HIGHWAYS PHASE 1 - VIEWPORT A

PERMANENT HIGHWAY OPTION

SURFACE WATER DRAINAGE

SCALE 1:500

PROPOSED ROAD 4
CL 57.651
IL 56.526
CL 61.995
IL 60.945
CL 60.681
IL 58.631
CL 58.638
IL 57.588
IL 57.513
CL 57.589
IL 56.433
IL 56.358
CL 56.371
IL 55.576
CL 56.883
IL 55.016
PROPOSED ROAD 2
CL 61.997
IL 60.947
CL 59.955
IL 58.905
CL 58.609
IL 57.559
IL 57.484
CL 57.724
IL 56.599
PROPOSED ROAD 1
CL 54.735
IL 53.525
CL 54.593
IL 53.403
CL 53.077
IL 51.960
CL 52.398
IL 51.348
CL 54.611
IL 53.420
CL 53.078
IL 51.828
IL 51.753
CL 52.441
IL 51.391
CL 50.144
IL 49.094
CL 48.961
IL 47.911
IL 47.836
CL 48.233
IL 47.108
CL 48.233
IL 46.808
CL 49.154
IL 48.104
IL 48.029
CUT LINE 1
CL 57.297
IL 55.588
CL 56.974
IL 55.108
CL 54.734
IL 53.435
IL 53.360
CL 50.515
IL 49.465
CL 51.375
IL 50.009
OUTFALL
PIPE IL = 51.1
PROPOSED CONNECTION VIA NEW MANHOLE ON EXISTING CULVERTED WATERCOURSE.
DISCHARGE RATE = 3l/s.
ESTIMATED IL = 49.755 m AOD
FLOW CONTROL MANHOLE
ALLOWED DISCHARGE: 3 l/s
PROPOSED ROAD 3
CL 57.654
IL 56.505
IL 56.430
IL 56.355
CL 58.384
IL 57.334
ATTENUATION TANK 1
MIN COVER LEVEL: 52.5m
TANK INVERT LEVEL: 51.1m
TANK DEPTH: 0.9m
STORAGE VOLUME REQUIRED: 900 m3

REFER TO SHEET BELOW

REFER TO SHEET ABOVE

PROPOSED CONNECTION VIA EXISTING MANHOLE ON CULVERTED WATERCOURSE. PIPE TO BE LOCATED UNDER EXISTING RAVESNTHORPE ROAD CUL-DE-SAC.
DISCHARGE RATE = 14 l/s.
SURVEY REQUIRED TO DETERMINE EXISTING LEVEL (ASSUMED IL = 40.425 m AOD)

RAVENSTHORPE ROAD

EXISTING AREA OF ROAD TO DRAIN TO EXISTING GULLIES. GULLIES TO BE CLEANED AND FLUSHED AS REQUIRED.

2 NEW GULLIES NEEDED IN TEMPORARY ACCESS

EXISTING HOUSING

CL 53.077
IL 51.960
CL 52.398
IL 51.348
CL 50.144
IL 49.094
CL 48.961
IL 47.911
IL 47.836
CL 48.233
IL 47.108
CL 52.441
IL 51.391
CL 51.375
IL 50.009
CL 50.515
IL 49.465
CL 49.154
IL 48.104
IL 48.029
CUT LINE 1
CL 48.233
IL 46.808
PROPOSED ROAD 1
CL 47.023
IL 46.598
CL 46.406
IL 44.862
CL 46.435
IL 45.310
CL 47.027
IL 45.902
IL 45.827
CL 46.873
IL 45.448
CL 46.513
IL 45.773 (BD)
IL 45.087
IL 44.937
CL 46.406
IL 45.281
CL 46.569
IL 45.039
IL 44.889
CL 46.106
IL 44.804
CL 45.818
IL 44.693
CL 44.699
IL 41.284
CL 44.872
IL 42.060
CL 44.7
IL 42.08
OUTFALL PIPE
IL 42.1
FLOW CONTROL MANHOLE
ALLOWED DISCHARGE: 5.1 l/s
CL 45.316
IL 42.320
INCOMING PIPE
IL = 44.609
ATTENUATION BASIN 3
MIN COVER LEVEL: 44.0m
TANK INVERT LEVEL: 42.1m
TANK DEPTH: 1.4m
STORAGE VOLUME REQUIRED: 450 m3
INCOMING PIPE
IL = 42.777
EXISTING ROAD 2
CL 44.772
IL 43.282
CL 44.210
IL 42.812
CL 45.173
IL 43.740
CL 44.089
IL 43.075
INCOMING PIPE
IL = 42.925
NEW GULLIES FOR DRAINAGE OF JUNCTION UPGRADE
CL 44.962
IL 43.789
CL 44.648
IL 43.150
IL 43.000
CL 45.015
IL 43.889
CL 44.345
IL 43.380
CARPARK DRAINS TO SWALE
CL 45.797
IL 43.872
ATTENUATION TANK 2
MIN COVER LEVEL: 46.1m
TANK INVERT LEVEL: 43.87m
TANK DEPTH: 1.4m
STORAGE VOLUME REQUIRED: 365 m3
OUTFALL
PIPE IL = 43.9
FLOW CONTROL MANHOLE
ALLOWED DISCHARGE: 8.9 l/s
EXISTING ROAD 3
EXISTING ROAD 1
EXISTING AREA OF ROAD TO DRAIN TO PROPOSED GULLIES
PROPOSED CONNECTION VIA NEW MANHOLE ON EXISTING CULVERTED WATERCOURSE.
DISCHARGE RATE = 3l/s.
ESTIMATED IL = 49.755 m AOD
FLOW CONTROL MANHOLE
ALLOWED DISCHARGE: 3 l/s

