

CD 6.8

Town and Country Planning Act 1990

Acquisition of Land Act 1981

Local Government (Miscellaneous Provisions) Act 1976

The Highways Act 1980

Inquiry into:

**THE CORNWALL COUNCIL (LANGARTH GARDEN VILLAGE, THREEMILESTONE) COMPULSORY
PURCHASE ORDER 2022**

Appendices to the Proof of Evidence

of

Patrick Valvona

2 January 2024

Appendix PV1	Copy of material used in presentation to Strategic Planning Committee, Kenwyn Parish and Truro City Councils, September 2020
Appendix PV2	Not used
Appendix PV3	Typical swale cross sections, August 2022
Appendix PV4	Plan showing development boundaries as at May 2019

APPENDIX PV1

Copy of material used in presentation to Strategic Planning Committee, Kenwyn Parish and Truro City Councils, September 2020

Langarth Garden Village Threemilestone Truro

Briefing to Strategic Planning Committee
and Kenwyn Parish and Truro City Councils

10 September 2020

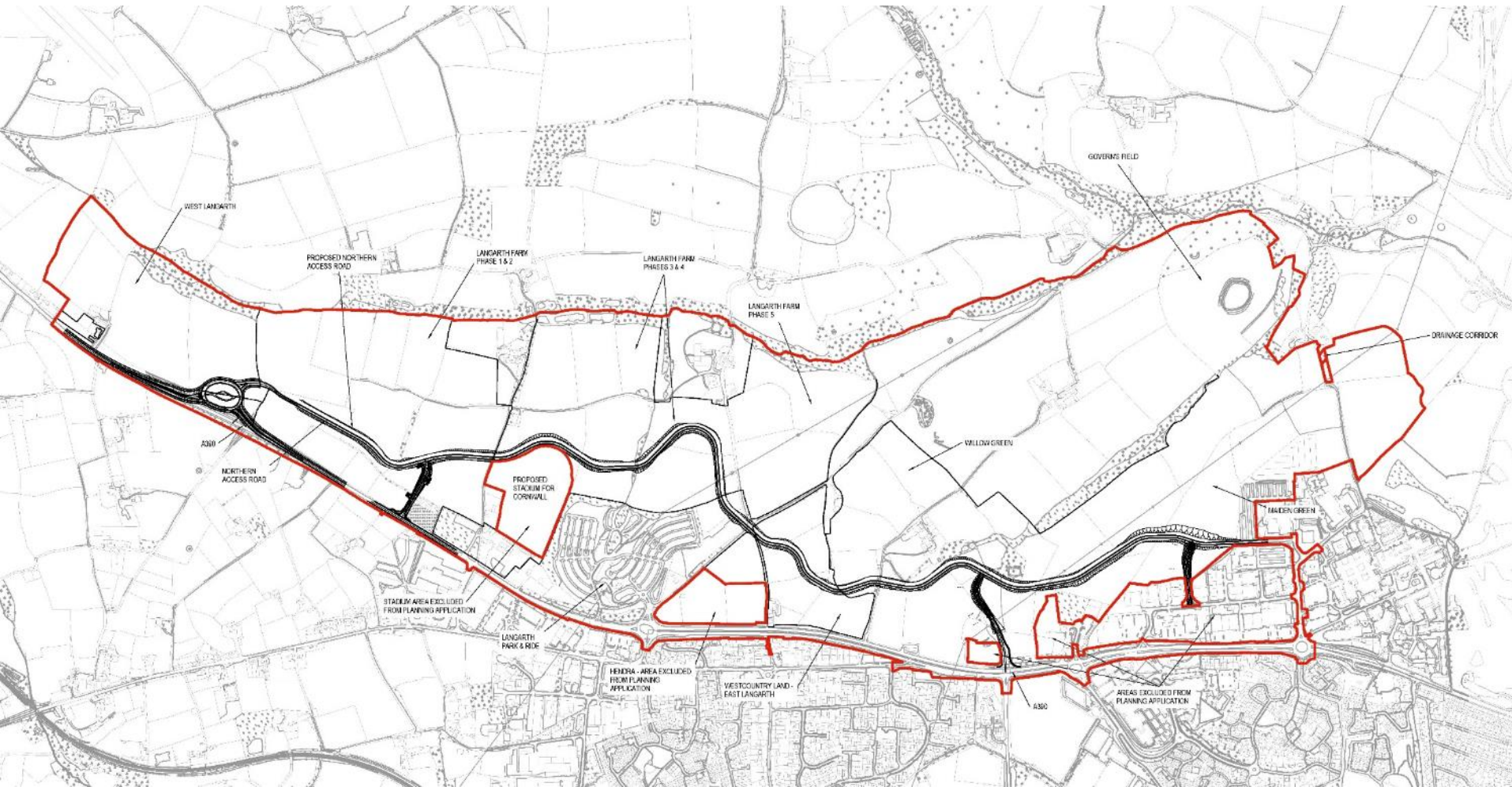
Adam Birchall, Chris Daly,
Terry Grove-White, Pat Valvona
SWW and Environment Agency



Agenda for this Briefing

- Introductions
- Application update since our last Briefing in May
- Presentations from CC as applicants for Langarth Garden Village, SWW and Environment Agency on sewerage, drainage and flood risk
- Q&A

Application Masterplan and Northern Access Road (NAR)





Ownership update

**Land acquired
by CC (plus
stadium site)**

Treliske
Retail Park
(outside of
masterplan)

Park and Ride

RCHT

Truro
College

Hendra site
(outside of
masterplan)

Walker Developments
Petrol Filling Station
(outside of masterplan)

Walker Developments
Travelodge application
(outside of
masterplan)

Langarth Garden Village

Planning Application update

- The scale of the development means of range of housing can be provided;
- Up to 3550 homes plus student/health accommodation;
- Phased 20 – 25 year build period
- 35% Affordable housing (policy compliant)

Langarth Garden Village

Planning Application update

- Planning Application to be submitted beginning November
- Other applications submitted concurrently:
 - Energy Centre and
 - Threemilestone Community Projects
- New website launched: www.langarth.co.uk

Technical presentations

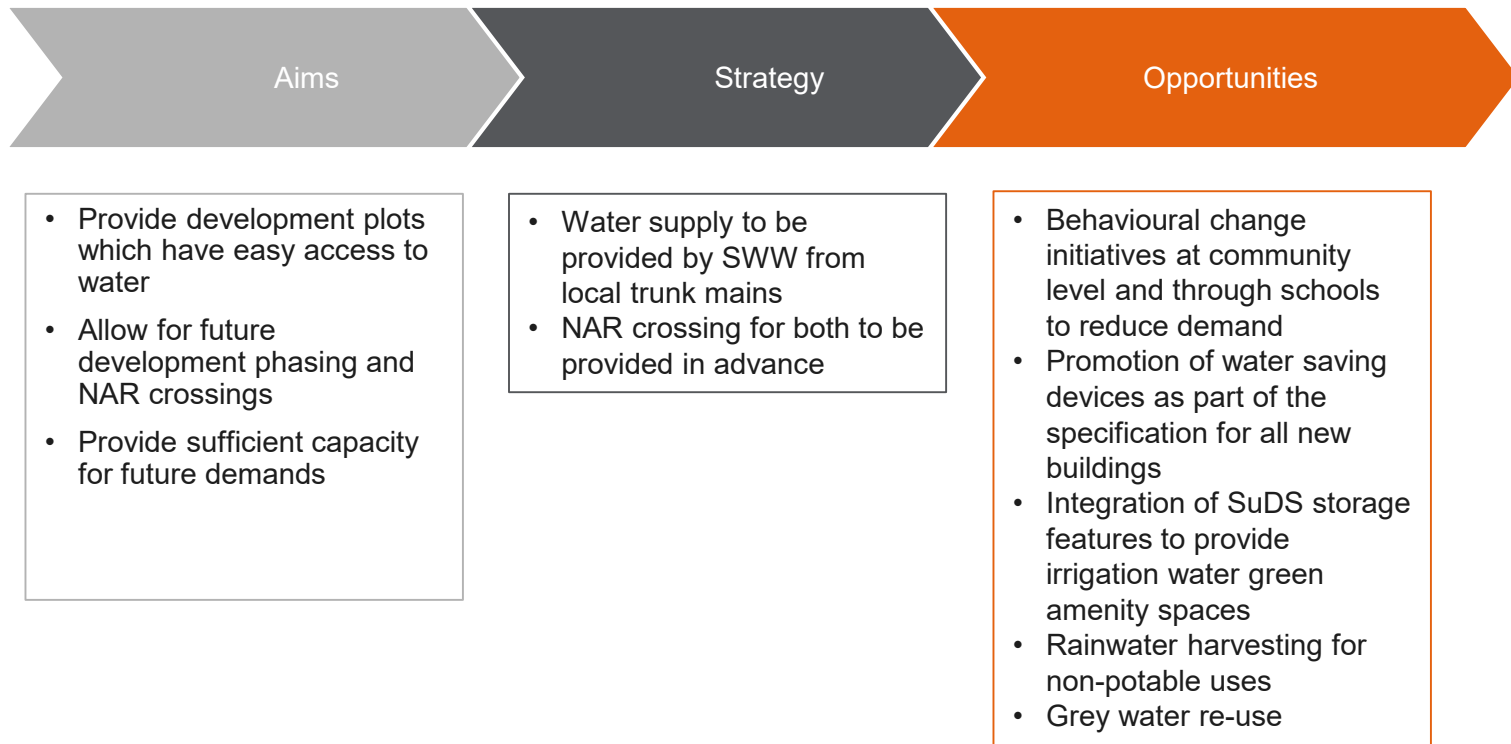
1. CC as applicants
2. SWW
3. Environment Agency
4. Q&A

