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AB1274: Riverpark Gardens, Bromley BR2 0BQ

Review of Phase 1 Geotechnical Desk Study Report

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ABSTRUCT are in receipt of the Phase 1 Geotechnical Desk Study by Ground and Environmental Services Ltd (Report No. 11337 dated November 2014) for the above site.

Their report conclusions are as follows:

- *It was understood that the proposed redevelopment of the site would comprise the demolition of the existing derelict building and garage block and construction of a block of flats including parking areas together with communal soft landscaped areas and private terraces.*
- *The site was part of a field until approximately c.1958, when the site was developed to its current layout.*
- *The site currently comprises a derelict office building with associated garage block. A hard standing car park is present in the northern part of the site.*
- *During the historical map search of the site and surrounding area, no sources of potentially significant contamination were identified.*
- *No potentially contaminative processes or materials were identified on site at the time of this report.*
- *The geology underlying the site is the Thanet Sand Formation which is designated a Secondary A Aquifer. The site is located within a groundwater Source Protection Zone II and Zone III.*
- *In the absence of any identifiable sources of potentially significant ground contamination, the risk to human health, water resources, plants, and buildings and services are considered to be low.*
- *Based on the findings of this Phase 1 Study it is concluded that intrusive investigations in respect of ground contamination are not required prior to demolition and site clearance. However confirmatory sampling should be carried out to confirm the absence of significant contamination.*
- *Should any potentially contaminative materials be identified in the enabling works prior to development, the works should be halted until a member of GES is able to attend site to take confirmatory soil samples to determine the presence of any contamination.*
- *Based on the available information and based on the principles and definitions outlined under section 57 of the Environmental Act 1995, the site would not be considered to be 'contaminated land' based on its proposed development for a residential end use which includes areas of soft landscaping and private gardens*

continued…

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ABSTRUCT LLP have carried out a high level review of the GENVS report and their conclusions and we make the following observations and recommendations.

1. A Phase 2 Geotechnical Investigation is required to confirm the underlying ground conditions for the design of new footings, etc.
2. Confirmatory sampling should also be carried out to confirm the absence of significant contamination and we recommend this is carried out prior to demolition to avoid any delays when the new construction starts.
3. The underlying ground conditions are expected to be Thanet Sands with some possible alluvium bands/pockets.
4. For a new 2-3 storey residential building we anticipate the use of traditional mass concrete strip / pad footings bearing into the Thanet Sand. This is however subject to confirmation by the Phase 2 Geotechnical Investigation.
5. A trial pit is needed against the external wall of the existing block of flats immediately to the north of the site to establish the depth and projection of the footing to assist with party wall matters.
6. No special measures are required for RADON.
7. Although not observed during the Phase 1 walk over by GENVS, we recommend contamination testing to check for the presence of any historical total petroleum hydrocarbons (TPH) in the ground in front of the garage area where there may have been oil spills (from car maintenance for example) which may have entered the ground below the external slab.
8. We recommend as part of the Phase 2 geotechnical investigations to carry out 5 No. window sample (WS) boreholes to approximately 5.0m depth. Locations as shown on the ABSRUCT sketch SK01.
9. Ground gas and water monitoring to be carried out in one of the WS.
10. Contamination testing is to be carried out on 5 soil samples from the WS holes for a screening suite of contaminants. The analytical suite would include total petroleum hydrocarbons (TPH), mineral oils, metals, polyaromatic hydrocarbons (PAH), soil organic matter, water soluble sulphate and pH, asbestos and arsenic.
11. There is an existing sub-station enclosure at the eastern end of the garages. We understand this is to be removed and a new sub-station is to be provided on the opposite side of the road. The current location of the sub-station would then be turned into communal gardens.
12. We understand that it was not possible for GENVS to access to the sub-station (restricted to the Electricity Board) but we assume there is an existing concrete floor slab on to which the equipment sits.
13. Historically transformers used Polychlorinated Biphenyl (PCB's) as insulators but these were phased out in the 1960's due to environmental concerns. Although not highlighted in the GENVS report, it may be possible that there could be some localised contamination of PCB's on the sub-station slab, from possible spillages when PCB's were previously drained/removed from the equipment.
14. We recommend that a two-step approach is taken to check for the presence of PCB's within the sub-station slab.
    a. Obtain access to the sub-station to carry out a visual check for staining on the sub-station slab.
    b. Depending on the outcome of the above, if there is evidence of staining then carry out contamination sampling of a surface section of the slab. However, this can only practically be done once the sub-station has been de-commissioned.

