



# C510 – Whitechapel and Liverpool Street Station Tunnels

## Instrumentation and Monitoring Close Out Report Block 04 Liverpool Street

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### 2a. Stakeholder Review Required? YES NO

Stakeholder submission required: LU  RFL  Purpose of submission: For no objection   
 NR  LO  For information   
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This document has been reviewed by the following individual for coordination, compliance, integration and acceptance and is acceptable for transmission to the above stakeholder for the above stated purpose.

Sign: \_\_\_\_\_ Role: \_\_\_\_\_ Name: \_\_\_\_\_ Date: \_\_\_\_\_

Sign: \_\_\_\_\_ Role: \_\_\_\_\_ Name: \_\_\_\_\_ Date: \_\_\_\_\_

### 2b. Review by Stakeholder (if required):

| Stakeholder Organisation | Job Title | Name | Signature | Date | Acceptance               |
|--------------------------|-----------|------|-----------|------|--------------------------|
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|                          |           |      |           |      | <input type="checkbox"/> |

### 3. Acceptance by Crossrail:

| Crossrail Review and Acceptance Decal  |   |
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| This decal is to be used for submitted documents requiring acceptance by Crossrail.  |   |
| <input checked="" type="checkbox"/>  | Code 1. Accepted. Work May Proceed  |
| <input type="checkbox"/>   | Code 2. Not Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated |
| <input type="checkbox"/>   | Code 3. Not Accepted. Revise and resubmit. Work may not proceed   |
| <div style="display: flex; justify-content: space-between;"> <div style="background-color: black; width: 60%; height: 20px;"></div> <div>Date: 08/05/18</div> </div> |   |
| <small>analyses, test methods or materials developed or selected by the designer/supplier.</small>   |   |

Crossrail approval of design, details, calculations,

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## 1 Purpose of Close out Report

Materials and Workmanship Specification - Instrumentation and Monitoring (C122-OVE-Z4-RSP-CR001-00007), section KX10.2114 specifies the requirement for a close out report prior to the decommissioning of monitoring sensors and instruments. It is therefore, the purpose of this close out report to gain acceptance to decommission identified monitoring sensors in Block 04 of Crossrail's C510 Liverpool St. Acceptance to decommission sensors will result in ceasing measurements, stopping the reporting and removing sensors.

The current document is the revision 2 of the close out report of Block 04 of Crossrail's C510 Liverpool St. presenting the decommissioning statuses of the remaining sensors of revision 1.

**Appendix I** of revision 2 includes the graphs and results for the crackmeters in Block 04

**Appendix II** of revision 2 includes a listing of the sensors' statuses, time graphs of the monitoring full history and location plans of revision 1. All the sensors that had been PROPOSED in revision 1 were accepted.

To gain approval to decommission instrumentation and monitoring, the monitoring data will be analysed to demonstrate settlement does not breach specified rates after the minimum monitoring period is complete.

**N.B.** Monitoring sensors refers to all monitoring points; which includes BREs, invar scales, road studs, extensometers, inclinometers, tilt meters, crack meters, water cells, retros (survey stickers) and prisms. Please note this is not an exhaustive list and does not include monitoring systems/equipment, such as communication boxes.

## 2 Scope of Monitoring Assessment for Close Out

Specification KX10.4103 of document C122-OVE-Z4-RSP-CR001-00007 states that to establish approval for decommissioning, the contractor is to produce a close out report which summarises the observations in correlation with the construction activities. The report is to demonstrate monitoring has reached acceptable settlement rates; whether to the specified rate, or where no rate is specified trigger values are evaluated against potential residual risks. I&M schedule C122-OVE-C2-DDJ-CR001-Z-31511 specifies the acceptable settlement rates with the requirements to monitor at different construction phases, and duration for completion. To summarise the I&M schedule states that the manual monitoring decommissioning specified rate is 2mm per year, following 16 months post construction monitoring (4 months step down and quarterly measurements for a minimum of 12 months long term monitoring). The I&M schedule does not identify the need for long term automated monitoring or specify a settlement rate requirement, it only states that monitoring must continue for 6 months post construction. At the 6 month juncture, agreement must be sought from the project manager to decommission automated monitoring programmes through a close out report or agreeing to cease the works with the project manager. In most cases decommissioning will be possible, as the residual risk will be captured through the remaining long term manual monitoring.

Contrary to the Specification for Instrumentation and Monitoring (C122-OVE-Z4-RSP-CR001-00007), the Project Managers Instruction (PMI) C510-PMI-01102 replaces long term monitoring with satellite interferometry (InSAR) for the areas agreed by the project manager. If long term monitoring responsibilities are removed from BBMV and covered by satellite interferometry, the specified settlement criteria may not be met by BBMV. If this occurs, reference to the agreement will be provided to state BBMV are no longer responsible for the sensors and consequently decommissioning acceptance will be proposed.

In some cases it may be agreed with the project manager to cease monitoring prior to meeting the specified rates. The close out report will be revised to incorporate these agreements prior to decommissioning. Due to multiple influencers and large construction monitoring zones, it may be prudent to submit successive document revisions for close out reports, where the specification is not met or the minimum post construction monitoring has not been achieved.

### 3 Close Out Report Block Description and Location Plan

#### 3.1 Block 04 Location

**Error! Not a valid bookmark self-reference.** shows the Liverpool St general location plan, C510 tunnel construction and where Block 04 is situated. Detailed location plans can be found within the installation reports and photomontages as listed in Section 3.2. Each monitoring sensor's location is shown within the assessment plans (Section 5.4).

Numerous Thames Water critical assets surround Block 04, including:

- 9" cast iron (CI) South Side London Wall water main within London Wall;
- London Wall sewer within London Wall; and
- 12" steel (ST) water main located within South Side Finsbury Circus and Blomfield Street.

The location and details of these assets can be found in Instrumentation and Monitoring Plan: Liverpool Street Station Ground Movement and Asset Protection C122-OVE-C2-RGN-C101-50013 or the relevant C122 prepared Damage Assessment Reports.

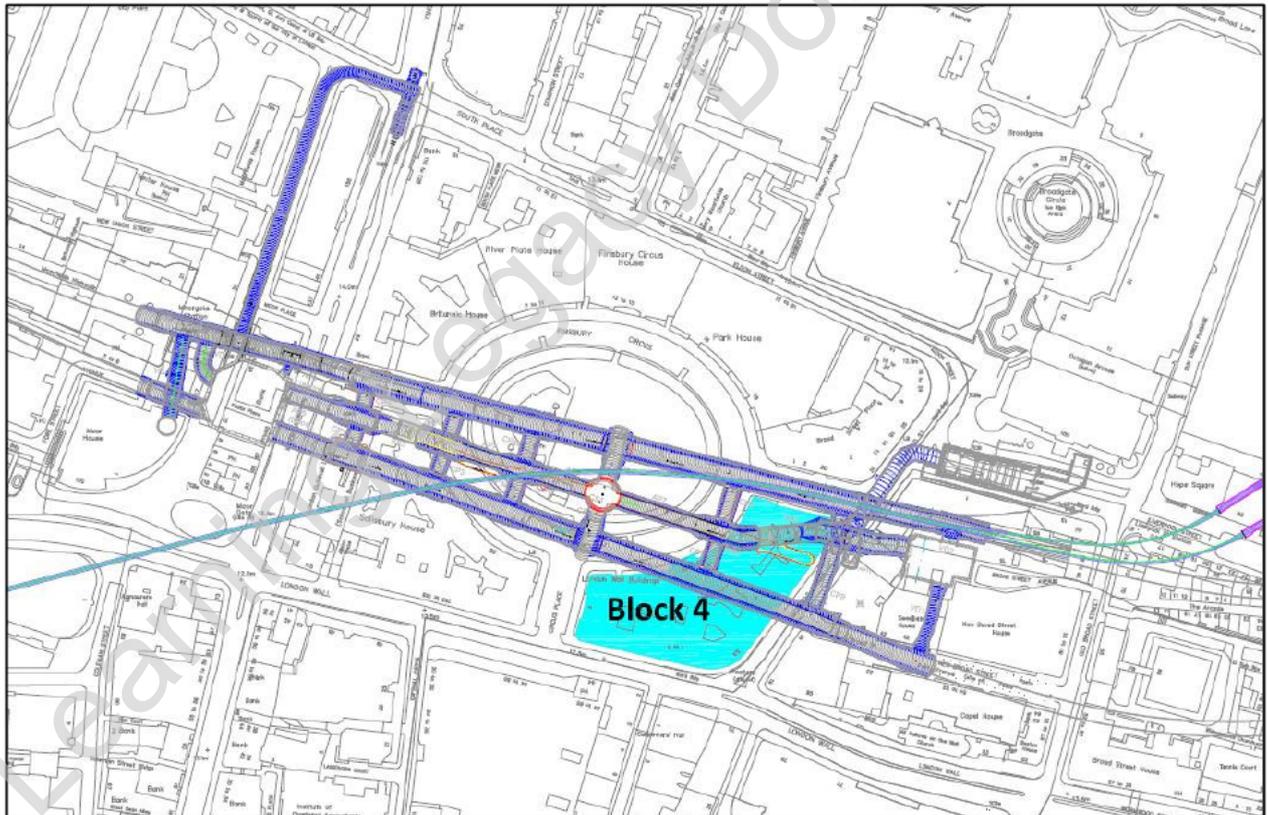


Figure 1 - Liverpool St General Location Plan - including Block 04 monitoring area

### 3.2 Block 04 Description

Block 04 is between London Wall, Blomfield Street and Finsbury Circus. Block 04 is located above Platform Tunnel West (PTW), Cross Passage 7 (CP7), Chamber 2 (CH2), Escalator Tunnel 2 (ES2) and Cross Passage 10 (CP10), further details of the construction programmes can be found in Section 4. Block 04 contains the following types of monitoring sensors:

- Building Levelling Studs/BREs (LB) - manual monitoring
- Invar Scales (LC) – manual monitoring
- Road Studs (LP)- manual monitoring
- Building 3D Geodetic Prism monitoring (RP) – automated monitoring
- Extensometer Rods (XR) – automated and manual monitoring
- Water Settlement Cell Electronic (SH) – automated monitoring
- Tiltmeters (TB) – automated monitoring
- Crack Monitors (CK) – manual monitoring
- Inclinometers (IM) – automated and manual monitoring

Each monitoring sensor's details are listed within the Decommissioning Status Tracker (Table 2) and further relevant information can be sourced from the following reports.

Block 04 Report References:

- Installation Report – LIV-Block 04 – London Wall Buildings  
CRL Document Number: C510-BBM-C2-RGN-C101-50007
- Monitoring Installation Report LIV-Inclinometer – Liverpool Street  
CRL Document Number: C510-BBM-C2-RGN-C101-50098
- Monitoring Installation Report LIV-Extensometer – Liverpool Street  
CRL Document Number: C510-BBM-C2-RGN-C101-50112
- Monitoring Installation Report LIV-LP-04-Liverpool Street  
CRL Document Number: C510-BBM-C2-RGN-C101-50128
- Monitoring Installation Report LIV-LB-04-Liverpool Street  
CRL Document Number: C510-BBM-C2-RGN-C101-50152
- Monitoring Installation Report LIV-LB&LP-04-Liverpool Street-Internal London Wall Building  
CRL Document Number: C510-BBM-C2-RGN-C101-50153
- Monitoring Installation Report LIV- All Blocks – Crack Meters – Liverpool Street  
CRL Document Number: C510-BBM-C2-RGN-C101-50224

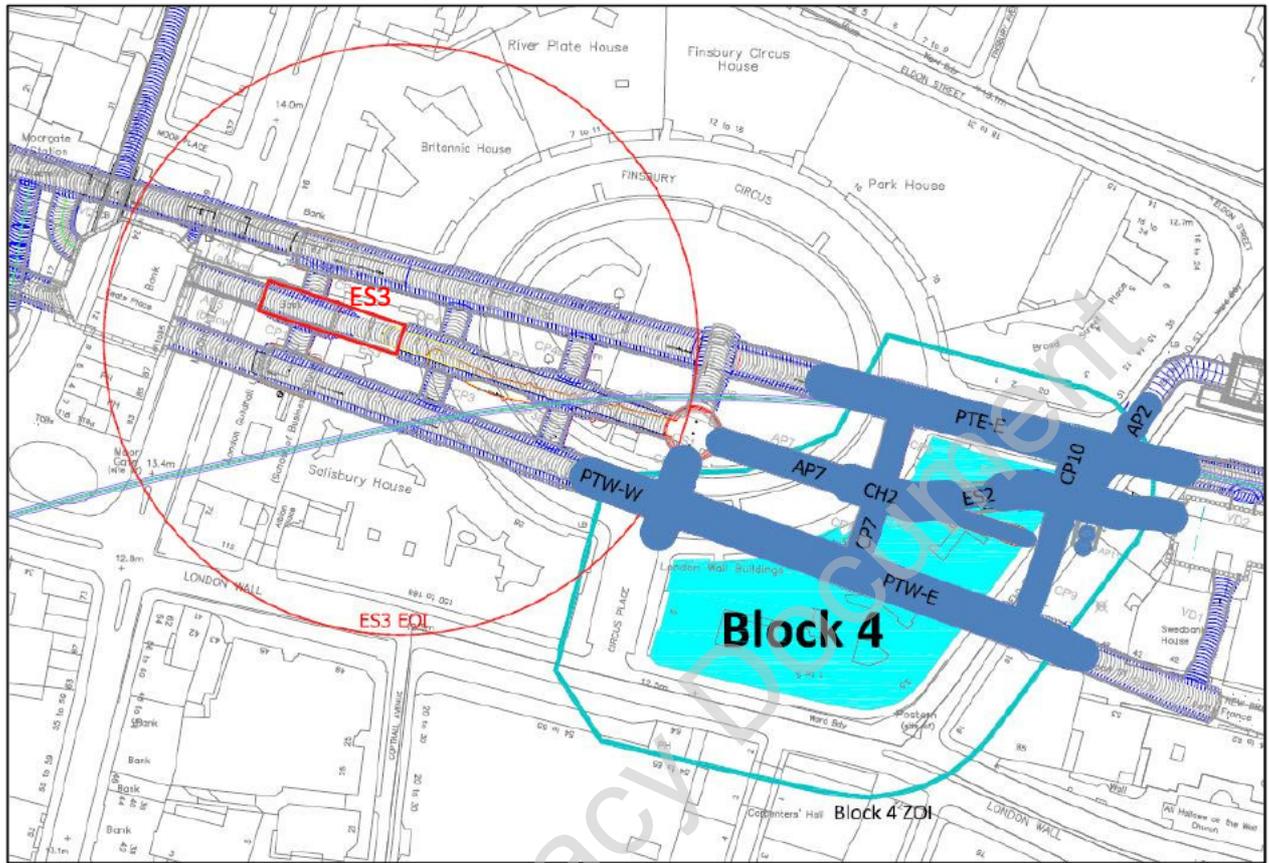
The Settlement Contour Drawing (C122-OVE-C2-DDA-CR001\_Z-21313) predicts Block 04 to experience approximately 5-130mm of settlement.

#### 4 Construction Programme Influencing Block 04

Extent of Influence (EOI) monitoring areas were established to record ground movements in relation to C510 construction. The EOI purpose is to ensure all assets and areas are adequately monitored for movement during construction, this is achieved by controlling when and how often monitoring occurs. The Asset Protection Instrument and Monitoring (I&M) Schedules (C122 –OVE-C2-DDJ-CR001\_Z-31511) states the extent of influence (EOI) of an active tunnel is 2 x depth from the active tunnel face. The EOI is used to determine when monitoring sensors are no longer influenced by construction and can be considered for decommissioning.

The original specification received amendments to manual monitoring frequency within the EOI through several PMIs, with the latest PMI (C510-PMI-01103) establishing an Active ZOI (Zone of Influence) as 2 x tunnel diameter from the active tunnel face projected to the surface. The Active ZOI changed the rates of monitoring frequency, it did not replace EOI. The EOI is used to determine when a monitoring sensor is eligible for decommissioning. Whereas, active ZOI is used to analyse manual monitoring movement against construction.

To identify the tunnels that had the potential to significantly affect Block 04, a ZOI was established by giving each monitoring sensor a radius of 2.0 x tunnel diameter. This area was then used to determine all the mining advances that occurred within its boundary. Figure 2 shows the ZOI boundary (blue outline), ES3 EOI, and the tunnel constructions. Tunnel advance start and finish dates will be used in the assessment of the monitoring data.



(From General Document Template ref: BBM-Form-S9-04 rev 5.0)

**Figure 2 - Block 04 ZOI Constructions and Remaining EOI Construction Plan**

Figure 2 shows the Block 04 ZOI and the tunnel advances that occurred within its boundary. The construction advances within the ZOI that have the potential to affect Block 04 are listed and summarised in Table 1. Further evidence for construction dates can be seen in Table 2, which lists the latest tunnel advance for each point.

ES3 enlargement advances were the final construction advances of the project and were completed on the 18<sup>th</sup> of March 2017. The extent of influence for this tunnel does not affect Block 04.

#### 4.1 Tunnel Advances Affecting Block 04

The information presented in Table 1 is used in all monitoring graphs (Section 5.1), to show the ground movements in relation to construction.

| TUNNEL ADVANCES START & ENDS FOR GRAPHS |                  |                    |            |            |      |
|---|------------------|--------------------|------------|------------|------|
| Tunnel Code                             | Tunnel Reference | Primary Layer Type | Start Date | End Date   | Zone |
| ES2-Enlargement                         | ES2              | Enlargement        | 28/10/2016 | 20/11/2016 | ZOI  |
| CH3-Enlargement                         | CH3              | Enlargement        | 21/08/2016 | 28/08/2016 | ZOI  |
| AP11-Enlargement                        | AP11             | Enlargement        | 06/08/2016 | 14/08/2016 | ZOI  |
| AP12-Enlargement                        | AP12             | Enlargement        | 04/08/2016 | 04/08/2016 | ZOI  |
| AP2-Enlargement                         | AP2              | Enlargement        | 13/06/2016 | 28/06/2016 | ZOI  |
| AP2-Pilot                               | AP2              | Pilot              | 25/04/2016 | 18/05/2016 | ZOI  |
| ES2-Pilot                               | ES2              | Pilot              | 31/10/2015 | 24/04/2016 | ZOI  |
| CP10-Enlargement                        | CP10             | Enlargement        | 15/08/2014 | 17/08/2014 | ZOI  |
| CP9-Enlargement                         | CP9              | Enlargement        | 08/08/2014 | 23/08/2014 | ZOI  |
| CP9-Pilot                               | CP9              | Pilot              | 17/07/2014 | 23/07/2014 | ZOI  |
| CP10-Pilot                              | CP10             | Pilot              | 15/07/2014 | 16/07/2014 | ZOI  |
| CP7-Enlargement                         | CP7              | Enlargement        | 11/05/2014 | 06/07/2014 | ZOI  |
| CP7-Pilot                               | CP7              | Pilot              | 06/05/2014 | 09/05/2014 | ZOI  |
| CP8-Enlargement                         | CP8              | Enlargement        | 14/04/2014 | 26/04/2014 | ZOI  |
| RCW-Enlargement                         | RCW              | Enlargement        | 14/04/2014 | 15/04/2014 | ZOI  |
| CP8-Pilot                               | CP8              | Pilot              | 07/04/2014 | 12/04/2014 | ZOI  |
| RCE-Enlargement                         | RCE              | Enlargement        | 31/01/2014 | 12/02/2014 | ZOI  |
| PTW-East-Enlargement                    | PTW-East         | Enlargement        | 17/11/2013 | 14/04/2014 | ZOI  |
| PTE-East-Enlargement                    | PTE-East         | Enlargement        | 15/11/2013 | 30/01/2014 | ZOI  |
| RCE-Pilot                               | RCE              | Pilot              | 09/09/2013 | 14/09/2013 | ZOI  |
| PTW-West-Enlargement                    | PTW-West         | Enlargement        | 18/08/2013 | 17/09/2013 | ZOI  |
| AP1a-Enlargement                        | AP1a             | Enlargement        | 04/08/2013 | 13/08/2013 | ZOI  |
| AP1b-Enlargement                        | AP1b             | Enlargement        | 13/07/2013 | 04/08/2013 | ZOI  |
| PTW-East-Pilot                          | PTW-East         | Pilot              | 13/07/2013 | 17/10/2013 | ZOI  |
| PTE-East-Pilot                          | PTE-East         | Pilot              | 02/07/2013 | 09/09/2013 | ZOI  |
| PTW-West-Pilot                          | PTW-West         | Pilot              | 02/06/2013 | 07/06/2013 | ZOI  |
| AP1a-Pilot                              | AP1a             | Pilot              | 19/05/2013 | 06/06/2013 | ZOI  |
| ES2-Initial-Pilot                       | ES2-Initial      | Pilot              | 26/03/2013 | 01/05/2013 | ZOI  |
| CH2-Enlargement                         | CH2              | Enlargement        | 11/04/2013 | 01/05/2013 | ZOI  |
| AP1b-Pilot                              | AP1b             | Pilot              | 27/03/2013 | 18/05/2013 | ZOI  |
| AP7 East-Enlargement                    | AP7 East         | Enlargement        | 02/03/2013 | 10/04/2013 | ZOI  |
| CH2-Pilot                               | CH2              | Pilot              | 14/02/2013 | 18/03/2013 | ZOI  |
| CP5-Enlargement                         | CP5              | Enlargement        | 08/12/2012 | 13/01/2013 | ZOI  |
| CP5-Pilot                               | CP5              | Pilot              | 10/11/2012 | 16/11/2012 | ZOI  |
| AP7 East-Pilot                          | AP7 East         | Pilot              | 24/10/2012 | 14/02/2013 | ZOI  |
| GAD2-Pilot                              | GAD2             | Pilot              | 11/02/2012 | 09/03/2012 | ZOI  |

Table 1 - Tunnel Advances Affecting Block 04

#### Heading Index:

- AP – Access Passage
- CH - Chamber
- CP - Cross Passage
- ES – Escalator
- GAD – Grout Adit
- PTE – Platform Tunnel East
- PTW – Platform Tunnel West
- RCE – Reception Chamber East
- RCW – Reception Chamber West

## 5 Monitoring Assessment of Block 04

Evidence for decommissioning each monitored sensor is shown through graphs, tables (decommissioning status tracker) and plans. Each element of assessment compliments the other and is used together to determine acceptance of decommissioning. The decommissioning status tracker (Table 2) highlights the monitoring sensors to be considered for decommissioning and provides the supporting evidence for the decision. In some cases supplementary evidence is required to prove stability or provide reasoning for decommissioning.

As ES3 EOI does not affect Block 4, all monitoring points within the block are considered for decommissioning.

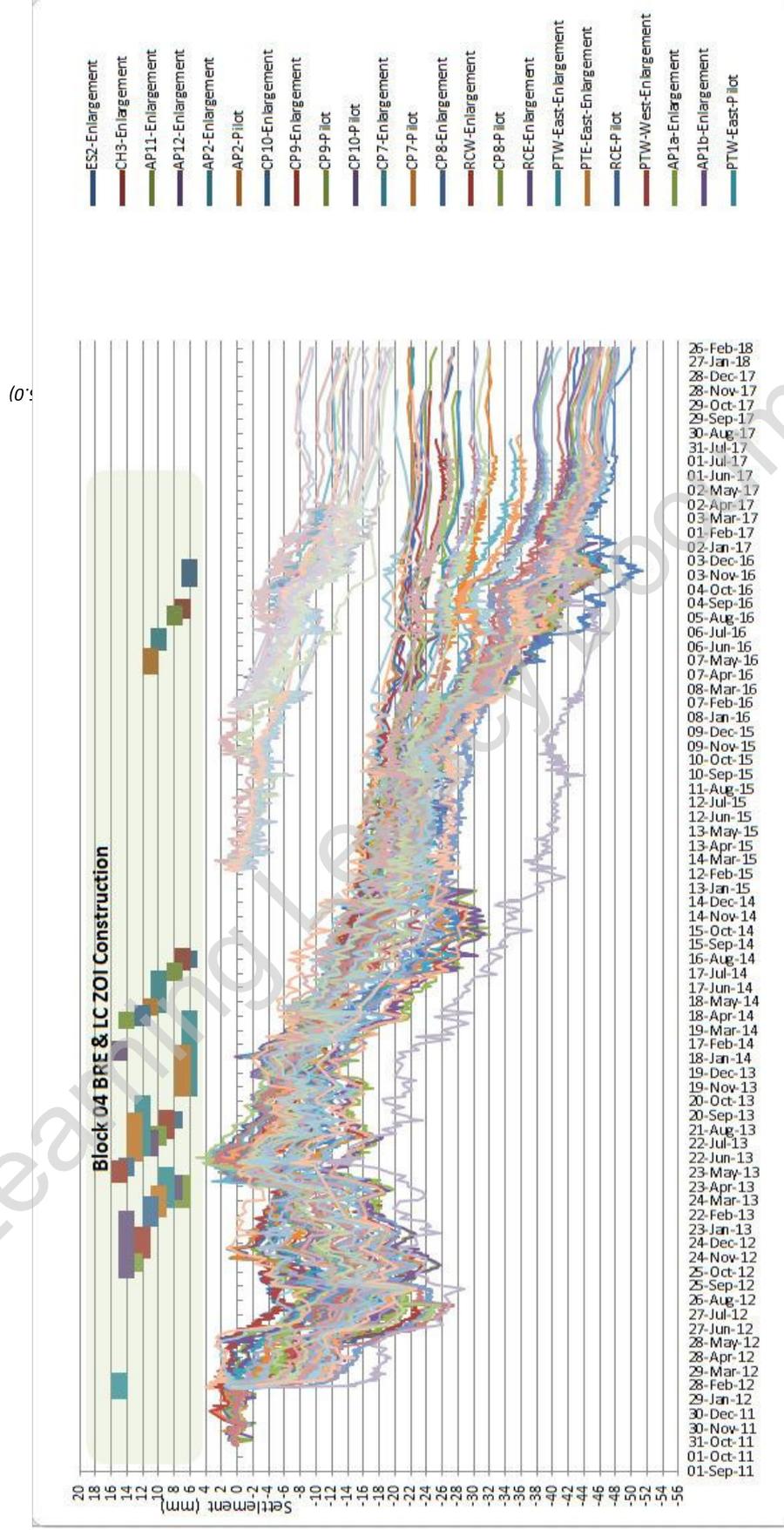
Crossrail agreed at the ERP meeting held on the 20/6/2017 to the decommissioning of grouting within the GAD2 tunnel and Blomfield Grout Box. Under Specification Section KC21.3220(c) of the Crossrail document C122-OVE-Z4-RSP-CR001-00010, it states that automatic monitoring can be decommissioned at the same time as the grouting facilities. It is therefore proposed that all automated sensors within Block 04 be removed. Precise levelling points will be maintained in place and monitored until such time that the sensors meet the settlement criteria. See graphs, tables and plans for further details on the automated sensors.

