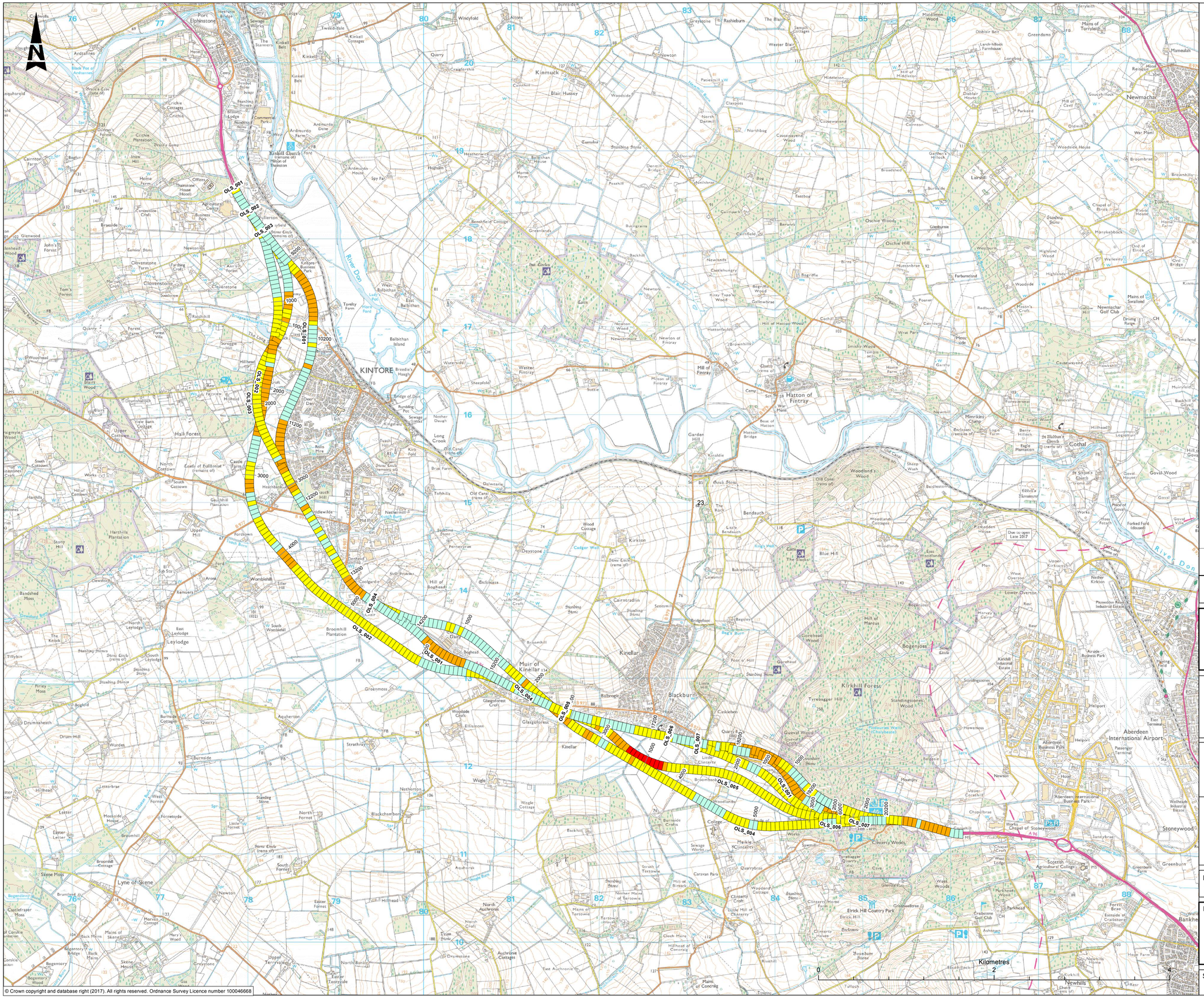





## LEGEND

**Combined Engineering Appraisal**

- Major Adverse
- Moderate Adverse
- Slight Adverse
- Neutral

| Revision | First Fix Appraisal | | | | |
|---|---|---|---|---|---|
| | JSE | CP | CB | GW | GH |
| P01 | 10/04/18 | 18/04/18 | 18/04/18 | 18/04/18 | 18/04/18 |
| | Revision details | | | | |
| | Created | Checked | Reviewed | Approved | Authorised |
| | dd/mm/yy | dd/mm/yy | dd/mm/yy | dd/mm/yy | dd/mm/yy |

Designer
Precision House
McNell Drive
Motherwell
ML1 4UR

Amey Arup

Client
58 Port Dundas Road
Glasgow
G4 0HF

TRANSPORT SCOTLAND

Project Name
A96 Dualling: East of Huntly to Aberdeen

Drawing Title
OLS - Engineering Appraisal

| Project Ref. No. | Stage | Scale : 1:20,000 @A1 |
|---|---|---|
| 250002-92 | Stage 2 | Dimensions : |

Drawing Number

| Project | Originator | Volume | |
|---|---|---|---|
| A96PEA | -AMAR - | HGN - | |
| CB | | -DR-CH- | 103001 |
| Location | | Type \| Role \| | Number |

| Suitability | Suitability Description | Revision |
|---|---|---|
| S2 | For Information | P01.01 |

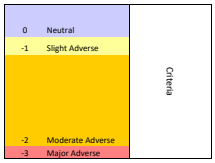
| Criteria | |
|---|---|
| 0 | Neutral |
| -1 | Slight Adverse |
| -2 | Moderate Adverse |
| -3 | Major Adverse |

