

LIGHTING LAYOUT

Volvo Ireland — Universal Retail
Ground Floor Plan (Overall) — Sheet 1 of 2

LEGEND

COLOUR TEMPERATURE

4000K	Street, Selekt, handover bays, workshop
3000K	Living Room, consultation, plinths, offices

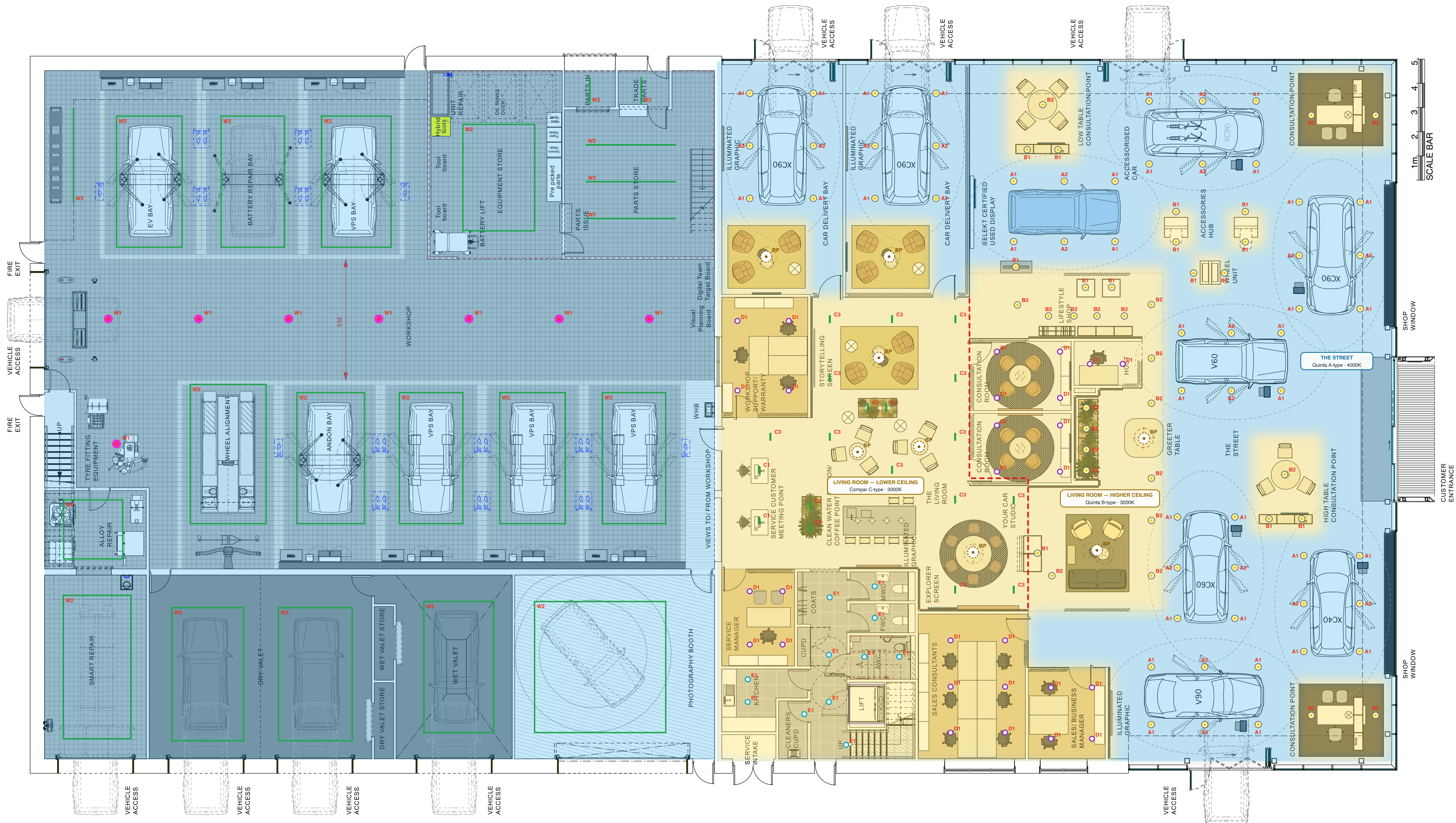
LUMINAIRES

A1	Quinta — spot 19°	4000K	36
A2	Quinta — flood 30°	4000K	18
B1	Quinta — spot 19°	3000K	14
B2	Quinta — flood 30°	3000K	23
C1	Compar cell — flood 30°	3000K	2
C2	Compar cell — oval 32°x84°	3000K	4
C3	Compar cell — oval 86°x53°	3000K	13
D1	IKU — wide flood 55°	3000K	28
E1	Skim — wide flood 69°	3000K	11
W1	Atrium pendant — 28°	4000K	8
W2	Jordan IP linear — grazer	4000K	21
BP	Bespoke pendant — by others	n/a	
---	Ceiling height change — Living Room		

Total luminaires

178

- ERCO luminaires Casambi BLE integral; workshop switched.
- Positions indicative — set out to architect's RCP.
- C-type cells shown run east-west on plan.
- Bespoke pendants supplied by others, not counted.
- Schedule & specifications: Sheet 2.
- Plan rotated — customer entrance to the right.



PROJECT
Volvo Ireland — Universal Retail

DRAWING
Lighting Layout — GF Plan (Overall)

BASE PLAN
0002-VCI UNIVERSAL GF Plan (Overall)

REVISION
Rev G — client review

DATE
12 October 2026

SCALE
Refer to scale bar on plan

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LUMINAIRE SCHEDULE & SPECIFICATION

Volvo Ireland — Universal Retail · Ground Floor Plan (Overall)

Sheet 2 of 2
Rev G · 12 October 2026

LUMINAIRE SPECIFICATION



Quinta directional downlight
A1 · A2 · B1 · B2

ERCO · recessed, adjustable
255 x 230mm · white
A: 30.5W 3882lm · 4000K
B: 30.3W 2884lm · 3000K
Ra 97+ · SDCM 1.5
Spot 19° / flood 30°
Casambi BLE integral
L90/B10 50,000h



Compar linear cell
C1 · C2 · C3

ERCO · recessed · black
210 x 62 x 100mm
12.1W 1163lm · 3000K
Ra 97+ · SDCM 1.5
Flood 30° · oval 32° x 84°
Oval wide flood 86° x 53°
Casambi BLE integral
L90/B10 50,000h



IKU downlight
D1

ERCO · recessed
113 x 101mm · white/silver
9W 1517lm · 3000K
Ra 92 · SDCM 1.5
Wide flood 55°
Casambi BLE integral
L90/B10 50,000h



