

Job Name Unit 3A – East Horndon Business Park

Subject Transport Technical Note

Reference 18073/N01

Date October 2023

1. Introduction

- 1.1. KMC is retained by Goodman Logistics Developments (UK) Ltd to provide a Transport Technical Note in relation to the proposed amendments to Unit 3A of the East Horndon Business Park, Brentwood, Essex.
- 1.2. The site location is shown in **Figure 1** below.

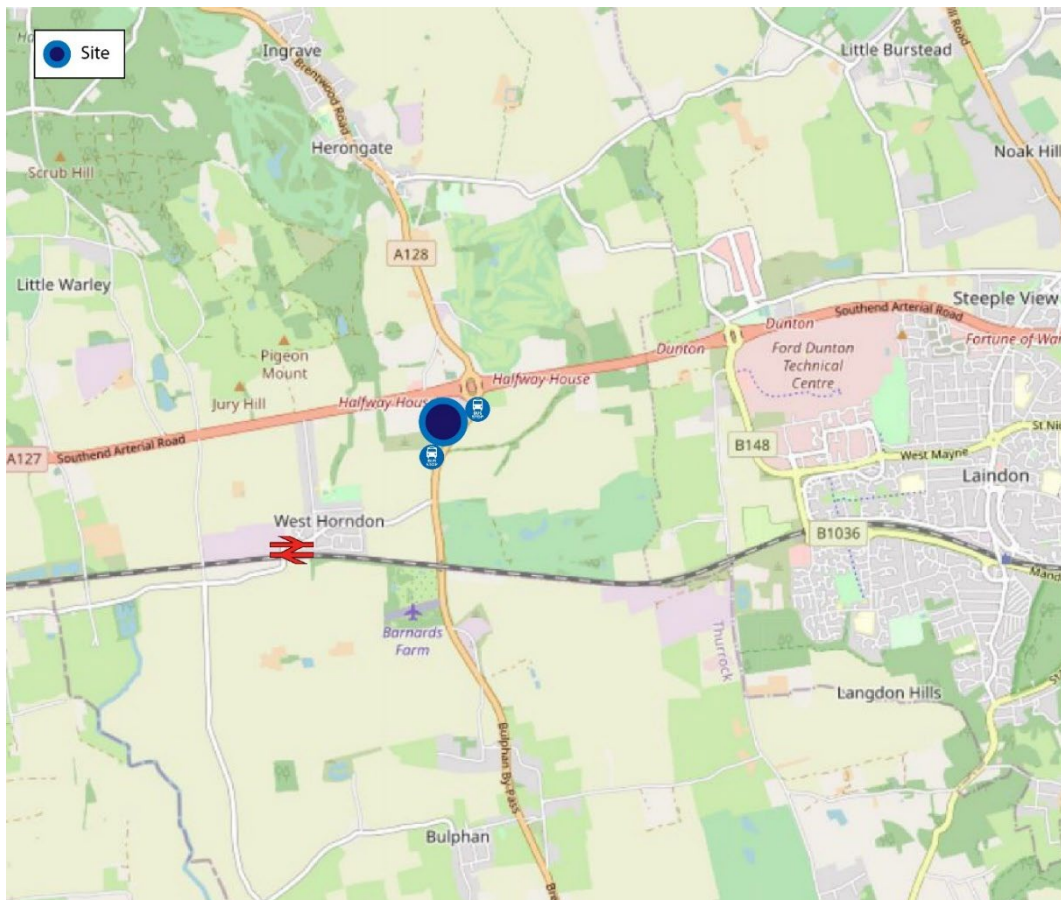


Figure 1 – Site Location

Planning History

- 1.3. East Horndon Business Park is located immediately south-west of the junction of the A127 Southend Arterial Road and the A128 Tilbury Road. It is allocated for development in the adopted Brentwood Local Plan and benefits from outline planning permission (with all matters reserved) for the redevelopment of the site which was granted on 30th April 2020 under application reference 19/00315/OUT.
- 1.4. The proposals approved as part of the outline planning application (19/00315/OUT) are as follows:
- Limit of 35,000 sqm GIA of development (Mixed use Classes B1(c), B1(b), B2, B8 and A3)
 - Flexibility within the planning permission to provide a maximum of 2,500sqm of Use Class B1(b), 5,000sqm of Use Class B1(c), 9,500sqm of Use Class B2 and 250sqm of Use Class A3. No maximum floorspace figure for B8 use (albeit up to 35,000sqm);
 - 315 car parking spaces with potential to increase to 521 spaces (subject to EPOA parking standards applied to final mix of planning uses);
 - 200 secure and covered cycle parking spaces (subject to EPOA parking standards applied to final mix of planning uses);
 - 20 motorcycle parking spaces;
 - Construction of 2m wide footway north from the A128 Tilbury Road to the Site and south from Hall Cottages north of the Site;
 - Construction of a new roundabout junction at the A128 Tilbury Road/Old Tilbury Road junction;
 - Road widening improvement at the A128 Tilbury Road / Station Road junction;
 - New bus shelters and associated bus stop infrastructure at 2 bus stops on the A128 Tilbury Road south-east of development;
 - Funding of necessary Traffic Regulation Orders (TROs) and associated traffic signs for reduction in Old Tilbury Road speed limit from 60mph to 30mph.
- 1.5. East Horndon Business Park was divided into individual units with each subject to their own reserved matters application or full planning application. All units associated with East Horndon Business Park (units 1, 2, 3A, 3B, 3C, and 4) have now received detailed planning permission.
- 1.6. The total consented floor area for the site is summarised in **Table 1** below.