| Chainage | | Alignment | | | | | Geotechnics | Structures | Flooding and Drainage | | | Utilities | Constructability | | Score | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Chainage | End Chainage | Alignment Length | Level Difference | Bendiness | Hilliness | Earthworks | Geotechnics | Structures | Flood Plain | Watercourse Crossings | Attenuation requirement | Utilities | Construction access | Temp disruption | Total | Adjusted | |
| 8200 | 8250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -3 | SW distribution main present within alignment at chainage length |
| 8250 | 8300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8300 | 8350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8350 | 8400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8400 | 8450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8450 | 8500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8500 | 8550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -3 | SGN high pressure pipe crossed alignment at this chainage length |
| 8550 | 8600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8600 | 8650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8650 | 8700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8700 | 8750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8750 | 8800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8800 | 8850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8850 | 8900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8900 | 8950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 8950 | 9000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 9000 | 9050 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 9050 | 9100 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 9100 | 9150 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 9150 | 9200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 9200 | 9250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 9250 | 9300 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | Potential contamination risk of existing ground due to made ground |
| 9300 | 9350 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | Potential contamination risk of existing ground due to made ground |
| 9350 | 9400 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -5 | -5 | Potential contamination risk of existing ground due to landfill present |
| 9400 | 9450 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -5 | -8 | R=731, 1 step below<br><br>Potential contamination risk of existing ground due to landfill present |
| 9450 | 9500 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -5 | -8 | R=731, 1 step below<br><br>Potential contamination risk of existing ground due to landfill present |
| 9500 | 9550 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -7 | -8 | R=731, 1 step below<br><br>Potential contamination risk of existing ground due to landfill present |
| 9550 | 9600 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -7 | -8 | R=731, 1 step below<br><br>Potential contamination risk of existing ground due to landfill present |
| 9600 | 9650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -8 | R=731, 1 step below |
| 9650 | 9700 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R=731, 1 step below<br><br>Assume cut in made ground (cemetery) which has a potential contamination risk |
| 9700 | 9750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R=731, 1 step below |
| 9750 | 9800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R=731, 1 step below |
| 9800 | 9850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R=731, 1 step below |
| 9850 | 9900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R=731, 1 step below |
| 9900 | 9950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R=731, 1 step below |
| 9950 | 10000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R=731, 1 step below |
| 10000 | 10050 | 0 | 0 | -2 | -1 | 0 | 0 | -2 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | Insufficient clearance headroom on existing structure |
| 10050 | 10100 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 10100 | 10150 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 10150 | 10200 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 10200 | 10250 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 10250 | 10300 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | -3 | 0 | | 0 | 0 | -3 | -3 | |
| 10300 | 10350 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 10350 | 10400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 10400 | 10450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 10450 | 10500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 10500 | 10550 | 0 | 0 | -2 | -1 | 0 | 0 | -1 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -6 | |
| 10550 | 10600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 10600 | 10650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 10650 | 10700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 10700 | 10750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 10750 | 10800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 10800 | 10850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 10850 | 10900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 10900 | 10950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 10950 | 11000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 11000 | 11050 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11050 | 11100 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 11100 | 11150 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 11150 | 11200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 11200 | 11250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R = 853, 1 step below |
| 11250 | 11300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -8 | R = 853, 1 step below<br>SW Distribution main present at this location |
| 11300 | 11350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -8 | R = 853, 1 step below<br>SW Distribution main present at this location |
| 11350 | 11400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -8 | R = 853, 1 step below<br>SW Distribution main present at this location |
| 11400 | 11450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -8 | R = 853, 1 step below<br>SW Distribution main present at this location |
| 11450 | 11500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -8 | R = 853, 1 step below<br>SW Distribution main present at this location |
| 11500 | 11550 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -8 | R = 853, 1 step below |
| 11550 | 11600 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -8 | R = 853, 1 step below |
| 11600 | 11650 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -8 | R = 853, 1 step below<br>combination of at grade construction on peat and embankments up to 3m high on peat |
| 11650 | 11700 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -8 | R = 853, 1 step below<br>combination of at grade construction on peat and embankments up to 3m high on peat |
| 11700 | 11750 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 853, 1 step below<br>combination of at grade construction on peat and embankments up to 3m high on peat |
| 11750 | 11800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 853, 1 step below |
| 11800 | 11850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 853, 1 step below |
| 11850 | 11900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 853, 1 step below |
| 11900 | 11950 | 0 | 0 | -2 | -1 | 0 | 0 | -1 | 0 | 0 | 0 | | 0 | 0 | -2 | -8 | R = 853, 1 step below |
| 11950 | 12000 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 853, 1 step below<br>Made ground potential contamination risk |
| 12000 | 12050 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -6 | Made ground potential contamination risk |
| 12050 | 12100 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | Made ground potential contamination risk |
| 12100 | 12150 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 12150 | 12200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 12200 | 12250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 12250 | 12300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -6 | |
| 12300 | 12350 | 0 | 0 | -2 | -1 | 0 | 0 | -1 | -3 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 12350 | 12400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -3 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 12400 | 12450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -3 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 12450 | 12500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -3 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 12500 | 12550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -3 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 12550 | 12600 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -3 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 12600 | 12650 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 12650 | 12700 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | -1 | -1 | 0 | 0 | -4 | -4 | |
| 12700 | 12750 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 12750 | 12800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -2 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 12800 | 12850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -2 | 0 | 0 | -2 | 0 | 0 | -3 | -3 | |
| 12850 | 12900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -2 | 0 | 0 | -2 | 0 | 0 | -3 | -3 | |
| 12900 | 12950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | -2 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 12950 | 13000 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | -2 | 0 | 0 | -4 | -4 | |
| 13000 | 13050 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -4 | -4 | |
| 13050 | 13100 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 13100 | 13150 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 13150 | 13200 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 13200 | 13250 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -8 | NB - R = 651, SB - R = 860 ,NB - 2 step below, SB - 1 step below Online alteration possible |
| 13250 | 13300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | NB - R = 651, SB - R = 860 ,NB - 2 step below, SB - 1 step below Online alteration possible |
| 13300 | 13350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | NB - R = 651, SB - R = 860 ,NB - 2 step below, SB - 1 step below Online alteration possible |
| 13350 | 13400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | NB - R = 651, SB - R = 860 ,NB - 2 step below, SB - 1 step below Online alteration possible |
| 13400 | 13450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | NB - R = 651, SB - R = 860 ,NB - 2 step below, SB - 1 step below Online alteration possible |
| 13450 | 13500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | NB - R = 651, SB - R = 860 ,NB - 2 step below, SB - 1 step below Online alteration possible |
| 13500 | 13550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13550 | 13600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13600 | 13650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13650 | 13700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13700 | 13750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13750 | 13800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13800 | 13850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13850 | 13900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13900 | 13950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 13950 | 14000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14000 | 14050 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14050 | 14100 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14100 | 14150 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14150 | 14200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14200 | 14250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14250 | 14300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14300 | 14350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 14350 | 14400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14400 | 14450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14450 | 14500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14500 | 14550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14550 | 14600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14600 | 14650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14650 | 14700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14700 | 14750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14750 | 14800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14800 | 14850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14850 | 14900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 974, 1 step below. Online alteration possible |