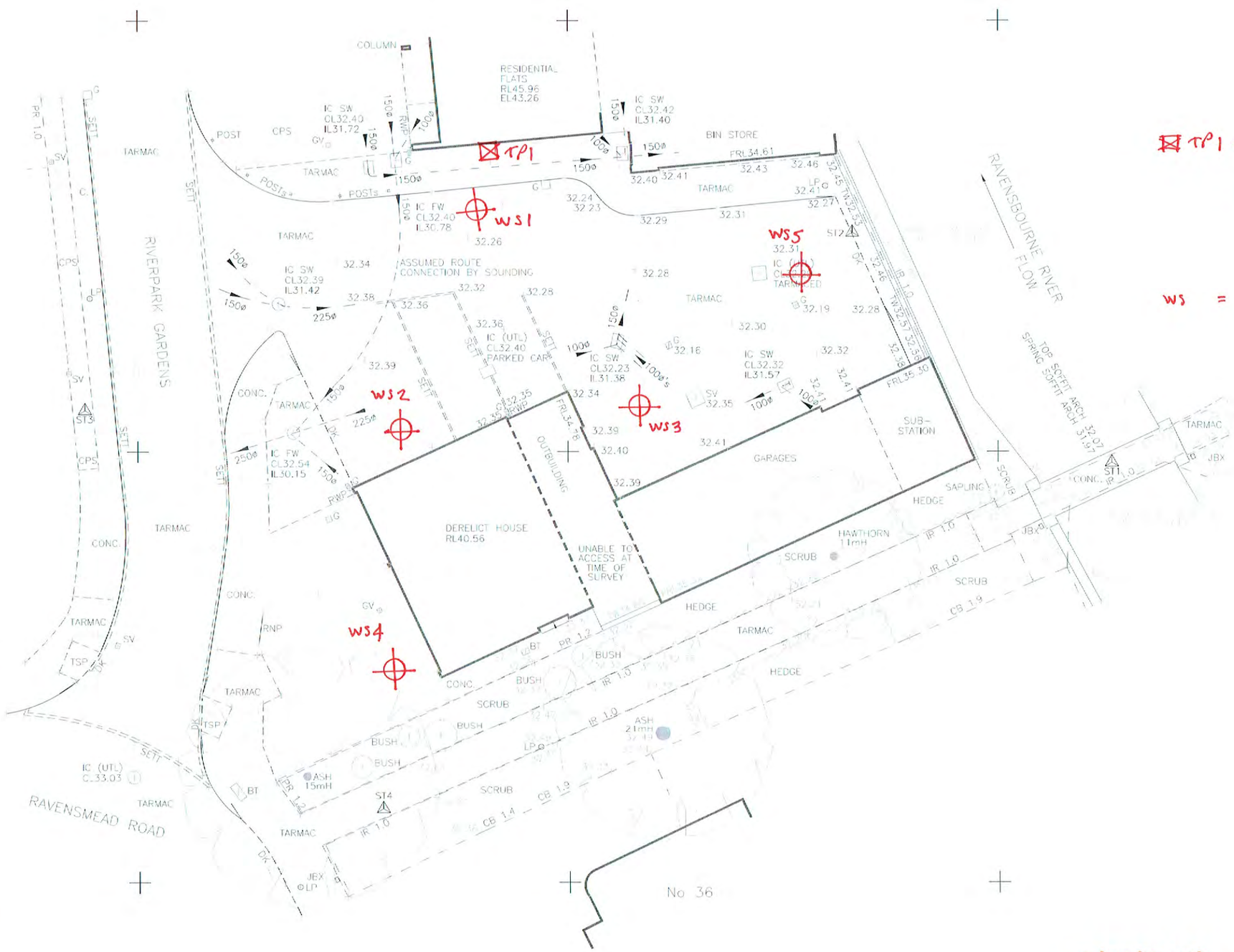
--- END ---

Status **PRE-APPLICATION SUBMISSION**

1. Do not scale off this drawing.
2. All Bell Phillips architects drawings to be read in conjuction with written specification and all other consultant drawings.
3. All dimensions to be checked on site.
4. Any errors or omissions to be reported to Bell Phillips architects immediately, prior to work being carried out.

TP1 = TRIAL PIT TO INVESTIGATE DEPTH & PROTECTION OF EXISTING FOOTING TO FLATS

WS = WINDOW SAMPLE HOLE TO 5.0M DEPTH.