Table 1 – Floor Area Breakdown by Unit (sqm GIA)

Unit	B1(b) Use	B1(c) Use	B2 Use	B8 Use	Total
1	-	1,401	-	10,212	11,613
2	-	-	-	11,874	11,874
3A	-	-	1,574	3,148	4,722
3B	-	-	999	999	1,997
3C	-	-	999	999	1,997
4	-	-	-	5,309	5,309
Total	-	1,401	3,571	32,540	37,512

- 1.7. This Technical Note relates to Unit 3A of the East Horndon Business Park which occupies part of the wider site and was subject to a full planning application (ref: 22/01751/FUL) which was submitted in December 2022 and granted approval in June 2023. The consented Unit 3A comprises of a mix of B2 / B8 land use and has a GIA of 4,722 sqm. The consented land use mix for the development is:
- B2 = 1,574sqm
 - B8 = 3,148sqm
- 1.8. A non-material amendment to Unit 3A was also granted in August 2023, providing for a revised plant deck (ref: 22/01751/NON/1).

2. Consented Trip Generation

Outline Consented Trip Generation (Planning Reference: 19/00315/OUT)

- 2.1. The Transport Assessment for the development of the entire Business Park site included a very robust assessment of the local highway network. **Figure 2** below is an extract from the Transport Assessment (2019) for the outline consent and summarises the trips rates used in the original assessment.

Peak hour vehicle trip rates from amended development schedule using TRICS

	GIA	GFA	AM peak hour (0800-0900hrs)				PM peak hour (1700-1800hrs)			
			Arrivals		Departures		Arrivals		Departures	
			Trip rate	Vehs ⁽¹⁾ (No.)	Trip rate	Vehs ⁽¹⁾ (No.)	Trip rate	Vehs ⁽¹⁾ (No.)	Trip rate	Vehs ⁽¹⁾ (No.)
B1(b)	2,500	2,625	1.451	38	0.256	7	0.192	5	1.209	32
B1(c)	5,000	5,250	0.736	39	0.084	4	0.075	4	0.637	33
B2	9,500	9,975	0.424	42	0.168	17	0.084	8	0.391	39
B8	18,000	18,900	0.162	31	0.049	9	0.032	6	0.151	29
Total	35,000	36,750	-	150	-	37	-	23	-	133

Notes:

1. Vehicle trip rate applied to GFA to derive vehicle numbers

Figure 2 – Peak Hour Trip Generation (ref: 19/00315/OUT)

- 2.2. Essex County Council (ECC) queried the values of the vehicle trip rates used in the original planning application and therefore to address this concern all vehicle trip rates as derived by TRICS were factored by an additional 50%. The revised trips rates are shown in **Figure 3**.

Peak hour vehicle trip rates from amended development schedule factored by+50% sensitivity test

	GIA	GFA	AM peak hour (0800-0900hrs)				PM peak hour (1700-1800hrs)			
			Arrivals		Departures		Arrivals		Departures	
			Trip ⁽¹⁾ rate	Vehs (No.)	Trip ⁽¹⁾ rate	Vehs (No.)	Trip ⁽¹⁾ rate	Vehs (No.)	Trip ⁽¹⁾ rate	Vehs (No.)
B1(b)	2,500	2,625	2.177	57	0.384	10	0.288	8	1.814	48
B1(c)	5,000	5,250	1.104	58	0.126	7	0.113	6	0.956	50
B2	9,500	9,975	0.636	65	0.252	22	0.126	11	0.587	59
B8	18,000	18,900	0.243	49	0.075	12	0.048	8	0.227	43
Total	35,000	36,750	-	229	-	51	-	33	-	200

Notes:

1. Table 4.2 vehicle trip rates factored by 1.5

Figure 3 - Peak Hour Trip Rates and Generation Factored by an Additional 50% (ref: 19/00315/OUT)

- 2.3. Therefore the consented maximum trip generation for the site was 280 two-way vehicle movements in the morning peak hour and 233 in the afternoon peak hour.
- 2.4. This trip generation exercise provided the trip rates to be used for each land use for the individual units. It provides the maximum trip generation permitted for the business park. Therefore the total trip generation of all the units combined should remain within the trip generation set out in **Figure 3**.

Full Site consented Trip Generation (Planning Reference: 23/00508/FUL)

- 2.5. The final units to obtain detailed consent were units 2, 3B, and 3C in a combined application, granted in September 2023 (ref: 23/00508/FUL). As part of the Transport Statement supporting the planning application, a final trip generation calculation was undertaken to determine the total trip impact on the network and ensure that the total trip generation did not exceed that specified in the outline consent (summarised in **Figure 3**).
- 2.6. **Table 2** (taken from the Transport Statement as part of the application for units 2, 3B, and 3C; reference: 23/00508/FUL) summarises the total trip generation of the development using the trip rates summarised in **Figure 3**.

