00	16:00	16:00	12:00	12:00
	703	518	126	81	9

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	54	41	3	10	0
01:00	42	22	8	11	1
02:00	87	59	6	22	0
03:00	146	105	18	23	0
04:00	231	189	19	21	2
05:00	472	411	43	17	1
06:00	555	467	63	21	4
07:00	856	771	80	2	3
08:00	777	692	77	5	3
09:00	714	607	84	21	2
10:00	658	545	87	24	2
11:00	787	632	115	32	8
12:00	680	544	100	27	9
13:00	745	573	124	37	11
14:00	667	501	127	36	3
15:00	756	576	142	31	7
16:00	822	651	147	20	4
17:00	870	726	110	30	4
18:00	568	483	69	13	3
19:00	356	307	38	9	2
20:00	248	213	26	8	1
21:00	150	121	22	7	0
22:00	97	75	15	7	0
23:00	86	64	5	16	1
Total					
12H(7-19)	8900	7301	1262	278	59
16H(6-22)	10209	8409	1411	323	66
18H(6-24)	10392	8548	1431	346	67
24H(0-24)	11424	9375	1528	450	71
AM Peak	07:00	07:00	11:00	11:00	11:00
	856	771	115	32	8
PM Peak	17:00	17:00	16:00	13:00	13:00
	870	726	147	37	11

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	112	71	13	27	1
01:00	68	33	12	22	1
02:00	122	73	19	30	0
03:00	194	129	30	34	1
04:00	311	236	32	39	4
05:00	693	560	89	38	6
06:00	1111	837	183	74	17
07:00	1908	1557	294	38	19
08:00	1654	1287	282	68	17
09:00	1412	1062	247	83	20
10:00	1427	1088	236	91	12
11:00	1531	1173	241	96	21
12:00	1362	1018	218	108	18
13:00	1375	1052	217	91	15
14:00	1300	951	236	102	11
15:00	1375	1028	252	80	15
16:00	1525	1169	273	73	10
17:00	1518	1228	221	63	6
18:00	1060	853	134	67	6
19:00	618	490	85	37	6
20:00	436	341	56	37	2
21:00	305	224	49	31	1
22:00	249	184	35	28	2
23:00	158	110	14	33	1
Total					
12H(7-19)	17447	13466	2851	960	170
16H(6-22)	19917	15358	3224	1139	196
18H(6-24)	20324	15652	3273	1200	199
24H(0-24)	21824	16754	3468	1390	212
AM Peak	07:00	07:00	07:00	11:00	11:00
	1908	1557	294	96	21
PM Peak	16:00	17:00	16:00	12:00	12:00
	1525	1228	273	108	18

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

29/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	32	16	3	13	0
01:00	36	12	10	11	3
02:00	45	15	12	16	2
03:00	48	16	22	10	0
04:00	101	51	18	29	3
05:00	222	130	48	36	8
06:00	507	320	102	76	9
07:00	1047	767	218	52	10
08:00	854	588	199	52	15
09:00	734	463	184	70	17
10:00	647	426	149	59	13
11:00	569	379	131	52	7
12:00	652	440	121	84	7
13:00	604	424	108	60	12
14:00	591	415	114	53	9
15:00	619	444	109	65	1
16:00	703	522	129	39	13
17:00	696	535	117	41	3
18:00	460	349	78	30	3
19:00	293	194	55	43	1
20:00	203	149	31	22	1
21:00	189	127	28	31	3
22:00	152	103	23	25	1
23:00	80	47	12	20	1
Total					
12H(7-19)	8176	5752	1657	657	110
16H(6-22)	9368	6542	1873	829	124
18H(6-24)	9600	6692	1908	874	126
24H(0-24)	10084	6932	2021	989	142
AM Peak	07:00	07:00	07:00	06:00	09:00
	1047	767	218	76	17
PM Peak	16:00	17:00	16:00	12:00	16:00
	703	535	129	84	13

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	79	60	9	9	1
01:00	77	55	6	16	0
02:00	90	69	5	15	1
03:00	127	84	18	24	1
04:00	221	167	19	31	4
05:00	418	354	39	22	3
06:00	524	435	70	14	5
07:00	822	728	79	9	6
08:00	838	735	93	8	2
09:00	630	537	71	21	1
10:00	627	528	62	32	5
11:00	691	550	109	27	5
12:00	681	543	103	25	10
13:00	782	620	115	40	7
14:00	747	577	127	32	11
15:00	787	623	134	23	7
16:00	836	669	139	20	8
17:00	796	696	90	9	1
18:00	541	492	44	5	0
19:00	340	292	36	11	1
20:00	275	248	20	6	1
21:00	215	196	16	3	0
22:00	131	109	14	8	0
23:00	90	66	9	15	0
Total					
12H(7-19)	8778	7298	1166	251	63
16H(6-22)	10132	8469	1308	285	70
18H(6-24)	10353	8644	1331	308	70
24H(0-24)	11365	9433	1427	425	80
AM Peak	08:00	08:00	11:00	10:00	07:00
	838	735	109	32	6
PM Peak	16:00	17:00	16:00	13:00	14:00
	836	696	139	40	11

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	111	76	12	22	1
01:00	113	67	16	27	3
02:00	135	84	17	31	3
03:00	175	100	40	34	1
04:00	322	218	37	60	7
05:00	640	484	87	58	11
06:00	1031	755	172	90	14
07:00	1869	1495	297	61	16
08:00	1692	1323	292	60	17
09:00	1364	1000	255	91	18
10:00	1274	954	211	91	18
11:00	1260	929	240	79	12
12:00	1333	983	224	109	17
13:00	1386	1044	223	100	19
14:00	1338	992	241	85	20
15:00	1406	1067	243	88	8
16:00	1539	1191	268	59	21
17:00	1492	1231	207	50	4
18:00	1001	841	122	35	3
19:00	633	486	91	54	2
20:00	478	397	51	28	2
21:00	404	323	44	34	3
22:00	283	212	37	33	1
23:00	170	113	21	35	1
Total					
12H(7-19)	16954	13050	2823	908	173
16H(6-22)	19500	15011	3181	1114	194
18H(6-24)	19953	15336	3239	1182	196
24H(0-24)	21449	16365	3448	1414	222
AM Peak	07:00	07:00	07:00	09:00	09:00
	1869	1495	297	91	18
PM Peak	16:00	17:00	16:00	12:00	16:00
	1539	1231	268	109	21

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

30/03/2022

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	66	33	12	20	1
01:00	44	16	10	18	0
02:00	40	19	6	14	1
03:00	60	22	15	21	2
04:00	98	46	23	26	3
05:00	221	120	47	47	7
06:00	480	313	102	54	11
07:00	915	659	187	55	14
08:00	877	600	204	54	19
09:00	691	445	169	66	11
10:00	643	435	134	63	11
11:00	617	419	122	67	9
12:00	598	422	108	60	8
13:00	586	408	114	55	9
14:00	656	464	124	56	12
15:00	633	475	99	54	5
16:00	709	521	122	56	10
17:00	622	488	96	34	4
18:00	505	396	70	35	4
19:00	302	205	62	34	1
20:00	202	137	35	28	2
21:00	170	104	33	31	2
22:00	114	74	14	26	0
23:00	80	38	14	26	2
Total					
12H(7-19)	8052	5732	1549	655	116
16H(6-22)	9206	6491	1781	802	132
18H(6-24)	9400	6603	1809	854	134
24H(0-24)	9929	6859	1922	1000	148
AM Peak	07:00	07:00	08:00	11:00	08:00
	915	659	204	67	19
PM Peak	16:00	16:00	14:00	12:00	14:00
	709	521	124	60	12

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	86	72	10	4	0
01:00	94	66	6	21	1
02:00	114	89	6	19	0
03:00	177	128	28	18	3
04:00	253	196	28	29	0
05:00	385	323	31	29	2
06:00	567	456	89	17	5
07:00	808	691	94	20	3
08:00	712	604	84	22	2
09:00	656	535	85	28	8
10:00	675	549	86	30	10
11:00	751	620	94	32	5
12:00	771	671	82	14	4
13:00	893	767	100	15	11
14:00	869	773	77	14	5
15:00	796	676	107	8	5
16:00	944	844	86	11	3
17:00	931	857	66	6	2
18:00	584	537	44	2	1
19:00	318	284	29	5	0
20:00	271	244	13	13	1
21:00	165	147	12	6	0
22:00	106	94	8	3	1
23:00	92	78	8	6	0
Total					
12H(7-19)	9390	8124	1005	202	59
16H(6-22)	10711	9255	1148	243	65
18H(6-24)	10909	9427	1164	252	66
24H(0-24)	12018	10301	1273	372	72
AM Peak	07:00	07:00	07:00	11:00	10:00
	808	691	94	32	10
PM Peak	16:00	17:00	15:00	13:00	13:00
	944	857	107	15	11

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	LIGHT	OGV1	OGV2	BUS
00:00	152	105	22	24	1
01:00	138	82	16	39	1
02:00	154	108	12	33	1
03:00	237	150	43	39	5
04:00	351	242	51	55	3
05:00	606	443	78	76	9
06:00	1047	769	191	71	16
07:00	1723	1350	281	75	17
08:00	1589	1204	288	76	21
09:00	1347	980	254	94	19
10:00	1318	984	220	93	21
11:00	1368	1039	216	99	14
12:00	1369	1093	190	74	12
13:00	1479	1175	214	70	20
14:00	1525	1237	201	70	17
15:00	1429	1151	206	62	10
16:00	1653	1365	208	67	13
17:00	1553	1345	162	40	6
18:00	1089	933	114	37	5
19:00	620	489	91	39	1
20:00	473	381	48	41	3
21:00	335	251	45	37	2
22:00	220	168	22	29	1
23:00	172	116	22	32	2
Total					
12H(7-19)	17442	13856	2554	857	175
16H(6-22)	19917	15746	2929	1045	197
18H(6-24)	20309	16030	2973	1106	200
24H(0-24)	21947	17160	3195	1372	220
AM Peak	07:00	07:00	08:00	11:00	08:00
	1723	1350	288	99	21
PM Peak	16:00	16:00	13:00	12:00	13:00
	1653	1365	214	74	20

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

24/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	75	59.2	51.3	7.5	0	0	2	0	1	7	17	30	13	4	1	0
01:00	47	60.4	52.5	7.6	0	0	1	1	0	2	8	20	12	2	1	0
02:00	51	58.3	47.6	10.3	0	1	4	1	1	3	22	9	7	3	0	0
03:00	60	59.8	51.5	8.0	0	0	2	2	1	1	12	22	17	3	0	0
04:00	112	59.6	50.9	8.4	0	1	3	2	0	10	25	45	16	10	0	0
05:00	218	60.1	49.7	10.0	0	0	10	7	4	19	65	84	16	5	2	6
06:00	535	54.9	46.3	8.2	0	5	27	33	10	61	230	135	29	5	0	0
07:00	981	51.6	44.0	7.4	1	1	51	73	79	247	369	138	20	2	0	0
08:00	816	51.2	44.3	6.6	0	4	30	31	76	237	328	96	13	1	0	0
09:00	735	52.3	44.0	8.0	0	10	52	24	52	167	311	110	8	1	0	0
10:00	596	52.6	45.2	7.2	0	2	32	16	36	136	257	101	12	4	0	0
11:00	667	52.9	44.9	7.7	0	7	35	19	29	157	319	92	4	2	0	3
12:00	608	52.9	45.0	7.6	0	1	43	23	32	116	258	121	14	0	0	0
13:00	561	53.0	44.7	8.0	0	4	37	21	34	132	222	87	18	6	0	0
14:00	730	50.9	42.0	8.6	0	3	79	47	117	198	180	86	13	6	1	0
15:00	690	52.8	45.3	7.3	0	1	43	12	46	161	276	123	27	1	0	0
16:00	762	52.9	45.4	7.2	1	2	33	37	51	134	336	148	18	2	0	0
17:00	627	53.8	46.8	6.7	0	1	19	19	28	105	268	158	24	4	1	0
18:00	570	53.9	46.3	7.3	0	0	33	9	20	105	261	111	27	3	0	1
19:00	308	53.4	47.4	5.8	0	0	6	3	9	61	141	71	14	3	0	0
20:00	237	55.4	49.0	6.2	0	0	5	2	0	29	111	66	17	6	1	0
21:00	195	55.9	49.4	6.3	0	0	3	2	2	28	70	64	20	6	0	0
22:00	141	56.6	49.1	7.3	0	1	3	3	2	11	55	51	9	6	0	0
23:00	99	58.0	50.8	7.0	0	0	1	1	0	15	30	28	18	5	1	0
Total 2H(10-12)	1263	52.8	45.0	7.4	0	9	67	35	65	293	576	193	16	6	0	3
2H(14-16)	1420	52.0	43.6	8.2	0	4	122	59	163	359	456	209	40	7	1	0
12H(7-19)	8343	52.6	44.7	7.6	2	36	487	331	600	1895	3385	1371	198	32	2	4
24H(0-24)	10421	53.6	45.5	7.8	2	44	554	388	630	2142	4171	1996	386	90	8	10
AM Peak	07:00	01:00	01:00	02:00	07:00	09:00	09:00	07:00	07:00	07:00	07:00	07:00	06:00	04:00	05:00	05:00
	981	60.4	52.5	10.3	1	10	52	73	79	247	369	138	29	10	2	6
PM Peak	16:00	23:00	23:00	14:00	16:00	13:00	14:00	14:00	14:00	14:00	16:00	17:00	15:00	13:00	14:00	18:00
	762	58.0	50.8	8.6	1	4	79	47	117	198	336	158	27	6	1	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	68	57.1	52.5	4.4	0	0	0	0	1	1	12	42	9	3	0	0
01:00	92	56.2	51.1	5.0	0	0	0	0	2	5	27	45	12	0	1	0
02:00	108	56.9	51.0	5.7	0	0	0	3	1	4	25	65	9	0	0	1
03:00	120	56.5	51.9	4.4	0	0	0	0	1	3	33	62	17	4	0	0
04:00	239	56.2	50.3	5.8	0	0	0	4	13	14	65	109	29	5	0	0
05:00	509	52.4	41.7	10.4	0	0	104	38	36	76	146	92	12	4	1	0
06:00	625	55.4	45.5	9.6	0	13	41	48	38	30	234	192	20	8	1	0
07:00	764	54.5	46.7	7.5	0	0	41	21	53	89	271	257	29	3	0	0
08:00	775	54.1	47.5	6.3	0	0	18	27	32	84	338	245	25	6	0	0
09:00	784	53.3	44.4	8.6	0	1	59	92	49	61	328	175	15	4	0	0
10:00	662	52.4	44.7	7.4	0	5	26	61	31	112	307	110	10	0	0	0
11:00	689	52.4	44.9	7.3	0	0	20	89	43	70	325	129	12	1	0	0
12:00	652	52.4	43.5	8.7	0	10	47	54	63	101	254	108	15	0	0	0
13:00	721	52.6	43.4	8.9	0	8	73	59	33	117	302	114	13	2	0	0
14:00	796	51.8	43.2	8.3	2	9	39	92	75	158	287	120	13	1	0	0
15:00	783	52.1	45.0	6.8	0	0	28	48	70	154	325	146	8	4	0	0
16:00	902	51.4	43.6	7.6	0	7	30	87	136	154	349	115	23	1	0	0
17:00	903	52.7	45.4	7.1	0	0	33	54	84	145	379	187	17	2	2	0
18:00	623	52.9	47.3	5.4	0	0	9	12	27	90	319	141	25	0	0	0
19:00	390	54.1	47.0	6.9	0	0	5	30	23	37	176	86	31	2	0	0
20:00	263	55.6	49.4	5.9	0	0	2	5	3	25	107	98	17	5	0	1
21:00	179	58.4	51.1	7.1	0	0	1	1	5	17	54	68	18	13	1	1
22:00	136	57.2	49.4	7.5	0	0	2	3	9	19	25	62	9	6	1	0
23:00	106	56.0	50.1	5.7	0	0	1	0	1	14	34	43	9	4	0	0
Total 2H(10-12)	1351	52.4	44.8	7.3	0	5	46	150	74	182	632	239	22	1	0	0
2H(14-16)	1579	52.0	44.1	7.7	2	9	67	140	145	312	612	266	21	5	0	0
12H(7-19)	9054	52.9	44.9	7.7	2	40	423	696	696	1335	3784	1847	205	24	2	0
24H(0-24)	11889	53.8	45.5	8.0	2	53	579	828	829	1580	4722	2811	397	78	7	3
AM Peak	09:00	00:00	00:00	05:00	00:00	06:00	05:00	09:00	07:00	10:00	08:00	07:00	04:00	06:00	01:00	02:00
	784	57.1	52.5	10.4	0	13	104	92	53	112	338	257	29	8	1	1
PM Peak	17:00	21:00	21:00	13:00	14:00	12:00	13:00	14:00	16:00	14:00	17:00	17:00	19:00	21:00	17:00	20:00
	903	58.4	51.1	8.9	2	10	73	92	136	158	379	187	31	13	2	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	143	58.4	51.9	6.3	0	0	2	0	2	8	29	72	22	7	1	0
01:00	139	57.8	51.5	6.0	0	0	1	1	2	7	35	65	24	2	2	0
02:00	159	57.8	49.9	7.6	0	1	4	4	2	7	47	74	16	3	0	1
03:00	180	57.8	51.8	5.9	0	0	2	2	2	4	45	84	34	7	0	0
04:00	351	57.4	50.5	6.7	0	1	3	6	13	24	90	154	45	15	0	0
05:00	727	55.4	44.1	10.9	0	0	114	45	40	95	211	176	28	9	3	6
06:00	1160	55.2	45.9	9.0	0	18	68	81	48	91	464	327	49	13	1	0
07:00	1745	53.0	45.2	7.5	1	1	92	94	132	336	640	395	49	5	0	0
08:00	1591	52.8	45.9	6.7	0	4	48	58	108	321	666	341	38	7	0	0
09:00	1519	52.8	44.2	8.3	0	11	111	116	101	228	639	285	23	5	0	0
10:00	1258	52.5	44.9	7.3	0	7	58	77	67	248	564	211	22	4	0	0
11:00	1356	52.7	44.9	7.5	0	7	55	108	72	227	644	221	16	3	0	3
12:00	1260	52.7	44.2	8.2	0	11	90	77	95	217	512	229	29	0	0	0
13:00	1282	52.8	44.0	8.6	0	12	110	80	67	249	524	201	31	8	0	0
14:00	1526	51.4	42.6	8.5	2	12	118	139	192	356	467	206	26	7	1	0
15:00	1473	52.5	45.1	7.1	0	1	71	60	116	315	601	269	35	5	0	0
16:00	1664	52.1	44.4	7.5	1	9	63	124	187	288	685	263	41	3	0	0
17:00	1530	53.2	46.0	7.0	0	1	52	73	112	250	647	345	41	6	3	0
18:00	1193	53.4	46.8	6.4	0	0	42	21	47	195	580	252	52	3	0	1
19:00	698	53.8	47.2	6.4	0	0	11	33	32	98	317	157	45	5	0	0
20:00	500	55.5	49.2	6.1	0	0	7	7	3	54	218	164	34	11	1	1
21:00	374	57.2	50.2	6.7	0	0	4	3	7	45	124	132	38	19	1	1
22:00	277	56.9	49.3	7.4	0	1	5	6	11	30	80	113	18	12	1	0
23:00	205	57.0	50.4	6.4	0	0	2	1	1	29	64	71	27	9	1	0
Total 2H(10-12)	2614	52.6	44.9	7.4	0	14	113	185	139	475	1208	432	38	7	0	3
2H(14-16)	2999	52.0	43.8	7.9	2	13	189	199	308	671	1068	475	61	12	1	0
12H(7-19)	17397	52.7	44.8	7.6	4	76	910	1027	1296	3230	7169	3218	403	56	4	4
24H(0-24)	22310	53.7	45.5	7.9	4	97	1133	1216	1459	3722	8893	4807	783	168	15	13
AM Peak	07:00	00:00	00:00	05:00	07:00	06:00	05:00	09:00	07:00	07:00	08:00	07:00	06:00	04:00	05:00	05:00
	1745	58.4	51.9	10.9	1	18	114	116	132	336	666	395	49	15	3	6
PM Peak	16:00	21:00	23:00	13:00	14:00	13:00	14:00	14:00	14:00	14:00	16:00	17:00	18:00	21:00	17:00	18:00
	1664	57.2	50.4	8.6	2	12	118	139	192	356	685	345	52	19	3	1

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

25/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	63	59.5	50.9	8.3	0	0	1	0	5	6	16	18	11	5	1	0
01:00	52	60.5	53.0	7.2	0	0	0	0	1	2	11	25	10	1	1	1
02:00	53	60.5	49.0	11.1	0	0	4	3	2	0	20	13	7	1	3	0
03:00	50	56.8	48.7	7.9	0	0	3	1	1	4	13	22	6	0	0	0
04:00	106	59.4	51.0	8.0	0	0	4	1	0	7	31	39	15	8	1	0
05:00	233	58.1	47.9	9.8	0	7	11	2	6	18	92	65	19	12	1	0
06:00	550	55.3	47.5	7.6	0	4	23	12	8	88	196	178	35	6	0	0
07:00	870	52.6	45.7	6.6	0	2	35	28	33	196	400	152	21	3	0	0
08:00	727	52.4	45.4	6.8	0	0	32	23	61	140	322	134	12	3	0	0
09:00	665	52.7	45.4	7.0	0	2	39	9	39	142	295	125	14	0	0	0
10:00	707	51.6	43.8	7.5	0	3	54	27	45	190	286	97	5	0	0	0
11:00	673	52.2	44.9	7.1	0	1	23	40	79	132	246	133	19	0	0	0
12:00	739	51.2	43.6	7.3	0	1	50	41	64	197	290	84	12	0	0	0
13:00	735	52.0	42.1	9.6	6	19	62	65	48	172	254	100	8	0	1	0
14:00	755	53.7	45.1	8.3	0	17	32	20	37	190	287	138	26	7	1	0
15:00	781	52.1	44.5	7.3	0	1	44	51	45	164	348	111	14	3	0	0
16:00	740	52.5	45.6	6.7	0	1	23	20	72	176	273	146	27	2	0	0
17:00	681	52.6	44.5	7.8	0	1	36	56	56	126	268	115	20	1	2	0
18:00	599	53.7	45.8	7.6	0	0	32	29	32	102	244	134	22	2	2	0
19:00	375	53.4	47.3	5.9	0	1	3	3	16	91	156	83	19	2	0	1
20:00	291	54.5	48.0	6.3	0	0	2	3	11	69	108	75	14	7	2	0
21:00	180	54.9	48.6	6.1	0	0	3	2	2	25	88	42	12	6	0	0
22:00	157	56.7	49.1	7.4	0	0	4	3	6	12	68	40	17	6	1	0
23:00	83	62.4	51.8	10.2	0	0	4	1	0	5	26	20	18	6	1	2
Total 2H(10-12)	1380	51.9	44.4	7.3	0	4	77	67	124	322	532	230	24	0	0	0
2H(14-16)	1536	52.9	44.8	7.8	0	18	76	71	82	354	635	249	40	10	1	0
12H(7-19)	8672	52.5	44.7	7.6	6	48	462	409	611	1927	3513	1469	200	21	6	0
24H(0-24)	10865	53.5	45.5	7.7	6	60	524	440	669	2254	4338	2089	383	81	17	4
AM Peak	07:00	01:00	01:00	02:00	00:00	05:00	10:00	11:00	11:00	07:00	07:00	06:00	06:00	05:00	02:00	01:00
	870	60.5	53.0	11.1	0	7	54	40	79	196	400	178	35	12	3	1
PM Peak	15:00	23:00	23:00	23:00	13:00	13:00	13:00	13:00	16:00	12:00	15:00	16:00	16:00	14:00	17:00	23:00
	781	62.4	51.8	10.2	6	19	62	65	72	197	348	146	27	7	2	2

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	75	58.9	51.1	7.6	0	0	2	2	0	4	16	39	7	4	1	0
01:00	80	57.0	48.6	8.1	0	0	0	1	13	3	34	19	7	1	1	1
02:00	118	57.9	51.9	5.8	0	0	1	0	5	2	18	71	17	3	1	0
03:00	118	58.0	53.2	4.6	0	0	0	0	1	1	19	66	26	4	1	0
04:00	222	58.2	51.4	6.6	0	0	0	4	13	17	24	123	28	12	1	0
05:00	425	56.6	47.7	8.6	0	0	26	17	12	39	148	145	24	10	4	0
06:00	546	54.8	48.7	5.9	0	0	1	11	49	33	207	201	39	4	1	0
07:00	754	54.4	47.5	6.7	0	6	10	18	47	79	322	244	23	3	1	1
08:00	803	52.9	46.5	6.1	0	0	7	67	39	81	389	207	13	0	0	0
09:00	716	53.3	44.7	8.4	0	10	43	47	53	91	298	161	12	1	0	0
10:00	743	52.8	44.6	7.9	0	12	27	64	46	103	342	142	7	0	0	0
11:00	764	52.4	44.2	7.9	0	3	48	63	56	137	301	146	8	2	0	0
12:00	822	52.5	43.2	9.0	1	22	49	67	91	106	347	127	10	2	0	0
13:00	847	53.1	43.1	9.6	1	30	86	40	28	113	422	120	7	0	0	0
14:00	902	51.7	44.9	6.6	0	1	32	47	74	195	410	134	7	1	0	1
15:00	884	52.6	43.2	9.0	1	8	93	63	79	109	373	140	15	3	0	0
16:00	869	52.1	45.7	6.3	0	0	18	42	74	182	360	170	23	0	0	0
17:00	779	53.1	46.2	6.6	0	1	22	31	60	112	346	185	20	2	0	0
18:00	556	54.2	47.7	6.2	0	0	14	8	26	62	253	171	18	3	0	1
19:00	328	53.6	46.8	6.5	0	0	6	10	21	67	134	64	22	4	0	0
20:00	275	55.1	49.2	5.7	0	0	1	4	8	32	115	81	28	6	0	0
21:00	164	56.1	50.5	5.5	0	0	0	2	3	9	68	55	21	6	0	0
22:00	124	57.6	51.0	6.4	0	0	0	2	2	10	38	50	16	4	2	0
23:00	83	58.1	51.4	6.4	0	0	1	0	0	6	28	28	16	3	1	0
Total 2H(10-12)	1507	52.6	44.4	7.9	0	15	75	127	102	240	643	288	15	2	0	0
2H(14-16)	1786	52.3	44.1	7.9	1	9	125	110	153	304	783	274	22	4	0	1
12H(7-19)	9439	53.1	45.0	7.8	3	93	449	557	673	1370	4163	1947	163	17	1	3
24H(0-24)	11997	54.0	45.9	7.8	3	93	487	610	800	1593	5012	2889	414	78	14	4
AM Peak	08:00	00:00	03:00	05:00	00:00	10:00	11:00	08:00	11:00	11:00	08:00	07:00	06:00	04:00	05:00	01:00
	803	58.9	53.2	8.6	0	12	48	67	56	137	389	244	39	12	4	1
PM Peak	14:00	23:00	23:00	13:00	12:00	13:00	15:00	12:00	12:00	14:00	13:00	17:00	20:00	20:00	22:00	14:00
	902	58.1	51.4	9.6	1	30	93	67	91	195	422	185	28	6	2	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	138	59.2	51.0	7.9	0	0	3	2	5	10	32	57	18	9	2	0
01:00	132	58.7	50.3	8.0	0	0	0	1	14	5	45	44	17	2	2	2
02:00	171	59.2	51.0	7.9	0	0	5	3	7	2	38	84	24	4	4	0
03:00	168	58.2	51.8	6.1	0	0	3	1	2	5	32	88	32	4	1	0
04:00	328	58.6	51.3	7.1	0	0	4	5	13	24	55	162	43	20	2	0
05:00	658	57.2	47.8	9.0	0	7	37	19	18	57	240	210	43	22	5	0
06:00	1096	55.1	48.1	6.8	0	4	24	23	57	121	403	379	74	10	1	0
07:00	1624	53.5	46.5	6.7	0	8	45	46	80	275	722	396	44	6	1	1
08:00	1530	52.7	46.0	6.5	0	0	39	90	100	221	711	341	25	3	0	0
09:00	1381	53.0	45.0	7.8	0	12	82	56	92	233	593	286	26	1	0	0
10:00	1450	52.2	44.2	7.7	0	15	81	91	91	293	628	239	12	0	0	0
11:00	1437	52.3	44.5	7.5	0	4	71	103	135	269	547	279	27	2	0	0
12:00	1561	51.9	43.4	8.2	1	23	99	108	155	303	637	211	22	2	0	0
13:00	1582	52.6	42.6	9.6	7	49	148	105	76	285	676	220	15	0	1	0
14:00	1657	52.7	45.0	7.4	0	18	64	67	111	385	697	272	33	8	1	1
15:00	1665	52.4	43.8	8.3	1	9	137	114	124	273	721	251	29	6	0	0
16:00	1609	52.3	45.6	6.5	0	1	41	62	146	358	633	316	50	2	0	0
17:00	1460	52.9	45.4	7.2	0	2	58	87	116	238	614	300	40	3	2	0
18:00	1155	54.0	46.7	7.0	0	0	46	37	58	164	497	305	40	5	2	1
19:00	703	53.5	47.1	6.2	0	1	9	13	37	158	290	147	41	6	0	1
20:00	566	54.8	48.6	6.0	0	0	3	7	19	101	223	156	42	13	2	0
21:00	344	55.6	49.5	5.9	0	0	3	4	5	34	156	97	33	12	0	0
22:00	281	57.2	49.9	7.0	0	0	4	5	8	22	106	90	33	10	3	0
23:00	166	60.4	51.6	8.5	0	0	5	1	0	11	54	48	34	9	2	2
Total 2H(10-12)	2887	52.3	44.4	7.6	0	19	152	194	226	562	1175	518	39	2	0	0
2H(14-16)	3322	52.6	44.4	7.9	1	27	201	181	235	658	1418	523	62	14	1	1
12H(7-19)	18111	52.8	44.9	7.7	9	141	911	966	1284	3297	7676	3416	363	38	7	3
24H(0-24)	22862	53.8	45.7	7.8	9	153	1011	1050	1469	3847	9350	4978	797	159	31	8
AM Peak	07:00	02:00	03:00	05:00	00:00	10:00	09:00	11:00	11:00	10:00	07:00	07:00	06:00	05:00	05:00	01:00
	1624	59.2	51.8	9.0	0	15	82	103	135	293	722	396	74	22	5	2
PM Peak	15:00	23:00	23:00	13:00	13:00	13:00	13:00	15:00	12:00	14:00	15:00	16:00	16:00	20:00	22:00	23:00
	1665	60.4	51.6	9.6	7	49	148	114	155	385	721	316	50	13	3	2

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

26/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	62	59.9	51.1	8.5	0	0	2	1	0	4	23	16	9	6	1	0
01:00	39	58.7	51.7	6.8	0	0	0	0	1	3	12	15	5	2	1	0
02:00	47	65.5	51.3	13.7	0	0	5	0	1	7	6	11	10	3	2	2
03:00	47	58.9	51.8	6.9	0	0	0	0	3	4	8	19	11	1	1	0
04:00	67	59.4	50.4	8.7	0	0	4	1	0	2	22	21	12	5	0	0
05:00	120	59.0	50.2	8.5	0	1	5	1	0	6	43	39	17	7	1	0
06:00	226	58.2	49.2	8.7	0	3	9	2	1	19	84	70	30	6	1	1
07:00	326	55.0	47.9	6.9	0	0	6	14	7	54	132	80	25	7	1	0
08:00	458	54.9	47.5	7.1	0	1	17	12	6	62	211	114	28	6	1	0
09:00	613	52.8	45.4	7.1	0	1	31	22	27	143	259	110	18	1	1	0
10:00	650	51.8	44.1	7.5	0	1	34	48	46	193	218	86	20	4	0	0
11:00	635	52.8	45.4	7.1	0	0	32	28	26	159	242	121	26	1	0	0
12:00	658	53.0	44.7	8.1	0	0	56	25	22	158	282	93	17	1	3	1
13:00	590	54.2	46.6	7.3	0	1	34	8	15	106	257	126	41	2	0	0
14:00	549	53.8	46.2	7.4	0	3	29	5	19	111	251	98	29	3	1	0
15:00	552	53.0	44.7	7.9	0	4	40	21	29	103	247	96	9	3	0	0
16:00	487	54.4	47.2	6.9	0	0	19	14	10	73	224	110	33	3	1	0
17:00	522	53.5	45.9	7.4	0	3	22	17	16	116	233	96	13	4	1	1
18:00	469	54.9	46.3	8.3	0	1	28	18	12	93	176	111	21	5	3	1
19:00	287	54.5	47.6	6.7	0	0	6	2	9	57	139	57	9	6	0	2
20:00	237	57.3	49.5	7.5	0	0	6	2	1	34	96	62	23	10	2	1
21:00	209	55.5	48.3	6.9	0	0	6	4	2	34	79	65	14	4	1	0
22:00	121	59.0	49.4	9.2	0	0	3	4	2	20	45	25	11	7	3	1
23:00	99	61.9	53.3	8.3	0	0	0	1	0	8	29	29	17	12	1	2
Total 2H(10-12)	1285	52.3	44.7	7.3	0	1	66	76	72	352	460	207	46	5	0	0
2H(14-16)	1101	53.4	45.5	7.7	0	7	69	26	48	214	498	194	38	6	1	0
12H(7-19)	6509	53.6	45.8	7.5	0	15	348	232	235	1371	2732	1241	280	40	12	3
24H(0-24)	8070	54.6	46.5	7.8	0	19	394	250	255	1569	3318	1670	448	109	26	12
AM Peak	10:00	02:00	03:00	02:00	00:00	06:00	10:00	10:00	10:00	10:00	09:00	11:00	06:00	05:00	02:00	02:00
	650	65.5	51.8	13.7	0	3	34	48	46	193	259	121	30	7	2	2
PM Peak	12:00	23:00	23:00	22:00	12:00	15:00	12:00	12:00	15:00	12:00	12:00	13:00	13:00	23:00	12:00	19:00
	658	61.9	53.3	9.2	0	4	56	25	29	158	282	126	41	12	3	2