| 14900 | 14950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14950 | 15000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15000 | 15050 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15050 | 15100 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15100 | 15150 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 15150 | 15200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 15200 | 15250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 15250 | 15300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15300 | 15350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15350 | 15400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 15400 | 15450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 15450 | 15500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15500 | 15550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Crossing of 900mm National Grid Pipeline at this point. Proposed Road level to match existing at First Fix Stage. National Grid Pipelines Officer advised that Heavy Wall Pipe in place at this crossing. |
| 15550 | 15600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15600 | 15650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 15650 | 15700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15700 | 15750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15750 | 15800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15800 | 15850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15850 | 15900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 15900 | 15950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 15950 | 16000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 16000 | 16050 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -3 | SW distribution main present within alignment at chainage length |
| 16050 | 16100 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -3 | -3 | SW distribution main present within alignment at chainage length |
| 16100 | 16150 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -4 | -4 | SW distribution main present within alignment at chainage length |
| 16150 | 16200 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -4 | -4 | SW distribution main present within alignment at chainage length |
| 16200 | 16250 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | -4 | -4 | SW distribution main present within alignment at chainage length |
| 16250 | 16300 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16300 | 16350 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16350 | 16400 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16400 | 16450 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16450 | 16500 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16500 | 16550 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -5 | -5 | Crossing of 900mm National Grid Pipeline at this point. Proposed Road level to match existing at First Fix Stage. National Grid Pipelines Officer advised that Heavy Wall Pipe in place at this crossing. |
| 16550 | 16600 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -5 | -5 | Crossing of 900mm National Grid Pipeline at this point. Proposed Road level to match existing at First Fix Stage. National Grid Pipelines Officer advised that Heavy Wall Pipe in place at this crossing. |
| 16600 | 16650 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16650 | 16700 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16700 | 16750 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16750 | 16800 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16800 | 16850 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16850 | 16900 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16900 | 16950 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 16950 | 17000 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 17000 | 17050 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -3 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 17050 | 17100 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -3 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 17100 | 17150 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -3 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 17150 | 17200 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -3 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 17200 | 17250 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 17250 | 17300 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 17300 | 17350 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 17350 | 17400 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 17400 | 17450 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | -2 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 17450 | 17500 | 0 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 17500 | 17550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 17550 | 17600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 17600 | 17650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 17650 | 17700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 17700 | 17750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 17750 | 17800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 17800 | 17850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 17850 | 17900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | Existing alignment gradient greater than 4% |
| 17900 | 17950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | Existing alignment gradient greater than 4% |
| 17950 | 18000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 18000 | 18050 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -5 | -5 | Assume cut in made ground (Landfill) which has a potential contamination risk |
| 18050 | 18100 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -8 | Assume cut in made ground (Landfill) which has a potential contamination risk<br><br>Existing gradient greater than 4% |
| 18100 | 18150 | 0 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Assume cut in made ground (Landfill) which has a potential contamination risk |
| 18150 | 18200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 18200 | 18250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 18250 | 18300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 18300 | 18350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 18350 | 18400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R = 565, 2 step below |
| 18400 | 18450 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -8 | R = 565, 2 step below<br><br>Made in ground, potential contamination risk |
| 18450 | 18500 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -8 | R = 565, 2 step below<br><br>Made in ground, potential contamination risk |
| 18500 | 18550 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -8 | R = 565, 2 step below<br><br>Made in ground, potential contamination risk |
| 18550 | 18600 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -8 | R = 565, 2 step below<br><br>Made in ground, potential contamination risk |
| 18600 | 18650 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 565, 2 step below<br><br>Made in ground, potential contamination risk |
| 18650 | 18700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 565, 2 step below |
| 18700 | 18750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 565, 2 step below |
| 18750 | 18800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 883, 1 Step below |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18800 | 18850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 883, 1 Step below |
| 18850 | 18900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 883, 1 Step below |
| 18900 | 18950 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 883, 1 Step below<br>Made in ground, potential contamination risk |
| 18950 | 19000 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 883, 1 Step below<br>Made in ground, potential contamination risk |
| 19000 | 19050 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 883, 1 Step below<br>Made in ground, potential contamination risk |
| 19050 | 19100 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 883, 1 Step below<br>Made in ground, potential contamination risk |
| 19100 | 19150 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 379, 2 step below |
| 19150 | 19200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 379, 2 step below |
| 19200 | 19250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 19250 | 19300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 19300 | 19350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 19350 | 19400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 19400 | 19450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 19450 | 19500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 705, 2 step below |
| 19500 | 19550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 705, 2 step below |
| 19550 | 19600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 705, 2 step below<br>Existing alignment graident greater than 4% |
| 19600 | 19650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 705, 2 step below |
| 19650 | 19700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 705, 2 step below |
| 19700 | 19750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 705, 2 step below |
| 19750 | 19800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -8 | R = 705, 2 step below |
| 19800 | 19850 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -8 | R = 705, 2 step below<br>Made in ground, potential contamination risk |
| 19850 | 19900 | 0 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | Made in ground, potential contamination risk |
| 19900 | 19950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 19950 | 20000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 20000 | 20050 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 20050 | 20100 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 20100 | 20150 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 20150 | 20200 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 20200 | 20250 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R = 984, 1 Step below. Online alteration possible |
| 20250 | 20300 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R = 984, 1 Step below. Online alteration possible |
| 20300 | 20350 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R = 984, 1 Step below. Online alteration possible |
| 20350 | 20400 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R = 984, 1 Step below. Online alteration possible<br>Existing alignment gradient greater than 4% |
| 20400 | 20450 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | R = 984, 1 Step below. Online alteration possible<br>Existing alignment gradient greater than 4% |
| 20450 | 20500 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -8 | R = 984, 1 Step below. Online alteration possible<br>Existing alignment gradient greater than 4%<br>Shell Natural Gas Liquids Pipeline crosses alignment at this point. First fix levels proposed to match existing at this point. |
| 20500 | 20550 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -8 | R = 984, 1 Step below. Online alteration possible<br>Existing alignment gradient greater than 4%<br>Shell Natural Gas Liquids Pipeline crosses alignment at this point. First fix levels proposed to match existing at this point. |
| 20550 | 20600 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 20600 | 20650 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | Existing alignment gradient greater than 4% (level difference 2.022) |
| 20650 | 20700 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | |
| 20700 | 20750 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | Existing alignment gradient greater than 4% (level difference 2.015) |
| 20750 | 20800 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | |
| 20800 | 20850 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | Existing alignment gradient greater than 4% |
| 20850 | 20900 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | |
| 20900 | 20950 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -8 | Existing alignment gradient greater than 4% |
| 20950 | 21000 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 21000 | 21050 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 21050 | 21100 | 0 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |

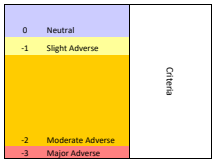



**Rules**
Total Score
= Alignment Score (Average of E, F, G, H and I) + Geo Score + Structures Score + Flooding Score (Average of L, M and N) +Utilities score + Constructability Score (Minimum value of P&Q) = Total of 6

Then if total < or equal to -9 then should be coloured red because this represents possibility of 3 reds or 4 ambers
If total is between -6 and -8 should be coloured amber since this could represent

| Chainage | | Alignment | | | | | Geotechnics | Structures | Flooding and Drainage | | | Utilities | Constructability | | Score | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Chainage | End Chainage | Alignment Length | Level Difference | Bendiness | Hilliness | Earthworks | Geotechnics | Structures | Flood Plain | Watercourse Crossings | Attenuation requirement | Utilities | Construction access | Temp disruption | Total | Adjusted | Comments |
| 0 | 50 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -2 | -4 | -4 | |
| 50 | 100 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -2 | -4 | -4 | |
| 100 | 150 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -2 | -4 | -4 | |
| 150 | 200 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -2 | -4 | -4 | |
| 200 | 250 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -2 | -4 | -4 | |
| 250 | 300 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 300 | 350 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 350 | 400 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 400 | 450 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 450 | 500 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 500 | 550 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 550 | 600 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 600 | 650 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 650 | 700 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 700 | 750 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 750 | 800 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 800 | 850 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 850 | 900 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 900 | 950 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 950 | 1000 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1000 | 1050 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1050 | 1100 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1100 | 1150 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1150 | 1200 | -2 | 0 | -2 | -1 | 0 | -1 | -1 | 0 | 0 | 0 | -1 | -1 | 0 | -5 | -5 | |
| 1200 | 1250 | -2 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | -1 | -1 | 0 | -4 | -4 | |
| 1250 | 1300 | -2 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | -1 | -1 | 0 | -4 | -4 | |
| 1300 | 1350 | -2 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | -1 | -1 | 0 | -4 | -4 | |
| 1350 | 1400 | -2 | 0 | -2 | -1 | 0 | -1 | 0 | -1 | 0 | 0 | -1 | -1 | 0 | -4 | -4 | |
| 1400 | 1450 | -2 | 0 | -2 | -1 | 0 | -3 | 0 | -1 | 0 | 0 | -1 | -1 | 0 | -6 | -6 | Crossing pond present along this span, embankment on made ground -landfill with HV cable present |
| 1450 | 1500 | -2 | -1 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -6 | -6 | Crossing pond present along this span, embankment on made ground -landfill with HV cable present |
| 1500 | 1550 | -2 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -6 | -6 | Crossing pond present along this span, embankment on made ground -landfill with HV cable present |
| 1550 | 1600 | -2 | 0 | -2 | -1 | 0 | -3 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -6 | -6 | Crossing pond present along this span, embankment on made ground -landfill with HV cable present |
| 1600 | 1650 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1650 | 1700 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1700 | 1750 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 1750 | 1800 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 1800 | 1850 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 1850 | 1900 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | -1 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 1900 | 1950 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | -1 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 1950 | 2000 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2000 | 2050 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2050 | 2100 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2100 | 2150 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2150 | 2200 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2200 | 2250 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2250 | 2300 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2300 | 2350 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2350 | 2400 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2400 | 2450 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2450 | 2500 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2500 | 2550 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. NG pipeline running parallel with level differences of proposed and existing ranging from 5m above to 5m below. |
| 2550 | 2600 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 2600 | 2650 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 2650 | 2700 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 2700 | 2750 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 2750 | 2800 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2800 | 2850 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 2850 | 2900 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 2900 | 2950 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 2950 | 3000 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3000 | 3050 | -2 | 0 | -2 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3050 | 3100 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. Slight cutting within this length with NG pipeline present along chainage length (crossing) |
| 3100 | 3150 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. Slight cutting within this length with NG pipeline present along chainage length (crossing) |
| 3150 | 3200 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -6 | Adjusted to suit. Slight cutting within this length with NG pipeline present along chainage length (crossing) |
| 3200 | 3250 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 3250 | 3300 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -2 | -2 | |
| 3300 | 3350 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -3 | -3 | |
| 3350 | 3400 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -2 | -2 | |
| 3400 | 3450 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -2 | -2 | |
| 3450 | 3500 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -2 | -2 | |
| 3500 | 3550 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -3 | -3 | |
| 3550 | 3600 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 3600 | 3650 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -5 | Adjusted to suit. Embankment of 2m +, should not affect utility(NG pipeline) or geotechnics |
| 3650 | 3700 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -5 | Adjusted to suit. Embankment of 2m +, should not affect utility(NG pipeline) or geotechnics |
| 3700 | 3750 | -2 | -1 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -6 | -5 | Adjusted to suit. Embankment of 2m +, should not affect utility(NG pipeline) or geotechnics |
| 3750 | 3800 | -2 | -1 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -6 | -5 | Adjusted to suit. Embankment of 2m +, should not affect utility(NG pipeline) or geotechnics |
| 3800 | 3850 | -2 | 0 | -2 | -1 | 0 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | Adjusted to suit. Embankment of 2m +, should not affect utility(NG pipeline) or geotechnics |
| 3850 | 3900 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 3900 | 3950 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 3950 | 4000 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -1 | 0 | -4 | -6 | Adjusted to suit. Proposed alignment only 1m above existing with potential to affect utility (pylons & HV cable crossings) |
| 4000 | 4050 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -3 | 0 | -6 | -6 | Adjusted to suit. Proposed alignment only 1m above existing with potential to affect utility (pylons & HV cable crossings) |
| 4050 | 4100 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -3 | 0 | -6 | -6 | Adjusted to suit. Proposed alignment only 1m above existing with potential to affect utility (pylons & HV cable crossings) |
| 4100 | 4150 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -3 | 0 | -6 | -6 | Adjusted to suit. Proposed alignment only 1m above existing with potential to affect utility (pylons & HV cable crossings) |
| 4150 | 4200 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -3 | 0 | -6 | -6 | Adjusted to suit. Proposed alignment only 1m above existing with potential to affect utility (pylons & HV cable crossings) |
| 4200 | 4250 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4250 | 4300 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4300 | 4350 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4350 | 4400 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4400 | 4450 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4450 | 4500 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4500 | 4550 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4550 | 4600 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4600 | 4650 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4650 | 4700 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4700 | 4750 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4750 | 4800 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4800 | 4850 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4850 | 4900 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4900 | 4950 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 4950 | 5000 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5000 | 5050 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5050 | 5100 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5100 | 5150 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5150 | 5200 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5200 | 5250 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5250 | 5300 | -2 | -1 | -2 | -1 | 0 | 0 | 0 | -1 | 0 | 0 | | -3 | 0 | -5 | -5 | |
| 5300 | 5350 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | -1 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5350 | 5400 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | -1 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5400 | 5450 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | -1 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5450 | 5500 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5500 | 5550 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5550 | 5600 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5600 | 5650 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5650 | 5700 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5700 | 5750 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5750 | 5800 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5800 | 5850 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5850 | 5900 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5900 | 5950 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 5950 | 6000 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | -3 | 0 | -4 | -4 | |
| 6000 | 6050 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6050 | 6100 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6100 | 6150 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6150 | 6200 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6200 | 6250 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6250 | 6300 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6300 | 6350 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6350 | 6400 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6400 | 6450 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6450 | 6500 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 6500 | 6550 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 6550 | 6600 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 6600 | 6650 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 6650 | 6700 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 6700 | 6750 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 6750 | 6800 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 6800 | 6850 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 6850 | 6900 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 6900 | 6950 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 6950 | 7000 | -2 | 0 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 7000 | 7050 | | | | | | | | | | | | | | | | |
| 7050 | 7100 | | | | | | | | | | | | | | | | |

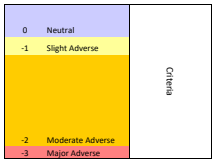



**Rules**
Total Score
= Alignment Score (Average of E, F, G, H and I) + Geo Score + Structures Score + Flooding Score (Average of L, M and N) +Utilities score + Constructability Score (Minimum value of P&Q) = Total of 6

Then if total < or equal to -9 then should be coloured red because this represents possibility of 3 reds or 4 ambers
If total is between -6 and -8 should be coloured amber since this could represent