LANGARTH GARDEN VILLAGE

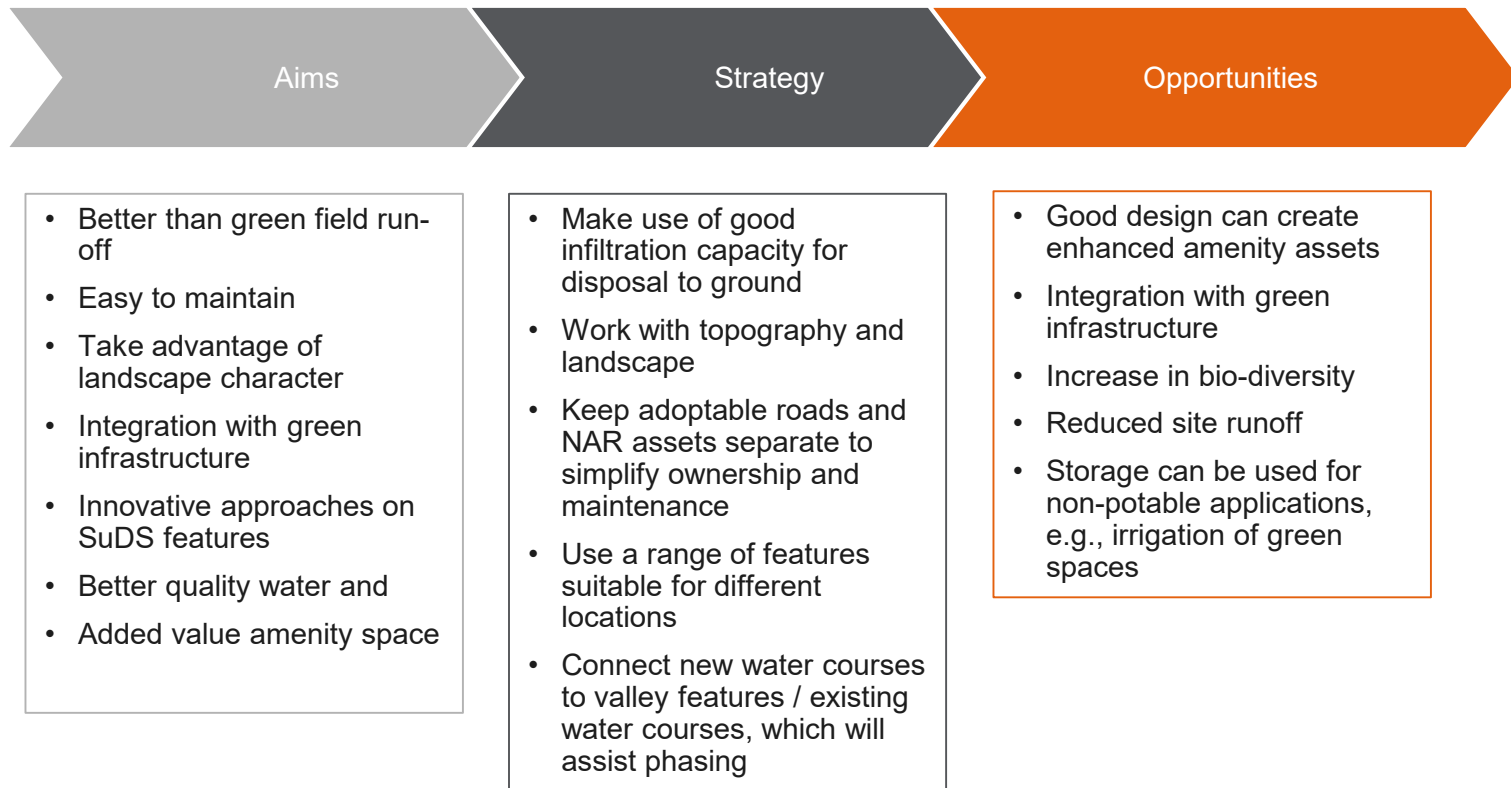
Drainage Strategy Update

September 2020

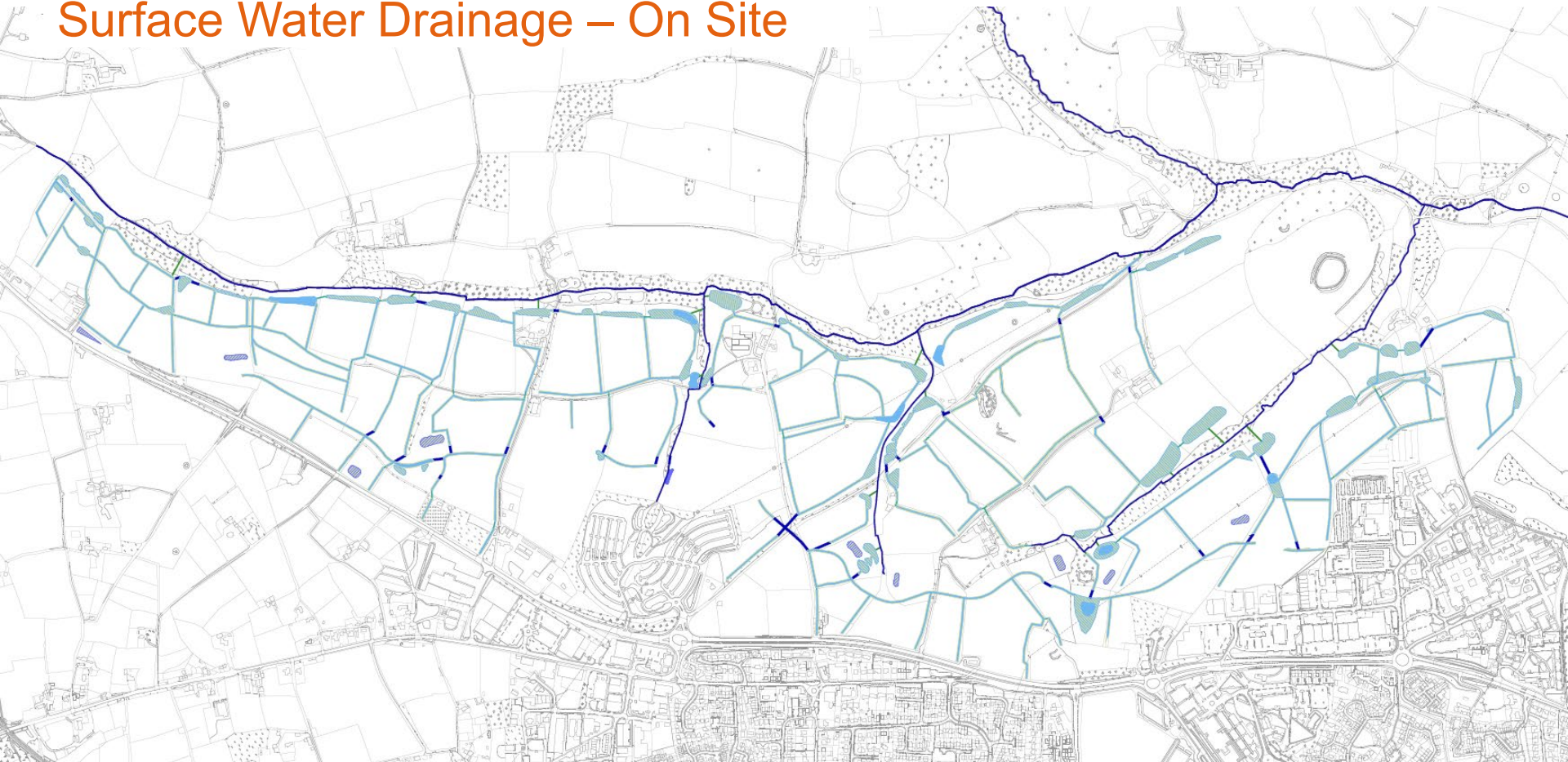
