524000 526000 528000 530000 532000 534000

188000 186000 184000 182000

THE SITE

Environment Agency Aquifer Designation based on BGS Mapping

N

Scale at A3: 1:30,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

Legend

- Borough of Camden
- Railway Lines
- A Roads

Aquifer Designation

- Secondary A Aquifer
- Unproductive Strata

Source Protection Zone

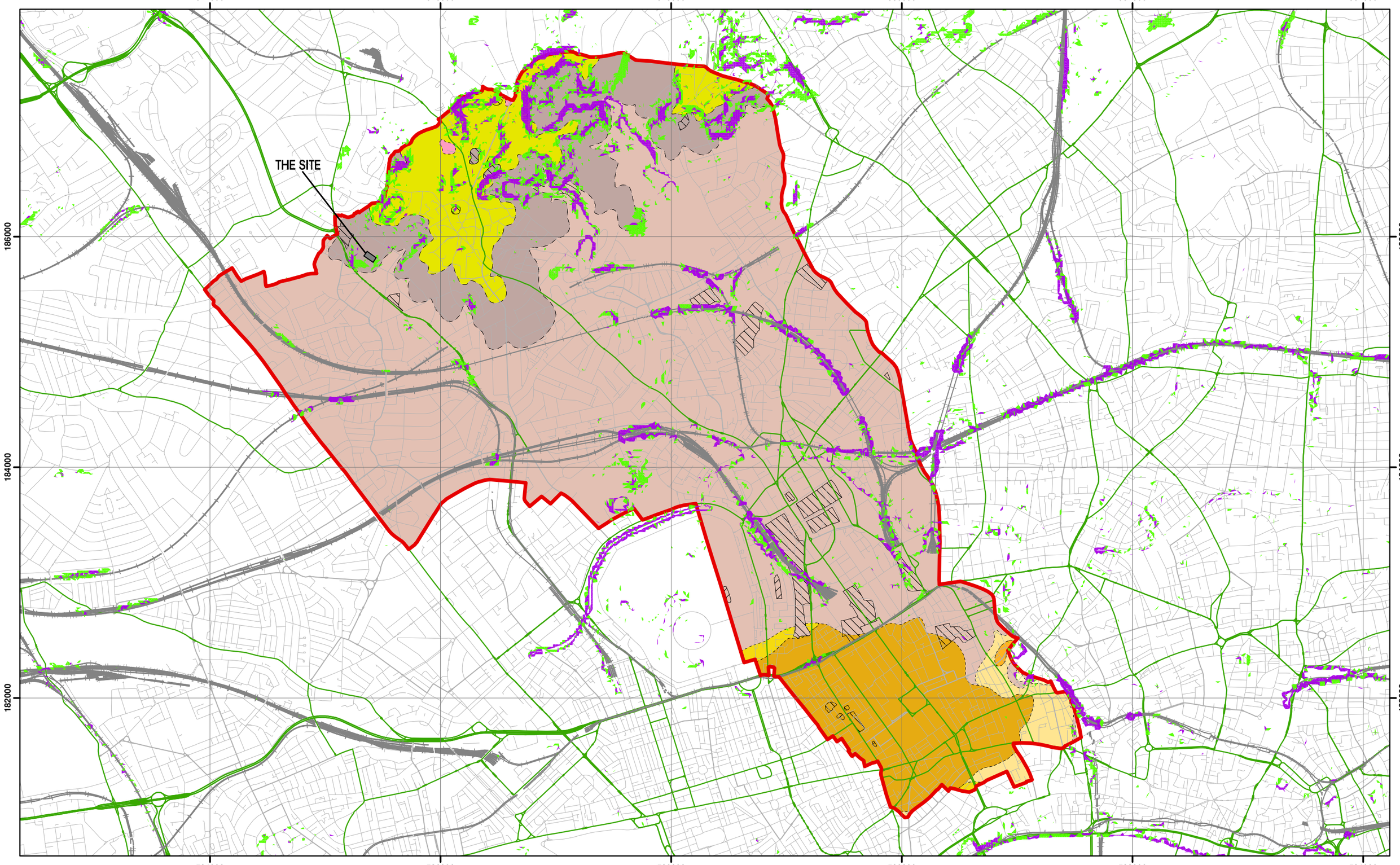
- Outer Source Protection Zone
- Inner Source Protection Zone