| Chainage | | Alignment | | | | | Geotechnics | Structures | Flooding and Drainage | | | Utilities | Constructability | | Score | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Chainage | End Chainage | Alignment Length | Level Difference | Bendiness | Hilliness | Earthworks | Geotechnics | Structures | Flood Plain | Watercourse Crossings | Attenuation requirement | Utilities | Construction access | Temp disruption | Total | Adjusted | Comments |
| 0 | 50 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 50 | 100 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 100 | 150 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 150 | 200 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 200 | 250 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 250 | 300 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 300 | 350 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 350 | 400 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 400 | 450 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 450 | 500 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 500 | 550 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 550 | 600 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 600 | 650 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 650 | 700 | 0 | 0 | -2 | 0 | -3 | -2 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -6 | -6 | NG pipeline within proposed alignment length with level difference of 1m below existing ground |
| 700 | 750 | 0 | 0 | -2 | 0 | -3 | -2 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -6 | -6 | NG pipeline within proposed alignment length with level difference of 1m below existing ground |
| 750 | 800 | 0 | 0 | -2 | 0 | -3 | -2 | 0 | 0 | 0 | 0 | -3 | -2 | 0 | -8 | -8 | NG pipeline within proposed alignment length with level difference of 1m below existing ground |
| 800 | 850 | 0 | 0 | -2 | 0 | -3 | -2 | 0 | 0 | 0 | 0 | -3 | -2 | 0 | -8 | -8 | NG pipeline within proposed alignment length with level difference of 1m below existing ground |
| 850 | 900 | 0 | 0 | -2 | 0 | -3 | -2 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 900 | 950 | 0 | 0 | -2 | 0 | -3 | -2 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 950 | 1000 | 0 | -1 | -2 | 0 | -3 | -2 | -1 | 0 | 0 | 0 | -1 | -2 | 0 | -7 | -7 | Proposed alignment has HV cable crossing whilst levels are above existing |
| 1000 | 1050 | 0 | -1 | -2 | 0 | -3 | -1 | -1 | 0 | 0 | 0 | -1 | -1 | 0 | -5 | -5 | |
| 1050 | 1100 | 0 | -1 | -2 | 0 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -4 | -4 | |
| 1100 | 1150 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1150 | 1200 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1200 | 1250 | 0 | -1 | -2 | 0 | -3 | -3 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -6 | -6 | Proposed alignment varies between cutting and embankments within potentially compressible material |
| 1250 | 1300 | 0 | -1 | -2 | 0 | -3 | -3 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -6 | -6 | Proposed alignment varies between cutting and embankments within potentially compressible material |
| 1300 | 1350 | 0 | -1 | -2 | 0 | -3 | -3 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -6 | -6 | Proposed alignment varies between cutting and embankments within potentially compressible material |
| 1350 | 1400 | 0 | -1 | -2 | 0 | -3 | -3 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -6 | -6 | Proposed alignment varies between cutting and embankments within potentially compressible material |
| 1400 | 1450 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1450 | 1500 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1500 | 1550 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -2 | -1 | 0 | -4 | -4 | |
| 1550 | 1600 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -2 | -1 | 0 | -4 | -4 | |
| 1600 | 1650 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -2 | -1 | 0 | -4 | -4 | |
| 1650 | 1700 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -2 | -1 | 0 | -4 | -4 | |
| 1700 | 1750 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -3 | -3 | |
| 1750 | 1800 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -3 | -3 | |
| 1800 | 1850 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1850 | 1900 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1900 | 1950 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 1950 | 2000 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 2000 | 2050 | 0 | -1 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 2050 | 2100 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 2100 | 2150 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 2150 | 2200 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | -1 | 0 | -5 | -5 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2200 | 2250 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2250 | 2300 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2300 | 2350 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2350 | 2400 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2400 | 2450 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2450 | 2500 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2500 | 2550 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -4 | -4 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2550 | 2600 | 0 | 0 | -2 | 0 | -3 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -5 | -5 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2600 | 2650 | 0 | 0 | -2 | 0 | -3 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -5 | -5 | Proposed alignment has NG pipeline crossing along chainage length. Existing levels below proposed however maximum of 2m above |
| 2650 | 2700 | 0 | 0 | -2 | 0 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 2700 | 2750 | 0 | 0 | -2 | 0 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -6 | In cutting (peat) at existing onslip for A96 |
| 2750 | 2800 | 0 | 0 | -2 | 0 | -3 | -2 | -1 | 0 | 0 | 0 | | 0 | -3 | -7 | -7 | In cutting (peat) at existing onslip for A97 |
| 2800 | 2850 | 0 | 0 | -2 | 0 | -3 | -2 | -1 | 0 | 0 | 0 | -1 | 0 | -3 | -8 | -8 | In cutting (peat) at existing onslip for A98 |
| 2850 | 2900 | 0 | 0 | -2 | 0 | -3 | 1 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -4 | -4 | |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2900 | 2950 | 0 | 0 | -2 | 0 | -3 | 1 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -4 | -4 | |
| 2950 | 3000 | 0 | 0 | -2 | 0 | -3 | 1 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -4 | -4 | |
| 3000 | 3050 | 0 | 0 | -2 | 0 | -3 | 1 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -4 | -4 | |
| 3050 | 3100 | 0 | 0 | -2 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 3100 | 3150 | | | | | | | | | | | | | | | | |

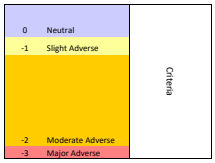



**Rules**
Total Score
= Alignment Score (Average of E, F, G, H and I) + Geo Score + Structures Score + Flooding Score (Average of L, M and N) +Utilities score + Constructability Score (Minimum value of P&Q) = Total of 6

Then if total < or equal to -9 then should be coloured red because this represents possibility of 3 reds or 4 ambers
If total is between -6 and -8 should be coloured amber since this could represent

