INTRODUCTION

Rigged Hill Wind Farm is an operational wind farm of ten wind turbines located near Limavady in Derry / Londonderry, Northern Ireland. This Abnormal Load Route Assessment (ALRA) provides an assessment of land based routes to the existing wind farm site for the delivery of new wind turbine components to enable repowering of the wind farm.

METHODOLOGY

This ALRA is a desk based study which uses publically available Ordnance Survey Northern Ireland (OSNI) mapping to conduct swept path analysis of pinch points on the proposed delivery routes. Swept path analysis is conducted in AutoCAD using the Vehicle Tracking software and a bespoke set of delivery vehicles developed for this ALRA.

2.1 Mapping

OSNI Vector Mapping was used to conduct swept path analysis along the proposed delivery route. This mapping is two-dimensional and therefore the assessment only considers the horizontal geometry of pinch points on the route. Topographical surveys may be required in order to undertake an assessment of vertical constraints.

The OSNI mapping used during this assessment was the most up to date mapping available at the time the assessment was undertaken, however a number of locations where this appeared to be out of date were identified. At one location where recent junction improvement works have been undertaken, preliminary design drawings of a new roundabout were acquired from the Department for Infrastructure and are used in this ALRA.

In other locations inaccuracies in mapping have been identified and noted, however no alternative mapping was available. In general the extents of road and verges are noted as being inaccurate. Topographical surveys are recommended to be used as the basis for detailed design of all improvements works.

2.2 Site Visit

A site visit and route drive over was undertaken in October 2017 by an Arcus Engineer in order to verify results of an initial swept path analysis. During this drive over the locations of identified constraints were confirmed in order to verify the accuracy of the OS mapping. A number of additional points of constraint (PCs), and locations where OS mapping was out of date or inaccurate, were identified during this drive over.

2.3 Delivery Vehicle Specifications

Several candidate wind turbines are being considered for repowering the wind farm. In order to provide a robust assessment this ALRA considered the worst case wind turbine blade and the worst case tower section dimensions from the candidate turbines.

Vehicle data sheets are included in Appendix A. Dimensions of the worst case turbine components and corresponding delivery vehicle specifications are provided in the following tables.

<table>
<thead>
<tr>
<th>Blade</th>
<th>Data Used in Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length 58.7m</td>
<td></td>
</tr>
</tbody>
</table>
### 2.4 Route to Site

Routes to site were considered from Belfast and Larn in the east and from Foyle Port, Derry / Londonderry in the West. Figure 1 included in appendix B shows the assessed routes to site and location of PCs, and overview of each route is provided below.

**Route A:**
- Foyle Port;
- Port Road;
- Haw Road;
- Maydown Road;
- A2;
- A37;
- Ringsend Road;
- Terrydoo Road; and
- Site Entrance.

**Route B:**
- Belfast Harbour;
- Airport Road West;
- A2;
- M3;
- M2;
- A26;
- M2;
- A26;
- A37;
- A29;
- Craigmore Road;
- Ringsend Road;
- Terrydoo Road; and
- Site Entrance.

**Route C:**
- Larne Harbour;
- A8;
- A36;
- M2;
- A26;
- A37;
- A29;
- Craigmore Road;
- Ringsend Road;
- Terrydoo Road; and
- Site Entrance.

### 2.5 Assumptions

In order to keep the results of assessment as concise as possible the following assumptions have been made at each PC:

During transit, delivery vehicles will be accompanied by an escort vehicle and a police escort if required;

At all locations where the delivery vehicle occupies the full road width, or is required to contraflow a junction, appropriate traffic management procedures will be implemented by the escort. This will usually involve temporary closure of the road or junction whilst the vehicle passes;

A detailed traffic management plan will be prepared prior to delivery to inform all relevant stakeholders of road closures and other procedures to be implemented during delivery; and

Topographical surveys will be undertaken and used as a basis for detailed design of any required improvement works.

### 3 RESULTS OF ASSESSMENT

Based on swept path analysis of all PCs identified on the proposed delivery routes, outcomes and mitigation requirements have been defined and are summarised in Table 3.1.

At each PC both the wind turbine blade vehicle and tower section vehicle were tracked. Swept path analysis drawings for each pinch point are included in Appendix C. At each PC the vehicle shown is the one with the most severe mitigation requirements.
Table 3.1: Assessment of Constraints