EDI Topographical survey notes and key (for further details refer to full EDI topographical survey drawings)

NOTES:-

The accuracy and content of this drawing are dependent on the original specification and EDI should be consulted before use at other scales.

Where underground services are shown, all reasonable care has been taken within the spirit of the original specification and requirement. Before use of this information the user should consult EDI and satisfy themselves of the completeness and accuracy of such detail before undertaking any works. Due to the nature of this work and limitations imposed by ground conditions and the detection equipment no guarantee can be given that all services have been recorded. Trial holes should be dug at critical locations.

All reasonable care has been taken in the survey detail represented on this drawing but any discrepancies must be reported to EDI immediately.

Our aim is to produce the best possible results within the specification and cost constraints of our clients. Any comments are most welcome.

Levels shown at kerbs are channel level unless stated.

LEGEND/KEY

Features: TOV

AV Air Valve
AB Air Brick
BD Bollard
BM Benchmark
BP Boundary Post
BS Bus Stop
BT British Telecom
CL Cover Level
COL Column
CTC Cable TV Cover
DCH Drainage Channel
DF Drinking Fountain
DIS Disused
EK Drop Kerb
EPC Damp proof Course
EIC Electricity IC
EJ Expansion Joint
ER Earth Rod
FH Fire Hydrant
FHR Fire Hose Reel
FS Flagstaff
G Gully
GV Gas Valve
IC Inspection Cover
JB Junction Box
JBD Junction Box
KO Kerb Outlet
LB Letter Box
LBM Litter Bin
LLP Low Level LP
LP Lamp Post
MP Marker Post
MS Mile Stone
MT Mercury Telecom
OHL Overhead Line
OP Overflow Pipe
PM Parking Meter
PP Power Pole
RAD Radiator
RE Reading Eye
RNP Road Name Plate
RS Road Sign
RSD Roller Shutter Door
RWP Rain Water Pipe
SD Soil Vent Pipe
SW Storm Water
TCB Telephone Call Box
TP Telegraph Pole
TS Traffic Signal
UD Universal Beam
UNK Unknown
UR Urinal
UTL Unable to Lift
V Vent
WP Vent Pipe
WM Water Meter
WO Wash Out
WP Waste Pipe

Building Level Details:

D Door
EL Eave Level
FFL Floor Level
FRL F&S Roof Level
HL Head Level
PFL Parapet Level
RL Ridge Level
SL Sill Level
SP Springer of Arch
TA Top of Arch
W Window
(F30) Ceiling/Beam Suffix

Boundary Types TBU

BW Barbed Wire
CB Close Boarded
CH Chainlink
CI Corrugated Iron
CP Chestnut Paling
IR Iron Railing
MF Interwoven
OL Open Log
PAL Palisade
PR Post & Rail
PW Post & Wire
TMB Timber Knee Rail
RTW Retaining Wall
VSF Vehicle Safety Fence
WMF Wire Mesh Fence

Surfaces & Finishes:

B Brickwork
BB Breeze Block
C Concrete
CLT Ceiling Tiles
CPT Carpet
CPS Concrete Paving Slabs
CS Carpet Tiles
CT Ceramic Tiles
CT Concrete Tiles
FT Floor Tiles
HBD Hardboard
L Linoleum
P Plaster
PAV Brick Paviors
S Steel work
T Terrazo
TSP Textured Safety Paving
VT Vinyl Tiles

Services:

CATV cables
CCTV cables
Data cables
Electric cables
Foul water
Gas pipes
Heating duct
Service ducts
Storm water
Telecom ecb
Undentified
Water pipes
Pipe Diameter/Flow
Overhead Lines

Survey Station
Fence
Gate
Painted Road Markings
Edge of Vegetation
Kerb/Drop Kerb
Tree
Top
Bottom
Banks
Building
Overhead Building Detail
Wall

Control: All levels and co-ordinates are related to the datums described.
The horizontal control of this survey is based on Ordnance Survey grid as translated from GPS coordinates using Leica's SmartNet service. We have applied a reverse scale factor to maintain true ground distances, based on station ST3. The vertical control of this survey is based on OS datum as translated from GPS coordinates using the OSGM02 transformation as supplied by the OS. This may differ from the existing OS benchmarks in the area which should be disregarded; all levels should be taken from EDI survey stations.

No.	Revisions	Date

N

0 1m 5m

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Keyplan

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PROJECT NO: 1274

TITLE: RIVERPARK GARDENS
SITE INVESTIGATION PLAN

Prepared	Date	Sketch No:		Rev	
AB	NOV 14		SK01		