Table 2 - Total Consented Vehicles Trip Generation (all Units at the Business Park) (ref: 23/00508/FUL)

Land Use	GIA (sqm)	GEA* (sqm)	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
			Arrivals		Departures		Arrivals		Departures	
			Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)
B1(b)	-	-	2.177	0	0.384	0	0.288	0	1.814	0
B1(c)	1,401	1,471	1.104	16	0.126	2	0.113	2	0.956	14
B2	3,571	3,739	0.636	24	0.252	9	0.126	5	0.587	22
B8	32,540	33,842	0.243	82	0.074	25	0.048	16	0.227	77
Total	37,512	39,052	-	122	-	36	-	23	-	113

- 2.7. **Table 2** demonstrates that whilst the total floor area exceeds the 35,000sqm (GIA) assessed in the outline application, the B1(b), B1(c), and B2 land use are lower than originally assessed and the resulting vehicle trips generated by the final land use proposals at the Business Park is well below the consented trip generation at a total of 158 and 135 two-way vehicle trips in the morning and afternoon peak hours respectively.

3. Proposed Changes to Unit 3A

Proposed Floor Area Uplift

- 3.1. The prospective occupier of Unit 3A requires an enlarged mezzanine area in order to provide additional flexibility with respect to future operations within the building. The mezzanine also takes into account minor changes to the internal configuration of the ground floor including the formation of an ancillary customer area.
- 3.2. The updated proposal for Unit 3A increases the floor area from 4,722sqm (GIA) to 5,496sqm (GIA) (plus the non-material plant deck amendment which has already been consented). This equates to an uplift of 774sqm of floorspace which comprises 50% ancillary B1(b) (also known as ancillary E(g)(ii)) and 50% B8 land use. The revised proposal for Unit 3A is included in **Appendix A**.
- 3.3. **Table 3** summarises the change in the floor area for each land use for unit 3A.

Table 3 – Floor Area Change for unit 3A (GIA)

Land Use	Consented Floor Area Breakdown (sqm) (GIA)	Updated Floor Area Breakdown (sqm) (GIA)
Ancillary B1(b)/E(g)(ii)	-	387
B2	1,574	1,574
B8	3,148	3,535
Total	4,722	5,496

Resulting Trip Generation Change

Consented Trip Generation for Unit 3A (ref: 22/01751/FUL)

- 3.4. **Table 4** summarises unit 3A’s consented trip generation for the 4,722sqm (GIA) floor area as per the Transport Statement (ref: 22/01751/FUL).

Table 4 – Consented Vehicle Trip Generation for Unit 3A

Land Use	GIA (sqm)	GEA* (sqm)	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
			Arrivals		Departures		Arrivals		Departures	
			Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)
B1(b)	-	-	2.177	0	0.384	0	0.288	0	1.814	0
B2	1,574	1,653	0.636	11	0.252	4	0.126	2	0.5865	10
B8	3,148	3,305	0.243	8	0.0735	2	0.048	2	0.2265	7
Total	4,722	4,958	-	19	-	7	-	4	-	17

- 3.5. **Table 4** demonstrates that the consented scheme is forecast to generate 26 two-way trips in the morning peak hour and 21 in the afternoon peak hour.

Updated Trip Generation for Unit 3A

- 3.6. The uplift in floor area will result in a change to the trip generation for Unit 3A which is summarised in **Table 5**.

Table 5 – Updated Trip Generation for Unit 3A

Land Use	GIA (sqm)	GEA* (sqm)	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
			Arrivals		Departures		Arrivals		Departures	
			Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)
B1(b)	387	406	2.177	9	0.384	2	0.288	1	1.814	7
B2	1,574	1,653	0.636	11	0.252	4	0.126	2	0.587	10
B8	3,535	3,712	0.243	9	0.074	3	0.048	2	0.227	8
Total	5,496	5,771	-	28	-	8	-	5	-	25

3.7. **Table 5** demonstrates that the uplift in floor area is forecast to generate a total of 36 two-way trips in the morning peak hour and 30 in the afternoon peak hour. This is an increase of 10 two-way trips in the morning peak hour and 9 in the afternoon peak hour.

Updated Trip Generation for the Business Park

3.8. The uplift in floor area for unit 3A and the resulting increase to the trip generation for the unit will also increase the trip generation for the business park as a whole. **Table 6** summarised the updated trip generation for all units of East Horndon Business Park.

Table 6 - Total Updated Vehicles Trip Generation (all Units at the Business Park)

Land Use	GIA (sqm)	GEA* (sqm)	AM Peak Hour (0800-0900)				PM Peak Hour (1700-1800)			
			Arrivals		Departures		Arrivals		Departures	
			Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)	Trip Rate	Veh (No)
B1(b)	387	406	2.177	9	0.384	2	0.288	1	1.814	7
B1(c)	1,401	1,471	1.104	16	0.126	2	0.113	2	0.956	14
B2	3,571	3,739	0.636	24	0.252	9	0.126	5	0.587	22
B8	32,927	34,249	0.243	83	0.074	25	0.048	16	0.227	78
Total	38,286	39,865	-	132	-	38	-	24	-	121

3.9. As seen in the table above, whilst the trip generation for the business park has increased to 170 two-way trips in the morning peak hour and 145 two-way trips in the afternoon peak hour, this still falls below the maximum trip generation as set out in the outline consent (280 two-way trips in the morning peak hour and 233 two-way trips in the afternoon peak hour as shown in **Figure 3**).

