

# **Norwich Western Link**

## **Environmental Statement Chapter 13: Geology and Soils**

### **Appendix 13.1: Interpretative Environmental Desk Study Report**

#### **Sub Appendix A: Figures and Drawings**

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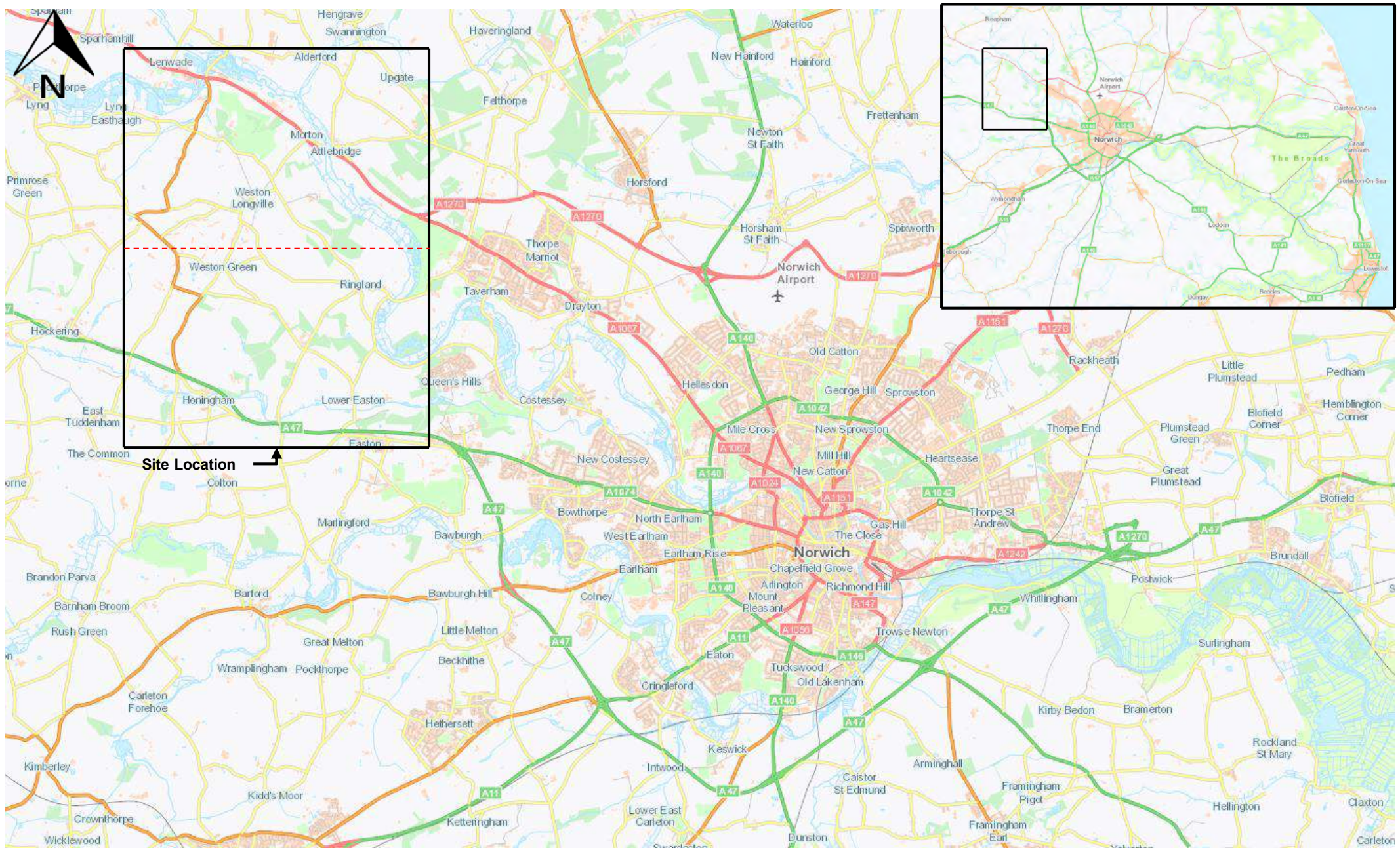
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## 1 Introduction

1.1.1 WSP UK Ltd was commissioned by NCC to complete a Preliminary Risk Assessment to inform the baseline assessment for the Geology & Soils chapter. This appendix contains figures and drawings showing the areas of the Proposed Scheme discussed in Environmental Statement Chapter 13: Geology and Soils, Appendix 1 (Document Reference 3.13.01).