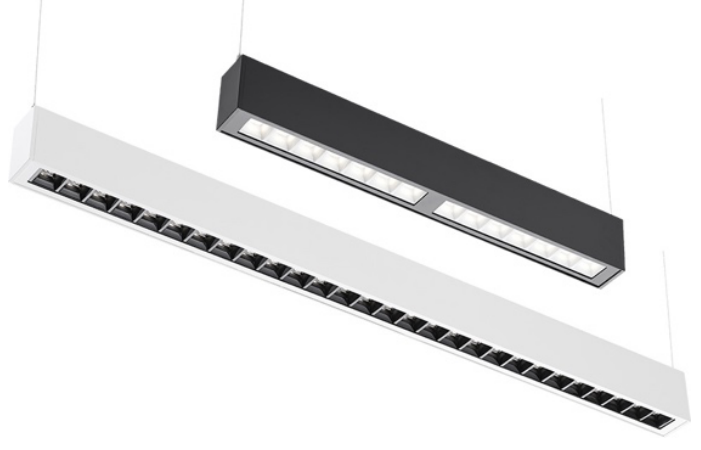
Skim downlight
E1

ERCO · recessed
118 x 75mm · white
12.4W 1338lm · 3000K
Ra 92 · SDCM 1.5
Wide flood 69°
Casambi BLE integral
L90/B10 50,000h



Atrium double-focus pendant
W1

ERCO · suspended
167 x 351mm
37.3W 4427lm · 4000K
Ra 92+ · SDCM 1.5
Flood 28°
Switched on/off
L90/B10 50,000h



Hi-LED IP linear
W2

Jordans by ERCO · suspended
IP40 minimum
150lm/W+ · 4000K
Ra 90+ · SDCM 1.5
Microprism grazer optic
Switched on/off
L90/B10 TBC

L90/B10 per ERCO published data for its high-power LEDs (up to 50,000h); tender spec minimum L90/B10 50,000h, failure rate 0.1%, W2 lifetime data TBC from Jordan.

LUMINAIRE SCHEDULE

Ref	Luminaire type	Manufacturer	LED spec	Output (LMF)	Dimensions	Location	Beam	Control	CCT	CRI	Finish	Qty
A1	Directional Downlight – Quinta	ERCO	30.5W 3882lm	2698lm – 79lm/W	255 x 230mm	Street – vehicles	Spot 19°	Casambi BLE integral	4000K	97+	White	36
A2	Directional Downlight – Quinta	ERCO	30.5W 3882lm	2675lm – 79lm/W	255 x 230mm	Street – vehicles	Flood 30°	Casambi BLE integral	4000K	97+	White	18
B1	Directional Downlight – Quinta	ERCO	30.3W 2884lm	2004lm – 59lm/W	255 x 230mm	Merchandise plinths / benches / lifestyle shop	Spot 19°	Casambi BLE integral	3000K	97+	White	14
B2	Directional Downlight – Quinta	ERCO	30.3W 2884lm	1987lm – 58lm/W	255 x 230mm	Consultation points / Living Room higher ceiling	Flood 30°	Casambi BLE integral	3000K	97+	White	23
C1	Compar Linear Cell	ERCO	12.1W 1163lm	1013lm – 70lm/W	210 x 62 x 100mm	Service customer meeting points	Flood 30°	Casambi BLE integral	3000K	97+	Black	2
C2	Compar Linear Cell	ERCO	12.1W 1163lm	854lm – 59lm/W	210 x 62 x 100mm	Living Room planters	Oval flood 32° x 84°	Casambi BLE integral	3000K	97+	Black	4
C3	Compar Linear Cell	ERCO	12.1W 1163lm	879lm – 61lm/W	210 x 62 x 100mm	Living Room lower ceiling – ambient	Oval wide flood 86° x 53°	Casambi BLE integral	3000K	97+	Black	13
D1	IKU	ERCO	9W 1517lm	1133lm – 107lm/W	113 x 101mm	Offices / consultation rooms / host	Wide flood 55°	Casambi BLE integral	3000K	92	White/Silver	28
E1	Skim	ERCO	12.4W 1338lm	1172lm – 76lm/W	118 x 75mm	Bathrooms / kitchens	Wide flood 69°	Casambi BLE integral	3000K	92	White	11
W1	Atrium Double Focus Pendant	ERCO	37.3W 4427lm	3117lm – 71lm/W	167 x 351mm	Service area	Flood 28°	Switch on/off	4000K	92+	TBC	8
W2	Hi-LED IP Linear	Jordans by ERCO	TBC	TBC – 150lm/W+	TBC	Service bays / stores / alloy wheel area	Microprism – grazer	Switch on/off	4000K	90+	TBC	21
Total luminaires												178

NOTES

- Luminaire references, types and layout principles carried over from the ArcSolas X ERCO Lighting Tender Spec Doc — Volvo Ireland 2026 Rev1.
- Lighting targets: Street vehicle accent 1200–1500 lux, general 150–300 lux; Living Room desks 500 lux, seating 200 lux, ambient 150 lux;
- offices 300–500 lux at desk, UGR < 19; workshop bays approx. 2000 lux.
- Front-of-house luminaires Ra 97 with TM30-15 reports, SDCM ≤ 1.5; back-of-house Ra 90+ minimum. All ERCO luminaires Casambi BLE integral.
- Greeter table, Living Room seating areas and car handover lounges receive bespoke pendants supplied by others — not included in quantities.
- Red dashed line marks the Living Room ceiling height change: lower ceiling lit with Compar C-type, higher ceiling with Quinta B-type, both 3000K to blend.
- Consultation points, merchandise plinths and handover seating are 3000K zones within the 4000K showroom; zone edges are feathered for illustration.
- Luminaire positions are indicative only and are to be set out to the architect's reflected ceiling plan. Quantities to be verified against the final RCP.
- Scene control via Casambi SW1 scene plates throughout (quantity and locations to be confirmed).

PROJECT
Volvo Ireland — Universal Retail Showroom

DRAWING
Luminaire Schedule & Specification

BASE PLAN
0002-VCI UNIVERSAL Ground Floor Plan (Overall)

REVISION
Rev G — Issued for client review

SHEET
2 of 2

DATE
12 October 2026

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EMERGENCY LIGHTING

Volvo Ireland — Universal Retail
Ground Floor Plan (Overall) - Sheet 1 of 2

LEGEND

EMERGENCY LUMINAIRES (3 hr non-maintained)

