

Appendices

A Topographic Survey

ABP Port Centric Survey Report

**APLS-1174 Harbourside Port Talbot
Survey Control & Topographic Survey**

NGR: SS 755 885



**APLS-1174 Harbourside Port Talbot
Survey Control & Topographic Survey
Survey Report**

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**APLS-1174 Harbourside Port Talbot
Survey Control & Topographic Survey
Survey Report**

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**APLS-1174 Harbourside Port Talbot
Survey Control & Topographic Survey
Survey Report**

Report of Survey

Job No: APLS-1174

Date of Survey: December 2021

1.0 Scope

- 1.1 Following the commission of AP Land Surveys Ltd by Sophie Young of ABP Ports to undertake a topographic survey of a site in Harbourside, Port Talbot attached are copies of the survey information.
- 1.2 Survey control and data has been collected in line with the survey brief provided by the client.

2.0 Survey Control

- 2.1 Temporary control stations (PK Nails or timber pegs) were installed within the site location to capture the survey information. Each monument has been observed twice for a period of 180 seconds with a dormant period of at least 20 minutes in line with the specification. Only control coordinates with RMSE's of <15mm have been accepted.
- 2.2 All survey control has been reduced to OSGB 1936(2015) using the OSTN15 and OSGM15 parameters.
- 2.3 All surveyed heights are therefore relative to Ordnance Datum Newlyn.
- 2.4 Pairs of survey stations were left on the site to provide a fixed site datum for construction going forward.
- 2.5 Details of this fixed survey control can be found in Appendix 3.

3.0 Methodology

- 3.1 All topographic survey data has been surveyed using either a Leica TS16 robotic total station or by direct GPS measurement. Where access was

problematic or dangerous, reflector less measurements and steel tape observations have been made.

- 3.2 All site levelling has carried out using a digital Leica NA720 level.
- 3.3 All survey data has been reduced and collated using SCC version 13 and Leica Infinity version 3.4.3.

4.0 Presentation

- 4.1 All survey information has been produced as the following 2D AutoCAD drawings.

APLS-1174-001 to 005 – Site topography

Previews of these drawings can be found in Appendix 4.

5.0 Comments

- 5.1 Every effort has been made to collect all visible data on all areas of the site. Due to the nature of the terrain there were areas that were inaccessible due to dense vegetation and health & safety issues.
- 5.2 All visible service covers have been surveyed but there may be others that have not been located.



Andy Pitcher
Director
AP Land Surveys Ltd.

Appendix 1 Equipment List

Equipment List

Item	Number	Manufacturer & Model	Used (Yes/No)
<i>Control Observation</i>			
GNSS GX1230+Receiver	1	Leica 1200 series GNSS Base/Rover Unit with AX1202GG Antenna	No
GNSS GX1230+Receiver	1	Leica 1200 series GNSS Base/Rover Unit	No
GS18 GNSS Receiver	1	Leica Net Rover	Yes
GS14 GNSS Receiver	1	Leica Net Rover	Yes
<i>Total Station Equipment</i>			
Total Stations	1	Leica TS16 R1000 robotic Total Station	Yes
Traverse Tripods	2	Leica	Yes
Traverse Prisms	4	Leica GPR1 with carriers and stem	Yes
Mini Prism '0 const'	2	Leica GMP-111	No
Optical Plummet	1	Wild (Leica) ZNL (1:30,000)	No
<i>Levelling Equipment</i>			
Automatic Level	1	Leica Sprinter 250M (1.5mm)	Yes
4m Barcode Staff	1	Leica Sprinter Series	Yes
5m Con Staff	1	Seco	No
Change Plate	1	YSSC	Yes
<i>General Site Equipment</i>			
Decontamination Set		Steriliser spray for equipment, antibacterial hand wipes	Yes
Site PPE		Yellow jacket, safety boots, road signs	Yes
Water Safety Gear		Life jacket, throw lines, Hi visibility clothing	No
Drilling Equipment		Rotary hammer drill and assorted bits, eye protection, gloves	Yes
Echosounder		SonarMite BTX Echosounder Odom Hydrotrack	No
Laser Scanner		Leica P40	No