| Chainage | | Alignment | | | | | Geotechnics | Structures | Flooding and Drainage | | | Utilities | Constructability | | Score | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Chainage | End Chainage | Alignment Length | Level Difference | Bendiness | Hilliness | Earthworks | Geotechnics | Structures | Flood Plain | Watercourse Crossings | Attenuation requirement | Utilities | Construction access | Temp disruption | Total | Adjusted | Comments |
| 0 | 50 | -2 | 0 | 0 | -2 | -3 | 0 | -1 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted - structure potential for tieing in |
| 50 | 100 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 100 | 150 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 150 | 200 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 200 | 250 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 250 | 300 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 300 | 350 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -2 | -2 | |
| 350 | 400 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 400 | 450 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 450 | 500 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 500 | 550 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 550 | 600 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 600 | 650 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 650 | 700 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 700 | 750 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 750 | 800 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 800 | 850 | -2 | -1 | 0 | -2 | -3 | 0 | -1 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 850 | 900 | -2 | -1 | 0 | -2 | -3 | 0 | -1 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 900 | 950 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 950 | 1000 | -2 | -1 | 0 | -2 | -3 | 0 | -1 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1000 | 1050 | -2 | 0 | 0 | -2 | -3 | 0 | -1 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1050 | 1100 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1100 | 1150 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1150 | 1200 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1200 | 1250 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1250 | 1300 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1300 | 1350 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1350 | 1400 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1400 | 1450 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1450 | 1500 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1500 | 1550 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1550 | 1600 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1600 | 1650 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -1 | -1 | |
| 1650 | 1700 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 1700 | 1750 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 1750 | 1800 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 1800 | 1850 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 1850 | 1900 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1900 | 1950 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -6 | -6 | Proposed alignment has NG pipeline crossing at this point |
| 1950 | 2000 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 2000 | 2050 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to suit. Disruption being main cause for moderate |
| 2050 | 2100 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to suit. Disruption being main cause for moderate |
| 2100 | 2150 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2150 | 2200 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2200 | 2250 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2250 | 2300 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2300 | 2350 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -6 | Proposed alignment has SGN (medium pressure) & SW pipes located at this chainage length |
| 2350 | 2400 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | -3 | -6 | -6 | Proposed alignment has SGN (medium pressure) & SW pipes located at this chainage length |
| 2400 | 2450 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | -3 | -6 | -6 | Proposed alignment has SGN (medium pressure) & SW pipes located at this chainage length |
| 2450 | 2500 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | -3 | -7 | -7 | Proposed alignment has SGN (medium pressure) & SW pipes located at this chainage length |
| 2500 | 2550 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -2 | 0 | -3 | -7 | -7 | Proposed alignment has SGN (medium pressure) & SW pipes located at this chainage length |
| 2550 | 2600 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -6 | Proposed alignment has SGN (medium pressure) & SW pipes located at this chainage length |
| 2600 | 2650 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2650 | 2700 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 2700 | 2750 | -2 | -1 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 2750 | 2800 | -2 | -1 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 2800 | 2850 | -2 | -1 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -6 | -6 | Proposed alignment has NG pipeline crossing at this point |
| 2850 | 2900 | -2 | -1 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -6 | -6 | Proposed alignment has NG pipeline crossing at this point |
| 2900 | 2950 | -2 | -1 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 2950 | 3000 | -2 | -1 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 3000 | 3050 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 3050 | 3100 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 3100 | 3150 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 3150 | 3200 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 3200 | 3250 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | -2 | | 0 | 0 | -4 | -4 | |
| 3250 | 3300 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 3300 | 3350 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | -1 | -1 | 0 | -5 | -5 | |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3350 | 3400 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | -1 | -1 | 0 | -5 | -5 | |
| 3400 | 3450 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | -3 | 0 | -1 | -1 | 0 | -6 | -6 | Crossing Watercourse |
| 3450 | 3500 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | -1 | -1 | 0 | -5 | -5 | |
| 3500 | 3550 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3550 | 3600 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3600 | 3650 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3650 | 3700 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3700 | 3750 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3750 | 3800 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3800 | 3850 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3850 | 3900 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3900 | 3950 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 3950 | 4000 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4000 | 4050 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4050 | 4100 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4100 | 4150 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4150 | 4200 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4200 | 4250 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4250 | 4300 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 4300 | 4350 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 4350 | 4400 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -2 | -2 | |
| 4400 | 4450 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -2 | -2 | |
| 4450 | 4500 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 4500 | 4550 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 4550 | 4600 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 4600 | 4650 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 4650 | 4700 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4700 | 4750 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4750 | 4800 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4800 | 4850 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4850 | 4900 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4900 | 4950 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 4950 | 5000 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 5000 | 5050 | -2 | 0 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 5050 | 5100 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 5100 | 5150 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 5150 | 5200 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5200 | 5250 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5250 | 5300 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5300 | 5350 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5350 | 5400 | -2 | -3 | 0 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -5 | -5 | |
| 5400 | 5450 | -2 | -3 | 0 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -5 | -5 | |
| 5450 | 5500 | -2 | -2 | 0 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -5 | -5 | |
| 5500 | 5550 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5550 | 5600 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5600 | 5650 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5650 | 5700 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5700 | 5750 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 5750 | 5800 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 5800 | 5850 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 5850 | 5900 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 5900 | 5950 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 5950 | 6000 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 6000 | 6050 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 6050 | 6100 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 6100 | 6150 | -2 | -1 | 0 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 6150 | 6200 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 6200 | 6250 | -2 | -2 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -7 | -7 | Proposed alignment has cutting in made ground (contamination potential) & up to 6.1m high in rock |
| 6250 | 6300 | -2 | -2 | 0 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | -3 | -7 | -7 | Proposed alignment has cutting in made ground (contamination potential) & up to 6.1m high in rock |
| 6300 | 6350 | -2 | -2 | 0 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | -3 | -7 | -7 | Proposed alignment has cutting in made ground (contamination potential) & up to 6.1m high in rock |
| 6350 | 6400 | -2 | -1 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -6 | Proposed alignment has cutting in made ground (contamination potential) & up to 6.1m high in rock |
| 6400 | 6450 | -2 | 0 | 0 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 6450 | 6500 | | | | | | | | | | | | | | | | |
| 6500 | 6550 | | | | | | | | | | | | | | | | |

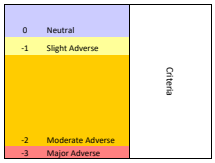



**Rules**
Total Score
= Alignment Score (Average of E, F, G, H and I) + Geo Score + Structures Score + Flooding Score (Average of L, M and N) +Utilities score + Constructability Score (Minimum value of P&Q) = Total of 6

Then if total < or equal to -9 then should be coloured red because this represents possibility of 3 reds or 4 ambers
If total is between -6 and -8 should be coloured amber since this could represent

| Chainage | | Alignment | | | | | Geotechnics | Structures | Flooding and Drainage | | | Utilities | Constructability | | Score | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Chainage | End Chainage | Alignment Length | Level Difference | Bendiness | Hilliness | Earthworks | Geotechnics | Structures | Flood Plain | Watercourse Crossings | Attenuation requirement | Utilities | Construction access | Temp disruption | Total | Adjusted | Comments |
| 0 | 50 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -2 | 0 | -3 | -8 | -8 | Proposed alignment has distribution main crossed at this chainage length |
| 50 | 100 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption. Potential compressible soils present |
| 100 | 150 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption. Potential compressible soils present |
| 150 | 200 | -1 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption. Potential compressible soils present |
| 200 | 250 | -1 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption. Potential compressible soils present |
| 250 | 300 | -1 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 300 | 350 | -1 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -6 | -6 | Proposed alignment has NG pipeline crossing at chainage length |
| 350 | 400 | -1 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 400 | 450 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | 0 | 0 | -4 | -4 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 450 | 500 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | -1 | 0 | 0 | -5 | -5 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 500 | 550 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | -1 | -1 | 0 | 0 | -8 | -8 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 550 | 600 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | -1 | 0 | 0 | -8 | -8 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 600 | 650 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | -1 | 0 | 0 | -8 | -8 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 650 | 700 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | -1 | 0 | 0 | -8 | -8 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 700 | 750 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | -1 | 0 | 0 | -8 | -8 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 750 | 800 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | -1 | -2 | 0 | -10 | -10 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 800 | 850 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | -3 | 0 | | -2 | 0 | -10 | -10 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 850 | 900 | -1 | -1 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | | -2 | 0 | -9 | -9 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 900 | 950 | -1 | -1 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | | -2 | 0 | -9 | -9 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 950 | 1000 | -1 | -1 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | | -2 | 0 | -9 | -9 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 1000 | 1050 | -1 | -1 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | | -2 | 0 | -9 | -9 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 1050 | 1100 | -1 | -1 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | | -2 | 0 | -9 | -9 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 1100 | 1150 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | | -2 | 0 | -9 | -9 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 1150 | 1200 | -1 | 0 | -2 | -2 | -3 | -1 | -3 | -3 | 0 | 0 | | -2 | 0 | -9 | -9 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 1200 | 1250 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | -3 | 0 | 0 | | -2 | 0 | -6 | -6 | Within flood plain & crossing watercourse at point within highlighted area. Structure requirement possibly. |
| 1250 | 1300 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 1300 | 1350 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 1350 | 1400 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 1400 | 1450 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 1450 | 1500 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 1500 | 1550 | -1 | 0 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -2 | 0 | -5 | -5 | |
| 1550 | 1600 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -2 | 0 | -4 | -4 | |
| 1600 | 1650 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -2 | 0 | -4 | -4 | |
| 1650 | 1700 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -2 | 0 | -4 | -4 | |
| 1700 | 1750 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1750 | 1800 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1800 | 1850 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1850 | 1900 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -3 | -3 | |
| 1900 | 1950 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | -1 | -3 | -3 | |
| 1950 | 2000 | -1 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 2000 | 2050 | -1 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 2050 | 2100 | -1 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 2100 | 2150 | -1 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 2150 | 2200 | -1 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 2200 | 2250 | -1 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 2250 | 2300 | -1 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 2300 | 2350 | -1 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 2350 | 2400 | -1 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 2400 | 2450 | -1 | -2 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -5 | -5 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2450 | 2500 | -1 | -2 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | -1 | 0 | -5 | -5 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2500 | 2550 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |

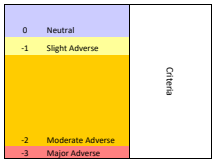
| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2550 | 2600 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2600 | 2650 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2650 | 2700 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2700 | 2750 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2750 | 2800 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2800 | 2850 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2850 | 2900 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2900 | 2950 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 2950 | 3000 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 3000 | 3050 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 3050 | 3100 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -5 | -5 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 3100 | 3150 | -1 | -3 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | 0 | -4 | -4 | Embankments up to 29.1m (but greater than 19m) high on non-identified geotechnical constraints. [Note historical tank noted between 3000 and 3100]. |
| 3150 | 3200 | -1 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 3200 | 3250 | -1 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 3250 | 3300 | -1 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -3 | -3 | |
| 3300 | 3350 | -1 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption |
| 3350 | 3400 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption |
| 3400 | 3450 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption |
| 3450 | 3500 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption |
| 3500 | 3550 | -1 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to slight from moderate as major factor being temp disruption |
| 3550 | 3600 | | | | | | | | | | | | | | | | |
| 3600 | 3650 | | | | | | | | | | | | | | | | |




**Rules**
Total Score
= Alignment Score (Average of E, F, G, H and I) + Geo Score + Structures Score + Flooding Score (Average of L, M and N) +Utilities score + Constructability Score (Minimum value of P&Q) = Total of 6

Then if total < or equal to -9 then should be coloured red because this represents possibility of 3 reds or 4 ambers
If total is between -6 and -8 should be coloured amber since this could represent

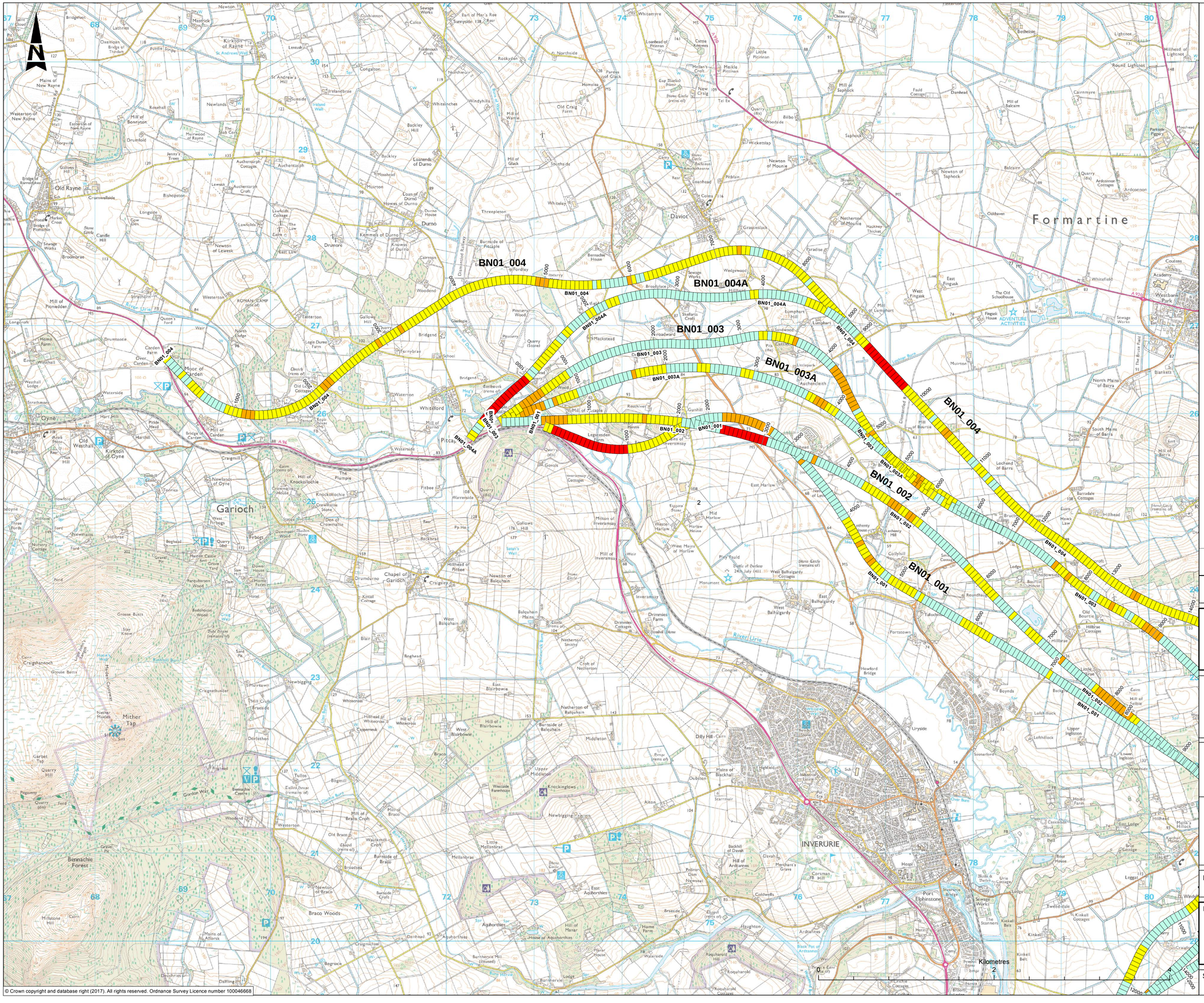
| Chainage | | Alignment | | | | | Geotechnics | Structures | Flooding and Drainage | | | Utilities | Constructability | | Score | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Chainage | End Chainage | Alignment Length | Level Difference | Bendiness | Hilliness | Earthworks | Geotechnics | Structures | Flood Plain | Watercourse Crossings | Attenuation requirement | Utilities | Construction access | Temp disruption | **Total** | **Adjusted** | Comments |
| 0 | 50 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 50 | 100 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 100 | 150 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 150 | 200 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to suit. Utility (medium pressure) being several meters below proposed levels |
| 200 | 250 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 250 | 300 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 300 | 350 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 350 | 400 | 0 | 0 | -2 | -2 | -3 | 0 | -1 | 0 | 0 | 0 | -1 | 0 | -1 | -4 | -4 | |
| 400 | 450 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 450 | 500 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 500 | 550 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 550 | 600 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 600 | 650 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -3 | -3 | |
| 650 | 700 | 0 | 0 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -5 | -5 | Cutting in area of made/worked ground (potential contamination source) |
| 700 | 750 | 0 | 0 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | Cutting in area of made/worked ground (potential contamination source) |
| 750 | 800 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 800 | 850 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | -3 | -3 | |
| 850 | 900 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 900 | 950 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 950 | 1000 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -2 | -2 | |
| 1000 | 1050 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1050 | 1100 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1100 | 1150 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1150 | 1200 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1200 | 1250 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1250 | 1300 | 0 | -2 | -2 | -2 | -3 | | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1300 | 1350 | 0 | -1 | -2 | -2 | -3 | | 0 | 0 | 0 | 0 | | -1 | 0 | -3 | -3 | |
| 1350 | 1400 | 0 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1400 | 1450 | 0 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1450 | 1500 | 0 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1500 | 1550 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1550 | 1600 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1600 | 1650 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1650 | 1700 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | -1 | 0 | -4 | -4 | |
| 1700 | 1750 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1750 | 1800 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1800 | 1850 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1850 | 1900 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1900 | 1950 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 1950 | 2000 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -4 | -4 | |
| 2000 | 2050 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to suit due to temp disruption being main factor for moderate |
| 2050 | 2100 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -6 | -5 | Adjusted to suit due to temp disruption being main factor for moderate |
| 2100 | 2150 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 2150 | 2200 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 2200 | 2250 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 2250 | 2300 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 2300 | 2350 | | | | | | | | | | | | | | | | |
| 2350 | 2400 | | | | | | | | | | | | | | | | |