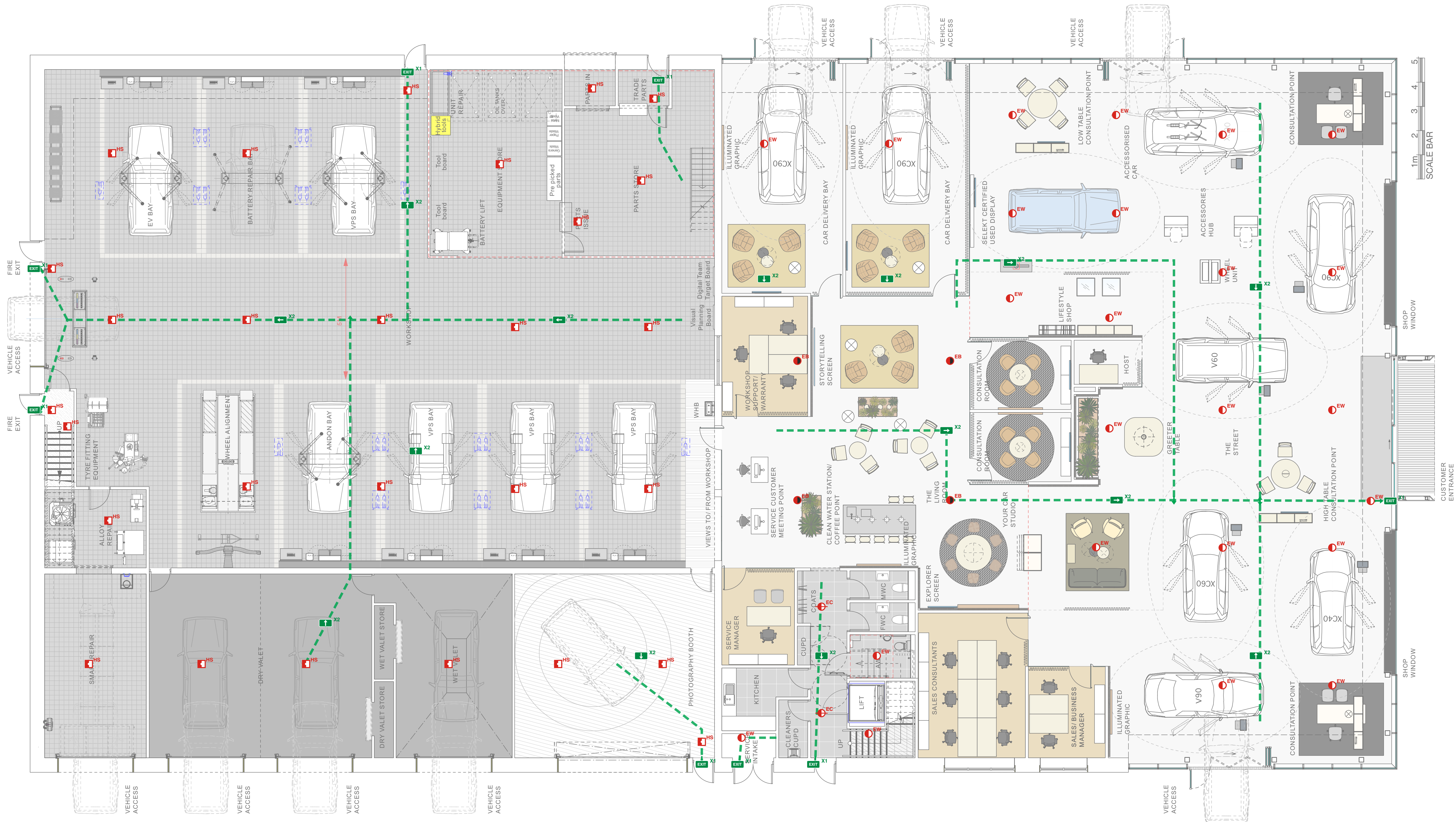
- | | | |
|---|--|----|
|  | EW EM downlight — wide beam, white
LDCK330/40/WW · Open areas / escape routes / exits | 24 |
|  | EB EM downlight — wide beam, black
LDCK330/40/WB · Living Room lower ceiling | 4 |
|  | EC EM downlight — corridor beam, white
LDCK330/40/CW · Back-of-house corridor | 2 |
|  | HS Halo surface square — open area, white
CSW11/DA/OA · Workshop / valet / stores, suspended ~4m | 28 |

EXIT SIGNS (Liteplan CE1S - DALI-2)

- | | | |
|---|--|----|
|  | X1 Exit sign — final exit, arrow up
CE1S/DA/AU · Over final exit doors | 8 |
|  | X2 Exit sign — directional, double sided
CE1S/DA/ALAR · Ceiling mounted on escape routes | 14 |
|  | Escape route (indicative) | |

Emergency luminaires	58
Exit signs	22

- Design to I.S. 3217:2023 / I.S. EN 1838 — see Sheet 2.
- Escape routes ≥ 1 lux; open areas ≥ 0.5 lux (anti-panic).
- 3 hr duration; EM downlights non-maintained.
- Assumed mounting heights — see Sheet 2; verify.
- X1 above final exit doors; X2 ceiling mounted.
- Positions indicative — set out to architect's RCP.
- Escape strategy to be confirmed by fire engineer.
- Plan rotated — customer entrance to the right.



PROJECT
Volvo Ireland — Universal Retail

DRAWING
Emergency Lighting — GF Plan (Overall)

BASE PLAN
0002-VCI UNIVERSAL GF Plan (Overall)

REVISION
Rev B — client review

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SCALE
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EMERGENCY LIGHTING — SCHEDULE & DESIGN BASIS

Volvo Ireland — Universal Retail · Ground Floor Plan (Overall)

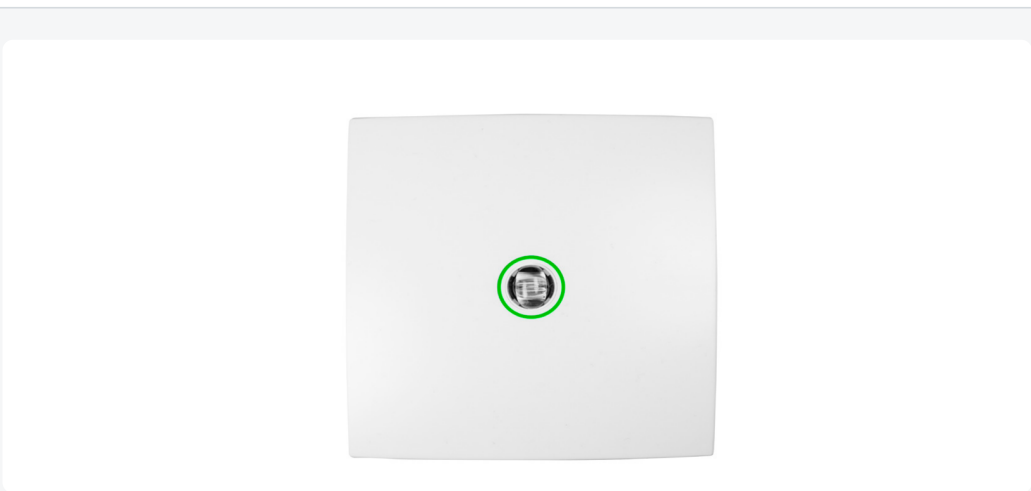
Sheet 2 of 2
Rev B · 12 October 2026

EMERGENCY LUMINAIRE SPECIFICATION



LDE3F + LDCK330/40 EM kit

- ELP — front of house (recessed)
- Miniature recessed downlight, 45mm cut-out
 - In-line EM driver kit through cut-out
 - Non-maintained · 3 hr · 150lm @ 350mA
 - 4500K LED · 2.4V 1.8Ah NiCd · 1.5W
 - IP42 (front) · Class II · Ta 0–40°C
 - Min. ceiling void 175mm
 - Optics: Wide 160° (W) · Corridor (C)
 - Body: white (WW/CW) or black (WB)