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	60	61.6	53.0	8.3	0	0	0	0	1	6	14	23	9	4	2	1
01:00	54	57.6	52.3	5.1	0	0	0	0	0	2	15	24	12	0	1	0
02:00	69	58.3	50.7	7.4	0	0	0	2	4	5	18	25	11	3	1	0
03:00	91	58.3	53.7	4.4	0	0	0	1	0	0	9	52	25	4	0	0
04:00	142	58.0	50.7	7.1	0	0	0	6	3	12	34	60	21	5	0	1
05:00	238	58.3	48.0	9.9	0	0	19	7	22	13	66	55	43	13	0	0
06:00	266	57.0	48.6	8.2	0	0	6	22	9	24	62	113	19	10	1	0
07:00	452	56.1	49.9	6.0	0	0	3	11	6	35	159	181	47	8	2	0
08:00	540	54.7	49.3	5.2	0	0	1	12	9	40	250	178	42	8	0	0
09:00	621	55.3	47.8	7.3	0	0	12	46	24	41	238	218	33	6	3	0
10:00	638	54.5	45.9	8.3	0	0	48	37	28	57	276	162	21	9	0	0
11:00	714	53.3	48.1	5.0	0	0	3	14	25	61	388	194	27	1	0	1
12:00	650	53.0	46.5	6.3	0	1	11	30	34	116	289	151	14	3	1	0
13:00	580	55.1	47.7	7.2	0	3	17	21	24	45	251	179	34	5	1	0
14:00	551	55.6	47.6	7.7	0	0	17	38	25	46	190	182	43	10	0	0
15:00	544	54.1	47.6	6.2	0	1	10	11	26	68	256	135	34	2	1	0
16:00	501	55.3	48.8	6.2	0	0	3	13	22	56	188	176	33	8	1	1
17:00	475	55.1	48.3	6.6	0	0	8	13	16	57	194	149	30	6	1	1
18:00	462	53.5	46.8	6.5	0	0	13	13	28	72	196	121	17	2	0	0
19:00	297	55.9	48.1	7.5	0	0	10	7	12	40	105	101	10	10	2	0
20:00	217	55.0	48.8	6.0	0	0	1	7	8	25	81	72	20	3	0	0
21:00	120	58.2	50.1	7.8	0	0	1	3	8	9	39	35	15	9	1	0
22:00	110	57.1	50.2	6.6	0	0	1	2	4	7	39	38	13	6	0	0
23:00	73	59.5	50.6	8.6	0	0	1	1	1	9	25	25	5	3	2	1
Total 2H(10-12)	1352	54.2	47.1	6.9	0	0	51	51	53	118	664	356	48	10	0	1
2H(14-16)	1095	54.9	47.6	7.0	0	1	27	49	51	114	446	317	77	12	1	0
12H(7-19)	6728	54.7	47.8	6.7	0	5	146	259	267	694	2875	2026	375	68	10	3
24H(0-24)	8465	55.4	48.2	7.0	0	5	185	317	339	846	3382	2649	578	138	20	6
AM Peak	11:00	00:00	03:00	05:00	00:00	00:00	10:00	09:00	10:00	11:00	11:00	09:00	07:00	05:00	09:00	00:00
	714	61.6	53.7	9.9	0	0	48	46	28	61	388	218	47	13	3	1
PM Peak	12:00	23:00	23:00	23:00	12:00	13:00	13:00	14:00	12:00	12:00	12:00	14:00	14:00	14:00	19:00	16:00
	650	59.5	50.6	8.6	0	3	17	38	34	116	289	182	43	10	2	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	122	60.8	52.0	8.4	0	0	2	1	1	10	37	39	18	10	3	1
01:00	93	58.1	52.0	5.8	0	0	0	0	1	5	27	39	17	2	2	0
02:00	116	61.7	50.9	10.4	0	0	5	2	5	12	24	36	21	6	3	2
03:00	138	58.7	53.0	5.4	0	0	0	1	3	4	17	71	36	5	1	0
04:00	209	58.5	50.6	7.6	0	0	4	7	3	14	56	81	33	10	0	1
05:00	358	58.6	48.7	9.5	0	1	24	8	22	19	109	94	60	20	1	0
06:00	492	57.6	48.9	8.4	0	3	15	24	10	43	146	183	49	16	2	1
07:00	778	55.8	49.1	6.5	0	0	9	25	13	89	291	261	72	15	3	0
08:00	998	54.9	48.5	6.2	0	1	18	24	15	102	461	292	70	14	1	0
09:00	1234	54.2	46.6	7.3	0	1	43	68	51	184	497	328	51	7	4	0
10:00	1288	53.2	45.0	8.0	0	1	82	85	74	250	494	248	41	13	0	0
11:00	1349	53.3	46.9	6.2	0	0	35	42	51	220	630	315	53	2	0	1
12:00	1308	53.1	45.6	7.3	0	1	67	55	56	274	571	244	31	4	4	1
13:00	1170	54.7	47.1	7.3	0	4	51	29	39	151	508	305	75	7	1	0
14:00	1100	54.8	46.9	7.6	0	3	46	43	44	157	441	280	72	13	1	0
15:00	1096	53.7	46.2	7.3	0	5	50	32	55	171	503	231	43	5	1	0
16:00	988	54.9	48.0	6.6	0	0	22	27	32	129	412	286	66	11	2	1
17:00	997	54.4	47.1	7.1	0	3	30	30	32	173	427	245	43	10	2	2
18:00	931	54.3	46.6	7.4	0	1	41	31	40	165	372	232	38	7	3	1
19:00	584	55.2	47.8	7.1	0	0	16	9	21	97	244	158	19	16	2	2
20:00	454	56.2	49.1	6.9	0	0	7	9	9	59	177	134	43	13	2	1
21:00	329	56.5	49.0	7.3	0	0	7	7	10	43	118	100	29	13	2	0
22:00	231	58.2	49.8	8.1	0	0	4	6	6	27	84	63	24	13	3	1
23:00	172	61.0	52.2	8.5	0	0	1	2	1	17	54	54	22	15	3	3
Total 2H(10-12)	2637	53.4	45.9	7.2	0	1	117	127	125	470	1124	563	94	15	0	1
2H(14-16)	2196	54.2	46.5	7.4	0	8	96	75	99	328	944	511	115	18	2	0
12H(7-19)	13237	54.3	46.8	7.2	0	20	494	491	502	2065	5607	3267	655	108	22	6
24H(0-24)	16535	55.1	47.4	7.4	0	24	579	567	594	2415	6700	4319	1026	247	46	18
AM Peak	11:00	02:00	03:00	02:00	00:00	06:00	10:00	10:00	10:00	10:00	11:00	09:00	07:00	05:00	09:00	02:00
	1349	61.7	53.0	10.4	0	3	82	85	74	250	630	328	72	20	4	2
PM Peak	12:00	23:00	23:00	23:00	12:00	15:00	12:00	12:00	12:00	12:00	12:00	13:00	13:00	19:00	12:00	23:00
	1308	61.0	52.2	8.5	0	5	67	55	56	274	571	305	75	16	4	3

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

27/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	61	57.8	49.9	7.7	0	0	2	0	1	5	27	16	4	6	0	0
01:00	44	60.4	51.0	9.1	0	0	1	0	0	6	15	15	3	2	1	1
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	34	58.1	49.3	8.6	0	0	1	0	1	6	13	8	2	2	1	0
04:00	33	57.7	48.3	9.0	0	0	1	3	0	6	8	8	5	2	0	0
05:00	56	59.6	48.8	10.5	0	0	6	2	0	2	14	22	5	5	0	0
06:00	107	59.4	50.3	8.8	0	0	4	1	0	10	42	33	7	7	2	1
07:00	143	56.9	49.8	6.8	0	0	3	2	2	5	71	37	16	6	1	0
08:00	209	57.5	49.1	8.1	0	0	9	5	2	14	98	42	27	11	1	0
09:00	397	53.7	46.7	6.8	0	2	15	7	8	64	215	65	16	5	0	0
10:00	489	53.3	46.3	6.8	0	1	18	10	34	83	218	109	11	5	0	0
11:00	614	52.1	45.7	6.2	0	0	21	17	36	135	291	101	11	2	0	0
12:00	676	52.4	45.5	6.7	0	1	29	13	28	194	289	105	12	4	0	1
13:00	581	53.4	45.5	7.6	0	4	24	13	52	127	227	105	25	2	1	1
14:00	576	53.7	46.2	7.2	2	0	27	10	34	90	266	123	21	3	0	0
15:00	542	54.7	47.3	7.1	0	0	28	9	4	80	251	135	27	7	1	0
16:00	601	53.4	47.2	5.9	0	0	15	10	13	109	296	123	31	4	0	0
17:00	561	54.6	46.6	7.6	0	2	22	18	32	86	238	124	32	4	2	1
18:00	559	54.2	46.0	7.9	0	0	36	15	44	73	230	131	22	8	0	0
19:00	397	53.8	47.6	6.0	0	0	11	3	7	70	188	97	15	6	0	0
20:00	303	53.6	47.8	5.5	0	0	3	3	10	58	134	73	19	3	0	0
21:00	234	56.5	49.4	6.9	0	0	4	2	7	29	85	75	26	4	1	1
22:00	108	57.9	50.9	6.8	0	0	0	0	3	12	43	28	11	10	1	0
23:00	75	56.9	49.3	7.4	0	1	1	0	1	9	27	28	6	1	1	0
Total 2H(10-12)	1103	52.7	45.9	6.5	0	1	39	27	70	218	509	210	22	7	0	0
2H(14-16)	1118	54.2	46.7	7.2	2	0	55	19	38	170	517	258	48	10	1	0
12H(7-19)	5948	53.8	46.5	7.1	2	10	247	129	289	1060	2690	1200	251	61	6	3
24H(0-24)	7400	54.3	46.9	7.1	2	11	281	143	319	1273	3286	1603	354	109	13	6
AM Peak	11:00	01:00	01:00	05:00	00:00	09:00	11:00	11:00	11:00	11:00	11:00	10:00	08:00	08:00	06:00	01:00
	614	60.4	51.0	10.5	0	2	21	17	36	135	291	109	27	11	2	1
PM Peak	12:00	22:00	22:00	18:00	14:00	13:00	18:00	17:00	13:00	12:00	16:00	15:00	17:00	22:00	17:00	12:00
	676	57.9	50.9	7.9	2	4	36	18	52	194	296	135	32	10	2	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	56	57.5	49.9	7.4	0	0	0	2	3	8	16	10	15	2	0	0
01:00	54	59.6	52.1	7.2	0	0	0	1	2	5	9	21	10	6	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	47	57.2	51.3	5.7	0	0	1	0	0	1	14	22	8	1	0	0
04:00	108	57.7	48.7	8.8	0	0	1	3	13	18	23	34	9	5	1	1
05:00	132	58.6	48.9	9.4	0	0	3	10	11	12	26	42	20	7	0	1
06:00	169	57.8	51.6	5.9	0	0	1	2	2	5	50	75	23	11	0	0
07:00	220	56.0	49.5	6.2	0	0	1	4	9	19	82	80	19	4	2	0
08:00	328	56.0	50.0	5.7	0	0	1	3	13	17	132	120	29	13	0	0
09:00	559	54.5	48.8	5.5	0	1	4	8	21	47	234	208	33	3	0	0
10:00	608	54.8	46.4	8.0	0	0	33	38	31	73	216	178	32	7	0	0
11:00	786	53.0	47.5	5.3	0	0	9	17	29	97	412	196	23	3	0	0
12:00	661	54.2	48.9	5.1	0	0	1	14	23	40	314	227	34	8	0	0
13:00	662	54.6	49.2	5.3	0	0	8	9	10	47	285	262	37	3	1	0
14:00	592	54.3	48.1	6.0	0	0	11	14	18	65	255	199	24	6	0	0
15:00	588	55.8	49.5	6.1	0	0	5	14	13	53	214	231	39	18	1	0
16:00	632	55.2	48.5	6.5	0	2	4	29	16	54	270	195	51	11	0	0
17:00	497	55.7	50.1	5.5	0	0	2	8	14	22	190	200	50	11	0	0
18:00	496	54.8	48.8	5.8	0	0	5	12	19	42	195	185	34	4	0	0
19:00	441	54.9	48.9	5.8	0	0	3	4	9	62	197	126	25	14	1	0
20:00	305	56.3	49.9	6.2	0	0	4	2	4	21	136	102	20	15	1	0
21:00	174	56.4	50.2	6.0	0	0	1	2	3	16	65	57	23	7	0	0
22:00	100	59.6	50.5	8.8	0	0	1	4	5	5	29	43	5	4	3	1
23:00	68	56.9	49.9	6.7	0	0	1	1	1	4	32	19	5	5	0	0
Total 2H(10-12)	1394	53.9	47.1	6.6	0	0	42	55	60	170	628	374	55	10	0	0
2H(14-16)	1180	55.1	48.8	6.1	0	0	16	28	31	118	469	430	63	24	1	0
12H(7-19)	6629	54.9	48.6	6.0	0	3	84	170	216	576	2799	2281	405	91	4	0
24H(0-24)	8283	55.3	48.9	6.2	0	3	100	201	269	733	3396	2832	568	168	10	3
AM Peak	11:00	01:00	01:00	05:00	00:00	09:00	10:00	10:00	10:00	11:00	11:00	09:00	09:00	08:00	07:00	04:00
	786	59.6	52.1	9.4	0	1	33	38	31	97	412	208	33	13	2	1
PM Peak	13:00	22:00	22:00	22:00	12:00	16:00	14:00	16:00	12:00	14:00	12:00	13:00	16:00	15:00	22:00	22:00
	662	59.6	50.5	8.8	0	2	11	29	23	65	314	262	51	18	3	1

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	117	57.7	49.9	7.5	0	0	2	2	4	13	43	26	19	8	0	0
01:00	98	60.0	51.6	8.1	0	0	1	1	2	11	24	36	13	8	1	1
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	81	57.8	50.5	7.1	0	0	2	0	1	7	27	30	10	3	1	0
04:00	141	57.7	48.6	8.8	0	0	2	6	13	24	31	42	14	7	1	1
05:00	188	58.9	48.9	9.7	0	0	9	12	11	14	40	64	25	12	0	1
06:00	276	58.6	51.1	7.2	0	0	5	3	2	15	92	108	30	18	2	1
07:00	363	56.4	49.7	6.5	0	0	4	6	11	24	153	117	35	10	3	0
08:00	537	56.7	49.7	6.7	0	0	10	8	15	31	230	162	56	24	1	0
09:00	956	54.3	47.9	6.1	0	3	19	15	29	111	449	273	49	8	0	0
10:00	1097	54.1	46.4	7.5	0	1	51	48	65	156	434	287	43	12	0	0
11:00	1400	52.7	46.7	5.8	0	0	30	34	65	232	703	297	34	5	0	0
12:00	1337	53.6	47.2	6.2	0	1	30	27	51	234	603	332	46	12	0	1
13:00	1243	54.4	47.5	6.7	0	4	32	22	62	174	512	367	62	5	2	1
14:00	1168	54.1	47.2	6.7	2	0	38	24	52	155	521	322	45	9	0	0
15:00	1130	55.4	48.4	6.7	0	0	33	23	17	133	465	366	66	25	2	0
16:00	1233	54.4	47.9	6.2	0	2	19	39	29	163	566	318	82	15	0	0
17:00	1058	55.4	48.3	6.9	0	2	24	26	46	108	428	324	82	15	2	1
18:00	1055	54.7	47.3	7.1	0	0	41	27	63	115	425	316	56	12	0	0
19:00	838	54.4	48.3	5.9	0	0	14	7	16	132	385	223	40	20	1	0
20:00	608	55.0	48.9	5.9	0	0	7	5	14	79	270	175	39	18	1	0
21:00	408	56.5	49.7	6.5	0	0	5	4	10	45	150	132	49	11	1	1
22:00	208	58.8	50.7	7.8	0	0	1	4	8	17	72	71	16	14	4	1
23:00	143	56.9	49.6	7.1	0	1	2	1	2	13	59	47	11	6	1	0
Total 2H(10-12)	2497	53.4	46.6	6.6	0	1	81	82	130	388	1137	584	77	17	0	0
2H(14-16)	2298	54.8	47.8	6.7	2	0	71	47	69	288	986	688	111	34	2	0
12H(7-19)	12577	54.5	47.6	6.6	2	13	331	299	505	1636	5489	3481	656	152	10	3
24H(0-24)	15683	54.9	47.9	6.7	2	14	381	344	588	2006	6682	4435	922	277	23	9
AM Peak	11:00	01:00	01:00	05:00	00:00	09:00	10:00	10:00	10:00	11:00	11:00	11:00	08:00	08:00	07:00	01:00
	1400	60.0	51.6	9.7	0	3	51	48	65	232	703	297	56	24	3	1
PM Peak	12:00	22:00	22:00	22:00	14:00	13:00	18:00	16:00	18:00	12:00	12:00	13:00	16:00	15:00	22:00	12:00
	1337	58.8	50.7	7.8	2	4	41	39	63	234	603	367	82	25	4	1

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

28/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	58	56.9	49.7	6.9	0	0	1	0	1	4	25	23	3	0	0	1
01:00	26	55.5	47.0	8.2	0	0	1	0	1	10	6	5	1	2	0	0
02:00	35	58.2	48.5	9.3	0	0	2	1	0	7	8	13	2	1	1	0
03:00	48	63.8	52.0	11.4	0	0	5	0	0	1	10	13	10	8	1	0
04:00	80	59.4	49.2	9.8	0	1	5	2	0	7	23	24	12	6	0	0
05:00	221	55.8	48.0	7.5	0	1	11	0	3	28	97	60	17	3	1	0
06:00	556	52.5	45.2	7.1	0	3	25	13	40	139	221	102	12	0	1	0
07:00	1052	51.2	43.5	7.4	0	2	61	100	81	242	428	127	8	3	0	0
08:00	877	51.0	43.4	7.4	0	1	40	108	93	167	334	128	6	0	0	0
09:00	698	50.7	43.9	6.6	2	0	26	44	52	217	286	64	6	1	0	0
10:00	769	52.1	41.3	10.4	30	27	30	30	75	238	262	76	1	0	0	0
11:00	744	50.3	42.2	7.8	0	0	59	90	81	185	248	70	8	3	0	0
12:00	682	52.3	43.6	8.4	0	2	61	52	40	148	265	97	13	2	2	0
13:00	630	51.6	44.1	7.2	0	2	34	44	46	147	262	87	8	0	0	0
14:00	633	52.5	44.6	7.7	0	2	39	44	39	115	266	114	14	0	0	0
15:00	619	53.5	46.0	7.2	0	0	27	26	45	86	278	134	17	5	1	0
16:00	703	53.5	46.4	6.8	0	0	21	25	48	104	330	151	15	7	1	1
17:00	648	54.5	44.8	9.4	1	19	35	41	28	107	239	141	33	4	0	0
18:00	492	55.1	47.4	7.5	0	0	26	15	8	56	211	136	34	6	0	0
19:00	262	54.6	48.2	6.2	0	0	4	6	7	37	114	76	11	7	0	0
20:00	188	53.5	47.4	5.9	0	0	3	2	5	41	88	37	8	4	0	0
21:00	155	55.5	49.5	5.7	0	0	2	1	0	16	68	51	14	2	1	0
22:00	152	57.6	48.8	8.4	0	1	4	4	5	20	53	40	17	6	2	0
23:00	72	59.6	50.0	9.2	0	0	1	1	5	14	17	16	10	7	0	1
Total 2H(10-12)	1513	51.4	41.8	9.3	30	27	89	120	156	423	510	146	9	3	0	0
2H(14-16)	1252	53.0	45.3	7.5	0	2	66	70	84	201	544	248	31	5	1	0
12H(7-19)	8547	52.4	44.1	8.1	33	55	459	619	636	1812	3409	1325	163	31	4	1
24H(0-24)	10400	53.1	44.7	8.1	33	61	523	649	703	2136	4139	1785	280	77	11	3
AM Peak	07:00	03:00	03:00	03:00	10:00	10:00	07:00	08:00	08:00	07:00	07:00	08:00	05:00	03:00	02:00	00:00
	1052	63.8	52.0	11.4	30	27	61	108	93	242	428	128	17	8	1	1
PM Peak	16:00	23:00	23:00	17:00	17:00	17:00	12:00	12:00	16:00	12:00	16:00	16:00	18:00	16:00	12:00	16:00
	703	59.6	50.0	9.4	1	19	61	52	48	148	330	151	34	7	2	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	54	59.2	52.4	6.6	0	0	0	1	1	2	13	21	13	2	1	0
01:00	42	57.0	50.1	6.7	0	0	0	1	2	8	4	19	7	1	0	0
02:00	87	58.0	51.4	6.4	0	0	0	2	1	2	31	37	7	6	1	0
03:00	146	56.5	51.3	5.1	0	0	1	0	2	3	44	78	14	3	1	0
04:00	231	59.5	51.9	7.3	0	0	2	5	2	10	69	87	32	22	1	1
05:00	472	56.6	46.5	9.7	0	2	50	24	11	31	132	183	35	2	2	0
06:00	555	54.2	45.6	8.4	0	0	27	63	45	36	201	150	30	3	0	0
07:00	856	51.8	43.0	8.5	0	0	52	137	114	125	218	193	15	2	0	0
08:00	777	53.0	46.1	6.7	0	2	17	32	67	131	319	192	10	7	0	0
09:00	714	51.8	43.3	8.2	0	0	32	125	84	81	242	128	21	1	0	0
10:00	658	52.5	44.9	7.4	0	6	15	69	44	83	303	131	7	0	0	0
11:00	787	52.6	45.9	6.4	0	0	24	30	65	126	348	181	12	1	0	0
12:00	680	52.0	45.4	6.4	0	0	4	71	52	120	281	138	14	0	0	0
13:00	745	52.7	44.5	7.9	0	0	51	59	57	116	301	142	17	2	0	0
14:00	667	53.4	46.9	6.3	0	0	6	39	50	88	272	179	32	1	0	0
15:00	756	52.9	47.4	5.3	0	1	7	21	22	104	386	196	19	0	0	0
16:00	822	52.7	45.3	7.2	0	0	27	64	79	128	317	188	16	3	0	0
17:00	870	52.9	46.5	6.2	0	0	11	38	80	132	364	212	32	1	0	0
18:00	568	54.8	49.6	5.0	0	0	1	7	12	38	263	174	69	4	0	0
19:00	356	54.5	49.2	5.2	0	0	0	7	11	38	139	125	35	1	0	0
20:00	248	55.9	49.0	6.7	0	1	2	8	9	13	107	83	18	6	1	0
21:00	150	58.3	51.4	6.7	0	0	0	4	1	4	59	53	16	11	2	0
22:00	97	57.9	50.2	7.4	0	0	2	0	5	8	31	33	12	5	1	0
23:00	86	56.7	50.8	5.8	0	0	1	0	1	8	23	40	10	3	0	0
Total 2H(10-12)	1445	52.6	45.5	6.9	0	6	39	99	109	209	651	312	19	1	0	0
2H(14-16)	1423	53.2	47.1	5.8	0	1	13	60	72	192	658	375	51	1	0	0
12H(7-19)	8900	53.0	45.6	7.1	0	9	247	692	726	1272	3614	2054	264	22	0	0
24H(0-24)	11424	53.9	46.3	7.4	0	12	332	807	817	1435	4467	2963	493	87	10	1
AM Peak	07:00	04:00	00:00	05:00	00:00	10:00	07:00	07:00	07:00	08:00	11:00	07:00	05:00	04:00	05:00	04:00
	856	59.5	52.4	9.7	0	6	52	137	114	131	348	193	35	22	2	1
PM Peak	17:00	21:00	21:00	13:00	12:00	15:00	13:00	12:00	17:00	17:00	15:00	17:00	18:00	21:00	21:00	12:00
	870	58.3	51.4	7.9	0	1	51	71	80	132	386	212	69	11	2	0

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	112	58.1	51.0	6.8	0	0	1	1	2	6	38	44	16	2	1	1
01:00	68	56.6	48.9	7.4	0	0	1	1	3	18	10	24	8	3	0	0
02:00	122	58.3	50.6	7.4	0	0	2	3	1	9	39	50	9	7	2	0
03:00	194	58.9	51.5	7.1	0	0	6	0	2	4	54	91	24	11	2	0
04:00	311	59.6	51.2	8.1	0	1	7	7	2	17	92	111	44	28	1	1
05:00	693	56.4	47.0	9.1	0	3	61	24	14	59	229	243	52	5	3	0
06:00	1111	53.4	45.4	7.7	0	3	52	76	85	175	422	252	42	3	1	0
07:00	1908	51.5	43.3	7.9	0	2	113	237	195	367	646	320	23	5	0	0
08:00	1654	52.1	44.7	7.2	0	3	57	140	160	298	653	320	16	7	0	0
09:00	1412	51.3	43.6	7.4	2	0	58	169	136	298	528	192	27	2	0	0
10:00	1427	52.6	43.0	9.3	30	33	45	99	119	321	565	207	8	0	0	0
11:00	1531	51.8	44.1	7.4	0	0	83	120	146	311	596	251	20	4	0	0
12:00	1362	52.3	44.5	7.5	0	2	65	123	92	268	546	235	27	2	2	0
13:00	1375	52.2	44.3	7.6	0	2	85	103	103	263	563	229	25	2	0	0
14:00	1300	53.1	45.7	7.1	0	2	45	83	89	203	538	293	46	1	0	0
15:00	1375	53.3	46.8	6.3	0	1	34	47	67	190	664	330	36	5	1	0
16:00	1525	53.1	45.8	7.0	0	0	48	89	127	232	647	339	31	10	1	1
17:00	1518	53.8	45.8	7.8	1	19	46	79	108	239	603	353	65	5	0	0
18:00	1060	55.2	48.6	6.4	0	0	27	22	20	94	474	310	103	10	0	0
19:00	618	54.6	48.7	5.7	0	0	4	13	18	75	253	201	46	8	0	0
20:00	436	54.9	48.3	6.4	0	1	5	10	14	54	195	120	26	10	1	0
21:00	305	56.9	50.5	6.3	0	0	2	5	1	20	127	104	30	13	3	0
22:00	249	57.7	49.4	8.1	0	1	6	4	10	28	84	73	29	11	3	0
23:00	158	58.2	50.4	7.5	0	0	2	1	6	22	40	56	20	10	0	1
Total 2H(10-12)	2958	52.3	43.6	8.4	30	33	128	219	265	632	1161	458	28	4	0	0
2H(14-16)	2675	53.2	46.3	6.7	0	3	79	130	156	393	1202	623	82	6	1	0
12H(7-19)	17447	52.8	44.9	7.6	33	64	706	1311	1362	3084	7023	3379	427	53	4	1
24H(0-24)	21824	53.6	45.5	7.8	33	73	855	1456	1520	3571	8606	4748	773	164	21	4
AM Peak	07:00	04:00	03:00	10:00	10:00	10:00	07:00	07:00	07:00	07:00	08:00	07:00	05:00	04:00	05:00	00:00
	1908	59.6	51.5	9.3	30	33	113	237	195	367	653	320	52	28	3	1
PM Peak	16:00	23:00	21:00	22:00	17:00	17:00	13:00	12:00	16:00	12:00	15:00	17:00	18:00	21:00	21:00	16:00
	1525	58.2	50.5	8.1	1	19	85	123	127	268	664	353	103	13	3	1

360 TSL Ltd

East Heckington ATC, A17 (Western Site)

Direction: Eastbound

29/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	32	54.5	48.3	6.0	0	0	0	2	0	5	12	10	3	0	0	0
01:00	36	60.5	52.2	7.9	0	0	1	0	1	1	9	14	5	5	0	0
02:00	45	56.5	47.7	8.5	0	0	4	1	0	3	15	18	4	0	0	0
03:00	48	60.0	50.0	9.6	0	0	4	0	0	5	9	18	10	1	1	0
04:00	101	58.1	50.2	7.6	0	0	3	3	0	12	24	33	23	3	0	0
05:00	222	54.8	46.6	7.9	0	0	18	2	7	32	84	66	13	0	0	0
06:00	507	52.6	45.5	6.8	0	2	18	14	24	137	224	63	22	2	1	0
07:00	1047	49.3	41.9	7.1	0	1	75	91	155	357	275	85	8	0	0	0
08:00	854	49.9	44.0	5.6	0	0	30	15	76	345	317	66	2	3	0	0
09:00	734	50.4	43.4	6.8	0	1	41	32	68	262	265	54	5	6	0	0
10:00	647	51.1	43.9	6.9	0	2	40	18	37	234	236	69	9	2	0	0
11:00	569	51.3	44.0	7.0	0	0	27	41	62	126	230	74	8	1	0	0
12:00	652	50.9	44.0	6.7	0	2	28	41	36	210	253	76	6	0	0	0
13:00	604	52.4	45.0	7.1	0	0	34	22	38	132	270	89	17	2	0	0
14:00	591	53.3	44.4	8.6	0	4	44	41	45	98	222	109	25	3	0	0
15:00	619	52.0	44.9	6.9	0	1	20	45	39	162	228	109	12	3	0	0
16:00	703	52.4	45.5	6.6	0	1	32	8	57	156	308	124	15	2	0	0
17:00	696	52.6	46.2	6.1	0	0	23	15	23	158	328	123	24	2	0	0
18:00	460	56.1	47.3	8.5	0	4	25	16	16	42	185	121	40	11	0	0
19:00	293	55.4	48.2	6.9	0	1	9	2	3	32	155	66	16	7	2	0
20:00	203	54.7	48.4	6.0	0	0	3	3	0	35	91	56	10	4	1	0
21:00	189	55.4	49.5	5.7	0	0	1	1	4	19	87	58	12	6	1	0
22:00	152	56.6	48.0	8.3	0	0	8	2	4	23	57	43	6	8	1	0
23:00	80	59.1	51.3	7.5	0	0	0	0	4	5	29	23	14	3	1	1
Total 2H(10-12)	1216	51.2	44.0	7.0	0	2	67	59	99	360	466	143	17	3	0	0
2H(14-16)	1210	52.7	44.6	7.8	0	5	64	86	84	260	450	218	37	6	0	0
12H(7-19)	8176	51.7	44.3	7.1	0	16	419	385	652	2282	3117	1099	171	35	0	0
24H(0-24)	10084	52.5	45.0	7.3	0	19	488	415	699	2591	3913	1567	309	74	8	1
AM Peak	07:00	01:00	01:00	03:00	00:00	06:00	07:00	07:00	07:00	07:00	08:00	07:00	04:00	09:00	03:00	00:00
	1047	60.5	52.2	9.6	0	2	75	91	155	357	317	85	23	6	1	0
PM Peak	16:00	23:00	23:00	14:00	12:00	14:00	14:00	15:00	16:00	12:00	17:00	16:00	18:00	18:00	19:00	23:00
	703	59.1	51.3	8.6	0	4	44	45	57	210	328	124	40	11	2	1

360 TSL Ltd

Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	79	56.3	50.3	5.8	0	0	1	0	0	6	36	22	11	3	0	0
01:00	77	55.1	50.4	4.6	0	0	0	0	2	1	38	24	11	1	0	0
02:00	90	54.7	48.4	6.0	0	0	1	1	0	29	14	38	6	1	0	0
03:00	127	56.3	52.3	3.8	0	0	0	0	0	2	26	78	20	0	1	0
04:00	221	57.2	50.5	6.5	0	0	1	4	14	12	48	113	19	9	1	0
05:00	418	55.0	47.1	7.7	0	0	18	22	12	58	154	127	22	3	2	0
06:00	524	54.9	47.0	7.6	0	0	12	53	20	47	179	181	29	2	1	0
07:00	822	51.9	46.2	5.5	0	0	10	21	50	199	374	144	22	2	0	0
08:00	838	52.6	44.3	8.0	0	0	50	68	100	136	293	159	30	1	1	0
09:00	630	52.9	46.4	6.3	0	0	9	45	30	95	276	158	17	0	0	0
10:00	627	53.1	46.7	6.1	0	0	8	30	45	80	285	160	17	2	0	0
11:00	691	52.6	44.8	7.5	0	0	29	55	67	128	249	139	22	2	0	0
12:00	681	52.5	45.2	7.0	0	0	9	65	67	136	245	131	20	8	0	0
13:00	782	52.5	46.7	5.6	0	0	11	30	32	140	363	197	9	0	0	0
14:00	747	52.4	45.5	6.7	0	0	9	74	65	112	310	158	17	2	0	0
15:00	787	53.0	44.4	8.3	0	9	60	42	48	121	338	159	10	0	0	0
16:00	836	53.0	47.0	5.8	0	0	17	23	50	101	404	226	14	1	0	0
17:00	796	53.2	45.5	7.4	0	0	31	70	61	82	342	187	21	2	0	0
18:00	541	55.4	48.2	6.9	0	1	7	17	42	63	170	179	56	6	0	0
19:00	340	55.8	49.0	6.5	0	0	8	7	6	29	127	139	18	5	0	1
20:00	275	56.8	50.6	6.0	0	0	1	5	3	16	102	100	42	4	1	1
21:00	215	58.4	49.4	8.7	0	0	1	9	11	41	61	53	18	16	4	1
22:00	131	58.3	51.1	6.9	0	0	2	2	3	7	35	56	16	10	0	0
23:00	90	57.9	51.1	6.6	0	0	1	1	3	5	26	31	19	4	0	0
Total 2H(10-12)	1318	52.9	45.7	6.9	0	0	37	85	112	208	534	299	39	4	0	0
2H(14-16)	1534	52.8	44.9	7.6	0	9	69	116	113	233	648	317	27	2	0	0
12H(7-19)	8778	53.0	45.8	6.9	0	10	250	540	657	1393	3649	1997	255	26	1	0
24H(0-24)	11365	53.9	46.6	7.1	0	10	296	644	731	1646	4495	2959	486	84	11	3
AM Peak	08:00	04:00	03:00	08:00	00:00	00:00	08:00	08:00	08:00	07:00	07:00	06:00	08:00	04:00	05:00	00:00
	838	57.2	52.3	8.0	0	0	50	68	100	199	374	181	30	9	2	0
PM Peak	16:00	21:00	22:00	21:00	12:00	15:00	15:00	14:00	12:00	13:00	16:00	16:00	18:00	21:00	21:00	19:00
	836	58.4	51.1	8.7	0	9	60	74	67	140	404	226	56	16	4	1

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Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	111	55.8	49.7	5.9	0	0	1	2	0	11	48	32	14	3	0	0
01:00	113	57.1	51.0	5.9	0	0	1	0	3	2	47	38	16	6	0	0
02:00	135	55.4	48.2	6.9	0	0	5	2	0	32	29	56	10	1	0	0
03:00	175	57.9	51.7	6.1	0	0	4	0	0	7	35	96	30	1	2	0
04:00	322	57.5	50.4	6.9	0	0	4	7	14	24	72	146	42	12	1	0
05:00	640	54.9	46.9	7.7	0	0	36	24	19	90	238	193	35	3	2	0
06:00	1031	53.8	46.3	7.2	0	2	30	67	44	184	403	244	51	4	2	0
07:00	1869	50.8	43.8	6.8	0	1	85	112	205	556	649	229	30	2	0	0
08:00	1692	51.3	44.2	6.9	0	0	80	83	176	481	610	225	32	4	1	0
09:00	1364	51.8	44.8	6.7	0	1	50	77	98	357	541	212	22	6	0	0
10:00	1274	52.2	45.3	6.7	0	2	48	48	82	314	521	229	26	4	0	0
11:00	1260	52.0	44.5	7.3	0	0	56	96	129	254	479	213	30	3	0	0
12:00	1333	51.8	44.6	6.9	0	2	37	106	103	346	498	207	26	8	0	0
13:00	1386	52.5	46.0	6.3	0	0	45	52	70	272	633	286	26	2	0	0
14:00	1338	52.9	45.0	7.6	0	4	53	115	110	210	532	267	42	5	0	0
15:00	1406	52.6	44.6	7.7	0	10	80	87	87	283	566	268	22	3	0	0
16:00	1539	52.8	46.3	6.3	0	1	49	31	107	257	712	350	29	3	0	0
17:00	1492	53.0	45.9	6.9	0	0	54	85	84	240	670	310	45	4	0	0
18:00	1001	55.8	47.8	7.7	0	5	32	33	58	105	355	300	96	17	0	0
19:00	633	55.6	48.6	6.7	0	1	17	9	9	61	282	205	34	12	2	1
20:00	478	56.0	49.7	6.1	0	0	4	8	3	51	193	156	52	8	2	1
21:00	404	57.1	49.4	7.5	0	0	2	10	15	60	148	111	30	22	5	1
22:00	283	57.6	49.5	7.8	0	0	10	4	7	30	92	99	22	18	1	0
23:00	170	58.5	51.2	7.0	0	0	1	1	7	10	55	54	33	7	1	1
Total 2H(10-12)	2534	52.1	44.9	7.0	0	2	104	144	211	568	1000	442	56	7	0	0
2H(14-16)	2744	52.7	44.8	7.7	0	14	133	202	197	493	1098	535	64	8	0	0
12H(7-19)	16954	52.4	45.1	7.0	0	26	669	925	1309	3675	6766	3096	426	61	1	0
24H(0-24)	21449	53.3	45.8	7.2	0	29	784	1059	1430	4237	8408	4526	795	158	19	4
AM Peak	07:00	03:00	03:00	05:00	00:00	06:00	07:00	07:00	07:00	07:00	07:00	06:00	06:00	04:00	03:00	00:00
	1869	57.9	51.7	7.7	0	2	85	112	205	556	649	244	51	12	2	0
PM Peak	16:00	23:00	23:00	22:00	12:00	15:00	15:00	14:00	14:00	12:00	16:00	16:00	18:00	21:00	21:00	19:00
	1539	58.5	51.2	7.8	0	10	80	115	110	346	712	350	96	22	5	1

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East Heckington ATC, A17 (Western Site)