<table>
<thead>
<tr>
<th>Ref</th>
<th>Location</th>
<th>Assessment Outcome</th>
<th>Mitigation</th>
<th>Risk</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC/00</td>
<td>Bend on exit from Foyle Port over railway bridge, Port Road</td>
<td>Blade tip to oversail pedestrian footway on outside of bend.</td>
<td>Topographical survey or dry run recommended to confirm bridge parapet clearance.</td>
<td>Low</td>
<td>Sheet 1 of 38</td>
</tr>
<tr>
<td>PC/01</td>
<td>Haw Road/Maydown Road Junction</td>
<td>Blade tip to oversail pedestrian footway on outside bend, north of Haw Road. Centre of load to overall hardstanding area on inside bend and conflict with fence in additional land. Vehicle to overrun verge east of Maydown Road. Central island indicated on mapping is not present, confirmed during site visit.</td>
<td>Fence to be relocated behind oversail area in additional land. Load bearing surface to be laid in oversail area east of Maydown Road.</td>
<td>High</td>
<td>Sheet 2 of 38</td>
</tr>
<tr>
<td>PC/02</td>
<td>Maydown Roundabout, A2</td>
<td>Roadsign on approach arm central island conflicts with blade tip oversail. Central island to be overrun by trailer.</td>
<td>Roadsign on approach arm central island to be mounted on demountable supports and temporarily removed during delivery. Load bearing surface to be laid on central island overrun area. Steel plating and kerb protection likely to be sufficient.</td>
<td>Medium</td>
<td>Sheet 3 of 38</td>
</tr>
<tr>
<td>PC/03</td>
<td>Campsey Roundabout, A2</td>
<td>Blade tip to oversail central barrier on approach arm. Roundabout central island to be overrun. Trailer overall may conflict with chevron signpost in central island.</td>
<td>Height of blade tip and central barrier to be checked to ensure it can be safely oversailed. Load bearing surface to be laid in central island to permit overrun. Topographical survey recommended to establish clearance to chevron sign.</td>
<td>Medium</td>
<td>Sheet 4 of 38</td>
</tr>
<tr>
<td>PC/04</td>
<td>Broadbridge Roundabout, A2</td>
<td>Blade tip to oversail central barrier. Blade tip to oversail barrier on inside bend of approach arm. Load to oversail roundabout central island.</td>
<td>Height of blade tip to be checked against barrier height to ensure clearance.</td>
<td>Low</td>
<td>Sheet 5 of 38</td>
</tr>
<tr>
<td>Ref</td>
<td>Location</td>
<td>Assessment Outcome</td>
<td>Mitigation</td>
<td>Risk</td>
<td>Notes</td>
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</tr>
<tr>
<td>PC/09</td>
<td>Broad Road/Ringsend Road Junction, A27</td>
<td>Blade tip to overtake outside bend, north of Broad Road. Tractor to overtake inside bend and conflict with signpost and markers.</td>
<td>Signpost and markers to be mounted on demountable supports and lowered during delivery.</td>
<td>Low</td>
<td>Sheet 10 of 38</td>
</tr>
<tr>
<td>PC/10</td>
<td>Ringsend Road/Terrydoo Road Junction</td>
<td><strong>Option 1:</strong> Vehicle to overrun area north of Ringsend Road in additional land and conflict with telegraph pole and fence on field boundary. <strong>Option 2:</strong> Vehicle to overrun area south of Ringsend Road in additional land and conflict with chevron signs, directional signage and fence.</td>
<td><strong>Option 1:</strong> Load bearing surface to be laid in overrun area. Road sign to be mounted on demountable supports and lowered during delivery. <strong>Option 2:</strong> Load bearing surface to be laid in overrun area. Chevron signs may be present at all times when road is open to public to ensure safety.</td>
<td>High</td>
<td>Sheet 11 of 38, Sheet 12 of 38</td>
</tr>
</tbody>
</table>

PC/11 – PC/19 Refer to Route B from Larne Harbour to PC/19 Larne Road Roundabout / M2