### 5.1 Time Graphs Monitoring Full History and Construction Durations

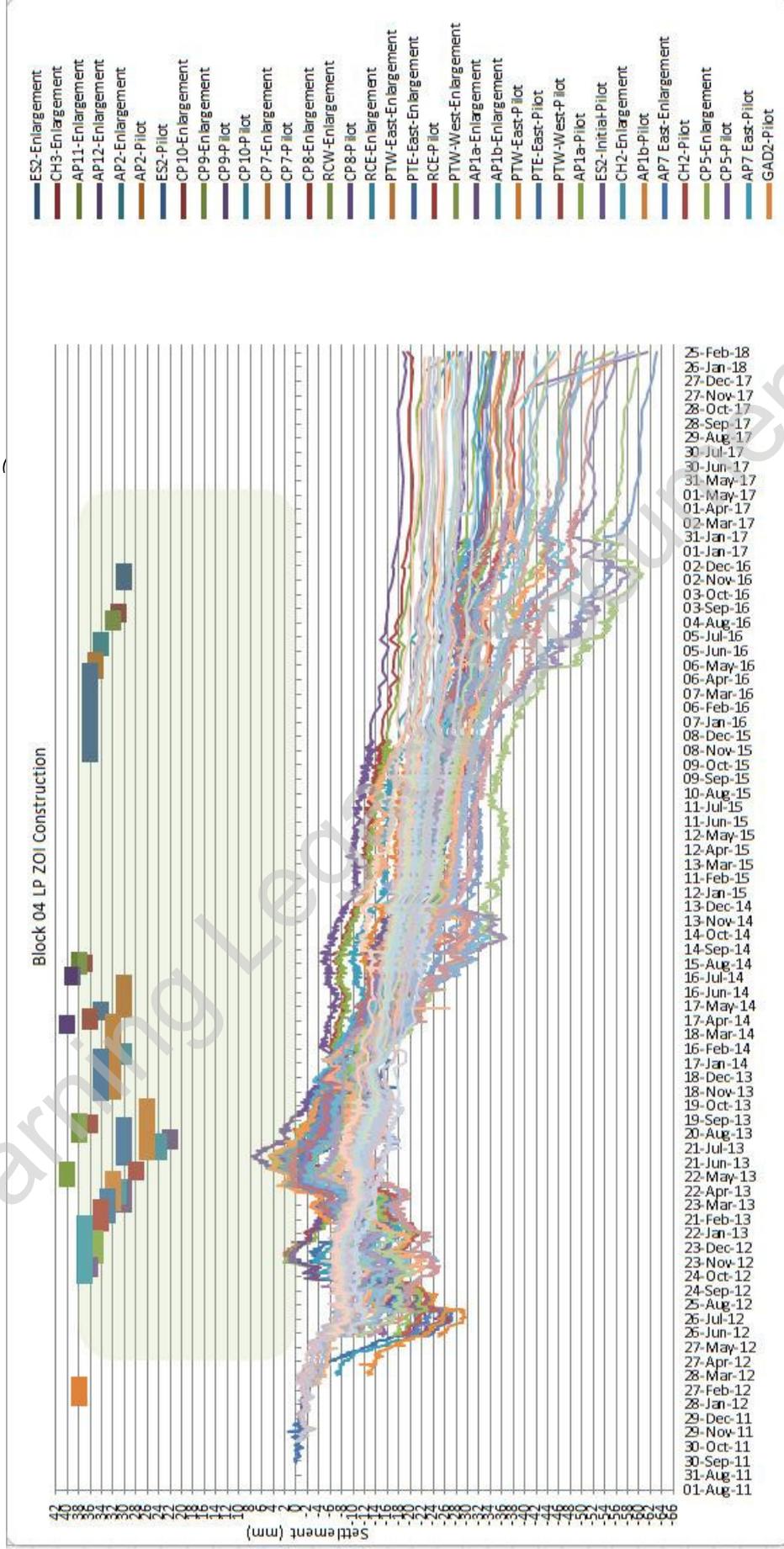
To assess the movement of Block 04 monitoring sensors; each monitoring sensor data type is displayed in a line graph, with a Gantt chart (bar) representing the construction identified in Section 4:

- Graph 1 - Block 04 Building (BRE & LC) Manual Monitoring History in Relation to Construction
- Graph 2 - Block 04 Road Studs (LP) Manual Monitoring History in Relation to Construction

Graph 1 - Block 04 Building (BRE & LC) Manual Monitoring History in Relation to Construction



Graph 2 - Block 04 Road Studs (LP) Manual Monitoring History in Relation to Construction



## 5.2 Block 04 Decommissioning Status Tracker

The decommissioning tracker (Table 2) identifies each monitoring sensor and provides the critical information to enable decommissioning assessment for each sensor. The initial fields shown in the tracker are descriptors of the monitoring sensor, whilst the remaining fields are the assessment for decommissioning. The purpose of the tracker is to provide Crossrail reviewers with sufficient information in conjunction with construction movement graphs and plots, to accept BBMV's proposal to decommission sensors on an individual basis.

Detailed explanation of the tracker column headers:

### Tracker Column Header – Last Construction Date

To determine the last influencing construction works for each sensor, the Active ZOI parameter was used. All construction tunnelling advances within the 2 x diameter radius were listed for each sensor, from these lists the latest advance date is used as an indicator.

**N.B.** Each monitoring sensor's last affecting primary construction heading and advance number's completion date has been listed within the Decommissioning Status Tracker. The last construction heading listed, is not the closest to the monitoring sensor, but the last completed within the 2 x diameter radius. Not all sensors are within a distance of 2 x diameter of a tunnel advance location. If this scenario occurs the last completed heading within Block 04's ZOI is used as a reference.

### Tracker Column Header – 120, 180 & 365 Days Average Settlement Trend

There are three average settlement trends, which tie into the defined monitoring time frames; 120, 180 and 365 days. The calculation used to determine the trend is the same for all three periods. It is a slope calculation (explained below) of the defined period, multiplied over one year. The trend is calculated from the latest reading and includes all readings within the defined period, which is averaged and then multiplied over 1 year. If there is no initial reading for the time frame date, the calculation will continue back to include the next available date. This is an important consideration when assessing the trend and to assist the reviewers, the time frame used within the calculation is included within the decommissioning tracker status table. Defined monitoring time frames:

- The 120 day average rate is used to show the completion of manual monitoring step down period, this is the minimum period of monitoring prior to InSAR taking monitoring responsibility.
- The 180 day average rate is the minimum monitoring period after construction for automated sensors.
- The 365 day average trend is the desired period to be used if the long term monitoring has been completed for decommissioning evidence. The specification states that if the trend is below 2mm/yr, then the sensor is eligible for decommissioning.

### Slope calculation Settlement Trend:

**Description** – The settlement trend calculates the slope of the linear regression line through data points in known\_y's and known\_x's. The slope is the vertical distance divided by the horizontal distance between any two points on the line, which is the rate of change along the regression line.

## Calculation

$$b = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sum (x - \bar{x})^2}$$

Example - If the calculated trend for a 6 month period is 1.5mm, it is multiplied into 365 days, to equal a projected settlement trend of 3mm over 1 year.

### Tracker Column Header – ERP Ceased date

ERP and CTC meetings have identified project efficiencies, by ceasing manual monitoring programmes early, or prior to reaching 2mm/yr. InSAR may have taken responsibility of monitoring or the perceived risk may be low enough to warrant ceasing the monitoring. In these situations the cease date is provided, along with a comment explaining the reasoning. Monitoring that has been ceased still requires approval to decommission and will be identified within the decommissioning status tracker as proposed to decommission.

### Tracker Column Header – Decommissioning Status

The status is the decommissioning situation for each sensor within Block 04. The different statuses are as follows:

- Outstanding - Monitoring sensor has not met the close out requirements and approval to decommission will be sought in subsequent revisions of this close out report.
- Proposed - the sensor is proposed to be decommissioned. Crossrail to accept the sensor can be decommissioned.
- Agreed – Agreed to decommission through previous revision of the close out report. No further reporting or monitoring has taken place.
- Complete - Monitoring sensor has been removed and evidence gathered during decommissioning.

**N.B.** When monitoring sensors have not met the requirements, it may still be appropriate to decommission. In this scenario supplementary evidence will be provided to explain the reasoning for decommissioning.

RED  
 > 3.5 mm AMBER  
 < 3.5 mm GREEN  
 < 2.0 mm

AVERAGE SETTLEMENT TRENDS

27/02/2018

Table 2 - Block 04 Decommissioning Status Tracker BRE & LC

| C510 Sensor Name | Block    | Section       | Int./Ext. | Measurement Type | Sensor Type | Sensor Description | Asset/Location       | EOI Last Primary Layer Construction | Last Construction Date | Latest Surveyed Date | 120 Days Calculation Period | 180 Days | 365 Days | 865 Day Calculation Period | Ceased Date | General Comment                             | Decommissioning Status |
|------------------|----------|---------------|-----------|------------------|-------------|--------------------|----------------------|-------------------------------------|------------------------|----------------------|-----------------------------|----------|----------|----------------------------|-------------|---|------------------------|
| C510-LB10401     | Block 04 | S10401/S10402 | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-7             | 20/11/2016             | 27/02/2018           | -0.6                        | -2.5     | 194      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10402     | Block 04 | S10401/S10402 | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -4.1                        | -2.7     | 194      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10403     | Block 04 | S10401/S10402 | External  | Manual           | LC          | BRE                | London Wall Building | LIV_CPT_Enlargement_Adv-16          | 06/07/2014             | 17/08/2017           | 2.4                         | -0.2     | 205      | 372                        |             | Stable 6 month trend / Removed accidentally | Proposed               |
| C510-LB10404     | Block 04 | S10401        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_CPT_Enlargement_Adv-16          | 06/07/2014             | 17/08/2017           | -3.7                        | -2.4     | 202      | 371                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10405     | Block 04 | S10401        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_PTM-East_Enlargement_Adv-5      | 13/03/2014             | 09/08/2017           | 0.3                         | -0.5     | 197      | 378                        |             | Stable 9 month trend / Removed accidentally | Proposed               |
| C510-LB10410     | Block 04 | S10401/S10407 | External  | Manual           | LC          | BRE                | London Wall Building | LIV_PTM-East_Enlargement_Adv-4      | 11/12/2013             | 27/02/2018           | 0.8                         | 0.9      | 202      | 371                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10415     | Block 04 | S10405        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 24/11/2017           | -0.9                        | -0.8     | 195      | 416                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10416     | Block 04 | S10405        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_PTM-East_Enlargement_Adv-125    | 30/03/2014             | 24/11/2017           | 196                         | -0.9     | 196      | 416                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10417     | Block 04 | S10405        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_PTM-East_Enlargement_Adv-152    | 07/04/2014             | 24/11/2017           | 0.6                         | 0.6      | 196      | 372                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10418     | Block 04 | S10405        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_CPS_Enlargement_Adv-32          | 23/08/2014             | 24/11/2017           | 0.9                         | 1.7      | 194      | 372                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10419     | Block 04 | S10405        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_CPS_Enlargement_Adv-32          | 23/08/2014             | 24/11/2017           | 0.8                         | 0.8      | 196      | 372                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10429     | Block 04 | S10404/S10405 | External  | Manual           | LB          | BRE                | London Wall Building | LIV_CPS_Enlargement_Adv-32          | 23/08/2014             | 27/02/2018           | 1.2                         | -0.1     | 194      | 366                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10421     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 27/02/2018           | -2.8                        | -1.8     | 194      | 366                        |             | Stable 9 month trend                        | Outstanding            |
| C510-LB10422     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 27/02/2018           | -5.3                        | -3.8     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10423     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 27/02/2018           | -5.6                        | -4.1     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10424     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-14               | 07/11/2016             | 27/02/2018           | -6.5                        | -4.9     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10425     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-8                | 07/11/2016             | 27/02/2018           | -6.5                        | -5.0     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10427     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-8                | 07/11/2016             | 27/02/2018           | -5.7                        | -5.0     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10428     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-8                | 07/11/2016             | 27/02/2018           | -6.9                        | -5.5     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10429     | Block 04 | S10404        | External  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-8                | 07/11/2016             | 27/02/2018           | -6.9                        | -5.5     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10430     | Block 04 | S10403/S10404 | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-8                | 07/11/2016             | 27/02/2018           | -6.6                        | -5.5     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10431     | Block 04 | S10403        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Invert_Adv-8                | 13/11/2016             | 17/08/2017           | -3.4                        | -7.2     | 180      | 370                        |             | Removed accidentally                        | Outstanding            |
| C510-LB10418     | Block 04 | S10403        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -3.7                        | -7.2     | 180      | 370                        |             | Removed accidentally                        | Outstanding            |
| C510-LB10416     | Block 04 | S10403        | External  | Manual           | LC          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -5.5                        | -3.9     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10415     | Block 04 | S10403        | External  | Manual           | LC          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -5.5                        | -3.6     | 194      | 366                        |             | Outstanding                                 | Outstanding            |
| C510-LB10414     | Block 04 | S10403        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -3.1     | 194      | 366                        |             | Removed accidentally                        | Outstanding            |
| C510-LB10413     | Block 04 | S10403        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -3.1     | 194      | 366                        |             | Removed accidentally                        | Outstanding            |
| C510-LB10412     | Block 04 | S10402/S10403 | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 24/08/2017           | 1.7                         | -2.3     | 181      | 365                        |             | Removed accidentally                        | Proposed               |
| C510-LB10411     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -6.2                        | -3.8     | 187      | 365                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10410     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 24/08/2017           | 2.0                         | -2.4     | 181      | 365                        |             | Removed accidentally                        | Proposed               |
| C510-LB10409     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -2.3     | 180      | 371                        |             | Removed accidentally                        | Proposed               |
| C510-LB10408     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -2.3     | 180      | 371                        |             | Removed accidentally                        | Proposed               |
| C510-LB10407     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -6.2                        | -3.8     | 187      | 365                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10406     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -6.2                        | -3.8     | 187      | 365                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10405     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -2.3     | 180      | 371                        |             | Removed accidentally                        | Proposed               |
| C510-LB10404     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -2.3     | 180      | 371                        |             | Removed accidentally                        | Proposed               |
| C510-LB10403     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -2.3     | 180      | 371                        |             | Removed accidentally                        | Proposed               |
| C510-LB10402     | Block 04 | S10402        | External  | Manual           | LC          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 17/08/2017           | -0.2                        | -2.3     | 180      | 371                        |             | Removed accidentally                        | Proposed               |
| C510-LB10401     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/02/2018           | #N/A                        | -0.5     | 208      | 366                        |             | Stable 9 month trend                        | Proposed               |
| C510-LB10400     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/02/2018           | #N/A                        | -0.6     | 208      | 366                        |             | Stable 9 month trend                        | Proposed               |
| C510-LB10439     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.9                        | -3.7     | 194      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10438     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.9                        | -3.2     | 194      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10437     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.9                        | -3.2     | 194      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10436     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.0                        | -3.4     | 369      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10435     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -4.0                        | -3.4     | 369      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10434     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.8                        | -3.8     | 369      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10433     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -2.8                        | -2.8     | 369      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10432     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.8                        | -3.4     | 369      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10431     | Block 04 | S10401        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.7                        | -3.5     | 369      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10430     | Block 04 | S10402        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -4.7                        | -4.5     | 194      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10429     | Block 04 | S10402        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Safe_Stop_Adv-10            | 13/11/2016             | 27/02/2018           | -4.4                        | -4.2     | 194      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10428     | Block 04 | S10402        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 27/02/2018           | -4.7                        | -4.5     | 194      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10427     | Block 04 | S10402        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 27/02/2018           | -4.7                        | -4.5     | 194      | 369                        |             | Outstanding                                 | Outstanding            |
| C510-LB10426     | Block 04 | S10402        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_ES2_Invert_Adv-14               | 06/07/2014             | 28/11/2017           | 1.1                         | 0.6      | 264      | 371                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10425     | Block 04 | S10402        | Internal  | Manual           | LB          | BRE                | Finsbury House       | LIV_CPT_Enlargement_Adv-16          | 30/03/2014             | 28/11/2017           | 2.4                         | 1.73     | 264      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10424     | Block 04 | S10403        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_CPT_Enlargement_Adv-125         | 23/08/2014             | 28/11/2017           | 2.0                         | 1.41     | 182      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10444     | Block 04 | S10403        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_CPT_Enlargement_Adv-32          | 23/08/2014             | 28/11/2017           | 2.0                         | 1.7      | 182      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10443     | Block 04 | S10403        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_CPT_Enlargement_Adv-32          | 23/08/2014             | 28/11/2017           | 2.0                         | 1.7      | 182      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10442     | Block 04 | S10403        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_CPT_Enlargement_Adv-32          | 23/08/2014             | 28/11/2017           | 2.0                         | 1.7      | 182      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10441     | Block 04 | S10403        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_CPT_Enlargement_Adv-32          | 23/08/2014             | 28/11/2017           | 2.0                         | 1.7      | 182      | 367                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10440     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -1.5                        | 1.74     | 0.1      | 232                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10439     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -3.8                        | -2.2     | 187      | 393                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10438     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -4.0                        | -2.6     | 187      | 393                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10437     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -7.1                        | -0.9     | 393      | 393                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10436     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -7.1                        | -0.9     | 393      | 393                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10435     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -6.6                        | -4.9     | 187      | 369                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10434     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -6.6                        | -4.9     | 187      | 369                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10433     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -6.5                        | -6.0     | 187      | 369                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10432     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -4.2                        | -3.5     | 187      | 369                        |             | <2mm per year specification met             | Proposed               |
| C510-LB10431     | Block 04 | S10404        | Internal  | Manual           | LB          | BRE                | London Wall Building | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 27/02/2018           | -6.7                        | -4.5     | 187      | 369                        |             | <2mm per                                    |                        |

Table 2 - Block 04 Decommissioning Status Tracker BRE & LC

27/02/2018

< 2.0 mm GREEN < 3.5 mm AMBER > 3.5 mm RED

AVERAGE SETTLEMENT TREND

| C510 Sensor Name | Block    | Section    | Int/Ext  | Measurement Type | Sensor Type | Sensor Description | Asset/Location     | EOI Last Primary Layer Construction | Last Construction Date | Latest Surveyed Date | 120 Days Calculation Period | 180 Days Calculation Period | 180 Day Calculation Period | 365 Days Calculation Period | 365 Day Calculation Period | Ceased Date | General Comment      | Decommissioning Status |
|------------------|----------|------------|----------|------------------|-------------|--------------------|--------------------|-------------------------------------|------------------------|----------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-------------|----------------------|------------------------|
| C510-LB10487     | Block 04 | Spent Room | Internal | Manual           | LB          | BRE                | Finsbury House     | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 27/02/2018           | #N/A                        | -2.6                        | 222                        | -4.2                        | 369                        |             |                      | Outstanding            |
| C510-LB10488     | Block 04 | Spent Room | Internal | Manual           | LB          | BRE                | Finsbury House     | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 27/02/2018           | #N/A                        | -2.7                        | 222                        | -4.3                        | 369                        |             |                      | Outstanding            |
| C510-LB10489     | Block 04 | Spent Room | Internal | Manual           | LB          | BRE                | Finsbury House     | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 27/02/2018           | #N/A                        | -3.2                        | 222                        | -5.0                        | 369                        |             |                      | Outstanding            |
| C510-LB10491     | Block 04 | Spent Room | Internal | Manual           | LC          | Invert Scale       | Finsbury House     | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 27/02/2018           | #N/A                        | -2.2                        | 222                        | -3.6                        | 369                        |             | Stable 6 month trend | Proposed               |
| C510-LB10471     | Block 04 | N/A        | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | 0.9                         | 0.0                         | 205                        | -6.9                        | 372                        |             |                      | Complete               |
| C510-LB10472     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | 0.2                         | -1.5                        | 235                        | -5.7                        | 372                        |             |                      | Complete               |
| C510-LB10473     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | 0.5                         | -1.8                        | 225                        | -6.5                        | 372                        |             |                      | Complete               |
| C510-LB10474     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | 0.3                         | -1.9                        | 225                        | -6.0                        | 372                        |             |                      | Complete               |
| C510-LB10476     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | 1.2                         | -1.3                        | 225                        | -6.8                        | 372                        |             |                      | Complete               |
| C510-LB10477     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | 1.8                         | -1.0                        | 225                        | -7.1                        | 372                        |             |                      | Complete               |
| C510-LB10481     | Block 04 | N/A        | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | 0.4                         | -1.7                        | 225                        | -6.3                        | 372                        |             |                      | Complete               |
| C510-LB10482     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | -0.1                        | -1.9                        | 225                        | -6.1                        | 372                        |             |                      | Complete               |
| C510-LB10483     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | -0.9                        | -2.3                        | 225                        | -6.0                        | 372                        |             |                      | Complete               |
| C510-LB10484     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | -0.3                        | -2.2                        | 225                        | -5.8                        | 372                        |             |                      | Complete               |
| C510-LB10485     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | -1.0                        | -3.7                        | 225                        | -5.5                        | 372                        |             |                      | Complete               |
| C510-LB10485     | Block 04 | S10401     | Internal | Manual           | LB          | BRE                | Finsbury House Gas | LIV_ESS_Safe_Stop_Adv+0             | 24/11/2016             | 03/11/2017           | -1.0                        | -2.4                        | 225                        | -5.2                        | 372                        |             |                      | Complete               |

Comment  
Trends of LCs that were removed accidentally were generally following adjacent BRE trends



Table 2 - Block 04 Decommissioning Status Tracker LP

27/02/2018  
 AVERAGE SETTLEMENT TRENDS  
 < 2.0 mm GREEN < 3.5 mm AMBER > 3.5 mm RED

| C510 Sensor Name | Block    | Section      | Int / Ext | Measurement Type | Sensor Type | Sensor Description | Asset/Location    | EO Last Primary Layer Construction | Last Construction Date | Latest Survived Date | 120 Days Calculation Period | 180 Days Calculation Period | 365 Days Calculation Period | 365 Day Cessation Date | General Comment   | Decommissioning Status |
|------------------|----------|--------------|-----------|------------------|-------------|--------------------|-------------------|------------------------------------|------------------------|----------------------|-----------------------------|-----------------------------|-----------------------------|------------------------|---|------------------------|
| C510LP12401      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_PTW-Est. Enlargement_Adv-44    | 12/12/2016             | 27/02/2018           | -1.9                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12402      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_PTW-Est. Enlargement_Adv-52    | 15/12/2013             | 27/02/2018           | -0.2                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12403      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_PTW-Est. Enlargement_Adv-59    | 11/03/2014             | 27/02/2018           | -17.0                       | 124                         | 189                         | 27/02/2018             | Trend probably affected by HGV parked over the studs - Supplementary evidence supplied  | Proposed               |
| C510LP12404      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_PTW-Est. Enlargement_Adv-67    | 15/03/2014             | 27/02/2018           | -3.3                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12405      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_PTW-Est. Enlargement_Adv-74    | 15/03/2014             | 27/02/2018           | -10.9                       | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12406      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_CP7_Enlargement_Adv-16         | 08/07/2014             | 27/02/2018           | -5.2                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12407      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_CP7_Enlargement_Adv-16         | 08/07/2014             | 27/02/2018           | -4.3                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12408      | Block 04 | S10403.1     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_CP7_Enlargement_Adv-16         | 08/07/2014             | 27/02/2018           | -4.4                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12409      | Block 04 | S10401.2     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-7            | 20/11/2016             | 27/02/2018           | -4.4                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12410      | Block 04 | S10401.2     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -4.1                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12411      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -4.2                        | 158                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12412      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -5.6                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12413      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -6.2                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12414      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -6.1                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12415      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -4.2                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12416      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -5.6                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12417      | Block 04 | S10402.2     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -5.3                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12418      | Block 04 | S10402.2     | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -4.4                        | 158                         | 189                         | 27/02/2018             | Trend maybe affected by settlement that was caused by London Wall basement works due to HGV moving and parking over studs                     | Proposed               |
| C510LP12419      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -4.5                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12420      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -5.1                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12421      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -26.2                       | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12422      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -70.5                       | 124                         | 189                         | 27/02/2018             | Stable 9 month trend -slabs are damaged 16/01/2018 - Supplementary evidence supplied  | Proposed               |
| C510LP12423      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Safe_Stop_Adv-10           | 24/11/2016             | 27/02/2018           | -18.1                       | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by London Wall basement works - Supplementary evidence supplied                                  | Proposed               |
| C510LP12424      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 13/02/2018           | -23.4                       | 144                         | 204                         | 27/02/2018             | Trend affected by settlement that was caused by London Wall basement works - Supplementary evidence supplied                                  | Proposed               |
| C510LP12425      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 27/02/2018           | -7.2                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12426      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 27/02/2018           | -7.6                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12427      | Block 04 | S10402       | External  | Manual           | LP          | Road Stud          | Finsbury Circus   | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 27/02/2018           | -7.1                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12428      | Block 04 | S10403_North | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 27/02/2018           | -9.5                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12429      | Block 04 | S10403_North | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 27/02/2018           | -9.9                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12430      | Block 04 | S10403_North | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 26/10/2017           | -1.2                        | 163                         | 191                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12431      | Block 04 | S10403_North | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 27/02/2018           | -7.4                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12432      | Block 04 | S10403_North | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_ES2_Invert_Adv-14              | 13/11/2016             | 27/02/2018           | -7.3                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works  | Proposed               |
| C510LP12433      | Block 04 | S10403_North | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_ES2_Invert_Adv-8               | 07/11/2016             | 27/02/2018           | -5.7                        | 124                         | 189                         | 27/02/2018             | Trend had been < 2mm over a period of 8 months. Possibly been affected by settlement that was caused by recent utility works after 26/10/2017 | Proposed               |
| C510LP12434      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_CP9_Enlargement_Adv-32         | 23/08/2014             | 27/02/2018           | -4.5                        | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works that affected LP12438.39 - Supplementary evidence supplied               | Proposed               |
| C510LP12435      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_CP9_Enlargement_Adv-32         | 23/08/2014             | 27/02/2018           | -3.2                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12436      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_CP9_Enlargement_Adv-32         | 23/08/2014             | 27/02/2018           | -26.4                       | 124                         | 189                         | 27/02/2018             | Trend affected by settlement that was caused by recent utility works that affected LP12438.39 - Supplementary evidence supplied               | Proposed               |
| C510LP12437      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_PTW-Est. Enlargement_Adv-163   | 10/04/2014             | 31/05/2017           | -8.8                        | 126                         | 182                         | 27/02/2018             | Utility works lifted slabs and stud was destroyed since 13/06/2017 - Supplementary evidence supplied  | Proposed               |
| C510LP12438      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_PTW-Est. Enlargement_Adv-152   | 07/04/2014             | 31/05/2017           | -5.9                        | 126                         | 182                         | 27/02/2018             | Utility works lifted slabs and stud was destroyed since 13/06/2017 - Supplementary evidence supplied  | Proposed               |
| C510LP12439      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.2                        | 124                         | 189                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12440      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.8                        | 144                         | 204                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12441      | Block 04 | S10403_South | External  | Manual           | LP          | Road Stud          | Bloomfield street | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.1                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12442      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.6                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12443      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.0                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12444      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.1                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12445      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.0                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12446      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.0                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12447      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.1                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12448      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.2                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12449      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -1.6                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12450      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -2.3                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |
| C510LP12451      | Block 04 | S10404       | External  | Manual           | LP          | Road Stud          | London Wall       | LIV_PTW-Est. Enlargement_Adv-128   | 31/03/2014             | 27/02/2018           | -2.0                        | 175                         | 253                         | 27/02/2018             | <2mm per year specification met   | Proposed               |



Table 2 - Block 04 Decommissioning Status Tracker CR

13/06/2017

< 2.0 mm GREEN < 3.5 mm AMBER > 3.5 mm RED

AVERAGE SETTLEMENT TREND

| C510 Sensor Name | Block     | Section | Int / Ext | Measurement Type | Sensor Type | Sensor Description | Asset Location               | EOI Last Primary Layer Construction | Last Construction Date | Latest Surveyed Date | 120 Days Calculation Period | 180 Days Calculation Period | 365 Days Calculation Period | Ceased Date | General Comment | Decommissioning Status |
|------------------|-----------|---------|-----------|------------------|-------------|--------------------|------------------------------|-------------------------------------|------------------------|----------------------|-----------------------------|-----------------------------|-----------------------------|-------------|-----------------|------------------------|
| C510-CK10401     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House            | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 13/03/2017           | -1.3                        | 0.0                         | 186                         |             |                 | Outstanding            |
| C510-CK10402     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House            | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 13/03/2017           | -1.5                        | 0.3                         | 186                         |             |                 | Outstanding            |
| C510-CK10403     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House            | LIV_ES2_Invert_Adv-14               | 13/11/2016             | 13/03/2017           | -9.7                        | -3.3                        | 186                         |             |                 | Outstanding            |
| C510-CK10404     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House            | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/03/2017           | 0.1                         | 0.2                         | 186                         |             |                 | Outstanding            |
| C510-CK10405     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House            | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/03/2017           | -0.1                        | 0.7                         | 186                         |             |                 | Outstanding            |
| C510-CK10406     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House            | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/03/2017           | 0.0                         | 0.0                         | 369                         |             |                 | Outstanding            |
| C510-CK10407     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House (Corridor) | LIV_ES2_Invert_Adv-8                | 07/11/2016             | 13/03/2017           | -2.5                        | -2.2                        | 229                         |             |                 | Outstanding            |
| C510-CK10411     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | 23 Finsbury House (Corridor) | LIV_ES2_Invert_Adv-9                | 07/11/2016             | 13/03/2017           | 0.0                         | 0.0                         | 229                         |             |                 | Outstanding            |
| C510-CK10401     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | London Wall Building         | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/03/2017           | -3.1                        | 0.9                         | 412                         |             |                 | Outstanding            |
| C510-CK10402     | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | London Wall Building         | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/03/2017           | 0.8                         | 0.3                         | 412                         |             |                 | Outstanding            |
| C510-CK104201    | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | London Wall Building         | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/06/2017           | 0.0                         | 0.0                         | 187                         |             |                 | Outstanding            |
| C510-CK104601    | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | London Wall Building         | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/06/2017           | -0.1                        | 0.0                         | 187                         |             |                 | Outstanding            |
| C510-CK104602    | Block 104 | S10401  | Internal  | Manual           | CK          | Crack Monitor      | London Wall Building         | LIV_ES2_Safe_Stop_Adv-10            | 24/11/2016             | 13/06/2017           | -0.7                        | 0.1                         | 187                         |             |                 | Outstanding            |

Crackmeter stable. For latest data see Appendix I. Also refer to the document "Crackmeters Block 4-Finsbury House-GAS-WATER.xlsm"

Crackmeter stable. For latest data see Appendix I. Also refer to the document "Block 4 LWB Crackmeter Graph.xlsm"



### 5.3 Supplementary Evidence for Decommissioning

In some cases, supplementary evidence will be provided to support the decommissioning evidence.

#### 5.3.1 BREs

- LB10457 – The BRE was removed during works at London Wall Basement. Latest data 28/11/2017



Figure 3. London Wall Basement -

### 5.3.2 Roadstuds

- LP12403–Data of roadstud LP12403 probably affected by HGV parked over the studs on the pavement. Trends of points LP12404-07 might also be affected.