Direction: Eastbound

30/03/2022

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	66	56.6	51.1	5.3	0	0	0	0	2	5	18	29	10	2	0	0
01:00	44	61.3	53.9	7.1	0	0	1	0	0	1	5	20	13	3	1	0
02:00	40	60.8	49.1	11.3	0	0	4	3	0	1	7	16	6	2	1	0
03:00	60	58.3	49.6	8.4	0	0	4	1	1	2	14	29	7	2	0	0
04:00	98	57.4	50.7	6.5	0	0	2	2	1	4	25	48	13	3	0	0
05:00	221	56.7	48.4	8.0	0	1	13	2	3	20	73	86	19	4	0	0
06:00	480	53.1	46.0	6.9	0	0	22	7	34	90	223	88	12	2	2	0
07:00	915	51.4	44.3	6.9	0	1	44	54	65	239	387	111	12	1	1	0
08:00	877	50.7	44.2	6.3	1	1	28	30	104	253	358	94	6	2	0	0
09:00	691	50.5	43.1	7.1	0	2	39	48	75	221	228	67	10	1	0	0
10:00	643	52.2	44.5	7.5	0	5	45	15	33	158	281	97	9	0	0	0
11:00	617	51.5	44.3	6.9	0	2	34	22	35	189	248	80	5	2	0	0
12:00	598	50.9	42.8	7.8	0	5	43	47	51	170	216	55	10	1	0	0
13:00	586	51.1	43.7	7.2	0	6	36	13	48	191	221	66	5	0	0	0
14:00	656	51.0	43.9	6.9	0	4	41	20	33	207	290	55	6	0	0	0
15:00	633	50.8	43.1	7.3	0	1	39	49	74	163	228	69	10	0	0	0
16:00	709	51.4	44.5	6.6	0	4	27	32	44	191	310	98	3	0	0	0
17:00	622	52.2	45.7	6.3	0	2	20	13	33	156	286	94	15	3	0	0
18:00	505	53.7	45.7	7.8	0	1	34	15	15	109	206	104	15	5	1	0
19:00	302	53.3	47.2	5.9	0	0	3	7	15	59	134	72	7	4	1	0
20:00	202	52.6	46.4	6.0	0	0	5	2	7	57	92	26	11	2	0	0
21:00	170	55.6	48.6	6.8	0	0	4	7	2	16	67	57	14	3	0	0
22:00	114	59.9	50.6	9.0	0	1	4	1	1	13	27	39	17	10	1	0
23:00	80	56.4	50.8	5.4	0	0	0	1	0	6	31	27	12	3	0	0
Total 2H(10-12)	1260	51.9	44.4	7.2	0	7	79	37	68	347	529	177	14	2	0	0
2H(14-16)	1289	50.9	43.5	7.1	0	5	80	69	107	370	518	124	16	0	0	0
12H(7-19)	8052	51.5	44.1	7.1	1	34	430	358	610	2247	3259	990	106	15	2	0
24H(0-24)	9929	52.4	44.9	7.3	1	36	492	391	676	2521	3975	1527	247	55	8	0
AM Peak	07:00	01:00	01:00	02:00	08:00	10:00	10:00	07:00	08:00	08:00	07:00	07:00	05:00	05:00	06:00	00:00
	915	61.3	53.9	11.3	1	5	45	54	104	253	387	111	19	4	2	0
PM Peak	16:00	22:00	23:00	22:00	12:00	13:00	12:00	15:00	15:00	14:00	16:00	18:00	22:00	22:00	18:00	12:00
	709	59.9	50.8	9.0	0	6	43	49	74	207	310	104	17	10	1	0

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Direction: Westbound

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	86	58.6	52.4	6.0	0	0	0	0	1	5	23	34	17	5	1	0
01:00	94	60.0	52.9	6.8	0	0	0	2	1	5	20	31	27	7	1	0
02:00	114	56.5	49.8	6.5	0	0	1	2	5	10	36	47	7	6	0	0
03:00	177	57.4	51.7	5.4	0	0	0	2	6	5	41	79	40	4	0	0
04:00	253	56.9	50.0	6.7	0	0	2	5	10	23	83	89	29	11	1	0
05:00	385	55.7	48.6	6.9	0	0	8	10	23	37	129	137	33	8	0	0
06:00	567	55.4	46.6	8.6	0	7	36	23	9	61	217	188	23	1	2	0
07:00	808	54.1	46.7	7.1	0	0	13	65	65	79	290	254	40	2	0	0
08:00	712	51.6	42.6	8.7	0	12	40	97	88	100	263	96	15	1	0	0
09:00	656	52.6	44.0	8.3	0	8	57	29	33	113	305	109	2	0	0	0
10:00	675	52.6	43.2	9.0	0	10	77	34	48	83	313	104	6	0	0	0
11:00	751	51.1	44.4	6.5	1	0	20	48	89	168	319	99	5	2	0	0
12:00	771	51.2	43.6	7.3	2	11	17	66	65	205	319	79	5	2	0	0
13:00	893	50.5	43.6	6.7	0	4	32	59	120	195	399	81	2	1	0	0
14:00	869	51.0	45.3	5.5	0	1	13	33	82	165	463	110	2	0	0	0
15:00	796	52.1	45.6	6.2	0	0	12	47	62	183	323	140	29	0	0	0
16:00	944	51.1	44.7	6.2	0	0	22	52	117	204	400	141	7	1	0	0
17:00	931	52.2	46.7	5.3	0	0	13	19	52	158	479	190	19	1	0	0
18:00	584	53.5	47.0	6.2	0	0	10	20	42	79	240	174	17	2	0	0
19:00	318	54.7	49.0	5.5	0	0	0	3	20	31	124	113	21	6	0	0
20:00	271	55.2	49.2	5.8	0	0	4	4	4	30	98	110	16	5	0	0
21:00	165	56.9	50.1	6.6	0	0	1	4	5	5	69	60	13	6	2	0
22:00	106	55.8	48.8	6.7	0	0	1	3	5	11	44	30	7	5	0	0
23:00	92	55.6	48.3	7.1	0	0	1	3	3	19	33	17	15	0	1	0
Total 2H(10-12)	1426	51.9	43.8	7.8	1	10	97	82	137	251	632	203	11	2	0	0
2H(14-16)	1665	51.5	45.4	5.9	0	1	25	80	144	348	786	250	31	0	0	0
12H(7-19)	9390	52.1	44.8	7.0	3	46	326	569	863	1732	4113	1577	149	12	0	0
24H(0-24)	12018	53.3	45.7	7.3	3	53	380	630	955	1974	5030	2512	397	76	8	0
AM Peak	07:00	01:00	01:00	10:00	11:00	08:00	10:00	08:00	11:00	11:00	11:00	07:00	03:00	04:00	06:00	00:00
	808	60.0	52.9	9.0	1	12	77	97	89	168	319	254	40	11	2	0
PM Peak	16:00	21:00	21:00	12:00	12:00	12:00	13:00	12:00	13:00	12:00	17:00	17:00	15:00	19:00	21:00	12:00
	944	56.9	50.1	7.3	2	11	32	66	120	205	479	190	29	6	2	0

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
00:00	152	57.7	51.8	5.7	0	0	0	0	3	10	41	63	27	7	1	0
01:00	138	60.4	53.2	6.9	0	0	1	2	1	6	25	51	40	10	2	0
02:00	154	57.9	49.6	8.0	0	0	5	5	5	11	43	63	13	8	1	0
03:00	237	57.8	51.2	6.4	0	0	4	3	7	7	55	108	47	6	0	0
04:00	351	57.1	50.2	6.7	0	0	4	7	11	27	108	137	42	14	1	0
05:00	606	56.1	48.5	7.3	0	1	21	12	26	57	202	223	52	12	0	0
06:00	1047	54.4	46.3	7.8	0	7	58	30	43	151	440	276	35	3	4	0
07:00	1723	52.8	45.4	7.1	0	1	57	119	130	318	677	365	52	3	1	0
08:00	1589	51.2	43.5	7.5	1	13	68	127	192	353	621	190	21	3	0	0
09:00	1347	51.5	43.5	7.7	0	10	96	77	108	334	533	176	12	1	0	0
10:00	1318	52.5	43.8	8.3	0	15	122	49	81	241	594	201	15	0	0	0
11:00	1368	51.3	44.3	6.7	1	2	54	70	124	357	567	179	10	4	0	0
12:00	1369	51.1	43.3	7.5	2	16	60	113	116	375	535	134	15	3	0	0
13:00	1479	50.8	43.6	6.9	0	10	68	72	168	386	620	147	7	1	0	0
14:00	1525	51.1	44.7	6.2	0	5	54	53	115	372	753	165	8	0	0	0
15:00	1429	51.6	44.5	6.9	0	1	51	96	136	346	551	209	39	0	0	0
16:00	1653	51.2	44.6	6.4	0	4	49	84	161	395	710	239	10	1	0	0
17:00	1553	52.3	46.3	5.8	0	2	33	32	85	314	765	284	34	4	0	0
18:00	1089	53.7	46.4	7.0	0	1	44	35	57	188	446	278	32	7	1	0
19:00	620	54.1	48.1	5.8	0	0	3	10	35	90	258	185	28	10	1	0
20:00	473	54.3	48.0	6.1	0	0	9	6	11	87	190	136	27	7	0	0
21:00	335	56.3	49.3	6.7	0	0	5	11	7	21	136	117	27	9	2	0
22:00	220	58.0	49.7	8.0	0	1	5	4	6	24	71	69	24	15	1	0
23:00	172	56.1	49.4	6.5	0	0	1	4	3	25	64	44	27	3	1	0
Total 2H(10-12)	2686	51.9	44.1	7.5	1	17	176	119	205	598	1161	380	25	4	0	0
2H(14-16)	2954	51.4	44.6	6.5	0	6	105	149	251	718	1304	374	47	0	0	0
12H(7-19)	17442	51.8	44.5	7.1	4	80	756	927	1473	3979	7372	2567	255	27	2	0
24H(0-24)	21947	52.9	45.3	7.3	4	89	872	1021	1631	4495	9005	4039	644	131	16	0
AM Peak	07:00	01:00	01:00	10:00	08:00	10:00	10:00	08:00	08:00	11:00	07:00	07:00	05:00	04:00	06:00	00:00
	1723	60.4	53.2	8.3	1	15	122	127	192	357	677	365	52	14	4	0
PM Peak	16:00	22:00	22:00	22:00	12:00	12:00	13:00	12:00	13:00	16:00	17:00	17:00	15:00	22:00	21:00	12:00
	1653	58.0	49.7	8.0	2	16	68	113	168	395	765	284	39	15	2	0

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Appendix C

1. Temporary Construction Traffic signage (Diagram 7301 'WORKS TRAFFIC' in the TSRGD)

Appendix D

APPENDIX 15.2 - CONSTRUCTION DUST RISK ASSESSMENT

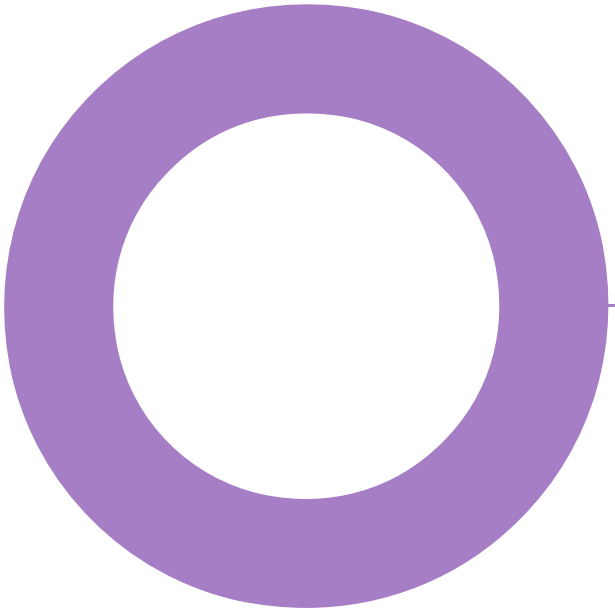
Document Properties		
Regulation Reference	Regulation 5(2)(a)	
Planning Inspectorate Scheme Reference	EN010123	
Application Document Reference	6.3.15.2 APFP Regulation 5(2)(a)	
Title	APPENDIX 15.2 – CONSTRUCTION DUST RISK ASSESSMENT	
Prepared By	Heckington Fen Energy Park Project Team	
Version History		
Version	**Date**	**Version Status**
Rev 1	21/12/2022	Application Version

HOARE LEA

Heckington Fen Solar Farm. Lincolnshire.

Ecotricity (Heck Fen Solar) Ltd.

AIR QUALITY
APPENDIX - 15.2
CONSTRUCTION DUST RISK ASSESSMENT
REVISION 01 – 21 DECEMBER 2022



Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
00	04/11/2022	First Draft	AJ	LB	KW
01	21/12/2022	First Issue	AJ	LB	CE

Project number: 10/13713
Document reference: AQ Appendix 15.2-R01-20221221.docx

Contents.

Appendix 15.2 – Construction Dust Risk Assessment.

Methodology.

The assessment of construction dust impacts has been undertaken in line with the Institute of Air Quality Management (IAQM) methodology[1]. Activities on the proposed construction site have been divided into four types to reflect their different potential impacts. These are:

- Demolition – Any activity involved with the removal of an existing structure (or structures), its modification or refurbishment;
- Earthworks – Covers the processes of soil-stripping, ground-levelling, excavation and landscaping;
- Construction- Any activity involved with the provision of new structure (or structures), its modification or refurbishment; and
- Trackout – The transport of dust and dirt from the construction/demolition site onto the public road network where it may be deposited and re-suspended by vehicles using the network. This arises when Heavy Duty Vehicles (HDVs) leave the construction/demolition site with dusty materials which may then spill onto the road, and/or when HDVs transfer dust and dirt onto the road after having travelled over muddy ground on site.

The risk of dust emissions was assessed for each activity with respect to:

- Potential loss of amenity due to dust soiling;
- The risk of health effects due to a significant increase in exposure to PM_{10}; and
- Harm to ecological receptors.

At this stage, the Proposed Development has been considered as a whole as a worst case approach. This assessment may be refined further when construction phasing information becomes available.

The first stage of the assessment involves screening to determine whether there are any sensitive receptors within the threshold distances defined by the IAQM guidance[1]. A detailed assessment of the impact of dust from construction sites will be required where:

- A 'human receptor' is located within 350 metres (m) of the boundary of the Site or within 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the Site entrance; and
- An 'ecological receptor' is located within 50 m of the boundary of the Site or within 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the Site entrance.

The magnitude of dust emission for each activity is determined on the basis of the guidance, indicative thresholds, information available relating to the project and expert judgement. The risk of dust impacts arising is based upon the relationship between the dust emission magnitude and the sensitivity of the area. The risk of dust impacts is then used to determine the mitigation requirements. Following the implementation of the appropriate mitigation, residual effects are considered to be not significant.

Table A15.1 to Table A15.3 illustrate how the sensitivity of the area may be determined for dust soiling, human health and ecological impacts respectively. It should be noted that the highest level of sensitivity relevant to the site from each table should be considered, as recommended by the IAQM[1].

Table A15.1: Sensitivity of the Area to Dust Soiling Effects on People and Property

Receptor Sensitivity	Number of Receptors	Distance from Source (m)			
		<20	<50	<100	<350
High	>100	High	High	Medium	Low

Receptor Sensitivity	Number of Receptors	Distance from Source (m)			
		<20	<50	<100	<350
	10 – 100	High	Medium	Low	Low
	1 – 10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

Table A15.2: Sensitivity of the Area to Human Health Effects

Receptor Sensitivity	Annual Mean PM_{10} Concentration	Number of Receptors	Distance from the Source (m)				
			<20	<50	<100	<200	<350
High	>32 µg/m^3	>100	High	High	High	Medium	Low
		10 – 100	High	High	Medium	Low	Low
		1 – 10	High	Medium	Low	Low	Low
	28 – 32 µg/m^3	>100	High	High	Medium	Low	Low
		10 – 100	High	Medium	Low	Low	Low
		1 – 10	High	Medium	Low	Low	Low
	24 – 28 µg/m^3	>100	High	Medium	Low	Low	Low
		10 – 100	High	Medium	Low	Low	Low
		1 – 10	Medium	Low	Low	Low	Low
	<24 µg/m^3	>100	Medium	Low	Low	Low	Low
		10 – 100	Low	Low	Low	Low	Low
		1 – 10	Low	Low	Low	Low	Low
Medium	>32 µg/m^3	>10	High	Medium	Low	Low	Low
		1 – 10	Medium	Low	Low	Low	Low
	28 – 32 µg/m^3	>10	Medium	Low	Low	Low	Low
		1 – 10	Low	Low	Low	Low	Low
	24 – 28 µg/m^3	>10	Low	Low	Low	Low	Low
		1 – 10	Low	Low	Low	Low	Low
	<24 µg/m^3	>10	Low	Low	Low	Low	Low
		1 – 10	Low	Low	Low	Low	Low
Low	-	1	Low	Low	Low	Low	Low

Table A15.3: Sensitivity of the area to Ecological Impacts

Receptor Sensitivity	Distance from Source	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Table A15.4 to Table A15.7 illustrate how the dust emission magnitude should be combined with the sensitivity of the area to determine the risk of impacts with no mitigation measures applied. In the absence of any site-specific information, a higher risk category will be applied to represent a worst-case scenario.

Table A15.4: Risk of Dust Impacts – Demolition

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Table A15.5: Risk of Dust Impacts – Earthworks

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table A15.6: Risk of Dust Impacts – Construction

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table A15.7: Risk of Dust Impacts – Trackout

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Low Risk	Negligible
Low	Low Risk	Low Risk	Negligible

Assessment Screening.

There are human receptors within 350 m of the Site and a local wildlife area within 50 m of the Site boundary and within 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the Site entrance.

The closest ecological receptor to the Site is "South Forty Foot Drain". This is a river, classified as a local wildlife site (LWS), that runs through part of the Site boundary. This has been identified and requested for inclusion by Lincolnshire Wildlife Trust (LWT).

Potential Dust Emission Magnitude

The potential magnitude of dust emissions from demolition, construction, earthworks and trackout has been assessed, as identified in Table A15.8.

Table A15.8: Predicted Magnitude of Dust Emissions

Activity	Magnitude	Justification
Demolition	Small	The Site currently consists of mostly empty farmland with few hard-standing structures that would require demolition, which is expected to be less than 20,000 m^3 in volume. As such, the magnitude of dust emissions from demolition will be small.
Earthworks	Large	The total site area is greater than IAQM threshold for large potential for dust emission magnitude of 10,000 m^2. The soil type at the Site is loamy and clayey[2] which has a high potential for dust emission. As such, the magnitude of dust emissions from earthworks is expected to be large.
Construction	Small	As construction will involve a few hard standing structures and electrical equipment, the construction volume is expected to be less than 25,000 m^3. This will primarily involve the installation of solar modules which are not anticipated to have a high potential for dust. As such, the magnitude of dust emissions from construction is expected to be small.
Trackout	Medium	There are expected to be an average of 10 HDV construction vehicles per day during the construction phase of the Development. The Site is expected to have a large area of unpaved road length. As such, the magnitude of dust emissions from trackout is expected to be medium.

Sensitivity of the Study Area

The sensitivity of the area takes into account the following factors:

- The specific sensitivities of receptors in the area;
- The proximity and number of those receptors;
- In the case of PM_{10}, the local background concentration; and
- Site-specific factors, such as whether there are natural shelters, such as trees or other vegetation, to reduce the risk of wind-blown dust.

The sensitivity of the area and the factors considered are detailed in Table A15.9 with the demolition and construction distance band criteria illustrated in Figure A15.1, below. The entire Site boundary area has been considered for determining the significance and the sensitivity of the surrounding area as a worst-case scenario.

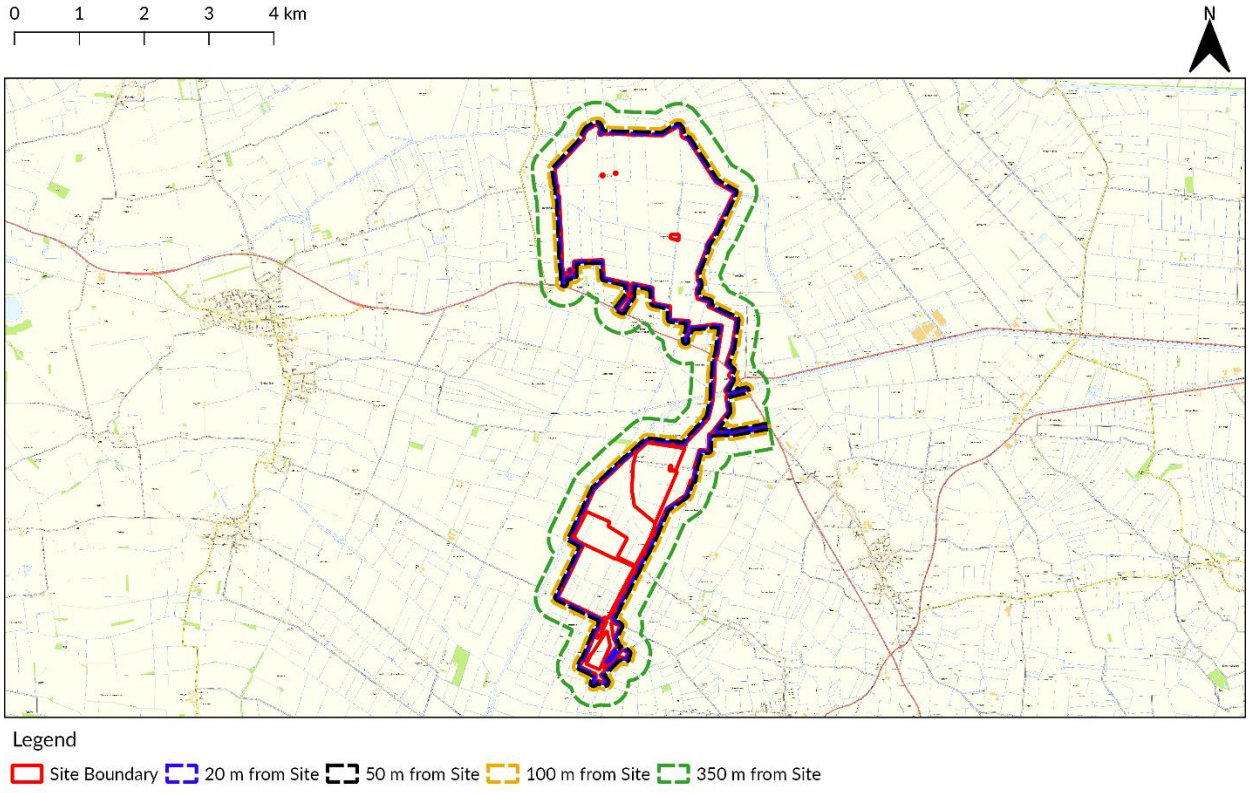


Figure A15.1: IAQM Demolition and Construction Dust Distance Criteria from Site boundary for the whole Site boundary. Contains OS Data © Crown Copyright and Database rights 2022.

Table A15.9: Sensitivity of the Area

Sensitivity Type	Factors	Sensitivity of Area	
		On–Site*	Trackout
Dust Soiling	There are 1-10 residential properties within 20 m of the Site boundary. Within 350 m of the whole Site boundary, there are approximately 10-100 residential buildings which would be classified as high sensitivity receptors. Additionally, there are approximately 1-10 commercial buildings, which are classified as low sensitivity receptors. As such the Sensitivity of the area to dust emissions from on-site activities for these stages will be medium.	Medium	Medium

Sensitivity Type	Factors	Sensitivity of Area	
		On–Site*	Trackout
	For trackout, within 20 m of the roadside up to 500 m from the Site there are approximately 10-100 residential buildings which would be classified as high sensitivity receptors. Additionally, there are approximately 1-10 commercial buildings, which are classified as low sensitivity receptors. As such the Sensitivity of the area to dust emissions from trackout for these stages will be medium.		
Human Health	The background concentration of PM_{10} around the Site is between 15.2-16.0 µg/m^3. There are 1-10 residential properties within 20 m of the Site boundary. Within 350 m there are approximately 10-100 residential buildings which would be classified as high sensitivity receptors. Additionally, there are approximately 1-10 commercial buildings. As such the Sensitivity of the area to human-health impacts of PM_{10} from on-site activities for these stages will be low. For trackout, within 20 m of the roadside up to 500 m from the Site there are approximately 10-100 residential buildings which would be classified as high sensitivity receptors. Additionally, there are approximately 1-10 commercial buildings. As such the Sensitivity of the area to human-health impacts of PM_{10} from trackout for these stages will be low.	Low	Low
Ecology	South Forty Foot Drain is an ecological receptor that is within the Site boundary. It is an artificially created river for land irrigation for the surrounding farms. It is not designated as a protected site by Natural England, but it has been requested for inclusion by LWT. The Environment Agency's water catchment data explorer has identified South Forty Foot Drain as having "moderate" ecological status[3], with poor biological quality and high levels of pollutants. This is due to the high levels of pollution already in the river from farm discharge and sewage. In line with the IAQM, local designations are considered to be low sensitivity receptors. .	Low	Low
*'On-Site' refers to the demolition, earthworks and construction activities within the site boundary.			

Risk of Dust Impacts

The outcomes of the assessments of potential magnitude of dust emissions and the sensitivity of the area are combined to determine the risk of impact. This risk is then used to inform the selection of appropriate mitigation. Table A15.10 details the risk of dust impacts for demolition, earthworks, construction and trackout activities.

Table A15.10: Summary of Unmitigated Dust Risks

Potential Impact	Sensitivity – Onsite Activity	Sensitivity - Trackout	Magnitude			
			Demolition	Earthworks	Construction	Trackout
			Small	Large	Small	Medium
Dust Soiling Impacts	Medium	Medium	Low Risk	Medium Risk	Low Risk	Low Risk
Human Health Impacts	Low	Low	Negligible	Low Risk	Negligible	Low Risk
Ecological Impacts	Low	Low	Negligible	Low Risk	Negligible	Low Risk

Mitigation

This Construction Dust Risk Assessment has been used to inform appropriate mitigation measures during the construction phase, as detailed in the Outline Construction Environmental Management Plan (CEMP) (document reference 7.7) and the decommissioning stage as detailed in the Outline Decommissioning and Restoration Plan (DRP) (document reference 7.8).

References.

[1] Institute of Air Quality Management (2016) Guidance on the assessment of dust from demolition and construction v1.1 – [online], (Last accessed: 20/12/2022), Available at: iaqm.co.uk/text/guidance/construction-dust-2014.pdf
[2] Cranfield Soil and Agrifood Institute Soilscapes map – [online], (last accessed: 04/08/2022), Available at: http://www.landis.org.uk/soilscapes/
[3] Environment Agency (2022) Catchment Data Explorer – [online], (Last accessed: 31/10/2022), Available at: https://environment.data.gov.uk/catchment-planning/WaterBody/GB205030051515

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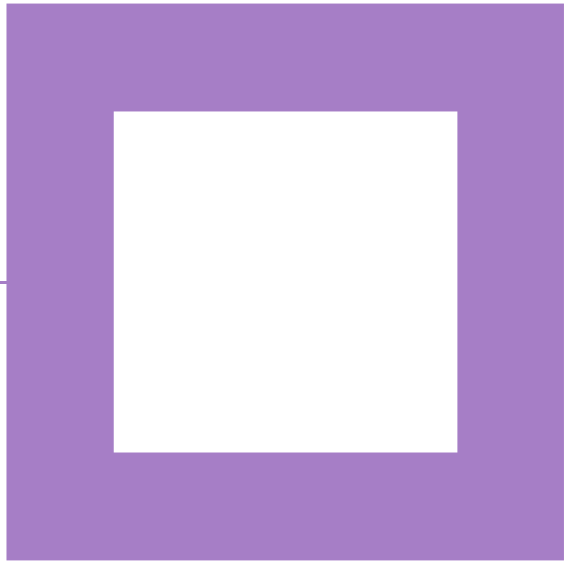

Appendix E

Appendix E: Outline Soil Management Plan for the Energy Park Site

Document Properties		
Regulation Reference	Regulation 5(2)(q)	
Planning Inspectorate Scheme Reference	EN010123	
Application Document Reference	7.7	
Title	Appendix E: Outline Soil Management Plan for the Energy Park Site	
Prepared By	Heckington Fen Energy Project Team (Kernon Countryside Consultants Ltd)	
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Version	**Date**	**Version Status**
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HECKINGTON FEN
ENERGY PARK

OUTLINE
SOIL MANAGEMENT PLAN
FOR THE ENERGY PARK

February 2023

HECKINGTON FEN
ENERGY PARK

OUTLINE
SOIL MANAGEMENT PLAN
FOR THE ENERGY PARK
February 2023

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1 INTRODUCTION

Appendices

1 INTRODUCTION

1.1 This document provides an outline Soil Management Plan (oSMP) for the Heckington Fen Energy Park project (hereafter referred to as "the Energy Park").

1.2 The measures proposed within the oSMP will be considered prior to the commencement of construction works. If necessary, a detailed SMP will be prepared prior to the start of works and in accordance with this oSMP.

1.3 This oSMP covers the principal construction activities envisaged at the time of preparing the Environmental Statement (ES).

1.4 The appointed construction contractor will be responsible for working in accordance with the environmental controls documented in this oSMP, pursuant to the DCO. The overall responsibility for implementation of the detailed SMP will lie with the appointed contractor as a contractual responsibility to the Applicant, as the Applicant is ultimately responsible for compliance with the Requirements of the DCO.

1.5 The oSMP currently covers the 524 ha of the Energy Park site.

1.6 This oSMP focuses on the areas required temporarily during construction, the access tracks and areas associated with the fixed equipment, the solar arrays, on-site trenching and site fencing.

Purpose of this document

1.7 The objective of the oSMP is to identify the importance and sensitivity of the soil resource and to provide specific guidance to ensure that there is no significant adverse effect on the soil resource as a result of the Proposed Development.

1.8 The oSMP is structured as follows:

(i) section 2 sets out the scope of the oSMP;
(ii) section 3 describes the soil resources and characteristics;
(iii) section 4 sets out key principles;
(iv) sections 5-9 set out the soil management requirements for key aspects of the Proposed Development:

- section 5: temporary access areas and compounds;
- section 6: access tracks and fixed equipment;
- section 7: the solar arrays;
- section 8: on-site trenching;

- section 9: site fencing;

(v) section 10 sets out monitoring and aftercare.

1.9 This oSMP draws on professional experience with the installation of solar panels. It also draws on experience with the installation of underground services (especially pipelines), and with soil movement and restoration of agricultural land in connection with roads, quarries and golf courses.

2 SCOPE OF THE OSMP

2.1 The oSMP sets out a soil resources report including:

- the distribution of the Agricultural Land Classification (ALC);
- the extent and depth of topsoil units; and
- the distribution of different soil types.

2.2 Construction of the Energy Park will require vehicular movement over land (trafficking) for construction, and in places the movement of soils (to create fixed bases, tracks and to trench-in cables). This oSMP sets out:

- a description of the soil types and their resilience to being trafficked or moved;
- an outline description of proposed access routes and details of how access will be managed to minimise impacts on soils;
- a description of works to install panels and how soil damage will be minimised and ameliorated; and
- a methodology for monitoring soil condition, and criteria against which compliance will be assessed.

2.3 The installation of the solar panel framework, and the assembly of the panels, does not require the movement of soils. Those works should not, therefore, result in localised disturbance or effects on soils or agricultural land quality. The oSMP, however, covers vehicle movements and related impacts, as these may affect soils (as distinct from land quality).

2.4 Trenching works to connect the panels to the infrastructure do have the potential to cause localised effects on soils. Whilst such works will not result in adverse effects on the agricultural land classification, localised damage will be minimised by good practice. This oSMP sets out soil resilience, best practice and monitoring criteria.

2.5 In localised areas there is a need for access tracks or bases for infrastructure and equipment. In those localised areas soil will need to be stripped and moved, for stockpiling for subsequent restoration. This oSMP sets out:

- a description of the soil types and their resilience to being stripped and handled;
- an outline map showing the areas proposed for being moved, soil thickness and type;
- a methodology for creating and managing stockpiles of soil;
- an outline methodology for testing soils prior to restoration, and a methodology for respreading and ameliorating compaction at restoration.

2.6 This oSMP focuses on the construction phase and immediate aftercare. There is no requirement for an oSMP for the operational phase, as there should be no requirement to disturb or move soils.

2.7 This oSMP does not cover the ecological areas in any depth because there will be no stripping or movement of soils.

3 SOIL RESOURCES AND CHARACTERISTICS

Climatic Conditions

3.1 The climatic data for the area, using the climate data set for ALC, shows annual rainfall between 575 and 590mm across the Site.

3.2 Soils are at field capacity, i.e. replete with water, for usually 107 days per year, mostly during the period from autumn to early spring. This is the period when soils are most susceptible to damage because they are saturated.

Agricultural Land Quality

3.3 A soil survey and ALC survey (part detailed, part semi-detailed) have been carried out across the area within the Order limits. No survey has as yet been carried out of the connecting cable route.

3.4 The results of the ALC survey are set out in an **Appendix A**.

Extent and Depth of Topsoil Units and Soil Types

3.5 As set out in the ALC, the soils across the site are variable. The site is generally flat, and the entire site is covered with soils of the Wallasea 2 Association. These soils are extensive on reclaimed marine alluvium in the marshlands of Lincolnshire. The soils are clayey with a greyish brown topsoil over greyish or grey and ochreous mottled subsurface horizons. The soils respond to drainage and, if undrained, are wet for longer periods in the winter.

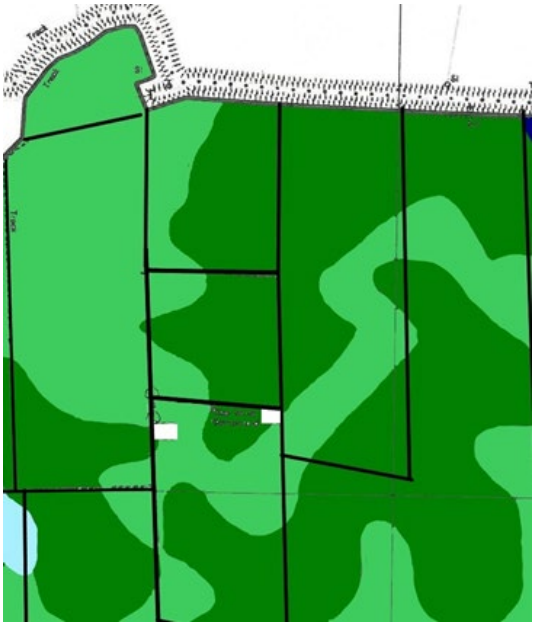
3.6 The texture of the soil varies from medium silty clay loam through heavy clay loams to silty clay, and shows a complex mix of soil textures and drainage status.

3.7 The variability of the soils over short distances could make for variable and therefore challenging conditions. The variability is evident on the 2022 aerial photograph below.

Insert 1: 2022 Aerial Photograph

3.8 Soil variability is readily seen from the air, but is not easily seen on the ground as the land is flat. An extract from the ALC map and a Google Earth image are below.

Inserts 2 and 3: Google Earth and Extract from ALC



3.9 In practical terms, however, there is not a significant difference between the workability of the soils over the Energy Park site.

3.10 The description of the soils, which are all from the Wallasea 2 Association, is provided in **Appendix B**, taken from the soil memoire. This identifies the ideal landwork season in a normal year, as follows (see the top row).