<table>
<thead>
<tr>
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<th>Mitigation</th>
<th>Risk</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC/11</td>
<td>Larne Harbour Roundabout</td>
<td>Trailer to overrun outside bend of roundabout within verge. Blade tip to overrun roundabout outside bend and island. Trailer to overrun island and conflict with road sign.</td>
<td>Load bearing surface to be laid in overrun area. Road sign to be mounted on demountable support.</td>
<td>Low</td>
<td>Sheet 13 of 38</td>
</tr>
<tr>
<td>PC/12</td>
<td>The Harbour Hwy Roundabout</td>
<td>Vehicle can negotiate junction with no conflict.</td>
<td></td>
<td>Low</td>
<td>Sheet 14 of 38</td>
</tr>
<tr>
<td>PC/13</td>
<td>Milbrook Roundabout</td>
<td>Blade tip to overtake northern footway and central reservation. Potential conflict with pedestrian guard rail on A8/Ballymoney Rd. Blade tip to overtake roundabout outside bend. Tractor to overrun all central reservation and roundabout central Island.</td>
<td>Load bearing surfaces to be laid in overrun areas. Blade height to be considered against pedestrian guard rail height. Road sign to be mounted on demountable support. Topographic survey recommended to confirm extent of central island hedge and wall sculpture.</td>
<td>Medium</td>
<td>Sheet 15 of 38</td>
</tr>
<tr>
<td>Ref</td>
<td>Location</td>
<td>Assessment Outcome</td>
<td>Mitigation</td>
<td>Risk</td>
<td>Notes</td>
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</tr>
<tr>
<td>PC/22</td>
<td>Airport Rd/A2 On-Slip</td>
<td>Blade tip to oversail outside bend over bollard and conflict with lighting columns and vegetation. Trailer to overrun inside bend within verge.</td>
<td>Load bearing surfaces to be laid in overrun areas. Clearance height of blade above bollard to be checked. Lighting columns to be relocated or mounted on demountable supports. Vegetation to be suitably cut back.</td>
<td>Medium</td>
<td>Sheet 24 of 38</td>
</tr>
<tr>
<td>PC/23</td>
<td>M2/ Lisnevanagh Road Roundabout</td>
<td>Blade tip to oversail on the outside bend on approach arm and over roundabout central island, no conflict identified. Trailer to oversail inside bend above roundabout central island, no conflict identified.</td>
<td>No further mitigation required.</td>
<td>Low</td>
<td>Sheet 25 of 38</td>
</tr>
<tr>
<td>PC/24</td>
<td>Ballee Roundabout</td>
<td>Blade tip to oversail, and trailer to overrun, approach arm outside bend and conflict with lighting column. Trailer to oversail approach arm inside bend. Blade tip to oversail outside of roundabout. Trailer to oversail roundabout central island. Trailer to oversail exit arm inside edge. Potential conflict with lighting column.</td>
<td>Load bearing surface to be laid in overrun area. Lighting columns to be relocated.</td>
<td>Medium</td>
<td>Sheet 26 of 38</td>
</tr>
<tr>
<td>PC/25</td>
<td>A26/A44 Roundabout</td>
<td>Assessment based on scaled PDF of preliminary design drawings as mapping did not include roundabout. Vehicle to overrun roundabout central island and approach arm inside bend and potentially conflict with chevron signpost on central island. Blade tip to oversail A26 central reservation.</td>
<td>Topographical information of actual roundabout will be required to allow robust assessment.</td>
<td>Medium</td>
<td>Sheet 27 of 38</td>
</tr>
</tbody>
</table>

**Assessment Outcome**

- **Violation**: A violation is identified if the blade tip oversails the specified location.
- **Conflict**: A conflict is identified if the blade tip would come into contact with any other objects.
- **No Conflict**: No conflict is identified.

**Mitigation**

- **Load bearing surface to be laid**: The area where the blade tip would oversail needs to be reinforced for the blade.
- **Lighting columns to be relocated**: Any lighting columns that are in the path of the blade tip need to be relocated.
- **Vegetation to be suitably cut back**: Overgrown vegetation needs to be trimmed to prevent it from interfering with the blade.
- **Locations of approach arm inside bend lighting column and central island chevron sign should be confirmed to check clearance, likely to be ok.**

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**Notes**

- **Medium**: The risk level is considered medium, requiring additional care and attention.
- **Low**: The risk level is considered low, requiring standard procedures.
- **Sheet of 38**: The relevant sheet of the report is referenced for detailed information.

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Scottish Power Renewables
March 2019

Arcus Consultancy Services
March 2019
4 CONCLUSION

4.1 Summary

Three delivery routes were assessed for the candidate wind turbine blade and tower section vehicles. Thirty five pinch points were identified and swept path analysis was conducted at each.

Whilst the majority of each route requires only minor or no mitigation there are a number of junctions where more significant improvement works will be required to permit delivery. Additionally there are two roundabouts where the OSNI mapping is not up to date and scaled PDFs of preliminary design drawings were used as a basis for assessment. This will provide a general indication of required works, however more accurate mapping will be required to assess this proposal in detail.

4.2 Recommendations for Further Work

Two roundabouts at PC/08 and PC/25 will require a topographical survey, or the acquisition of as built drawings, issued in digital format, in order to allow a detailed assessment to be undertaken.

At a number of PCs clearance height of the blade tip and or trailer has been identified as a constraint. At these locations clearance heights need to be confirmed in order to establish if the manoeuvre can be performed, this will require a topographical survey to be undertaken in order to ascertain the level of the roundabout or other obstruction.

Structural surveys may need to be undertaken at structures along the route in order to establish weight limits. An abnormal indivisible loads application should be submitted to the relevant authority which will initiate consultations with all relevant parties and identify areas where further review is required.

A dry run should be considered to confirm the viability of improvement works once undertaken.
Arcus 22.60m x 4.5m dia. Tower Trailer
Overall Length 40.336m
Overall Width 4.500m
Overall Body Height 6.810m
Min Body Ground Clearance 0.620m
Max Track Width 2.520m
Lock to lock time 6.00s
Wall to Wall Turning Radius 9.800m

Arcus 3 Axle Platform Trailer 58.7m x 3.09m Blade
Overall Length 63.5m
Overall Width 4.200m
Overall Body Height 3.407m
Min Body Ground Clearance 0.331m
Max Track Width 2.550m
Lock to lock time 6.00s
Wall to Wall Turning Radius 6.600m

Arcus 3 Axle Platform Trailer 58.7m x 3.09m Blade
Overall Length 63.5m
Overall Width 4.200m
Overall Body Height 3.407m
Min Body Ground Clearance 0.331m
Max Track Width 2.550m
Lock to lock time 6.00s
Wall to Wall Turning Radius 6.600m
FOR INFORMATION

This drawing is to be used only for the purpose of issue that it was issued for and is subject to amendment.