Halo Surface Square

- Liteplan — workshop (surface / suspended)
- Surface mount, besa box & fixing points
 - Non-maintained · 3 hr · DALI-2 self-test
 - 268 delivered lm (OA) @ 700mA · 5700K
 - 135° open area lens (corridor option)
 - 3.2V 3.8Ah LiFePO4 · 1.7W charging
 - 155 × 155 × 58mm · 0.42kg · white
 - IP20 · max Ta 25°C
 - Order code CSW/1/DA/OA



CE1S surface exit sign

- Liteplan — all areas
- Double-sided LED sign, wall or ceiling
 - ISO 7010 legends · 25m viewing distance
 - CE1S/DA: DALI-2 Type B self-test
 - Duration 3 hr · recharge 24 hr
 - 3.2V 3.8Ah LiFePO4 · charged 0.26W
 - 297 × 222 × 52mm · 0.82kg
 - IP40 (datasheet table)
 - Legends: AU (arrow up) · ALAR (L/R)

DESIGN BASIS & ASSUMPTIONS

STANDARDS	I.S. 3217:2023 · I.S. EN 1838 · I.S. EN 50172 · I.S. EN 60598-2-22 · ISO 7010 signage
ESCAPE ROUTES	≥ 1 lux on centre line (2m wide route), uniformity ≤ 40:1
OPEN AREAS > 60M²	≥ 0.5 lux anti-panic over core area, uniformity ≤ 40:1
POINTS OF EMPHASIS	Each exit door, change of direction, stairs, accessible WC, first-aid & fire points
DURATION	3 hours; non-maintained EM downlights, exit signs switchable maintained
ASSUMED HEIGHTS	Street & Living Room higher ceiling ~4m · Living Room lower ceiling ~3m · back-of-house ~2.7m · workshop Halo units suspended on conduit drops to ~4m AFFL — confirm
SPACING USED	LDE3F W @ 3–4m: open area ≤ 7.0m (datasheet 7.9–9.0m) · C @ 3m: escape 13.1m · Halo OA @ 4m: ≤ 8m between / ≤ 4m to wall (datasheet 16.2m / 6.6m) — allows for vehicle shadowing
TESTING	Halo & exit signs DALI-2 self-test; LDE3F — test facility per circuit (confirm option with ELP)
VERIFICATION	Spacings from ELP datasheet table; final layout to be verified by point-by-point calculation using ELP .LDT files and agreed with the project fire engineer / fire officer

EMERGENCY LIGHTING SCHEDULE

Ref	Order code	Description	Manufacturer	Mounting	Mode / duration	Battery	Output / legend	Location	Qty
EW	LDCK330/40/WW	LDE3F wide-beam EM downlight, white	ELP	Recessed, 45mm cut-out	Non-maintained · 3 hr	2.4V 1.8Ah NiCd	150lm · wide 160°	Open areas, exits, Street, stores	24
EB	LDCK330/40/WB	LDE3F wide-beam EM downlight, black	ELP	Recessed, 45mm cut-out	Non-maintained · 3 hr	2.4V 1.8Ah NiCd	150lm · wide 160°	Living Room lower ceiling (black slatted ceiling)	4
EC	LDCK330/40/CW	LDE3F corridor-beam EM downlight, white	ELP	Recessed, 45mm cut-out	Non-maintained · 3 hr	2.4V 1.8Ah NiCd	150lm · corridor optic	Back-of-house corridor	2
HS	CSW/1/DA/OA	Halo Surface Square EM, open area, white	Liteplan	Surface, besa box; conduit drop ~4m	NM · DALI-2 self-test · 3 hr	3.2V 3.8Ah LiFePO4	268lm · 135° open area	Workshop, valet, photography, parts & equipment stores, workshop exits	28
X1	CE1S/DA/AU	Exit sign, arrow up legend	Liteplan	Wall, above final exit door	DALI-2 self-test · 3 hr	3.2V 3.8Ah LiFePO4	ISO 7010 · arrow up	All final exit doors	8
X2	CE1S/DA/ALAR	Exit sign, directional, double sided	Liteplan	Ceiling, on escape route	DALI-2 self-test · 3 hr	3.2V 3.8Ah LiFePO4	ISO 7010 · arrow L/R	Changes of direction on escape routes	14
Total · 58 emergency luminaires + 22 exit signs									80

SPACING REFERENCE — MANUFACTURER DATASHEETS (metres)

ELP LDE3F @ 350mA — spacing between fittings

Hm	W open 0.5 lx	W escape 1 lx	C open 0.5 lx	C escape 1 lx
2.0	10.0	8.9	n/a	11.9
2.5	9.6	8.2	n/a	12.9
3.0	9.0	7.5	n/a	13.1
3.5	8.5	6.8	n/a	13.4
4.0	7.9	4.8	n/a	13.5
6.0	6.4	4.5	n/a	12.2

Liteplan Halo — open area lens

Hm	Wall 0.5 lx	Wall 1 lx	Between 0.5	Between 1
2.5	5.4	4.5	12.6	10.7
3.0	5.9	4.7	14.0	11.7
4.0	6.6	—	16.2	13.2
5.0	0.3*	—	17.8	0.7*
6.0	—	—	19.0	—

Highlighted = design basis used on Sheet 1 (with margin). * 5m values as printed on Liteplan datasheet — appear erroneous, query with Liteplan.

POINTS OF EMPHASIS, TESTING & COORDINATION

Final exits (X1 + EM within 2m)

Workshop north x2 · workshop east · trade parts · photography booth · service intake · staff stair · customer entrance

Stairs, lift & AWC

Staff stair, lift lobby, accessible WC · workshop stair to mezzanine (upper floors to follow)

Changes of direction

X2 directional signs on Living Room, Street, back-of-house, workshop and valet routes

Vehicle areas

Car handover & valet bays lit; roller doors are not escape exits

Workshop fittings

Halo IP20 — wet valet / wash areas need an IP65 alternative; check max Ta 25°C at high level

Fire / first-aid points

Call points, extinguishers & first-aid locations to be confirmed — EM within 2m of each

Small rooms

Offices / consultation rooms < 60m² off the escape route excluded — confirm by risk assessment

Testing & records

Monthly function test, annual full-duration test, logbook per I.S. 3217; signs DALI-2 self-test

Coordination

EM downlights set out in ceiling clear of architectural luminaires; final positions to RCP

PROJECT
Volvo Ireland — Universal Retail Showroom

DRAWING
Emergency Lighting — Schedule & Design Basis

BASE PLAN
0002-VCI UNIVERSAL Ground Floor Plan (Overall)