Figure 4. Finsbury Circus pavement, 23-25 London Wall - HGV parked over the studs



Figure 5. Finsbury Circus pavement, 23-25 London Wall - HGV parked over the studs

- LP12418-25

LP12418: Data of roadstud LP12418 affected by settlement that was caused by London Wall basement works due to HGV moving and parking over studs (Figure 6)



Figure 6. London Wall basement works

LP12419-25: Trend affected by settlement that was caused by London Wall basement works (Figure 7)



Figure 7. London Wall basement works

- LP12436-39

LP12436-37: Trend affected by settlement that was caused by recent utility works that affected LP12438-39. (Figure 8-9)

LP12438-39: Utility works lifted slabs and studs were destroyed since 13/06/2017 (Figure 9)



Figure 8. LP12437 Uneven slabs



Figure 9. Utility works lifted slabs and studs LP12438-39 were destroyed since 13/06/2017. Works also affected trends of LP12436-37.

- LP12455: Stud is damaged.



Figure 10. LP12455 Stud is damaged

#### 5.4 Monitoring sensor Location Plan and Decommissioning Status

The following plots provide a visual representation of all Block 04 monitoring sensors included in revision 02 with a colour circle that defines its settlement status. A green circle represents when a trend is below 2mm/yr and the larger the circle the greater the trend period. When a trend has not been met, a small red circle will represent the monitoring sensor. There are two plans for Block 04 monitoring sensors.

- Figure 11 - BRE & LC Monitoring Sensor Settlement Status and Location Plan
- Figure 12 - LP Monitoring Sensor Settlement Status and Location Plan

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Figure 11 - BRE & LC Monitoring Sensor Settlement Status and Location Plan

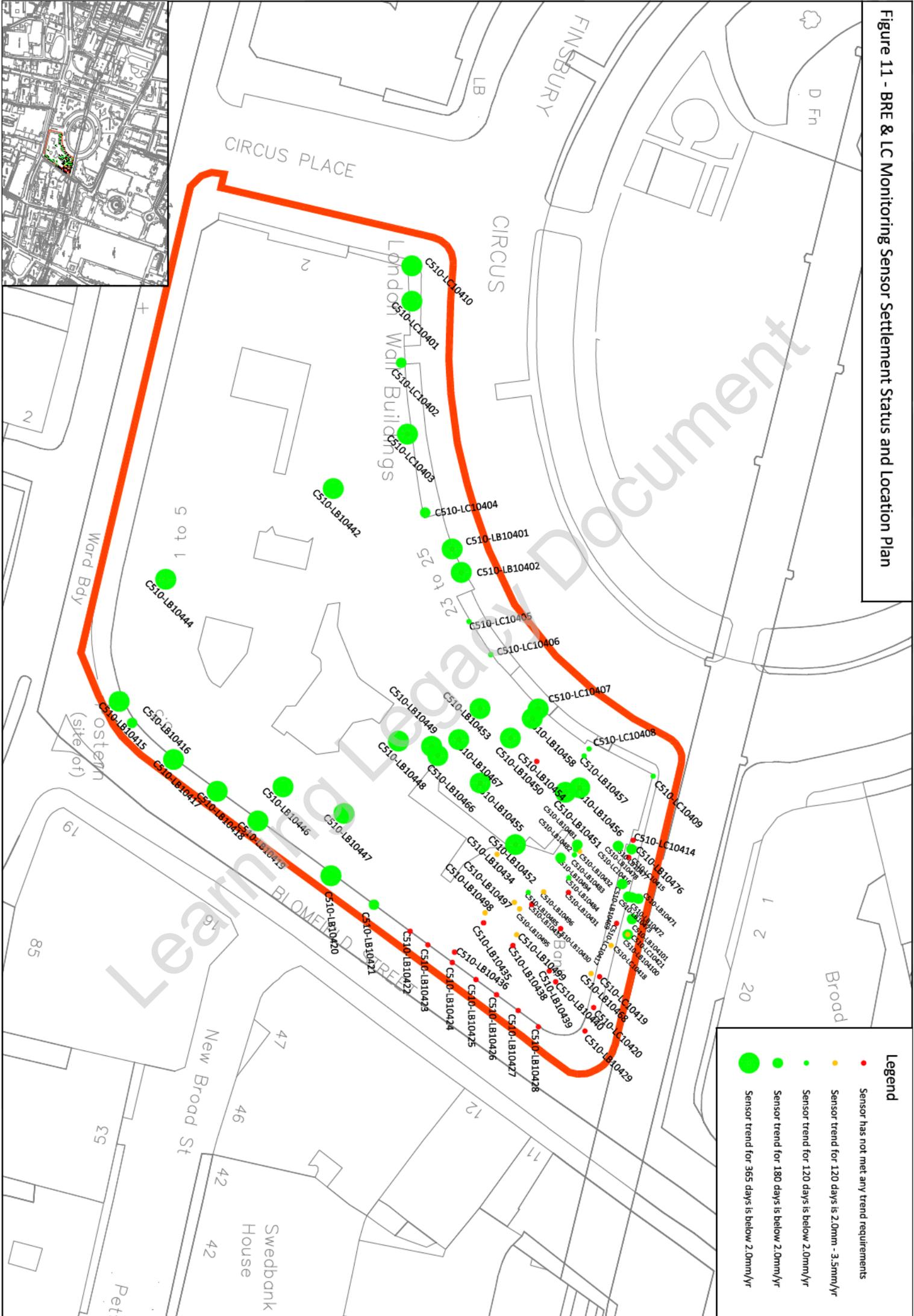
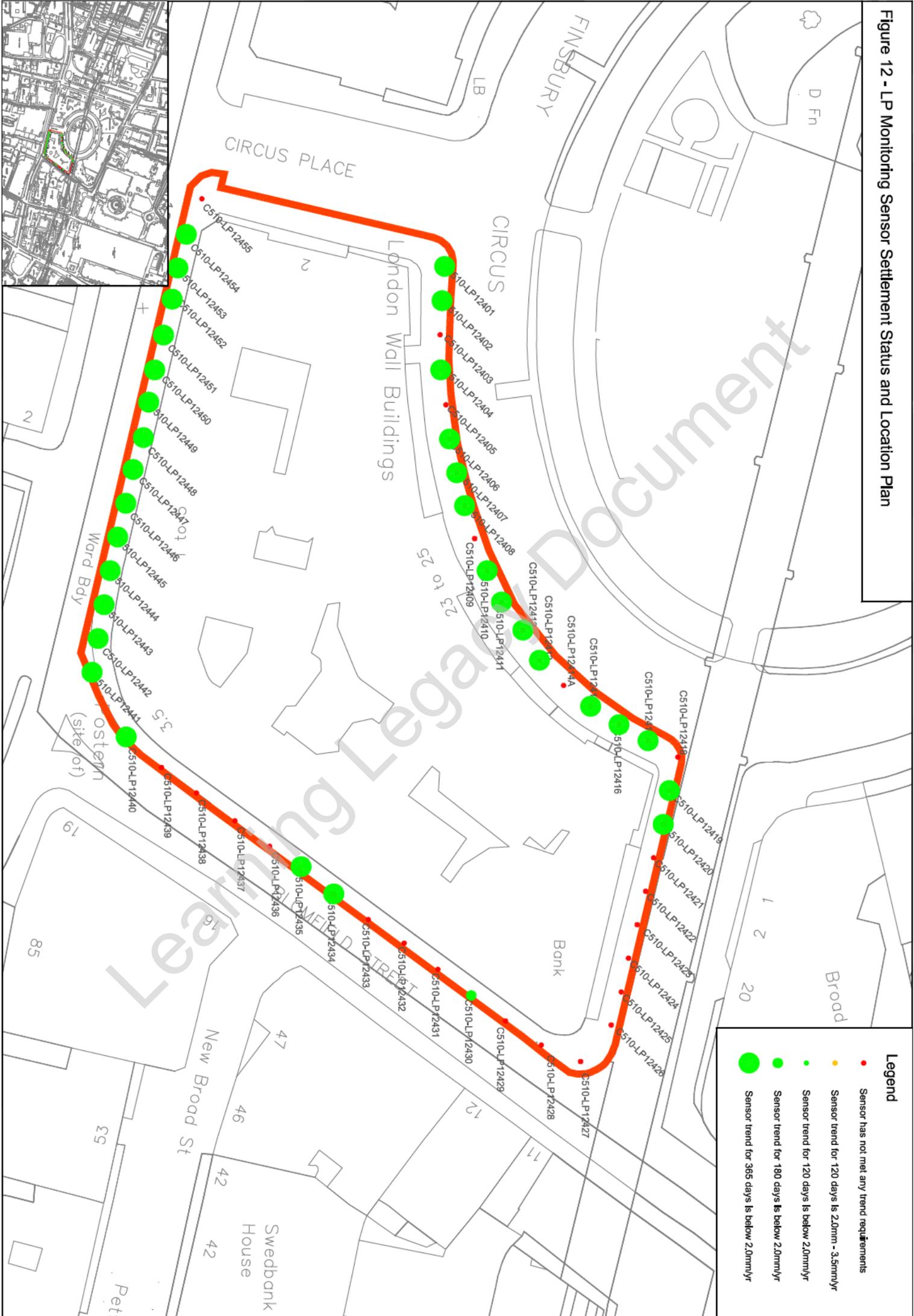


Figure 12 - LP Monitoring Sensor Settlement Status and Location Plan



| Legend                                |   |
|---------------------------------------|---|
| <span style="color: red;">●</span>    | Sensor has not met any trend requirements     |
| <span style="color: yellow;">●</span> | Sensor trend for 120 days is 2.0mm - 3.5mm/yr |
| <span style="color: green;">●</span>  | Sensor trend for 120 days is below 2.0mm/yr   |
| <span style="color: green;">●</span>  | Sensor trend for 180 days is below 2.0mm/yr   |
| <span style="color: green;">●</span>  | Sensor trend for 365 days is below 2.0mm/yr   |

## 6 Decommissioning Recommendations

Revision 2 of Block 04 close out report does not request all monitoring sensors to be decommissioned. The decommissioning status tracker (Table 2) identifies the monitoring sensors to be agreed for decommissioned. Monitoring sensors that are unable to be decommissioned will be reassessed in the future.

### Summary to Continue to Monitor (“Outstanding to Decommission”):

- Road studs, BREs and invar scales that have not met the <2mm/year specification, as identified in Section 2;
- All crackmeters until adjacent monitoring sensors meet the <2mm/year specification;

### Summary to Decommission (“Proposed to Decommission”):

- Sensors that have met the 2mm/year trend and proposed to be decommissioned, as per the decommissioning status tracker (Table 2).

**N.B.** When required, decommissioning and re-instatement evidence will be collected during the removal of monitoring sensors, which will be included within the final report.

## 7 Appendix I (Crackmeters latest results)

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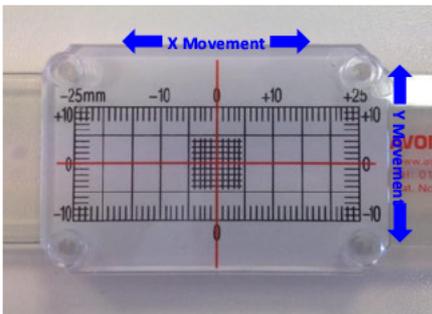
# Crackmeters Results

## Crackmeters Block 4 Finsbury House Gas & Water

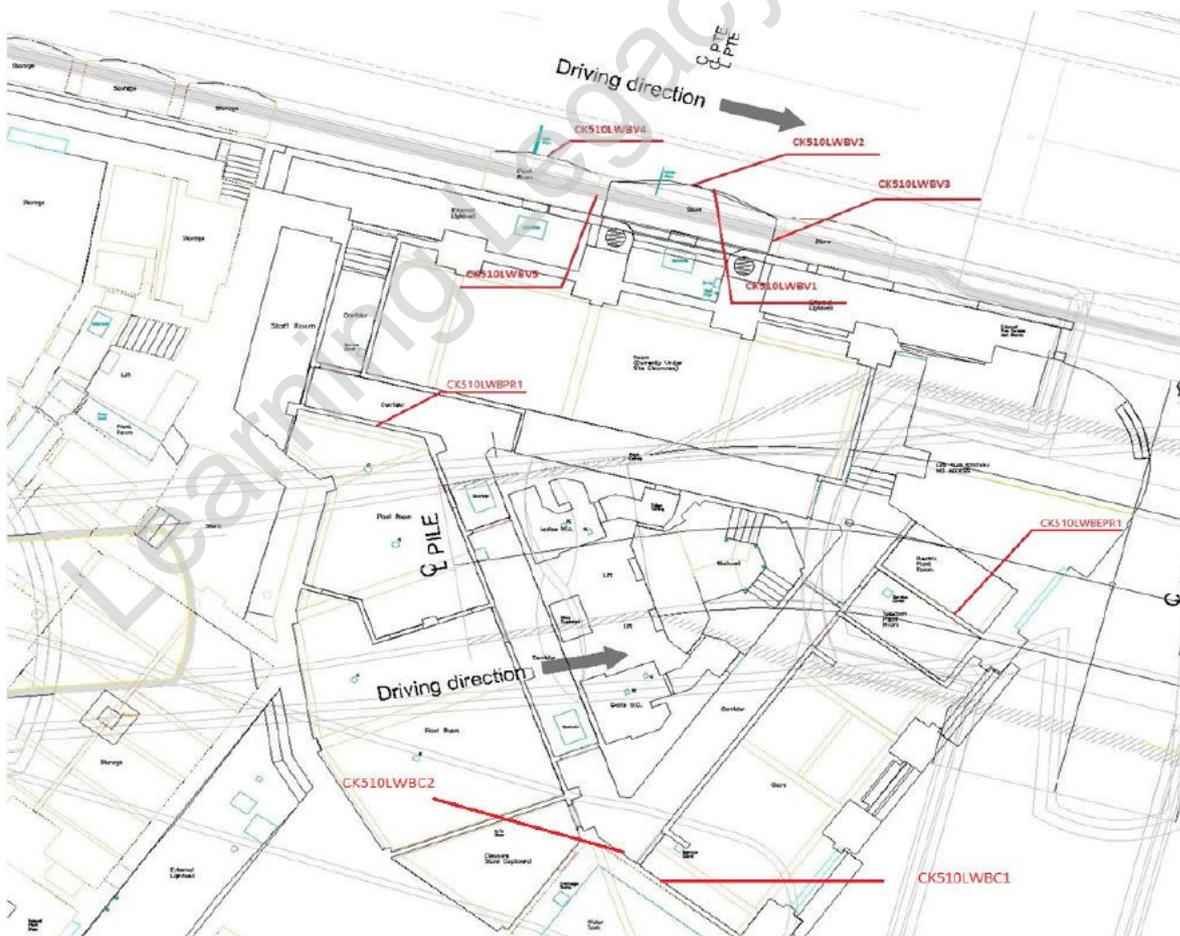


24/01/2018

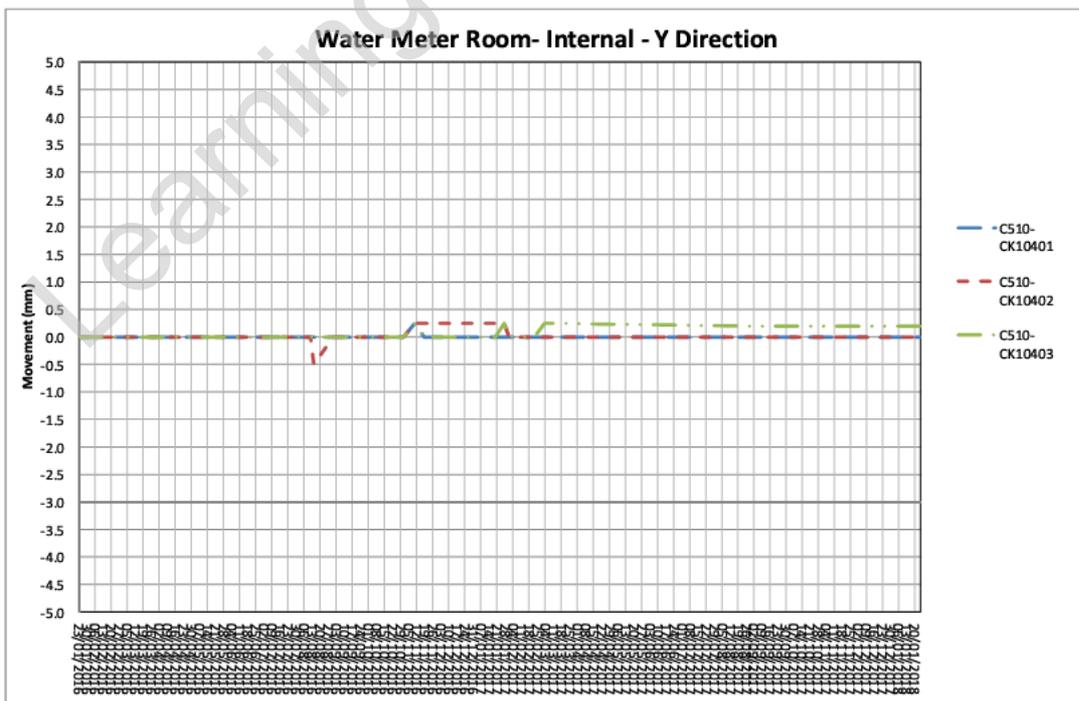
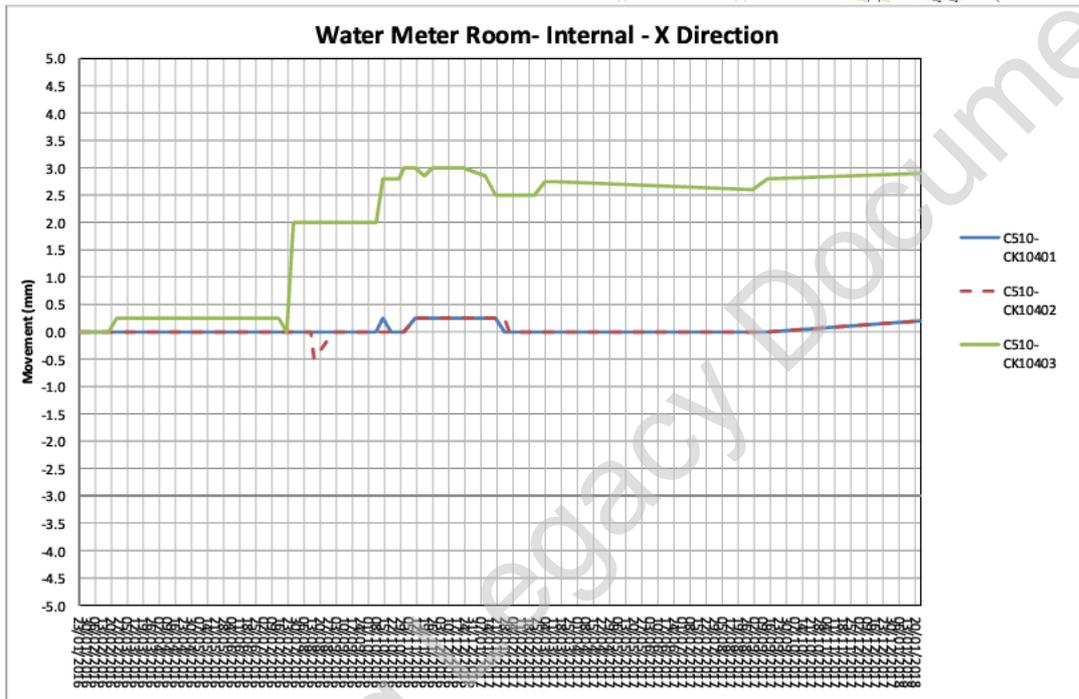
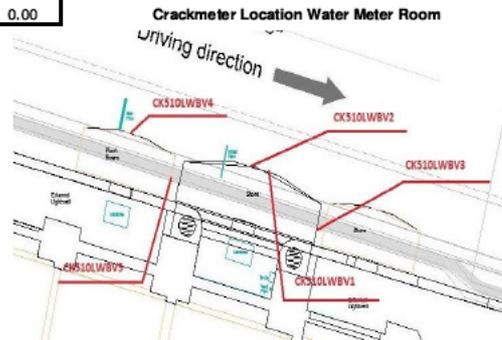
| COMMENTS   |   |
|------------|---|
| 25/01/2016 | CK510LWBV5 Has been destroyed                               |
| 28/01/2016 | CK510LWBV5 Has been reinstalled                             |
| 09/03/2016 | CK510LWBV4 and 5 has been destroyed, need to be reinstalled |
| 24.03.2016 | CK510LWBPR1 No access due to asbestos issue                 |
| 14.07.2016 | C510-CK10406  |
| 23/03/2017 | CK510LWBV1-CK510LWBV2-CK510LWBV3 no access                  |



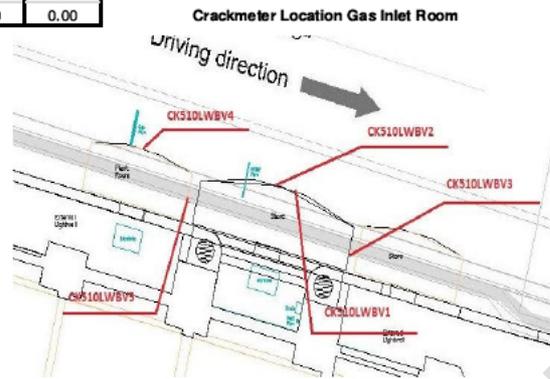
GENERAL LOCATION PLAN FOR FINSBURY HOUSE CRACKMETERS



| Water Meter Room |              |                          |               |                |      |
|------------------|--------------|--------------------------|---------------|----------------|------|
| Previous Name    | UCIMS Name   | Initial Crack Width (mm) | Baseline Date | Baseline Value |      |
|                  |              |                          |               | X              | Y    |
| CK510LWBV1       | C510-CK10401 | 2.00                     | 22/01/2016    | 0.00           | 0.00 |
| CK510LWBV2       | C510-CK10402 | 1.50                     | 22/01/2016    | 0.00           | 0.00 |
| CK510LWBV3       | C510-CK10403 | 7.00                     | 22/01/2016    | 0.00           | 0.00 |



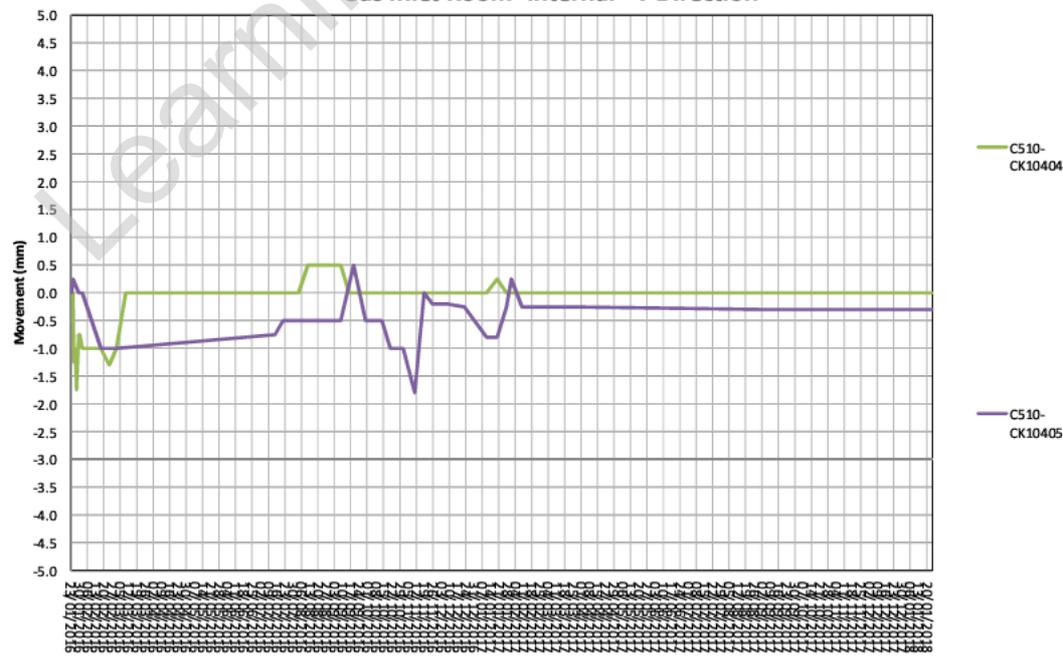
| Gas Inlet Room |              |                          |               |                |      |
|----------------|--------------|--------------------------|---------------|----------------|------|
| Previous Name  | UCIMS Name   | Initial Crack Width (mm) | Baseline Date | Baseline Value |      |
|                |              |                          |               | X              | Y    |
| CK510LWBV4     | C510-CK10404 | 2.00                     | 22/01/2016    | 0.00           | 0.00 |
| CK510LWBV5     | C510-CK10405 | 2.50                     | 22/01/2016    | 0.00           | 0.00 |



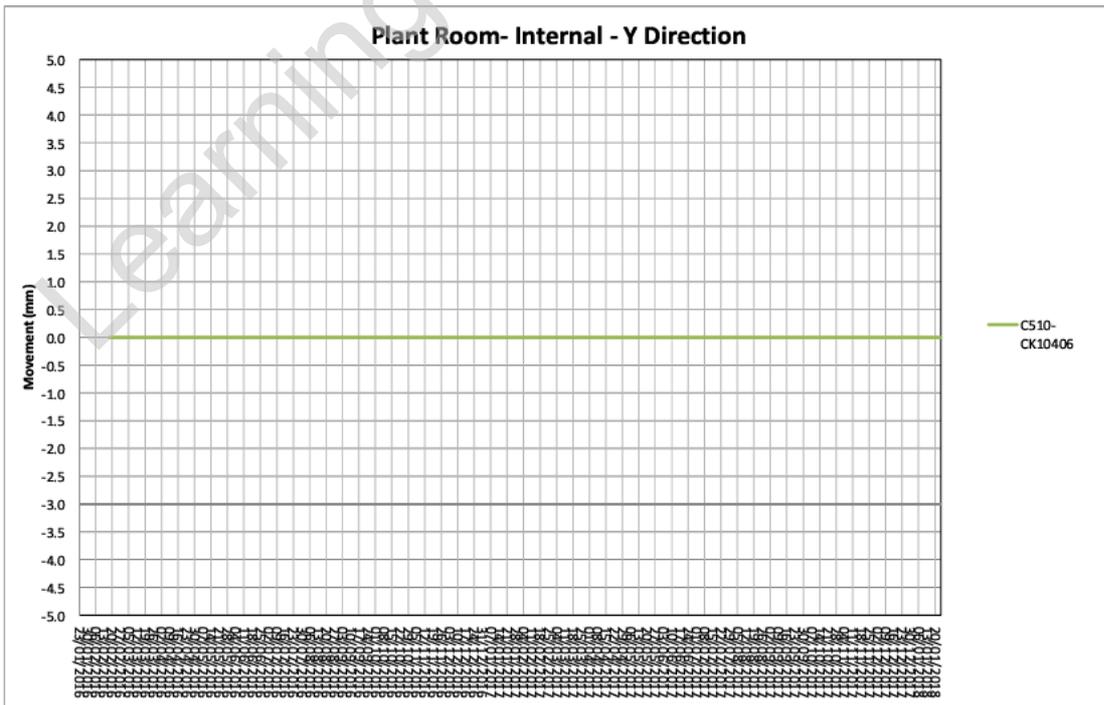
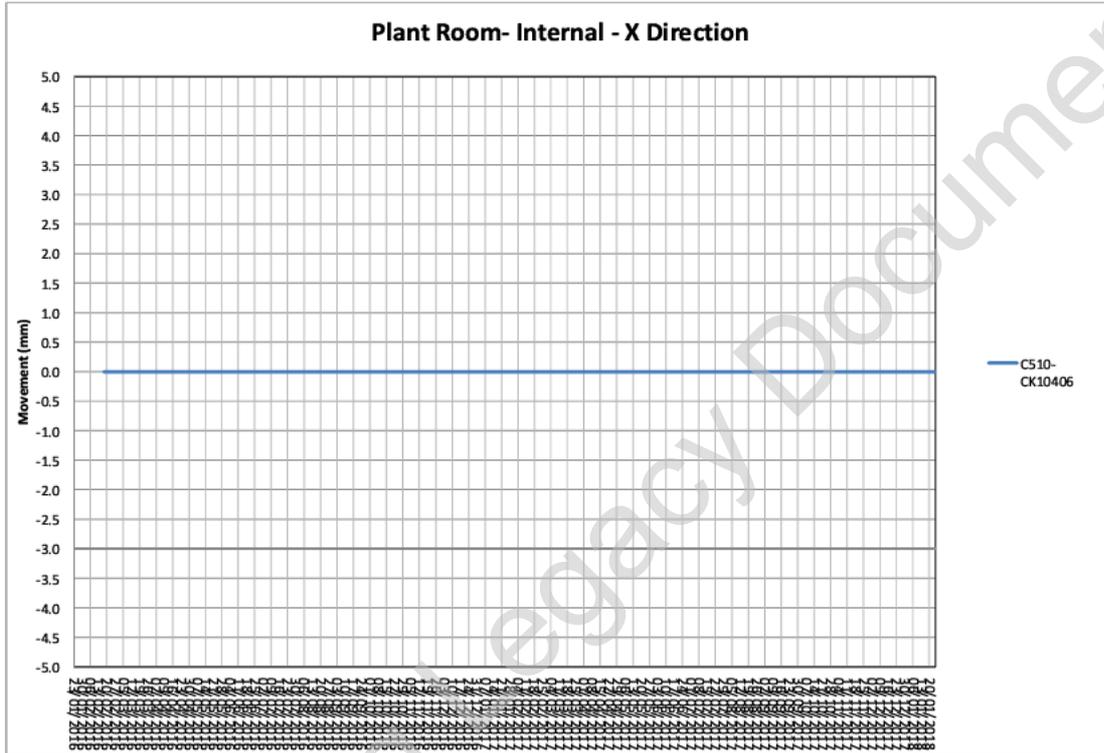
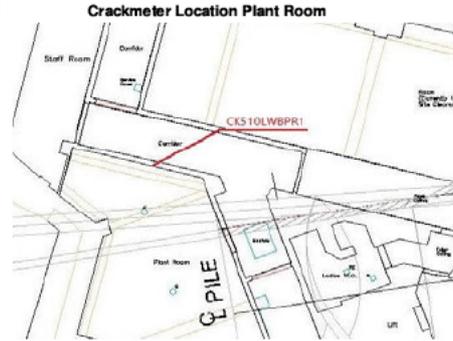
Gas Inlet Room- Internal - X Direction