Water Supply



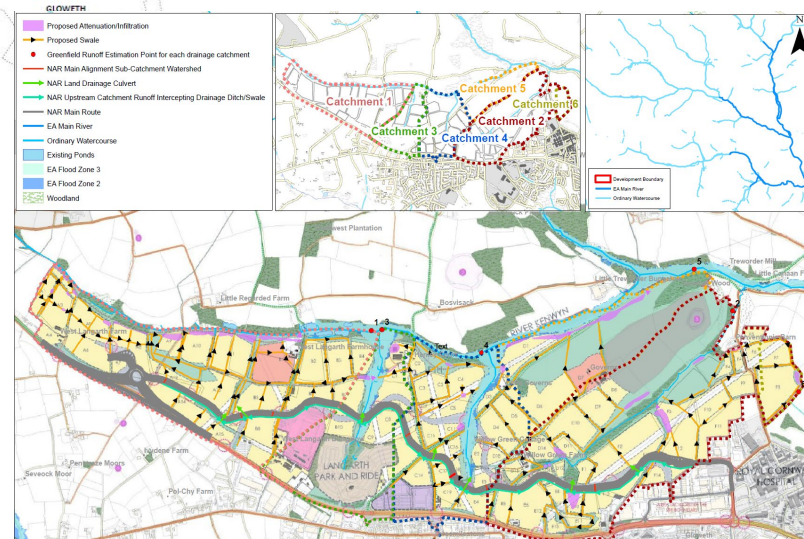
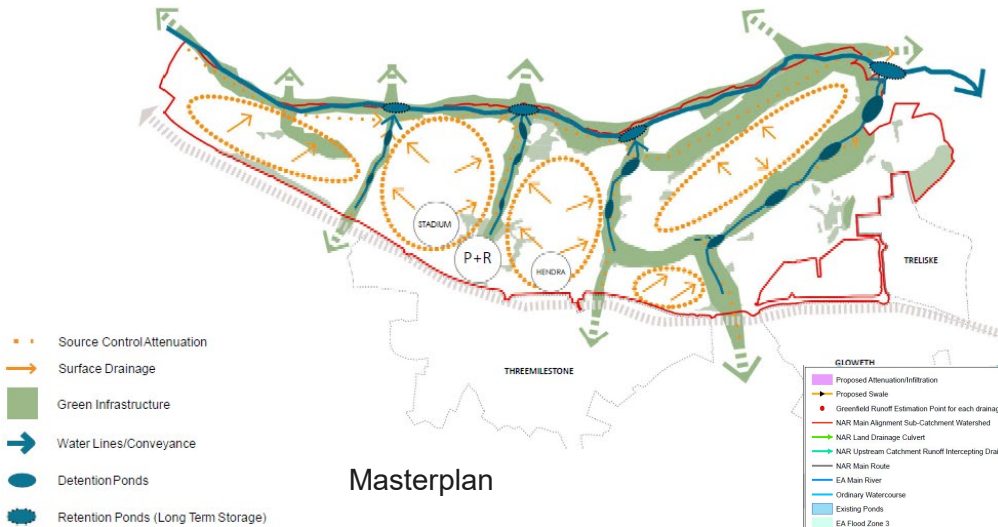
Surface Water Drainage – On Site