REVISION
Rev B — Issued for client review

SHEET
2 of 2

DATE
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LIGHTING LAYOUT

Volvo Ireland — Universal Retail
First Floor Plan (Overall) - Sheet 1 of 2

LEGEND

COLOUR TEMPERATURE / SCOPE

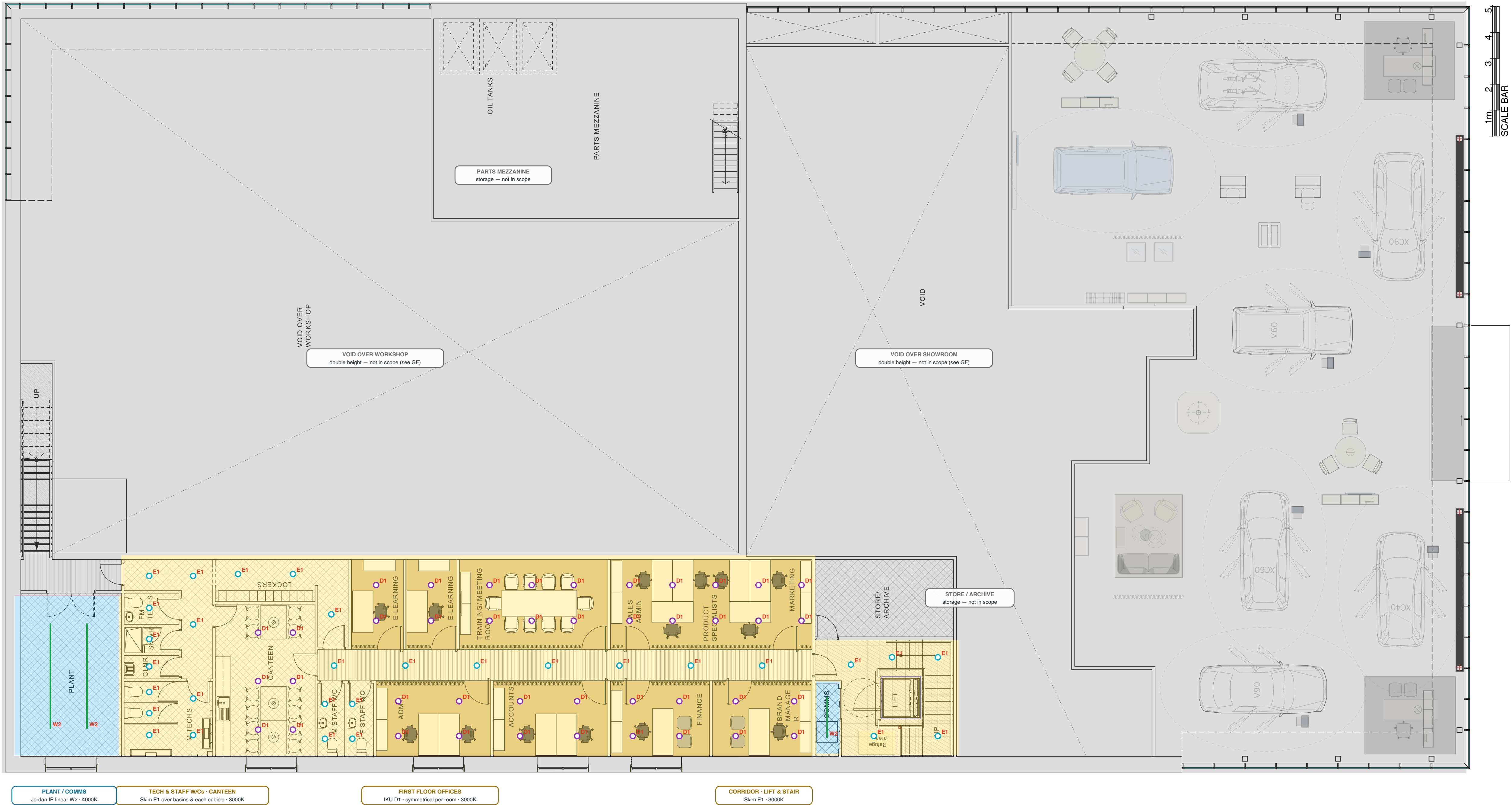
3000K	Offices, W/Cs, canteen, circulation
4000K	Plant & comms
Not in scope	Voids (double height), parts mezz, store

LUMINAIRES

D1	IKU — wide flood 55°	3000K	42
E1	Skim — wide flood 69°	3000K	30
W2	Jordan IP linear	4000K	3

Total luminaires

- 75
- References & styles as GF lighting layout (Rev G).
 - ERCO luminaires Casambi BLE integral: W2 switched.
 - Offices: IKU set out symmetrically within each room.
 - W/Cs: Skim over basins (centralised) + each cubicle.
 - Positions indicative — set out to architect's RCP.
 - Plan rotated to match GF — front of building to the right.



PROJECT
Volvo Ireland — Universal Retail

DRAWING
Lighting Layout — FF Plan (Overall)

BASE PLAN
0006-VCI UNIVERSAL FF Plan (Overall)

REVISION
Rev B — client review

DATE
13 October 2026

SCALE
Refer to scale bar on plan

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LUMINAIRE SCHEDULE & SPECIFICATION

Volvo Ireland — Universal Retail · First Floor Plan (Overall)

Sheet 2 of 2
Rev B · 13 October 2026

LUMINAIRE SPECIFICATION



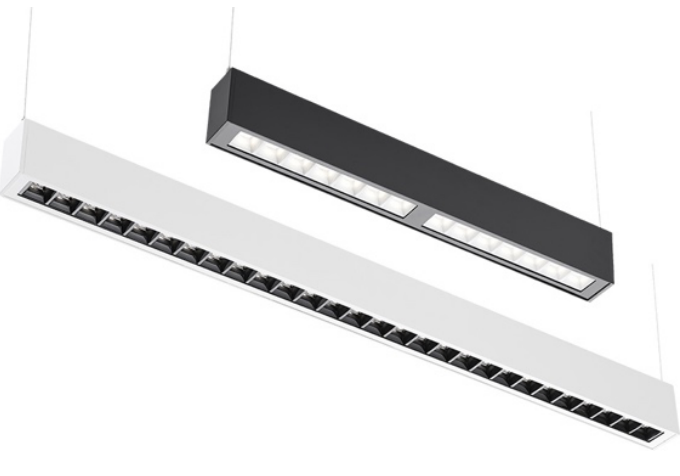
IKU downlight
D1

ERCO · recessed
113 x 101mm · white/silver
9W 1517lm · 3000K
Ra 92 · SDCM 1.5
Wide flood 55°
Casambi BLE integral
L90/B10 50,000h



Skim downlight
E1

ERCO · recessed
118 x 75mm · white
12.4W 1338lm · 3000K
Ra 92 · SDCM 1.5
Wide flood 69°
Casambi BLE integral
L90/B10 50,000h