1. Manual rear steering has been utilised for this swept path analysis.
2. Analysis has not considered vertical ground clearance of the vehicle and load.
3. Further investigation works will be required in order to identify the improvements required including but not limited to carriage ways, carriageways, drainage, services and traffic management.
4. Analysis based on 58.7m blade delivery vehicle.
5. Analysis based on OSNI vector mapping. Where required topographical survey to be undertaken and used as a basis for detailed design.

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS, CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWER VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE.

LOAD BEARING SURFACE TO BE LAID IN OVERRUN AREA

PLOTTING DOES NOT INCORPORATE WIDENING AREA. TOPOGRAPHICAL SURVEY OR DRY RUN REQUIRED TO ESTABLISH EXTENT OF ROAD.

FOR INFORMATION

CENTRAL ISLAND INDICATED NO LONGER PRESENT

LEGEND:

- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVERRUN
- EXTENT OF LOAD OVERRUN
LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVERHANG
- EXTENT OF LOAD OVERHANG

NOTES:
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2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
5. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.

LOAD BEARING SURFACE TO BE LAYED IN OVER-RUN AREA. STEEL PLATING AND KERB RAMPING LIKELY TO BE SUFFICIENT.

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1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO DETERMINE THE IMPACT OF CORE POWERED EXCLUSION BUT NOT LIMITED TO EXISTING ROAD AND SIDEWALKS, GROUNDS, SERVICES, PROFESSIONAL FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 56.5M BLADE DELIVERY VEHICLE AND 22.6M TOWER VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

NOTES:
CENTRAL BARRIER TO BE OVERSAILED BY BLADE TIP. CLEARANCE HEIGHT TO BE CHECKED PRIOR TO DELIVERY.

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL OVERHANG CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS CAN BE USED AS A BASIS FOR DETAILED DESIGN.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
6. ANALYSIS BASED ON 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
7. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.

LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVER-RUN

NOTES:
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3. ANALYSIS CAN BE USED AS A BASIS FOR DETAILED DESIGN.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
6. ANALYSIS BASED ON 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
7. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.

FOR INFORMATION
- SCOTTISHPOWER RENEWABLES
- PC/04
- BROADBRIDGE ROUNDABOUT
- SHEET 5 OF 38
- RIGGED HILL WINDFARM REPOWERING
- SWEPT PATH ANALYSIS

REVISIONS
- 26/03/19
- 1:250

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
ANALYSIS BASED ON 22.6M TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

FOR INFORMATION
- SCOTTISHPOWER RENEWABLES
- PC/04
- BROADBRIDGE ROUNDABOUT
- SHEET 5 OF 38
- RIGGED HILL WINDFARM REPOWERING
- SWEPT PATH ANALYSIS

REVISIONS
- 26/03/19
- 1:250

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
ANALYSIS BASED ON 22.6M TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE VARIOUS HAZARDS AND REQUIRED INCLUSIONS BUT NOT LIMITED TO CARRIAGEWAY WIDTH, SURFACING, STANDARD SERVICES, PREHABILATION AND TRAFFIC MANAGEMENT.
4. This drawing is not to scale. Include vehicle.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

FOR INFORMATION

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LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVER-RUN

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE VARIOUS HAZARDS AND REQUIRED INCLUSIONS BUT NOT LIMITED TO CARRIAGEWAY WIDTH, SURFACING, STANDARD SERVICES, PREHABILITATION AND TRAFFIC MANAGEMENT.
4. This drawing is not to scale. Include vehicle.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
LOAD BEARING SURFACE TO BE LAYED IN OVERRUN AREA.

CENTRAL ISLAND TO BE OVERSAILED. LEVEL OF ISLAND IS LIKELY TO REQUIRE REDUCTION TO ACCOMMODATE TRAILER OVERSAIL.

CHEVRON SIGN TO BE REMOVED DURING DELIVERY.

APPROXIMATE LOCATION OF LIGHTING COLUMN. MEASURED AS 1.4m FROM ROAD EDGE DURING SITE VISIT.

CLEARANCE OF BLADE TIP ABOVE EMBANKMENT TO BE CHECKED.

PLASTIC BOLLARD TO BE MOUNTED ON DEMOUNTABLE SUPPORTS AND TEMPORARILY REMOVED DURING DELIVERY.

LOAD BEARING SURFACE TO BE LAYED IN OVERRUN AREA.

EXTENT OF LOAD OVERHANG

LOAD OVERHANG

ADDITIONAL LAND

EXTENT OF VEHICLE OVERHANG

NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENTS NEEDED TO ENSURE SAFETY. REALISTIC TIMINGS, COSTS AND RESOURCES WILL BE PROVIDED ON COMPLETION OF FURTHER WORK.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
LOAD BEARING SURFACE TO BE Laid IN OVERRUN AREA. STEEL PLATING AND KERB PROTECTION LIKELY TO BE SUFFICIENT.