NB. Aquifer boundaries are indicative based on available geological mapping data

Camden Geological, Hydrogeological and Hydrological Study

Camden Aquifer Designation Map

Report: J12093 Site: Kidderpore Avenue, London NW3 Figure: 8



Slope Angles calculated from Digital Terrain Model Provided By Camden Bourough Council

N

Scale at A3: 1:30,000

1:10,000 BGS Mapping
Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

Legend

Slope
- 0° - 7°
- 7° - 10°
- > 10°

London Borough of Camden
Railway Lines
A Roads

BGS 1:10K Artificial Ground
- MADE GROUND
- WORKED GROUND

BGS 1:10K Drift Geology
- ALLUVIUM
- HACKNEY GRAVEL FORMATION
- LANGLEY SILT FORMATION
- LYNCH HILL GRAVEL FORMATION
- STANMORE GRAVEL FORMATION

BGS 1:10K Solid Geology
- BAGSHOT FORMATION
- CLAYGATE MEMBER
- LAMBETH GROUP
- LONDON CLAY FORMATION

NB. Geological boundaries are largely indicative based on available geological mapping data

Camden Geological, Hydrogeological and Hydrological Study

Slope Angle Map

Report: J12093 Site: Kidderpore Avenue, London NW3 Figure: 9

Appendix B – Scoping

Project Name: Kidderpore Avenue Pre-Planning,
Date: 26th January 2015
SPECIFICATION FOR INTRUSIVE SITE INVESTIGATION – Rev A

Client: Mount Anvil

Site Address: Kings College London Hampstead Residence
Kidderpore Avenue
London
NW3 7ST

1.0 Scope of Works

The work is to comprise geotechnical and contamination investigations on site including the sinking of boreholes, window samples and trial pits. These are summarised on the Site Investigation Brief at the end of this specification and drawing number 11316/01B. Any requirements for soakage tests are noted in the Site Investigation Brief. Samples of the strata penetrated are to be taken and tested and an interpretative geological and engineering report is to be prepared setting out these parameters to allow a foundation and retaining wall design to be developed. The report is to advise on the contamination potential of the site and include recommendations for further testing or remediation strategy if necessary. The report is to include the results of all the tests ordered and is to be submitted in an electronic ('pdf') version, together with one hard copy.

2.0 Desk Study

Soiltechnics Environmental and Geotechnical Consultants have undertaken a Desk Study of the development site at Kidderpore Avenue; report reference:'R-STK2813D-P01', and dated: July 2014. This report should be referred to in relation to pricing the intrusive works and geotechnical and chemical testing required.

3.0 Information and Geotechnical Testing

The following information and tests will be required:

i) The exact position of the borehole(s) and trial pits related to local features in order that their positions and level above datum may be accurately recorded. It is essential that the level of each of the boreholes is recorded such that the ground water levels can be interpolated across the site.

ii) The relative ordnance datum level of the ground adjacent to the boreholes and trial pits.

iii) The nature, depths and thickness of the strata penetrated.

iv) Mechanical analysis by sieving and standard penetration tests in granular strata.

v) Liquid and plastic limits, triaxial compression and consolidation tests in cohesive soils.

vi) Sulphate analysis and ph value of soil and water.

vii) The level of the water table where applicable. This is to include the level at which it is found and the standing level after a period of at least thirty minutes. Standpipes are to be installed in all of

the boreholes such that the water levels can be monitored over a period of time. Contractor is to provide extra over rate per visit to record water levels. Frequency of visits to be confirmed at a later stage.

viii) Rising head permeability tests within 5 No. wells.

The Site Investigation Contractor is to carry out sufficient sampling and testing in order to advise on the appropriate Design Sulphate Class and Aggressive Chemical Environment for Concrete Class so that suitable concrete mixes can be specified for use in the ground on this site.

Further to this the Site Investigation Contractor is to carry of sufficient sampling and testing in order to advise on parameters for the design of a piled retaining wall for a double storey basement and for the design of the lowest 'ground' level basement slab.

The information obtained from the sampling and testing will also be used to inform a Basement Impact Assessment and Ground Movement Analysis to determine the impact of the new basements on the existing Thames Water reservoir and existing buildings.

4.0 Contamination Appraisal and Testing

The Site Investigation Contractor shall carry out a contamination desk study and appraisal of the site. He shall provide details with his tender of the sampling, testing and gas monitoring proposed in order to advise on the nature, extent and level of ground contamination on the site.