Gas Inlet Room- Internal - Y Direction

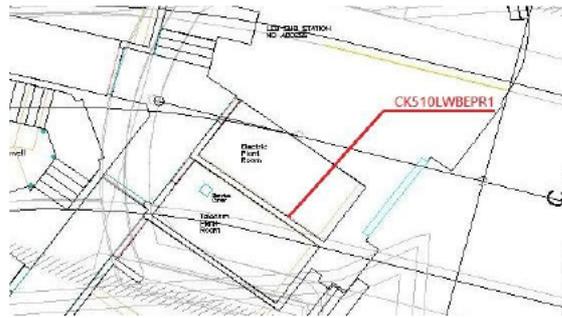


| Plant Room  |              |                          |               |                |      |
|-------------|--------------|--------------------------|---------------|----------------|------|
| Name        | Name         | Initial Crack Width (mm) | Baseline Date | Baseline Value |      |
|             |              |                          |               | X              | Y    |
| CK510LWBPR1 | C510-CK10406 | 1.50                     | 10/02/2015    | 0.00           | 0.00 |

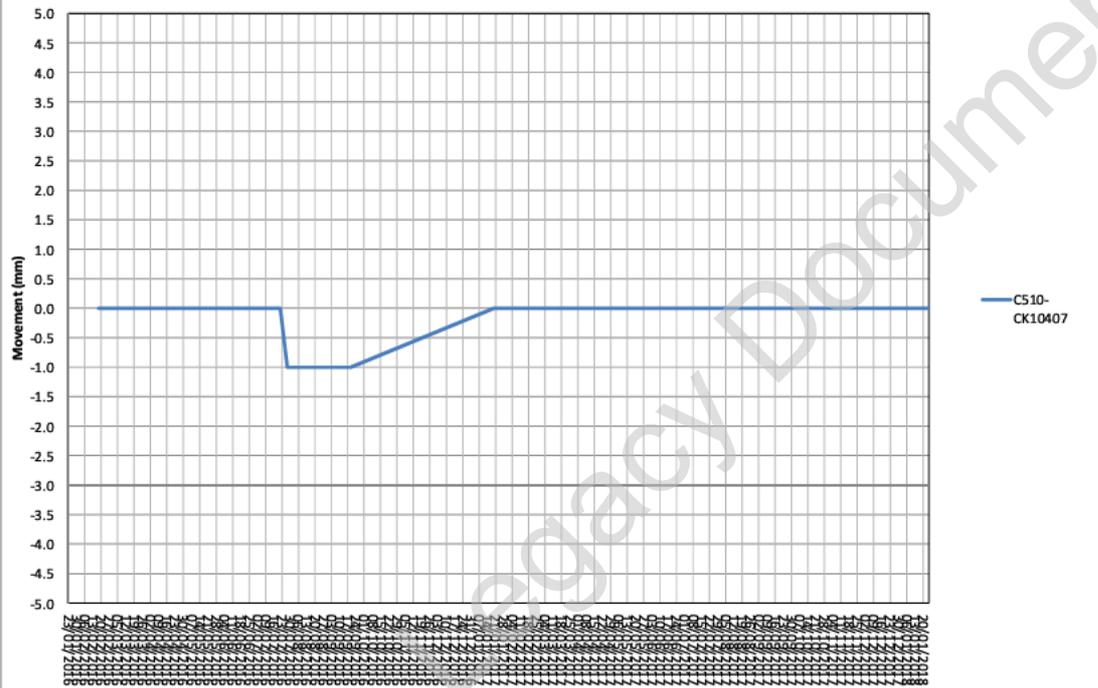


| Electric Plant Room |              |                          |               |                |      |
|---------------------|--------------|--------------------------|---------------|----------------|------|
| Previous Name       | UCIMS Name   | Initial Crack Width (mm) | Baseline Date | Baseline Value |      |
|                     |              |                          |               | X              | Y    |
| CK510LWBEPRI        | C510-CK10407 | 3.00                     | 10/02/2015    | 0.00           | 0.00 |

Crackmeter Location Electric Plant Room



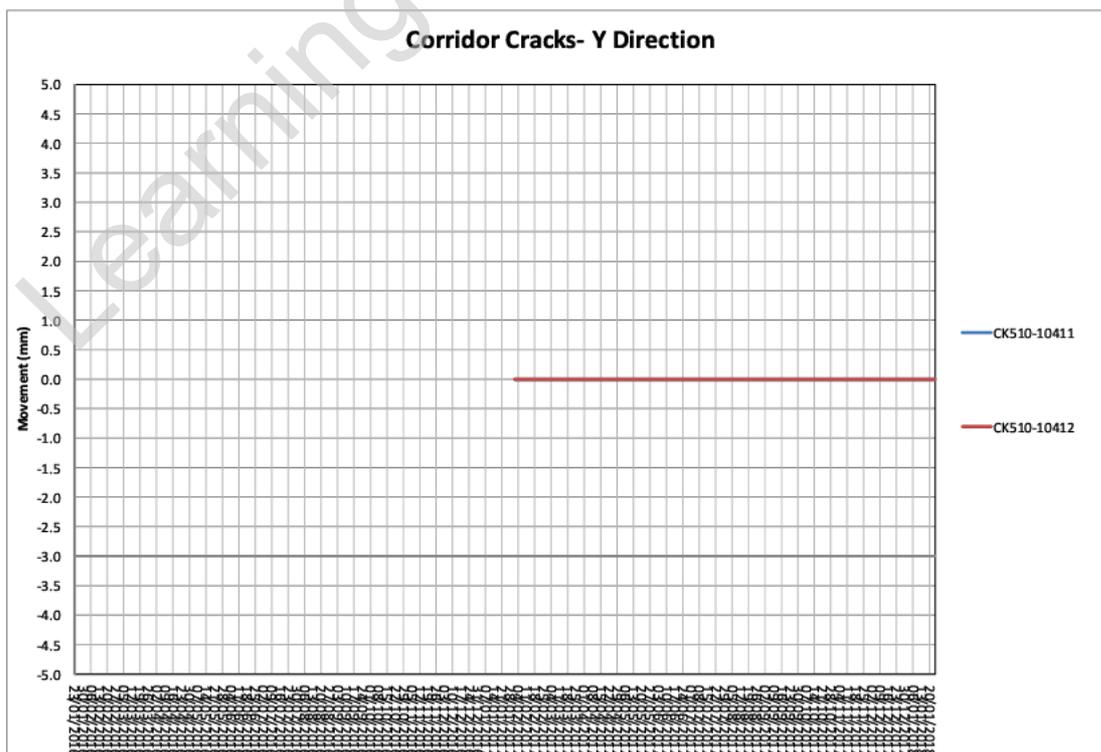
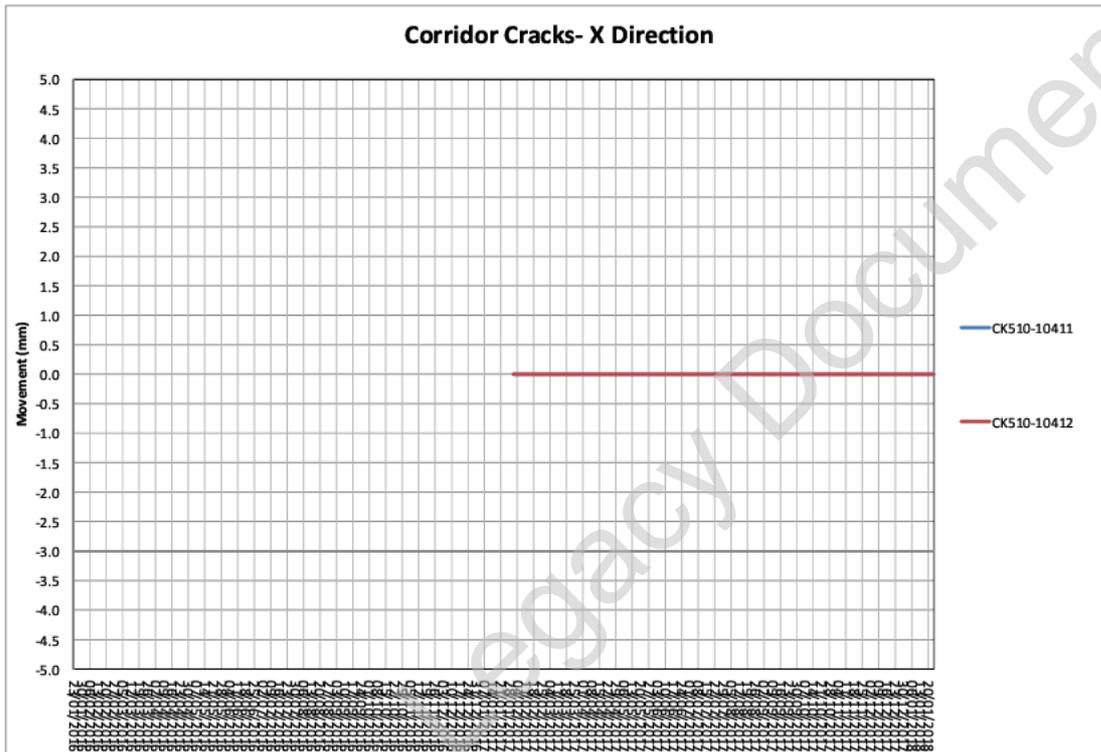
Electric Plant Room- Internal - X Direction



Electric Plant Room- Internal - Y Direction



| Corridor      |             |                          |               |                |      |
|---------------|-------------|--------------------------|---------------|----------------|------|
| Previous Name | UCIMS Name  | Initial Crack Width (mm) | Baseline Date | Baseline Value |      |
|               |             |                          |               | X              | Y    |
| CK510LWBC1    | CK510-10411 | 0.50                     | 03/02/2017    | 0.00           | 0.00 |
| CK510LWBC2    | CK510-10412 | 0.50                     | 03/02/2017    | 0.00           | 0.00 |



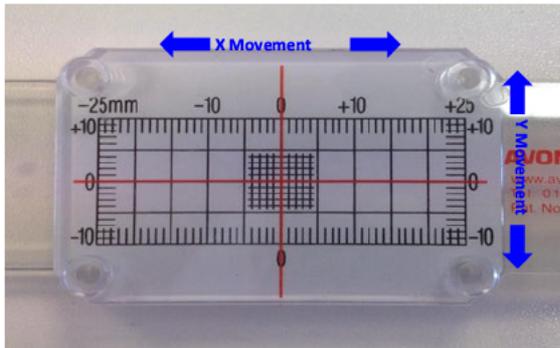
# Crackmeters Results

## Crackmeters Block 4 London Wall Building

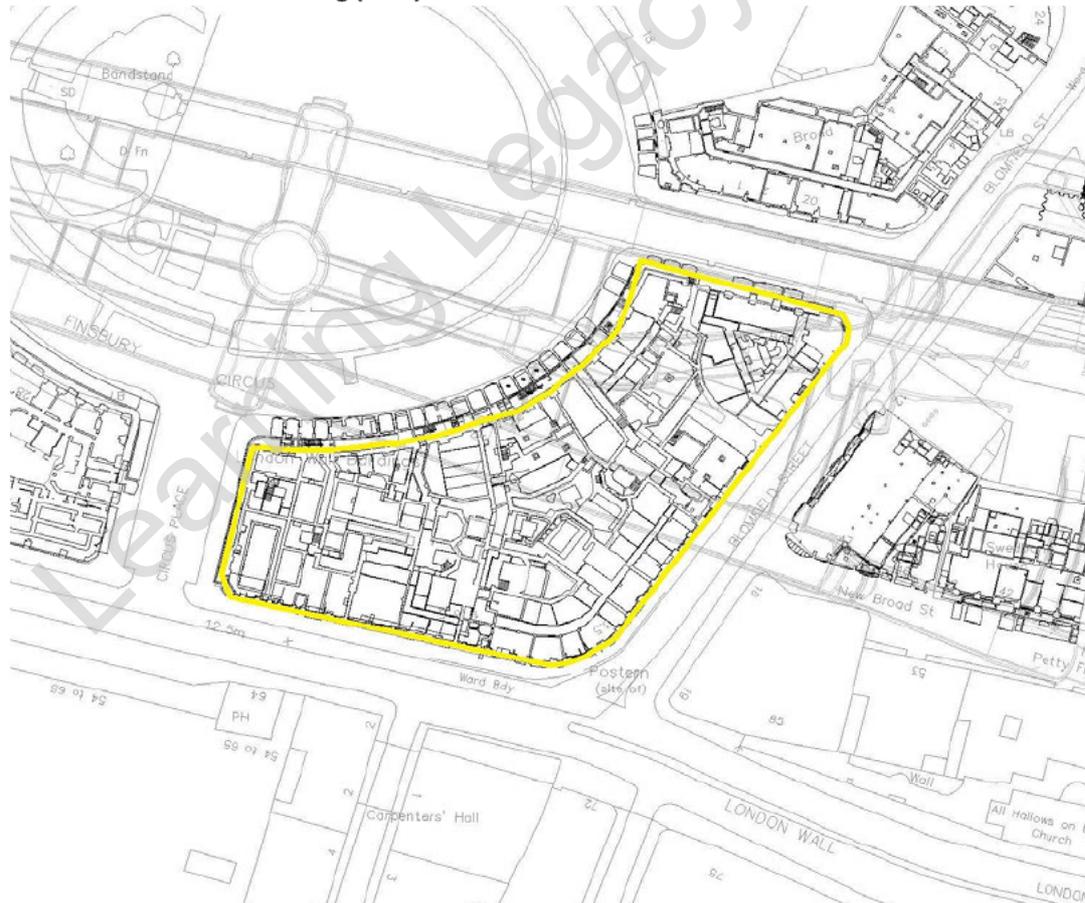


22/02/2018

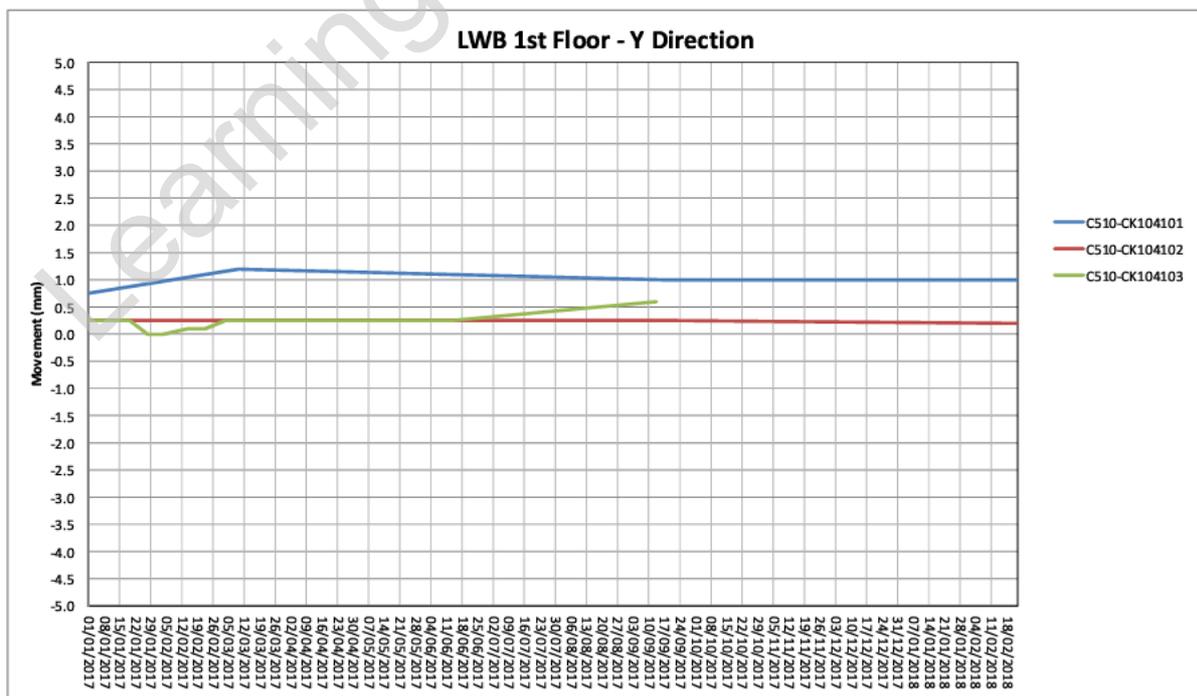
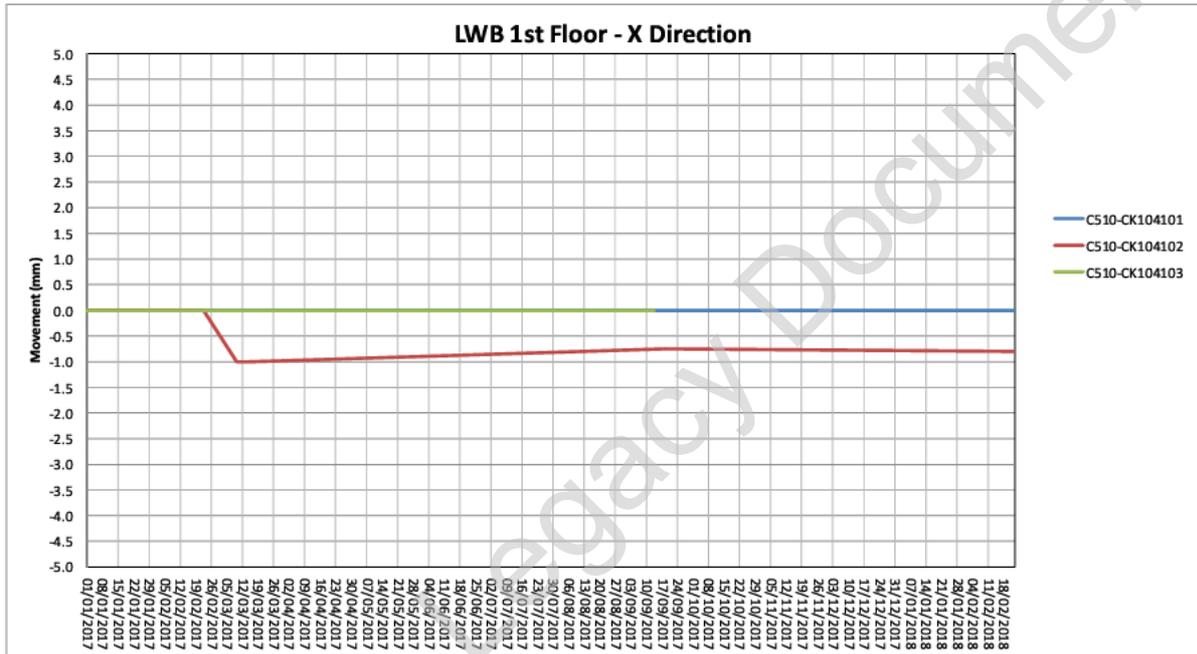
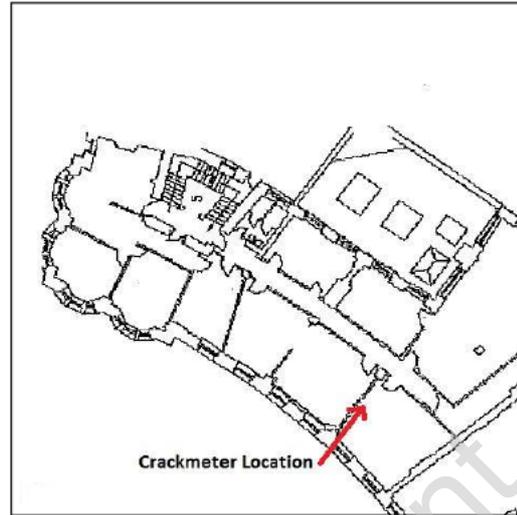
| COMMENTS   |   |
|--|---|
| 2015.12.02 No access to take readings for C510-LWB-11+12.                          | 2016-11-25 No access to 6th floor, door will not open and no access to first floor        |
| 2016.01.07 No access to take readings for C510-LWB-11+12.                          | 2016-12-22 No access to 6th floor due to loss of key 1st floor solicitors out for the day |
| 2016.02.03 No access to take readings for C510-LWB-11+12.                          | 03/03/2017 No access too first floor room, solicitors not in office.                      |
| 2016.02.10 No access to take readings for C510-LWB-11+12.                          | 27-04-2017 No access to 6th floor, door will not open and no access to first floor        |
| 2016.03.01 No access to take readings for C510-LWB-11+12.                          | 24/05/2017 no access to CK104101-02 room locked   |
| 2016.03.09 No access to take readings for C510-LWB-11+12.                          | 13/06/2017 no access to CK104101-02 room locked   |
| 2016.08.22 No access to take readings for C510-LWB-11+12.                          |   |
| 2016.10.07 No access to take readings for C510-LWB-11+12.                          |   |
| 2016.10.11 No access to take readings for C510-LWB-11+12.                          |   |
| 2016.10.21 No access to take readings for C510-LWB-11+12.                          |   |
| 27/10/2016 No access to take readings for C510-LWB-11+12.                          |   |
| 31/10/2016 No access to 6th floor, door will not open.                             |   |
| 2016-11-10 No access to 6th floor, door will not open and no access to first floor |   |



Location London Wall Building (LWB)



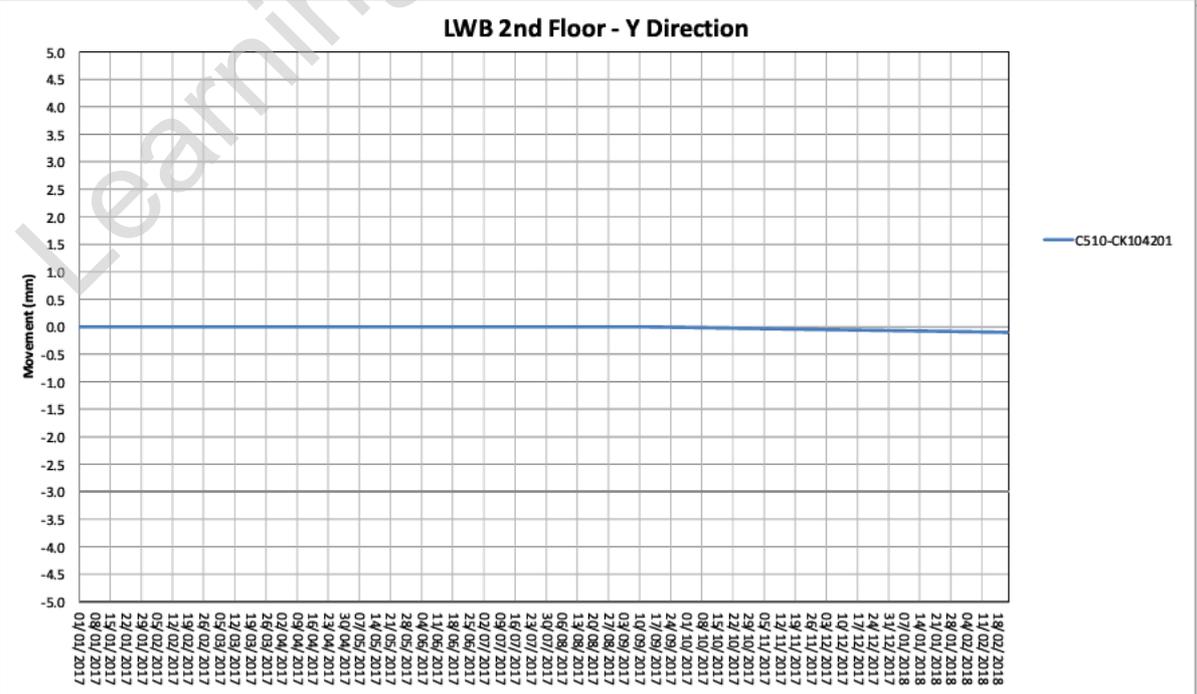
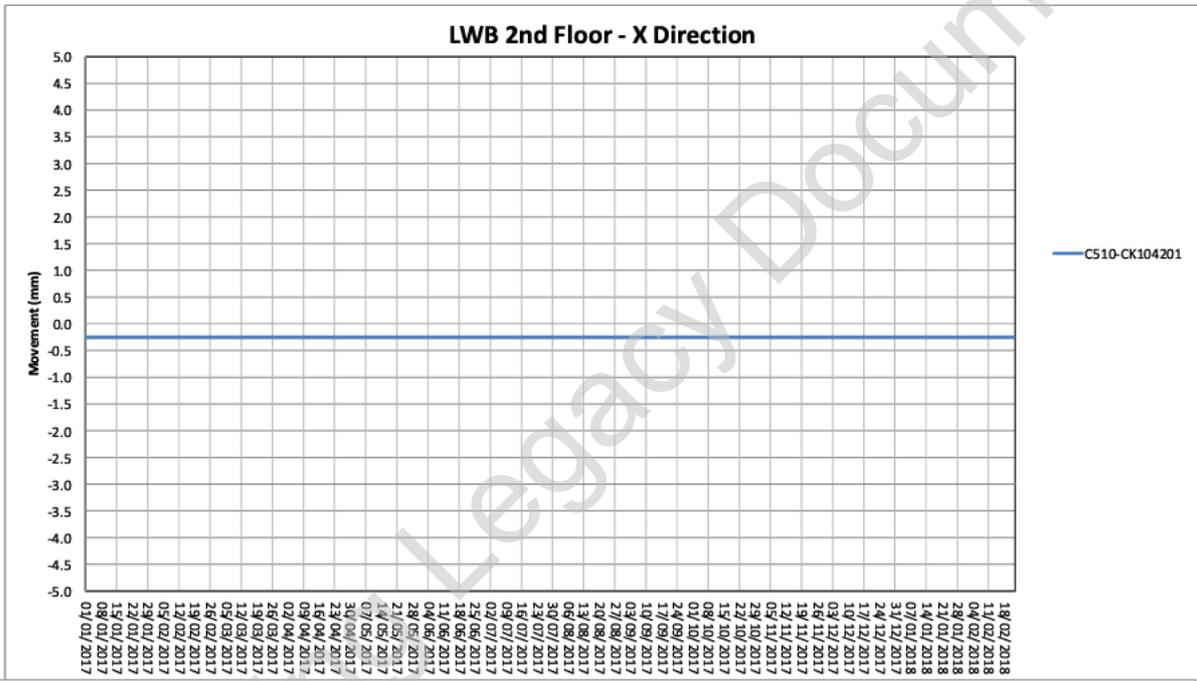
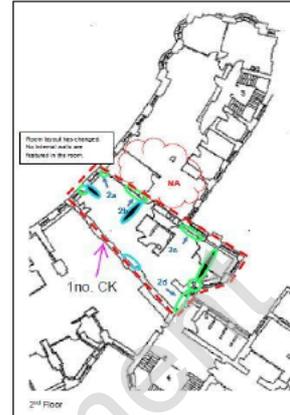
| LWB 1st Floor |                          |               |                |      |
|---------------|--------------------------|---------------|----------------|------|
| Name          | Initial Crack Width (mm) | Baseline Date | Baseline Value |      |
|               |                          |               | X              | Y    |
| CS10-CK104101 | 0.50                     | 17/11/2015    | 0.00           | 0.00 |
| CS10-CK104102 | 0.90                     | 17/11/2015    | 0.00           | 0.00 |
| CS10-CK104103 | 0.75                     | 14/09/2016    | 0.00           | 0.00 |



| LWB 2nd Floor |                          |               |                |      |
|---------------|--------------------------|---------------|----------------|------|
| Name          | Initial Crack Width (mm) | Baseline Date | Baseline Value |      |
|               |                          |               | X              | Y    |
| CS10-CK104201 | 0.75                     | 02/11/2015    | -1.75          | 0.00 |