Hi-LED IP linear
W2

Jordans by ERCO · surface / suspended
IP40 minimum
150lm/W+ · 4000K
Ra 90+ · SDCM 1.5
Microprism optic
Switched on/off
L90/B10 TBC

FIRST FLOOR — DESIGN PRINCIPLES

- Offices**

IKU D1 3000K set out symmetrically within each room — 2 x 2 in single offices, 2 per e-learning room, 2 x 3 in the training / meeting room, 2 x 5 through the sales admin / product specialists / marketing space.
- Canteen**

IKU D1 grid over the dining tables.
- W/Cs**

Skim E1 centred over basins / vanity, plus one in each WC cubicle, cleaner's store and shower — matching the GF staff W/C approach.
- Circulation**

Skim E1 along the corridor at approx. 2.8m centres, lockers lobby, lift lobby, refuge area and stair.
- Plant / comms**

Jordan IP linear (W2) 4000K, switched — as GF back-of-house.
- Out of scope**

Voids over workshop and showroom (double height — lit from GF), parts mezzanine, store / archive.
- Targets**

Offices 300–500 lux at desk, UGR < 19; W/Cs & circulation 100–200 lux; canteen 200 lux.

L90/B10 per ERCO published data for its high-power LEDs (up to 50,000h); tender spec minimum L90/B10 50,000h, failure rate 0.1%. W2 lifetime data TBC from Jordan.

LUMINAIRE SCHEDULE

Ref	Luminaire type	Manufacturer	LED spec	Output (LMF)	Dimensions	Location	Beam	Control	CCT	CRI	Finish	Qty
D1	IKU	ERCO	9W 1517lm	1133lm – 107lm/W	113 x 101mm	Offices / e-learning / training / canteen	Wide flood 55°	Casambi BLE integral	3000K	92	White/Silver	42
E1	Skim	ERCO	12.4W 1338lm	1172lm – 76lm/W	118 x 75mm	W/Cs / tech changing / corridor / lift & stair	Wide flood 69°	Casambi BLE integral	3000K	92	White	30
W2	Hi-LED IP Linear	Jordans by ERCO	TBC	TBC – 150lm/W+	TBC	Plant / comms	Microprism	Switch on/off	4000K	90+	TBC	3
Total luminaires												75

NOTES

- Luminaire references and layout principles match the Universal GF Lighting Layout Rev G and the ArcSolas X ERCO Lighting Tender Spec Doc — Volvo Ireland 2026 Rev2.
- Scope: first floor office / staff accommodation block only. Voids over workshop and showroom are double height and lit from the ground floor layout.
- Parts mezzanine and store / archive are storage areas — not in scope.
- Office lighting to achieve 300–500 lux at desk with UGR < 19; IKU D1 and Skim E1 are Ra 92, SDCM ≤ 1.5. All ERCO luminaires Casambi BLE integral.
- W/Cs, showers and tech changing: Skim E1 IP rating to be confirmed against bathroom zones; presence detection recommended via Casambi sensors.
- Emergency lighting to the first floor to follow the GF emergency strategy (separate layout).
- Luminaire positions are indicative only and are to be set out to the architect's reflected ceiling plan. Quantities to be verified against the final RCP.

PROJECT
Volvo Ireland — Universal Retail Showroom

DRAWING
Luminaire Schedule & Specification

BASE PLAN
0006-VCI UNIVERSAL First Floor Plan (Overall)

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SHEET
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EMERGENCY LIGHTING

Volvo Ireland — Universal Retail
First Floor Plan (Overall) · Sheet 1 of 2

LEGEND

EMERGENCY LUMINAIRES (3 hr non-maintained)

- EW

EM downlight — wide beam, white
LDCK330/40/WW · Rooms, lobbies, stairs, plant

18
- EC

EM downlight — corridor beam, white
LDCK330/40/CW · Main corridor

3

EXIT SIGNS (Liteplan CE1S · DALI-2)

- X1

Exit sign — final exit, arrow up
CE1S/DA/U · At stair doors (final exits on GF)