1.1.2 We have included a summary of key information shown in this document in an accessible format in section 1.1.1. However, some users may not be able to access all technical details that are included in the rest of this document. If you require this document in a more accessible format, please contact [norwichwesternlink@norfolk.gov.uk](mailto:norwichwesternlink@norfolk.gov.uk)



Site Location



Norwich Western Link	Scale	NTS
Geotechnical Desk Study	Figure No.	Appendix A.1
Site Location Plan	Drawn by	DL
	Checked by	AC



- DO NOT SCALE**
- LEGEND - AERIAL VIEW**
- PROPOSED HIGHWAY BOUNDARY (INDICATIVE LOCATION)
  - PROPOSED DRAINAGE FEATURE
  - PROPOSED A47 DUALLING (BY HIGHWAYS ENGLAND)
  - PROPOSED STRUCTURE (INDICATIVE LOCATION)
  - PROPOSED ROAD SURFACE
  - PROPOSED RESERVOIR (BY WENSUM VALLEY GOLF CLUB)
  - EXISTING FOOTPATHS/BRIDWAYS/BYWAYS
  - EXISTING DITCHES/WATER COURSES
  - PROPOSED LOCAL ROADS/TRACKS DIVERSIONS
  - EXISTING LOCAL ROADS/TRACKS TO BE STOPPED UP
  - EXISTING ROADS TO BE RE-PROFILED/LOWERED
- LEGEND - VERTICAL PROFILE**
- EXISTING GROUND PROFILE
  - PROPOSED ROAD PROFILE