Insert 4: Landwork Table

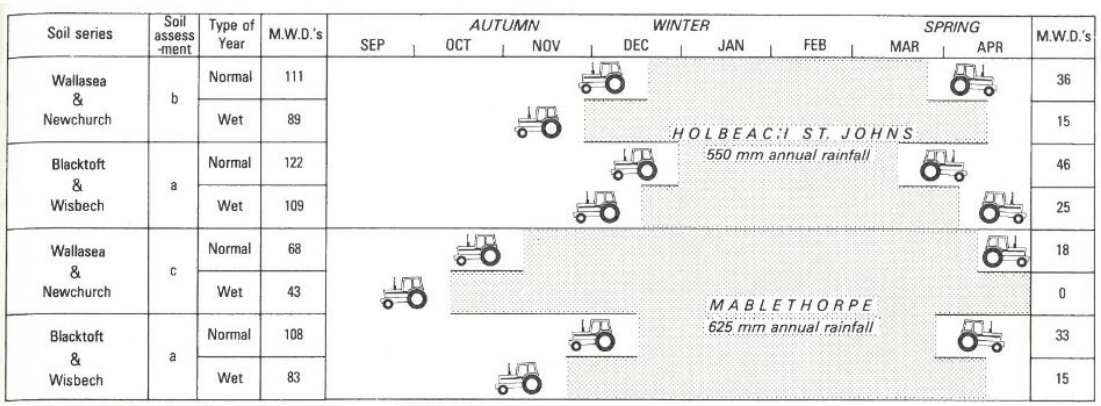


Figure 71. The effects of soil and climate on landwork, Wallasea 2 association

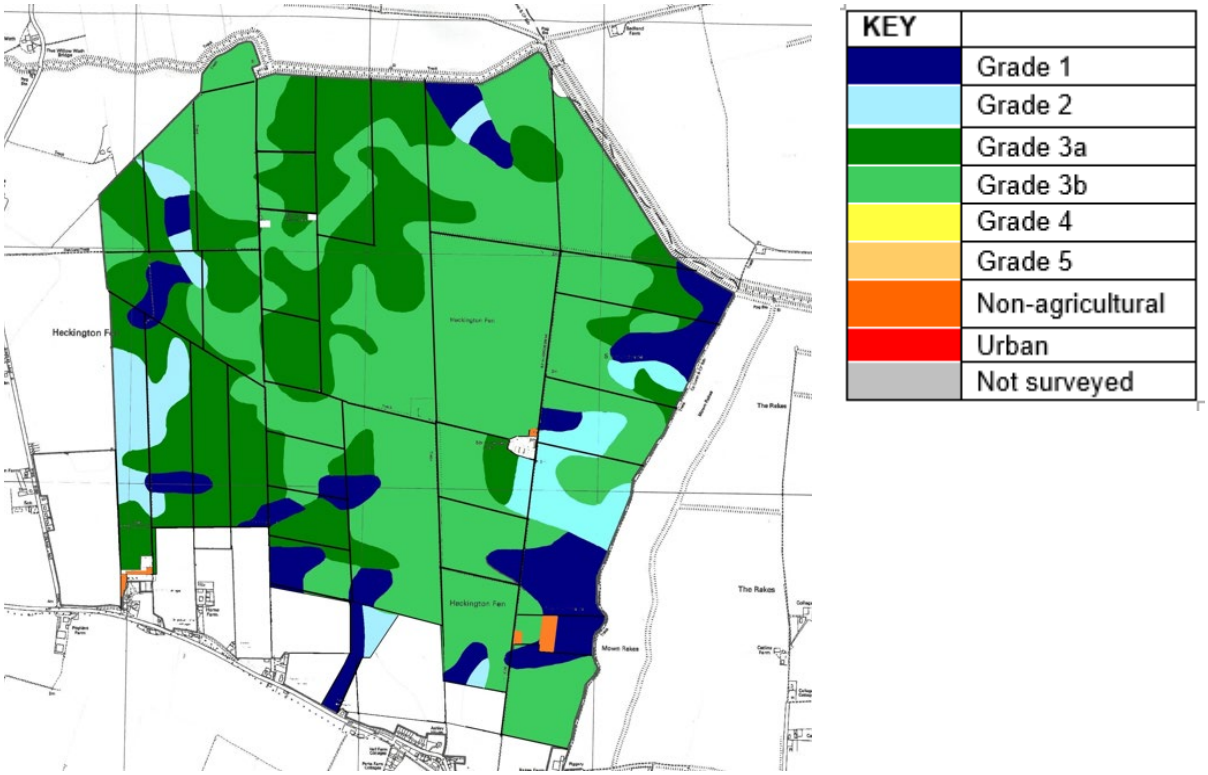
Propensity to Damage

3.11 The Institute of Environmental Management and Assessment (IEMA) have produced a Guide "A New Perspective on Land and Soil in Environmental Impact Assessment" (2022). Table 4 in the guidance identifies that clay and heavy clay loam soils where the Field Capacity Days (FCD) is less than 150 (as here) have a medium resilience to structural damage.

3.12 The IEMA guide identifies that lighter soils, including medium clay loams, are of medium resilience where the FCD is less than 225. Here, where the FCD is 104 - 111 days, these soils will be at low risk of structural damage. This describes most of the soils on the Energy Park site.

3.13 The pattern of soils and land quality distribution is complex, as shown on the aerial image above. However, the soils that will be least prone to compaction if trafficked in the wetter mid-winter months are the lighter soils which generally correlate to the soils along the eastern and western boundaries, where there are patches of Grades 2 and 3a on the ALC plan, a copy of which is reproduced below.

Insert 5: The ALC Plan



3.14 Landwork in all areas between mid-December and late March will need to be carried out carefully, otherwise there may be a need for restorative soil husbandry in the spring.

4 KEY PRINCIPLES

Overview

4.1 For much of the installation process there is no requirement to move or disturb soils. Soils will need to be moved and disturbed to create temporary working compounds, and to create the tracks and small fixed infrastructure bases. Soils will need to be disturbed to enable cables to be laid, but the soils will be reinserted shortly after they are lifted out (i.e. this is a swift process).

4.2 For the majority of the Proposed Development soils do not need to be disturbed. The effects on agricultural land quality and soil structure are therefore limited to the effects of vehicles passage. This is agricultural land, so it is already subject to regular vehicle passage. Therefore, the key consideration is to ensure that soils are passed over by vehicles (trafficked) when the soils are in a suitable condition, and that if any localised damage or compaction occurs (which is common with normal farming operations too), it is ameliorated suitably.

4.3 The key principles for successfully avoiding damage to soils are:

- timing;
- retaining soil profiles;
- avoiding compaction;
- ameliorating compaction; and
- storing soils for subsequent reuse.

Timing

4.4 The most important management decision/action to avoid adverse effects on soils is the timing of works. If the construction work takes place when soil conditions are sufficiently dry, then damage from vehicle trafficking and trenching will be minimal.

4.5 The soils are relatively resilient to vehicle passage for much of the year. Under the ALC the field capacity period, i.e. the days in the year when soils are saturated, is about 107 days per year. The soil memoire for the Wallasea 2 Association (**Appendix B**) identifies limited opportunities for landwork between mid-December and mid to late March.

4.6 The soils are generally resilient, and any damage from vehicle trafficking can generally be made good by mechanical husbandry once the soils start to dry in the spring.

4.7 The following photograph shows areas of archaeological excavation having been dug post-harvest and restored. The soils will be indistinguishable from the surrounding land once a cultivator or combined seed drill has passed over the land.

Insert 6: Restored Archaeological Trench (January 2023)

4.8 Vehicle trafficking of the central part of the site, where the soils are mostly Subgrade 3b, should be carefully managed between mid-December and mid-March.

4.9 Between those times there is an increased risk of creating localised damage to soil structure from vehicle passage. There are obviously a great number of variables, such as recent rainfall pattern, whether the ground is frozen or has standing water, inevitable variations in soil condition across single fields, and the size and type of machinery driving onto the land.

4.10 As a general rule any activity that requires soil to be dug up and moved, such as cabling works, should be avoided during that period or done with great care. Soils handled when wet tend to lose some of their structure, and this results in them taking longer to recover after movement, and potentially needing restorative works (e.g. ripping with tines) to speed recovery of damaged soil structure. They will, however, recover with time.

4.11 In localised instances where it is not possible to avoid undertaking construction activities when soils are wet and topsoil damage occurs then soils can be recovered by normal agricultural management, using normal agricultural cultivation equipment (subsoiler, harrows, power harrows etc) once soils have dried adequately for this to take place. There may be localised wet areas in otherwise dry fields, for example, which are difficult to avoid.

Retaining Soil Profiles

4.12 The successful installation of cabling requires a trench to be dug into the ground. Topsoils vary across the Order Limits, but the coverage is generally 30cm, with subsoils below that being generally similar to depth. As set out in the BRE Agricultural Good Practice Guidance for Solar Farms (extract at **Appendix C**) at page 3:

> "**When excavating cable trenches, storing and replacing topsoil and subsoil separately and in the right order is important to avoid long-term unsightly impacts on soil and vegetation structure. Good practice at this stage will yield longer-term benefits in terms of productivity and optimal grazing conditions**".

4.13 In those areas where the soil is dug up (trenching and for compounds and access roads), the soils should be returned in as close to the same order, and in similar profiles, as it was removed.

Avoiding Compaction

4.14 This oSMP sets out when soils should generally be suitable for being trafficked. There may be periods within this window, however, when periodic rainfall events result in soils becoming liable to damage from being trafficked or worked. In these (likely rare) situations, work should stop until soils have dried, usually within 48 hours of heavy rain stopping.

Ameliorating Compaction

4.15 If localised compaction occurs during construction, it should be ameliorated. This can normally be achieved with standard agricultural cultivation equipment, such as subsoilers (if required), power harrows and rolls.

4.16 The amount of restorative work will vary depending upon the localised impact. Consequently, where the surface has become muddy, for example in the photograph below, this can be recovered once the soil has dried, with a tine harrow and, as needed, a roller or crumbler bar.

Inserts 7 and 8: Inter-row Ground Restoration

4.17 The type of machinery involved is shown below. This shows farming and horticultural versions.

Inserts 9 – 12: Type of Machinery Involved

4.18 If there are any areas within the Energy Park where there has been localised damage to the soils due to vehicle passage, for example a low wet area within a field which despite best efforts could not be avoided, this should be made good and reseeded at the end of the installation stage. This is not uncommon: most farmers will have times when they have to travel around the farm in a tractor in conditions where the tyres make deep impacts. This can happen during harvest time, for example, especially of late crops or in very wet harvest seasons. Whilst this is avoided so far as possible, it occurs and the effects are made good when conditions are suitable.

4.19 With these soils, including the slowly permeable clayey soils, these areas will readily restore. The ruts need to be harrowed level when the ground is dry, and then they will naturally restore.

4.20 Accordingly the ground surface should be generally levelled prior to any seeking or reseeding.

Storing Soil and Restoring Soil

4.21 The quantities of soil involved are limited and topsoil mounds would be a maximum of 1m high. This will not result in the soil becoming anaerobic even in storage in a bund for 40 years. Advice on the stockpiling of soils taken from the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009) is reproduced in **Appendix D**. These areas will need to be managed at least annually during the life of the Proposed Development to prevent the establishment of woody growth or brambles, in accordance with the oLEMP.

4.22 The following photograph, from January 2023, shows topsoil being stored next to the temporary access track for the Viking Link cable works to the immediate east of the Energy Park.

Insert 13: Temporary Topsoil Storage (January 2023)

4.23 The mound should be kept clear of woody vegetation. It is acceptable to sow the mound with grass seed.

4.24 The mound should not be moved for restoration unless the soil is sufficiently dry. Testing to the centre of the mound with a soil auger should take place before the soil is moved.

5 TEMPORARY ACCESS AREAS AND COMPOUNDS

The Areas

5.1 The temporary access areas, and the temporary working compounds, are shown on the Plans in **Appendix E**.

Construction Methodology

5.2 These areas are intended for short-term construction activity only.

5.3 The top 10-15cm of topsoil is removed by machinery and stored in a low bund alongside the track or working yard area. Then a membrane is laid down. Onto this is placed a mix of as-dug stone topped, if needed, with smaller stone which is spread and rolled level. At the end of the construction, the stone is dug up and removed, the membrane removed, the area is loosened by a subsoiler or plough, and the topsoil spread back over before being harrowed with standard agricultural machinery. It can then be reseeded.

5.4 This is shown below.

Inserts 14 and 15: Topsoil and Matted Track

Soil Management

5.5 Construction will commence when soils are suitably dry to be moved without smearing. This will normally be after mid to late March. In wet years this may be later.

5.6 Areas for temporary works, including any site compound or access track if required, will be stripped to a depth of circa 10 - 15cm. The soil will be stockpiled to the side of the area ready for restoration. This should take place in dry conditions.

5.7 The area will then be covered with suitable permeable matting to prevent stones from mixing with the soil. Stone will then be laid on the matting to create the temporary working area.

5.8 For restoration the stone and matting will be removed. A soil advisor should review this area once the matting is removed. If required they will advise whether there needs to be any loosening of the area before the topsoil is replaced over the top. The area will then be harrowed with standard agricultural spring-tine harrows or a power harrow, to loosen the topsoil and level the area. The area can then be sown to grass.

Inserts 16 and 17: Harrows and Power Harrows

5.9 Horticultural-scale equipment is available that could run between the strings of PV panels if necessary.

6 ACCESS TRACKS AND FIXED EQUIPMENT

The Areas

6.1 The access tracks, infrastructure of solar panels are located as shown on the Plan in **Appendix E**.

Construction Methodology

6.2 The access tracks are created by stripping off some or all of the topsoil and then adding an aggregate-based surface. Usually, the aggregate will be placed onto a permeable membrane, which allows water penetration but which prevents the aggregate from mixing with the topsoils or upper subsoils.

6.3 The topsoil will be stored in mounds normally up to 3m high, as described below. A typical mound is shown below, with a maximum height limit to ensure that soils in the centre remain aerobic. The topsoil will be stored in the centre of the site next to the Energy Storage Compound.

Insert 18: Typical Soil Bund (Manor Farm Soil, Llanvapley)

6.4 This soil is therefore kept in a suitable condition for reinstatement once the access track has been removed at the end of the development, as described below. Extracts from the Defra Construction Code of Practice are set out in **Appendix D**.

6.5 The small areas of fixed equipment normally stand on concrete shoes. As these areas will be restored in the future, the construction is carried out as follows:

(i) topsoil to c 10-15cm is removed. This will be stored in a bund no more than 2m high at an agreed location, for use in future restoration;

(ii) the base of stone is then added, and forming put around before concrete is poured to create the pad;
(iii) the equipment is then placed on top;
(iv) further security fencing is added once the cabling and connections are complete.

6.6 There may be alternative fixings in some locations, for example where legs are pile driven. They will create no greater damage, and may be possible without the need to move soils.

6.7 The inverters and other heavy equipment is delivered to the Order Limits and taken to the concrete pad areas by suitable agricultural equipment or along the access tracks.

Soil Management

6.8 Soil should be stripped in layers when the soil is sufficiently dry and does not smear. This is a judgement that is easily made. If the soils can be rolled into a sausage shape in the hand which is not crumbly, or if rubbing a thumb across the surface causes a smudged smooth surface (a smear), the soil is too wet to strip or move. Topsoil depths vary but a stripping depth of 30cm will be a suitable maximum depth for topsoil in most cases, although rarely will it need to be stripped to such a depth.

6.9 Soil stripping should be carried out in accordance with Defra "Construction Code of Practice for the Sustainable Use of Soils on Construction Sites" (Defra, 2009).

6.10 The removed soil should be stored in bunds in accordance with the Construction Code of Practice. The detailed SMP will need to identify the location for a number of central storage areas, or more numerous smaller bunds. Bund heights of circa 3 metres maximum will normally be suitable.

6.11 In the unlikely event that excavation below topsoil depth is required, then subsoils should be stored in separate bunds to topsoils.

6.12 These areas need to be managed at least annually to prevent the growth of woody vegetation, such as brambles or shrubs.

6.13 At the decommissioning stage, it will also be important to move the soil when it is in a suitable condition. To allow time for the bund to dry out after the winter, moving the bund should not occur before the beginning of May.

6.14 The concrete bases will need to be broken up. This will most likely involve breaking with a pneumatic drill or back-actor bucket to crack the base, after which it can be dug up and loaded onto trailers and removed.

6.15 The ground beneath the base may then benefit from being subsoiled, to break any compaction. This can be done by standard tractor-mounted equipment, such as the following examples.

Inserts 19 and 20: Tractor Mounted Equipment

6.16 About 4 weeks before restoration takes place the bunds should be strimmed and any grass and weed growth removed, and the remaining vegetation should be killed with a weedkiller. This will aid restoration and prevent weed spread.

6.17 The soil can then be spread over the subsoiled base and made good with standard spring-tine harrow or power harrow machinery.

7 SOLAR ARRAYS

The Areas

7.1 The PV Arrays will be distributed across the Solar PV Site as shown on the Plan in **Appendix E**.

Construction Methodology

7.2 The process involves the following stages:

(i) marking-out and laying out of the framework. For this a vehicle needs to drive across the field possibly with a trailer, from which the legs are off-loaded by hand, or by use of a Bobcat such as that shown below delivering legs;

Insert 21: Bobcat Delivering Legs

(ii) pile driving in the legs. This involves a pile driver, knocking the legs down to a depth up to 3m. The machinery is shown below;

Inserts 22 – 24: Pile Driving in the Legs

(iii) the frame is then constructed. The frame is brought onsite, bolted together, and the panels bolted on, as per the series of photographs below.

Inserts 25 - 27: Constructing the Frame

7.3 For much of the year this stage of the installation should create no soil structural damage, as shown below.

Inserts 28 and 29: Ground After Construction

Soil Management

7.4 Installation of panels should take place so far as possible when soil conditions are suitable (i.e. the soil is not so wet that vehicles cause tyre marks, such as shown below, deeper than about 10cm when travelling across the land).

Insert 30: Track Marks

7.5 In most years work access to the land is not restricted between mid to late March and mid-December. Between those periods the ground conditions will normally be resilient to vehicle trafficking.

7.6 Between mid-December and mid to late March the soils are more likely to be saturated and the propensity to being damaged, albeit in a way capable of rectification, is greatest. As a general rule, the eastern and western parts of the Energy Park site are the areas least susceptible to damage from being driven over during this mid-winter period.

7.7 If ground conditions are suitable legs can be installed in winter, as the following photograph shows (this is a site near Retford following heavy rain, photographed January 2023).

Insert 31: Legs Being Installed January 2023

7.8 Occasionally in this country we experience prolonged rainfall in the summer months that saturate soils. If following a rainfall incident installation is causing rutting deeper than 10cm, activity should ideally stop to allow soils to dry. The delay can only be judged on an individual basis, because there are so many variables.

7.9 It is very unlikely that trafficking during construction when soils are relatively dry will result in compaction sufficient to require amelioration. However, if rutting has resulted the soil should be levelled by standard agricultural cultivation equipment such as tine harrows, once the conditions suit, and prior to seeding. This can be done with standard agricultural machinery, or with small horticultural-grade machinery such as is shown below.

Inserts 32 and 33: Horticultural Machinery

7.10 The objective is to get the surface to a level tilth for seeding/reseeding as necessary, as was shown earlier and is shown below.

Inserts 34 and 35: Inter-row Ground Restoration

7.11 Grass growth will then recover or establish rapidly.

7.12 If for operational reasons trafficking of soils does cause surface damage, that can be restored. It is also unlikely to result in any structural damage long term. The apparent soil damage shown in Insert 34 above, with a wider view below, is shown in the subsequent photo from seven years later. We have reviewed the soils and there has been no long-term soil damage or ALC downgrading.

Inserts 36 and 37: Winter Installation (2015) and Operational Site (2022)

7.13 Where there is surface damage at this level, there may be a need for harrowing or shallow subsoiling to be carried out the following spring, prior to surface cultivation and seeding.

8 INSTALLATION OF ON-SITE TRENCHING

The Areas

8.1 This section refers to the cabling running within the Energy Park, including the Low Voltage Distribution Cables.

Construction Methodology

8.2 Cabling is done mostly with either a mini digger or a trenching machine. Trenches are typically at depths of up to 1.2m where soil depth permits, although the CCTV trenching around the periphery could be shallower. An example trench, with the topsoil, placed on one side (0-20/25cm) and subsoil on the other (below 20-25cm), is shown below, and with the soil put back after cable installation.

Inserts 38 and 39: Cable Installation

8.3 The type of machinery used for trenching is shown below, taken from the BRE National Solar Centre "Agricultural Good Practice Guidance for Solar Farms" (2013) (this is reproduced as **Appendix C**).

Insert 40: Machinery Used

Cable trenching, showing topsoil stripped and set to one side, with subsoil placed on the other side ready for reinstatement (photo courtesy of British Solar Renewables)

8.4 The trenches are narrow (a maximum of 1m), and in most cases, it is not considered likely that any grass seed will be needed. The grass in the topsoil will recover rapidly as the following photograph, taken 4 weeks after the trenches were back-filled, shows.

Insert 41: Grass After 4 Weeks

(These photos were taken on heavy, clay soils with poorly draining subsoil, and the work was photographed in July and August 2015.)

Soil Management

8.5 All trenching work will be carried out when the topsoil is dry and not plastic (i.e. it can be moulded into shapes in the hand).

8.6 The top 30cm will be dug off and placed on one side of the trench, for subsequent restoration. There is no need to strip the grass first.

8.7 The subsoils will then be dug out and placed on the other side of the trench, as per the example below.

Insert 42: Subsoils Dug out of the Trench

8.8 Once the cable has been laid, the subsoils will be placed back in the trench. Where there is a clear colour difference within the subsoils, so far as practicable the lower subsoil will

be put back first and the upper subsoil above that, which is likely to happen anyway as the lower soil is at the top of the pile.

8.9 The subsoils if dry and blocky may be pressed down by the bucket to speed settlement.

8.10 The topsoil will then be returned onto the top of the trench. It is possible that the topsoil will sit 5-10cm higher than the surrounding level initially. This should be left to allow it to settle naturally as the soils become wetter.

8.11 If there is a surplus of topsoil this may be because the lower subsoils were dry and blocky and there are considerable gaps in the soil. These will naturally restore once the lower soils become wet again. If the trench backfilling will result in the soil being more than 5-10cm proud of surrounding levels, which is unlikely but possible, the topsoil should not be piled higher. It should be left to the side, and the digger would return once the trench has settled and add the rest of the topsoil onto the trench at that point.

8.12 Any excess topsoil should not be piled higher than 5 – 10cm above ground level.

8.13 If considered appropriate, a suitable grass seed mix could be spread by hand over any parts of the trenches that would seem likely to benefit from extra grass.

9 SITE FENCING

The Areas

9.1 Fence designs can vary, but they all involve a post being inserted into the ground. Pole mounted internal facing closed circuit television (CCTV) systems installed at a height of up to 3.5m are also likely to be deployed around the perimeter of the operational areas. Access gates will be of similar construction and height as the perimeter fencing.

Construction Methodology

9.2 The site fencing is likely to be metal mesh or deer fencing. This can be erected at any time, if soil conditions allow. The following photographs show fencing installed early in the process.

Inserts 43 and 44: The Fencing

9.3 Similarly CCTV poles are inserted in the same way.

Inserts 45 and 46: CCTV Poles and Fencing

Soil Management

9.4 If the movement of vehicles is not causing significant rutting (i.e. more than 10cm), then fencing could be erected outside of the key working period.

9.5 Any rutting that results from fencing can be made good with standard agricultural equipment.

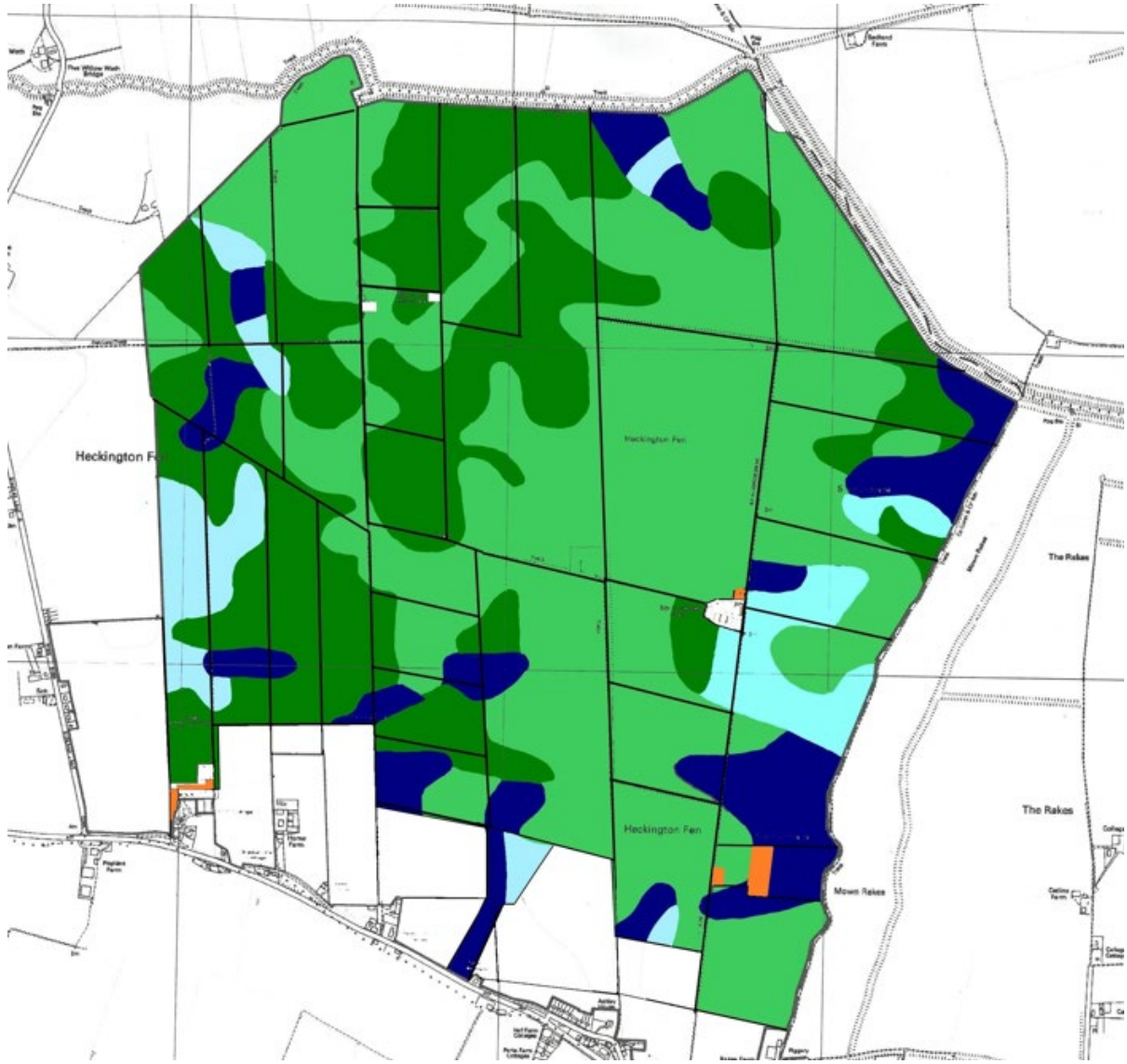
10 MONITORING AND AFTERCARE

10.1 The grassland under the PV panels will be managed by sheep grazing. Areas of grassland not grazed will be managed in line with the LEMP and CEMP, as secured by DCO requirement.

10.2 There is no requirement for annual monitoring or reviews of aftercare in respect of soil management.

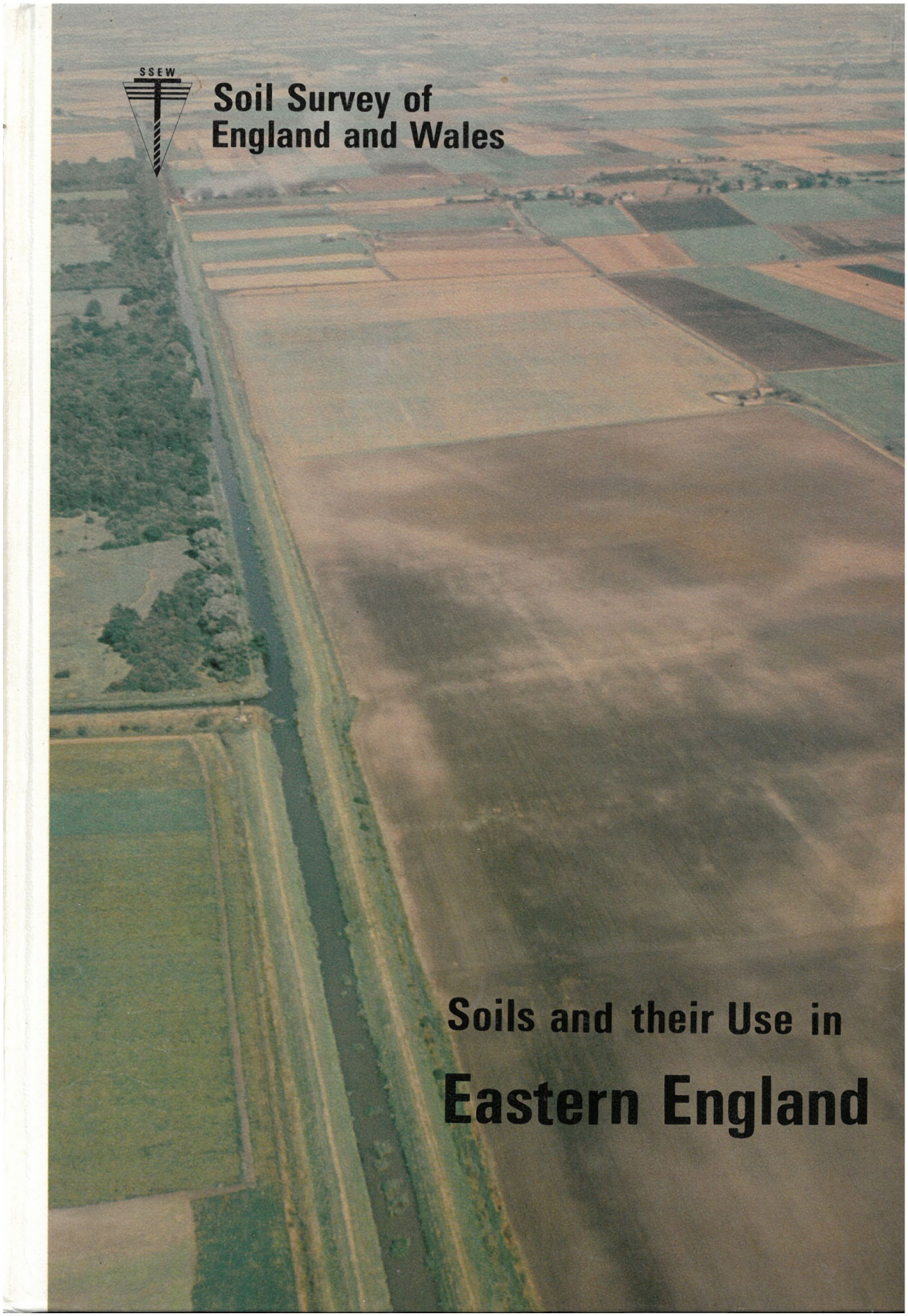
Appendix A

Plan KCC3076/07



KEY		Ha	%	PLAN	KCC3076/07		
	Grade 1	58	11.1	TITLE	Agricultural Land Classification		
	Grade 2	39	7.4	SITE	Heckington Fen		
	Grade 3a	160	30.5	CLIENT	Ecotricity Group		
	Grade 3b	265	50.6	NUMBER	KCC3076/07 01/23hr		
	Grade 4			DATE	January 2023	SCALE	NTS
	Grade 5			KERNON COUNTRYSIDE CONSULTANTS LTD GREENACRES BARN, PURTON STOKE, SWINDON, WILTSHIRE, SN5 4LL Tel 01793 771 333 Email: info@kernon.co.uk 		
	Non-agricultural	2	0.4				
	Urban						
	Not surveyed						

Appendix B
Description of Soil Types


SSEW
Soil Survey of
England and Wales
Soils and their Use in
Eastern England

and if sequentially direct drilled the soils benefit from being loosened periodically. Shallow cultivations and minimum tillage techniques are commonplace. Some land is affected by salinity which, followed by leaching, has led to clay deflocculation, and the stopping of drains by dispersed clay, eventually causing patchy waterlogging and crop failure on arable land. Grassland productivity is limited by summer drought but, because of the poaching risk, grazing by cattle is restricted to the summer months. Occasional liming is needed, but manganese deficiency can occur in over-limed spots. The soils contain little phosphorus but reserves of potassium and magnesium are large.

§ 133. WALLASEA 2 ASSOCIATION
813g

This association is extensive on reclaimed marine alluvium in the marshlands of Lincolnshire (Fig.45), Cambridgeshire and Norfolk, and is also present in Romney Marsh, the Essex marshes and in Holderness. The land is generally level but there are occasional ridges on the sites of former creeks. The soils are mainly Wallasea series, pelo-alluvial gley soils; Newchurch series, pelo-calcareous alluvial gley soils; Blacktoft series, gleyic brown calcareous soils; and Wisbech series, calcareous alluvial gley soils. Wallasea and Newchurch soils are clayey with a greyish brown topsoil over greyish or grey and ochreous mottled subsurface horizons; Newchurch series is calcareous. Blacktoft soils are calcareous and fine silty with grey colours and mottling in the subsoil. Wisbech soils are also calcareous, but have greyish and mottled coarse silty horizons below the plough layer, often with sedimentary laminations. Wallasea series predominates and Newchurch, Blacktoft and Wisbech soils are common. Dymchurch (Clayden and Hollis 1984), Snargate (§ 114), Agney, (§ 104) Stockwith (§ 46), Tanvats (§ 114) and Paglesham (Sturdy 1976) series also occur. Brief descriptions of the principal soils are given elsewhere in the text. Wallasea series in § 125, Newchurch series in § 28, Blacktoft series in § 28 and Wisbech series in § 104.

Wallasea soils consistently constitute over half of the association, but the proportion of other soils varies widely throughout the country. Generally, Wisbech and Blacktoft series are found on or near former creeks (rodhams), with Wallasea and Newchurch soils in the intervening areas. The incidence of creek ridges, and so the proportion of coarser soils, increases seawards where Blacktoft soils cover a third of the land, except in Lincolnshire where the similar Agney series is more common. The proportion of the less common Wisbech soils also increases seawards. Inland towards high ground, clayey soils are predominant, Wallasea soils being most common in Lincolnshire and Cambridgeshire, but in Norfolk, Newchurch and Wallasea soils are co-dominant. In places in Lincolnshire, Wallasea soils have developed from former Downholland soils (§ 48) from which topsoil organic matter has been lost by oxidation. Wisbech soils are rare in north Lincolnshire

and non-calcareous soils, including Pepperthorpe (§ 125) and Tanvats series, become more common. Near Huttoft, where islands of Devensian till rise through the alluvium, some Holderness soils (§ 75) are included. Creek ridges are uncommon in Essex and Wisbech soils are rare. Calcareous fine silty Agney soils cover one sixth of the land and non-calcareous Tanvats and Paglesham soils also occur. Locally there are a few saline soils and, where leaching has occurred, subsoil structure has deteriorated causing silting of drains, waterlogging and reduced crop yields.

Key to component soil series

	Subsoils non-calcareous above 40 cm	1
	Subsoils calcareous above 40 cm	2
1.	Clayey	WALLASEA
	Fine silty	Tanvats
	Fine loamy over clayey	Paglesham
	Fine silty over clayey	Pepperthorpe
2.	Silty throughout	3
	With clayey horizons	5
3.	Coarse silty	WISBECH
	Fine silty	4
4.	Subsoil faintly mottled above 60 cm or distinctly mottled between 40 and 80 cm	BLACKTOFT
	Prominently mottled or greyish above 40 cm	Agney
5.	Clayey throughout	NEWCHURCH
	Silty over clayey	Stockwith

Soil water regime

Most of the land is pump-drained and the more permeable Blacktoft and Wisbech soils are well drained (Wetness Class I). Wallasea and Newchurch soils are less permeable but respond to underdrainage; drained soils are occasionally waterlogged (Wetness Class II) but undrained soils are waterlogged for long periods in winter (Wetness Class III or IV). Droughtiness assessments for selected crops are given in Table 38. Droughtiness slightly restricts the growth of arable crops in Wallasea and Newchurch soils. Wisbech soils have large available water reserves and are non-droughty whilst Blacktoft soils are intermediate in droughtiness. Grassland suffers from drought on all soils in south Lincolnshire, Norfolk and Essex but growth is less restricted in the higher rainfall area of north Lincolnshire.

Cultivation and cropping

The effects of soil and climate on the time available for landwork is shown in Figure 71. With adequate underdrainage, Wallasea and Newchurch soils are moderately easy to work. There are adequate days for safe cultivation in autumn and spring, but in north

Lincolnshire the moist climate reduces the opportunity for spring cultivation, particularly in wet years, and the soils are marginal for spring-sown crops. The land is generally used for winter cereals and ley grassland, but sugar beet, peas and field brassicas are grown in the drier districts. The use of heavy machinery often causes topsoil compaction and surface wetness on the heavier soils especially Wallasea series though they can be direct drilled very successfully if subsoiled periodically. Newchurch soils which are calcareous have a more stable structure. Wisbech and Blacktoft soils are less suitable for direct drilling because of the problems associated with this system on silty soils.