Appendix 2

Calibration Certificates



Unit 2, St. Catherine's Park, Pengam Road, Cardiff, CF24 2RZ
029 2267 9583 | service@sunbeltsurvey.co.uk | sunbeltsurvey.co.uk

Certificate of Conformity

Certificate No.: 0000205316

Instrument Serial No.: 3010414

Prepared For: A P Land Surveys Ltd

Instrument Make: Leica

Instrument Model: Leica TS16 I 5" R1000

This is to certify that the equipment detailed hereon has been inspected and unless otherwise stated conforms in all aspects to the manufacturer's original specifications or company work instructions.

Testing was carried out using equipment which is subject to regular verification and where applicable, is traceable to International/National standards.

Signed for and on behalf of
Sunbelt Rentals - Survey

Dominic Barrett

Technician: Dominic Barrett

Test Date: 01/07/2021

Retest Due: 01/07/2022



Unit 3, Exeter Trade Centre, Silverton Road, Marsh Barton Trading Estate, Exeter, EX2 8LD
01392 824045 | service@sunbeltsurvey.co.uk | sunbeltsurvey.co.uk

Certificate of Conformity

Certificate No.: 0000220021

Instrument Serial No.: 5673890

Prepared For: A P Land Surveys Ltd

Instrument Make: Leica

Instrument Model: NA720

This is to certify that the equipment detailed hereon has been inspected and unless otherwise stated conforms in all aspects to the manufacturer's original specifications or company work instructions.

Testing was carried out using equipment which is subject to regular verification and where applicable, is traceable to International/National standards.

**Signed for and on behalf of
Sunbelt Rentals - Survey**

Mike Blake

Technician: Mike Blake

Test Date: 05/01/2022

Retest Due: 05/01/2023

Appendix 3

Installed Survey Control

AP Land Surveys Limited

21 Grandisson Drive, Ottery St Mary, Devon EX11 1JD

Tel 01392 690 222 Fax 01392 690 223

www.aplandsurveys.co.uk



APB Port Centric – Port Talbot Installed Control Stations

Station ID : STN10
Easting : 275344.430
Northing : 188557.341
Elevation : 9.124mAOD
Description : MAG nail & washer installed in tarmac access road.
Photos:



AP Land Surveys Limited

21 Grandisson Drive, Ottery St Mary, Devon EX11 1JD

Tel 01392 690 222 Fax 01392 690 223

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Installed Control Stations

Station ID : STN11

Easting : 275398.920

Northing : 188635.081

Elevation : 10.647mAOD

Description : MAG nail & washer installed in tarmac access road

Photos:



Appendix 4

Survey Drawings

1. ORDNANCE SURVEY MATERIAL REPRODUCED WITH THE PERMISSION OF THE CONTROLLER OF H.M.S.O.
2. ALL LEVELS SHOWN ARE IN METRES ABOVE ORDNANCE DATUM.

NOTES:

[illegible]

REV.	AMENDMENT	DRN	CHKD	DATE

STATIONS ESTABLISHED:

NAME	CO-ORDINATES	LEVEL
STN10	275344.430E 188557.341N	9.124m AOD
STN11	275398.920E 188635.081N	10.647m AOD



PROJECT/WATERCOURSE

Port Centric Manufacturing Sites

SITE/LIMITS

ABP Port Talbot Topographic Survey Site Overview

SURVEYED BY: AP Land Surveys Ref: APLS-1174

SURVEY DATE: DECEMBER 2021

SCALE: Not to scale	DRN: AMP	CHKD: AJP
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DATUM: ODN	DATE: DEC 21	DATE: DEC 21
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GRID: NATIONAL	DRAWING NO.	REV.
	APLS-1174-001	—



1. ORDNANCE SURVEY MATERIAL REPRODUCED WITH THE PERMISSION OF THE CONTROLLER OF H.M.S.O.
2. ALL LEVELS SHOWN ARE IN METRES ABOVE ORDNANCE DATUM.