SIGN, LIGHITING COLUMN AND PLASTIC BOLLARD TO BE MOUNTED ON DEMOUNTABLE SUPPORTS AND REMOVED DURING DELIVERY.

LIGHTING COLUMN TO BE RELOCATED.

BLADE TIP CLEARANCE ABOVE CENTRAL ISLAND TO BE CHECKED.

PLASTIC BOLLARD TO BE MOUNTED ON DEMOUNTABLE SUPPORTS AND TEMPORARILY REMOVED DURING DELIVERY.

NOTES:
1. MANUAL STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE LIMITING WINDS FOR THIS ENCUMBERANCE BUT NOT LIMITED TO ROUTE-WIDENING, UPHILLS, DOWNHILLS, SERVICES, PRECIPITATION FACTORS AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

FOR INFORMATION PC/07 REPPOWERING SWEEPT PATH ANALYSIS SHEET 8 OF 38

SWEPT PATH ANALYSIS

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE LIMITING WINDS FOR THIS ENCUMBERANCE BUT NOT LIMITED TO ROUTE-WIDENING, UPHILLS, DOWNHILLS, SERVICES, PRECIPITATION FACTORS AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
LEGEND:

- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVERHANG
- APPROPRIATE LOCATION OF SIGN TO BE MOUNTED ON DEMOUNTABLE SUPPORTS AND REMOVED DURING DELIVERY

NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED FOR DETAILED ASSESSMENT.
5. DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
6. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
7. ALL DIMENSIONS, CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
8. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWER VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
9. THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT.

FOR INFORMATION

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NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED FOR DETAILED ASSESSMENT.
5. DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
6. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
7. ALL DIMENSIONS, CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
8. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
9. ANALYSIS BASED ON SCALED PDF OF TENDER DRAWINGS. TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED FOR DETAILED ASSESSMENT.
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
CHEVRON SIGNS AND DIRECTIONAL SIGN TO BE MOUNTED ON DEMOUNTABLE SUPPORTS TO ENSURE SAFETY CHEVRON SIGNPOSTS MUST BE IN PLACE AT ALL TIMES WHEN ROAD IS OPEN TO THE PUBLIC.

NOTES:
1. MANUAL STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. PARKING: INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE PARKING AREA USED OR POSSIBLE EXISTING BUT NOT APPLIED TO COMMUNITY ACCESS, ENSURING, ENGINEERING, SERVICES, PRESENTER FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON O/SNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

LEGAL:
VEHICLE
VEHICLE WHEEL TRACK
VEHICLE OVERHANG
LOAD
LOAD OVERHANG
ADDITIONAL LAND
EXTENT OF VEHICLE OVER-RUN
EXTENT OF LOAD OVER-RUN

LEGEND:

43.4°

5.3m

GATE AND PLACE TO BE REMOVED FROM OVERRUN AREA
LOAD OVERRUN SUBMERSIBLE TO BE USED IN OVERRUN AREA

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGeway WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON O/SNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VEHICLE GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED, INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWER VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON DIGITAL VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE
   OPTIMUM WORKS REQUIRED INCLUDING NOT LIMITED TO EARTHWORKS, ENROLDING,
   SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.1M TOWER SECTION.
   MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL
   SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

LEGEND:

VEHICLE
VEHICLE WHEEL TRACK
LOAD
LOAD OVERHANG
ADDITIONAL LAND
EXTENT OF VEHICLE OVER-RUN
EXTENT OF LOAD OVERHANG

FOR INFORMATION

RIGGED HILL WINDFARM
REPOWERING
SWEPT PATH ANALYSIS

PC/12
THE HARBOUR HWY
ROUNDABOUT

SHEET 14 OF 38

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Glasgow, G2 2HG

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Arcus Consultancy Services

NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE
   OPTIMUM WORKS REQUIRED INCLUDING NOT LIMITED TO EARTHWORKS, ENROLDING,
   SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.1M TOWER SECTION.
   MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL
   SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO ENSURE THE MITIGATION WORKS REQUIRED DO NOT AFFECT OTHER NON-TIMBERED EARTHWORMS, SEE ALSO VEHICLE AND LOAD CLEARANCE.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

LEGEND:

- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVER-RUN

- HEDGE/WALL STRUCTURE LOCATED IN THE CENTER OF THE ROUNDABOUT
- APPROXIMATE LOCATION OF PEDESTRIAN GUARDRAIL. CLEARANCE HEIGHT OF BLADE TIP ABOVE RAILING TO BE CHECKED
- LOAD BEARING SURFACE TO BE LAYED IN OVERRUN AREA
- APPROXIMATE LOCATION OF CHEVRON SIGN
- APPROXIMATE LOCATION OF ROUNDABOUT SIGN TO BE MOUNTED ON DEMOUNTABLE SUPPORTS

FOR INFORMATION
- PC/13 MILLBROOK ROUNDBOUT REPOWERING SWEEPT PATH ANALYSIS

SCOTTISHPOWER RENEWABLES

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1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

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NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.