5.0 Existing Services and other buried obstructions

Where statutory services responses have been received by the Engineer showing the approximate routes of services in the ground, they will be provided with the site investigation tender package. The Site Investigation Contractor is to make all necessary enquiries and satisfy himself as to the location and extent of all buried services prior to commencing investigations. The responsibility for avoiding buried services and other obstructions remains solely with the Site Investigation Contractor.

6.0 Method of Working

Comply at all times with the requirements of the Health and Safety at Work Act 1974, including Health and Safety Executive approved Codes of Practice and Guidance Notes. The site investigation is to be carried out by suitably qualified and experienced persons in accordance with the relevant Codes of Practice.

Working hours are to be agreed with the Client.

Where appropriate, Heras fencing and other protective measures are to be provided to prevent access to the works by unauthorised persons and members of the public.

Prepare method statements and risk assessments and submit for approval prior to the commencement of works.

The Site Investigation Contractor is to ensure the stability of all excavations and adjoining buildings is maintained at all times. He shall design, install and maintain all necessary temporary works and programme the works accordingly. Where personnel access to trial pits is necessary, excavations must be adequately shored to maintain stability and safety.

All investigations are to be backfilled and finishes reinstated to match existing or as otherwise instructed by the Engineer and Client. On completion, the site is to be left tidy and all materials, tools and equipment are to be removed.

7.0 Tender – Price and Programme

The Site Investigation Contractor is to submit a lump sum tender price for undertaking the whole of the work described above and in the Site Investigation Brief. Additionally where noted the price for the site investigation should be broken down into separate items. A schedule of rates for laboratory tests is to be submitted with the tender and cost budgets are to be submitted for geotechnical and contamination testing. The Contractor should state when the work could begin and the time required for the completion of the field work, laboratory testing and the submission of the report.

8.0 Insurance

The Site Investigation Contractor shall be adequately insured and is to advise details of their insurance. Any damage to the existing property and/or its services shall be repaired at the Contractor's cost.

Site Investigation Brief

Project: **Kidderpore Avenue Pre-Planning,**	Job Number: **11316**	Engineer: **TP**

Client **Site Address:**	Name: Mount Anvil Kings College London Hampstead Residence Kidderpore Avenue London NW3 7ST		
Data supplied			
Plan of Site	✓		
Proposed Site Layout	✓		
Development Proposed	✓		
Construction	Methods: Refurb – Masonry New Build – Varies: Masonry/Timber Frame/RC Frame. Up to 7 Stories inclusive of 2 storey basement	Loadings: TBC	
Landscaping Known			
Details of Public Utilities Known	(1) Within Site	Subscan electro detection has been undertaken	
	(2) Adjacent to Site	✓	
	(3) Liaise with Client	✓	
Preliminary Investigation Required	(1) Desk Study	Refer to Soiltechnics report ref: R-STK2813D-P01'and dated: July 2014	
	(2) Maps Search	Refer to Soiltechnics report ref: R-STK2813D-P01'and dated: July 2014	
	(3) Data Base Search	Refer to Soiltechnics report ref: R-STK2813D-P01'and dated: July 2014	
	(4) Historical Search	Refer to Soiltechnics report ref: R-STK2813D-P01'and dated: July 2014	
Field Investigation/Tests Required	See attached sketch listed below		These are suggested requirements only. Final assessment of required investigation to be by soil specialist as necessary to prepare their accurate report.
Trial Pits	Refer to 11316/01B		
Window Samples	Refer to 11316/01B		
Boreholes	Refer to 11316/01B		
BRE365 Soakage	Only if considered appropriate		
CBRs	Around locations of BH07 & BH09		
Gas Monitoring	If considered appropriate following desk study.		
Contamination	✓		
Ground water monitoring	Standpipes to be installed in all boreholes. Contractor to provide rate for returning to site to record ground water levels.		

Other	Rising head permeability tests within 5No. wells.						
Known Characteristics which may affect soil investigation							
Reporting	(1) Full			✓	(4) Road Design		✓
	(2) Assessment				(5) Soakaway Design		TBC
	(3) Letter Report (interim)						
Monitoring Period Required	(1) Piezometers			✓	(2) Gas Monitoring		✓
Required Programme	Site Works	Date ASAP	TBC ✓	Interim Report	Feb/Mar 2015	Final Report	March 2015
To be read in conjunction with Tully De'Ath Soil Investigation Specification	Signed:				Date:		

NB This brief does not form a contract, the instruction is on behalf of the Client and employment will be directly with the Client as above

List of Sketches for Reference

11316/01B – Site Investigation Scope of Works

EXISTING RESERVOIR

Approx. Site boundary taken from Architect's site plan drawing.