**Rules**
Total Score
= Alignment Score (Average of E, F, G, H and I) + Geo Score + Structures Score + Flooding Score (Average of L, M and N) +Utilities score + Constructability Score (Minimum value of P&Q) = Total of 6

Then if total < or equal to -9 then should be coloured red because this represents possibility of 3 reds or 4 ambers
If total is between -6 and -8 should be coloured amber since this could represent

| Chainage | | Alignment | | | | | Geotechnics | Structures | Flooding and Drainage | | | Utilities | Constructability | | Score | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Chainage | End Chainage | Alignment Length | Level Difference | Bendiness | Hilliness | Earthworks | Geotechnics | Structures | Flood Plain | Watercourse Crossings | Attenuation requirement | Utilities | Construction access | Temp disruption | Total | Adjusted | Comments |
| 0 | 50 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 50 | 100 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -3 | -5 | -5 | |
| 100 | 150 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 150 | 200 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 200 | 250 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 250 | 300 | 0 | -1 | -2 | -2 | -3 | -3 | 0 | 0 | 0 | 0 | | 0 | -3 | -8 | -8 | Proposed alignment cutting into existing landfill (potential cotamination) along with fairly deep cutting required |
| 300 | 350 | 0 | -1 | -2 | -2 | -3 | -3 | 0 | 0 | 0 | 0 | | 0 | -3 | -8 | -8 | Proposed alignment cutting into existing landfill (potential cotamination) along with fairly deep cutting required |
| 350 | 400 | 0 | -1 | -2 | -2 | -3 | -3 | 0 | 0 | 0 | 0 | | 0 | -3 | -8 | -8 | Proposed alignment cutting into existing landfill (potential cotamination) along with fairly deep cutting required |
| 400 | 450 | 0 | -2 | -2 | -2 | -3 | -3 | 0 | 0 | 0 | 0 | | 0 | -3 | -8 | -8 | Proposed alignment cutting into existing landfill (potential cotamination) along with fairly deep cutting required |
| 450 | 500 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -6 | Cuttings up to 11.7m (but greater than 10m) high on non-identified geotechnical constraints |
| 500 | 550 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -6 | Cuttings up to 11.7m (but greater than 10m) high on non-identified geotechnical constraints |
| 550 | 600 | 0 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -6 | Cuttings up to 11.7m (but greater than 10m) high on non-identified geotechnical constraints |
| 600 | 650 | 0 | -1 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -6 | Cuttings up to 11.7m (but greater than 10m) high on non-identified geotechnical constraints |
| 650 | 700 | 0 | -1 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | -3 | -7 | -7 | Cutting in area of made/worked ground (potential contamination source) |
| 700 | 750 | 0 | -1 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | -3 | -7 | -7 | Cutting in area of made/worked ground (potential contamination source) |
| 750 | 800 | 0 | -1 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | -3 | -7 | -7 | Cutting in area of made/worked ground (potential contamination source) |
| 800 | 850 | 0 | -1 | -2 | -2 | -3 | -2 | 0 | 0 | 0 | 0 | | 0 | -3 | -7 | -7 | Cutting in area of made/worked ground (potential contamination source) |
| 850 | 900 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -2 | -5 | -5 | |
| 900 | 950 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -2 | -4 | -4 | |
| 950 | 1000 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -2 | -4 | -4 | |
| 1000 | 1050 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1050 | 1100 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1100 | 1150 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1150 | 1200 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1200 | 1250 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1250 | 1300 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1300 | 1350 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1350 | 1400 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1400 | 1450 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1450 | 1500 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1500 | 1550 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1550 | 1600 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1600 | 1650 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1650 | 1700 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | -2 | -2 | |
| 1700 | 1750 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1750 | 1800 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1800 | 1850 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1850 | 1900 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1900 | 1950 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 1950 | 2000 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | 0 | -3 | -3 | |
| 2000 | 2050 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to slight as disruption may not extend this far back |
| 2050 | 2100 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to slight as disruption may not extend this far back |
| 2100 | 2150 | 0 | -2 | -2 | -2 | -3 | -1 | 0 | 0 | 0 | 0 | | 0 | -3 | -6 | -5 | Adjusted to slight as disruption may not extend this far back |
| 2150 | 2200 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2200 | 2250 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2250 | 2300 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2300 | 2350 | 0 | -1 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -5 | -5 | |
| 2350 | 2400 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 2400 | 2450 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 2450 | 2500 | 0 | 0 | -2 | -2 | -3 | 0 | 0 | 0 | 0 | 0 | | 0 | -3 | -4 | -4 | |
| 2500 | 2550 | | | | | | | | | | | | | | | | |
| 2550 | 2600 | | | | | | | | | | | | | | | | |






## LEGEND

**Combined Engineering Appraisal**

- Major Adverse
- Moderate Adverse
- Slight Adverse
- Neutral

| | First Fix Appraisal | | | | |
|---|---|---|---|---|---|
| P01 | JSE | RO | FM | GW | GH |
| | 10/04/18 | 18/04/18 | 18/04/18 | 18/04/18 | 18/04/18 |

| | Revision details | | | | |
|---|---|---|---|---|---|
| Revision | Created | Checked | Reviewed | Approved | Authorised |
| | dd/mm/yy | dd/mm/yy | dd/mm/yy | dd/mm/yy | dd/mm/yy |

Designer
Precision House
McNell Drive
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ML1 4UR

Amey Arup

Client
58 Port Dundas Road
Glasgow
G4 0HF

TRANSPORT SCOTLAND

Project Name
# A96 Dualling: East of Huntly to Aberdeen

Drawing Title
## BN01 - Engineering Appraisal Sheet 1 of 2

| Project Ref. No. | Stage | Scale : 1:20,000 @A1 |
|---|---|---|
| 250002-92 | Stage 2 | Dimensions : |

Drawing Number

| Project | Originator | Volume | | |
|---|---|---|---|---|
| A96PEA | -AMAR - | HGN - | | |
| CB | | -DR-CH- | 001001 | |
| Location | | Type \| Role \| | Number | |

| Suitability | Suitability Description | Revision |
|---|---|---|
| S2 | For Information | P01.01 |