2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.

3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPACT OF WORKS REQUIRED INCLUDING BUT NOT LIMITED TO ENVIRONMENTAL ASSESSMENT, EARTHWORKS, DRAINAGE, SERVICES, Pedestrian Facilities and Traffic Management.

4. ANALYSIS IS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWER SECTION. MOST SEVERE VEHICLE SHOWN ON DRAWING.

5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
This drawing is to be read in conjunction with all other relevant documentation.

1. Manual rear steering has been utilised for this swept path analysis.
2. Analysis not considered vertical ground clearance of the vehicle and load.
3. Further investigation works will be required in order to verify the feasibility of works required including but not limited to community access, earthworks, drainage, services, pavement facilities and traffic management.
4. Analysis based on 58.7m blade delivery vehicle and 22.6m tower section.
5. Analysis based on OSPNI Vector Mapping. Where required topographical survey to be undertaken and used as a basis for detailed design.

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO VERIFY THE FEASIBILITY OF WORKS REQUIRED INCLUDING BUT NOT LIMITED TO COMMUNITY ACCESS, EARTHWORKS, DRAINAGE, SERVICES, PAVEMENT FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWER SECTION.
5. ANALYSIS BASED ON OSPNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPACT OF VEHICLE AND LOAD CLEARANCE

4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.1M TOWER SECTION. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAIL DESIGN.

LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVER-RUN

FOR INFORMATION
RIGGED HILL WINDFARM REPOWERING
SWEPT PATH ANALYSIS
PC/16
A36/SHANES HILL RD
SHEET 18 OF 38

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPACT OF VEHICLE AND LOAD CLEARANCE

4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.1M TOWER SECTION. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAIL DESIGN.
NOTES:
1. MANUAL ROAD STEERING HAS BEEN UTILIZED FOR THIS SWEEP PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED HORIZONTAL CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE APPROPRIATE WORKS REQUIRED INCLUDING BUT NOT LIMITED TO EXPERIMENTAL
   ADJUSTEMENTS, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC
   MANAGEMENT.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL
   SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER RUN
- EXTENT OF LOAD OVERHANG

FOR INFORMATION
This document is for INFORMATION purposes only and is not intended to constitute or form part of any contract, purchase, sale or other transaction.

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEEP PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED HORIZONTAL CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE APPROPRIATE WORKS REQUIRED INCLUDING BUT NOT LIMITED TO EXPERIMENTAL
   ADJUSTEMENTS, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC
   MANAGEMENT.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL
   SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

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LEGEND:

- **VEHICLE**
- **VEHICLE WHEEL TRACK**
- **LOAD**
- **LOAD OVERHANG**
- **ADDITIONAL LAND**
- **EXTENT OF VEHICLE OVER-RUN**
- **EXTENT OF LOAD OVERHANG**

NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE CLEARANCE OF THE VEHICLE AND LOAD.
3. ADDITIONAL WORKS WILL BE REQUIRED IN ORDER TO ENSURE THE CURRENT WORKS ARE NOT PREVENTED BY APARTMENT/SHIPPING AREA LIMITATIONS.
4. ADDITIONAL WORKS WILL BE REQUIRED IN ORDER TO ENSURE THE CURRENT WORKS ARE NOT PREVENTED BY APARTMENT/SHIPPING AREA LIMITATIONS.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

FOR INFORMATION

- **RIGGED HILL WINDFARM REPOWERING**
- **SWEPT PATH ANALYSIS**
- **PC/18**
- **A36/MOORFIELDS RD**
- **SHEET 20 OF 38**

NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE MOST SEVERE VEHICLE TO BE USED AS A BASIS FOR DETAILED DESIGN.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD OVERHANG.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO ENSURE THE ENVIRONMENTAL IMPACTS AREosen, INCLUDING BUT NOT LIMITED TO COMMUNITY UNDERSTANDING, EARTHWORKS, ECONOMIES, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO DETERMINE THE IMPACTS OF VEHICLE ADJUSTMENTS TO SUITABLE VEHICLE SPECIFICATIONS.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
5. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.

FOR INFORMATION
RIGGED HILL WINDFARM
REPOWERING
SWEPT PATH ANALYSIS

PC/20
AIRPORT RD W
ROUNDBOUGHT - SAINSBURY'S
SHEET 22 OF 38
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE PRECISE LOCATION OF WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARPOARKING ARRANGEMENTS, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEYS TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAIL DESIGN.
5. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6m TOWER SECTION. MOST SEVERE VEHICLE SHOWN ON DRAWING.
LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER RUN
- EXTENT OF LOAD OVERHANG

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND
   LOAD OVERHANG.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO ENSURE THE
   IMPACT ON THE ROAD IS MANAGED BUT NOT UPTO DATE TO CURRENT
   DESIGN. GROUND WORKS REQUIRE REVIEW BUT NOT UPDATED TO CURRENT
   DESIGN.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON 22.6M TOWER VEHICLE, WHICH REQUIRED TOPOGRAPHICAL
   SURVEY TO BE AMENDED AND USED ON A BASE FOR DETAILS.