NOTES:		
SURVEY LEGEND		
AB AIR BRICK	FM FIRE HYDRANT	PWF POST & WIRE FENCE
AV AIR VALVE	FMH FIRE HYDRANT MARKER	RB RIGHT BANK
B BOLLARD	FL FLOOR LEVEL	RE REDDING EYE
BS BULLDOZ BULCON	FP FENCE POST	RS ROAD SIGN
BOF BOUNDARY	PWM FOLI WATER MANHOLE	RTW RETAINING WALL
BOH BOUNDARY	Q GULLY	RWP RAINWATER PIPE
BL BED LEVEL	QL GROUND LEVEL	SC STOP COCK
BLK BRICKWORK	QP GATE POST	SDP STAND PIPE
BLG BUS STOP	QV GAS VALVE	SE SOAKAWAY
BMA BENCH MARK	QW GAS METER	SL SLOTTED LEVEL
BW BRICK WALL	HW HEAD WALL	SMR SURFACE WATER MANHOLE
BWP BARBED WIRE FENCE	IC INSPECTION CHAMBER	SMP SHEET METAL PILING
CBF CLOSE BOARDED FENCE	IL INVERT LEVEL	SP SHOE POST
CL CORRUGATED IRON FENCE	IRF IRON RAILING FENCE	STN STATION
CLF CHAIN LINK FENCE	JB JUNCTION BOX	SWP SOLE VENT PIPE
CONC CONCRETE	KCB KERB INLET GULLY	SWT SHEEP WIRE FENCE
CP CONCRETE POST	LB LEFT BANK	TBM TEMPORARY BENCH MARK
CP CYCIST/PAVING FENCE	LB LEFT BANK	TC TELEPHONE CALL BOX/POST
CP CYCLE BACK	LP LAMP POST	TC TELECOM CABINET
CTV CABLE TV MANHOLE	MB MOORING BOLLARD	TMH TELECOM MANHOLE
CUL CULVERT	MB MOORING BOLLARD	TMH TELECOM MANHOLE
DK DROP KERB	MH MANHOLE	TL TRAFFIC LIGHT
MAN MANHOLE	MP MOORING PILE	TLB TRAFFIC LIGHT BOX
DP DOWNPIPE	MP MOORING PILE	TP TELEGRAPH POLE
DPC DAMP PROOF COURSE	MS METAL RAILING FENCE	TRB TRUNK RIBBING STRIP
DR DRAIN	MS METAL RAILING FENCE	TS TREE STUMP
DWB DRAIN WASTE BRN	MS METAL RAILING FENCE	TSR TUBULAR STEEL RAILINGS
EA ENVIRONMENT AGENCY	NRA NATIONAL RIVERS AUTHORITY	VP VENT PIPE
EB ELECTRICITY BOX	OHC OVERHEAD CABLE	WB WASTE BIN
ECF ELECTRIC CABLE FENCE	OS ORDNANCE SURVEY	WL WATER LEVEL/WATER LINE
ECF ELECTRIC CABLE HT	OS ORDNANCE SURVEY	WM WATER METER
EMH ELECTRICITY MANHOLE	OS ORDNANCE SURVEY	WM WATER METER
EP ELECTRICITY POLE	P PILE	WM WATER METER
ETL ELECTRICITY TRANSMISSION LINE	PD PARKING POST	WP WOODEN POST
FB FOOTBRIDGE	PD PARKING POST	WW WATER VALVE
	FTM PARKING TICKET MACHINE	YD YARD GULLY
		(Abbreviations apply to EA survey data only)

STATIONS ESTABLISHED:
NAME CO-ORDINATES LEVEL
STN10 275344.430E 188557.341N 9.124m AOD
STN11 275398.920E 188635.081N 10.647m AOD



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PROJECT/WATERCOURSE
Port Centric Manufacturing Sites

SITE/LIMITS
**ABP Port Talbot
Topographic Survey
Sheet 1 of 4**

SURVEYED BY: AP Land Surveys		Ref: APLS-1174	
SURVEY DATE: DECEMBER 2021			
SCALE: 1:1,000@A1	DRN: AMP	CHKD: AJP	
DATUM: ODN	DATE: DEC 21	DATE: DEC 21	
GRID: NATIONAL	DRAWING NO. APLS-1174-002	REV. —	