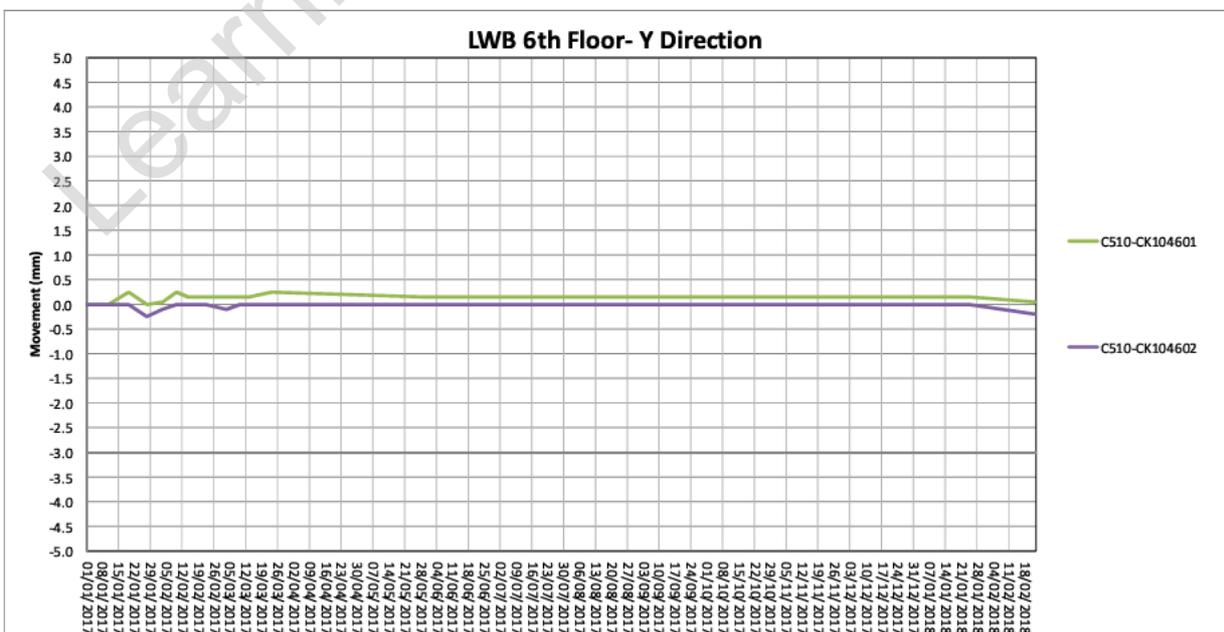
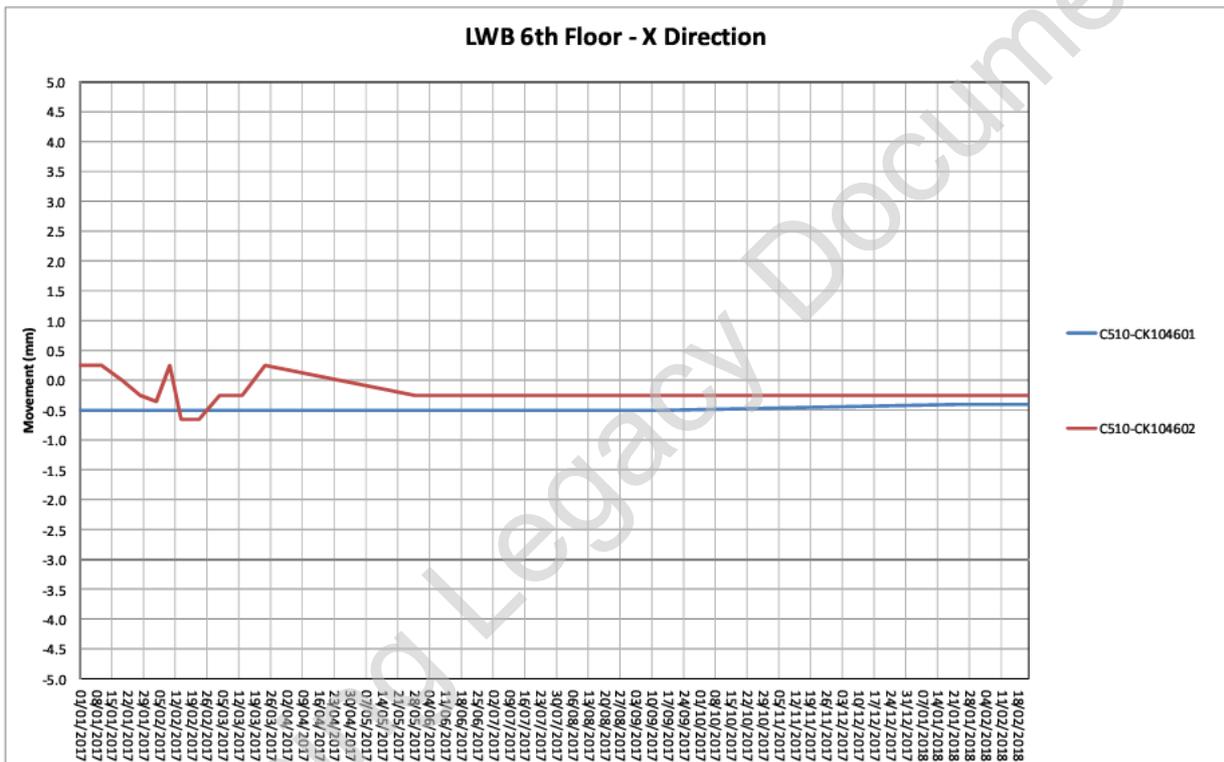
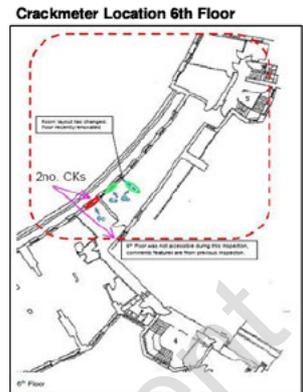
CODE 1379

Crackmeter Location 2nd Floor



| LWB 6th Floor |                          |               |                |       |
|---------------|--------------------------|---------------|----------------|-------|
| Name          | Initial Crack Width (mm) | Baseline Date | Baseline Value |       |
|               |                          |               | X              | Y     |
| C510-CK104601 | 0.75                     | 02/11/2015    | 0.50           | -0.25 |
| C510-CK104602 | 2.00                     | 02/11/2015    | -0.25          | 0.00  |

KEY 112



## 8 Appendix II (Tables, Graphs and Figures of Rev.1)

Learning Legacy Document



Table 2 - Block 04 Decommissioning Status Tracker BRE & LC

23.09.2017

< 2.0 mm GREEN < 3.5 mm AMBER > 3.5 mm RED

| C510 Sensor Name |          | Block       | Section  | In / Ext | Measurement Type | Sensor Type | Sensor Description   | Asset/Location       | EOI Last Primary Layer Construction | Last Construction Date | Last Surveyed Date | AVERAGE SETTLEMENT TREND    |                             |                             |                             |                             |  |  | General Comment | Decommissioning Status |
|------------------|----------|-------------|----------|----------|------------------|-------------|----------------------|----------------------|-------------------------------------|------------------------|--------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--|--|-----------------|------------------------|
|                  |          |             |          |          |                  |             |                      |                      |                                     | As                     | As                 | 120 Days Calculation Period | 180 Days Calculation Period | 365 Days Calculation Period | 365 Days Calculation Period | 365 Days Calculation Period |  |  |                 |                        |
|                  |          |             |          |          |                  |             |                      |                      |                                     | As                     | As                 | 120 Days Calculation Period | 180 Days Calculation Period | 365 Days Calculation Period | 365 Days Calculation Period | 365 Days Calculation Period |  |  |                 |                        |
| C510-LB10438     | Block 04 | S10402      | Internal | Manual   | LB               | BRE         | Friary House         | Friary House         | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 05/09/2017         | -19.43                      | -8.13                       | -11.17                      | -11.17                      | -11.17                      |  |  |                 |                        |
| C510-LB10439     | Block 04 | S10402      | Internal | Manual   | LB               | BRE         | Friary House         | Friary House         | LIV ES2 Invert A&A-14               | 13/1/2016              | 05/09/2017         | -8.13                       | -8.13                       | -10.20                      | -10.20                      | -10.20                      |  |  |                 |                        |
| C510-LB10440     | Block 04 | S10402      | Internal | Manual   | LB               | BRE         | Friary House         | Friary House         | LIV ES2 Invert A&A-14               | 13/1/2016              | 05/09/2017         | -19.28                      | -4.94                       | -6.99                       | -6.99                       | -6.99                       |  |  |                 |                        |
| C510-LB10442     | Block 04 | S10403      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV CP7 Engagement Adv-16           | 05/07/2014             | 05/09/2017         | -3.19                       | -5.64                       | -3.28                       | -3.28                       | -3.28                       |  |  |                 |                        |
| C510-LB10443     | Block 04 | S10403      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV PTW East Engagement Adv-25      | 30/03/2014             | 05/09/2017         | -2.12                       | -1.71                       | -1.17                       | -1.17                       | -1.17                       |  | 2mm per annum specification met  |                 |                        |
| C510-LB10444     | Block 04 | S10403      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV PTW East Engagement Adv-25      | 30/03/2014             | 05/09/2017         | -8.65                       | -6.14                       | -1.91                       | -2.92                       | -2.92                       |  |  |                 |                        |
| C510-LB10445     | Block 04 | S10403      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV PTW East Engagement Adv-25      | 30/03/2014             | 05/09/2017         | -9.67                       | -9.76                       | -1.91                       | -1.75                       | -1.75                       |  | 2mm per annum specification met  |                 |                        |
| C510-LB10447     | Block 04 | S10403      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV CP9 Engagement Adv-32           | 23/08/2014             | 05/09/2017         | -2.72                       | -3.19                       | -1.81                       | -3.13                       | -4.61                       |  |  |                 |                        |
| C510-LB10448     | Block 04 | S10403      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 05/09/2017         | -4.35                       | -6.71                       | -8.03                       | -8.03                       | -8.03                       |  |  |                 |                        |
| C510-LB10449     | Block 04 | S10404      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 05/09/2017         | -6.19                       | -9.93                       | -8.40                       | -8.40                       | -8.40                       |  |  |                 |                        |
| C510-LB10450     | Block 04 | S10404      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 05/09/2017         | -9.68                       | -9.93                       | -1.69                       | -1.69                       | -1.69                       |  |  |                 |                        |
| C510-LB10451     | Block 04 | S10404      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 05/09/2017         | -6.64                       | -9.78                       | -1.81                       | -1.81                       | -1.81                       |  |  |                 |                        |
| C510-LB10452     | Block 04 | S10404      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 05/09/2017         | -6.93                       | -9.12                       | -1.81                       | -1.81                       | -1.81                       |  |  |                 |                        |
| C510-LB10459     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | #N/A                        | #N/A                        | #N/A                        | #N/A                        | #N/A                        |  |  |                 |                        |
| C510-LB10461     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | #N/A                        | #N/A                        | #N/A                        | #N/A                        | #N/A                        |  |  |                 |                        |
| C510-LB10462     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | #N/A                        | #N/A                        | #N/A                        | #N/A                        | #N/A                        |  |  |                 |                        |
| C510-LB10463     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | #N/A                        | #N/A                        | #N/A                        | #N/A                        | #N/A                        |  |  |                 |                        |
| C510-LB10464     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | #N/A                        | #N/A                        | #N/A                        | #N/A                        | #N/A                        |  |  |                 |                        |
| C510-LB10465     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | #N/A                        | #N/A                        | #N/A                        | #N/A                        | #N/A                        |  |  |                 |                        |
| C510-LB10466     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | -9.57                       | -9.59                       | -8.24                       | -8.24                       | -8.24                       |  |  |                 |                        |
| C510-LB10467     | Block 04 | Scalotier   | Internal | Manual   | LB               | BRE         | Calotier LWB         | Calotier LWB         |                                     |                        |                    | -5.26                       | -5.26                       | -6.96                       | -6.96                       | -6.96                       |  |  |                 |                        |
| C510-LB10468     | Block 04 | Slew 1      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -6.73                       | -10.42                      | -8.13                       | -8.13                       | -8.13                       |  |  |                 |                        |
| C510-LB10469     | Block 04 | Slew 1      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -6.73                       | -6.73                       | -7.75                       | -7.75                       | -7.75                       |  |  |                 |                        |
| C510-LB10470     | Block 04 | Slew 1.2    | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -2.12                       | -2.26                       | -1.81                       | -1.81                       | -1.81                       |  |  |                 |                        |
| C510-LB10471     | Block 04 | Slew 2      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -7.29                       | -11.19                      | -8.66                       | -8.66                       | -8.66                       |  |  |                 |                        |
| C510-LB10472     | Block 04 | Slew 3      | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -6.06                       | -10.59                      | -8.13                       | -8.13                       | -8.13                       |  |  |                 |                        |
| C510-LB10473     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -7.66                       | -9.42                       | -9.40                       | -9.40                       | -9.40                       |  |  |                 |                        |
| C510-LB10474     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -8.34                       | -12.72                      | -8.82                       | -8.82                       | -8.82                       |  |  |                 |                        |
| C510-LB10475     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 02/06/2017         | -7.55                       | -12.63                      | -7.25                       | -7.25                       | -7.25                       |  |  |                 |                        |
| C510-LB10476     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 27/04/2016         | #N/A                        | #N/A                        | #N/A                        | #N/A                        | #N/A                        |  | Trend not available as data only collected 4/3/2016 to 27/4/2016. See Supplementary Evidence ss5.3.1 |                 |                        |
| C510-LB10477     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 30/03/2017         | -10.63                      | -16.29                      | -15.91                      | -15.91                      | -15.91                      |  |  |                 |                        |
| C510-LB10478     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 30/03/2017         | -5.76                       | -10.69                      | -12.66                      | -12.66                      | -12.66                      |  |  |                 |                        |
| C510-LB10479     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 30/03/2017         | -8.05                       | -13.04                      | -11.69                      | -11.69                      | -11.69                      |  |  |                 |                        |
| C510-LB10480     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 30/03/2017         | -7.25                       | -11.64                      | -12.66                      | -12.66                      | -12.66                      |  |  |                 |                        |
| C510-LB10481     | Block 04 | SPaint Room | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 30/03/2017         | -6.14                       | -10.18                      | -11.64                      | -11.64                      | -11.64                      |  |  |                 |                        |
| C510-LB10482     | Block 04 | SPaint Room | Internal | Manual   | LC               | BRE         | Inver Stalk          | Inver Stalk          | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 30/03/2017         | -9.87                       | -9.2                        | -11.40                      | -11.40                      | -11.40                      |  |  |                 |                        |
| C510-LB10483     | Block 04 | N/A         | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Invert A&A-8                | 07/1/2016              | 01/06/2017         | -3.45                       | -3.45                       | -8.57                       | -8.57                       | -8.57                       |  |  |                 |                        |
| C510-LB10484     | Block 04 | N/A         | Internal | Manual   | LB               | BRE         | London Wall Building | London Wall Building | LIV ES2 Safe Strip A&A-10           | 24/1/2016              | 05/09/2017         | -8.30                       | -5.31                       | -10.40                      | -10.40                      | -10.40                      |  |  |                 |                        |

Document

Table 2 - Block 04 Decommissioning Status Tracker LP

24/06/2017

< 2.0 mm GREEN < 3.5 mm AMBER > 3.5 mm RED

| AVERAGE SETTLEMENT TREND |          |          |           |                  |             |                   |                      |                                     |                        |                      |        |                             |                             |                             |                 |                        |
|--------------------------|----------|----------|-----------|------------------|-------------|-------------------|----------------------|-------------------------------------|------------------------|----------------------|--------|-----------------------------|-----------------------------|-----------------------------|-----------------|------------------------|
| CS10 Sensor Name         | Block    | Section  | Int / Ext | Measurement Type | Sensor Type | Seeps Description | Asset Location       | EOL Last Primary Layer Construction | Last Construction Date | Latest Surveyed Date | ASP CP | 120 Days Calculation Period | 180 Days Calculation Period | 365 Days Calculation Period | General Comment | Decommissioning Status |
| S10L-P12401              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-44      | 15/12/2013             | 05/05/2017           | 0      | -3.32                       | -4.47                       | -3.12                       |                 | Observed               |
| S10L-P12402              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-52      | 15/12/2013             | 05/05/2017           | 0      | -2.56                       | -3.61                       | -3.68                       |                 | Observed               |
| S10L-P12403              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-59      | 11/03/2014             | 05/05/2017           | 0      | -9.60                       | -4.65                       | -3.91                       |                 | Observed               |
| S10L-P12404              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-67      | 13/03/2014             | 05/05/2017           | 0      | -2.32                       | -3.66                       | -3.70                       |                 | Observed               |
| S10L-P12405              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-74      | 15/03/2014             | 05/05/2017           | 0      | -3.39                       | -3.81                       | -3.99                       |                 | Observed               |
| S10L-P12406              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV CPT Enticement Adv-16           | 05/07/2014             | 05/05/2017           | 0      | -3.39                       | -3.65                       | -3.81                       |                 | Observed               |
| S10L-P12407              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV CPT Enticement Adv-16           | 05/07/2014             | 05/05/2017           | 0      | -4.87                       | -5.24                       | -4.45                       |                 | Observed               |
| S10L-P12408              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV CPT Enticement Adv-16           | 05/07/2014             | 05/05/2017           | 0      | -3.50                       | -4.31                       | -4.02                       |                 | Observed               |
| S10L-P12409              | Block 04 | S10401.1 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-7           | 24/11/2016             | 22/09/2017           | 0      | -3.62                       | -4.90                       | -6.77                       |                 | Observed               |
| S10L-P12410              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-7           | 24/11/2016             | 22/09/2017           | 0      | -1.00                       | -3.49                       | -6.44                       |                 | Observed               |
| S10L-P12411              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -1.15                       | -3.89                       | -7.21                       |                 | Observed               |
| S10L-P12412              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -1.71                       | -4.03                       | -8.82                       |                 | Observed               |
| S10L-P12413              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -1.62                       | -4.66                       | -8.60                       |                 | Observed               |
| S10L-P12414              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -2.62                       | -5.39                       | -9.30                       |                 | Observed               |
| S10L-P12415              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -3.77                       | -5.64                       | -7.00                       |                 | Observed               |
| S10L-P12416              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -3.88                       | -6.11                       | -7.38                       |                 | Observed               |
| S10L-P12417              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -4.80                       | -5.40                       | -9.65                       |                 | Observed               |
| S10L-P12418              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -2.26                       | -5.10                       | -8.87                       |                 | Observed               |
| S10L-P12419              | Block 04 | S10401.2 | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -3.29                       | -5.10                       | -8.87                       |                 | Observed               |
| S10L-P12420              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -1.53                       | -5.65                       | -8.27                       |                 | Observed               |
| S10L-P12421              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -6.28                       | -7.90                       | -11.32                      |                 | Observed               |
| S10L-P12422              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -9.04                       | -9.92                       | -11.32                      |                 | Observed               |
| S10L-P12423              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 24/11/2016             | 22/09/2017           | 0      | -2.17                       | -4.24                       | -11.60                      |                 | Observed               |
| S10L-P12424              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Safe. Stop Adv-10          | 07/11/2016             | 22/09/2017           | 0      | -7.02                       | -6.99                       | -10.30                      |                 | Observed               |
| S10L-P12425              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Invert Adv-8               | 07/11/2016             | 22/09/2017           | 0      | -8.85                       | -17.81                      | -14.70                      |                 | Observed               |
| S10L-P12426              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Invert Adv-8               | 07/11/2016             | 22/09/2017           | 0      | -7.19                       | -5.44                       | -7.25                       |                 | Observed               |
| S10L-P12427              | Block 04 | S10402   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV ESS. Invert Adv-8               | 07/11/2016             | 22/09/2017           | 0      | -9.85                       | -7.76                       | -10.61                      |                 | Observed               |
| S10L-P12428              | Block 04 | S10403   | North     | External         | Manual      | LP                | London Wall Building | LIV ESS. Invert Adv-8               | 07/11/2016             | 22/09/2017           | 0      | -9.90                       | -4.30                       | -0.05                       |                 | Observed               |
| S10L-P12429              | Block 04 | S10403   | North     | External         | Manual      | LP                | London Wall Building | LIV ESS. Invert Adv-8               | 07/11/2016             | 22/09/2017           | 0      | -10.04                      | -1.18                       | -6.20                       |                 | Observed               |
| S10L-P12430              | Block 04 | S10403   | North     | External         | Manual      | LP                | London Wall Building | LIV ESS. Invert Adv-8               | 07/11/2016             | 22/09/2017           | 0      | -2.48                       | -5.69                       | -10.87                      |                 | Observed               |
| S10L-P12431              | Block 04 | S10403   | North     | External         | Manual      | LP                | London Wall Building | LIV ESS. Invert Adv-8               | 13/11/2016             | 22/09/2017           | 0      | -10.36                      | -8.42                       | -9.82                       |                 | Observed               |
| S10L-P12432              | Block 04 | S10403   | North     | External         | Manual      | LP                | London Wall Building | LIV ESS. Invert Adv-8               | 13/11/2016             | 22/09/2017           | 0      | -6.51                       | -6.77                       | -9.43                       |                 | Observed               |
| S10L-P12433              | Block 04 | S10403   | North     | External         | Manual      | LP                | London Wall Building | LIV ESS. Invert Adv-8               | 13/11/2016             | 22/09/2017           | 0      | -4.21                       | -5.63                       | -8.12                       |                 | Observed               |
| S10L-P12434              | Block 04 | S10403   | North     | External         | Manual      | LP                | London Wall Building | LIV ESS. Invert Adv-8               | 23/08/2014             | 22/09/2017           | 0      | -2.81                       | -4.38                       | -6.43                       |                 | Observed               |
| S10L-P12435              | Block 04 | S10403   | South     | External         | Manual      | LP                | London Wall Building | LIV CP9 Enticement Adv-32           | 23/08/2014             | 22/09/2017           | 0      | -3.34                       | -4.21                       | -7.91                       |                 | Observed               |
| S10L-P12436              | Block 04 | S10403   | South     | External         | Manual      | LP                | London Wall Building | LIV CP9 Enticement Adv-32           | 23/08/2014             | 22/09/2017           | 0      | -9.49                       | -2.47                       | -6.69                       |                 | Observed               |
| S10L-P12437              | Block 04 | S10403   | South     | External         | Manual      | LP                | London Wall Building | LIV CP9 Enticement Adv-32           | 23/08/2014             | 22/09/2017           | 0      | -2.42                       | -4.09                       | -7.31                       |                 | Observed               |
| S10L-P12438              | Block 04 | S10403   | South     | External         | Manual      | LP                | London Wall Building | LIV PTV-Ent. Enticement Adv-163     | 10/04/2014             | 31/03/2017           | 0      | -6.92                       | -10.84                      | -8.48                       |                 | Observed               |
| S10L-P12439              | Block 04 | S10403   | South     | External         | Manual      | LP                | London Wall Building | LIV PTV-Ent. Enticement Adv-152     | 07/04/2014             | 31/03/2017           | 0      | -6.91                       | -9.60                       | -5.63                       |                 | Observed               |
| S10L-P12440              | Block 04 | S10403   | South     | External         | Manual      | LP                | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 31/03/2017           | 0      | -1.96                       | -3.75                       | -2.59                       |                 | Observed               |
| S10L-P12441              | Block 04 | S10403   | South     | External         | Manual      | LP                | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 27/09/2017           | 0      | -4.35                       | -3.23                       | -3.11                       |                 | Observed               |
| S10L-P12442              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -4.05                       | -3.69                       | -2.99                       |                 | Observed               |
| S10L-P12443              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.91                       | -2.54                       | -2.19                       |                 | Observed               |
| S10L-P12444              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.72                       | -2.38                       | -2.10                       |                 | Observed               |
| S10L-P12445              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.64                       | -2.36                       | -1.63                       |                 | Observed               |
| S10L-P12446              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -3.78                       | -2.88                       | -1.99                       |                 | Observed               |
| S10L-P12447              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.64                       | -2.11                       | -2.01                       |                 | Observed               |
| S10L-P12448              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.64                       | -2.07                       | -1.76                       |                 | Observed               |
| S10L-P12449              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.63                       | -2.11                       | -2.22                       |                 | Observed               |
| S10L-P12450              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.99                       | -2.20                       | -2.08                       |                 | Observed               |
| S10L-P12451              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -2.99                       | -2.34                       | -2.08                       |                 | Observed               |
| S10L-P12452              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -3.16                       | -2.45                       | -2.04                       |                 | Observed               |
| S10L-P12453              | Block 04 | S10404   | External  | Manual           | LP          | Road Stud         | London Wall Building | LIV PTV-Ent. Enticement Adv-128     | 31/03/2014             | 05/05/2017           | 0      | -1.86                       | -1.69                       | -2.04                       |                 | Observed               |
| S10L-P12454              | Block 04 | S10400   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -9.22                       | -7.67                       | -12.74                      |                 | Observed               |
| S10L-P12455              | Block 04 | S10400   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -9.46                       | -7.62                       | -12.74                      |                 | Observed               |
| S10L-P12456              | Block 04 | S10400   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -10.49                      | -7.53                       | -12.74                      |                 | Observed               |
| S10L-P12457              | Block 04 | S10404   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -9.97                       | -7.73                       | -12.74                      |                 | Observed               |
| S10L-P12458              | Block 04 | S10404   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -9.69                       | -7.56                       | -12.74                      |                 | Observed               |
| S10L-P12459              | Block 04 | S10403   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -10.48                      | -7.89                       | -11.79                      |                 | Observed               |
| S10L-P12460              | Block 04 | S10403   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -10.86                      | -7.69                       | -11.82                      |                 | Observed               |
| S10L-P12461              | Block 04 | S10403   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -11.85                      | -7.69                       | -10.81                      |                 | Observed               |
| S10L-P12462              | Block 04 | S10402   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -9.16                       | -7.68                       | -10.80                      |                 | Observed               |
| S10L-P12463              | Block 04 | S10402   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -11.63                      | -7.68                       | -11.72                      |                 | Observed               |
| S10L-P12464              | Block 04 | S10402   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Safe. Stop Adv-9           | 24/11/2016             | 20/09/2017           | 0      | -12.80                      | -6.83                       | -8.66                       |                 | Observed               |
| S10L-P12465              | Block 04 | S10405   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Invert Adv-8               | 07/11/2016             | 20/09/2017           | 0      | -12.83                      | -6.89                       | -8.66                       |                 | Observed               |
| S10L-P12466              | Block 04 | S10403   | Internal  | Manual           | LP          | Road Stud         | Enfryn House         | LIV ESS. Invert Adv-8               | 07/11/2016             | 20/09/2017           | 0      | -12.83                      | -6.89                       | -8.66                       |                 | Observed               |
| S10L-P12467              | Block 04 | S10403   | Internal  | Manual           | LP          | Road Stud         | Enf                  |                                     |                        |                      |        |                             |                             |                             |                 |                        |





Table 2 - Block 04 Decommissioning Status Tracker XR

24/08/2017

< 2.0 mm GREEN < 3.5 mm AMBER > 3.5 mm RED

| CS10 Sensor Name    | Block     | Section | Int/Ext  | Measurement Type | Sensor Type | Sensor Description | Asset/Location  | EOI Last Primary Layer Construction | Last Construction Date | Latest Surveyed Date | AVERAGE SETTLEMENT TREND |          |          |          |          |          | General Comment | Decommissioning Status   |          |
|---------------------|-----------|---------|----------|------------------|-------------|--------------------|-----------------|-------------------------------------|------------------------|----------------------|--------------------------|----------|----------|----------|----------|----------|-----------------|--|----------|
|                     |           |         |          |                  |             |                    |                 |                                     |                        |                      | 120 Days                 | 120 Days | 120 Days | 180 Days | 180 Days | 180 Days |                 |  | 365 Days |
| C510-XR10401B-5m    | Block 104 | XR10401 | Inground | Automated        | XR          | Extensometer-Rod   | Finsbury Circus | LIV ES2 Safe Stop Adv-10            | 24/11/2016             | 16/05/2017           | 120                      | -6.89    | -8.91    | 181      | -2.47    | 376      | 08/02/2017      | Manhole flooded and AVW200 Module broken; reported via email - Incident Report LIV 648. Agreed to cease monitoring of automated sensors in CTC/ERP meeting, dated 20/06/2017. See Supplementary Evidence ss. 5.3.3 | Proposed |
| C510-XR10401A-5m    | Block 104 | XR10401 | Inground | Automated        | XR          | Extensometer-Rod   | Finsbury Circus | LIV ES2 Safe Stop Adv-10            | 24/11/2016             | 16/05/2017           | 120                      | -6.73    | -8.29    | 181      | -3.83    | 376      | 08/02/2017      |  |          |
| C510-XR10401E-15m   | Block 104 | XR10401 | Inground | Automated        | XR          | Extensometer-Rod   | Finsbury Circus | LIV ES2 Safe Stop Adv-10            | 24/11/2016             | 22/03/2017           | 120                      | -12.12   | -15.92   | 181      | -7.61    | 407      | 08/02/2017      |  |          |
| C510-XR10401C-20m   | Block 104 | XR10401 | Inground | Automated        | XR          | Extensometer-Rod   | Finsbury Circus | LIV ES2 Safe Stop Adv-10            | 24/11/2016             | 16/05/2017           | 120                      | -5.98    | -7.40    | 181      | -3.59    | 376      | 08/02/2017      |  |          |
| C510-XR10401E-25m   | Block 104 | XR10401 | Inground | Automated        | XR          | Extensometer-Rod   | Finsbury Circus | LIV ES2 Safe Stop Adv-10            | 24/11/2016             | 16/05/2017           | 120                      | -5.65    | -7.27    | 181      | -2.95    | 376      | 08/02/2017      |  |          |
| C510-RR10401D-23.5m | Block 104 | XR10401 | Inground | Automated        | XR          | Extensometer-Rod   | Finsbury Circus | LIV ES2 Safe Stop Adv-10            | 24/11/2016             | 16/05/2017           | 120                      | -5.60    | -7.08    | 181      | -3.45    | 376      | 08/02/2017      |  |          |
| C510-RR10404H-0m    | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -0.54    | -2.09    | 187      | -6.12    | 370      |                 |  |          |
| C510-RR10404G-4.5m  | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -0.79    | -2.25    | 187      | -5.90    | 370      |                 |  |          |
| C510-RR10404A-4.5m  | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -0.29    | -0.63    | 187      | -3.96    | 370      |                 |  |          |
| C510-RR10404B-4.5m  | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -1.83    | -1.28    | 187      | -3.47    | 370      |                 |  |          |
| C510-RR10404C-4m    | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -0.79    | -2.16    | 187      | -4.76    | 370      |                 |  |          |
| C510-RR10404E-18m   | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -0.07    | -0.28    | 187      | -3.97    | 370      |                 |  |          |
| C510-RR10404D-23m   | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -0.29    | -1.18    | 187      | -3.55    | 370      |                 |  |          |
| C510-RR10404I-28m   | Block 104 | XR10404 | Inground | Manual           | XR          | Extensometer-Rod   | Bloomfield St   | LIV CP9 Enlargement Adv-32          | 23/08/2014             | 26/07/2017           | 146                      | -0.29    | -1.18    | 187      | -3.55    | 370      |                 |  |          |