FOR INFORMATION
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PC/22
AIRPORT RD/A2
ON-SLIP
SHEET 24 OF 38

SWEPT PATH ANALYSIS

RIGGED HILL WINDFARM
REPOWERING

12/03/2019
1:250

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND
   LOAD OVERHANG.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO ENSURE THE
   IMPACT ON THE ROAD IS MANAGED BUT NOT UPDATED TO CURRENT
   DESIGN. GROUND WORKS REQUIRE REVIEW BUT NOT UPDATED TO CURRENT
   DESIGN.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON 22.6M TOWER VEHICLE, WHICH REQUIRED TOPOGRAPHICAL
   SURVEY TO BE AMENDED AND USED ON A BASE FOR DETAILS.

NOTE:
- MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
- ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND
  LOAD OVERHANG.
- FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO ENSURE THE
  IMPACT ON THE ROAD IS MANAGED BUT NOT UPDATED TO CURRENT
  DESIGN. GROUND WORKS REQUIRE REVIEW BUT NOT UPDATED TO CURRENT
  DESIGN.
- ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
- ANALYSIS BASED ON 22.6M TOWER VEHICLE, WHICH REQUIRED TOPOGRAPHICAL
  SURVEY TO BE AMENDED AND USED ON A BASE FOR DETAILS.
NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

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4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
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1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
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4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.

FOR INFORMATION

RIGGED HILL WINDFARM
REPOWERING
SWEPT PATH ANALYSIS

PC/25
A26/A44 ROUNDABOUT
SHEET 27 of 38

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON SCALED PDF OF PRELIMINARY DESIGN DRAWING TO PHOTOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED ASSESSMENT.
LOAD BEARING SURFACE TO BE LAYED IN OVERRUN
AREA. ROUNDABOUT CENTRAL ISLAND RAISED
BLOCKWORK MAY REQUIRE REPROFILING.

APPROXIMATE LOCATION OF CHEVRON SIGN. TO
BE MOUNTED ON DEMOUNTABLE SUPPORTS

APPROXIMATE LOCATION OF LIGHTING COLUMN. WILL
REQUIRE RELOCATION

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND
   LOAD.
3. ANALYSIS: INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO CERTIFY THE
   SWEPT PATH ISSUED AS PRESENTED BUT NOT LIMITED TO COMMUNITY-
   ADJACENCIES, SERVICES, TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND
   USED AS A BASIS FOR DETAILED DESIGN.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRA
   PHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRA
   PHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-HANG
- EXTENT OF LOAD OVERHANG

APPROPRIATE LOCATION OF CHEVRON SIGN. TO
BE MOUNTED ON DEMOUNTABLE SUPPORTS

APPROPRIATE LOCATION OF LIGHTING COLUMN. WILL
REQUIRE RELOCATION
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ANALYSIS IS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
5. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.

FOR INFORMATION
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS, CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6m TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

SWEPT PATH ANALYSIS
RIGGED HILL WINDFARM REPOWERING
PORTRUSH RD ROUNDABOUT
SHEET 29 OF 38

LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVERHANG

CENTRAL ISLAND TO BE OVERSAILED BY TRAILER.
LEVEL OF ISLAND MAY NEED TO BE LOWERED APPROXIMATE LOCATION OF CHEVRON SIGN. TO BE DEMOUNTED OR RELOCATED DURING DELIVERY.
NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ALL DIMENSIONS, CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
6. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
7. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
8. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
9. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. FURTHER INVESTIGATION WORKS WILL BE REQUIRED IN ORDER TO IDENTIFY THE IMPROVEMENT WORKS REQUIRED INCLUDING BUT NOT LIMITED TO CARRIAGEWAY WIDENING, EARTHWORKS, DRAINAGE, SERVICES, PEDESTRIAN FACILITIES AND TRAFFIC MANAGEMENT.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVERHANG

FOR INFORMATION
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Thornhill, Selkirk, Scottish Borders,
TD7 5JX
Tel: 0871 584 2811
Fax: 01750 342888
www.scottishpowerrenewables.co.uk

Revision Details Date
Check

Sheet 32 of 38
NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
6. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.6M TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.