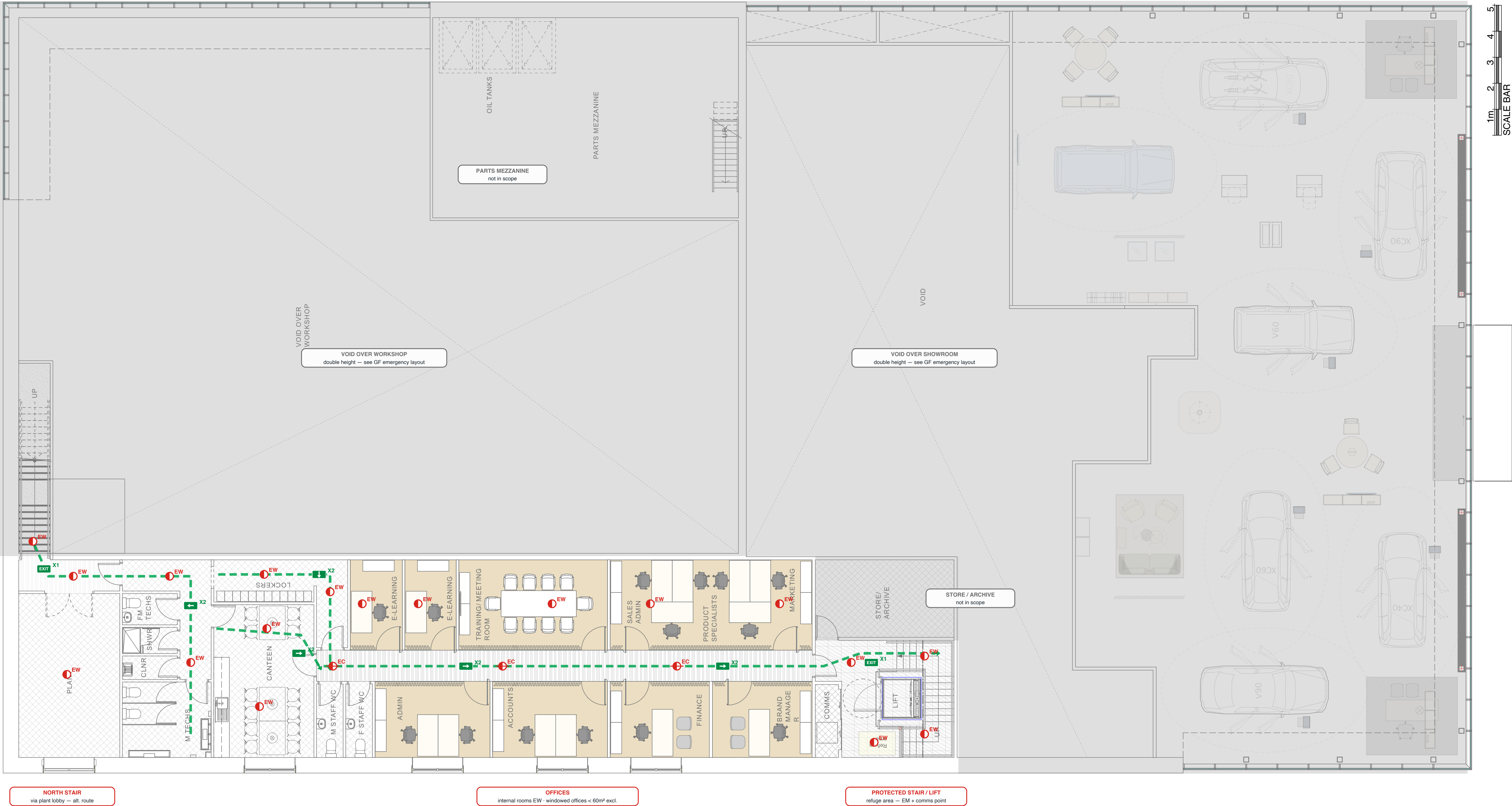
2
- X2

Exit sign — directional, double sided
CE1S/DA/ALAR · Ceiling mounted on escape routes

5
- Escape route (indicative)

Emergency luminaires 21
Exit signs 7

- Design to I.S. 3217:2023 / I.S. EN 1838 — see Sheet 2.
- Escape routes ≥1 lux; open areas ≥0.5 lux (anti-panic).
- 3 hr duration; EM downlights non-maintained.
- Assumed mounting heights — see Sheet 2; verify.
- X1 at stair doors; X2 ceiling mounted.
- Positions indicative — set out to architect's RCP.
- Escape strategy to be confirmed by fire engineer.
- Plan rotated to match GF — front of building to the right.



PROJECT
Volvo Ireland — Universal Retail

DRAWING
Emergency Lighting — FF Plan (Overall)

BASE PLAN
0006-VCI UNIVERSAL FF Plan (Overall)

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EMERGENCY LIGHTING — SCHEDULE & DESIGN BASIS

Volvo Ireland — Universal Retail · First Floor Plan (Overall)

Sheet 2 of 2
Rev A · 13 October 2026

EMERGENCY LUMINAIRE SPECIFICATION



LDE3F + LDCK330/40 EM kit

ELP — front of house (recessed)

- Miniature recessed downlight, 45mm cut-out
- In-line EM driver kit through cut-out
- Non-maintained · 3 hr · 150lm @ 350mA
- 4500K LED · 2.4V 1.8Ah NiCd · 1.5W
- IP42 (front) · Class II · Ta 0–40°C
- Min. ceiling void 175mm
- Optics: Wide 160° (W) · Corridor (C)
- Body: white (WW/CW) or black (WB)



CE1S surface exit sign

Liteplan — all areas

- Double-sided LED sign, wall or ceiling
- ISO 7010 legends · 25m viewing distance
- CE1S/DA: DALI-2 Type B self-test
- Duration 3 hr · recharge 24 hr
- 3.2V 3.8Ah LiFePO4 · charged 0.26W
- 297 × 222 × 52mm · 0.82kg
- IP40 (datasheet table)
- Legends: AU (arrow up) · ALAR (L/R)

DESIGN BASIS & ASSUMPTIONS

STANDARDS	I.S. 3217:2023 · I.S. EN 1838 · I.S. EN 50172 · I.S. EN 60598-2-22 · ISO 7010 signage
ESCAPE ROUTES	≥ 1 lux on centre line (2m wide route), uniformity ≤ 40:1
OPEN AREAS > 60M²	≥ 0.5 lux anti-panic over core area, uniformity ≤ 40:1
POINTS OF EMPHASIS	Each exit door, change of direction, stairs, accessible WC, first-aid & fire points
DURATION	3 hours; non-maintained EM downlights, exit signs switchable maintained
ASSUMED HEIGHTS	First floor offices, W/Cs, canteen & corridor ~2.7m ceiling — confirm against RCP
SPACING USED	LDE3F C @ 2.7m: corridor ≤ 6.6m (datasheet escape 1 lx ~12.5m) · LDE3F W @ 2.7m: rooms / lobbies ≤ 6m (datasheet escape 1 lx ~7.9m) — comfortable margin
TESTING	Exit signs DALI-2 self-test; LDE3F — test facility per circuit (confirm option with ELP)
VERIFICATION	Spacings from ELP datasheet table; final layout to be verified by point-by-point calculation using ELP .LDT files and agreed with the project fire engineer / fire officer

EMERGENCY LIGHTING SCHEDULE

Ref	Order code	Description	Manufacturer	Mounting	Mode / duration	Battery	Output / legend	Location	Qty
EW	LDCK330/40/WW	LDE3F wide-beam EM downlight, white	ELP	Recessed, 45mm cut-out	Non-maintained · 3 hr	2.4V 1.8Ah NiCd	150lm · wide 160°	Stairs, lift lobby, refuge, canteen, techs, plant, internal offices	18
EC	LDCK330/40/CW	LDE3F corridor-beam EM downlight, white	ELP	Recessed, 45mm cut-out	Non-maintained · 3 hr	2.4V 1.8Ah NiCd	150lm · corridor optic	Main first floor corridor	3
X1	CE1S/DA/AU	Exit sign, arrow up legend	Liteplan	Wall / ceiling, at stair door	DALI-2 self-test · 3 hr	3.2V 3.8Ah LiFePO4	ISO 7010 · arrow up	Protected stair core & north stair	2
X2	CE1S/DA/ALAR	Exit sign, directional, double sided	Liteplan	Ceiling, on escape route	DALI-2 self-test · 3 hr	3.2V 3.8Ah LiFePO4	ISO 7010 · arrow L/R	Corridor, canteen, techs & lockers lobbies	5
Total · 21 emergency luminaires + 7 exit signs									28

SPACING REFERENCE — MANUFACTURER DATASHEETS (metres)

ELP LDE3F @ 350mA — spacing between fittings

Hm	W open 0.5 lx	W escape 1 lx	C open 0.5 lx	C escape 1 lx
2.0	10.0	8.9	n/a	11.9
2.5	9.6	8.2	n/a	12.9
3.0	9.0	7.5	n/a	13.1
3.5	8.5	6.8	n/a	13.4
4.0	7.9	4.8	n/a	13.5
6.0	6.4	4.5	n/a	12.2

Highlighted = design basis used on Sheet 1 (2.7m ceiling, with margin).