Stable 6 month trend



Table 2 - Block 04 Decommissioning Status Tracker SH & TB

31/07/2017

| C510 Sensor Name | Block    | Section   | Int / Ext | Measurement Type | Sensor Type | Sensor Description         | Asset Location   | EOP First Layer Construction | Last Construction Date | Last Surveyed Date | AVERAGE SETTLEMENT TREND - TILL (mm/m) |          |          |          | 365 Day Calculation Period | 365 Days | 180 Day Calculation Period | 180 Days | General Comment | Decommissioning Status |
|------------------|----------|-----------|-----------|------------------|-------------|----------------------------|------------------|------------------------------|------------------------|--------------------|--|----------|----------|----------|----------------------------|----------|----------------------------|----------|-----------------|------------------------|
|                  |          |           |           |                  |             |                            |                  |                              |                        |                    | 120 Days                               | 120 Days | 120 Days | 120 Days |                            |          |                            |          |                 |                        |
| 2510-SH1001      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.89                                   | 120      | 4.82     | 180      | -3.30                      | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1002      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | -2.74                                  | 120      | 4.60     | 180      | -9.75                      | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1003      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 1.78                                   | 120      | 2.40     | 180      | -8.44                      | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1004      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 1.73                                   | 120      | 7.61     | 180      | 1.16                       | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1005      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 2.17                                   | 120      | 7.49     | 180      | 1.67                       | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1006      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 1.80                                   | 120      | 6.17     | 180      | -2.72                      | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1007      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 4.89                                   | 120      | 4.89     | 180      | 11.41                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1008      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 2.82                                   | 120      | 4.81     | 180      | 10.88                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1009      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 4.61                                   | 120      | 3.65     | 180      | 10.84                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1010      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 10.70                                  | 120      | 3.09     | 180      | 9.29                       | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1011      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 8.60                                   | 120      | 1.54     | 180      | 10.41                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1012      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 5.97                                   | 120      | 2.45     | 180      | -8.25                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1013      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 4.67                                   | 120      | 1.89     | 180      | -8.04                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1014      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 8.37                                   | 120      | 3.79     | 180      | -6.92                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1015      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 10.66                                  | 120      | 6.88     | 180      | -0.56                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1016      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 8.93                                   | 120      | 5.82     | 180      | 1.48                       | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1017      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 6.41                                   | 120      | 5.42     | 180      | 0.98                       | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1018      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 8.19                                   | 120      | 6.62     | 180      | -0.74                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1019      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 6.99                                   | 120      | 4.66     | 180      | -0.05                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1020      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 7.24                                   | 120      | 4.63     | 180      | -0.28                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1021      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 4.39                                   | 120      | 2.61     | 180      | 0.72                       | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1022      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 6.18                                   | 120      | 4.29     | 180      | -0.56                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1023      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 5.13                                   | 120      | 3.78     | 180      | -0.14                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1024      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.92                                   | 120      | 4.45     | 180      | -0.12                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1025      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.46                                   | 120      | 0.05     | 180      | 1.05                       | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1026      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 1.81                                   | 120      | 1.21     | 180      | 1.87                       | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1027      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.74                                   | 120      | 1.59     | 180      | 3.84                       | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1028      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 4.79                                   | 120      | 1.13     | 180      | -6.66                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1029      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 12.27                                  | 120      | 4.97     | 180      | -5.67                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1030      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 11.27                                  | 120      | 7.12     | 180      | -5.65                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1031      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 13.91                                  | 120      | 8.88     | 181      | -4.43                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1032      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 11.27                                  | 120      | 0.17     | 180      | -7.92                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1033      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 9.87                                   | 120      | 8.40     | 180      | -9.93                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1034      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 9.67                                   | 120      | -2.29    | 180      | -1.99                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1035      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 7.18                                   | 120      | 5.50     | 180      | -3.91                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1036      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 8.13                                   | 120      | 7.82     | 180      | -10.22                     | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1037      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 7.42                                   | 120      | 3.34     | 180      | -4.70                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1038      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 11.09                                  | 120      | 3.46     | 181      | -3.47                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1039      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 7.98                                   | 120      | -10.90   | 180      | -10.48                     | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1040      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 10.68                                  | 120      | 8.60     | 180      | -7.41                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1041      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 7.80                                   | 120      | 8.43     | 180      | -3.89                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1042      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 14.11                                  | 120      | 4.89     | 180      | -10.85                     | 366      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1043      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 2.75                                   | 120      | 8.68     | 180      | -6.16                      | 365      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1044      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 14.02                                  | 120      | 8.88     | 180      | -19.71                     | 366      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1045      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.89                                   | 120      | 7.40     | 180      | -15.67                     | 366      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1046      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.81                                   | 120      | 4.87     | 180      | -17.81                     | 366      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1047      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.84                                   | 120      | 6.86     | 180      | -14.80                     | 366      | 14/03/2017                 |          | Proposed        |                        |
| 2510-SH1048      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.81                                   | 120      | 4.15     | 180      | -1.62                      | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1049      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 3.81                                   | 120      | 2.89     | 180      | 0.92                       | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1050      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 2.80                                   | 120      | 2.70     | 180      | 0.66                       | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1051      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 2.85                                   | 120      | 4.12     | 180      | -2.48                      | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1052      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 4.67                                   | 120      | 3.46     | 180      | -3.48                      | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1053      | Block 04 | System 01 | Unknown   | Automated        | SH          | Settlement Coil-Electronic | 5-25 London Wall | UV ES2, Sulf. Stop Adv-0     | 24/11/2016             | 17/03/2017         | 0.86                                   | 120      | 0.86     | 180      | 0.75                       | 365      | 14/03/2017                 |          | Agreed          |                        |
| 2510-SH1054      | Block 04 | System 01 | Unknown   | Automated        | SH          |                            |                  |                              |                        |                    |  |          |          |          |                            |          |                            |          |                 |                        |

Table 2 - Block 04 Decommissioning Status Tracker CK

25/08/2017

< 2.0 mm GREEN < 3.5 mm AMBER > 3.5 mm RED

| C510 Sensor Name | Block     | Section | Int / Ext | Measurement Type | Sensor Type | Sensor Description | Asset/Location                  | EO Last Primary Layer Construction | Last Construction Date | Latest Surveyed Date | AVERAGE DISPLACEMENT TREND |          |                            |          |                            |          | Ceased Date   | General Comment | Decommissioning Status |
|------------------|-----------|---------|-----------|------------------|-------------|--------------------|---------------------------------|------------------------------------|------------------------|----------------------|----------------------------|----------|----------------------------|----------|----------------------------|----------|---|-----------------|------------------------|
|                  |           |         |           |                  |             |                    |                                 |                                    |                        |                      | 120 Days                   | 180 Days | 180 Day Calculation Period | 365 Days | 365 Day Calculation Period | 365 Days |   |                 |                        |
| C510-CK10401     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House               | LIV_ES2_Invert_A4x-14              | 13/11/2016             | 13/03/2017           | -1.32                      | 0.02     | 186                        | 0.17     | 369                        |          |   | Outstanding     |                        |
| C510-CK10402     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House               | LIV_ES2_Invert_A4x-14              | 13/11/2016             | 13/03/2017           | -1.48                      | 0.26     | 186                        | 0.22     | 369                        |          |   | Outstanding     |                        |
| C510-CK10403     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House               | LIV_ES2_Invert_A4x-14              | 13/11/2016             | 13/03/2017           | -9.72                      | -3.29    | 186                        | 0.80     | 369                        |          | Crackmeter stable                                     | Outstanding     |                        |
| C510-CK10404     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House               | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 3/03/2017            | 0.45                       | 0.15     | 186                        | 0.44     | 369                        |          |   | Outstanding     |                        |
| C510-CK10405     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House               | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 3/03/2017            | -0.09                      | 0.73     | 186                        | 1.28     | 377                        |          |   | Outstanding     |                        |
| C510-CK10406     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House               | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 3/03/2017            | 0.00                       | 0.00     | 369                        | 0.00     | 369                        |          |   | Outstanding     |                        |
| C510-CK10407     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House               | LIV_ES2_Invert_A4x-8               | 07/11/2016             | 13/03/2017           | -2.83                      | -2.19    | 229                        | -0.16    | 369                        |          |   | Outstanding     |                        |
| C510-CK10408     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | Lofton Wall Building (Basement) | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 2/10/2016            | #N/A                       | #N/A     | #N/A                       | #N/A     | #N/A                       |          | Sensor destroyed when wall was removed                | Complete        |                        |
| C510-CK10409     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | Lofton Wall Building (Basement) | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 2/10/2016            | #N/A                       | #N/A     | #N/A                       | #N/A     | #N/A                       |          |   | Complete        |                        |
| C510-CK10410     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | Lofton Wall Building (Basement) | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 28/07/2015           | #N/A                       | #N/A     | #N/A                       | #N/A     | #N/A                       |          | Settlement trend data to be included in next revision | Outstanding     |                        |
| C510-CK10411     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | 23 Firsbury House (Corridor)    | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 13/03/2017           | 3.10                       | 0.90     | 412                        | 0.90     | 412                        |          |   | Outstanding     |                        |
| C510-CK10412     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | Lofton Wall Building            | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 13/03/2017           | 0.77                       | 0.83     | 412                        | 0.93     | 412                        |          |   | Outstanding     |                        |
| C510-CK10420     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | Lofton Wall Building            | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 13/03/2017           | 0.00                       | 0.00     | 187                        | -0.09    | 481                        |          |   | Outstanding     |                        |
| C510-CK104201    | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | Lofton Wall Building            | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 3/03/2017            | -0.42                      | -0.06    | 187                        | 0.23     | 481                        |          |   | Outstanding     |                        |
| C510-CK10462     | Block 104 | S10401  | Internal  | Manual           | OK          | Crack Monitor      | Lofton Wall Building            | LIV_ES2_Slope_Stop_A4x-10          | 24/11/2016             | 3/03/2017            | -0.72                      | 0.45     | 187                        | 0.25     | 481                        |          |   | Outstanding     |                        |

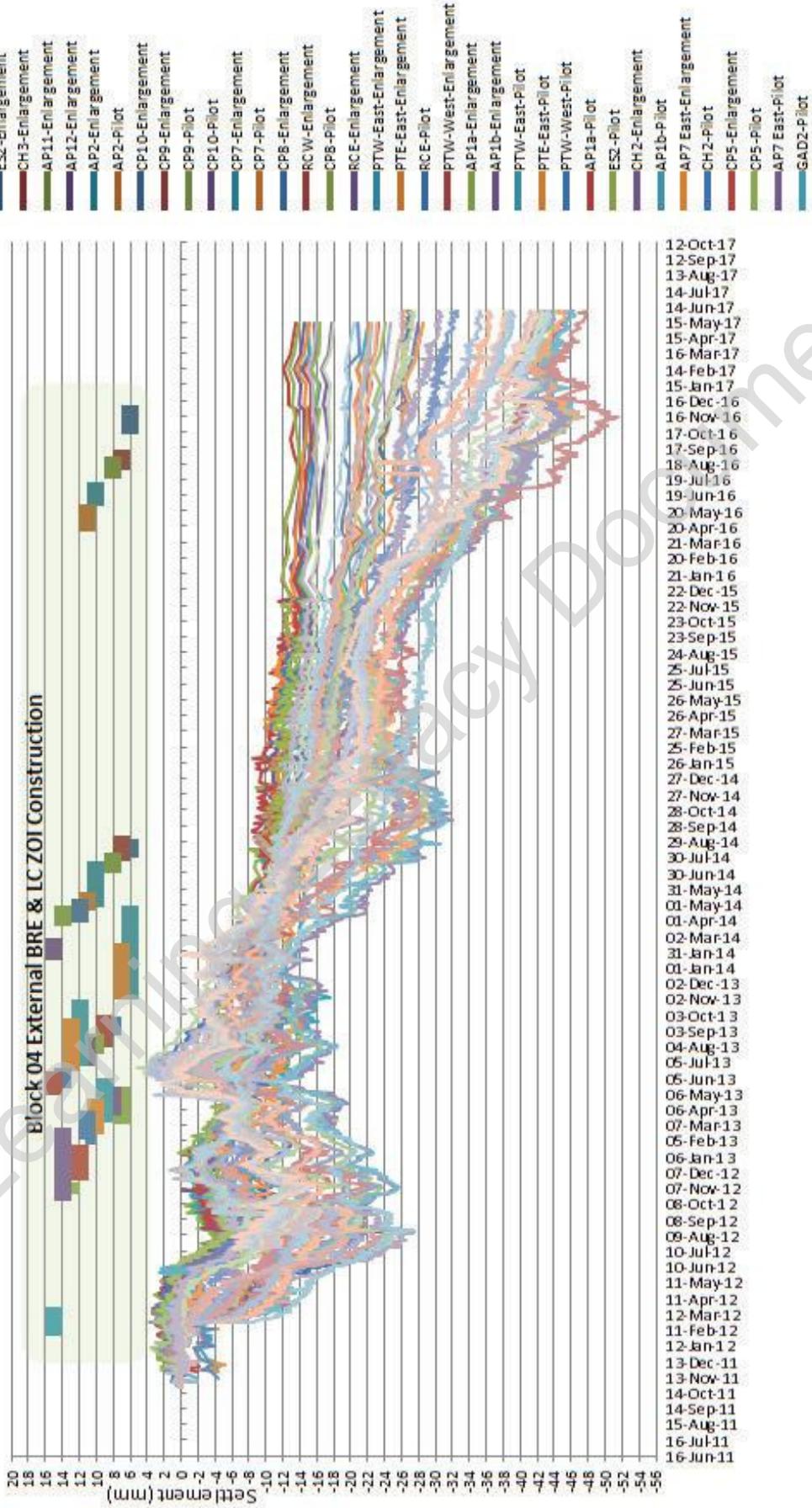
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Table 2 - Block 04 Decommissioning Status Tracker IM

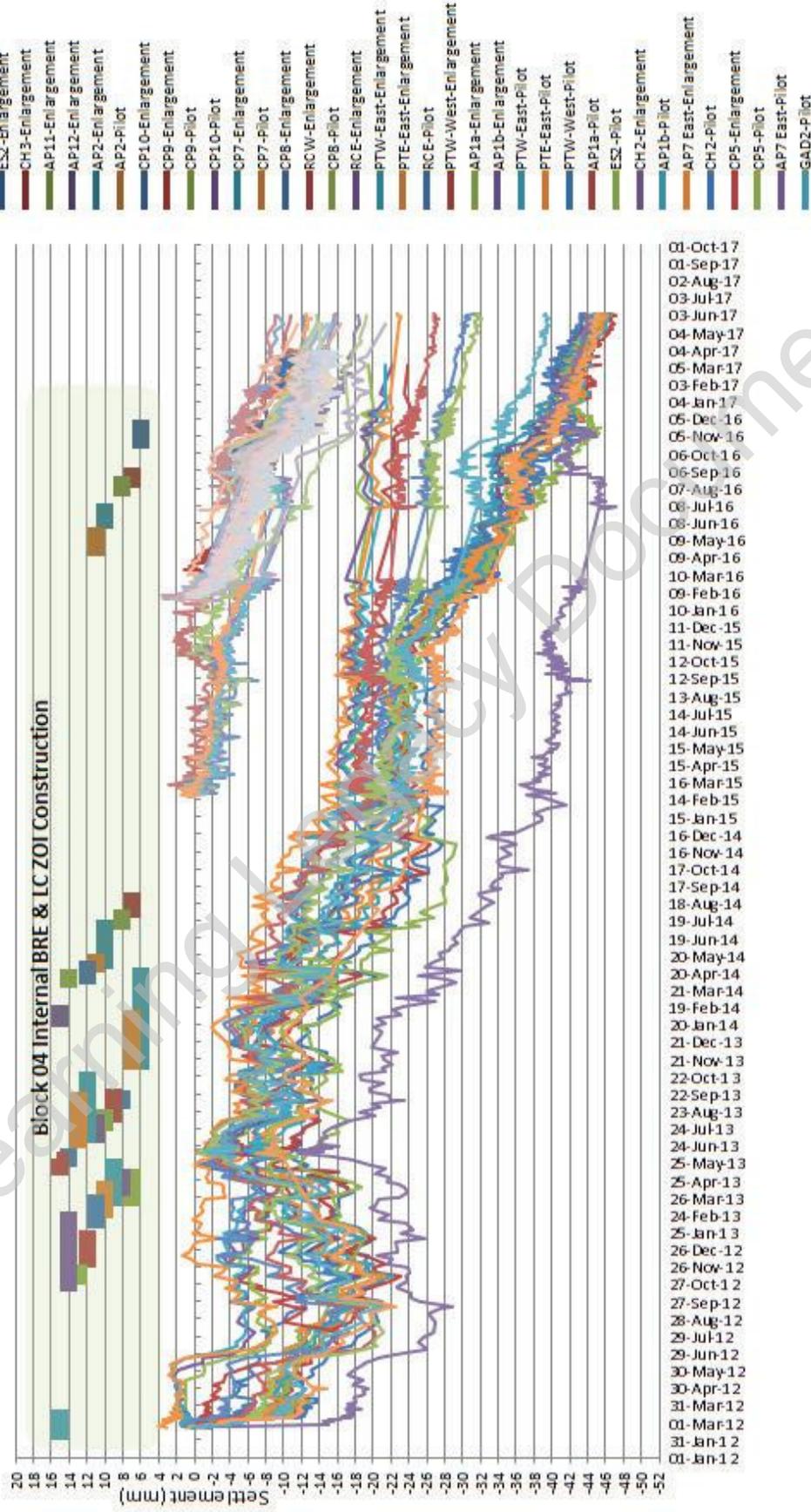
|       |         | 29/06/2017 |                  | AVERAGE DISPLACEMENT TREND |                     |                  |                                     |                        |                      |          | RED      |                            |          |                            |             |  |                        |
|-------|---------|------------|------------------|----------------------------|---------------------|------------------|-------------------------------------|------------------------|----------------------|----------|----------|----------------------------|----------|----------------------------|-------------|--|------------------------|
|       |         |            |                  | GREEN < 2.0 mm             |                     | AMBER < 3.5 mm   |                                     | AMBER > 3.5 mm         |                      | RED      |          |                            |          |                            |             |  |                        |
| Block | Section | Int./Ext   | Measurement Type | Sensor Type                | Sensor Description  | Asset/Location   | EOI/Last Primary Layer Construction | Last Construction Date | Latest Surveyed Date | 120 Days | 180 Days | 180 Day Calculation Period | 365 Days | 365 Day Calculation Period | Ceased Date | General Comment                          | Decommissioning Status |
| C510  | IM10402 | Inground   | Manual           | IM                         | Inclinometer-Manual | Bloomfield St    |                                     |                        | 17/11/2013           | #N/A     | #N/A     | #N/A                       | #N/A     | #N/A                       | 29/01/2016  |  | Proposed               |
| C510  | IM10514 | Inground   | Autoread         | IM                         | Inclinometer-Manual | Finisbury Circus |                                     |                        | 07/06/2013           | #N/A     | #N/A     | #N/A                       | #N/A     | #N/A                       | 29/01/2016  | Ceased through C510-PMI-01083 29.01.2016 | Proposed               |

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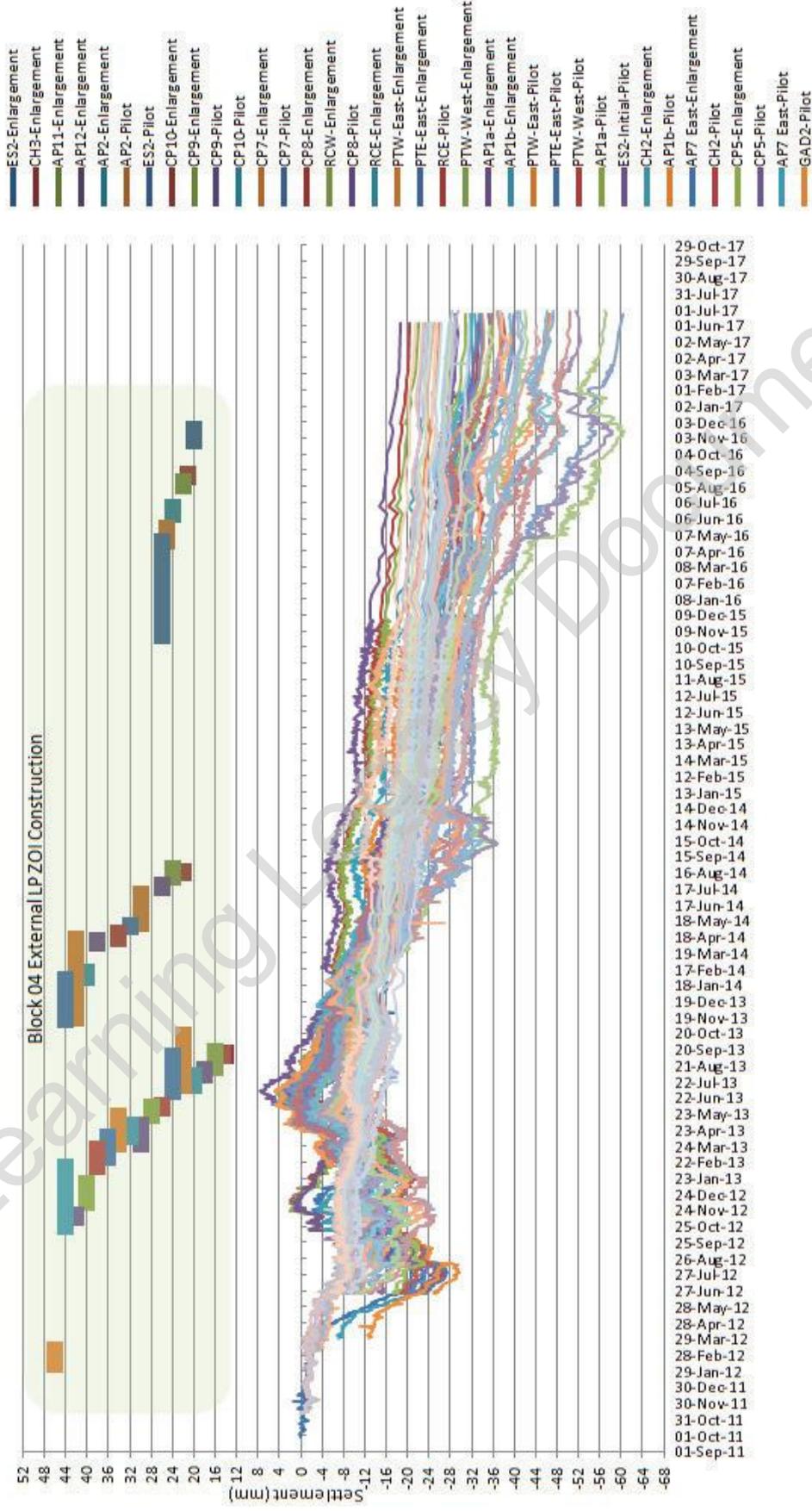
Graph 1 - Block 04 External Building (BRE & LC) Manual Monitoring History in Relation to Construction



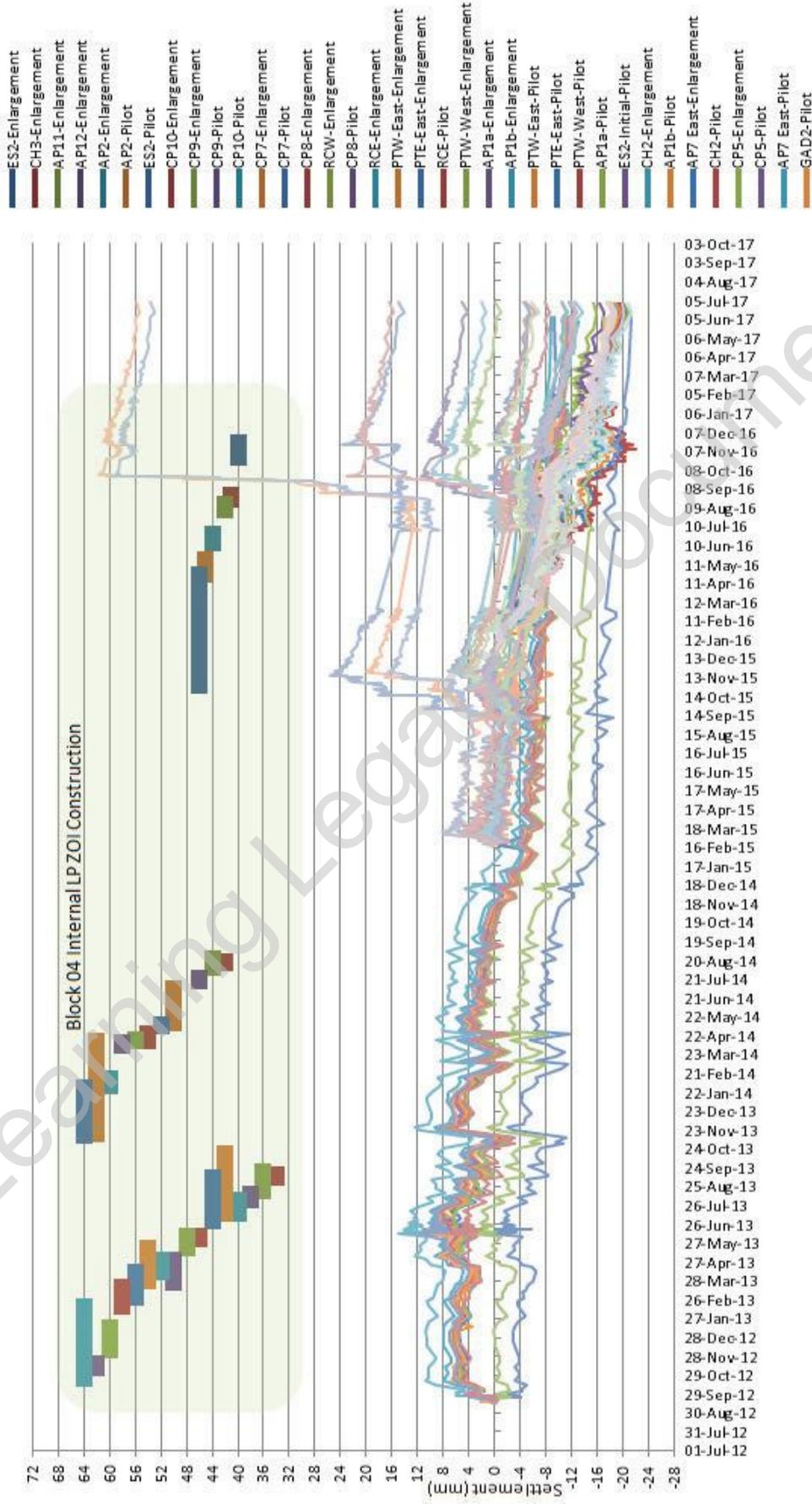
Graph 2 - Block 04 Internal Building (BRE & LC) Manual Monitoring History in Relation to Construction