FOR INFORMATION
PC/31
GREENMOUNT ROUNDBOUT
SHEET 33 OF 38

LEGEND:
- VEHICLE
- VEHICLE WHEEL TRACK
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVERHANG
NOTES:
1. MANUAL STEER HAVING BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS ASSUMPTIONS WERE FOR THE MOST SEVERE VEHICLE SHOWN ON DRAWING. SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX TO BE USED TO DETERMINE HOW THIS DRAWING IS TO BE USED.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

APPROXIMATE LOCATION OF LIGHTING COLUMN
APPROXIMATE LOCATION OF DIRECTIONAL SIGN
LOAD BEARING SURFACE TO BE LAYED IN OVERRUN AREA. STEEL PLATING AND KERB RAMPING LIKELY TO BE SUFFICIENT.
APPROXIMATE LOCATION OF PLASTIC BOLLARD. TO BE MOUNTED ON DEMOUNTABLE SUPPORTS.
CLEARANCE TO PLASTIC BOLLARD BELOW FACTOR OF SAFETY. MAY REQUIRE TO BE MOUNTED ON DEMOUNTABLE SUPPORTS.

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE AND 22.6M TOWING VEHICLE. MOST SEVERE VEHICLE SHOWN ON DRAWING.

FOR INFORMATION
RIGGED HILL WINDFARM REPOWERING
SWEPT PATH ANALYSIS
PC/32
SHEET 34 OF 38

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS ASSUMPTIONS WERE FOR THE MOST SEVERE VEHICLE SHOWN ON DRAWING. SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX TO BE USED TO DETERMINE HOW THIS DRAWING IS TO BE USED.
4. ANALYSIS BASED ON 58.7M BLADE DELIVERY VEHICLE.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILIZED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS IS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.
NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE OR LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE OR LOAD.
4. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.

LEGEND:

- VEHICLE
- VEHICLE WHEEL TRACK
- VEHICLE OVERHANG
- LOAD
- LOAD OVERHANG
- ADDITIONAL LAND
- EXTENT OF VEHICLE OVER-RUN
- EXTENT OF LOAD OVER-RUN

APPROXIMATE LOCATION OF TELEGRAPH POLE TO BE REMOVED

APPROXIMATE LOCATION OF TELEGRAPH POLE TO BE REMOVED

PLACE TO BE RELOCATED BEHIND OVERRUN AREA
CHEVRON SIGN, DIRECTIONAL SIGN AND GIVE WAY SIGN TO BE MOUNTED ON DEMOUNTABLE SUPPORTS TO ENSURE SAFETY SIGNPOSTS MUST BE IN PLACE AT ALL TIMES WHEN ROAD IS OPEN TO THE PUBLIC.

LOAD BEARING SURFACE TO BE LAID IN OVERRUN AREA.

NOTES:
1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
3. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.

PHOTOGRAPHY:
PHOTOGRAPHY:
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FOR INFORMATION:
FOR INFORMATION:
FOR INFORMATION:

RIGGED HILL WINDFARM
RIGGED HILL WINDFARM
RIGGED HILL WINDFARM
REPOWERING
REPOWERING
REPOWERING

SWEPT PATH ANALYSIS
SWEPT PATH ANALYSIS
SWEPT PATH ANALYSIS

PC/10 OPTION 4
PC/10 OPTION 4
PC/10 OPTION 4
RINGSEND ROAD/
RINGSEND ROAD/
RINGSEND ROAD/
TERRYDOO ROAD JUNCTION
TERRYDOO ROAD JUNCTION
TERRYDOO ROAD JUNCTION

SHEET 37 OF 38
SHEET 37 OF 38
SHEET 37 OF 38

NOTES:
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NOTES:

1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
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4. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
5. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.

FOR INFORMATION:
FOR INFORMATION:
FOR INFORMATION:

RIGGED HILL WINDFARM
RIGGED HILL WINDFARM
RIGGED HILL WINDFARM
REPOWERING
REPOWERING
REPOWERING

SWEPT PATH ANALYSIS
SWEPT PATH ANALYSIS
SWEPT PATH ANALYSIS

PC/10 OPTION 4
PC/10 OPTION 4
PC/10 OPTION 4
RINGSEND ROAD/
RINGSEND ROAD/
RINGSEND ROAD/
TERRYDOO ROAD JUNCTION
TERRYDOO ROAD JUNCTION
TERRYDOO ROAD JUNCTION

SHEET 37 OF 38
SHEET 37 OF 38
SHEET 37 OF 38

NOTES:
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1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL GROUND CLEARANCE OF THE VEHICLE AND LOAD.
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FOR INFORMATION:
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1. MANUAL REAR STEERING HAS BEEN UTILISED FOR THIS SWEPT PATH ANALYSIS.
2. ANALYSIS HAS NOT CONSIDERED VERTICAL CLEARANCE OR OBSTACLES.
3. FURTHER INVESTIGATION WOULD BE REQUIRED TO IDENTIFY ANY IDENTIFIED POTENTIAL RISKS.
4. ANALYSIS BASED ON 58.7m BLADE DELIVERY VEHICLE AND 22.1m TOWER SECTION.
5. ANALYSIS BASED ON OSNI VECTOR MAPPING. WHERE REQUIRED TOPOGRAPHICAL SURVEY TO BE UNDERTAKEN AND USED AS A BASIS FOR DETAILED DESIGN.