4. Parking

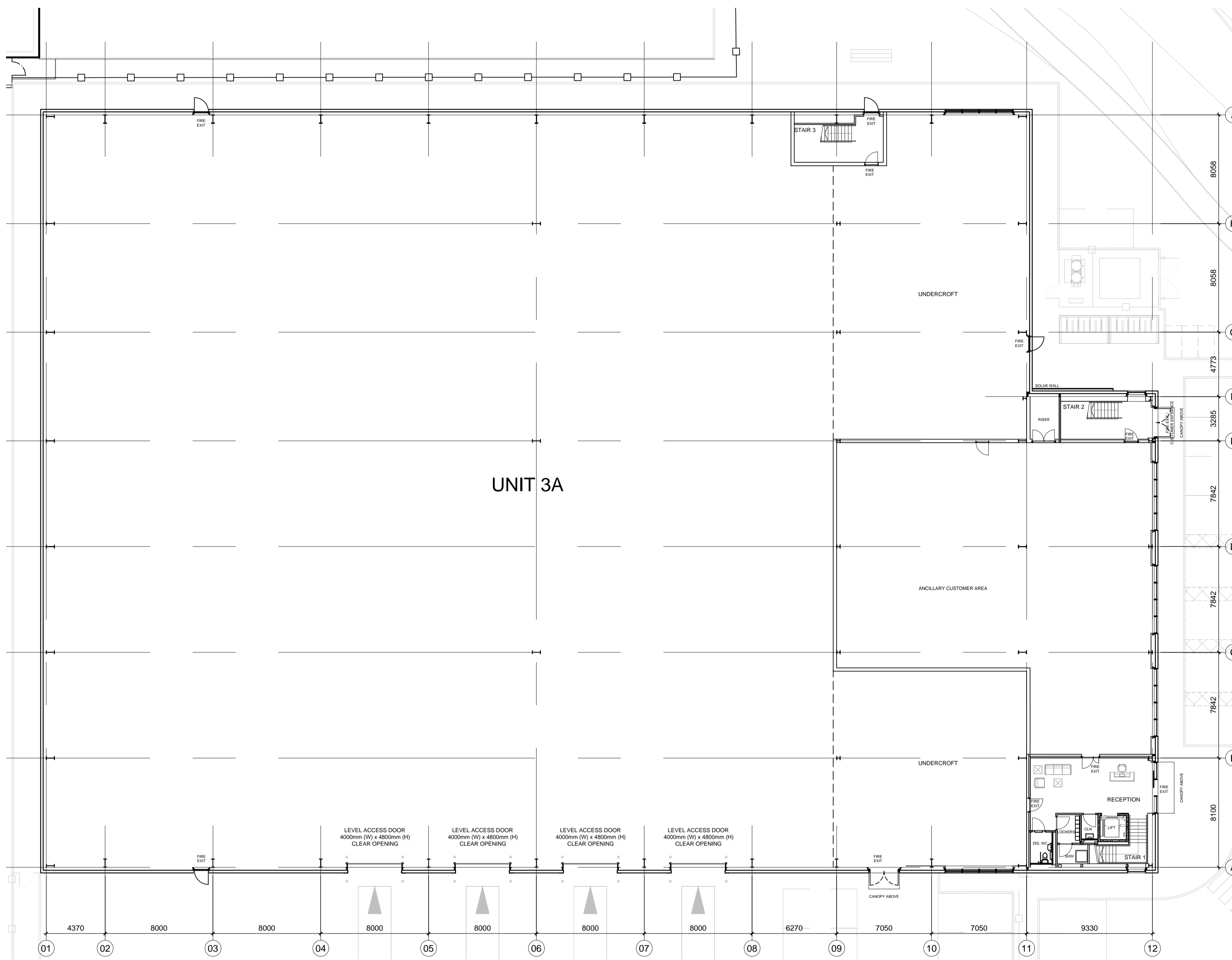
- 4.1. The parking provision for the consented unit 3A provides 49 car parking spaces, including 4 disabled bays. The main staff car park comprises of 34 car parking bays (including the 4 disabled) and a further 15 'overflow' car parking spaces are being provided within the service yard.
- 4.2. The parking arrangement has not been changed as a result of the updated plans for unit 3A despite the uplift in floor area. This is due to there being sufficient capacity within the consented car parking provision to accommodate the additional trips by car to the site.
- 4.3. The updated trip generation (see **Table 5**) forecasts 29 inbound vehicle trips in the morning peak hour which can be accommodated by the 34 car parking spaces in the main staff car park.
- 4.4. On the one-off occasion that there may be additional vehicle trips to the site all at once, this will be accommodated by the surplus parking in the main car park and the 'overflow' parking in the service yard.