Table 38
Profile Available Water (A.P. mm), Crop-adjusted Mean Moisture Deficit (M.D. mm) and Droughtiness Class for extensive crops–Wallasea 2 Association

Location Grid Ref.	**Wallasea series** Holbeach St Johns TF350180	**Newchurch series** Holbeach St Johns TF350180	**Blacktoft series** Holbeach St Johns TF350180	**Wisbech series** Holbeach St Johns TF350180
Winter wheat				
A.P.	160	150	190	270
M.D.	126	126	126	126
Droughtiness	slightly droughty	slightly droughty	non-droughty	non-droughty
Spring barley				
A.P.	160	150	190	270
M.D.	119	119	119	119
Droughtiness	slightly droughty	slightly droughty	non-droughty	non-droughty
Potatoes				
A.P.	115	115	140	200
M.D.	127	127	127	127
Droughtiness	moderately droughty	moderately droughty	slightly droughty	non-droughty
Sugar beet				
A.P.	195	180	235	335
M.D.	127	127	127	127
Droughtiness	non-droughty	non-droughty	non-droughty	non-droughty
Oilseed rape				
A.P.	160	150	190	270
M.D.	109	109	109	109
Droughtiness	non-droughty	slightly droughty	non-droughty	non-droughty

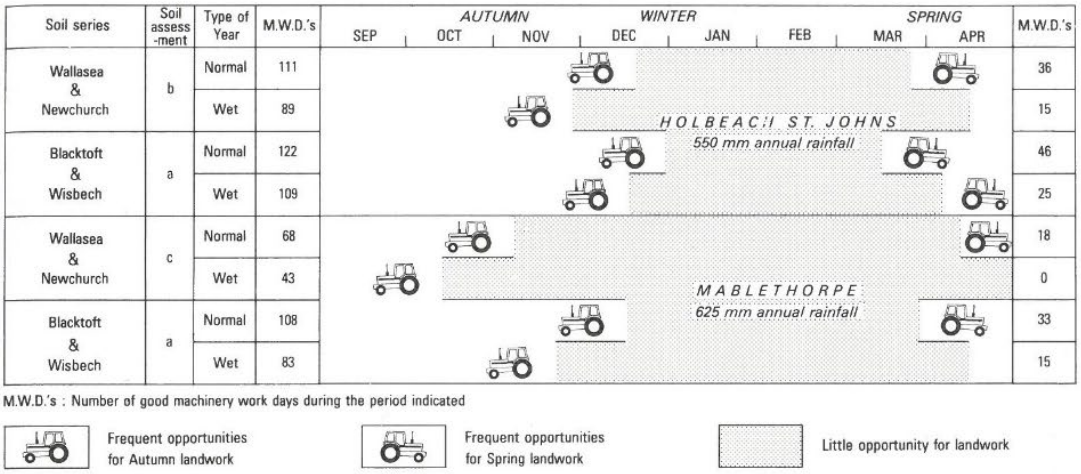


Figure 71. The effects of soil and climate on landwork, Wallasea 2 association

§ 134. WANTAGE 1 ASSOCIATION
(342c)

This association consists of greyish, well drained silty soils on the Lower Chalk mainly in south Oxfordshire, north Wiltshire, Kent and Buckinghamshire. In Bedfordshire, Hertfordshire, and Cambridgeshire the association occurs in small patches. North of Luton it forms a narrow strip of gently sloping land at the foot of the chalk escarpment. Near Luton the soils form the side of a ridge and the association continues sporadically to the south-west, fronting the Chiltern Hills (Avery 1964). The principal soil is Wantage series (§ 135), loamy grey rendzinas with an extremely calcareous silty clay loam subsoil and chalk at moderate depth. The land is affected locally by springs and winterbournes so Burwell (§ 113) soils are found on valley floors and on gentle slopes. Shallow Upton soils, grey rendzinas, are confined to convex valley sides below the main Chalk scarp.

The soils of the association are predominantly well drained (Wetness Class I), but there are patches of less permeable Burwell soils on some valley floors and flat valley sides which when field drainage is effected are largely well drained (Wetness Class I).

The main crops are cereals, grown continuously or in rotation. Yields of winter wheat are consistently high and those of spring barley about average. The soils are easy to work and any surface capping usually breaks up as the soil dries. There is adequate time for autumn and spring landwork. There is little risk of poaching in grassland but there is some drought limitation on the shallowest soils. The association is fully described by Jarvis, M.G. *et al.* (1984).

Appendix C
Agricultural Good Practice Guidance for Solar Farms (2013)

bre

www.bre.co.uk/
nsc

Agricultural Good Practice Guidance for Solar Farms

NFU

EUROPEAN UNION
Investing in Your Future

European Regional
Development Fund 2007-2013

BRE
NATIONAL
SOLAR
CENTRE

Principal Author and Editor Dr Jonathan Scurlock, National Farmers Union

This document should be cited as: BRE (2014) Agricultural Good Practice Guidance for Solar Farms. Ed J Scurlock

BRE National Solar Centre would like to sincerely thank colleagues from the following organisations who have made significant contributions to the development of this guidance:

With thanks to:

Marcus Dixon and Neil Macdonald of British Solar Renewables; Liza Gray of Lightsource; Julie Rankin and Amy Thorley of Lark Energy; Kate Covill of Orta Solar; Ben Cosh of TGC Renewables; Ben Thompson of Foresight Group; Simon Stonehouse of Natural England; Leonie Greene of the Solar Trade Association; and Tom Fullick, Gary Ford and Richard Wordsworth of the NFU.

With thanks to NSC Founding Partners:

Context

This document describes experience and principles of good practice to date for the management of small livestock in solar farms established on agricultural land, derelict/marginal land and previously-developed land.

Proposed for publication as an appendix to existing best practice guidelines by the BRE National Solar Centre[1], it should be read in conjunction with BRE (2014) Biodiversity Guidance for Solar Developments (eds. G.E. Parker and L. Greene).

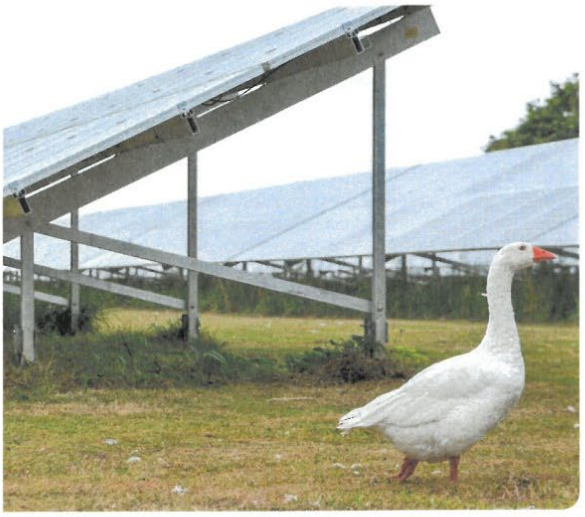
The guidance presented here has been developed with, and endorsed by, a number of leading UK solar farm developers and organisations concerned with agriculture and land management.

Introduction

Field-scale arrays of ground-mounted PV modules, or "solar farms", are a relatively recent development, seen in Britain only since 2011, although they have been deployed in Germany and other European countries since around 2005. In accordance with the "10 Commitments" of good practice established by the Solar Trade Association[2], the majority of solar farm developers actively encourage multi-purpose land use, through continued agricultural activity or agri-environmental measures that support biodiversity, yielding both economic and ecological benefits.

It is commonly proposed in planning applications for solar farms that the land between and underneath the rows of PV modules should be available for grazing of small livestock. Larger farm animals such as horses and cattle are considered unsuitable since they have the weight and strength to dislodge standard mounting systems, while pigs or goats may cause damage to cabling, but sheep and free-ranging poultry have already been successfully employed to manage grassland in solar farms while demonstrating dual-purpose land use.

Opportunities for cutting hay or silage, or strip cropping of high-value vegetables or non-food crops such as lavender, are thought to be fairly limited and would need careful layout with regard to the proposed size of machinery and its required turning space. However, other productive options such as bee-keeping have already been demonstrated. In some cases, solar farms may actually enhance the agricultural value of land, where marginal or previously-developed land (e.g. an old airfield site) has been brought back into more productive grazing management. It is desirable that the terms of a solar farm agreement should include a grazing plan that ensures the continuation of access to the land by the farmer, ideally in a form that that enables the claiming of Basic Payment Scheme agricultural support (see page 2).



[1] BRE (2013) Planning guidance for the development of large scale ground mounted solar PV systems. www.bre.co.uk/nsc

[2] STA "Solar Farms: 10 Commitments" http://www.solar-trade.org.uk/solarFarms.cfm

Conservation grazing for biodiversity

As suggested in the Biodiversity Guidance described above, low intensity grazing can provide a cost-effective way of managing grassland in solar farms while increasing its conservation value, as long as some structural diversity is maintained. A qualified ecologist could assist with the development of a conservation grazing regime that is suited to the site's characteristics and management objectives, for incorporation into the biodiversity management plan.

Avoiding grazing in either the spring or summer will favour early or late flowering species, respectively, allowing the development of nectar and seeds while benefiting invertebrates, ground nesting birds and small mammals. Hardy livestock breeds are better suited to such autumn and winter grazing, when the forage is less nutritious and the principal aim is to prevent vegetation from overshadowing the leading (lower) edges of the PV modules (typically about 800-900mm high). Other habitat enhancements may be confined to non-grazed field margins (if provision is made for electric or temporary fencing) as well as hedgerows and selected field corners.

Agricultural grazing for maximum production

The developer, landowner and/or agricultural tenant/licensee may choose to graze livestock at higher stocking densities throughout the year over much of the solar farm, especially where the previous land use suggested higher yields or pasture quality. Between 4 and 8 sheep/hectare may be achievable (or 2-3 sheep/ha on newly-established pasture), similar to stocking rates on conventional grassland, i.e. between about March and November in the southwest and May to October in North-East England.

The most common practice is likely to be the use of solar farms as part of a grazing plan for fattening/finishing of young hill-bred 'store' lambs for sale to market. Store lambs are those newly-weaned animals that have not yet put on enough weight for slaughter, often sold by hill farmers in the Autumn for finishing in the lowlands. Some hardier breeds of sheep may be able to produce and rear lambs successfully under the shelter of solar farms, but there is little experience of this yet. Pasture management interventions such as 'topping' (mowing) may be required occasionally or in certain areas, in order to avoid grass getting into unsuitable condition for the sheep (e.g. too long, or starting to set seed).

Smaller solar parks can provide a light/shade environment for free-ranging poultry (this is now recognised by the RSPCA Freedom Foods certification scheme) – experience to date suggests there is little risk of roosting birds fouling the modules. Broiler (meat) chickens, laying hens and geese will all keep the grass down, and flocks may need to be rotated to allow recovery of vegetation. Stocking density of up to 2000 birds per hectare is allowed, so a 5 megawatt solar farm on 12 hectares would provide ranging for 24,000 birds.

Solar farm design and layout

In most solar farms, the PV modules are mounted on metal frames anchored by driven or screw piles, causing minimal ground disturbance and occupying less than 1% of the land area. The rest of the infrastructure typically disturbs less than 5% of the ground, and some 25-40% of the ground surface is over-sailed by the modules or panel. Therefore 95% of a field utilised for solar farm development is still accessible for vegetation growth, and can support agricultural activity as well as wildlife, for a lifespan of typically 25 years.

As described above, the layout of rows of modules and the width of field margins should anticipate future maintenance costs, taking into account the size, reach and turning circle of machinery and equipment that might be used for 'topping' (mowing), collecting forage grass, spot-weeding (e.g. of 'injurious' weeds like ragwort and dock) and re-seeding. Again, in anticipation of reverting the field to its original use after 25 years, many agri-environmental measures may be better located around field margins and/or where specifically recommended by local ecologists. All European farmers are obliged to maintain land in "good agricultural and environmental condition" under the Common Agricultural Policy rules of 'cross compliance', so it is important to demonstrate sound stewardship of the land for the lifetime of a solar farm project, from initial design to eventual remediation.

The depth of buried cables, armouring of rising cables, and securing of loose wires on the backs of modules all need to be taken into consideration where agricultural machinery and livestock will be present. Cables need to be buried according to national regulations and local DNO requirements, deep enough to avoid the risk of being disturbed by farming practice – for example, disc harrowing and re-seeding may till the soil to a depth of typically 100-150 mm, or a maximum of 200 mm. British Standard BS 7671 ("Wiring Regulations") describes the principles of appropriate depth for buried cables, cable conduits and cable trench marking. Note also that stony land may present a risk of stone-throw where inappropriate grass management machinery is used (e.g. unguarded cylinder mowers).

Eligibility for CAP support and greening measures

From 2015, under the Common Agricultural Policy, farmers will be applying for the new Basic Payment Scheme (BPS) of area-based farm support funding. It has been proposed that the presence of sheep grazing could be accepted as proof that the land is available for agriculture, and therefore eligible to receive BPS, but final details are still awaited from Defra at the time of writing. Farmers must have the land "at their disposal" in order to claim BPS, and solar farm agreements should be carefully drafted in order to demonstrate this (BPS cannot be claimed if the land is actually rented out). Ineligible land taken up by mountings and hard standing should be deducted from BPS claims, and in the year of construction larger areas may be temporarily ineligible if they are not available for agriculture.

Defra has not yet provided full details on BPS 'greening' measures, but some types of Ecological Focus Areas may be possibly located within solar farms, probably around the margins, including grazed buffer strips and ungrazed fallow land, both sown with wildflowers. Note that where the agreed biodiversity management plan excludes all forms of grazing, the land will become ineligible for BPS, and this may have further implications for the landowner, such as for inheritance tax.

Long-term management, permanent grassland and SSSI designation

Since solar farms are likely to be in place typically for 25 years, the land could pass on to a succeeding generation of farmers or new owners, and the vegetation and habitat within the fenced area is expected to gradually change with time. According to Natural England, there is little additional risk that the flora and fauna would assume such quality and interest that the solar farm might be designated a SSSI (Site of Special Scientific Interest) compared with a similarly-managed open field. However, there could be a possible conflict with planning conditions to return the land to its original use at the end of the project, e.g. if this is specified as 'cropland' rather than more generically as 'for agricultural purposes'. If the pasture within a solar farm were considered to have become a permanent grassland, it may be subject to regulations requiring an Environmental Impact Assessment to restore the original land use, although restoration clauses in the original planning consent may take precedence here. It is proposed that temporary (arable) grassland should be established on the majority of the land area that lies between the rows of modules. This would be managed in 'improved' condition by periodic harrowing and re-seeding (e.g. every 5 years), typically using a combination disc harrow and seed drill.

Other measures to maintain the productivity of grassland, without the need for mechanised cultivations or total reseeding, could include: maintaining optimum soil fertility and pH to encourage productive grass species; seasonally variable stocking rates to prevent over/under-grazing with the aim of preventing grass from seeding and becoming unpalatable. Non-tillage techniques to optimise grass sward content might include the use of a sward/grass harrow and air-seeder to revive tired pastures. When applying soil conditioners (e.g. lime), fertilisers or other products, consideration should be taken to prevent damage to or soiling of the solar modules.

Good practice in construction and neighbourliness

Consideration should also be given to best practice during construction and installation, and ensuring that the future agricultural management of the land (such as a change from arable cropping to lamb production) fits into the local rural economy. Site access should follow strictly the proposed traffic management plan, and careful attention to flood and mud management in accordance with the Flood Risk Assessment (e.g. controlling run-off by disrupting drainage along wheelings), will also ensure that the landowner remains on good terms with his/her neighbours.

Time of year should be taken into account for agricultural and biodiversity operations such as prior seeding of pasture grasses and wildflowers. Contractors should consider avoiding soil compaction and damage to land drains, e.g. by using low ground pressure tyres or tracked vehicles. Likewise, when excavating cable trenches, storing and replacing topsoil and subsoil separately and in the right order is important to avoid long-term unsightly impacts on soil and vegetation structure. Good practice at this stage will yield longer-term benefits in terms of productivity and optimal grazing conditions.

Evidence base and suggested research needs

A number of preliminary studies on the quantity and quality of forage available in solar farms have suggested that overall production is very little different from open grassland under similar conditions. A more comprehensive and independent evidence base could be established through a programme of directed research, e.g. by consultants (such as ADAS) or interested university groups (e.g. Exeter University departments of geography and biosciences), perhaps in association with seed suppliers and other stakeholders. Productivity of grasses could be compared between partial shade beneath the solar modules and unshaded areas between the rows. Alternatively daily live weight gain could be compared between two groups of fattening lambs (both under the same husbandry regime) on similar blocks of land, with and without solar modules present.

Case Steiger Quadtrac used to deliver inverters and other heavy equipment to site under soft ground conditions (photo courtesy of British Solar Renewables)

Cable trenching, showing topsoil stripped and set to one side, with subsoil placed on the other side ready for reinstatement (photo courtesy of British Solar Renewables)

Agricultural case studies

Benbole Farm, Wadebridge, Cornwall

One of the first solar farms developed in Britain in 2011, this 1.74 megawatt installation on a four-hectare site is well screened by high hedges and grazed by a flock of more than 20 geese. A community scheme implemented by the solar farm developers enabled local residents to benefit from free domestic solar panels and other green energy projects.

Higher Hill, Butleigh, Somerset

Angus Macdonald, a third-generation farmer, installed a five megawatt solar farm on his own land. Located near Glastonbury, the site has been grazed by sheep since its inception in 2011.

Eastacombe Farm, Holsworthy, Devon

This farm has been in the Petherick family for four generations, but they were struggling to survive with a small dairy herd. In 2011/12, a solar developer helped them convert eight hectares of the lower-grade part of their land into a 3.6 megawatt solar farm with sheep grazing, which has diversified the business, guaranteeing its future for the next generation of farmers.

Newlands Farm, Axminster, Devon

Devon sheep farmer Gilbert Churchill chose to supplement his agricultural enterprise by leasing 13 hectares of grazing land for a 4.2 megawatt solar PV development, which was completed in early 2013. According to Mr Churchill, the additional income stream is "a lifeline" that "will safeguard the farm's survival for the future".

Trevemper Farm, Newquay, Cornwall

In 2011, the Trewithen Estate worked with a solar developer to build a 1.7 megawatt solar farm on 6 hectares of this south-facing block of land, which had good proximity to a grid connection. During the 25-year lease, the resident tenant farmer is still able to graze the land with sheep at his normal stocking density, and is also paid an annual fee to manage the pasture.

Yeowood Solar Farm, North Somerset

Completed in 2012, this 1.3 megawatt installation on 4 hectares of land surrounds a poultry farm of 24,000 laying hens, which are free to roam the land between and underneath the rows of solar modules, as well as other fields. The Ford family, farm owners, also grow the energy crop miscanthus to heat their eco-friendly public swimming pool and office units.

Wyld Meadow Farm, Bridport, Dorset

Farmers Clive and Jo Sage continue to graze their own-brand Poll Dorset sheep on this 4.8 megawatt solar farm, established on 11 hectares in 2012. The solar farm was designed to have very low visual impact locally, with an agreement to ensure livestock grazing throughout the project's lifetime.

Wymeswold Solar Farm, Leicestershire

The author pictured in July 2014 at Britain's largest connected solar farm. At 33 megawatts, this development provides enough energy to power 8,500 homes. Built on a disused airfield in 2013, this extensive installation over 61 hectares (150 acres) received no objections during planning and is grazed by the landowner's sheep – just visible in the background.

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BRE Trust
The BRE Trust uses profits made by BRE Group to fund new research and education programmes, that will help it meet its goal of 'building a better world together'.

Appendix D
Defra Construction Code of Practice for the Sustainable Use of soils on Construction Sites (extracts only)

www.defra.gov.uk

Construction Code of Practice for the Sustainable Use of Soils on Construction Sites

BIS | Department for Business Innovation & Skills

wrap Material change for a better environment

defra
Department for Environment Food and Rural Affairs

5.4 Soil stockpiling

Why?

1. Soil often has to be stripped or excavated during the construction process. In order to enable its reuse on site at a later stage, soil needs to be stored in temporary stockpiles to minimise the surface area occupied, and to prevent damage from the weather and other construction activities.

How?

2. The main aim when temporarily storing soil in stockpiles is to maintain soil quality and minimise damage to the soil's physical (structural) condition so that it can be easily reinstated once respread. In addition, stockpiling soil should not cause soil erosion, pollution to watercourses or increase flooding risk to the surrounding area.

3. When soil is stored for longer than a few weeks, the soil in the core of the stockpile becomes anaerobic and certain temporary chemical and biological changes take place. These changes are usually reversed when the soil is respread to normal depths. However, the time it takes for these changes to occur very much depends on the physical condition of the soil.

4. Handling soil to create stockpiles invariably damages the physical condition of the soil to a greater or lesser extent. If stockpiling is done incorrectly the physical condition of the soil can be damaged irreversibly, resulting in a loss of a valuable resource and potentially significant costs to the project. The Soil Resource Survey and Soil Resource Plan should set out any limitations that the soil may possess, with respect to handling, stripping and stockpiling.

5. The size and height of the stockpile will depend on several factors, including the amount of space available, the nature and composition of the soil, the prevailing weather conditions at the time of stripping and any planning conditions associated with the development. Stockpile heights of 3-4m are commonly used for topsoil that can be stripped and stockpiled in a dry state but heights may need to be greater where storage space is limited.

6. Soil moisture and soil consistency (plastic or non-plastic) are major factors when deciding on the size and height of the stockpile, and the method of formation. As a general rule, if the soil is dry (e.g. drier than the plastic limit) when it goes into the stockpile, the vast majority of it should remain dry during storage, and thereby enable dry soil to be excavated and respread at the end of the storage period. Soil in a dry and non-plastic state is less prone to compaction, tends to retain a proportion of its structure, will respread easily and break down into a suitable tilth for landscaping. Any anaerobic soil also usually becomes re-aerated in a matter of days.

7. Soil stockpiled wet or when plastic in consistency is easily compacted by the weight of soil above it and from the machinery handling it. In a compacted state, soil in the core of the stockpile remains wet and anaerobic for the duration of the storage period, is difficult to handle and respread and does not usually break down into a suitable tilth. A period of further drying and cultivation is then required before the soil becomes re-aerated and acceptable for landscaping.

Stockpiling methods

8. There are two principal methods for forming soil stockpiles, based on their soil moisture and consistency.

9. Method 1 should be applied to soil that is in a dry and non-plastic state. The aim is to create a large core of dry soil, and to restrict the amount of water that can get into the stockpile during the storage period. Dry soil that is stored in this manner can remain so for a period of years and it is reuseable within days of respreading.

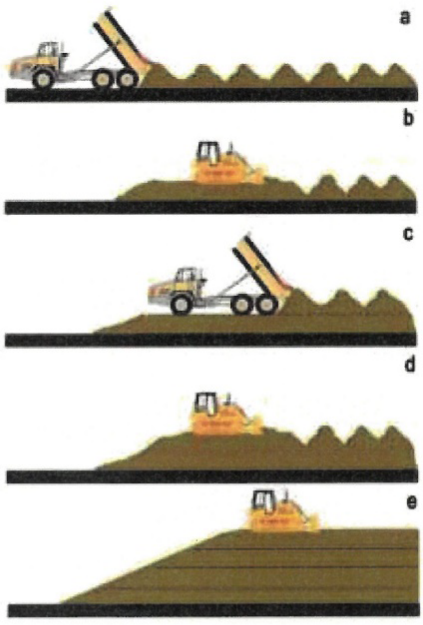
10. Method 2 should be applied if the construction programme or prevailing weather conditions result in soil having to be stockpiled when wet and/or plastic in consistency. This method minimises the amount of compaction, while at the same time maximising the surface area of the stockpile to enable the soil to dry out further. It also allows the soil to be heaped up into a 'Method 1' type stockpile, once it has dried out.

Soil stockpiling

Soil should be stored in an area of the site where it can be left undisturbed and will not interfere with site operations. Ground to be used for storing the topsoil should be cleared of vegetation and any waste arising from the development (e.g. building rubble and fill materials). Topsoil should first be stripped from any land to be used for storing subsoil.

Method 1 – Dry non-plastic soils

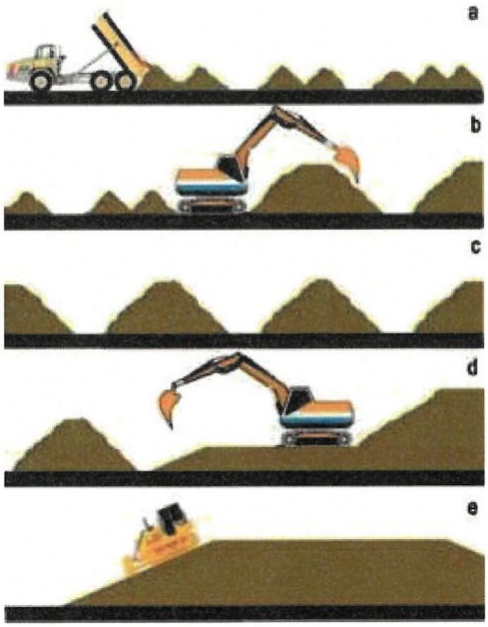
The soil is loose-tipped in heaps from a dump truck (a), starting at the furthest point in the storage area and working back toward the access point. When the entire storage area has been filled with heaps, a tracked machine (excavator or dozer) levels them (b) and firms the surface in order for a second layer of heaps to be tipped. This sequence is repeated (c & d) until the stockpile reaches its planned height. To help shed rainwater and prevent ponding and infiltration a tracked machine compacts and re-grades the sides and top of the stockpile (e) to form a smooth gradient.



Method 2 – Wet plastic soils

The soil is tipped in a line of heaps to form a 'windrow', starting at the furthest point in the storage area and working back toward the access point (a). Any additional windrows are spaced sufficiently apart to allow tracked plant to gain access between them so that the soil can be heaped up to a maximum height of 2m (b).
To avoid compaction, no machinery, even tracked plant, traverses the windrow.

Once the soil has dried out and is non-plastic in consistency (this usually requires several weeks of dry and windy or warm weather), the windrows are combined to form larger stockpiles, using a tracked excavator (d). The surface of the stockpile is then regraded and compacted (e) by a tracked machine (dozer or excavator) to reduce rainwater infiltration.



Stockpile location and stability

11. Stockpiles should not be positioned within the root or crown spread of trees, or adjacent to ditches, watercourses or existing or future excavations. Soil will have a natural angle of repose of up to 40° depending on texture and moisture content but, if stable stockpiles are to be formed, slope angles will normally need to be less than that. For stockpiles that are to be grass seeded and maintained, a maximum side slope of 1 in 2 (25°) is appropriate.

Stockpile protection and maintenance

12. Once the stockpile has been completed the area should be cordoned off with secure fencing to prevent any disturbance or contamination by other construction activities. If the soil is to be stockpiled for more than six months, the surface of the stockpiles should be seeded with a grass/clover mix to minimise soil erosion and to help reduce infestation by nuisance weeds that might spread seed onto adjacent land.

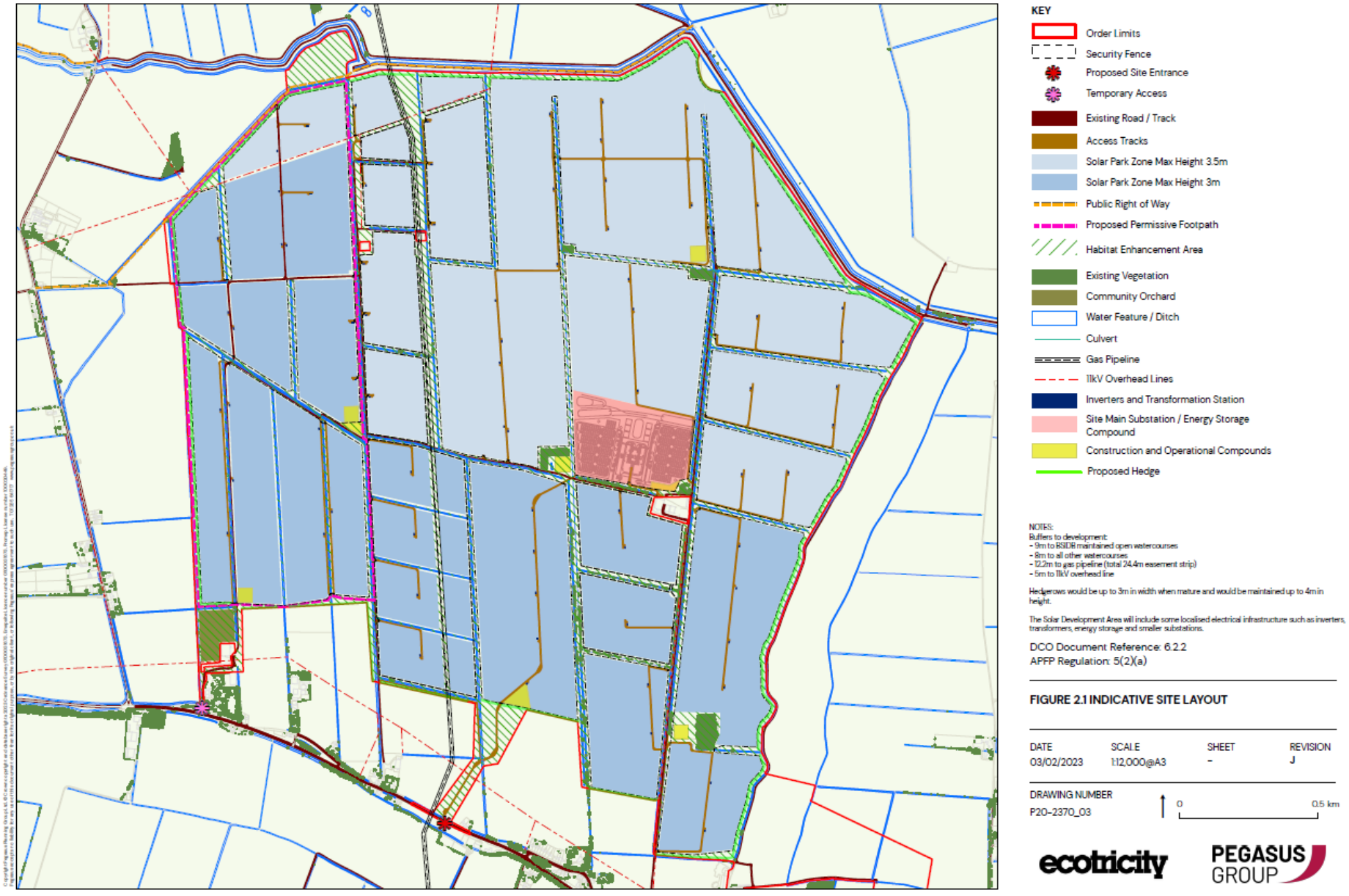
13. Management of weeds that do appear should be undertaken during the summer months, either by spraying to kill them or by mowing or strimming to prevent their seeds being shed.

Clearly defined stockpiling of different soil materials

Long term stockpile of stripped topsoil left with only weed vegetation

Appendix E

Proposed Layout


KEY
Order Limits
Security Fence
Proposed Site Entrance
Temporary Access
Existing Road / Track
Access Tracks
Solar Park Zone Max Height 3.5m
Solar Park Zone Max Height 3m
Public Right of Way
Proposed Permissive Footpath
Habitat Enhancement Area
Existing Vegetation
Community Orchard
Water Feature / Ditch
Culvert
Gas Pipeline
11kV Overhead Lines
Inverters and Transformation Station
Site Main Substation / Energy Storage Compound
Construction and Operational Compounds
Proposed Hedge
NOTES:
Buffers to development:
- 9m to RSIDB maintained open watercourses
- 8m to all other watercourses
- 12.2m to gas pipeline (total 24.4m easement strip)
- 5m to 11kV overhead line
Hedgerows would be up to 3m in width when mature and would be maintained up to 4m in height.
The Solar Development Area will include some localised electrical infrastructure such as inverters, transformers, energy storage and smaller substations.
DCO Document Reference: 6.2.2
APFP Regulation: 5(2)(a)
FIGURE 2.1 INDICATIVE SITE LAYOUT
DATE
03/02/2023
SCALE
1:12,000@A3
SHEET
-
REVISION
J
DRAWING NUMBER
P20-2370_03
0
0.5 km
ecotricity
PEGASUS GROUP

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Appendix F

Appendix F: Outline Soil Management Plan for the Offsite Grid Route Corridor

Document Properties		
Regulation Reference	Regulation 5(2)(q)	
Planning Inspectorate Scheme Reference	EN010123	
Application Document Reference	7.7	
Title	Appendix F: Outline Soil Management Plan for the Offsite Grid Route Corridor	
Prepared By	Heckington Fen Energy Project Team (Kernon Countryside Consultants Ltd)	
Version History		
Version	**Date**	**Version Status**
Rev 1	February 2023	Application Version

HECKINGTON FEN
ENERGY PARK

OUTLINE
SOIL MANAGEMENT PLAN
(OFFSITE GRID ROUTE CORRIDOR)

February 2023

HECKINGTON FEN
ENERGY PARK

OUTLINE
SOIL MANAGEMENT PLAN
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February 2023

Authorised By ……..

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1 INTRODUCTION

Annexes

1 INTRODUCTION

1.1 This document provides an outline Soil Management Plan (SMP) for the Heckington Fen Offsite Grid Connection Route Corridor “the Route”.

1.2 The Route will connect from the Heckington Fen Energy Park to the extension at the existing substation on Bicker Fen.

1.3 The Route needs to cross under roads, rivers and a railway, and there are therefore construction areas where deep excavations and boring machinery will be involved.

1.4 There will be a need for some fixed above ground infrastructure along the route. This will be located at field edges, as far as possible, so as not to disrupt the ongoing agricultural use of the land, which will return once installation is complete.

1.5 This outline SMP is structured as follows:

(i) section 2 describes the route;
(ii) section 3 sets out the soil resources and characteristics;
(iii) section 4 sets out key principles;
(iv) and section 5 sets out the management required.

2 THE PROPOSED ROUTE

2.1 This outline SMP relates to a route to connect the proposed Energy Park to the existing substation at Bicker Fen.

2.2 A corridor is considered within the Order Limits of this DCO application and has been considered in this outline SMP, but the indicative route is shown below.

Insert 1: Indicative Route

2.3 The survey corridor, and photographs along the Route, are set out in **Annex A**.

2.4 The cable will be buried in a trench. At points the trench will be deep to allow for the cable to be buried under obstacles including the A17, the railway and the South Forty Foot Drain. At these points it is expected that an open cut trench will not be used, instead an alternative cabling solution will be used such as drilling the cable under these existing features.

2.5 In respect of the current use of the farmland along the Route all of it is arable farmland.

3 SOIL RESOURCES AND CHARACTERISTICS

Climatic Conditions

3.1 The climatic data for the area, using the climate data set for ALC, shows annual rainfall between 575 and 590mm across the Energy Park site and the Route.