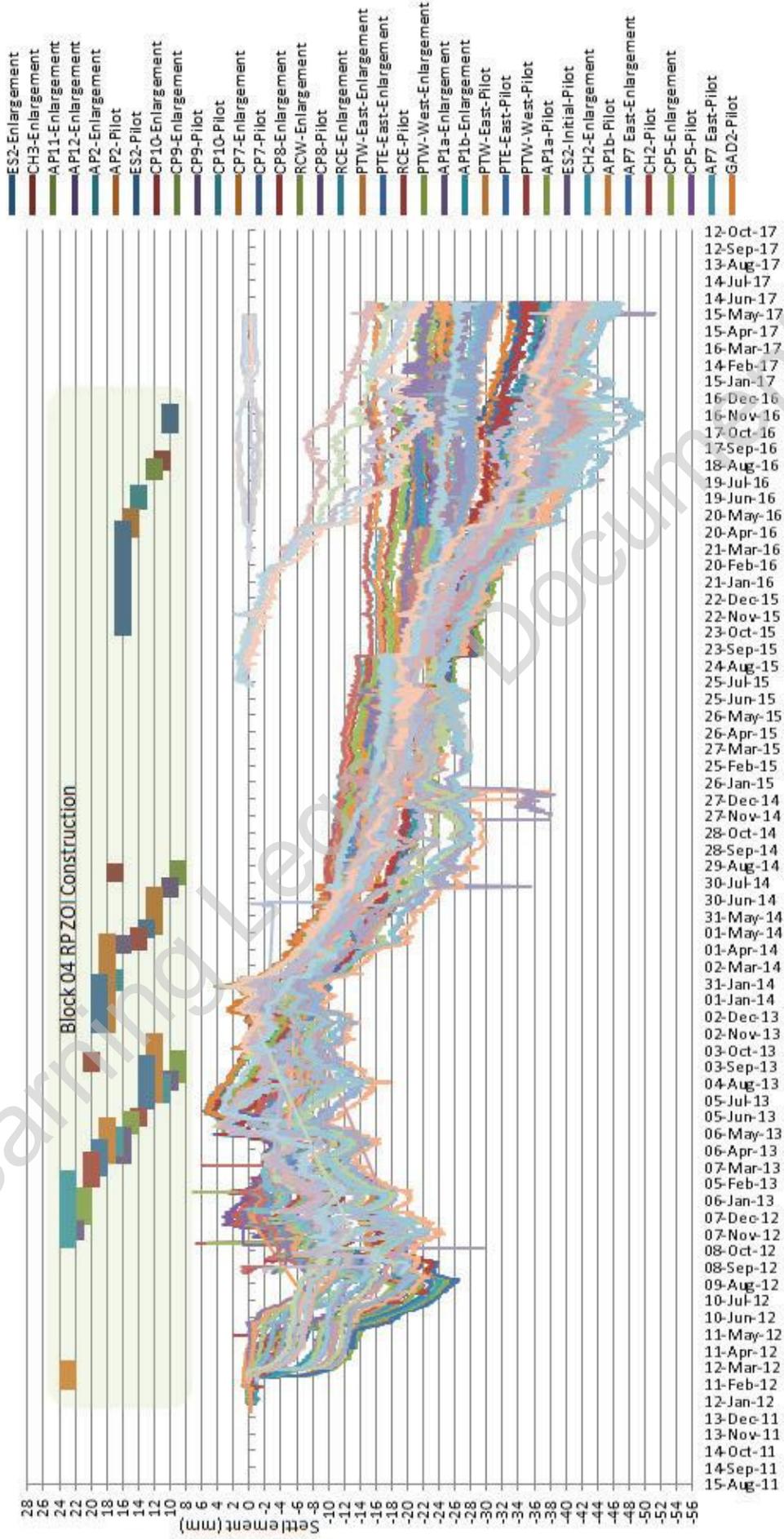
Graph 3 - Block 04 External Road Studs (LP) Manual Monitoring History in Relation to Construction



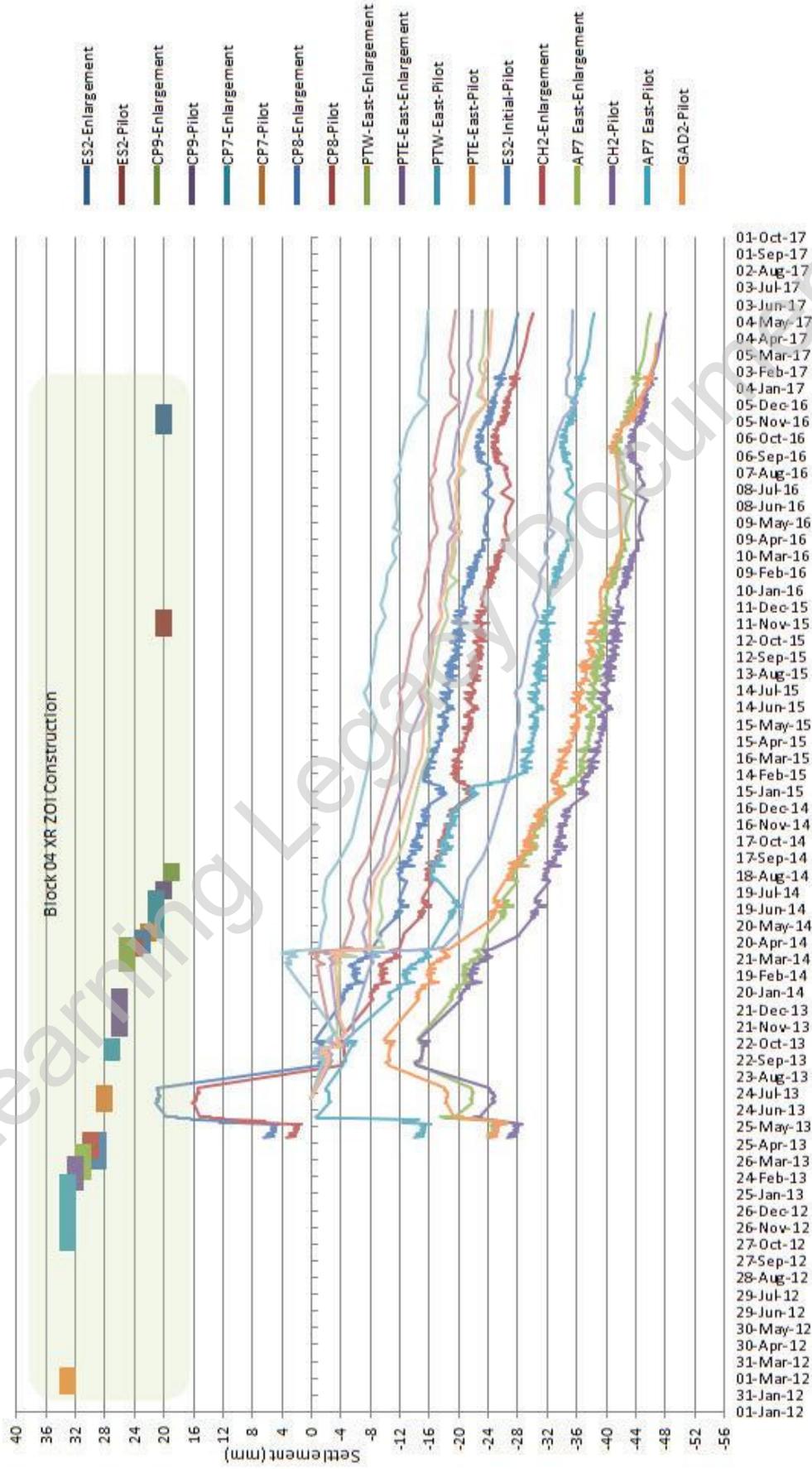
Graph 4 - Block 04 Internal Road Studs (LP) Manual Monitoring History in Relation to Construction



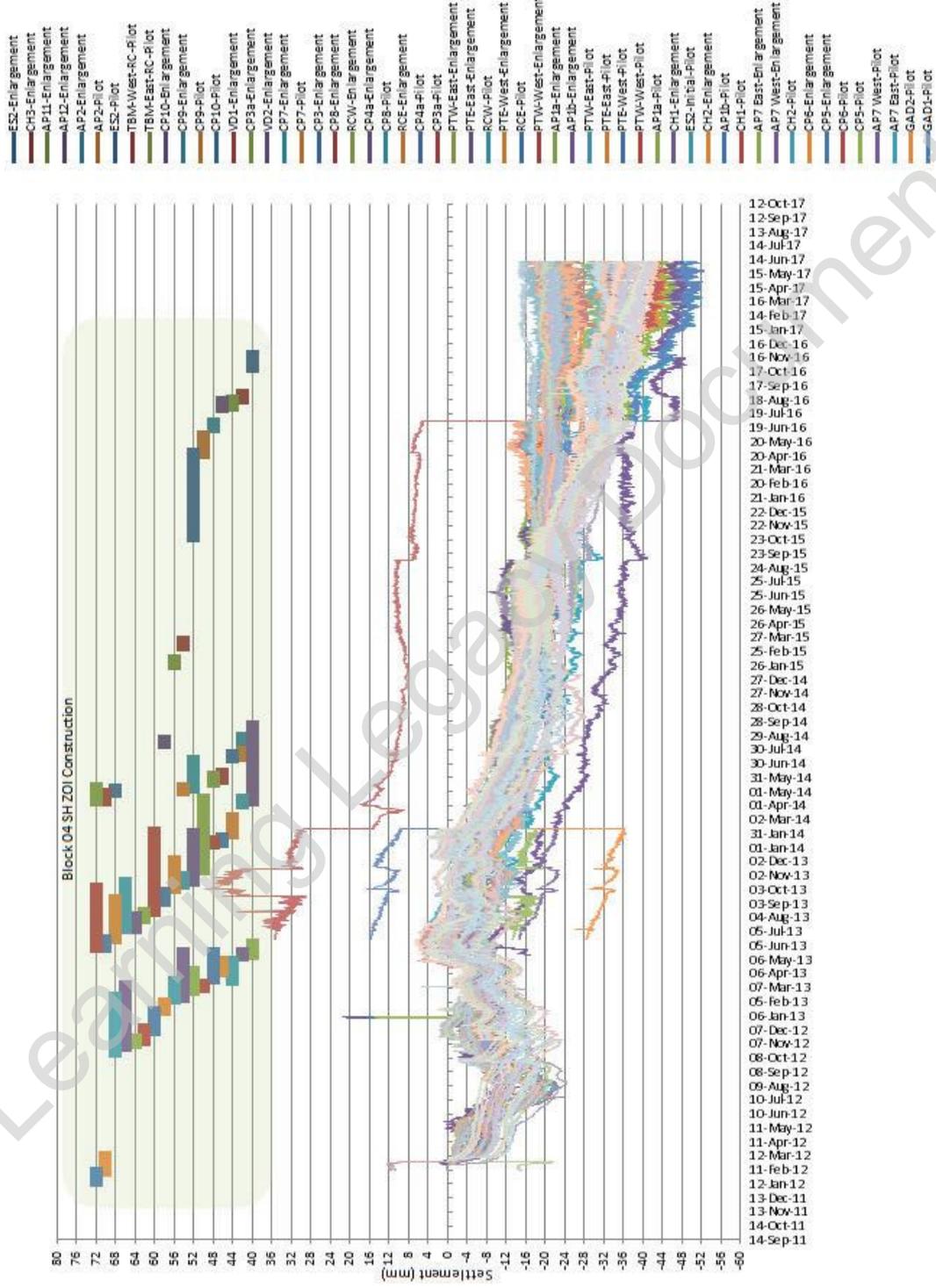
Graph 5 - All Block 04 3d Geodetic Prisms (RP) Automated Monitoring History in Relation to Construction



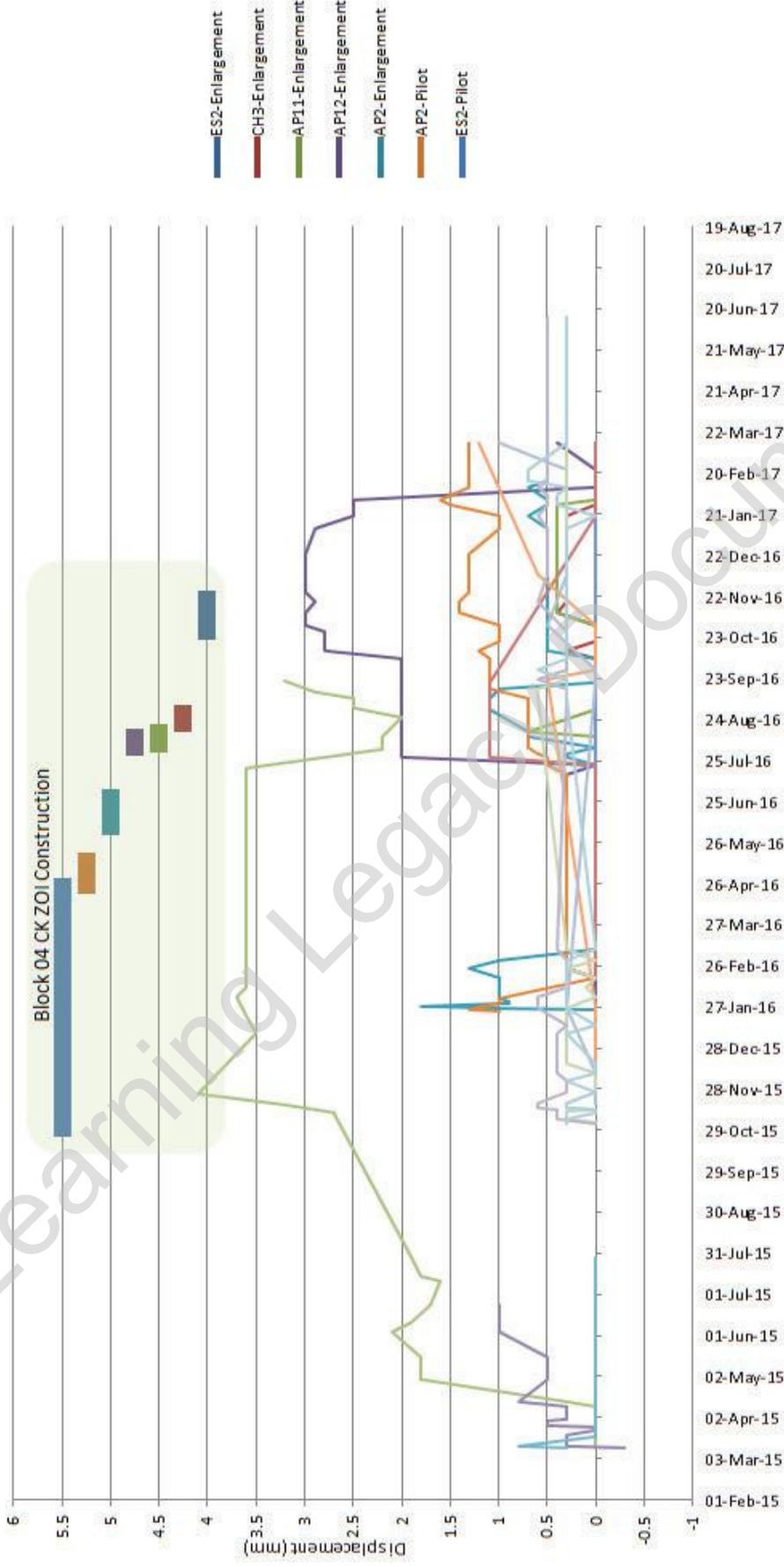
Graph 6 – All Block 04 Extensometers (XR) Automated & Manual Monitoring History in Relation to Construction



Graph 7 – All Block 04 Water Cells (SH) Automated Monitoring History in Relation to Construction

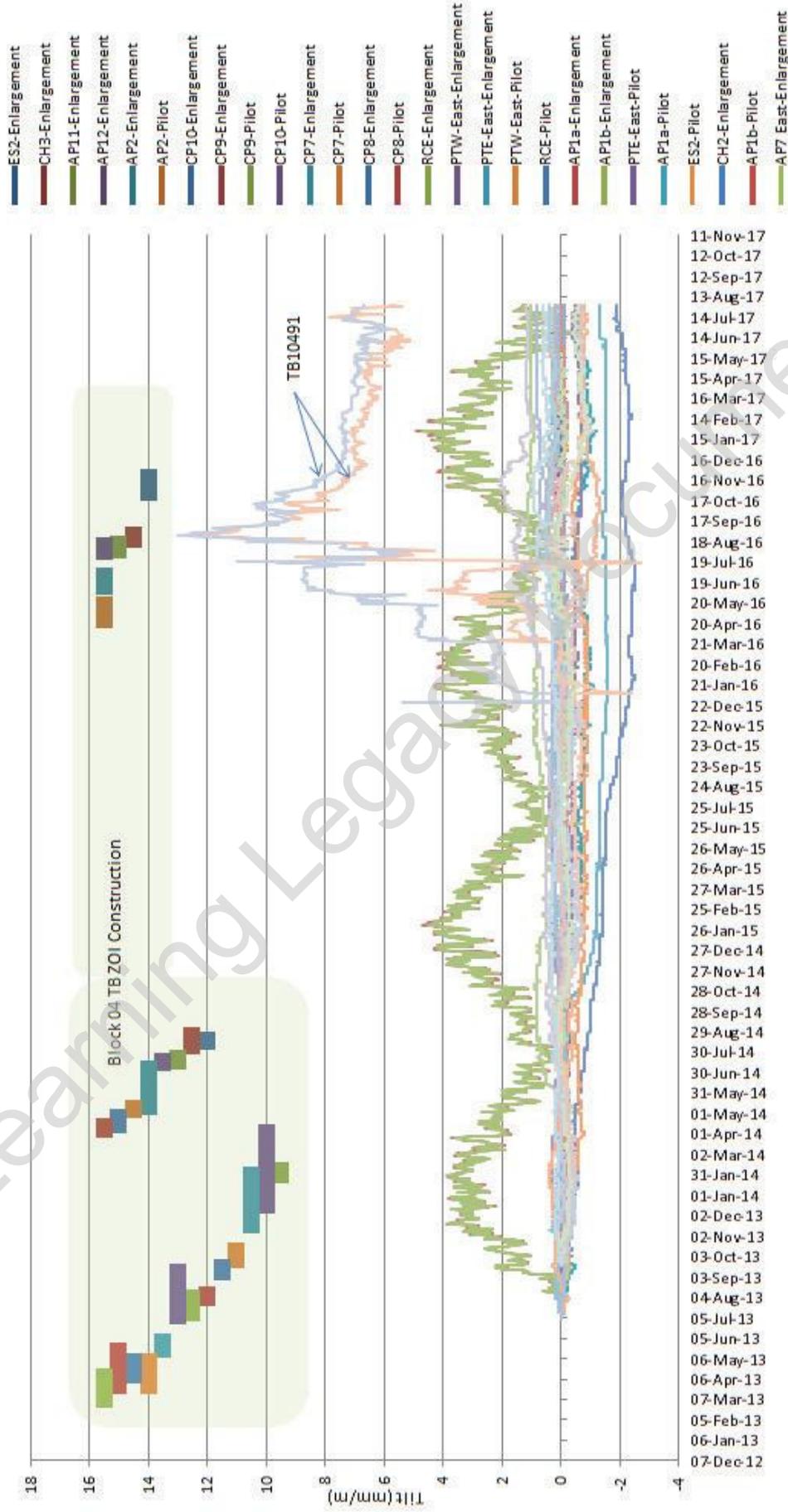


Graph 8 – All Block 04 Crack Monitors (CK) Manual Monitoring History in Relation to Construction

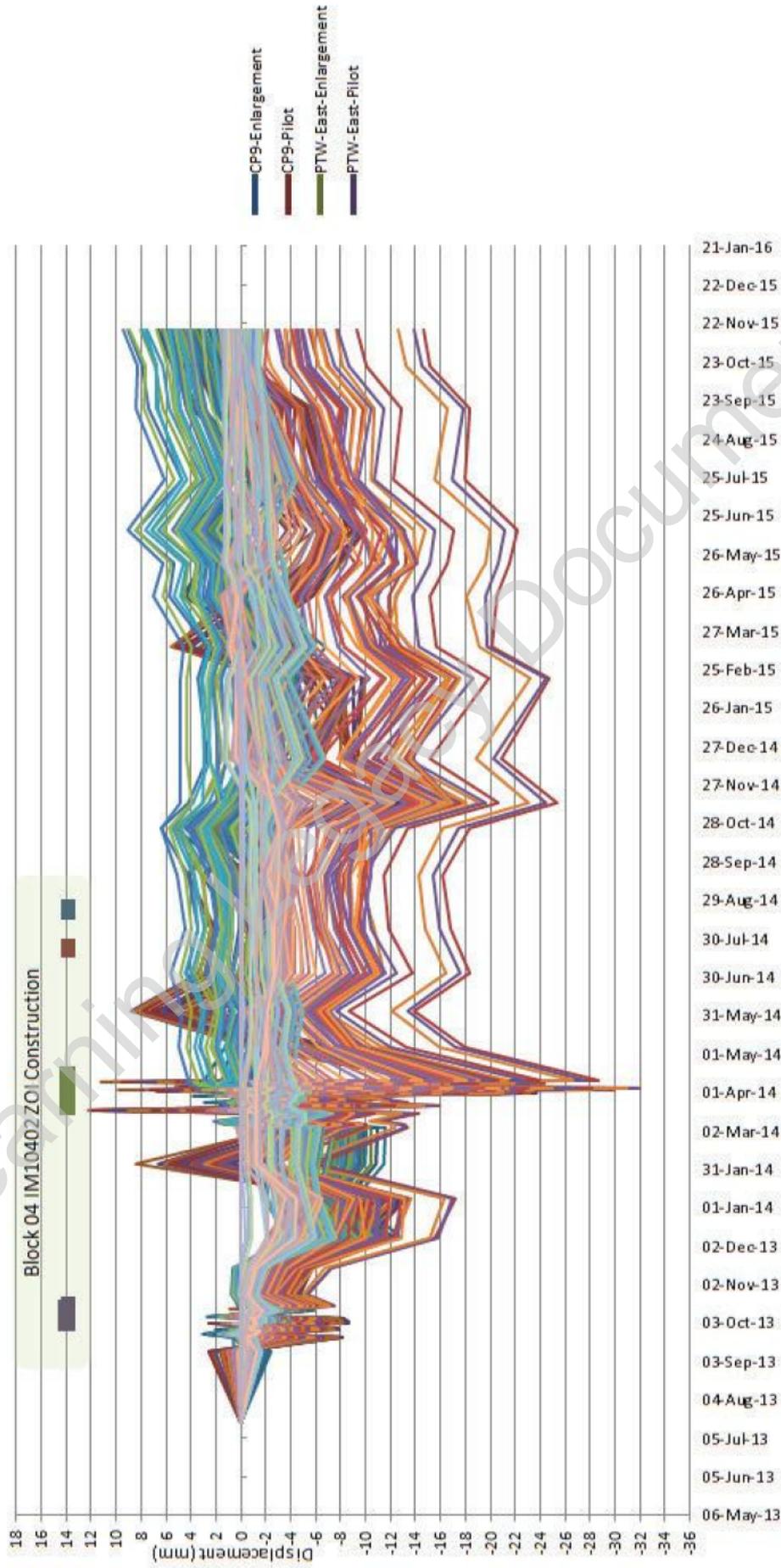


Note: Calculated crack monitor values (Z) provided are the hypotenuse of the measured X and Y movement, i.e.  $Z^2 = (X^2 + Y^2)$

Graph 9 - All Block 04 Tiltmeters (TB) Automated Monitoring History in Relation to Construction



Graph 10 - Block 04 Inclinometer (IM) IM10402 Manual Monitoring History in Relation to Construction



Graph 11 - Block 04 Inclinometer (IM) IM10514 Automated Monitoring History in Relation to Construction

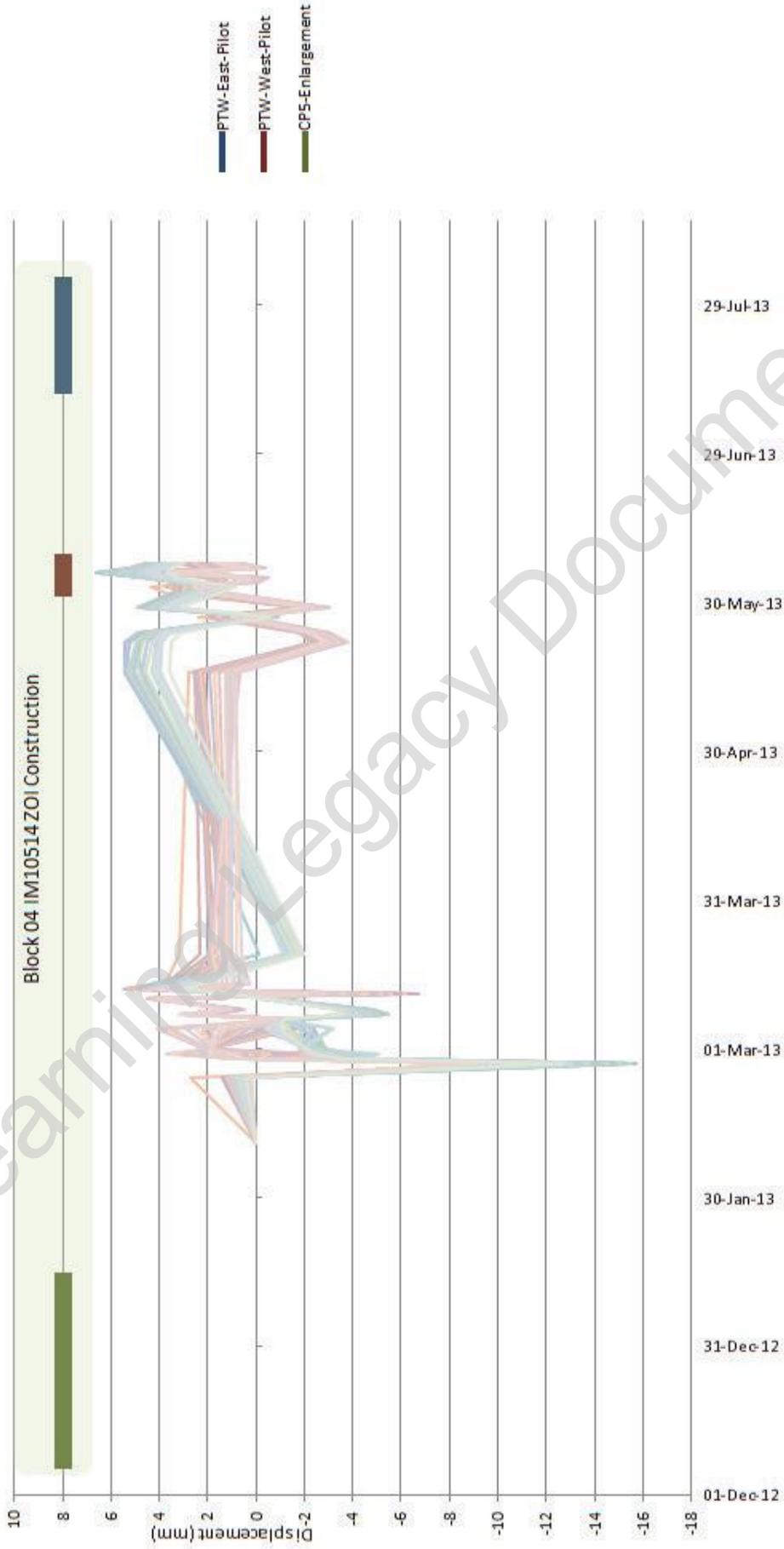
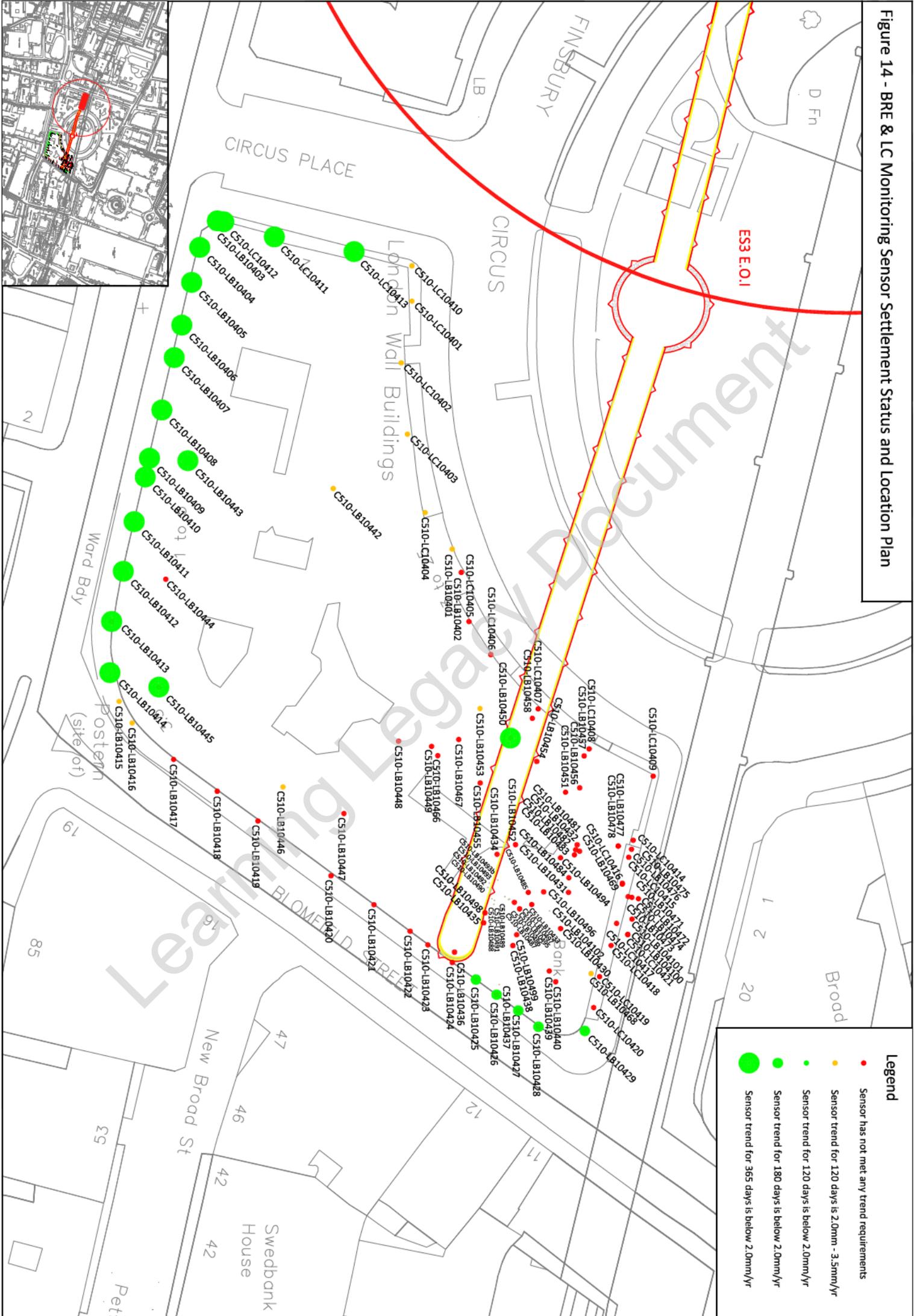