Surface Water Drainage – On Site

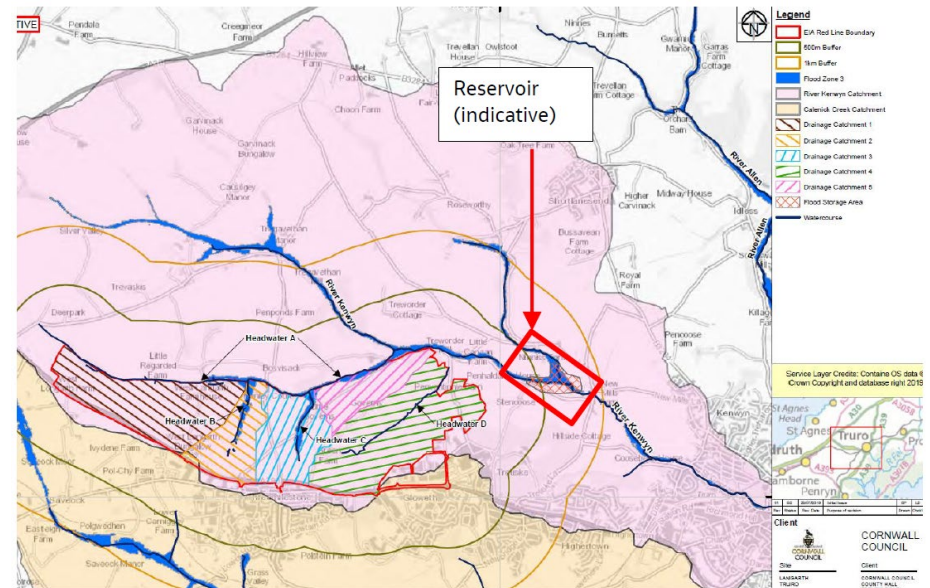


Surface Water Drainage – On Site

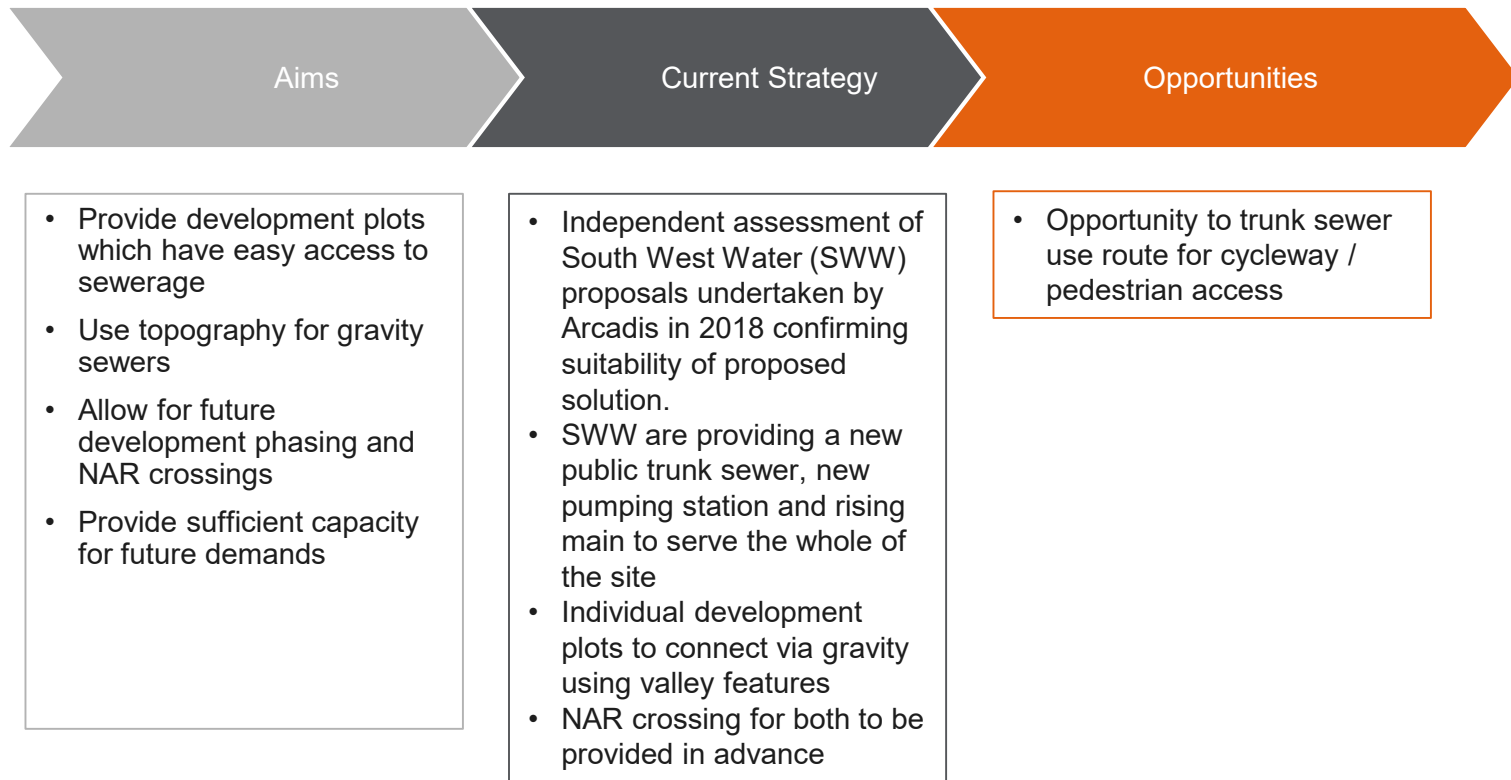


Surface Water Drainage – Off Site

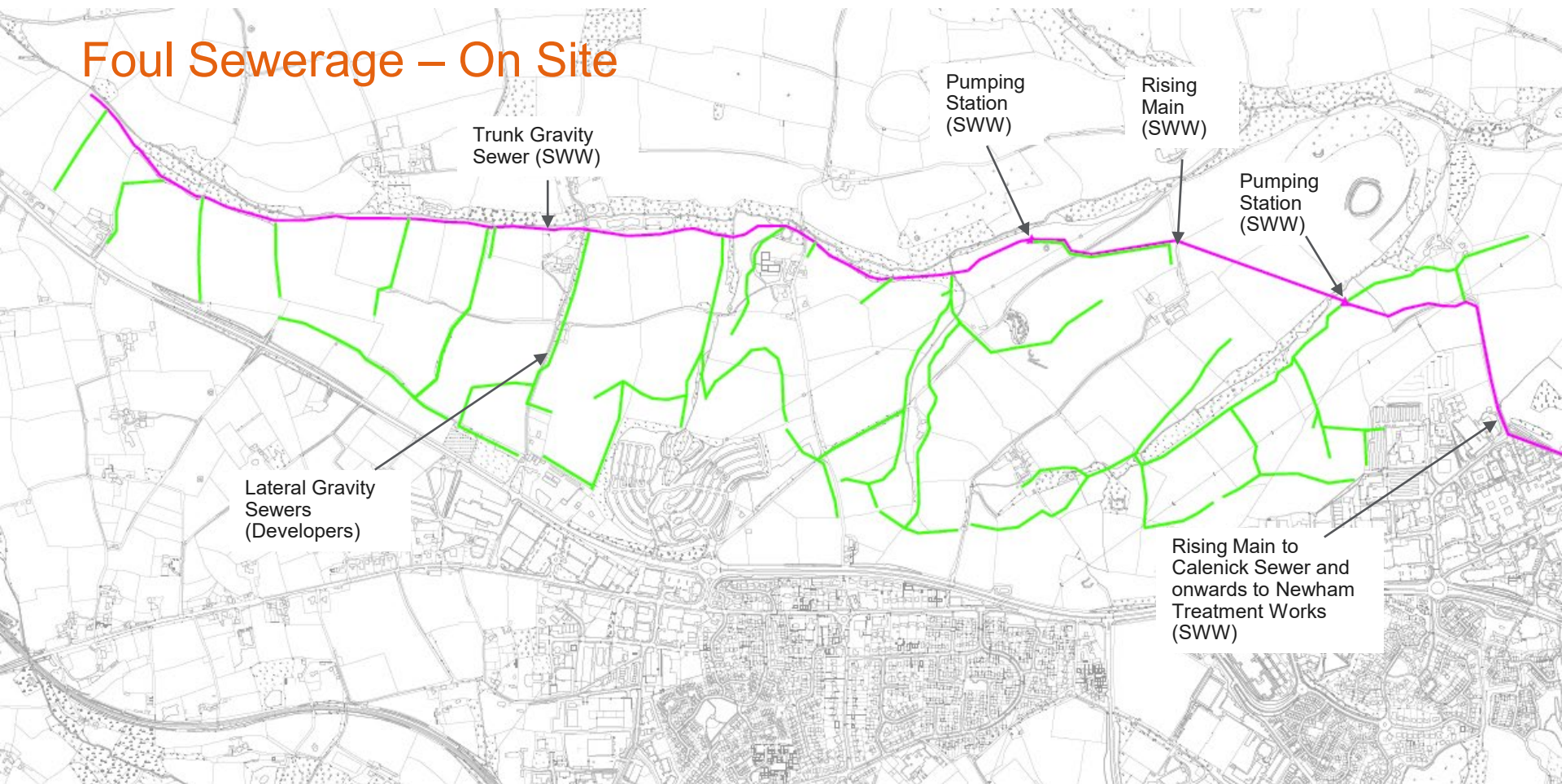
- Environment Agency are reviewing strategic flood protection assets for Truro under 6 yr Capital Programme
- The Langarth Team and the EA are currently engaging in evaluation of potential impact of development as part of this review.



Foul Sewerage – On Site



Foul Sewerage – On Site



A large, light green circular logo featuring a stylized white tree with a thick trunk and several rounded, cloud-like branches. The text is centered over this logo.

Langarth proposed development

Environment Agency

Protection of floodplains on the development site and surface water drainage overview

- We have assessed the DRAFT Flood Risk Assessment and are generally satisfied with the content.
- The watercourses on the site have been adequately modelled and the built development will be located outside of the flood plains in areas at low risk of flooding.
- The site falls within the Truro Critical Drainage Area (CDA). The general principle of the proposed surface water management is acceptable and in line with the requirements of the CDA.
- Cornwall Council (Lead Local Flood Authority) will assess in detail the surface water management plan for the development site, which also includes the control of surface water during construction.