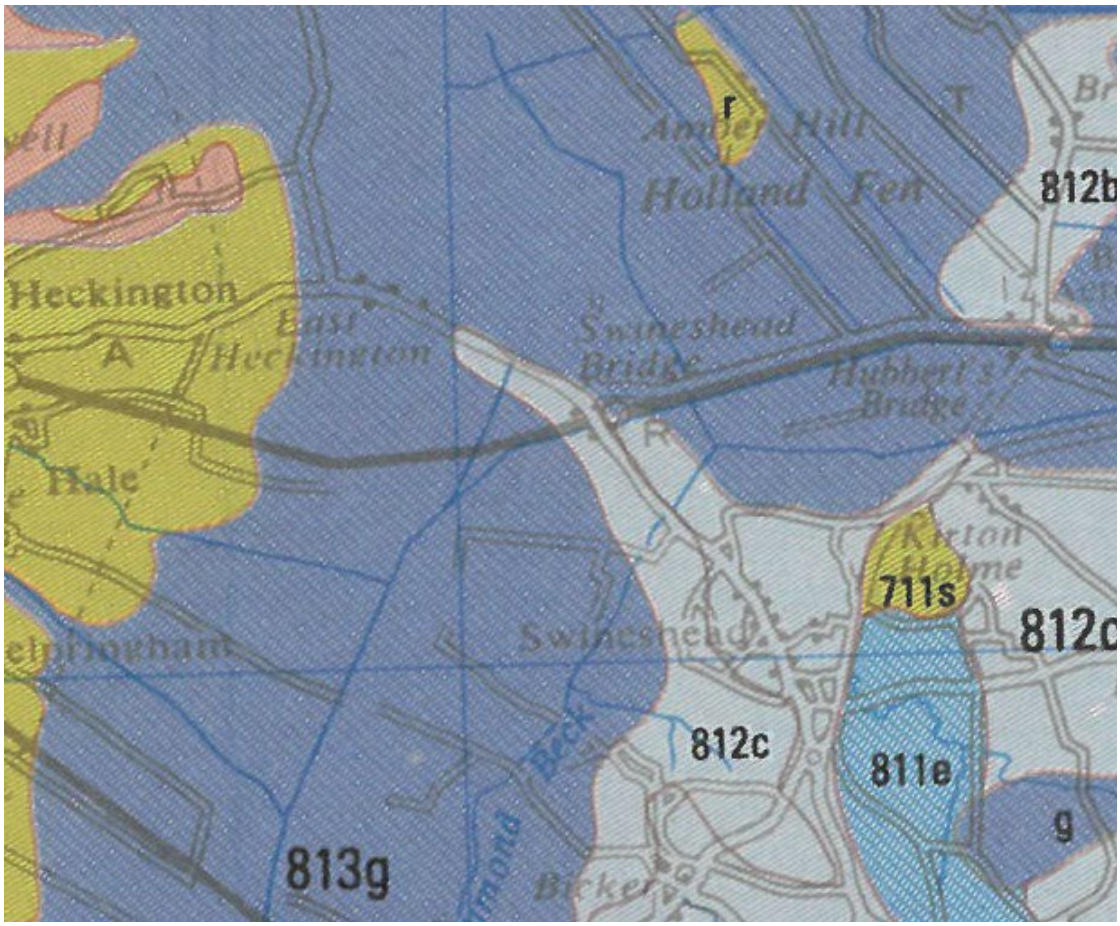
3.2 Soils are at field capacity, i.e. replete with water, for usually 107 days per year, mostly during the period from autumn to early spring. This is the period when soils are most susceptible to damage because they are saturated.

Soil Types

3.3 It is evident from surveys of the Energy Park site that the land quality is very variable, influenced by the historic passage of waterbodies. The aerial photographs in **Annex A** show the variability well.

3.4 The published soil map shows the area is mostly of the 813g Wallasea 2 Association, with a band of 812c Agney Association soils between the A17 and the railway, as shown below.

Insert 2: Published Soil Map Excerpt



Extent and Depth of Topsoil Units and Soil Types

3.5 It is evident from survey over the Energy Park site and nearby, and the available aerial photography, that the soils across the Energy Park site are variable. The Energy Park site is generally flat, and most is covered with soils of the Wallasea 2 Association. These soils are extensive on reclaimed marine alluvium in the marshlands of Lincolnshire. The soils are clayey with a greyish brown topsoil over greyish or grey and ochreous mottled subsurface horizons. The soils respond to drainage and, if undrained, are wet for longer periods in the winter.

3.6 The area of Agney Association are calcareous alluvial gley soils, generally well drained and silty in nature.

3.7 The texture of the Wallasea 2 soil varies from medium silty clay loam through heavy clay loams to silty clay and shows a complex mix of soil textures and drainage status.

3.8 The variability of the soils over short distances could make for variable and therefore challenging conditions. The variability is evident on the aerial photographs in **Annex A**.

3.9 The description of the soils, which are from the Wallasea 2 Association and Agney Association, are provided in **Annex B**, taken from the soil memoire. This identifies the ideal landwork season in a normal year, as follows (see the top row), for Wallasea soils. Agney soils are generally similar.

Insert 3: Landwork Table

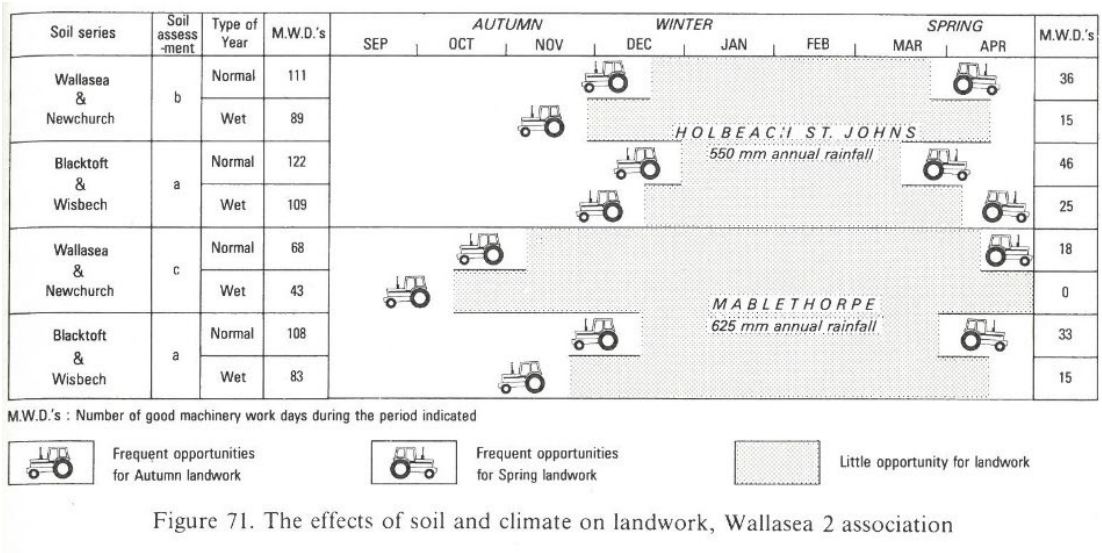


Figure 71. The effects of soil and climate on landwork, Wallasea 2 association

Propensity to Damage

3.10 The Institute of Environmental Management and Assessment (IEMA) have produced a Guide "A New Perspective on Land and Soil in Environmental Impact Assessment" (2022). Table 4 in the guidance identifies that clay and heavy clay loam soils where the Field

Capacity Days (FCD) is less than 150 (as here) have a medium resilience to structural damage.

3.11 The IEMA guide identifies that lighter soils, including medium clay loams, are of medium resilience where the FCD is less than 225. Here, where the FCD is 104 - 111 days, these soils will be at low risk of structural damage. This describes most of the soils along the Route.

3.12 The pattern of soils and land quality distribution is complex, as shown on the aerial images. However, the soils that will be least prone to compaction if trafficked in the wetter mid-winter months are the lighter soils.

3.13 As cable installation is a linear process, and cannot stop and start easily, the most susceptible soils dictate the methodology for the whole Route.

4 KEY PRINCIPLES

4.1 The installation of the cable requires soils to be disturbed and deep excavations for the trench. There will be deep engineering operations to bore under the drains, road and railway.

4.2 There are numerous buried services in this area, including the Triton Knoll cable. The installation of these services have been achieved successfully, with no evident damage to agricultural land and operations.

4.3 For successful restoration to a farming use, the key is to restore the topsoil and upper subsoil to the same profile, without compaction, as they are before construction commences. Plants will root down to about 1 – 1.2 metres, but the top 60cm is the most important for plant growth. This is usually a topsoil and upper subsoil layer.

4.4 The key principles for successfully avoiding damage to soils are:

- timing of works involving moving soils;
- storing soils;
- retaining soil profiles during restoration;
- avoiding compaction;
- ameliorating compaction.

Timing

4.5 The most important management decision/action to avoid adverse effects on soils is the timing of works involving moving soils. If the construction work takes place when soil conditions are sufficiently dry, then damage from vehicle trafficking, moving and trenching will be minimal.

4.6 The soils are relatively resilient to vehicle passage for much of the year. Under the ALC Guidelines the field capacity period, i.e. the days in the year when soils are saturated, is about 104 - 111 days per year. The soil memoire for the Wallasea 2 Association (**Appendix B**) identifies limited opportunities for landwork between mid-December and mid to late March. Similar periods apply to the Agney Association soils.

4.7 The soils are generally resilient, and any damage from vehicle trafficking can generally be made good by mechanical husbandry once the soils start to dry in the spring.

4.8 The period when soils are least likely to be wet is between March and November, but with seasonal variations (the English weather being unpredicatable). To the extent that it is feasible, topsoil movement should be targeted for this window. Topsoil stripping could be phased ahead of deeper trenching works.

4.9 It may not be feasible to limit trenching works to these periods. In so far as it is possible, handling of the upper subsoils (30-60cm depth) should also be carried out when the soils are not saturated. They should be stored separately to the topsoils, and if dug out when wet, allowed to dry in bunds of no more than 1 metre in height prior to storage at any greater depth

4.10 Replacement of the upper subsoil and topsoil should be undertaken in reverse order, and so far as is possible carried out when soils are dry, as they will then restore more rapidly and require less restorative mechanical work.

4.11 Guidance on stockpiling is set out in the Construction Code of Practice For the Sustainable Use of Soils on Construction Sites, Defra (2009), an extract from which is at **Annex C**.

4.12 In instances where it is not possible to avoid undertaking construction activities when soils are wet and topsoil damage occurs then soils can be recovered by normal agricultural management, using normal agricultural cultivation equipment (subsoiler, harrows, power harrows etc) once soils have dried adequately for this to take place. There may be localised wet areas in otherwise dry fields, for example, which are difficult to avoid.

Avoiding Compaction

4.13 This oSMP sets out when soils should generally be suitable for being trafficked. There may be periods within this window, however, when periodic rainfall events result in soils becoming liable to damage from being trafficked or worked. In these (likely rare) situations, work involving handling soils (e.g. stripping, replacing) should stop until soils have dried, usually within 48 hours of heavy rain stopping.

Ameliorating Compaction

4.14 If localised compaction occurs during construction, it should be ameliorated. This can normally be achieved with standard agricultural cultivation equipment, such as subsoilers (if required), power harrows and rolls.

Storing Soil and Restoring Soil

4.15 The quantities of soil involved are limited and topsoil mounds would be a maximum of 1m – 2m high. This will not result in the soil becoming anaerobic even in storage in a bund for more than 12 months. Advice on the stockpiling of soils taken from the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009) is reproduced in **Annex C**. These areas will need to be managed during the life of the Proposed Development to prevent the establishment of woody growth or brambles.

4.16 The following photograph, from January 2023, shows topsoil being stored next to the temporary access track for the Viking Link cable works to the immediate east of the Energy Park.

Insert 4: Temporary Topsoil Storage (January 2023)

4.17 The mound should be kept clear of woody vegetation. It is acceptable to sow the mound with grass seed.

4.18 The mound should not be moved for restoration unless the soil is sufficiently dry. Testing the centre of the mound with a soil auger should take place before the soil is moved.

5 MANAGEMENT REQUIREMENTS

Timing

5.1 The works of soil stripping and trench excavation should be carried out, so far as possible, between March and November.

5.2 The works of trench infilling and soil restoration should be carried out, so far as possible, between March and November.

Avoiding Drainage

5.3 Trackways required outside the dry period should be created from laying stone onto matting, such as shown below.

Insert 5: Trackway

Soil Storage

5.4 Topsoils, upper and lower subsoils should be stored in separate bunds.

5.5 Topsoil and subsoil should only be handled when dry. Storage in bunds, such as shown above, will ensure that the soils are kept dry and remain aerobic.

Depth of Soils

5.6 Topsoil should be removed to a depth of 30 – 40cm, which will be clear from the colour during excavation.

5.7 The upper subsoil, a similar depth of 30cm, should be stored separately.

Restoration

5.8 The lower and upper subsoils should be replaced in reverse order, to restore the current profile. Topsoil should then be replaced to the depth removed, and as close as possible to the original position the soil came from.

ANNEX A

Survey Notes

Introduction

1 The Route was the subject of a walk-over survey in January 2023. At the request of agents, no digging was permitted. The walk-over took place on Monday 16th January and Tuesday 17th January 2023.

Photographs and Description

2 The area surveyed is shown on the aerial plans below. Only those areas where access had been granted were walked over. Other areas were inspected and photographed without going onto the ground.

3 The area surveyed, and photographs taken, are shown below. This is an approximation of the refined Route, and detailed plans should be studied for a definitive boundary. The Route is divided into sections.

Section 1

4 Section 1 runs from the edge of the Energy Park south to the railway, as shown below.

Insert A: Area Surveyed and Photograph Locations

Position 1: Rought ley grassland, likely due to the Viking Link works to the east

Position 2: Ploughed land east of the Viking Link construction track

Position 3: Cereals. This section of the route has heavier soils and drainage, albeit after high levels of rainfall, is imperfect

Position 4: In plough. There are lighter patches and some variability in the soils, as seen. The soils remain loamy and moderately free draining

In cereals. Loamy field with variability and some low patches

Position 5: Stubble/fallow field, similar to the field to the north

Position 6: Stubble/fallow field, similar to the field to the north

Position 7: In cereal. This field is generally well drained except near the gateway, with friable soils

Position 8: Looking south over cereal field. Aside from the gateway the field was generally dry. These are the Agney Association soils.

Section 2

5 Section 2 runs from the railway south through four arable fields, as shown below.

Insert B: Area Surveyed and Photograph Locations

Position 9: Looking south over cereal field, previously in potatoes

Position 10: Looking north, currently stubble

Position 11: Looking north, over stubble

Position 12: Looking south over cereal and ploughed land

Section 3

6 This covers the four fields shown below. Access was not permitted to the two northern fields at the time of survey, but it was evident that they were in a similar variable soil pattern to surrounding land.

Insert C: Area Surveyed and Photographs Locations

Position 13: Looking north over cereals

Position 14: Looking south over cereals

Position 15: Looking South from North Drove

Section 4

7 Section 4 runs from the field north of Bicker Drove round to the substation connection. The land within the Order Limits within the Bicker Fen substation is owned by National Grid as an operational substation. It is therefore not considered within this oSMP.

Insert D: Area Surveyed and Photograph Locations

Position 16: Looking north from Bicker Drove over cultivated land

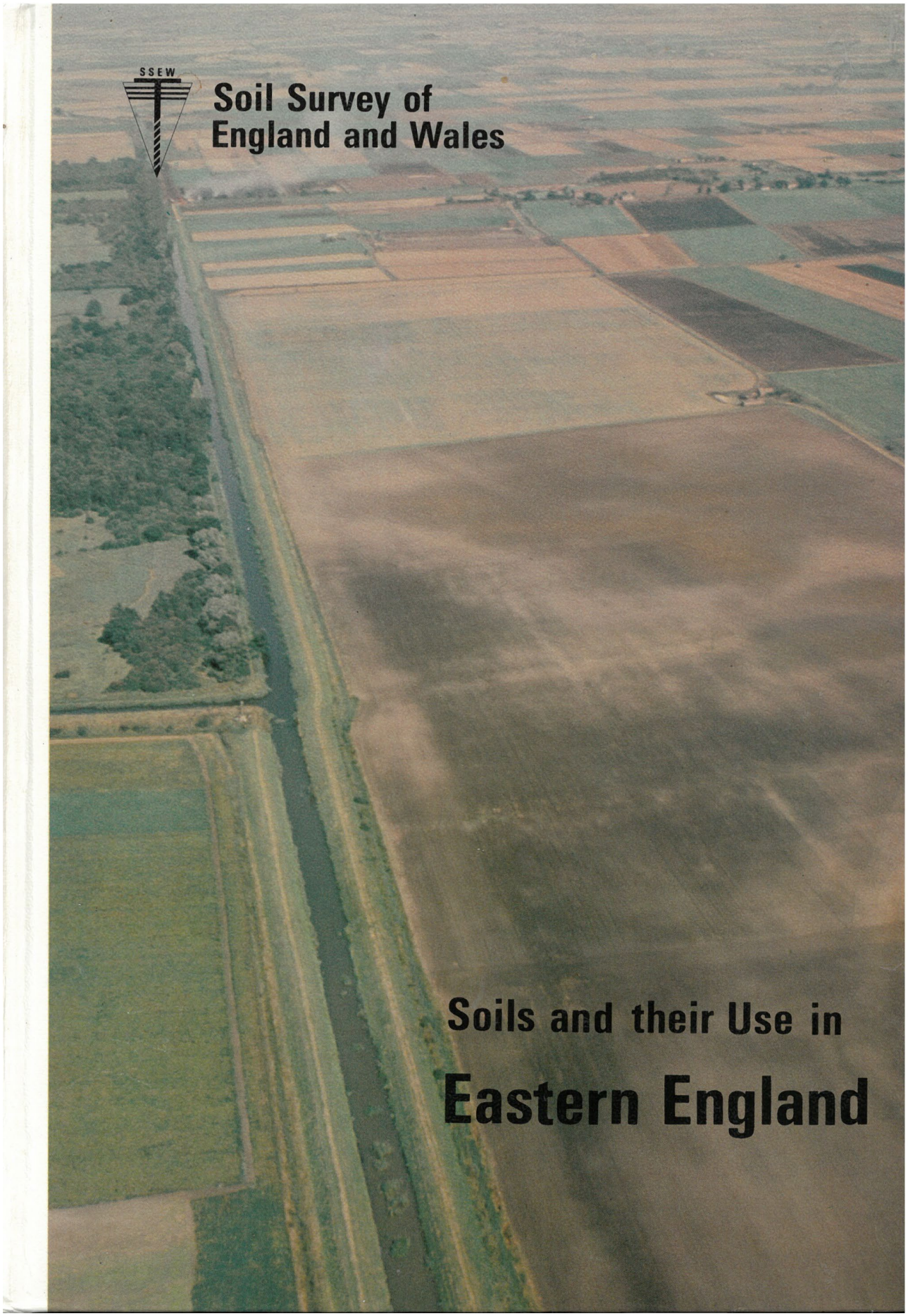
Position 17: Looking south over the arable land. There are cables under this field already

Position 18: Cereal land (left of the dyke) near to the substation

Position 19: Small grassland area at the substation

ANNEX B

Description of Soil Types


SSEW
Soil Survey of
England and Wales
Soils and their Use in
Eastern England

series (Plate 28). The Chalk outcrop is close by and chalky Reach (§ 113) and Wilbraham series (Clayden and Hollis 1984) form up to a fifth of these parcels. Further south, near Soham, the strongly acid Mendham series (§ 91) occurs locally.

Key to component soil series

	Peat thicker than 40 cm	1
	Mineral soils; sandy	2
1.	Amorphous peat	ADVENTURERS'
	Fibrous peat with grass and sedge remains	ALTCAR
2.	With dark, humose or peaty topsoil	ISLEHAM
	With grey, distinct topsoil	Blackwood

Soil water regime,

The soils are permeable and, apart from a few places where there is a clay subsoil, the land can be drained by ditches alone. With efficient arterial drainage as in much of the Fens, the soils are well-drained (Wetness Class I). The Adventurers' and Altcar soils are water-retentive and crops other than grass do not normally suffer from drought. Isleham soils, where well-drained, have less water available to plants. They are slightly droughty for cereals, moderately to very droughty for potatoes and very droughty for grass. Because they are not humose, Blackwood soils are correspondingly droughtier. The effect of drought is well shown by patchy crop growth on land with hummock and hollow microrelief, as groundwater is relatively lower in raised sandy soils than in the peaty hollows.

Cultivation and cropping

Where well-drained, the soils are easily worked, especially Isleham and Blackwood series which are accessible shortly after rain. There are thus few restrictions to cultivating the land and harvesting crops. These are mainly cereals, but sugar beet, potatoes and field vegetables are grown, and carrots and celery are characteristic on the peat soils. Cereals do not always finish well and sugar beet, although yielding heavily, has a low sugar content. Manganese deficiency occurs where the soils are calcareous. Wind erosion is a hazard especially in dry springs and care must be taken not to start fires as a burning peat subsoil is difficult to extinguish.

§ 11. AGNEY ASSOCIATION
812c

Agney association consists mainly of calcareous alluvial gley soils belonging to Agney and Wisbech series developed in marine alluvium on flat reclaimed land at 2 to 8 m O.D.

near the coast in parts of Humberside, Lincolnshire, Essex and Wales. The soils are stoneless and silty with brownish plough layers over greyish brown mottled horizons with blocky or relic laminar structure.

Typically, Agney association has about half Agney and one third Wisbech soils; Blacktoft (§ 28), Newchurch (§ 28), Romney (§ 28), Stockwith (§ 46), Tanvats (§ 125) and Wallasea (§ 125), and some Paglesham (Sturdy 1976) and Loggans (Staines 1979) series also occur. Brief descriptions of the two main soils are given in the Normoor association (§ 104). The degree of development of soil structure in Agney and Wisbech series depends upon the time since reclamation. On recently reclaimed land the original laminated sedimentary layers occur directly below the cultivated horizon, but on older sites, blocky soil structure has developed to 50 or 60 cm depth.

In Lincolnshire, where land has been reclaimed since 1970, around the Wash and in a small area near Boston, the association is composed consistently of Agney and Romney or Wisbech soils in a complex pattern. Many Agney soils have coarse silty layers below 50 cm depth. As elsewhere, the lighter Wisbech and Romney soils are on the sites of former creeks. In north-east Lincolnshire near Tetney and Marshchapel, there are low mounds up to 3 m above general marsh level formed by the medieval salt industry (Plate 9). The soils of these salterns are similar to Blacktoft series. Near Donna Nook, the alluvium overlies dune sand and near the coast Loggans series is included. Occasional Wallasea and Newchurch soils are also found.

In Essex the association is mainly on the Dengie peninsula and the seaward side of Foulness and Havengore Islands. On parts of the Dengie peninsula Romney and Newchurch series are common, and near the southern end of the peninsula the association is bounded to the west by shell ridges. On Foulness and Havengore islands there are a few Newchurch soils, and soils with clayey over fine silty layers are common.

Key to component soil series

	Subsoils calcareous above 40 cm	1
	Subsoils non-calcareous above 40 cm	6
1.	Prominently mottled or greyish above 40 cm	2
	Subsoil faintly mottled within 60 cm or distinctly mottled between 40 and 80 cm	5
2.	With silty horizons	3
	Other soils	4
3.	Fine silty	AGNEY
	Coarse silty	WISBECH
	Silty over clayey	Stockwith
4.	Sandy	Loggans
	Clayey	Newchurch
5.	Coarse silty	Romney
	Fine silty	Blacktoft

6.	Fine silty	Tanvats
	Clayey	Wallasea
	Fine loamy over clayey	Paglesham

Soil water regime

The soils are very porous with numerous root channels and burrows formed under saltmarsh before reclamation. The land is mostly drained by ditches and pumps and the soils are rarely waterlogged (Wetness Class I). Parts of the Dengie peninsula suffer occasional flooding through breaches of the sea defences. The available water reserves of the Agney series are large and the soil is non-droughty for cereals and sugar beet. Shallow-rooting crops such as potatoes may suffer drought. In the dry climate of Essex crops on Agney soils suffer slightly more from droughtiness than in Lincolnshire. There are only minor limitations on grassland growth and utilization in Lincolnshire, but in Essex, droughtiness checks summer growth. Wisbech soils are well suited to grassland as well as other crops, because of their large moisture reserves.

Cultivation and cropping

The soils are easy to cultivate, though the heavier Agney soils are less so than Wisbech soils. The laminated subsoils of recently reclaimed soils compact readily below the plough layer. There are ample days available for cultivation in autumn and spring. The soils are not well suited to direct drilling because of their high silt content and the risk of compaction.

In Lincolnshire cereals, sugar beet and potatoes are grown and the land is used extensively for field vegetables, particularly brassicas. The Agney soils are not ideal for onion crops because sticky topsoils make it difficult to get a clean crop. In Essex arable crops, including cereals, potatoes and some sugar beet are grown. Lucerne and grass are grown locally. Many parts of Foulness Island have rough grazing around military installations.

§ 12. ALTCAR 1 ASSOCIATION
1022a

The Altcar association is extensive on the Somerset Moors, in the Norfolk Fens and the Lancashire mosses. There are also small areas in Northern England, Cheshire, Staffordshire and the Welsh Borderland. It covers about 223 km^2 nationally, at heights usually less than 6 m O.D. The soils are formed in fen peat, one to two metres thick, most of which has been drained and reclaimed. The Altcar series (§ 10), earthy eu-fibrous peat soils in grass sedge peat, dominate with Adventurers' series (§ 10), earthy eutro-amorphous peat soils, where the subsoil is humified. The association covers 27 km^2 in Methwold Fens, Norfolk (Plate 7), where some land remains under semi-natural woodland but most is cultivated. Because of shrinkage and oxidation following effective

and if sequentially direct drilled the soils benefit from being loosened periodically. Shallow cultivations and minimum tillage techniques are commonplace. Some land is affected by salinity which, followed by leaching, has led to clay deflocculation, and the stopping of drains by dispersed clay, eventually causing patchy waterlogging and crop failure on arable land. Grassland productivity is limited by summer drought but, because of the poaching risk, grazing by cattle is restricted to the summer months. Occasional liming is needed, but manganese deficiency can occur in over-limed spots. The soils contain little phosphorus but reserves of potassium and magnesium are large.

§ 133. WALLASEA 2 ASSOCIATION
813g

This association is extensive on reclaimed marine alluvium in the marshlands of Lincolnshire (Fig.45), Cambridgeshire and Norfolk, and is also present in Romney Marsh, the Essex marshes and in Holderness. The land is generally level but there are occasional ridges on the sites of former creeks. The soils are mainly Wallasea series, pelo-alluvial gley soils; Newchurch series, pelo-calcareous alluvial gley soils; Blacktoft series, gleyic brown calcareous soils; and Wisbech series, calcareous alluvial gley soils. Wallasea and Newchurch soils are clayey with a greyish brown topsoil over greyish or grey and ochreous mottled subsurface horizons; Newchurch series is calcareous. Blacktoft soils are calcareous and fine silty with grey colours and mottling in the subsoil. Wisbech soils are also calcareous, but have greyish and mottled coarse silty horizons below the plough layer, often with sedimentary laminations. Wallasea series predominates and Newchurch, Blacktoft and Wisbech soils are common. Dymchurch (Clayden and Hollis 1984), Snargate (§ 114), Agney, (§ 104) Stockwith (§ 46), Tanvats (§ 114) and Paglesham (Sturdy 1976) series also occur. Brief descriptions of the principal soils are given elsewhere in the text. Wallasea series in § 125, Newchurch series in § 28, Blacktoft series in § 28 and Wisbech series in § 104.

Wallasea soils consistently constitute over half of the association, but the proportion of other soils varies widely throughout the country. Generally, Wisbech and Blacktoft series are found on or near former creeks (rodhams), with Wallasea and Newchurch soils in the intervening areas. The incidence of creek ridges, and so the proportion of coarser soils, increases seawards where Blacktoft soils cover a third of the land, except in Lincolnshire where the similar Agney series is more common. The proportion of the less common Wisbech soils also increases seawards. Inland towards high ground, clayey soils are predominant, Wallasea soils being most common in Lincolnshire and Cambridgeshire, but in Norfolk, Newchurch and Wallasea soils are co-dominant. In places in Lincolnshire, Wallasea soils have developed from former Downholland soils (§ 48) from which topsoil organic matter has been lost by oxidation. Wisbech soils are rare in north Lincolnshire

and non-calcareous soils, including Pepperthorpe (§ 125) and Tanvats series, become more common. Near Huttoft, where islands of Devensian till rise through the alluvium, some Holderness soils (§ 75) are included. Creek ridges are uncommon in Essex and Wisbech soils are rare. Calcareous fine silty Agney soils cover one sixth of the land and non-calcareous Tanvats and Paglesham soils also occur. Locally there are a few saline soils and, where leaching has occurred, subsoil structure has deteriorated causing silting of drains, waterlogging and reduced crop yields.

Key to component soil series

	Subsoils non-calcareous above 40 cm	1
	Subsoils calcareous above 40 cm	2
1.	Clayey	WALLASEA
	Fine silty	Tanvats
	Fine loamy over clayey	Paglesham
	Fine silty over clayey	Pepperthorpe
2.	Silty throughout	3
	With clayey horizons	5
3.	Coarse silty	WISBECH
	Fine silty	4
4.	Subsoil faintly mottled above 60 cm or distinctly mottled between 40 and 80 cm	BLACKTOFT
	Prominently mottled or greyish above 40 cm	Agney
5.	Clayey throughout	NEWCHURCH
	Silty over clayey	Stockwith

Soil water regime

Most of the land is pump-drained and the more permeable Blacktoft and Wisbech soils are well drained (Wetness Class I). Wallasea and Newchurch soils are less permeable but respond to underdrainage; drained soils are occasionally waterlogged (Wetness Class II) but undrained soils are waterlogged for long periods in winter (Wetness Class III or IV). Droughtiness assessments for selected crops are given in Table 38. Droughtiness slightly restricts the growth of arable crops in Wallasea and Newchurch soils. Wisbech soils have large available water reserves and are non-droughty whilst Blacktoft soils are intermediate in droughtiness. Grassland suffers from drought on all soils in south Lincolnshire, Norfolk and Essex but growth is less restricted in the higher rainfall area of north Lincolnshire.

Cultivation and cropping

The effects of soil and climate on the time available for landwork is shown in Figure 71. With adequate underdrainage, Wallasea and Newchurch soils are moderately easy to work. There are adequate days for safe cultivation in autumn and spring, but in north

Lincolnshire the moist climate reduces the opportunity for spring cultivation, particularly in wet years, and the soils are marginal for spring-sown crops. The land is generally used for winter cereals and ley grassland, but sugar beet, peas and field brassicas are grown in the drier districts. The use of heavy machinery often causes topsoil compaction and surface wetness on the heavier soils especially Wallasea series though they can be direct drilled very successfully if subsoiled periodically. Newchurch soils which are calcareous have a more stable structure. Wisbech and Blacktoft soils are less suitable for direct drilling because of the problems associated with this system on silty soils.

Table 38
Profile Available Water (A.P. mm), Crop-adjusted Mean Moisture Deficit (M.D. mm) and Droughtiness Class for extensive crops–Wallasea 2 Association

Location Grid Ref.	**Wallasea series** Holbeach St Johns TF350180	**Newchurch series** Holbeach St Johns TF350180	**Blacktoft series** Holbeach St Johns TF350180	**Wisbech series** Holbeach St Johns TF350180
Winter wheat				
A.P.	160	150	190	270
M.D.	126	126	126	126
Droughtiness	slightly droughty	slightly droughty	non-droughty	non-droughty
Spring barley				
A.P.	160	150	190	270
M.D.	119	119	119	119
Droughtiness	slightly droughty	slightly droughty	non-droughty	non-droughty
Potatoes				
A.P.	115	115	140	200
M.D.	127	127	127	127
Droughtiness	moderately droughty	moderately droughty	slightly droughty	non-droughty
Sugar beet				
A.P.	195	180	235	335
M.D.	127	127	127	127
Droughtiness	non-droughty	non-droughty	non-droughty	non-droughty
Oilseed rape				
A.P.	160	150	190	270
M.D.	109	109	109	109
Droughtiness	non-droughty	slightly droughty	non-droughty	non-droughty

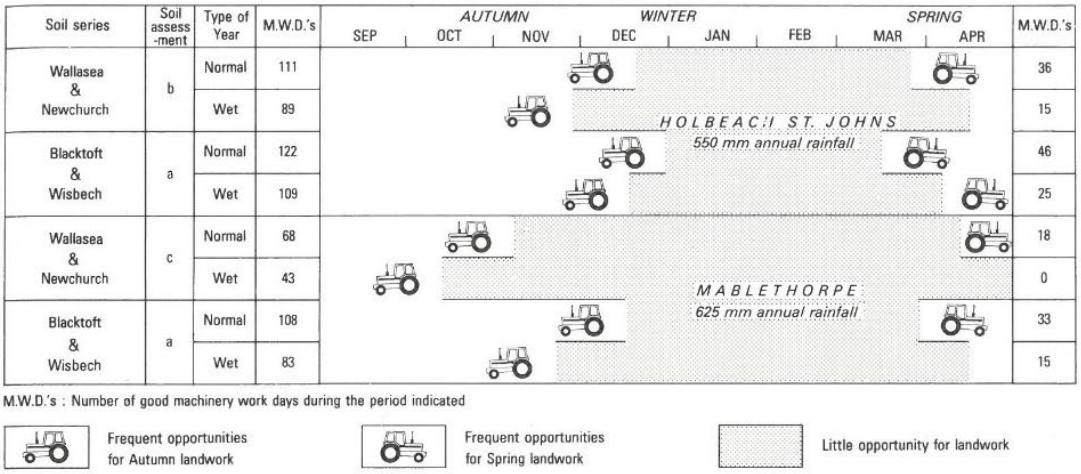


Figure 71. The effects of soil and climate on landwork, Wallasea 2 association

§ 134. WANTAGE 1 ASSOCIATION
(342c)

This association consists of greyish, well drained silty soils on the Lower Chalk mainly in south Oxfordshire, north Wiltshire, Kent and Buckinghamshire. In Bedfordshire, Hertfordshire, and Cambridgeshire the association occurs in small patches. North of Luton it forms a narrow strip of gently sloping land at the foot of the chalk escarpment. Near Luton the soils form the side of a ridge and the association continues sporadically to the south-west, fronting the Chiltern Hills (Avery 1964). The principal soil is Wantage series (§ 135), loamy grey rendzinas with an extremely calcareous silty clay loam subsoil and chalk at moderate depth. The land is affected locally by springs and winterbournes so Burwell (§ 113) soils are found on valley floors and on gentle slopes. Shallow Upton soils, grey rendzinas, are confined to convex valley sides below the main Chalk scarp.

The soils of the association are predominantly well drained (Wetness Class I), but there are patches of less permeable Burwell soils on some valley floors and flat valley sides which when field drainage is effected are largely well drained (Wetness Class I).

The main crops are cereals, grown continuously or in rotation. Yields of winter wheat are consistently high and those of spring barley about average. The soils are easy to work and any surface capping usually breaks up as the soil dries. There is adequate time for autumn and spring landwork. There is little risk of poaching in grassland but there is some drought limitation on the shallowest soils. The association is fully described by Jarvis, M.G. *et al.* (1984).

ANNEX C

Defra Construction Code of Practice for the Sustainable Use of soils on Construction Sites (extracts only)

www.defra.gov.uk

Construction Code of Practice for the Sustainable Use of Soils on Construction Sites

BIS | Department for Business Innovation & Skills

wrap Material change for a better environment

defra
Department for Environment Food and Rural Affairs

5.4 Soil stockpiling

Why?

1. Soil often has to be stripped or excavated during the construction process. In order to enable its reuse on site at a later stage, soil needs to be stored in temporary stockpiles to minimise the surface area occupied, and to prevent damage from the weather and other construction activities.

How?

2. The main aim when temporarily storing soil in stockpiles is to maintain soil quality and minimise damage to the soil's physical (structural) condition so that it can be easily reinstated once respread. In addition, stockpiling soil should not cause soil erosion, pollution to watercourses or increase flooding risk to the surrounding area.

3. When soil is stored for longer than a few weeks, the soil in the core of the stockpile becomes anaerobic and certain temporary chemical and biological changes take place. These changes are usually reversed when the soil is respread to normal depths. However, the time it takes for these changes to occur very much depends on the physical condition of the soil.

4. Handling soil to create stockpiles invariably damages the physical condition of the soil to a greater or lesser extent. If stockpiling is done incorrectly the physical condition of the soil can be damaged irreversibly, resulting in a loss of a valuable resource and potentially significant costs to the project. The Soil Resource Survey and Soil Resource Plan should set out any limitations that the soil may possess, with respect to handling, stripping and stockpiling.

5. The size and height of the stockpile will depend on several factors, including the amount of space available, the nature and composition of the soil, the prevailing weather conditions at the time of stripping and any planning conditions associated with the development. Stockpile heights of 3-4m are commonly used for topsoil that can be stripped and stockpiled in a dry state but heights may need to be greater where storage space is limited.

6. Soil moisture and soil consistency (plastic or non-plastic) are major factors when deciding on the size and height of the stockpile, and the method of formation. As a general rule, if the soil is dry (e.g. drier than the plastic limit) when it goes into the stockpile, the vast majority of it should remain dry during storage, and thereby enable dry soil to be excavated and respread at the end of the storage period. Soil in a dry and non-plastic state is less prone to compaction, tends to retain a proportion of its structure, will respread easily and break down into a suitable tilth for landscaping. Any anaerobic soil also usually becomes re-aerated in a matter of days.