- NOTES**
- THE LOCATION OF EXISTING FEATURES HAVE BEEN INTERPRETTED FROM AVAILABLE ORDNANCE SURVEY AND AERIAL SURVEY MAPPING OVER THE SITE EXTENTS AND FURTHER DETAIL SURVEYS WILL BE REQUIRED TO CONFIRM ALL FEATURES.
  - THIS DRAWING IS NOT TO BE USED AS A REFERENCE FOR SETTING OUT OR CONSTRUCTION. IT IS A COMPOSITE DRAWING SHOWING THE SPATIAL RELATIONSHIP BETWEEN THE PROPOSED AND EXISTING FEATURES.
  - THE LOCATIONS AND SIZING OF ALL PROPOSED FEATURES AND STRUCTURES ARE INDICATIVE, AND ARE TO BE CONFIRMED FOLLOWING DETAILED SITE SURVEYS AND INVESTIGATIONS.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH OTHER DRAWINGS AND REPORTS ON THIS HIGHWAY SCHEME PROPOSAL.
  - THE NORWICH WESTERN LINK (NWL) STRATEGY ASSUMES THAT SOME EXISTING LOCAL ROADS AND TRACKS CAN BE DIVERTED OR STOPPED UP TO MINIMISE THE NUMBER OF LINKS TO THE NWL IN CASE OF A HWL DUAL CARRIAGEWAY.
  - THE PROPOSED HWL HIGHWAY BOUNDARY IS AN INDICATIVE OUTLINE OF THE PROPOSED NORFOLK COUNTY HIGHWAY CORRIDOR EXTENTS, BUT WILL NEED TO BE REVIEWED FOLLOWING REFERENCING OF EXISTING LAND BOUNDARIES, AND FURTHER DEVELOPMENT OF THE HIGHWAY DESIGN INCLUDING REQUIREMENTS FOR LOCAL CARRIAGEWAY WIDENING, EARTHWORKS EMBANKMENT HEIGHT AND EXTENTS, COMPENSATION DRAINAGE FEATURES, AND TEMPORARY CONTRACTOR ACCOMMODATION WORKS.
  - THE PROPOSED CARRIAGEWAY HORIZONTAL ALIGNMENT IS SUBJECT TO CONFIRMATION OF EXACT LATERAL CLEARANCES, BUFFER ZONES, AND MITIGATION FROM EXISTING SITE FEATURES INCLUDING HERITAGE GRADE LISTED BUILDINGS, AND ENVIRONMENTALLY SENSITIVE SITES.
  - THE EXISTING GROUND AND PROPOSED ROAD SURFACES ARE PRELIMINARY, BASED ON UK GOVERNMENT'S FREE OPEN SOURCE DATA LEAR DIGITAL TERRAIN MAPPING DATA. ALL THE LEVELS AND POSITIONS ARE TO BE REVIEWED AND ADJUSTED FOLLOWING COMPLETION OF A DETAILED GROUND TOPOGRAPHICAL SURVEY OF THE PREFERRED ROUTE, AND MORE DETAILED ASSESSMENT OF SIGHT DISTANCE AND VISIBILITY REQUIREMENTS MIGHT NECESSITATE SOME LAYOUT CHANGES OR DEPARTURES FROM THE PROPOSED DESIGN FOR TRANSPORT (DfT) HIGHWAY STANDARDS.
  - FOLLOWING ESTABLISHMENT OF THE MORE ACCURATE POSITIONS OF EXISTING BURIED AND OVERHEAD UTILITY PLANT, THE ROUTE GEOMETRY MAY NEED TO BE REVISED AS PART OF MITIGATION MEASURES TO MINIMISE NEWISA UTILITY DIVERSIONS.
  - THOUGH DISCUSSIONS ARE ONGOING BETWEEN NORFOLK COUNTY COUNCIL AND HIGHWAYS ENGLAND, THE A47 HIGHWAY IMPROVEMENT DETAILS, AND ALIGNMENT OF THE PROPOSED DUAL CARRIAGEWAY ARE YET TO BE CONFIRMED BY HIGHWAYS ENGLAND, AND AN APPROPRIATE GRADE SEPARATED JUNCTION TO CONNECT THE NORWICH WESTERN LINK WITH THE A47 IS YET TO BE DETERMINED.
  - THE PROPOSED HIGHWAY LINK DESIGN DOES NOT TAKE INTO ACCOUNT ANY COMPLEMENTARY NON-ROAD MEASURES TO BE IMPLEMENTED AS PART OF THE WIDER SCHEME SUCH AS NEW PEDESTRIAN ROUTES, OR ANY PROPOSED TRAFFIC CONTROL ON EXISTING LOCAL ROADS, AS THESE ARE STILL BEING ASSESSED AND AGREED.
  - THE PRELIMINARY BASIN LOCATIONS HAVE BEEN IDENTIFIED FOLLOWING OUTLINE FLOOD AND DRAINAGE ASSESSMENT OF SURFACE WATER RUNOFF FROM AN IMPERMEABLE HIGHWAY PAVEMENT SURFACE, ASSUMING A CONSTANT CROSS-SECTION WIDTH, TO ALIGN WITH THE PRELIMINARY ROAD PROFILE. THE BASIN LOCATIONS MAY CHANGE WITH THE FINAL ROAD PROFILE AND SIZES WILL VARY WHEN SURFACE AREAS ARE RE-ASSESSED BASED ON DETAILED CROSS-SECTIONS WHICH MAY INCLUDE LOCAL CARRIAGEWAY WIDENING AND ROAD SIDE FACILITIES. THE FEASIBILITY OF DRAINAGE INFILTRATION IS SUBJECT TO THE PERCOLATION TESTING AT THESE LOCATIONS, AND CONFIRMATION OF THE GROUNDWATER SENSITIVITY.
  - THE PROPOSED ROAD PROFILE DOES NOT FULLY OPTIMISE EARTHWORKS, AS THE EXISTING GROUND CONDITIONS ARE YET TO BE DETERMINED. THE GEOTECHNICAL INVESTIGATION MAY NECESSITATE A REVISION OF THE PRELIMINARY ROAD PROFILE TO TAKE INTO ACCOUNT ANY UNSUITABLE SOILS, CONTAMINATED LAND, AND/OR A HIGH POSITION OF THE GROUND WATER LEVEL.
  - THE REQUIREMENT FOR WILDLIFE STRUCTURES ("GREEN" BRIDGES, "DARK" BRIDGES, BAT GANTRIES ETC) ARE SUBJECT TO CONFIRMATION BY AN ECOLOGIST.
  - THE LOCATION, NAMING, AND DESIGNATION OF ALL EXISTING LOCAL ROADS AND PUBLIC RIGHTS OF WAY HAVE BEEN DETERMINED FROM THE INTERACTIVE MAP OF PUBLIC RIGHTS OF WAY <http://maps.norfolk.gov.uk/highways/> BUT WILL NEED TO BE CONFIRMED FROM THE NORFOLK DEFINITIVE MAP REGISTER. ALL ROAD SUFFIXED (EX) ON THE PROPOSED PROFILE VIEW ARE ROADS/TRACKS TO BE STOPPED, EXTINGUISHED, AND (N) REPRESENTS ROADS REALIGNED, CREATED OR DIVERTED.