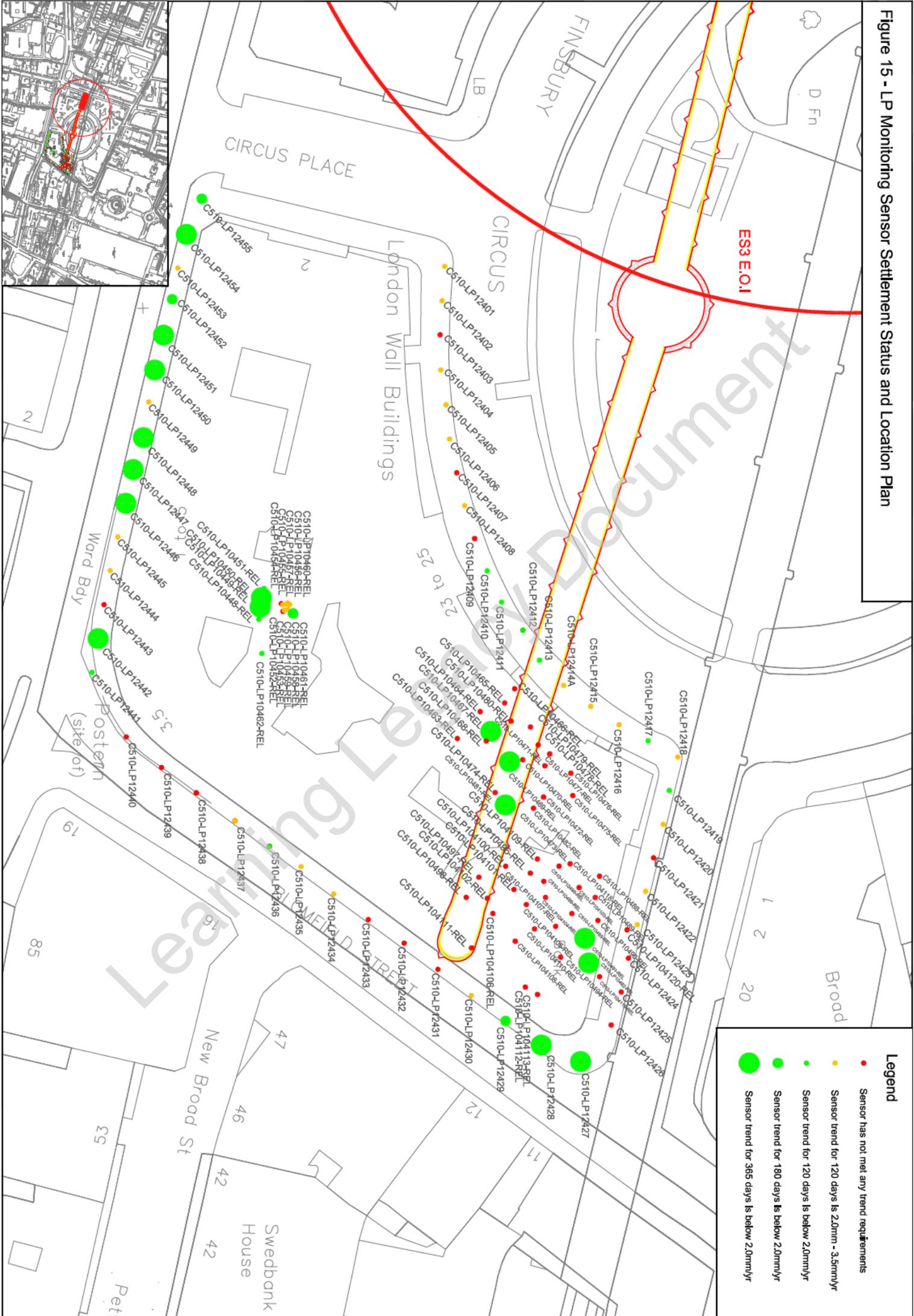
Figure 14 - BRE & LC Monitoring Sensor Settlement Status and Location Plan



**Legend**

- Sensor has not met any trend requirements
- Sensor trend for 120 days is 2.0mm - 3.5mm/yr
- Sensor trend for 120 days is below 2.0mm/yr
- Sensor trend for 180 days is below 2.0mm/yr
- Sensor trend for 365 days is below 2.0mm/yr

Figure 15 - LP Monitoring Sensor Settlement Status and Location Plan



**Legend**

- Sensor has not met any trend requirements
- Sensor trend for 120 days is 2.0mm - 3.5mm/yr
- Sensor trend for 120 days is below 2.0mm/yr
- Sensor trend for 180 days is below 2.0mm/yr
- Sensor trend for 365 days is below 2.0mm/yr

Figure 16 - RP Monitoring Sensor Settlement Status and Location Plan

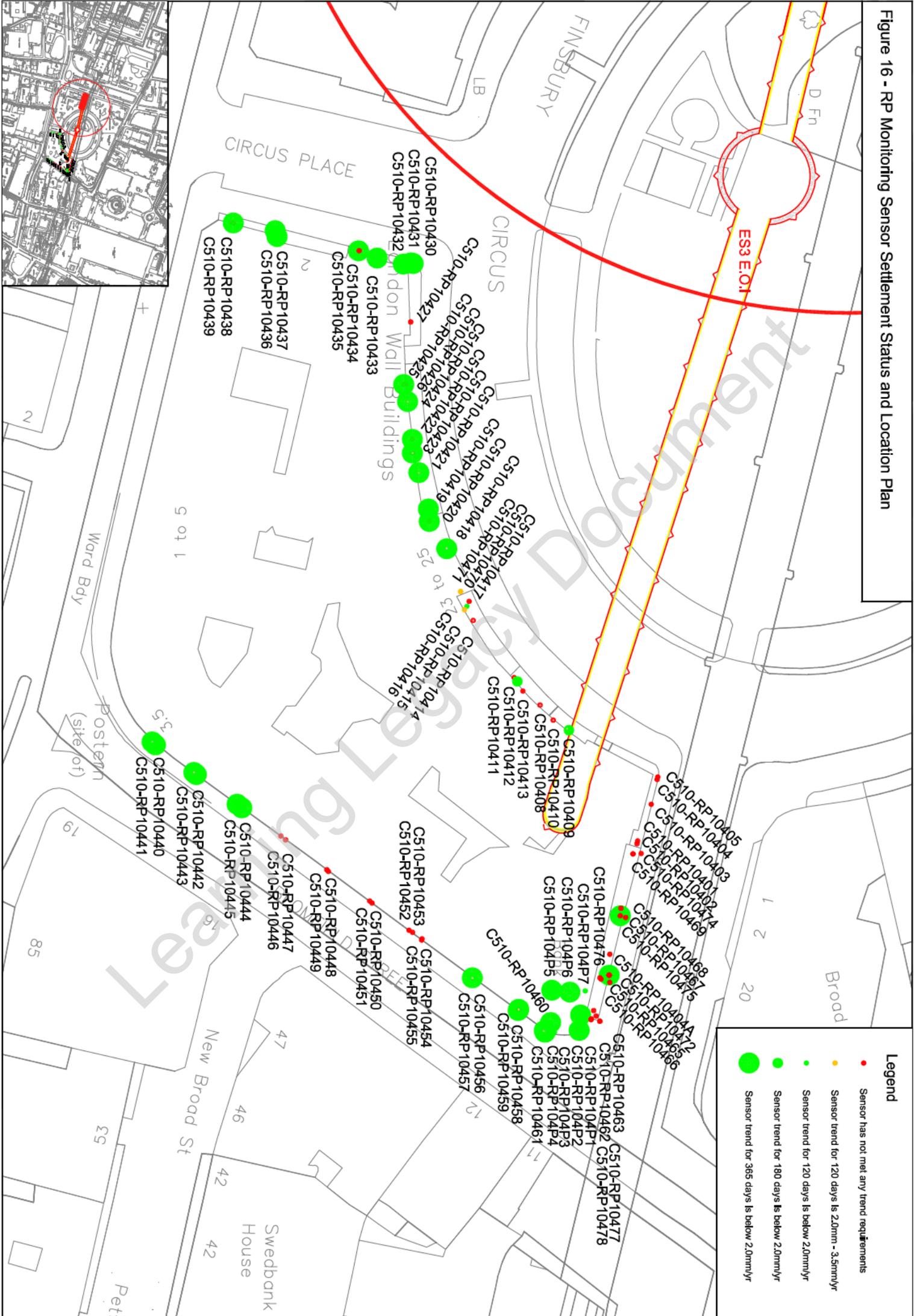


Figure 17 - XR Monitoring Sensor Settlement Status and Location Plan

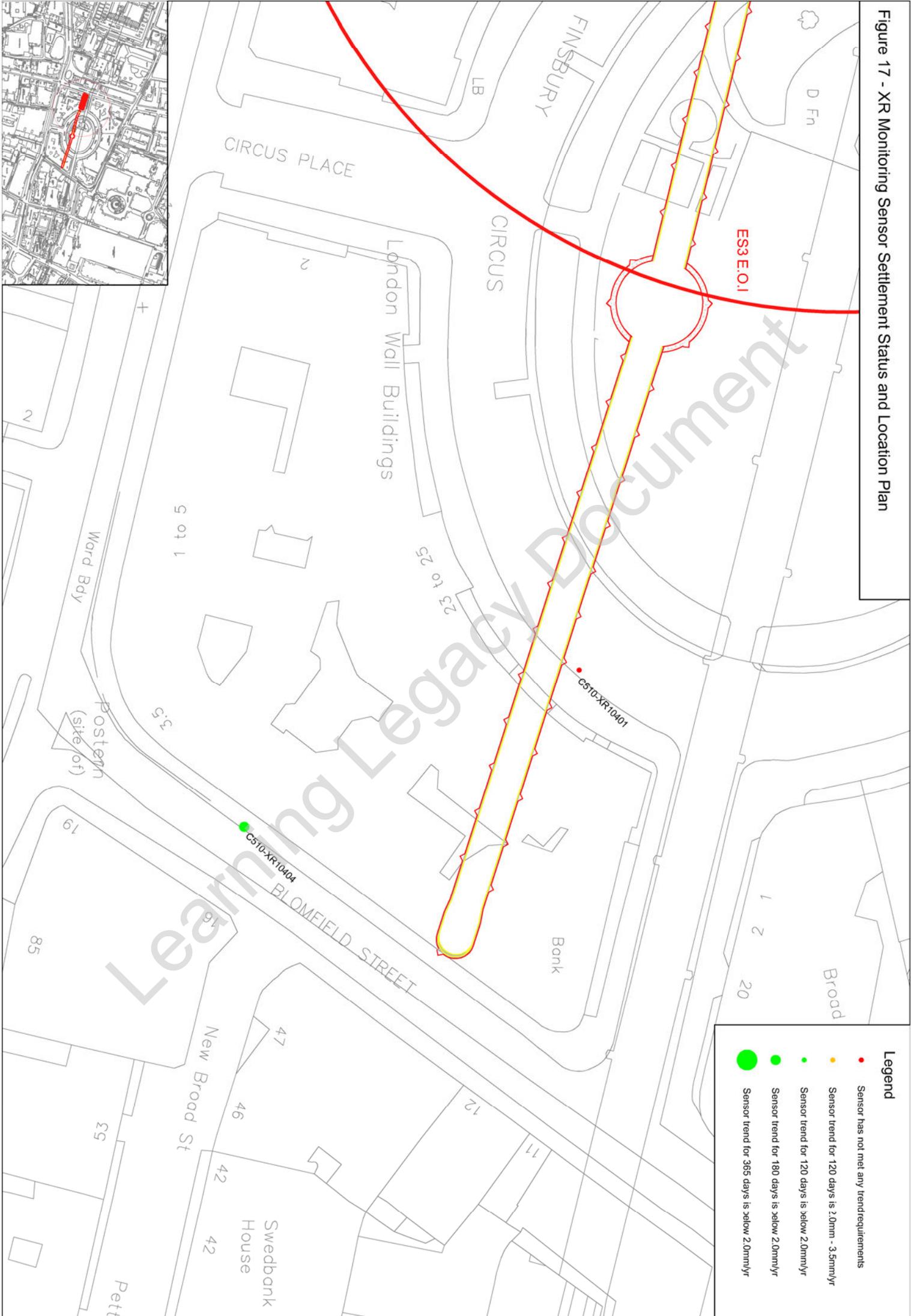


Figure 18 - SH Monitoring Sensor Settlement Status and Location Plan

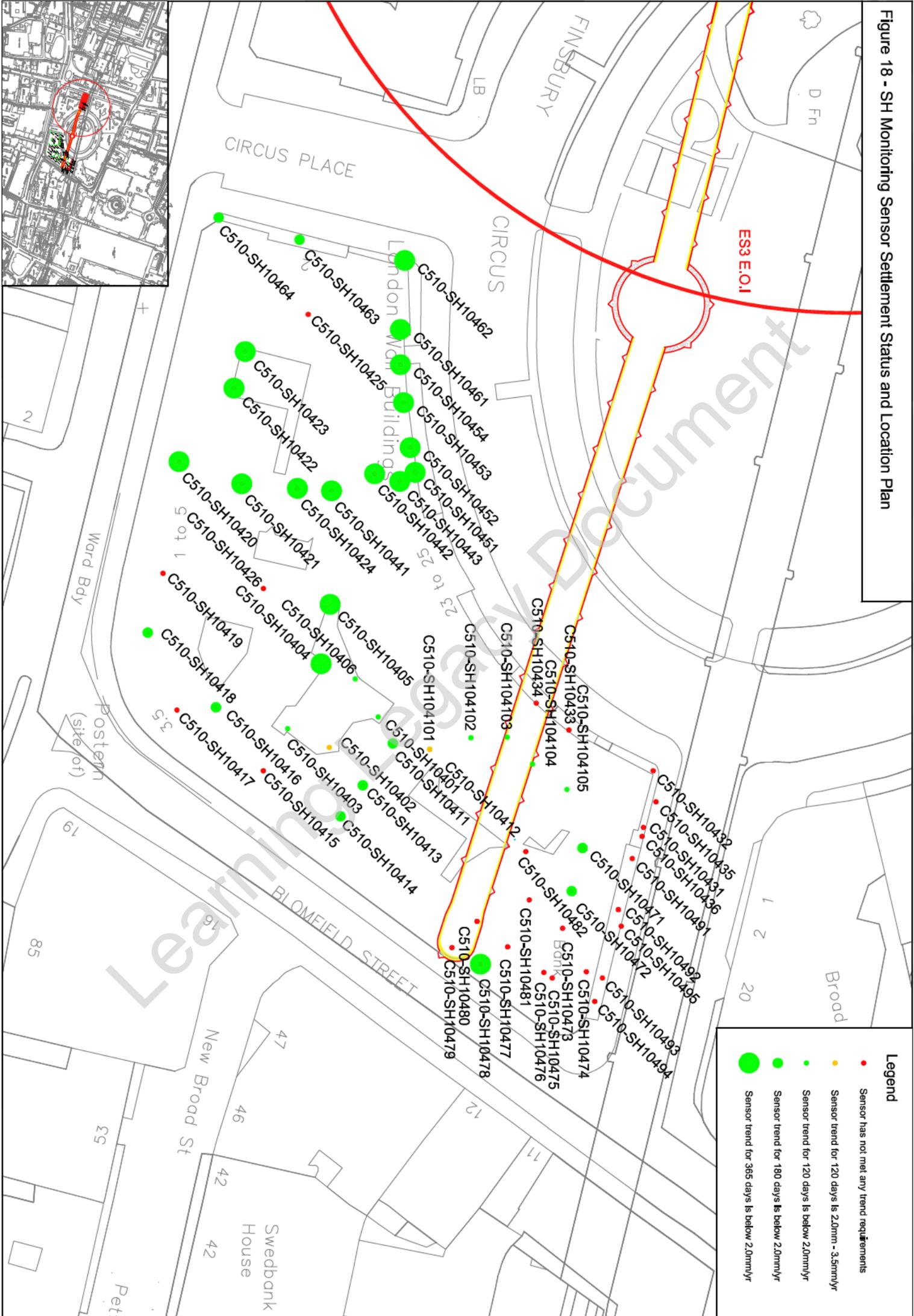
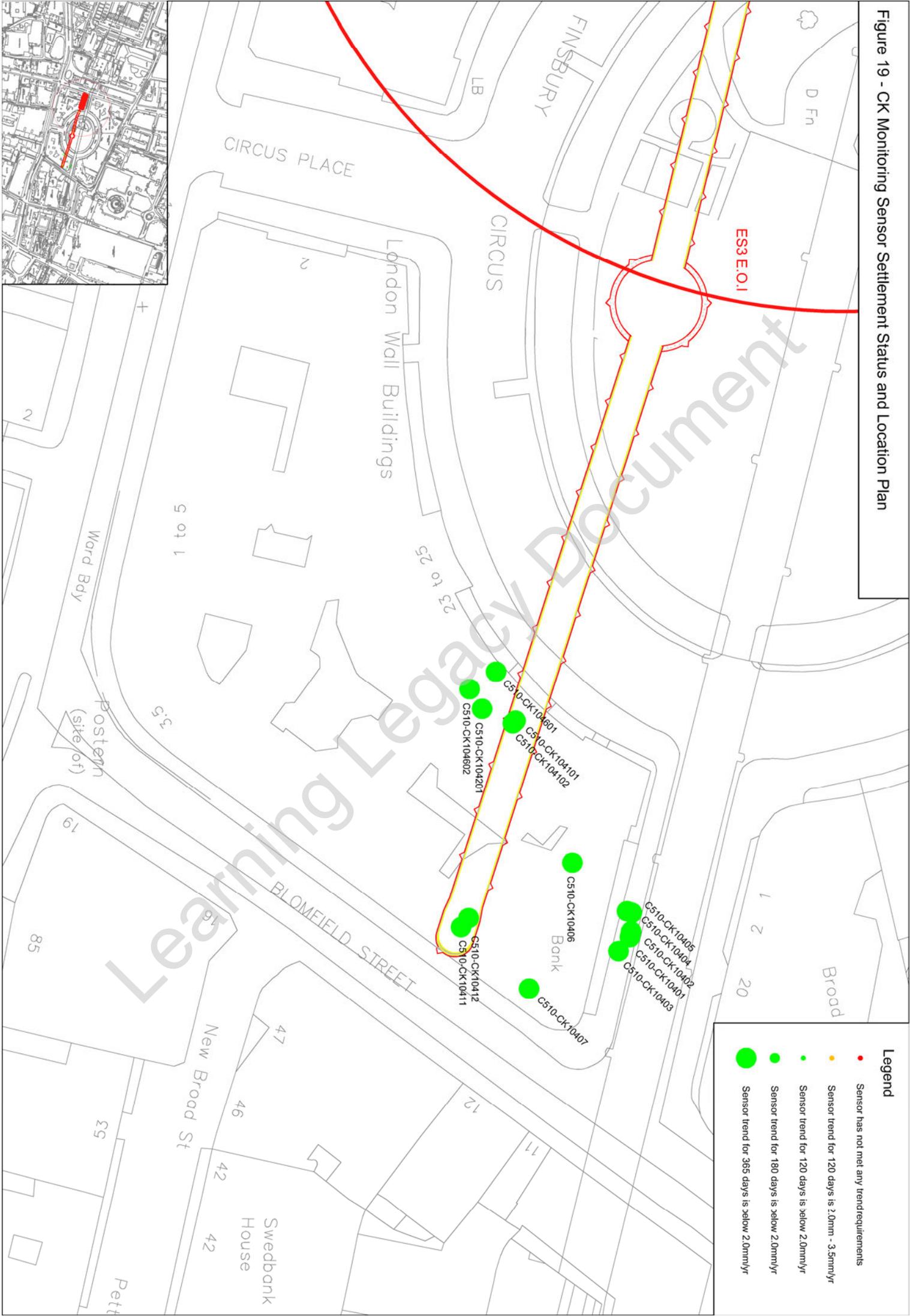


Figure 19 - CK Monitoring Sensor Settlement Status and Location Plan



**Legend**

- Sensor has not met any trend requirements
- Sensor trend for 120 days is > 2.0mm - 3.5mm/yr
- Sensor trend for 120 days is below 2.0mm/yr
- Sensor trend for 180 days is below 2.0mm/yr
- Sensor trend for 365 days is below 2.0mm/yr

Figure 20 - TB Monitoring Sensor Settlement Status and Location Plan

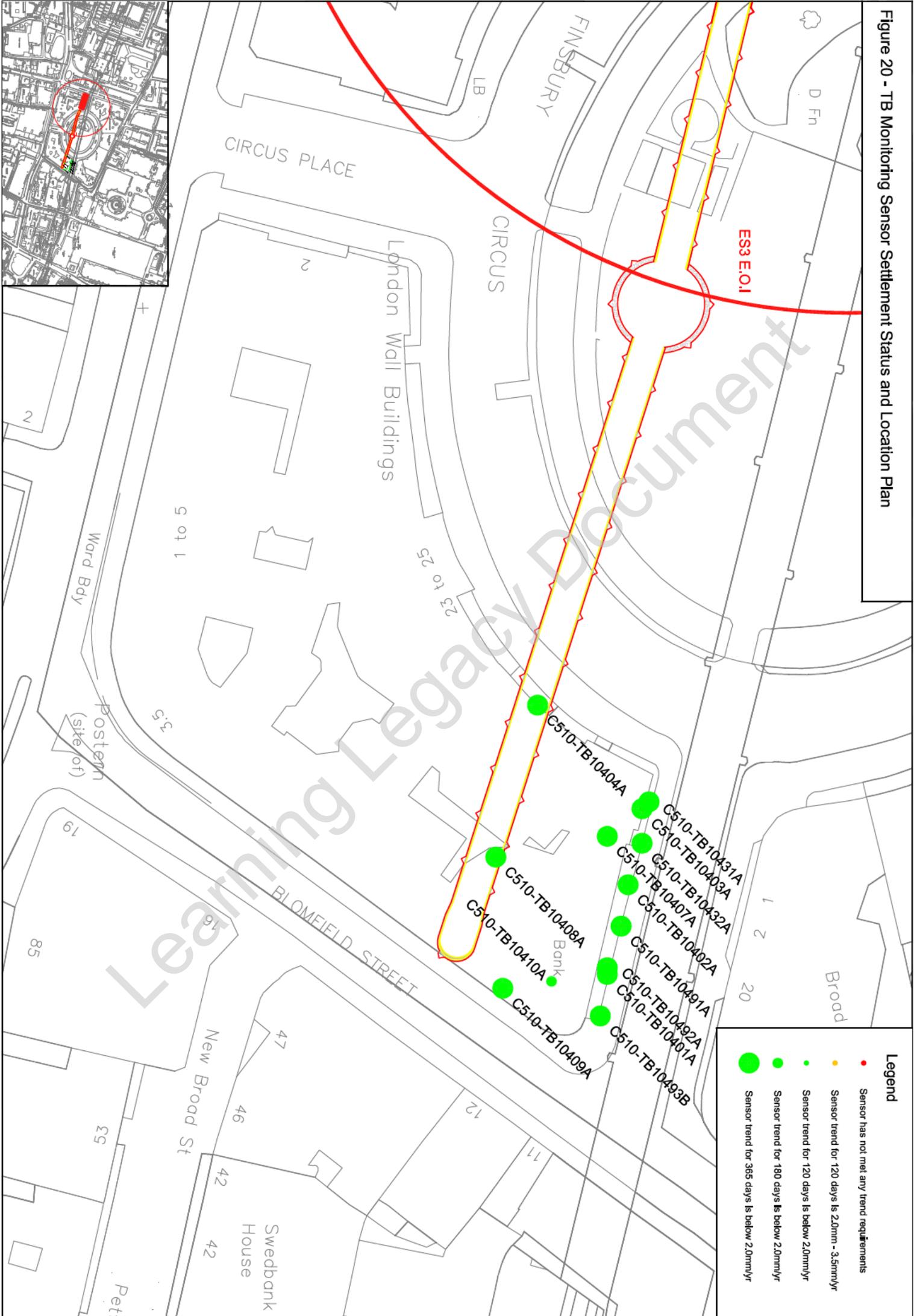
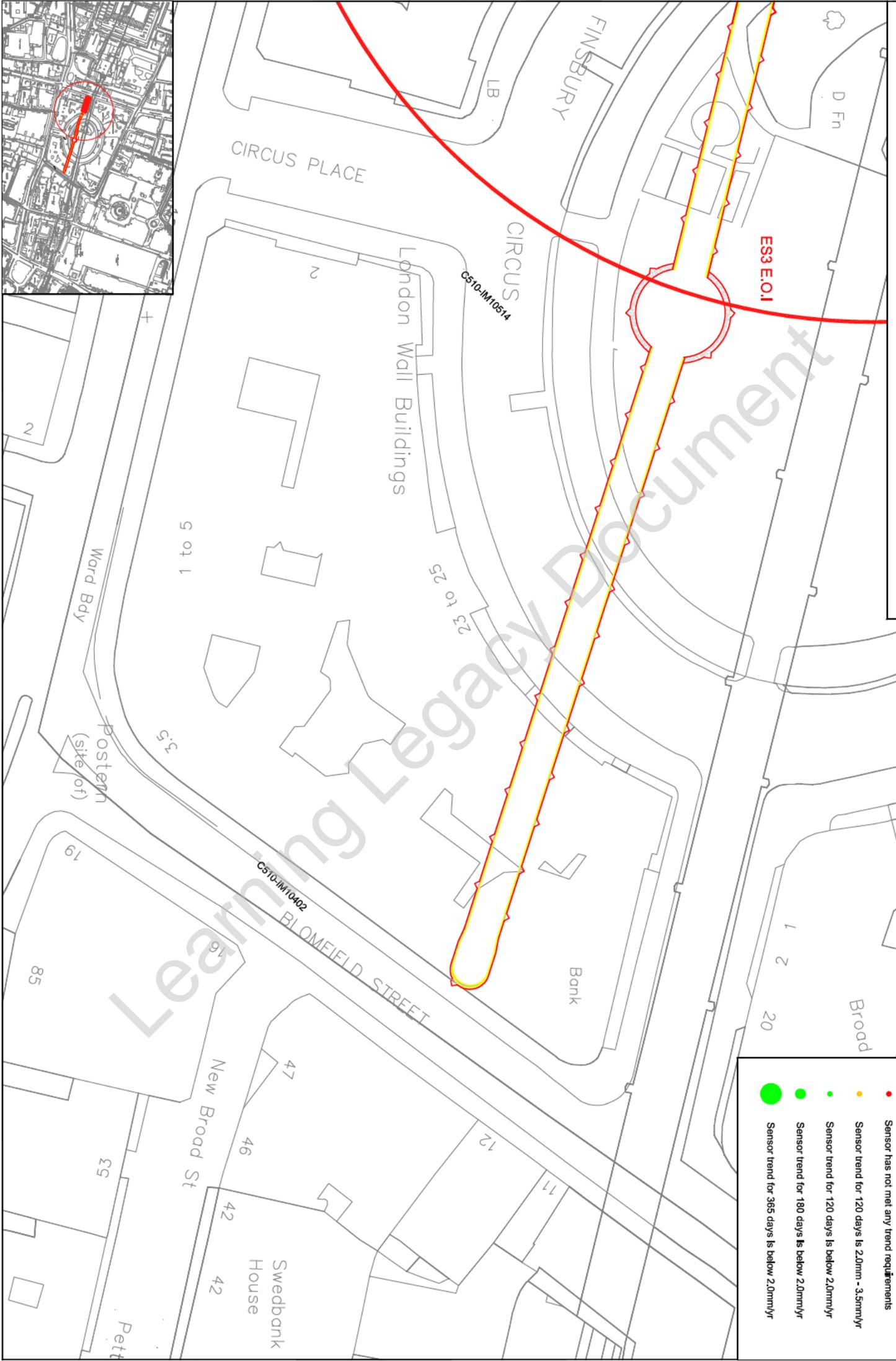


Figure 21 - IM Monitoring Sensor Settlement Status and Location Plan



**Legend**

- Sensor has not met any trend requirements
- Sensor trend for 120 days is 2.0mm - 3.5mm/yr
- Sensor trend for 120 days is below 2.0mm/yr
- Sensor trend for 180 days is below 2.0mm/yr
- Sensor trend for 365 days is below 2.0mm/yr