HIGHWAYS PHASE 1 - VIEWPORT B

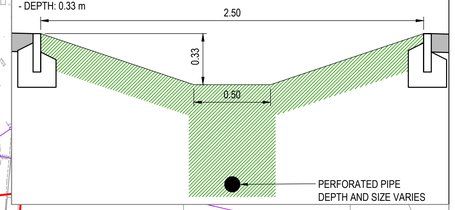
PERMANENT HIGHWAY OPTION

SURFACE WATER DRAINAGE

SCALE 1:500

SWALE SECTION - SCALE @1:20
- BASE WIDTH: 0.5 m
- TOP WIDTH: 2.5 m
- SIDE SLOPE: 1:3
- DEPTH: 0.33 m

CHECK DAMS ARE REQUIRED FOR LONGITUDINAL SLOPES > 3%.



HEALTH AND SAFETY INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING

CONSTRUCTION.

MAINTENANCE/CLEANING/OPERATION.

DECOMMISSIONING/DEMOLITION.

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, DETAILS, SPECIFICATIONS AND REPORTS PREPARED AS PART OF THE PLANNING APPLICATION SUBMITTED IN SEPTEMBER 2021.
2. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
3. THE TOPOGRAPHICAL DATA IS BASED ON INFORMATION PROVIDED BY:
   - SILKSTONE SURVEY - DRAWING REFERENCE : 21056
   - SURVEY OPERATIONS - DRAWING REFERENCE : 19G064
   - ORDNANCE SURVEY DATA HAS BEEN USED FOR ADDITIONAL WIDER BACKGROUND CONTEXT.
4. THE DATA USED IN THE PREPERATION OF THIS AND ALL OTHER BURO HAPPOLD DESIGNS AND DRAWINGS IS NOT WARRANTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SURVEY INFORMATION PROVIDED AND REPORT ANY ANOMALIES TO BURO HAPPOLD.
5. THIS DRAWING HAS BEEN PREPARED FOR THE SOLE BENEFIT, USE AND INFORMATION OF THE CLIENT. THE LIABILITY OF BURO HAPPOLD IN RESPECT OF ANY INFORMATION CONTAINED IN THE DRAWING WILL NOT EXTEND TO ANY THIRD PARTIES. BUROHAPPOLD ACCEPTS NO LIABILITY FOR ANY USE/MISUSE OF THIS DRAWING OTHER THAN FOR THE PURPOSE FOR WHICH IT HAS BEEN PRODUCED.
6. PIPES UNDER SWALES WILL BE PERFORATED. ELSEWHERE PIPES WILL BE SOLID WALL.
7. GULLIES WILL DRAIN TO SWALE

KEY

- PLANNING BOUNDARY
- EXISTING GAS MAIN
- EXISTING SURFACE WATER DRAINAGE

PROPOSED DRAINAGE

- SWALES
- WIDER MASTERPLAN SWALES
- CHECK DAMS ON ATTENUATION BASINS
- PIPES (Ø150)
- PIPES (Ø225)
- PIPES (Ø300)
- PIPES (Ø375)
- WIDER MASTERPLAN PIPES
- ATTENUATION BASINS
- WIDER MASTERPLAN ATTENUATION BASINS
- MANHOLE / INSPECTION CHAMBER
- WIDER MASTERPLAN MANHOLE / INSPECTION CHAMBER
- G GULLY
- BD BACKDROP

Rev	Description	Date	Iss'd	Rev'd	App'd

PLANNING

Project Stage

FOR INFORMATION

Status of Drawing

BURO HAPPOLD

3 Wellington Place
Leeds
LS1 4AP
Tel: 0113 204 2200
Fax:
Email:
Web: www.burohappold.com

Client	KIRKLEES COUNCIL
Architect	BARTON WILLMORE
Project	DEWSBURY RIVERSIDE
Drg Title	HIGHWAYS PHASE 1 AND 2 HIGHWAYS DRAINAGE

Job No.	Scale@A1
0048206	1- 500

Drawn/Designed By.	Checked By.	Approved By.
KH	AH	AH

Drawing No. | Revision: P07

10 5 0 10 20 30 40
1 : 500
SCALE BEFORE REDUCTION