N.B: NO INTRUSIVE WORKS TO BE UNDERTAKEN WITHIN 6.5m OF EXISTING RESERVOIR.

TBC if Existing Chapel is to be replaced or retained and refurbished.

CHAPEL

WS01 (6.0m)
C-G-TP05
C-G-TP04
C-G-TP01
C-G-TP03
C-G-TP02
BH01 (15.0m)
BH02 (25.0m)
BH03 (25.0m)
WS05 (6.0m)
WS03 (6.0m)
BH04 (10.0m)
BH05 (15.0m)
MH-G-TP02
MH-G-TP01
BH06 (25.0m)
BH-G-TP01
KH-B-TP03
WS02 (6.0m)
QM-G-TP01
WS04 (6.0m)
QM.
BH07 (25.0m)
KH.
BH.
MH-B-TP03
WS06 (6.0m)
MH-B-TP04
SH-LG-TP02
SH.
DB.
DB-G-TP01
WS07 (6.0m)
DB-G-TP02
LC-B-TP02
LC.
LC-B-TP01
MH-B-TP02
MH.
RF-G-TP01
BH08 (25.0m)
RF.
WS08 (6.0m)
RF-G-TP02
WS09 (6.0m)
BH09 (20.0m)
LCM-G-TP02
LCM.
BH10 (25.0m)
LCM-G-TP01
WS10 (6.0m)

KIDDERPORE AVE

General Notes

1. It This drawing is to be read in conjunction with site investigation specification document.
2. Contractor to allow for backfilling of all holes and making good of finishes to match the existing, where applicable.
3. Contractor is to visit site to satisfy themselves with the site access and condition of the existing buildings. Particular attention should be paid to the existing condition of the Chapel and practicalities of undertaking proposed investigation works in this area.

KEY.

- Indicates approx. outline of proposed new buildings.
- Indicates approx. extent of proposed new double storey basement car park.
- Indicates approx. extent of existing buildings to be retained and refurbished.
- Indicated approx. extent of existing building proposed for removal.
- BHxx(...m) Indicates borehole (BH) and depth.
- WSxx(...m) Indicates window sample (WS) location and depth.
- BUILDING REF. / LEVEL REF. / TRIAL PIT REF. — QM-G-TP01 — Indicates trial pit (TP) required to confirm depth of existing foundations and ground on which they bear. Allow 1.5x1.5x1.5dp for pricing purposes unless noted otherwise below. Actual size may vary on site to suit depth of foundations. Allowance should be made for backfilling all trial pits and making good finishes to match existing, where applicable.
  N.B: Contractor is to ensure that existing foundations are not undermined.

Allowance is to be made for the following trial pits to be dug to the dimensions quoted:

C-G-TP03	=	2.5x2.5x2.5dp
MH-G-TP01	=	1.0x3.0x2.5dp
DB-G-TP02	=	1.5x2.5x2.5dp
RF-G-TP01	=	1.5x2.0x2.0dp
RF-G-TP02	=	1.5x2.0x2.0dp
LCM-G-TP01	=	1.5x2.5x2.5dp
LCM-G-TP02	=	1.5x2.5x2.5dp

REV	DATE	DESCRIPTION	BY	CHK'D
B	22.01.15	Trial pit 'MH-G-TP01' size amended. Trial pit 'MH-G-TP02' added.	TP	AT
A	20.01.15	Location of trial pit 'LC-B-TP01' relocated.	TP	AT

MOUNTAVIL

TITLE:
Site Investigation Scope of Works.

PROJECT:
Kidderpore Avenue Pre-Planning.

SCALE: N.T.S	DATE: Jan'15	DRAWN: TP	CHK'D: AT

JOB NO.	DRG NO.	REV.
11316	01	B

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Appendix C – Site Investigation and Study

Content to be submitted with revised report on the 13th July following completion of site investigation and ground water monitoring works.

Appendix D – Impact Assessment

Content to be submitted with revised report on the 13th July following completion of site investigation and ground water monitoring works.

Feasibility Research

EIA, Flood Risk &
Transportation
Assessment

Urban Planning and
Design

Integrated Transport
Solutions

Infrastructure
Development

Structural Design

Eco and MMC
Focused

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