Main Rivers & Ordinary Watercourses

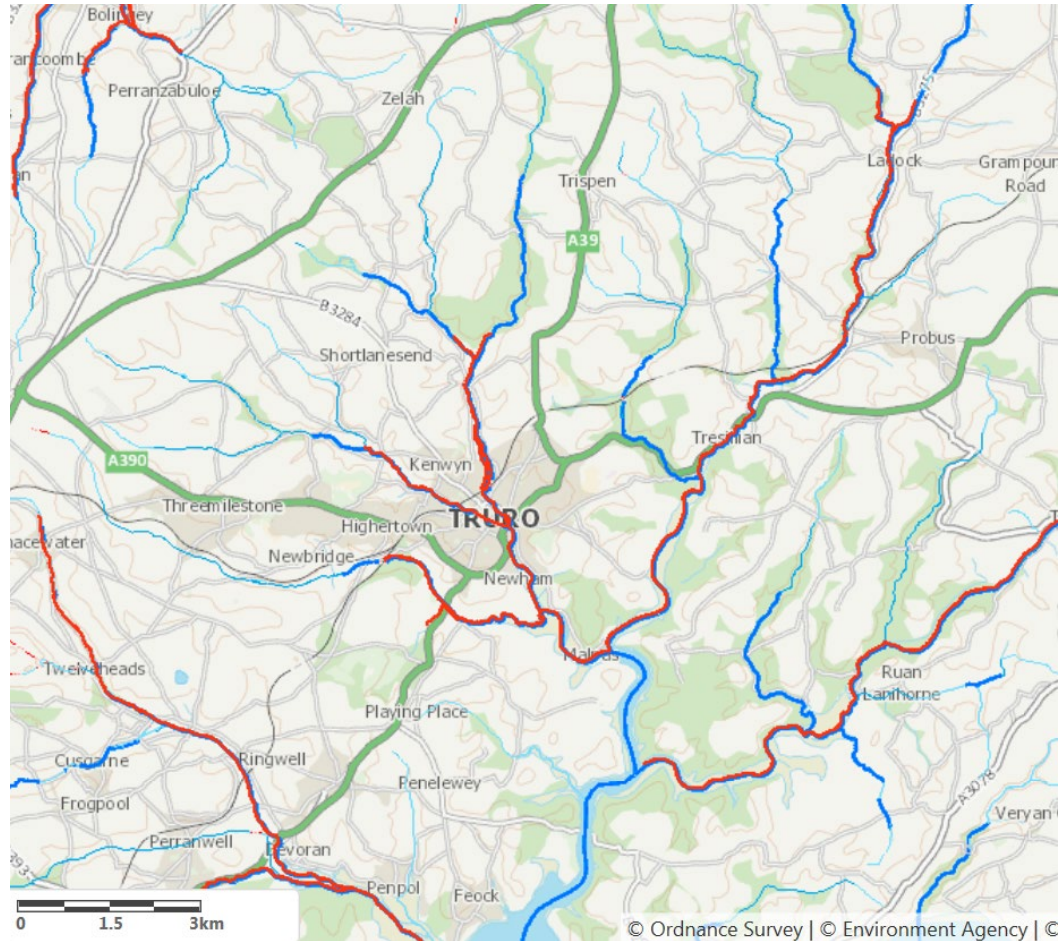
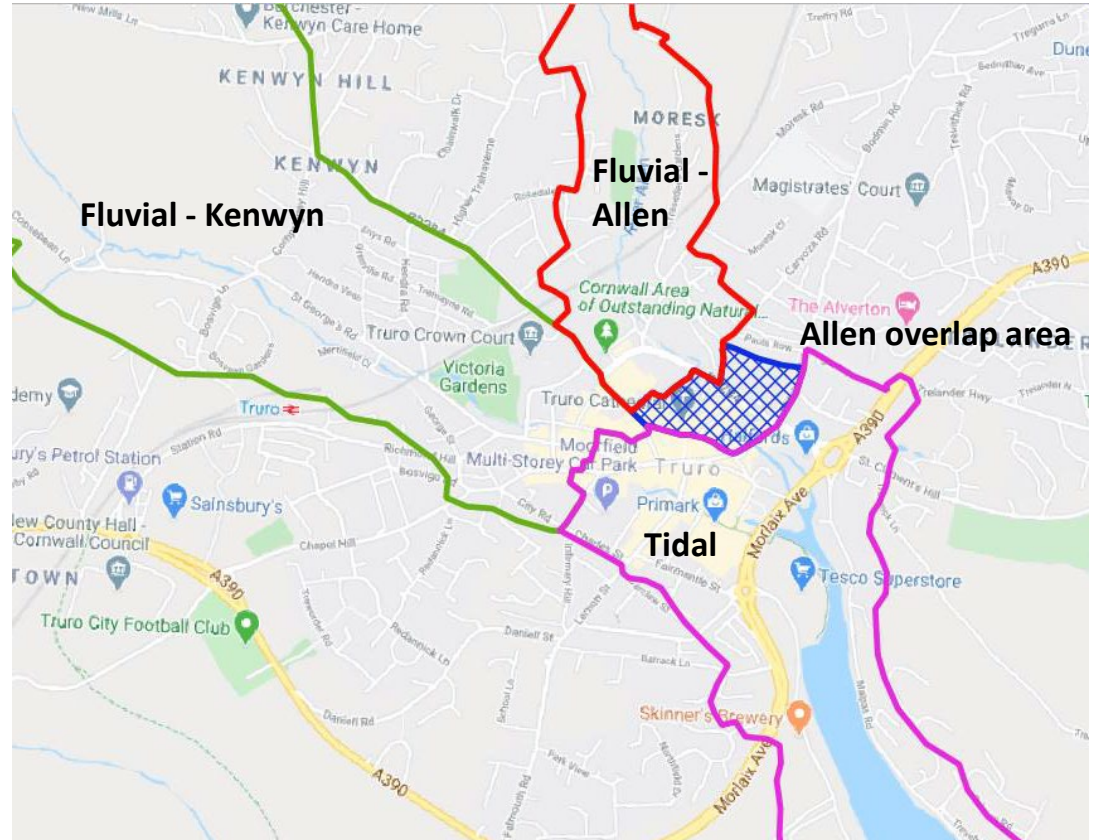