5. Summary

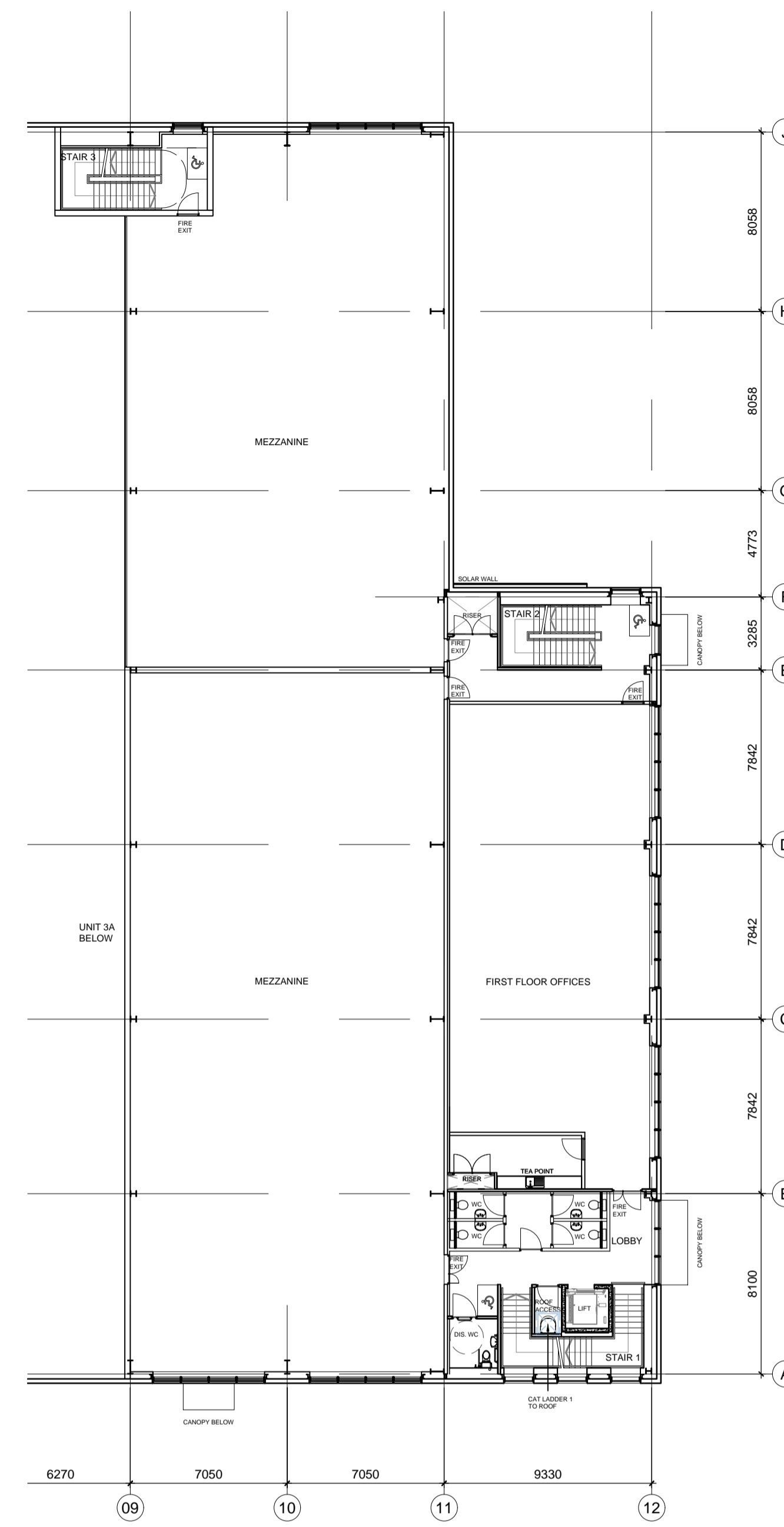
5.1. A summary of the technical note for the updated unit 3A proposals is as follows:

- The outline consent (ref: 19/00315/OUT) sets out the maximum trip generation for East Horndon Business Park, that all units must collectively adhere to (please refer to **Figure 3**).
- As all units have been subject to their own detailed applications, and subsequently received planning consent, the total trip generation was summarised in the final application to be submitted (for units 2, 3B, and 3C, ref: 23/00508/FUL) which demonstrated that the business park was forecast to operate well within the maximum trip generation (please refer to **Table 2**).
- A minor change is now proposed to unit 3A post planning permission resulting in a 774sqm (GIA) uplift in floor area. The knock on effect of this uplift increases the trip generation for unit 3A and therefore the whole business park by 10 two-way trips in the morning peak hour and 9 in the afternoon peak hour (please refer to **Table 6**).
- This is considered to be a negligible increase and the overall trip generation forecast for the business park is within the maximum trip generation set out in the original outline consent.
- The parking provision is to remain unchanged from the consented proposals. The 34 car parking spaces plus the additional 15 'overflow' car parking spaces in the service yard are expected to accommodate the updated trip generation.