7. Soil stockpiled wet or when plastic in consistency is easily compacted by the weight of soil above it and from the machinery handling it. In a compacted state, soil in the core of the stockpile remains wet and anaerobic for the duration of the storage period, is difficult to handle and respread and does not usually break down into a suitable tilth. A period of further drying and cultivation is then required before the soil becomes re-aerated and acceptable for landscaping.

Stockpiling methods

8. There are two principal methods for forming soil stockpiles, based on their soil moisture and consistency.

9. Method 1 should be applied to soil that is in a dry and non-plastic state. The aim is to create a large core of dry soil, and to restrict the amount of water that can get into the stockpile during the storage period. Dry soil that is stored in this manner can remain so for a period of years and it is reuseable within days of respreading.

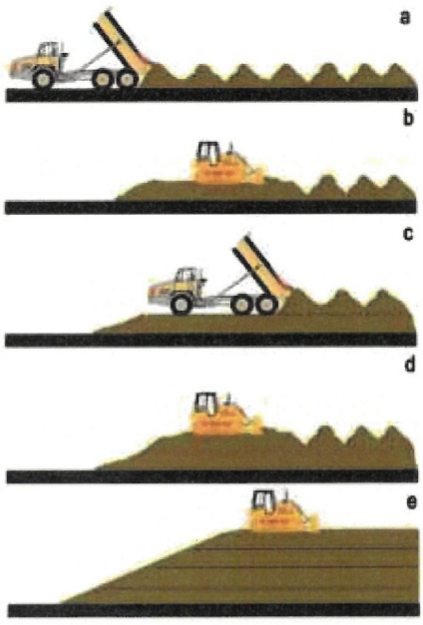
10. Method 2 should be applied if the construction programme or prevailing weather conditions result in soil having to be stockpiled when wet and/or plastic in consistency. This method minimises the amount of compaction, while at the same time maximising the surface area of the stockpile to enable the soil to dry out further. It also allows the soil to be heaped up into a 'Method 1' type stockpile, once it has dried out.

Soil stockpiling

Soil should be stored in an area of the site where it can be left undisturbed and will not interfere with site operations. Ground to be used for storing the topsoil should be cleared of vegetation and any waste arising from the development (e.g. building rubble and fill materials). Topsoil should first be stripped from any land to be used for storing subsoil.

Method 1 – Dry non-plastic soils

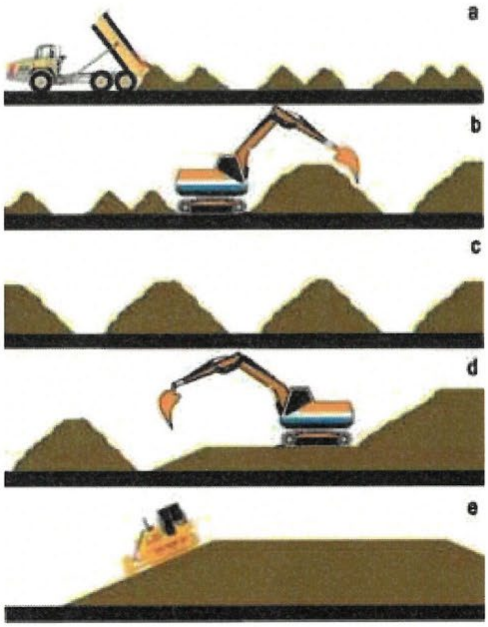
The soil is loose-tipped in heaps from a dump truck (a), starting at the furthest point in the storage area and working back toward the access point. When the entire storage area has been filled with heaps, a tracked machine (excavator or dozer) levels them (b) and firms the surface in order for a second layer of heaps to be tipped. This sequence is repeated (c & d) until the stockpile reaches its planned height. To help shed rainwater and prevent ponding and infiltration a tracked machine compacts and re-grades the sides and top of the stockpile (e) to form a smooth gradient.



Method 2 – Wet plastic soils

The soil is tipped in a line of heaps to form a 'windrow', starting at the furthest point in the storage area and working back toward the access point (a). Any additional windrows are spaced sufficiently apart to allow tracked plant to gain access between them so that the soil can be heaped up to a maximum height of 2m (b).
To avoid compaction, no machinery, even tracked plant, traverses the windrow.

Once the soil has dried out and is non-plastic in consistency (this usually requires several weeks of dry and windy or warm weather), the windrows are combined to form larger stockpiles, using a tracked excavator (d). The surface of the stockpile is then regraded and compacted (e) by a tracked machine (dozer or excavator) to reduce rainwater infiltration.



Stockpile location and stability

11. Stockpiles should not be positioned within the root or crown spread of trees, or adjacent to ditches, watercourses or existing or future excavations. Soil will have a natural angle of repose of up to 40° depending on texture and moisture content but, if stable stockpiles are to be formed, slope angles will normally need to be less than that. For stockpiles that are to be grass seeded and maintained, a maximum side slope of 1 in 2 (25°) is appropriate.

Stockpile protection and maintenance

12. Once the stockpile has been completed the area should be cordoned off with secure fencing to prevent any disturbance or contamination by other construction activities. If the soil is to be stockpiled for more than six months, the surface of the stockpiles should be seeded with a grass/clover mix to minimise soil erosion and to help reduce infestation by nuisance weeds that might spread seed onto adjacent land.

13. Management of weeds that do appear should be undertaken during the summer months, either by spraying to kill them or by mowing or strimming to prevent their seeds being shed.

Clearly defined stockpiling of different soil materials

Long term stockpile of stripped topsoil left with only weed vegetation

Greenacres Barn, Stoke Common Lane, Purton Stoke, Swindon, Wiltshire SN5 4LL
Telephone: 01793 771333 • Email: info@kernon.co.uk • Website: www.kernon.co.uk

Appendix G

APPENDIX G - OUTLINE CONSTRUCTION NOISE MANAGEMENT PLAN

Document Properties		
Regulation Reference	Regulation 5(2)(q)	
Planning Inspectorate Scheme Reference	EN010123	
Application Document Reference	7.7	
Title	Outline Construction Environmental Management Plan – Appendix G - Outline Construction Noise Management Plan	
Prepared By	Heckington Fen Energy Park Project Team	
Version History		
Version	**Date**	**Version Status**
Rev 1	March 2023	Additional submission – response to s55

Table of Contents:

1 APPENDIX G - OUTLINE CONSTRUCTION NOISE MANAGEMENT PLAN

1.1 INTRODUCTION

1.1.1 This Outline Construction Noise Management Plan (oCNMP) has been prepared by Hoare Lea on behalf of Ecotricity (Heck Fen Solar) Limited (the Applicant). It should be read together with the Outline Construction Environmental Management Plan (oCEMP) (document reference 7.7) and the Outline Construction Traffic Management Plan (oCTMP) (document reference 7.10).

1.1.2 Chapter 12 of the Environmental Statement for the Proposed Development (document reference 6.1.12) assessed the potential impacts of noise and vibration from construction activities. It outlined mitigation and enhanced measures to control and minimise the associated impacts of the construction phase of the Proposed Development. The present oCEMP sets out these measures in further detail.

1.1.3 As for the oCEMP and the oCTMP, this oCNMP will be further developed once the appointment of the Contractor(s) for the project has been confirmed and a detailed construction programme has been developed. Submission and approval of the final CNMP will be linked to the approval of the CEMP which is secured by DCO requirement (document reference 3.1). Compliance with the measures in these plans would be a pre-requisite of appointment for the Contractor.

1.1.4 The contractor may also decide to apply to the relevant local authority(ies) for a consent under Section 61 of the Control of Pollution Act and agree a set of operating procedures prior to commencement of site works.

1.2 CONSTRUCTION CONTROL MEASURES

1.2.1 Noise and vibration are likely to be generated by construction activities potentially causing annoyance at noise sensitive receptors. Construction traffic, plant and machinery noise therefore could be heard at nearby noise-sensitive receptors and could lead to significant effects if not suitably controlled. Some activities such as piling, Horizontal Directional Drilling (HDD) works and ground compaction could generate some vibration which may be perceptible in some cases but is considered unlikely to lead to significant effects.

Restrictions on working hours

1.2.2 Construction works likely to generate substantial levels of noise, aside from potential trenchless works (including HDD), shall be limited to daytime hours of 08:00 to 18:00 during Monday to Friday, and 08:00 to 13:00 on Saturdays, unless otherwise agreed with the local authorities. Other construction activities unlikely to generate high noise levels (e.g. site access and inductions, light vehicle movements etc.) may continue during other day-time periods.

1.2.3 In addition, if percussive piling is used for the support structures/foundations: when undertaken within 400 metres of residential properties, this should be further restricted to no more than two periods of four hours each with at least one hour of no piling between these four-hour periods and restricted to the hours of 08:00 to 18:00 Monday to Friday and 08:00 to 12:00 on Saturdays.

Traffic management

1.2.4 HGV deliveries to site will also be restricted to daytime hours of 08:00 to 18:00 during Monday to Friday, and 08:00 to 13:00 on Saturdays, unless otherwise agreed with the local authorities.

1.2.5 The Energy Park access road surface will be checked and maintained prior to use; the new main construction access route from the A17 will be constructed at an early stage of the Proposed Development.

1.2.6 Consideration will also be given to traffic routing, timing and access points to the Order limits, as construction working methods are developed. Contractors will issue a project route map and delivery schedule to control construction traffic. Management of heavy goods vehicles (HGVs) within the Order limits and being let onto the highway network will be managed through the CTMP.

Communication and complaint management

1.2.7 A dedicated Site Contact will be put in place by the Contractor, to act as a liaison between the Contractor and neighbouring residents, with a specific phone number and email address which will be accessible throughout the construction period on a notice board.

1.2.8 Regular communication should be undertaken by the Site Contact so that neighbours can clearly understand the anticipated level and duration of noise and vibration throughout the construction period. Specific notice will be provided in advance to the nearest neighbours of specific noisier phases of work and likely timescales. This will include users of public rights of way which will be informed of periods of noisy works during the construction.

1.2.9 The Site Contact will have direct engagement with Build-A-Future East Heckington to inform them of anticipated works periods, in particular the upgrade and temporary use of the track west of Elm Grange and any piling works within 600 metres of the school.

1.2.10 The Site Contact will also notify the closest residents of any HDD works which is required to be undertaken outside the general day-time hours set out above: the information will include where the work will take place, the times and durations of planned works and the measures that are being taken to minimise noise levels. On completion of the works at a particular location, the same residents will be informed that the works are complete and noise effects due to trenchless works will cease.

1.2.11 Complaints relating to noise from the construction works will be received and investigated by the Site Contact with the Contractor. If considered necessary due to complaints received and the associated works likely to be ongoing over a future period, the working method / practices and machinery will be reviewed to determine if there is a reasonable alternative solution or mitigating protection measures that could be applied to further reduce noise levels.

1.2.12 The Site Contact will feedback the results of the investigations and any additional measures taken to minimise similar occurrences to the complainant.

Noise management

1.2.13 Best Practicable Means (BPM) will be applied, as far as reasonably practicable, during construction works to minimise noise and vibration at noise sensitive receptors,

including neighbouring residential properties and other sensitive receptors arising from construction activities.

1.2.14 Where possible, noise should be controlled at source whilst taking into account other safety and practical constraints. In particular, the choice of piling technique and equipment will consider using reduced noise emissions where reasonably practicable.

1.2.15 The following management and good practice measures will be put in place through staff training and induction:

- Reference the relevant guidance in BS 5228 which all contractors should be familiar with.
- All equipment will be maintained in good working order and any associated noise attenuation such as engine casing and exhaust silencers shall remain fitted at all times.
- Mobile plant and stationary plant items to be routed or located to maximise separation distance from noise-sensitive receptors (where possible), accounting for site-specific constraints.
- For activities likely to generate the highest noise levels, select quieter plant units where possible as far as is reasonably practical.
- Where flexibility exists, activities will be separated from residential neighbours by the maximum possible distances.
- All plant when not in use is to be switched off and unnecessary revving of engines will be avoided.
- Operate only well-maintained construction plant selected for the specific activity.
- Loading and unloading of vehicles and moving equipment or materials around the site are to be conducted in a manner as to minimise noise generation. Minimise drop height of materials. Vehicles should be switched off when not in use.
- No radios or similar noise-producing entertainment devices to be used outdoors at the Site.
- The use of reverse beepers shall be avoided as far as is practicable with safe operating practices, and equipment with broadband reverse alarms used in preference as much as possible.
- Site personnel to be notified of the location of the nearest noise-sensitive receptors and of the measures put in place to limit disturbance associated with construction noise.
- Provide site-specific induction inclusive of good neighbourly behaviour.

Trenchless work including Horizontal Directional Drilling (HDD)

1.2.16 Locations where HDD will be undertaken would be identified by the Contractor prior to commencement. HDD locations will be chosen to maximise the separation distance with noise-sensitive locations where possible. Drilling locations within the Energy Park site shall not be closer than 300 metres from properties located along the A17 and at least 500 metres from other properties. No HDD will be carried out at locations within 100 metres of any residential property.

1.2.17 Where possible, HDD works within 300m of properties close to the A17, and within 500m of other properties, will be restricted to daytime working hours on weekdays (i.e. 08:00 to 18:00 Monday to Friday or 08:00 to 13:00 on Saturdays) and interrupted at night.

1.2.18 If this is not possible and HDD/ trenchless works is required to continue outside these hours including at night, then the following measures will be applied:

- Communication with affected residents as set out above.
- The duration of these out-of-hours works would be minimised within practical and safety constraints.
- The out-of-hours works should be controlled, if possible, not to exceed a level of 50dB L_{Aeq} at the closest neighbouring residential properties (or 55 dB L_{Aeq} for properties located within 200 metres of the A17). In consultation with the local authorities, noise monitoring may also be undertaken if required to control this in practice.
- If it is not considered possible to control out-of-hours works noise within these limits, the following measures will be investigated:
    - use of alternative techniques such as micro-bore / pipe jacking;
    - use of temporary noise barriers around trenchless compounds in order to provide screening for sources located at low heights (note however that it is likely to be impractical to provide noise barriers that are high enough to screen an entire HDD drilling rig, for example);
    - monitoring noise from the works and interrupting the noisiest drilling work at night;
    - offering affected residents temporary re-housing for the duration of the trenchless works.

Appendix H

APPENDIX H – OUTLINE ARTIFICIAL LIGHT EMISSIONS PLAN

Document Properties		
Regulation Reference	Regulation 5(2)(q)	
Planning Inspectorate Scheme Reference	EN010123	
Application Document Reference	7.7	
Title	Outline Construction Environmental Management Plan – Appendix H – Outline Artificial Light Emissions Plan	
Prepared By	Heckington Fen Energy Park Project Team (Pegasus)	
Version History		
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Rev 1	March 2023	Additional submission – response to s55

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1 OUTLINE ARTIFICIAL LIGHT EMISSIONS PLAN

1.1 CONTROL OF LIGHT – CONSTRUCTION PHASE

1.1.1 The detail of the construction phase is written with reference to **Chapter 4 - Proposed Development** (document reference 6.1.4) and **Figure 4.3 - Indicative Phasing Plan** (document reference 6.2.4).

1.1.2 Construction temporary site lighting, in the form of mobile lighting towers with a power output of 8 kilo vol-amperes (kVAs), will be required in areas where natural lighting is unable to reach (sheltered/confined areas) and during core working hours within winter months, artificial lighting would be provided to maintain sufficient security and health and safety for the Order Limits, whilst adopting the mitigation principles to avoid excessive glare and minimise spill of light to nearby receptors (including ecology and residents) outside of the Order Limits as far as reasonably practicable.

1.1.3 All construction lighting will be deployed in accordance with the following recommendations to prevent or reduce the impact on human and ecological receptors:

a. The use of lighting will be minimised to that required for safe site operations;
b. Lighting will utilise directional fittings to minimise outward light spill and glare (e.g. via the use of light hoods/cowls which direct light below the horizontal plane, preferably at an angle greater than 20 degrees from horizontal)
c. Lighting will be directed away from all identified ecological receptors to ensure:
- No lighting to spill onto identified bat sites or potential bat roosts
- No lighting to spill on to identified important foraging areas in particular wet and water filled drainage ditches and close to derelict farm buildings.

d. Lighting will be directed towards the interior of the Order Limits rather than towards the boundaries.

1.2 CONTROL OF LIGHT – OPERATIONAL PHASE

1.2.1 There is no requirement for any artificial lighting within the ground mounted solar panels or security fencing within the Energy Park once they are operational. The proposed lighting associated with the CCTV cameras on the fence line will be infrared. There is also no requirement for operational artificial lighting along the Offsite Grid Route Corridor. Bicker Fen Substation (which is a National Grid operated asset) already has artificial lighting within its compound. This lighting will continue to operate for operational life of the proposed Energy Park at Heckington Fen. National Grid have not advised that further artificial lighting will be required within Bicker Fen Substation because of the operation of the Heckington Fen Energy Park but in the event that operational lighting was required for the Heckington Fen bay, it would be similar in nature to that already installed and would be limited to what is necessary for the safe operation of the Bicker Fen Substation.

1.2.2 Within the Onsite Substation at the Energy Park there will be a requirement for artificial lighting. Artificial lighting would be provided to maintain sufficient security and health and safety for the Onsite Substation, whilst adopting the mitigation principles to avoid excessive glare and minimise spill of light to nearby receptors (including ecology and residents) outside of the Order Limits as far as reasonably practicable. Due to the central location of the Onsite Substation within the Energy Park the risk of light spill for any local residents is minimal. This will only be required at night or low light levels to ensure health and safety requirements are achieved. The lighting will be manually switched on and only to be operational when maintenance staff are active within the Onsite Substation.

1.2.3 Within the Energy Storage System (ESS) area on the Energy Park it is proposed that there will be mobile artificial lighting which will be moved around the ESS as needed for maintenance purposes and/or if needed for the health and safety of workers within this area. These temporary lights would not be operational at times when workers are not within the ESS.

1.2.4 All operational lighting will be deployed in accordance with the following recommendations to prevent or reduce the impact on human and ecological receptors:

a. The use of lighting will be minimised to that required for safe site operations;
b. Lighting will utilise directional fittings to minimise outward light spill and glare (e.g. via the use of light hoods/cowls which direct light below the horizontal plane, preferably at an angle greater than 20 degrees from horizontal);
c. Directed away from known and potential bat roosts and away from identified bat foraging areas.
d. Lighting will be directed towards the interior of the Order Limits rather than towards the boundaries.

Appendix I

APPENDIX I – OUTLINE WATERCOURSE CROSSING METHOD STATEMENT

Document Properties		
Regulation Reference	Regulation 5(2)(q)	
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1 OUTLINE WATERCOURSE CROSSING METHOD STATEMENT

1.1 INTRODUCTION

1.1.1 This report provides an outline of the current proposed methodology for the intended procedure for construction/operational traffic to cross a watercourse. It also outlines the current proposed methodology for the laying of new electrical cabling required for the proposed Energy Park at Heckington Fen (the "Proposed Development") at the points where they cross an existing watercourse.

1.1.2 It is proposed that all the new cabling for the Proposed Development will be buried below ground. The necessary cabling is split into two main areas - (1) within the Energy Park, and (2) within the Offsite Cable Route Corridor whereby the new high voltage cabling will run from the Energy Park to the new generation bay at Bicker Fen substation.

1.2 CONSTRUCTION AND OPERATIONAL TRAFFIC

1.2.1 The Energy Park site comprises of arable, agricultural land subdivided into rectilinear parcels by long linear drainage ditches that lie principally north-south, connected east-west by shorter ditches including Labour in Vain Drain.

1.2.2 The ditches have an engineered profile, colonised in part by emerging aquatic plant species. The Energy Park is bounded by Head Dike to the north and a smaller watercourse to the east. The locations of all of the drainage ditches within the Energy Park site are shown in Figure 2.1: Indicative Site Layout (document reference 6.2.2) within the Environmental Statement (ES).

1.2.3 Within Figure 4.2 Indicative Drill (or similar technology) Locations (document reference 6.2.4) the locations of the ditches managed by Black Sluice Internal Drainage Board (BSIDB) are identified. The remainder of the ditches within the Energy Park are managed by the landowner for land drainage.

1.2.4 In order to enable the current agricultural practice to take place within the Energy Park site there are a series of existing culverts crossing over these ditches. Farm access tracks utilise these crossing points. It is the current proposed intention that both construction and operational traffic shall move about the Energy Park site using these existing crossing points and culverts. The internal access track design will utilise these existing crossing points so far as possible.

1.2.5 If required, during the construction and operation phases of this Energy Park site, these culverts will be repaired and replaced.

1.2.6 It is currently proposed that there will need to be the creation of 2No. new culverts and the minor widening to an existing culvert within the Energy Park. These are:

- At the new access point into the Energy Park site;
- To the southeast of the eastern section of woodland – needed for the new security fence only; and
- Crossing an existing farm owned and maintained culvert to allow construction traffic to deliver the largest components for the Energy Storage System (ESS) and Onsite Substation.

1.2.7 These locations are shown on Figure 1 of this Appendix.

1.2.8 There is currently the potential of 1No. culvert to be widened on land within the Offsite Cable Route Corridor. This culvert widening is not for traffic movements but may be required if the cable entry into Bicker Fen requires an angle and depth of Horizontal Directional Drilling (HDD) that is not achievable due to space constraints and assets in this area.

- Crossing a Black Sluice Internal Drainage Board maintained drain located West of Bicker Fen near to the assigned connection Bay.

1.2.9 Construction and operational traffic required for the Offsite Cable Route Corridor will use existing highways and farm tracks to move about. To the extent further culverts are needed or works are needed to existing drainage infrastructure, this is provided for by the powers in Schedule 1 of the DCO under 'Further Associated Development'; if the works affect an ordinary watercourse, main river, or drainage authority infrastructure, these works will be subject to the procedure and approval mechanisms in the protective provisions included within the DCO.

1.3 LAYING OF CABLING

1.3.1 Within the Energy Park site there are a proposed 42No watercourse and drainage ditch crossing locations. These are shown on Figure 4.2 Indicative Drill (or similar technology) Locations (document reference 6.2.4). Of these 42No. crossings, 16No. are crossing an IDB asset, the remaining are crossing drainage ditches which are maintained by the landowner.

1.3.2 Within the Offsite Cable Route Corridor there are a further 20No. indicative locations where either a watercourse or a drainage ditch will need to be crossed to lay the necessary cabling. Of these 20No. locations 8No. are IDB assets. In addition to these 8No. IDB assets, indicative drill location A9 is to pass under the South Forty Foot Drain. The South Forty Foot Drain is also a Local Wildlife Site (LWS). Figure 4.13 – Indicative HDD Crossing Sections (document reference 6.2.4) shows three HDD scenarios. One of these is the proposed HDD crossing design for South Forty Foot Drain. The ES has considered the crossing requirements at each of these indicative drill locations. These locations have been determined either through the findings of baseline assessments for the EIA or design conclusions. As it is the intention that all cabling from the Proposed Development will be underground the ES has considered the crossing requirements at each of these indicative drill locations.

1.3.3 Cabling within the Energy Park and the Offsite Cable Route Corridor is subject to detailed design and the crossing locations and number are indicative at this time. The final locations will depend on the results of ground investigations and final detailed design.

1.4 PROPOSED TECHNOLOGY

1.4.1 Tables 4.2a and 4.2b within Chapter 4 of the Environmental Statement (document reference 6.1.4) indicate the locations of the watercourse/ditch crossings and the proposed design solution for crossing them. This information links to Figure 4.2 Indicative Drill (or similar technology) Locations (document reference 6.2.4).

1.4.2 The 3No. main design solutions for crossing the watercourses/drainage ditches are:

- HDD or similar trenchless technology
- Dam and Pump
- Open Cut

1.4.3 Examples of a typical directional drill crossing section is included at Figure 4.13 – Indicative HDD Crossing Sections (document reference 6.2.4). Crossing watercourses may

be possible using a dam and pump method, and an example of this is shown at Figure 4.14 – Watercourse Crossing Configuration (Dam and Pump Method) (document reference 6.2.4). Lastly an example of an open cut for a road crossing, is included at Figure 4.15 (document reference 6.2.4). For each location where a directional drill may be required a launch pit will have to be created to ensure the equipment can be used safely and the cable installed correctly. The maximum extent of these launch pits would be 30m x 30m which is anticipated for major crossings within the Offsite Cable Route Corridor (Figure 4.9: Indicative Launch Pit design (document reference 6.2.4)).

Horizontal Directional Drilling (HDD)

1.4.4 HDD's (or similar technology) are utilised within the Energy Park and the Offsite Grid Route Corridor design in order to overcome a number of crossings including those considered within this method statement. Further detailed investigation is required at the indicative locations in order to determine the exact nature of the HDD drills. This will be through the engagement of a specialist HDD contractor and subsequent specialist survey post consent.

1.4.5 HDD, as the name suggests, has a directional control component that makes the system useful to the buried services and utility industries. This directional control is achieved using specially designed drill head location technology.

Technology Description

1.4.6 HDD is a multi-phase operation which uses a special design drilling rig which initially bores a pilot hole through the ground along a pre-determined route. The pilot bore is then expanded as necessary using various sizes and types of back-reamers to enlarge the pilot bore to the final diameter into which the cable duct will be installed. This expansion process can be completed in stages depending on how large the duct is. Normally the final diameter of the bore is between 30-50% larger than the duct that is to be installed.

1.4.7 Once the final diameter is achieved, a final back reamer is attached to the drill string which is attached via a swivel. The duct is attached with a Dee Shackle. The final pull-in installs the duct into the bore to complete the process.

1.4.8 A HDD set up comprises of a suitable HDD rig size to be able to undertake the job in hand equipped with sufficient drill rods for the length of the bore required along with a suitable drill bit for the ground conditions and bore expansion back reamers to provide the correct diameter into which the product pipe or cable will be installed.

1.4.9 The selection of drilling rig is totally dependent on the ground conditions and type, the length and diameter of the bore and the product type being installed.

1.4.10 It is usual for the drilling process to be supported using a drilling fluid system which is pumped down the drill rods to the drill head. The drilling fluid may, on shorter bores, simply comprise a flow of water. Often the drilling fluid is a specially formulated drilling mud comprising a mixture of water/bentonite/polymer additives[1] depending on the project circumstances.

[1] Bentonite is widely used in civil engineering, often in the form of clay; bought in the form of a powder and then mixed with water, to become a clay. Within this clay, you can find very small particles that allow bentonite to make the ground waterproof. Another property of bentonite is its high viscosity. Bentonite becomes viscous in combination with water, it can absorb liquids, and as a solution it can acquire the characteristics of a gel, which makes it easy to deform and move. Bentonite is very useful as drilling fluid. It is mainly used to keep the borehole open and to transport the soil or sand from the borehole to the surface. A bentonite mixture can be thick or thin (thin usually used for sandy soils, and a thicker mixture for gravels). In addition, the thicker solution can be used as a kind of lubricant to allow steel tubes to slide through the soil, potentially for several kilometres.

1.4.11 This fluid is usually designed for three main purposes:

- Flushing the drill cuttings out of the bore during the pilot boring operation and keeping the cuttings in suspension whilst the cuttings are transported out of the bore.
- Lubricating the bore and creating a filter cake for stabilisation of the bore walls.
- Cooling of the drill bit during the pilot boring operation.

Ground Preparation

1.4.12 Whilst in most cases HDD can be started directly into the ground, if geology is such that there is a possibility of damage or failure of the bore, it may be necessary to prepare the launch site of the HDD rig prior to commencing drilling. A full geological investigation will be completed to avoid complications on site prior to starting work.

Drilling Options

1.4.13 There are generally two options for initiating an HDD bore: Pit launched and Surface Launched (as explained below).

Pit Launched HDD

1.4.14 This option is not as widely used for initiating an HDD bore as surface launched but does have its place in the sector due to the relatively smaller footprint for the site set-up. As the name suggests, this option utilises the HDD machine from within a start pit or shaft.

1.4.15 Where site access is limited but where there is sufficient room to excavate a small shaft, a small dimension drill rig may be positioned in the base of the excavation or shaft. Also by using this method the bore can be started on a level plane orientated more or less in the direction the bore will follow. In most cases this option is used for shorter/smaller diameter bores beneath roads and rail tracks and smaller waterways.

Surface Launched HDD

1.4.16 For surface launched HDDs the drill rig is usually larger and longer than those found in pit launch works. The rig is set up along the direction of the bore and the planned exit position with its drill rack angled between 8° and 30°.

1.4.17 Larger rigs require much larger operating sites and significantly more back-up equipment and consumables so there may be significant logistical obstacles to overcome and to maintain supplies, remove waste and access machinery etc. For this reason the launch site is to be chosen with care in consultation with expert operators.

1.4.18 Longer bores will also require significant ground area on the reception side of the bore to allow for pipeline/cable preparation and lay-out prior to installation, as well as access for the delivery of product and other equipment required during the back reaming/hole opening operations that may be necessary. The logistics of a larger diameter long HDD installation will not be underestimated.

1.4.19 All HDD operations will be carried out in accordance with best practice and relevant Health and Safety Requirements including Avoiding danger from underground services – HSG47.

Dam & Pump

1.4.20 The watercourse/water within the ditch will be diverted temporarily using a suitable method for the type, water flow, and weather conditions. Figure 4.14 – Watercourse Crossing Configuration (Dam and Pump Method) (document reference 6.2.4)

1.4.21 With the watercourse suitably managed, the cable will be installed using open cut techniques.

Open Cut

1.4.22 There are situations where an open cut solution for laying the cable may be possible. Such a scenario is possible when the drainage ditch is dry or when the water flow is suitably diverted. An example of an open cut for a road crossing, is included at Figure 4.15 (document reference 6.2.4).

1.4.23 In dry situations, the need for the control of water is limited to that which may ingress the excavation rather than in relation to the feature itself. Basic dewatering techniques can be put in place to establish a sump within the open trench section or joint bay and simply pump out any water to a suitable disposal point.

1.4.24 However, the fundamental need to open ground for the laying of the cable duct and its correct binding and backfill remains and is all dealt with within the confines of the open cut of the trench excavation itself.

1.5 PROPOSED METHODOLOGY

Pre-Commencement Works

1.5.1 Prior to any works commencing the Applicant or their contractor will liaise with the relevant asset owner or their appointed representative engineer. This is secured via the Protective Provisions contained with the Development Consent Order (Document Reference 3.1). This is in order to obtain permission for the crossing both from an engineering position but also legally via consents for permission to install across the third party asset / easement rights.

1.5.2 In broad terms, the process will involve the owner/asset engineer outlining the parameters of their asset to a level of detail that allows the Applicant to assess the impacts of the proposed crossing. Both parties will then agree the crossing design and the methodology of the installation works. This pre-commencement phase will likely involve on-site liaison to establish the exact locations of both the existing assets and proposed location of the Ecotricity assets, scanning for assets (known as CAT[2] scanning) and pegging out of positions may be required.

Construction Works

HDD

1.5.3 The HDD Drill methodology requires a number of separate operations to complete a successful drill. To enable an estimate of a number of differing length HDDs across the project this report breaks down the elements and timings into the following tasks. The first 5 elements are common to all HDD's whatever the length or location:

- Excavate launch pit
- Excavate receive pit

[2] CAT - Calibrated cable avoidance tools

- Welding of rods 6 x 12m = 72m per day dependent on the length of the drill
- Demobilise drilling rig and associated equipment
- Reinstate drilling pits.

1.5.4 The actual drilling and bore duct installation is estimated to be between 30-50m in 1 day. The timing for drills will therefore be affected by the drill length being first over 50m increments requiring an additional day per each 50m of drilling. In relation to the welding of rods the same incremental additional day will apply over the 72m rod length.

Dam & Pump

1.5.5 The watercourse will be diverted temporarily using a suitable method for the type, water flow and weather conditions. In order to cross the variety of unclassified and private watercourse ditches along the route the proposal is to utilise a standard Dam and Pump methodology or similar for Low waterflow (defined below). The watercourse will be dammed off via a sandbag dam and the waterflow diverted via pump from upstream to downstream.

Temporary Watercourse Diversion:

1.5.6 The weather conditions will be assessed during the time of work and the water flow shall be visually assessed.

- **Low waterflow**: If the waterflow is low the ditch will be dammed either side of the proposed excavation using sandbags. A pump will be set up to take the flow from upstream to downstream of the crossing point. The discharge hose(s) will be directed through a filtering medium to limit silt carry over or bed disturbance before the pumped water is returned to the watercourse. Once the duct installation is complete the excavation would be backfilled and the pump and sandbags removed.
- **High waterflow Option A**: If the waterflow is high the ditch route will be temporarily diverted by excavating a route around the crossing area with the tracked machine. Sandbags will be used to dam the crossing point. Once the crossing is complete the sandbags will be removed, and the diversion would be backfilled.
- **High waterflow Option B**: using temporary "flume" pipes installed in the bed of the watercourse. A flume pipe bridge will be installed, during the preparation of the working width, adjacent to the trench line flume in order to enable passage of plant and materials along the pipeline route. For dry open cut watercourses / ditch crossings a suitably sized flume pipe will be installed over the point of the proposed crossing ensuring that it extends on each side of the trench line crossing point for a suitable distance. The flume pipe will then be bedded and packed or surrounded with soil filled sandbags to create a seal or dam across the watercourse, so that the flume pipes take all the flow. Excavation of the watercourse then proceeds beneath the trench line flume pipe. The excavated material will be stored within the working width separately from the bank material. Trench supports may be used to facilitate safe excavation.

1.5.7 The requirements of a dam and pump ditch crossing are more complex in terms of both application and plant. The need to bring in the materials and plant and build the dams to then complete the project duct install (likely at a deeper depth to pass under the ditch bed than standard) has a time implication for the completion of the crossing.

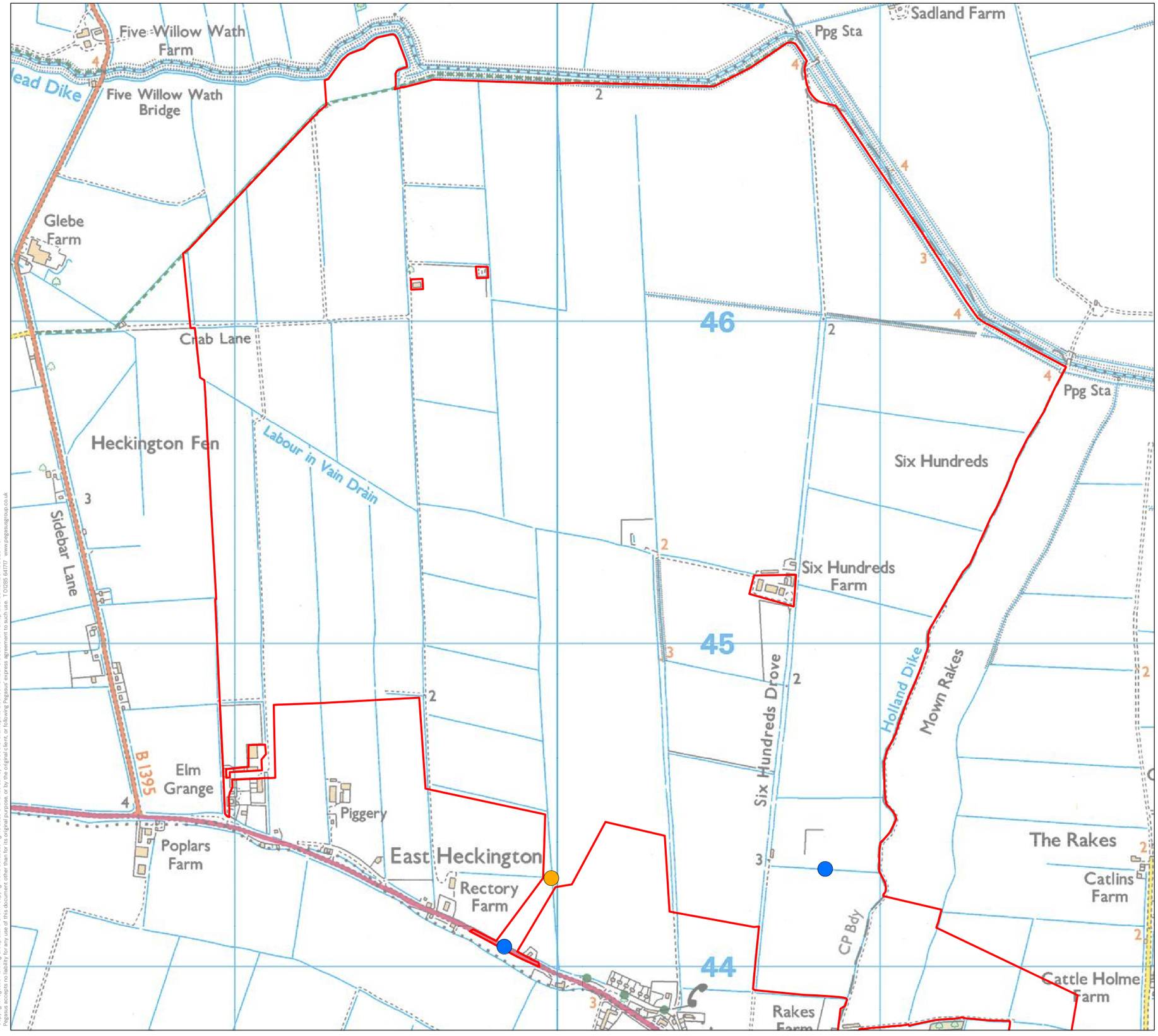
Open Cut

1.5.8 Trench installation methodology:

- Prior to works commencing an up to date set of services search records will be obtained to ascertain current installed services that may be present.
- CAT scan area to identify any live cables and services within the vicinity
- Mark on the ground location of a live cable and services and proposed Offsite Cable Route Corridor
- Open ground and remove the top layer of material with appropriate tools and mechanical excavator
- Dig to the appropriate trench depth
- Trench area to be scanned after every 500mm of excavating
- Install 75mm cement bound sand (CBS) bedding layers for ducts
- Install ducts in trefoil formation
- Ducts blinded to a distance of 75mm above the top ducts with CBS
- Installation of marker boards directly above CBS
- Removal of temporary works
- Reinstatement of ground to original level.