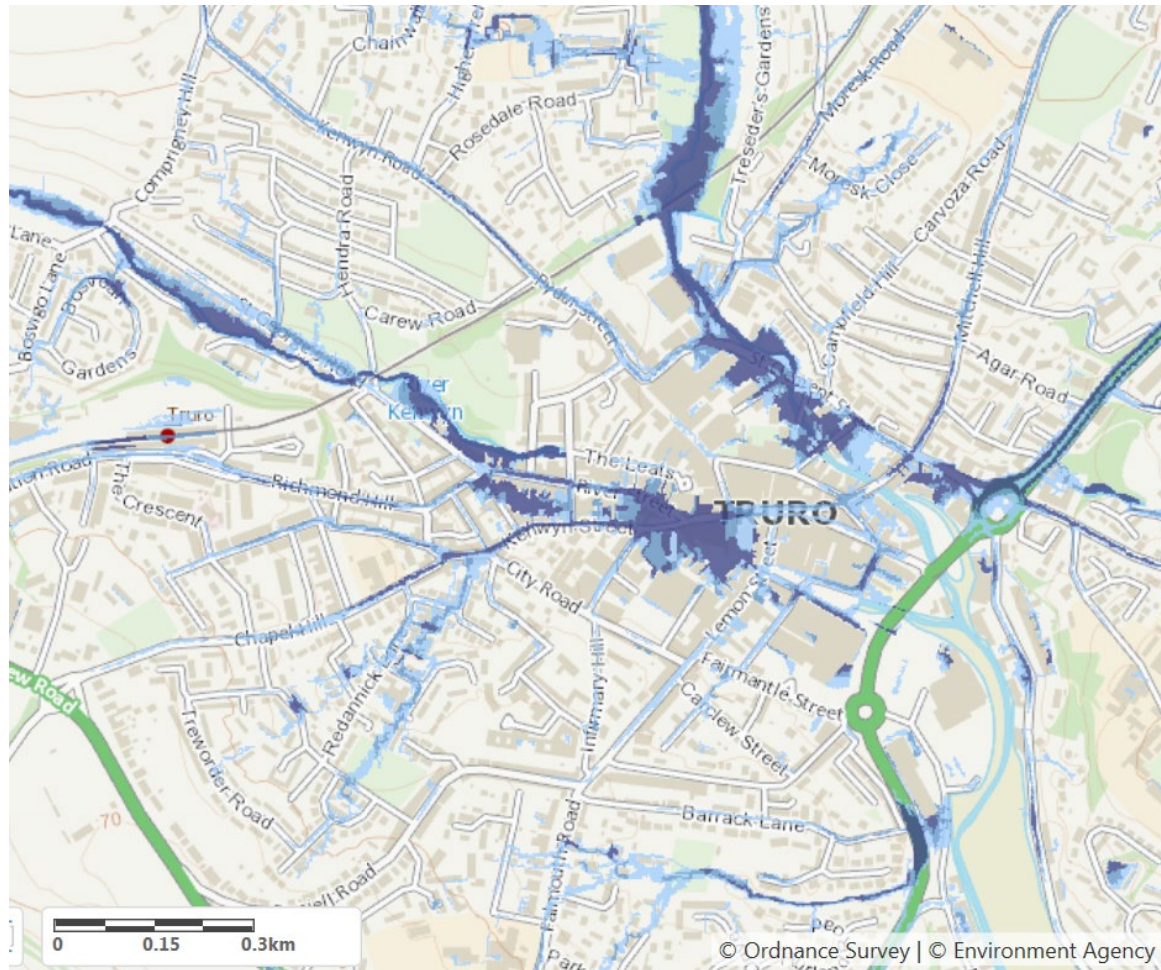
Figure 2-1 - Truro updated model extent

Flood risk areas in Truro

- Only a small area of overlap at the downstream end of the River Kenwyn. Most properties along the River Kenwyn are predominantly at risk of fluvial flooding.
- Large area of overlap on the River Allen around the Cathedral area. Properties almost equally at risk of both fluvial and tidal flooding.
- We have drawn four polygon areas: River Kenwyn fluvial; River Allen fluvial; River Allen overlap and Tidal. Tested impact of which area the River Allen is counted in.



Surface Water Flood Risk





**South West
Water**

Langarth Development Strategy

10 September 2020

- Undertaken an evaluation of the network to confirm capacity. We have previously explained the detailed process behind this.
- Cornwall Council undertook an independent review of the evaluation to confirm the solution. This was undertaken by Arcadis.

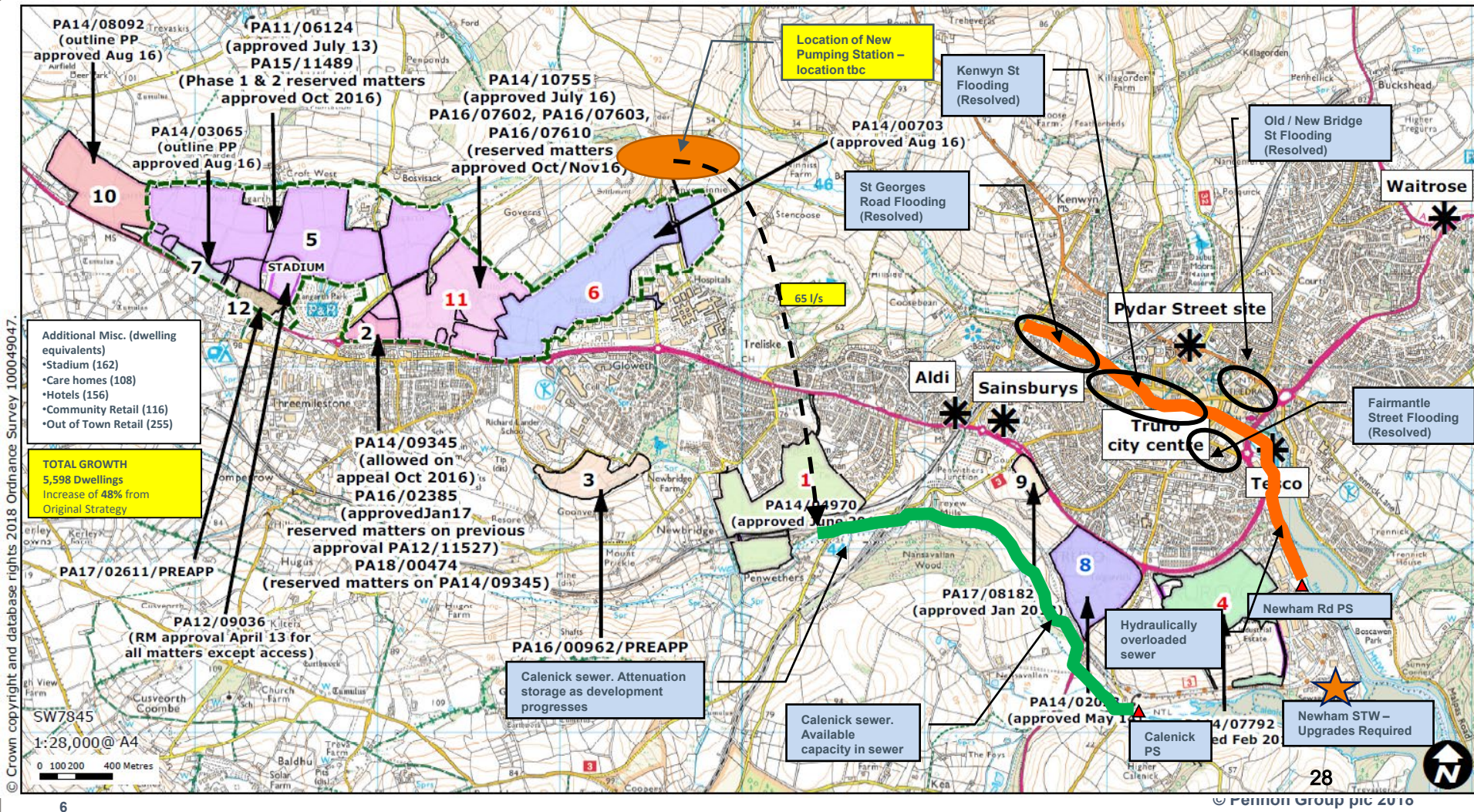
The Solution required:-

- Newham Treatment Works to be upgraded to meet the capacity.
- Works at Calenick Pumping Station to meet the capacity.
- A new sewer and pumping station to drain the site to the connection point on the Calenick sewer. The Developers have chosen to deliver this through a Sewer Requisition.

Key Constraints – Considered as part of the evaluation

- Permitted Combined Sewer Overflow (CSO) operation is very sensitive due to Shellfish harvesting in Fal
- Sewers in city centre / Kenwyn valley are at capacity and unable to accommodate Threemilestone/Langarth growth
- Historic Calenick pumping station issues have been investigated and Capital Maintenance projects completed
- Newham Treatment works is running at almost full design load.

South West Water



- We discussed and agreed with Cornwall Council the area to be considered for development.
- Newham Treatment Works – Currently has a population equivalent 30,000, with a design horizon of 2045, we have allowed for 45,994.
- Calenick Pumping Station – Currently has a population equivalent 7,996 and with a design horizon of 2045, we have allowed for 20,047. (This equates to 120 l/s).
- The new proposed sewer and pumping station would cater for 65 l/s which supports a population equivalent to 5,598.

Update on Progress on our commitments



Previously we told you that we needed to undertake the following to enable this development to proceed:-

- Review Calenick PS pass forward flow – ensure it has the capability of 120l/s
- Install mechanically raked CSO screening at Calenick PS
- Upgrades at Newham Treatment Works.
- New Sewer and pumping station to serve the site.

Since 2018 we have undertaken:-

- Completed the upgrading of Newham Treatment Works at a cost of £6.8m. It is currently going through the final phase of testing.
- Reviewed and confirmed that Calenick Pumping Station has the capability of passing forward a flow of 120 l/s in line with the design capacity. This included the provision of a mobile generator socket.
- Review into the requirement for a mechanically raked screen. This work is still ongoing. Any works associated with this review, will be complete prior to the connection of this development.
- In discussion with developers to secure the new sewer and pumping station via a sewer requisition.