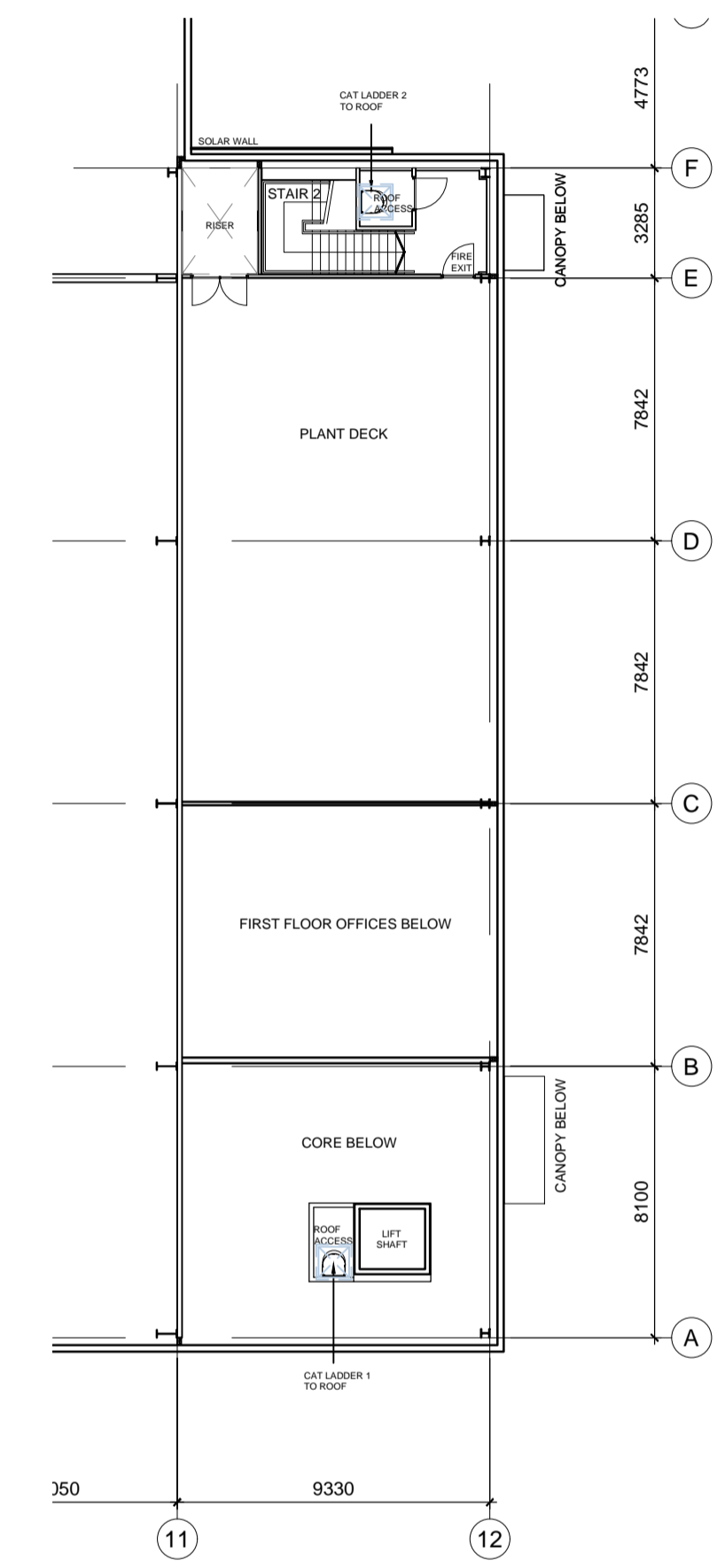
5.2. This technical note concludes that the updated proposals for unit 3A, including the uplift in floor area and resulting change in trip generation, is negligible and demonstrates that the principle of development, the trip generation, parking provision and highway impact of the proposals accord with the parameters set out and agreed for the wider Business Park as part of the outline planning consent (19/00315/OUT).



01
13 GROUND FLOOR PLAN
1:200

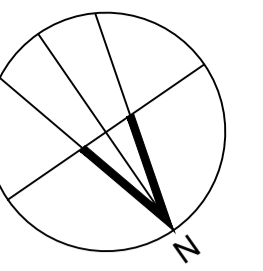


02
13 FIRST FLOOR PLAN
1:200




03
13 PLANT DECK PLAN
1:200

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REV	DATE	NOTE	DRAW	CHK
F	25/09/2023	Updated annotations	GZ	AC
E	22/09/2023	Updated as client comments	GZ	AC
D	22/09/2023	Updated as client comments	GZ	AC
C	21/09/2023	Windows and doors updated	GZ	AC
B	14/09/2023	First floor updated	GZ	AC
A	13/09/2023	Ground floor updated	GZ	AC
-	13/09/2023	First issue	GZ	AC



CHARTERED ARCHITECTS
 11 PLATO PLACE
 ST JIMENS ROAD
 LONDON SW6 4TU
 TELEPHONE 020 7736 6162
 www.msa-architects.co.uk



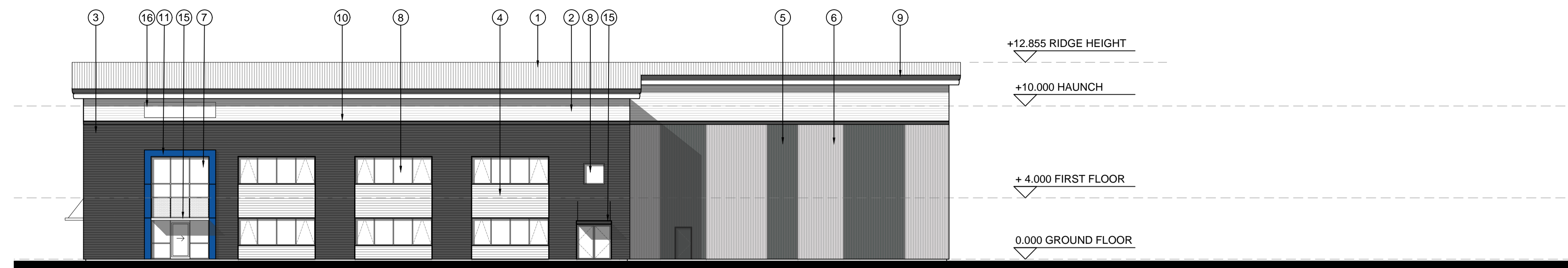
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EAST HORNDON BUSINESS PARK