1.5.9 To accomplish an open cut crossing involving services deemed to be hazardous, such as electrical power cables or gas mains, it will be mandated that hand dig tools and techniques are used when in close proximity in order to minimise the risk of damage or disruption to the particular service(s).

Figure 1: Indicative Locations of New and Proposed Extensions to Culverts within the Energy Park Site



KEY

- Order Limits
- Extension of Existing Culvert
- New Culvert

DCO Document Reference: 7.7
APFP Regulation: 5(2)(q)

INDICATIVE LOCATIONS OF NEW AND PROPOSED EXTENSIONS TO CULVERTS WITHIN THE ENERGY PARK SITE

DATE	SCALE	SHEET	REVISION
22/03/2023	1:12,000@A3	-	-

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PEGASUS GROUP

Appendix J

APPENDIX J – OUTLINE CONTAMINATED LAND & GROUNDWATER SCHEME

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1 APPENDIX J - OUTLINE CONTAMINATED LAND & GROUNDWATER SCHEME

1.1 INTRODUCTION

1.1.1 This Outline Contaminated Land and Groundwater Scheme has been prepared by Ecotricity Generation Limited on behalf of Ecotricity (Heck Fen Solar) Limited (the Applicant). This document forms an appendix to the Outline Construction Environmental Management Plan (document reference 7.7) which is secured as a certified document (see Schedule 11) of the draft Development Consent Order (document reference 3.1).

1.1.2 A ground investigation for the Energy Park considered contamination including the collection of 20 soil samples which were subject to chemical analysis. The details are further outlined in the Ground Investigation Report (document reference 6.3.9.2) with none of the samples containing concentrations of metals, metalloids, speciated PAHs or asbestos fibres which exceeded the adopted Generic Assessment Criteria for Public Open Space. Assuming suitable precautions are undertaken, the potential risks to human health and controlled water receptors associated with the identified contaminants during the Proposed Development of the Energy Park is considered low.

1.1.3 The ground investigation report also considered the groundwater at the Energy Park, with groundwater strikes noted in most of the boreholes completed. As noted in the Flood Risk Assessment (document reference 6.3.9.1) soils are described as loamy and clayey floodplain soils of coastal flats with the potential for perched groundwater tables, which sit above the low permeability superficial deposits. Any perched groundwater is contained within the thin soil layer, is not laterally continuous and does not form an aquifer. Should dewatering be required for excavation, for example for the foundations of the substation this would be pumped and discharged where appropriate on site, likely vegetated surfaces. A Surface Water Drainage Strategy is outlined in the Flood Risk Assessment (document reference 6.3.9.1).

1.2 CONTAMINATED LAND

1.2.1 In general terms, contaminated land usually means land where industrial or other human activities have resulted in the presence of substances in the ground with potential to cause harm to human health, structures, or the environment.

1.2.2 The Proposed Development is considered a greenfield development on agricultural land.

1.2.3 A ground investigation including the collection of 20 soil samples has been completed on the Energy Park site (document reference 6.3.9.2). These were subject to chemical analysis, whereby none proved concentrations which exceeded the adopted Generic Assessment Criteria for Public Open Space. These tested for:

- metals,
- metalloids,
- speciated PAHs; and
- asbestos fibres

1.2.4 Based on the findings of the investigation no remedial works are considered necessary. However, based on the findings, a number of precautionary recommendations which should be considered, have been made:

- It is recommended that during any groundworks, appropriately licenced contractors should be appointed;

- Personal Protective Equipment (PPE) should be worn as necessary by groundworkers;
- A safe system of work should be established prior to commencement;
- In the event that any unforeseen gross or widespread contamination is encountered on site, an appropriately qualified contaminated land specialist should be contacted; and
- Specialist contractors should be employed as necessary to advise on the management of unexpected contamination.

1.2.5 Assuming these precautions are undertaken, the potential risks to human health and controlled water receptors associated with the identified contaminants during the Proposed Development of the site are considered low.

1.2.6 Should contaminated land be found during construction a specialist would:

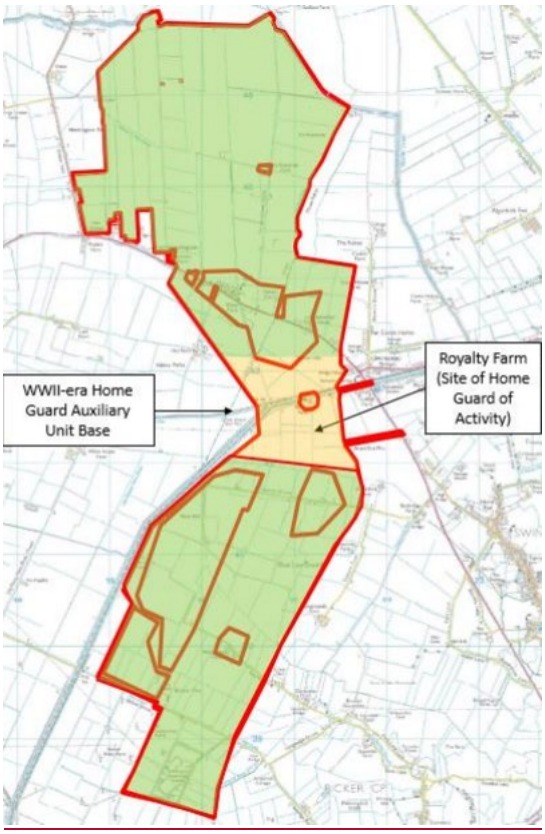
- Attend the site
- Examine the potentially contaminated materials
- Take soil samples if required
- Provide specialist advice
- Record and communicate the above with the relevant Local Planning Authority (LPA)
- Agree an appropriate course of action with the site manager.

1.2.7 Prior to submission of the Development Consent Order, 962 trenches were dug across the Energy Park to check for archaeology. No evidence of ground contamination was noted during this investigation. An expended shotgun cartridge was recorded in one of the trenches. Prior to the construction of the cable route, trial trenching is proposed to take place in land along the Offsite Cable Route Corridor. Any contamination noted during the trenching works will be logged for future reference.

1.2.8 The Offsite Cable Route Corridor and the Energy Park are predominantly open agricultural fields with some crossings of assets required. The new generation bay at Bicker Fen Substation is within grassland. The risk of contamination across the Proposed Development is considered low.

1.2.9 An Unexploded Ordnance desktop study has been completed for the Proposed Development and noted, on the whole, a low risk of unexploded ordnance (document reference 6.3.18.1). The exception to this is an area of medium risk in proximity to Royalty Farm, either side of the South Forty Foot Drain as shown below:

Plate 1: Unexploded Ordnance, green is low risk; yellow is medium risk



1.2.10 Works within the medium risk area will follow recommendations provided in the UXO Report for open intrusive works:

- Specialist onsite support, or
- Magnetometer survey and targeted investigation – noting this is not practical in all locations due to, for example, terrain or ground conditions.

1.3 GROUNDWATER SCHEME

1.3.1 Based on the findings of the Ground Investigation Report (document reference 6.3.9.2), groundwater may be encountered within shallow excavations at the Energy Park, at an approximate depth of between 1.05m and 3.5m bgl. Excavations are likely to act as a sump, potentially requiring dewatering. This should be taken into consideration when planning any excavation work.

1.3.2 An Outline Surface Water Drainage Strategy is included in the Flood Risk Assessment (6.3.9.1) whereby a 'low-key' approach is considered appropriate, in the form of:

- grassed swales within the field parcels containing the solar panels (i.e. to intercept and store surface water run-off and facilitate infiltration (subject to ground conditions));
- surface water balancing ponds/holding tanks within the On-site substation and energy storage compound.

1.3.3 For the anticipated construction activities, as detailed in Chapter 4 – Proposed Development of this ES (document reference 6.1.4), the ground surface is expected to remain above the groundwater. The completed ground investigation did encounter shallow groundwater perched within sands and gravels of the tidal flat deposits at depths of 2.5-

3.0mbgl, however, these groundwater bodies are considered to be limited in extent and volume. It is unlikely that substantial groundwater would be encountered for the majority of the works as the main groundwater body is anticipated to be >70 metres below ground level (mbgl) within the confined Kellaways Formation Aquifer.

1.3.4 Compaction of the ground caused by construction and an increase in the extent of impermeable surfaces associated with access roads and compound areas, have the potential to impact upon the rate of surface water infiltration. However, given that the underlying superficial deposits and bedrock largely constitute low permeability, unproductive aquifers, infiltration rates are not expected to be significantly affected by areas of increased hardstanding across the site.

1.3.5 Effects on groundwater quality could result from excavations and earthworks as well as spillages and leaks of fuels, oils and chemicals. This could result in potential pollution to any underlying aquifers. This may arise from runoff associated with construction activities (e.g. through generation of silt borne run-off during groundworks and accidental spills and leaks from construction plant).

1.3.6 During future piling activities associated with the Proposed Development (standard depth of 3m assumed), groundwater quality of the aquifer units may be affected where there is potential to generate viable pollutant pathways between the superficial deposits and bedrock groundwater.

1.3.7 Shallow soft clays have been identified across much of the site which would seal around the piled steel poles and reduce the potential for them to act as a vertical pathway to the underlying aquifers.

1.3.8 The potential impacts of spillages of fuels, oils and chemicals or sediment run off during construction would be controlled by the Construction and Environmental Management Plan for which this document would be appended. This is secured through a requirement in the Development Consent Order, and the outline Construction Environmental Management Plan is as a certified document as noted at Schedule 11 of the draft Development Consent Order (document reference 3.1).

1.3.9 All fuel and oil will be stored within a specified area of the construction compound. The storage will either be integrally bunded, or utilise an external bund. The bund will be impermeable to water and oil. Any contaminated run-off within the bund will be disposed of at an appropriate waste management facility. Similarly, any used (contaminated) spill kits, absorbent granules, sheets or fibres will be disposed of in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations.

1.3.10 In order to mitigate the potential adverse effects on the water environment, a number of measures will be implemented throughout the construction, operation and decommissioning phase, as required, these are as follows:

- Best practice working methods to prevent both water pollution and adverse impacts upon the surface water drainage regime;
- Precautions to prevent silt laden run-off, arisings or chemicals entering watercourses – this could include restricted working during periods of heavy rain and the installation of silt fencing, if required;
- Any surface water potentially contaminated by hydrocarbons would be passed through oil interceptors prior to discharge;
- Appropriate storage of hydrocarbons and petrochemicals in accordance with COSHH Regulations 2002 and Control of Pollution (Oil Storage) (England) Regulations 2001;
- A management system would be in place to adequately manage works within the floodplain and in the vicinity of flood defences;

- Where required, cables would be laid at a sufficient depth beneath watercourses/drains to avoid causing damage to the integrity of embankments during installation;
- Should dewatering be required, for example where areas are excavated for foundations of the substation, or control room these would be pumped and discharged where appropriate on site, likely vegetated surfaces; and
- Wheel cleaning is proposed to be a dry clean, rather than a vehicle washing facility, however should this become a requirement then the water will be pumped into a licenced carrier and disposed of off-site or discharged to vegetation if the quality meets Environment Agency requirements.

Appendix K

APPENDIX K – OUTLINE SITE WASTE AND MATERIALS MANAGEMENT PLAN

Document Properties		
Regulation Reference	Regulation 5(2)(q)	
Planning Inspectorate Scheme Reference	EN010123	
Application Document Reference	7.7	
Title	Outline Construction Environmental Management Plan – Appendix K- Outline Site Waste and Materials Management Plan	
Prepared By	Heckington Fen Energy Park Project Team (Ecotricity)	
Version History		
Version	**Date**	**Version Status**
Rev 1	March 2023	Additional submission – response to s55

TABLE OF CONTENTS:

1 OUTLINE SITE WASTE & MATERIALS MANAGEMENT PLAN

1.1 INTRODUCTION

1.1.1 This Outline Site Waste and Materials Management Plan (OSWMMP) has been prepared on behalf of the Applicant (Ecotricity (Heck Fen Solar) Limited) by Ecotricity Generation Limited. The aim is to outline how any waste produced will be managed during the construction and operation activities associated with the construction of the Heckington Fen Solar Park. This includes the proposed Energy Park, the grid connection to, and extension works at Bicker Fen Substation.

1.1.2 The exact roles and responsibilities described in the Plan are subject to the appointment of a Contractor and may change. The SWMMP will be finalised (broadly in line with the OSWMMP) by the Contractor prior to the commencement of construction taking into account a detailed scheme design and more precise information about construction methods and phasing, including the exact cable location within the Offsite Cable Route Corridor.

1.1.3 The SWMMP will be reviewed periodically and be available on site during the works.

1.1.4 The SWMMP will:

- Identify personnel with waste management responsibilities;
- Describe the proposed works;
- Outline opportunities for waste minimisation/reuse in line with the requirements of the waste hierarchy;
- Review any outline decisions taken to minimise the amount of waste produced on site; and
- Provide a forecast of waste types and estimated arisings and outline how they will be managed.

1.1.5 An overview of the content of this OSWMMP is:

- Introduction – provides background information about this document and its content;
- Project Description - provides details of the Proposed Development including outline construction details;
- Legal Requirements - outlines the legislative requirements and context for the provision of a SWMMP;
- Management Arrangements Review - sets out the key individuals involved in the construction of the Proposed Development relevant to the delivery and management of the Site Waste and Materials Management Plan;
- Waste Estimation and Design Decisions - provides an estimation of the type and quantity of waste to arise from the Proposed Development;
- Waste Management - sets out potential management measures to be undertaken during construction to minimise the amount or quantity to arise.

1.2 PROJECT DESCRIPTION

1.2.1 The proposed development comprises a number of parts, but can be summarised into three main sections:

- The 'Energy Park' which includes the solar panels, energy storage and associated equipment on the main site listed below;

- The Grid Connection; and
- Extension works at National Grid's Bicker Fen Substation.

1.2.2 The below table includes a structure to summarise the application for the SWMMP; the final detail will be confirmed for, and populated in, the SWMMP. The table may be broken down further to reflect each phase of construction to be defined in accordance with the Phasing Plan to be submitted pursuant to Requirement 3 of the Development Consent Order (document reference 3.1):

Table 1: Project Details

Project Component Summary	Description	Further Detail
Energy Park – comprising solar panels, energy storage, onsite substation, and associated infrastructure, including landscaping and community orchard Heckington Fen, East Heckington, Lincolnshire – approximate site centre: 520456, 345375 Site area – approximately 524ha	Start date – TBC	LPA – North Kesteven District Council – contact 01529 414155
	Completion date – TBC	Site Manager – TBC Design Team Manager - TBC
	Representative responsible for Site Waste and Material Management – TBC	Contractor – TBC
	Location of SWMMP – TBC	Sub-Contractor (if required) - TBC
	Document controller - TBC	Client – Ecotricity (Heck Fen Solar) Limited – contact TBC
Cable Route – comprising a corridor for laying the cable, construction compounds and all accesses to the work areas Land lying with the jurisdiction of Boston Borough Council, running from the eastern boundary of the energy park, crossing Viking Link, Triton Knoll twice, A17, the railway, the high-pressure gas pipeline, various watercourses and	Start date – TBC	LPA – Boston Borough Council – contact 01205 314200
	Completion date – TBC	Site Manager – TBC Design Team Manager - TBC
	Representative responsible for Site Waste and Material Management – TBC	Contractor – TBC
	Location of SWMMP – TBC	Sub-Contractor (if required) - TBC

Project Component Summary	Description	Further Detail
other infrastructure to Bicker Fen Substation in the south. Site area – approximately 120ha	Document controller - TBC	Client – Ecotricity (Heck Fen Solar) Limited – contact TBC
Extension at Bicker Fen Substation – comprising a generation bay, laydown area, access track and associated infrastructure Land lying to the south and west of Bicker Fen Substation, with a laydown area in the north east of the site. Site area – approximately 5ha Contact details for National Grid representative also be included.	Start date – TBC	LPA – Boston Borough Council – contact 01205 314200
	Completion date – TBC	Site Manager – TBC Design Team Manager - TBC
	Representative responsible for Site Waste and Material Management – TBC	Contractor – TBC
	Location of SWMMP – TBC	Sub-Contractor (if required) – TBC
	Document Controller - TBC	Client – Ecotricity (Heck Fen Solar) Limited – contact TBC

1.3 LEGAL REQUIREMENTS

1.3.1 'Waste' is defined as materials that are unwanted, having been left over after the completion of a process which would otherwise be discarded. The legal definition of waste also covers substances or objects, which fall outside of the commercial cycle or out of the chain of utility. In particular, most items that are sold or taken off site for recycling are wastes, as they require treatment before they can be resold or reused.

1.3.2 In practical terms, wastes can include surplus spoil, scrap, recovered spills, unwanted surplus materials, packaging, office waste, wastewater, broken, worn-out, contaminated or otherwise spoiled plant, equipment and materials.

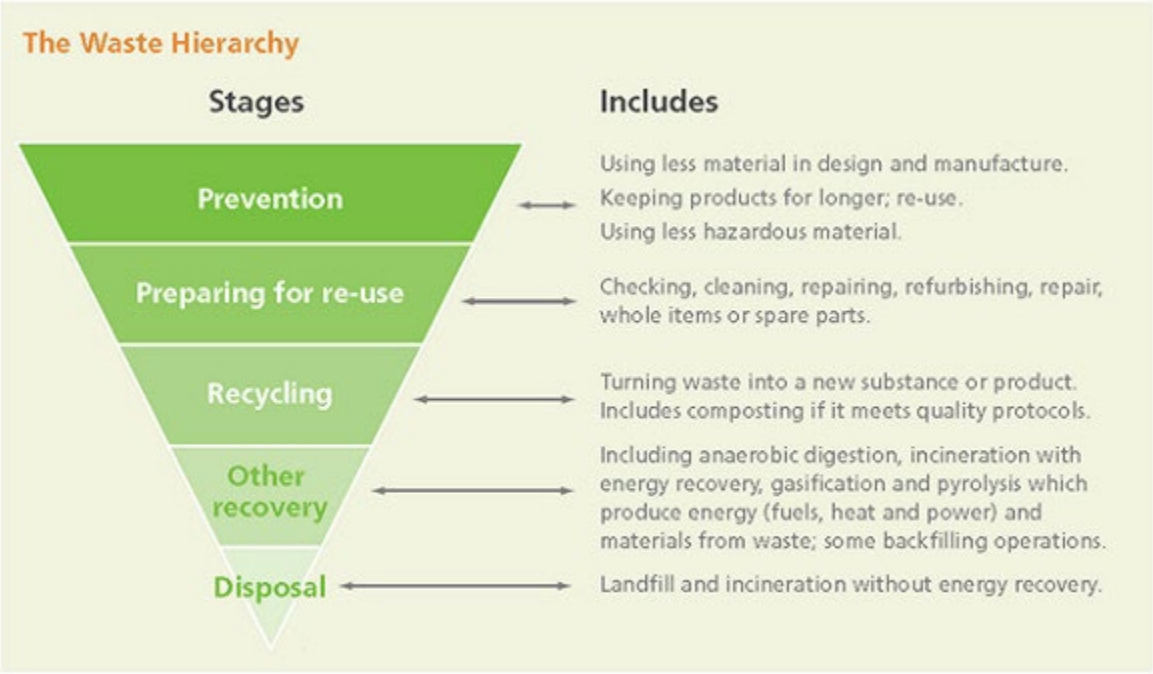
1.3.3 Waste minimisation is the process of reducing the quantity of such materials arising, requiring processing and/or disposal.

1.3.4 The priority at the Proposed Development will not be producing waste in the first place. To do this, the waste implications of the proposals need to be considered at the earliest possible stage.

1.3.5 The Overarching National Policy Statement for Energy (EN1)[1] considers Waste Management at 5.14 and the draft Overarching National Policy Statement for Energy (Draft EN1)[2] considers Resource and Waste Management at 5.15.

1.3.6 EN1 notes at 5.14.2, sustainable waste management is to be implemented through the waste hierarchy setting out the priorities that must be applied when managing waste. This is also reflected at 5.15.2 of Draft EN1 and shown below in **Plate 1- Waste Hierarchy** below.

Plate 1- Waste Hierarchy



1.3.7 EN1 notes that the disposal of waste should only be considered where other waste management options are not available or where it is the best overall environmental outcome.

1.3.8 Draft EN1 notes where possible applicants are encouraged to source materials from recycled or reused sources and use low carbon materials, sustainable sources and local suppliers. Furthermore, applicants are encouraged to use construction best practices in relation to storing materials to prevent waste. The use of Building Information Management tools to record the materials used on construction can help to reduce waste during the decommissioning phase.

1.3.9 EN1 notes that the applicant should set out the arrangements that are proposed for managing any waste produced and prepare a Site Waste Management Plan (the Outline being this report). The arrangements described and Management Plan should include information on the proposed waste recovery and disposal system for all waste generated by the development, and an assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation. The applicant should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that this is the best overall environmental outcome.

[1] Department of Energy & Climate Change, (2011); Overarching National Policy Statement for Energy (EN-1).
[2] Department of Energy & Climate Change, (2021); Draft Overarching National Policy Statement for Energy (EN-1)

1.3.10 The Waste Framework Directive (WFD) 2008/98/EC[3] is the legislative framework for the collection, transport, recovery and disposal of waste across the European community. The revised Directive (2018)[4] introduces new provisions in order to boost waste prevention and recycling through the adoption of the 'Waste Hierarchy', as the guiding principle to sustainable waste management.

1.3.11 In addition, Schedule 1 of the Waste (England and Wales) Regulations 2011 (as amended 2014)[5] translates the provisions of the Waste Framework Directive into legislation and require waste prevention programmes and waste management plans that apply the 'Waste Hierarchy'.

1.3.12 The Waste Management Plan for England (2021)[6] is a high-level strategy that supports the implementation of the objectives and provisions set out within the revised Waste Framework Directive, specifically Article 28 which requires that Member States must establish one or more waste management plans covering their territory.

1.3.13 The Waste (England and Wales) 2011 Regulations (as amended 2014) require that everyone involved in waste shall take all reasonable measures to apply the waste hierarchy except where, for specific waste streams, departing from the hierarchy is justified.

1.3.14 The Waste Hierarchy will be adopted throughout the construction, operation and decommissioning phases of the Proposed Development, and the producers and holder of waste will be required pursuant to the Waste (England and Wales) Regulations 2011 (as amended 2014), and formally under Section 34 of the Environmental Protection Act (1990)[7] to:

- Prevent illegal disposal, treatment or storage of waste;
- Handle their waste safely;
- Know whether the waste is hazardous or non-hazardous;
- Store waste securely in a manner that prevents release of the waste;
- Provide an accurate written description of the waste in order to facilitate the compliance of others with the Duty and avoidance of the offences under Section 33 of the Environmental Protection Act 1990: via a compulsory system of Controlled Waste Transfer Notes (WTNs) which controls the transfer of waste between parties; and
- Ensure anyone dealing with their waste has the necessary authorisation.

1.3.15 The Hazardous Waste Regulations (England and Wales) 2005 (amended in 2016)[8] places a requirement on the producer of the waste to:

- Classify the waste;

[3] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste and repealing certain Directives (Waste Framework Directive).
[4] Directive 2018/851/EC of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste (Waste Framework Directive).
[5] HMSO (2011) The Waste (England and Wales) Regulations 2011. (as amended by The Waste (England and Wales) (Amendment) Regulations 2014
[6] Department for Environment, Food & Rural Affairs, (2021); Waste Management Plan for England, 2021.
[7] HMSO (1990) Environmental Protection Act 1990.
[8] HMSO (2016) The Hazardous Waste (England and Wales) (Amendment) Regulations 2016.

- Separate hazardous waste from other general waste streams;
- Use authorised businesses to collect, recycle or dispose of your waste; and
- Complete relevant hazardous waste consignment note.

1.3.16 Under the Control of Pollution (Amendment) Act 1989[9] it is a criminal offence for anyone not registered as a carrier, to transport controlled waste.

1.4 MANAGEMENT ARRANGEMENTS REVIEW

1.4.1 Prior to construction commencing in a relevant phase, Table 1 would be updated with details of the relevant contacts – for example: Client Representative; Design Team Manager; Site Manager; Document Controller; and Individual Sub-Contractor details.

1.4.2 The CEMP and SWMMP will be shared with the Contractor and Sub-Contractor prior to work commencing on site. Compliance with the measures in these plans would be a pre-requisite of appointment for the Contractor.

1.4.3 Furthermore, SWMMP requirements will be incorporated into the site induction and the Contractor will provide on-site instruction of appropriate separation, handling, recycling, re-use and return methods to be used by all parties' at all appropriate stages of the project.

1.4.4 All personnel working on the site including sub-contractors will be inducted. Induction will include showing personnel the available recycling arrangements.

1.4.5 Tool-box talks on waste and materials management will be completed monthly (or as appropriate) for all site personnel including sub-contractors.

1.4.6 An explanation of the SWMMP will also be included as part of the site induction process.

1.5 WASTE ESTIMATION AND DESIGN DECISIONS

1.5.1 At the current stage, insufficient design information is available to make accurate estimates of waste types and quantities. Estimates will be included in subsequent versions of the SWMMP as information becomes available and updated to include actual data as the project progresses.

1.5.2 The principles of the waste hierarchy (prevent, reduce, reuse, recycle, recover, disposal) will be applied to ensure best practice on site and to sustain high levels of sustainability in the development of the Proposed Development.

Reuse

1.5.3 Ideally materials could be re-used in their current state and form. All soil materials excavated will be stockpiled and reused on site. Waste water from dewatering will be reused on vegetation. Waste water for cleaning activities will be reused, unless contaminated, in which case it will be handled accordingly (e.g. contamination identified, and tankered offsite if necessary).

Recycling

[9] HMSO (1989) Control of Pollution (Amendment) Act 1989

1.5.4 The aim is to re-use materials on site by recycling them into an alternative form that can be used for any construction purposes (for example aggregate or other inert wastes for road construction material or sending green waste for composting). By recycling on site as far as practicable, carbon emissions are reduced from taking materials away from the proposed development.

Recovery

1.5.5 This generally aims to recover energy from waste which cannot be otherwise reused or recycled. It is expected that this will include any waste materials such as hazardous liquids or solids which could be sent to energy from waste plants.

Disposal

1.5.6 The least preferred option is where the waste stream would be subject to a final disposal route such as landfill. Some waste streams will inevitably end up with such a solution. The placing of waste disposal contracts will, where possible, consider the implications of long distance travel in terms of health and safety risk, commercial terms and increased emissions from vehicles. Wherever possible, contracts are to be awarded as locally as possible.

1.6 WASTE MANAGEMENT

Opportunities for Waste Minimisation

1.6.1 The following potential opportunities for waste minimisation have been identified at this stage.

Design Stage

1.6.2 Waste materials expected to be generated will be evaluated for recycling or reuse on site. Pre-fabrication will be used where appropriate.

Construction Stage

1.6.3 Waste materials can be generated during the site preparation stage of construction and during the installation of infrastructure and erection of buildings.

1.6.4 The majority of construction equipment will be delivered to the Proposed Development for assembly and installation (mounting structures) and connection (solar panels).

1.6.5 Exact quantities and types of waste likely to be generated during the construction phase are unknown, however it is expected that waste streams could include:

- Welfare facility waste;
- Waste chemicals, fuels and oils;
- Waste metals (iron and steel);
- Waste water from dewatering of excavations;
- Waste water from cleaning activities (e.g., wheel wash);
- Packaging; and

- General construction waste (paper, cardboard, wood, etc.).

1.6.6 Destinations of the above waste streams would be, where applicable, through recycling plants, landfill sites for construction and demolition waste and landfill for hazardous waste. Local recycling plants are available at Boston and Sleaford.

1.6.7 The generation of construction-related waste can be significantly reduced through the choice of materials and other opportunities pre-construction phase will be explored as far as possible. Possibilities to reuse or recycle materials will be explored before resorting to landfill options.

1.6.8 Construction operations will also generate waste materials as a result of general handling losses and surpluses and these wastes can be mitigated through good site practices, including proper storage and handling of materials to avoid damage, and accurate quantity estimates and efficient purchasing arrangements to avoid over ordering.

1.6.9 Design considerations will seek to minimise wastage from the construction phase and are likely to follow these approaches:

- Maximise the use of reclaimed materials in the construction;
- Maximise recycling opportunities in the decommissioning phase (further details below);
- Use prefabricated and standardised components in the standard product sizes (e.g., panels, mounting structures). As these are made in factory-controlled environment, they tend to generate less waste and if standard product sizes are made use of, this minimises wastage on site.
- Segregation of construction waste on site to maximise potential for reuse/recycling;
- Use of suppliers who collect and reuse/recycle packaging materials;
- The off-site separation and recycling of materials where on-site separation is not possible; and
- Training of contractors in waste minimisation and materials reuse.

1.6.10 Toxic and/or hazardous waste must be treated by an authorised operator. Transportation of hazardous waste will also require an authorised carrier. If required, the Environment Agency will be advised in advance of any hazardous waste movements and Waste Consignment Notes (WCNs) will be purchased in advance for this type of waste transportation. These consignment notes will be held for a minimum of three years. Burning of waste or unwanted materials will not be permitted onsite. All hazardous materials including chemicals, cleaning agents and solvent containing products to be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage areas.

1.6.11 All fuel and oil will be stored within the Order limits and contained by a small bund constructed from material sourced onsite and lined with an impermeable membrane in order to prevent any contamination of the surrounding soils, vegetation and water table, in accordance with DEFRA and Environmental Agency Oil Storage Regulations for Businesses 2015 (as amended in 2020) (or latest guidance/ legislation at the point of construction). Any contaminated runoff within the bund will be disposed of at an appropriate waste management facility.

1.6.12 Any used (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with the COSHH Regulations (or latest guidance/legislation at the point of construction).

1.6.13 Re-usable waste includes soil excavated for trenches, roads, compound areas and foundations. Soils are an important resource, and to minimise effects to this resource, engineers must carry out precise take off calculations. To avoid wastage, with reference to DEFRA's Soil Strategy (2009)[10], stripped soils will be stored in separate resource bunds no more than 3m high, and kept grassed free from construction traffic, to ensure that the soil can be re-used elsewhere on site.

1.6.14 The primary measures to mitigate against the loss of soil resources will be to reuse as much of the surplus resources on-site and to dispose of any surplus soils thereafter in a sustainable manner (i.e., as close to the Proposed Development as possible and to an after-use appropriate to the soil's quality). However, surplus resources requiring removal off site are not expected.

1.6.15 There may be a need to remove some soils from the Order limits for treatment or disposal, if found to be contaminated and if it is not practical to treat this onsite. This would be overseen by a soil advisor specialist as outlined in the Outline Soil Management Plan appended to the oCEMP (document reference 7.7).

1.6.16 The Applicant and its contractors are aware of their duty of care in respect of offsite waste transfers and ensuring that all waste is transferred to authorised hauliers and disposal/treatment sites. All waste transported off site will be delivered to the appropriately licensed receivers of such materials. Operators receiving any waste materials resulting from the Proposed Development will be subject to their own consenting procedures.

1.6.17 Effluent and waste from onsite construction personnel will be treated at a package sewage treatment plant or a septic tank. Where a septic tank is used, this will be emptied on a regular basis and taken away by a registered waste disposal contractor.

Operational Stage

1.6.18 During the operational phase of the Proposed Development waste arising is expected to be substantially less than during the construction phase.

1.6.19 It is estimated there will be up to 5 permanent staff, and due to the scale of the Proposed Development maintenance personnel would be expected to be present on-site most days. Waste streams arising are expected to be minimal, and would include:

- Welfare facility waste;
- Equipment needing replacing;
- Waste metals; and
- General waste (paper, cardboard, wood, etc.).

1.6.20 Should equipment fail and need replacement, it is anticipated that the part would be returned to the manufacturer if still under warranty for refurbishment if possible or recycled if facilities allow. Like all electrical equipment producers have legal obligations under the Waste Electrical and Electronic Equipment Directive legislation.

[10] Safeguarding our Soils - A Strategy for England (2009) available at: https://www.gov.uk/government/publications/safeguarding-our-soils-a-strategy-for-england

1.6.21 During the operational phase the industry benchmark[11] for key solar farm components include:

- Solar panels- 0.2% per year replacement rate;
- Solar inverters- 4.4% per year replacement rate;
- Energy storage inverters- 3.1% per year replacement rate; and
- Cable- 0.1% per year replacement rate.

1.6.22 If solar panels need to be replaced, they contain aluminium which can be recycled, and the remaining glass and silicon mix can be ground up into other building materials and industrial applications. Information obtained from GreenMatch[12] noted 96% of materials can be reused for produced new solar panels. The electrical infrastructure, should it need replacing is also likely to be taken apart and recycled.

1.6.23 Welfare facilities including toilets, washing and drinking water will utilise a septic tank that will be periodically emptied and taken offsite by a licensed waste operator. All onsite welfare facilities will be clearly signposted and maintained.

1.6.24 Where excess surface water occurs from the area of the buildings, this will be collected and treated in a Sustainable Drainage System (SuDS), prior to discharge.

Decommissioning Phase

1.6.25 During the decommissioning phase it is expected that a number of waste streams will be created. They are likely to include the following:

- Solar panels and mounting structures;
- Waste materials from foundations;
- Electrical equipment;
- Energy Storage System i.e., batteries;
- Cables;
- Welfare facility waste;
- Waste chemicals, fuels and oils;
- Waste metals;
- Waste water from dewatering of excavations; and
- Wastewater from cleaning activities (e.g., wheel wash).

1.6.26 Waste during the decommissioning phase will be dealt with as part of the Outline Decommissioning and Restoration Plan (document reference 7.9), which is secured by

[11] The industry benchmark refers to a replacement rate based on degradation of assets expected. Further information on solar panel and inverter rates can be found on the Energy Saving Trust website (https://energysavingtrust.org.uk/advice/solar-panels/) Cable rate replacement is based on information from technical designers supporting the project.

[12] GreenMatch, The Opportunities of Solar Panel Recycling. Source: https://www.greenmatch.co.uk/blog/2017/10/the-opportunities-of-solar-panel-recycling Accessed March 2023

Development Consent Order requirement, and in line with relevant legislation and guidance at that time.

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