As promised previously, as the site progresses we will:-

- Consider opportunities under SWW's Downstream Thinking programme.
- Assess the impacts of the additional flows using the EDM data at Calenick Pumping Station.
- Review the Storage on the Calenick sewer.
- Review the need and consider whether a pumped overflow is needed at Calenick Pumping Station.

The Sewer Requisition is provided for by a legal process under the Water Industry Act.

1. Developers make application to South West Water to provide them with a foul sewer.
 2. SWW produce a design proposal and provide a cost of undertaking the work.
 3. Developers agree to the work to proceed. This includes signing a legal agreement and making payment.
 4. SWW deliver the works in accordance with the programme contained in the offer.. This will include for the detailed design and construction.
- We are currently on stage 3.

The Sewer Requisition



- Designed to cater for 65 l/s.
- Rising main and pumping station. Preliminary route currently proposed. Exact location will be confirmed as part of the detailed phase. This will include negotiations with appropriate landowners.
- Pumping station and sewers will be designed to meet the new Design and Construction Guidance which came into affect on the 1st April 2020.
- The pumping station will be managed to deal with initially low flows but be sized to cater for the whole development. This includes providing suitable odour control as appropriate.

Thank you

Question and Answers?

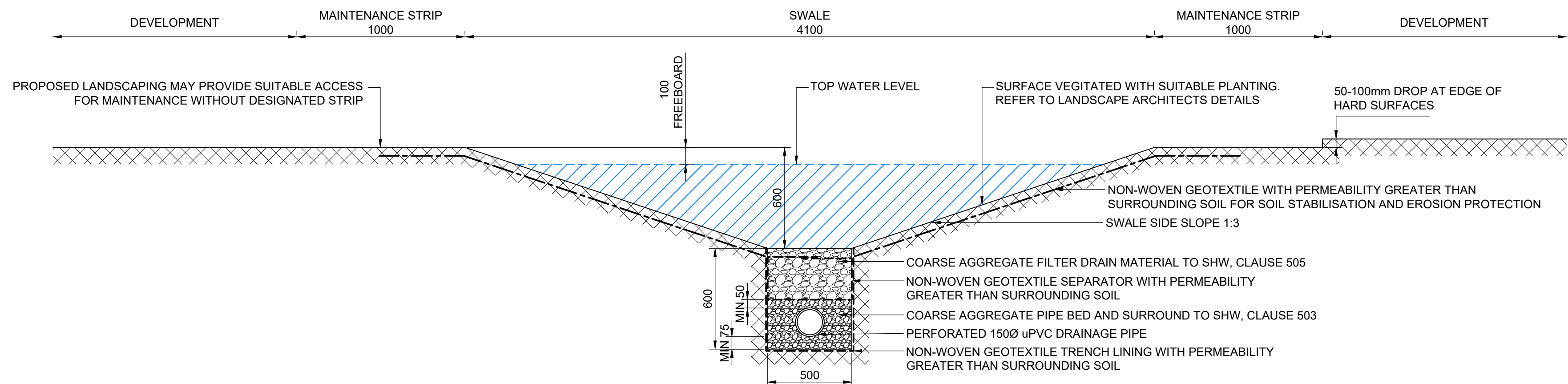
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APPENDIX PV2

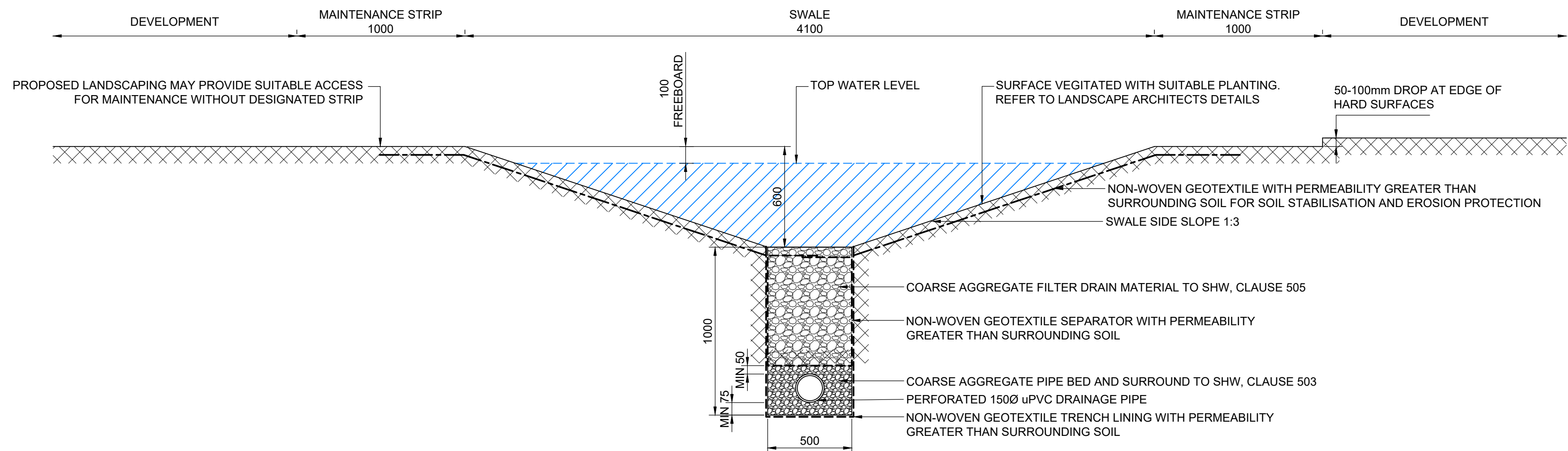
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APPENDIX PV3

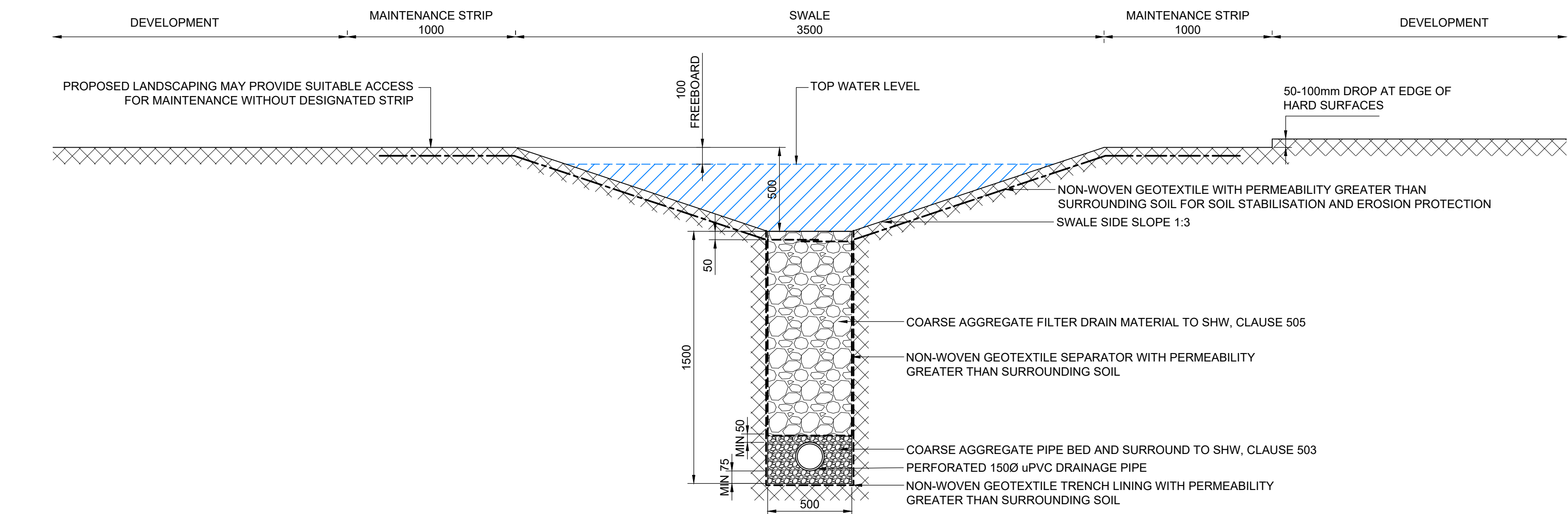
Typical swale cross sections, August 2022