REV	DATE	BY	DESCRIPTION	CHK	APP
P03	02/09/2019	JUL	UPDATED ALIGNMENT	JNL	JNL
P02	19/06/2019	AS	NOTES AMENDED	JUL	JNL
P01	03/06/2019	AS	FIRST ISSUE	JUL	JNL

DRAWING STATUS: **S0 - WORK IN PROGRESS**

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CLIENT:	NORFOLK COUNTY COUNCIL		
ARCHITECT:	-		
SITE/PROJECT:	NORWICH WESTERN LINK		
TITLE:	PROPOSED LINK ROAD PREFERRED OPTION OVERVIEW PLAN		
SCALE @ A1:	1:10000	CHECKED:	JUL
PROJECT NO:	70041922	DESIGNED:	AS
DRAWING NO:	1922-WSP-00-ZZ-CE-SK-3000	DRAWN:	AS
REV:	P03	DATE:	AUGUST 19
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VERTICAL PROFILE - PREFERRED OPTION  
 SCALE: H 1:10000, V 1:2000, DATUM: 5.000



Chainage	Existing Levels	Proposed Levels
0+000	17500	58446
0+050	14827	58446
0+100	13349	58446
0+150	11876	58446
0+200	10405	58446
0+250	8934	58446
0+300	7463	58446
0+350	5992	58446
0+400	4521	58446
0+450	3050	58446
0+500	1579	58446
0+550	108	58446
0+600	1571	58446
0+650	3042	58446
0+700	4513	58446
0+750	5984	58446
0+800	7455	58446
0+850	8926	58446
0+900	10397	58446
0+950	11868	58446
1+000	13339	58446
1+050	14810	58446
1+100	16281	58446
1+150	17752	58446
1+200	19223	58446
1+250	20694	58446
1+300	22165	58446
1+350	23636	58446
1+400	25107	58446
1+450	26578	58446
1+500	28049	58446
1+550	29520	58446
1+600	30991	58446
1+650	32462	58446
1+700	33933	58446
1+750	35404	58446
1+800	36875	58446
1+850	38346	58446
1+900	39817	58446
1+950	41288	58446
2+000	42759	58446
2+050	44230	58446
2+100	45701	58446
2+150	47172	58446
2+200	48643	58446
2+250	50114	58446
2+300	51585	58446
2+350	53056	58446
2+400	54527	58446
2+450	55998	58446
2+500	57469	58446
2+550	58940	58446
2+600	60411	58446
2+650	61882	58446
2+700	63353	58446
2+750	64824	58446
2+800	66295	58446
2+850	67766	58446
2+900	69237	58446
2+950	70708	58446
3+000	72179	58446
3+050	73650	58446
3+100	75121	58446
3+150	76592	58446
3+200	78063	58446
3+250	79534	58446
3+300	81005	58446
3+350	82476	58446
3+400	83947	58446
3+450	85418	58446
3+500	86889	58446
3+550	88360	58446
3+600	89831	58446
3+650	91302	58446
3+700	92773	58446
3+750	94244	58446
3+800	95715	58446
3+850	97186	58446
3+900	98657	58446
3+950	100128	58446
4+000	101599	58446
4+050	103070	58446
4+100	104541	58446
4+150	106012	58446
4+200	107483	58446
4+250	108954	58446
4+300	110425	58446
4+350	111896	58446
4+400	113367	58446
4+450	114838	58446
4+500	116309	58446
4+550	117780	58446
4+600	119251	58446
4+650	120722	58446
4+700	122193	58446
4+750	123664	58446
4+800	125135	58446
4+850	126606	58446
4+900	128077	58446
4+950	129548	58446
5+000	131019	58446

File path: \\UK-NORFOLK-CENTRAL-DATA\PROJECTS\2019\000004582-NORWICH WESTERN LINK\WSP-CIVIL-ENGINEERING\MODELS\ALIGNMENTS\02-08-2019\02-ZZ-CE-SK-3000.DWG, printed on 03 September 2019 14:00:01, by: cadie.job

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