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 UNIT 3A**

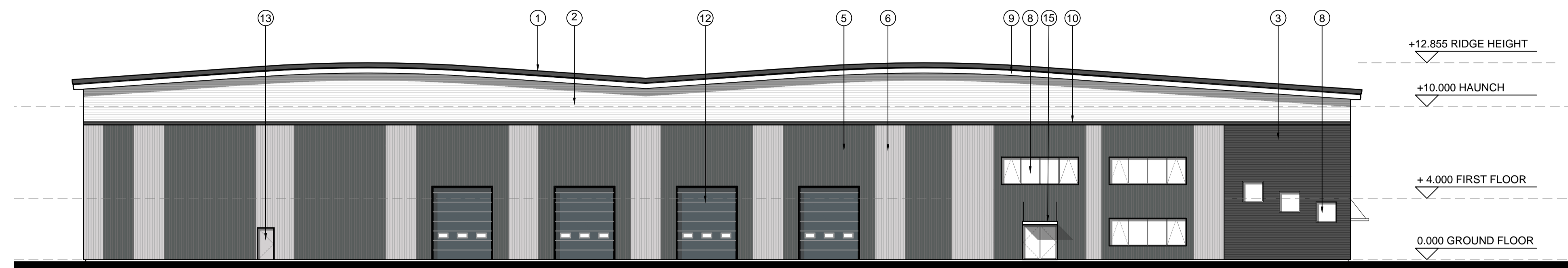
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DATE SEPTEMBER 2023	SCALE 1:200 @ A1	DRAWN GZ
STATUS FEASIBILITY		CHECKED AC

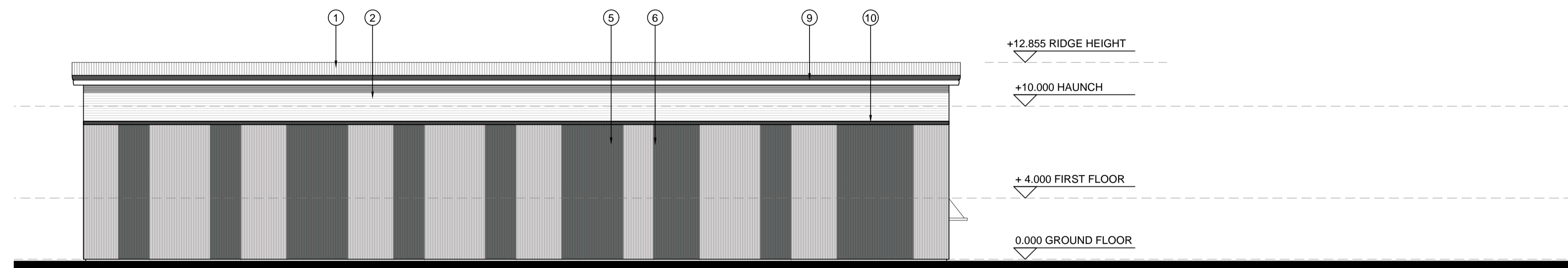
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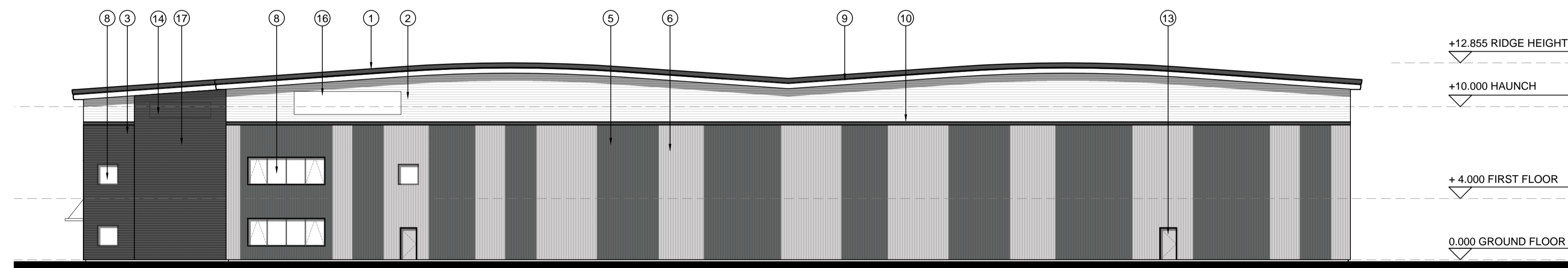
01 NORTH-WEST ELEVATION
14 1:200



02 NORTH-EAST ELEVATION
14 1:200

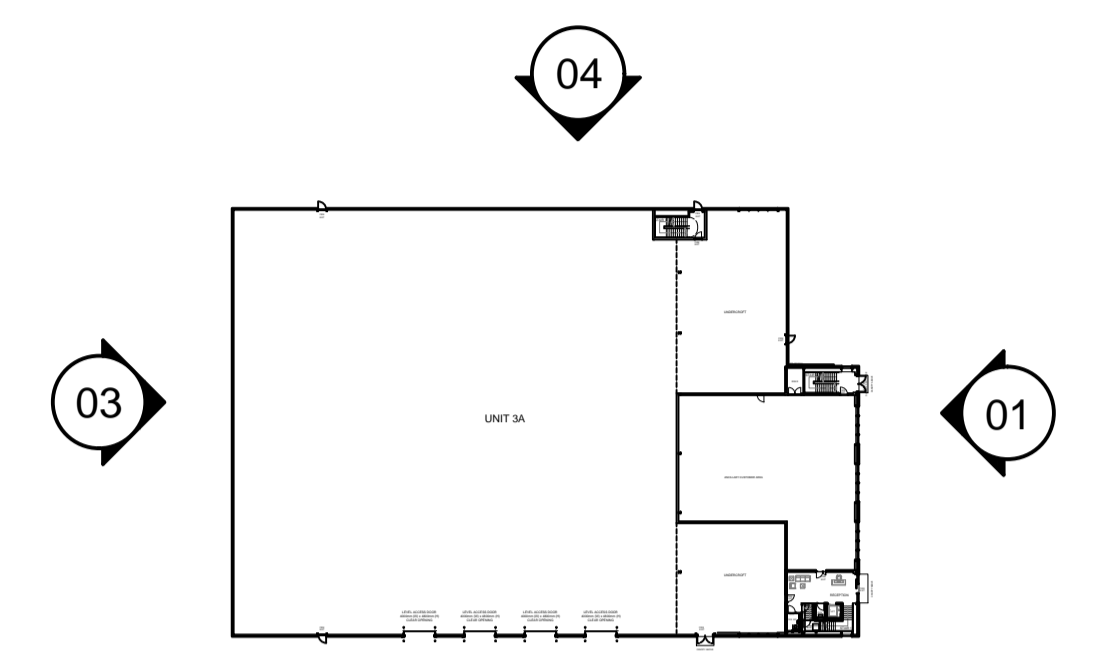
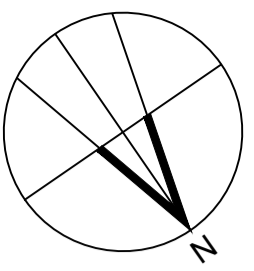