TYPICAL SWALE WITH UNDERDRAIN - TYPE 1
4100 WIDE x 600 DEEP SWALE WITH 500 WIDE x 600 DEEP UNDERDRAIN
SCALE 1:20



TYPICAL SWALE WITH UNDERDRAIN - TYPE 2
4100 WIDE x 600 DEEP SWALE WITH 500 WIDE x 1000 DEEP UNDERDRAIN
SCALE 1:20



TYPICAL SWALE WITH UNDERDRAIN - TYPE 3
3500 WIDE x 500 DEEP SWALE WITH 500 WIDE x 1500 DEEP UNDERDRAIN
SCALE 1:20

NOTES:

1. THIS DRAWING SHOULD ONLY BE USED FOR THE PURPOSE INTENDED.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
3. GROUNDWATER MONITORING IS REQUIRED TO CONFIRM GROUND WATER LEVELS. FOLLOWING THIS, SOME SUDS FEATURES MAY NEED TO BE LINED WITH AN IMPERMEABLE LINER (E.G. IF THE OBSERVED MAXIMUM GWL SURROUNDING THE IMPACTED AREA HAS < 1.0m CLEARANCE FROM THE BASE OF THE SWALE). CURRENTLY, IT IS ASSUMED THAT ALL FEATURES ON THE 'NORTHERN CORRIDOR' WILL NEED TO BE LINED WITH AN IMPERMEABLE LINER.
4. ALL DETAILS ARE INDICATIVE ONLY FOR RIBA STAGE 3 AND ARE SUBJECT TO REVIEW DURING DETAILED DESIGN
5. TO BE READ IN CONJUNCTION WITH TECHNICAL NOTE LGV3_04-ARC-XX-XX-TN-Z-0002-P1

P01	05AUG22	FOR INFORMATION ONLY	NR	JT	RG
Rev	Date	Description	Drawn	Check	Approv

Client



CORNWALL
COUNCIL

PROJECT:
LANGARTH
DEVELOPMENT
PROGRAMME

Site

LANGARTH
TRURO

Client

Cornwall Council
County Hall
Treyew Road
Truro TR1 3AY
Phone +44 (0)10 000 00 00
Fax +44 (0)10 000 00 00
www.cornwall.gov.uk



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www.arcadis.com

TITLE:

LANGARTH GARDEN VILLAGE
TYPICAL DRAINAGE DETAILS
SHEET 1
TYPICAL SWALE CROSS SECTIONS

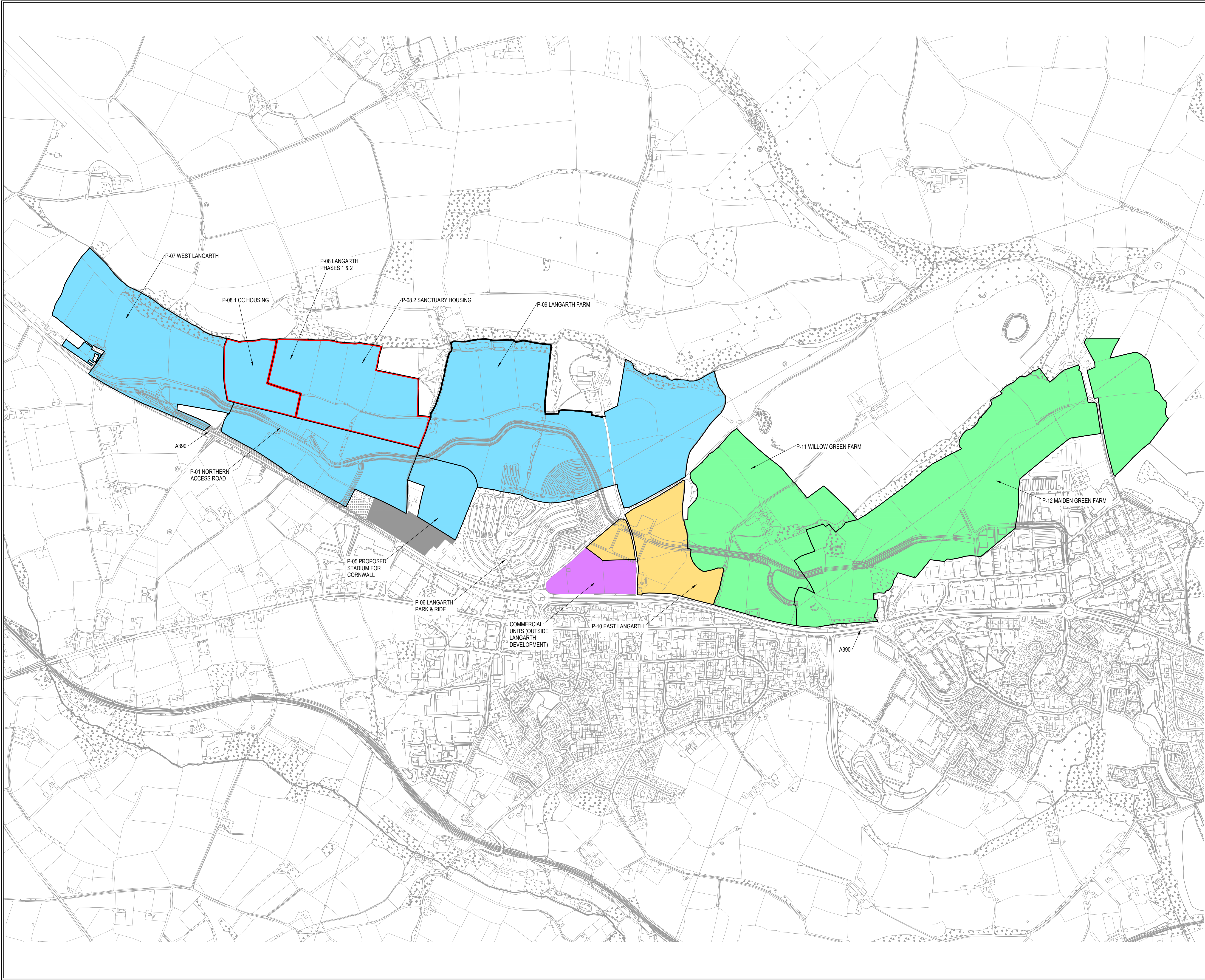
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Checked	JT	Signed	05 AUG 2022
Approved	RG	Signed	05 AUG 2022
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FOR INFORMATION ONLY

Drawing Number:	Revision:
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APPENDIX PV4

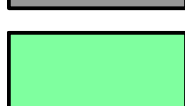
Plan showing development boundaries as at May 2019



NOTES:

LEGEND:

DEVELOPER CONTROL BOUNDARIES:

-  HENDRA
-  INOX
-  ROSEDENE FARM
-  WALKER DEVELOPMENT
-  WEST COUNTRY LAND

P1	23MAY19	ISSUE FOR INFORMATION	AN	CN	CN
Rev	Date	Description	Drawn	Check	Approv

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CORNWALL COUNCIL

PROJECT:
LANGARTH
DEVELOPMENT
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Site

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TITLE:

LANGARTH DEVELOPMENT
PROGRAMME
PROGRAMME WIDE
SITE PLAN

Designed	C.Nickson	Signed	Date
Drawn	A.Nicholson	Signed	Date
Checked	C.Nickson	Signed	Date
Approved	C.Nickson	Signed	Date
Scale:	NTS	Datum:	AOD
Original Size:	A1	Grid:	OS
Suitability Code:	Sx	Project Number:	10032015

Suitability Description:
FOR INFORMATION ONLY

Drawing Number:
LAN_00-ARC-XX-XX-DR-Z-0001

Revision:
P01