03 SOUTH-EAST ELEVATION
14 1:200



04 SOUTH-WEST ELEVATION
14 1:200

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05 KEY PLAN
14 NTS

REV	DATE	NOTE	DRAW	CHK
C	25/09/2023	Updated floor plan	GZ	AC
B	22/09/2023	Updated as client comments	GZ	AC
A	21/09/2023	Updated as client comments	GZ	AC
-	19/09/2023	First issue	GZ	AC



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FAX 020 7736 3896
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SCHEDULE OF EXTERNAL FACING MATERIALS	
1 ROOF	CA GROUP 'TWIN THERM CHRONUS ROOF SYSTEM' FINISH: TATA STEEL COLORCOAT HPS 200 ULTRA COLOUR: LIGHT GREY GOOSEWING GREY (RAL 7038)
2 WALL CLADDING 1	HORIZONTALLY LAID CA 32 1000W TRAPEZOIDAL PROFILED BUILT UP WALL CLADDING FINISH: TATA STEEL COLORCOAT HPS 200 ULTRA COLOUR: WHITE (RAL 9003)
3 WALL CLADDING 2 OFFICE	HORIZONTALLY LAID CA 300 MR FINISH: TATA STEEL COLORCOAT HPS 200 ULTRA COLOUR: DARK GREY ANTHRACITE GREY (RAL 7016)
4 WALL CLADDING 3 OFFICE	HORIZONTALLY LAID CA 300 MR FINISH: TATA STEEL COLORCOAT HPS 200 ULTRA COLOUR: WHITE (RAL 9003)
5 WALL CLADDING 4	VERTICALLY LAID CA 32 1000W TRAPEZOIDAL PROFILED BUILT UP WALL CLADDING FINISH: TATA STEEL COLORCOAT PRISMA COLOUR: MID GREY SLATE GREY (RAL 7012)
6 WALL CLADDING 5	VERTICALLY LAID CA 32 1000W TRAPEZOIDAL PROFILED BUILT UP WALL CLADDING FINISH: TATA STEEL COLORCOAT PRISMA COLOUR: SILVER METALLIC SIRIUS (RAL 9006)
7 CURTAIN WALL / ENTRANCE DOOR	THERMALLY BROKEN POLYESTER POWDER COATED ALUMINIUM CURTAIN WALLING SYSTEM - MULLION DRAINED SYSTEM COMPLETED WITH GLASS CANOPY ABOVE ENTRANCE DOOR GLAZING: GREY TINTED FRAME COLOUR: DARK GREY ANTHRACITE GREY (RAL 7016)
8 WINDOW / DOOR	THERMALLY BROKEN POLYESTER POWDER COATED ALUMINIUM WINDOW / DOOR SYSTEM COMPLETED WITH SPANDREL PANEL COLOR TO MATCH FRAME GLAZING: GREY TINTED FRAME COLOUR: ANTHRACITE GREY (RAL 7016)
9 EAVES / VERGE	TWO PIECE EAVES AND VERGE FLASHING FINISH: TATA COLORCOAT PRISMA COLOUR: DARK GREY ANTHRACITE GREY (RAL 7016) TOP PIECE, WHITE (RAL 9003) BOTTOM PIECE
10 FEATURE FEATURE FLASHING	FINISH: TATA COLORCOAT PRISMA COLOUR: DARK GREY ANTHRACITE GREY (RAL 7016)
11 OFFICE FEATURE FLASHING	FINISH: TATA COLORCOAT PRISMA COLOUR: BLUE
12 LEVEL ACCESS DOORS	FINISH: POLYESTER POWDER COATED COLOUR: MID GREY SLATE GREY (RAL 7012)
13 PERSONNEL DOORS	DOOR / FRAME TO MATCH ADJACENT CLADDING
14 LOUVRE	COLOUR: TO MATCH ADJACENT CLADDING
15 CANOPY	GLASS CANOPY
16 SIGNAGE	SIGNAGE ZONE
17 SOLAR WALL	SOLAR WALL SYSTEM COLOUR: DARK GREY ANTHRACITE GREY (RAL 7016)

TITLE
EAST HORNDON BUSINESS PARK
DRAWING
ELEVATIONS
UNIT 3A
CLIENT
GOODMAN

DATE	SCALE	DRAWN
SEPTEMBER 2023	1:200 @ A1	GZ
	STATUS	CHECKED
	TENDER	AC

DRAWING NUMBER
31795-FE-14C