POINTS OF EMPHASIS, TESTING & COORDINATION

Escape strategy
Primary: corridor south to protected stair / lift core · alternative: techs lobby north via plant lobby stair

Stairs, lift & refuge
Each stair flight & landing lit; refuge area with EM + emergency voice communication (by others)

Changes of direction
X2 signs at canteen, lockers lobby, techs lobby and along corridor; X1 at both stair doors

Plant / comms
Plant room EW; comms cupboard (< 1m deep) covered by lift lobby fitting — confirm

Inner rooms
E-learning, training & sales / marketing have no daylight — one EW each for safe exit

Small rooms
Windowed offices < 60m² and single W/Cs excluded — confirm by fire risk assessment

Fire / first-aid points
Call points, extinguishers & first-aid locations to be confirmed — EM within 2m of each

Testing & records
Monthly function test, annual full-duration test, logbook per I.S. 3217; signs DALI-2 self-test

Coordination
EM set out clear of IKU / Skim positions (FF lighting Rev B) — min. 0.6m; final positions to RCP

PROJECT
Volvo Ireland — Universal Retail Showroom

DRAWING
Emergency Lighting — Schedule & Design Basis

BASE PLAN
0006-VCI UNIVERSAL First Floor Plan (Overall)

REVISION
Rev A — Issued for client review

SHEET
2 of 2

DATE
13 October 2026

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EXTERIOR LIGHTING

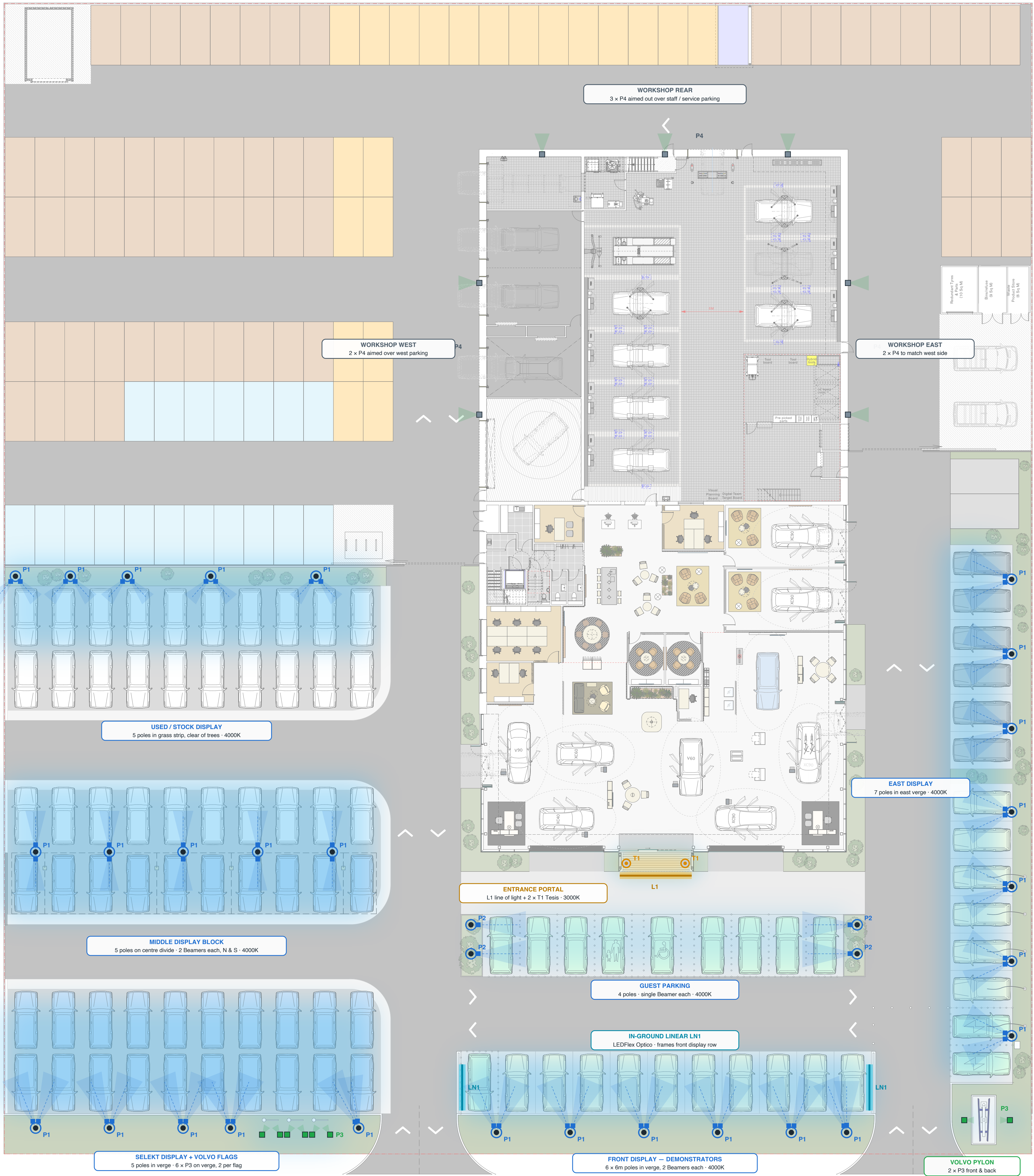
Volvo Ireland — Universal Retail
Universal Site Layout — Building & Car Displays · Sheet 1 of 2

LEGEND

EXTERIOR LUMINAIRES

	P1 ERCO Beamer on 6m pole — 2 heads per pole Front, Selekt, used, middle & east displays - 56 heads	28
	P2 ERCO Beamer on 6m pole — single head Guest parking - 4000K - 4 heads	4
	P3 ERCO Beamer — ground mounted uplight Volvo flags (2 per flag) & pylon (front/back)	8
	P4 ERCO Beamer — building mounted Workshop rear, west & east, aimed at parking	7
	T1 ERCO Tesis in-ground uplight — 3000K Inside entrance canopy, each side	2
	L1 Integrated line of light — entrance Frames entrance canopy - 3000K	5.8 m
	LN1 LEDFlex Optico in-ground linear Frames front display row - spec TBD	7.4 m
	Projector aiming / beam (indicative)	
	Not in scope (none on generic layout)	

- Pole Beamers aimed back at cars from the verge — no glare towards the road; shielding / snoots.
- Ground Beamers & Tesis IP67/68 — confirm drive-over rating; LEDFlex Optico specification TBD.
- Exterior on Casambi with astro timeclock: display, after-hours and night-off scenes.
- Façade glows from internal backlight (as Sligo F1).
- Positions indicative — co-ordinate with civils / ducts.



PROJECT
Volvo Ireland — Universal Retail

DRAWING
Exterior Lighting — Site Layout

BASE PLAN
0001-VCI UNIVERSAL Site Plan

REVISION
Rev B — client review

DATE
13 October 2026

SCALE
Refer to scale bar on plan

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EXTERIOR LIGHTING — SCHEDULE & SPECIFICATION

Volvo Ireland — Universal Retail · Site Layout

EXTERIOR LUMINAIRE SPECIFICATION



Beamer projector

- P1–P4 — ERCO, pole / ground / building mounted
- P1: 6m pole, 2 heads · P2: 6m pole, single head
 - P3: ground-mounted, front & back of flags / signs
 - 4000K · Ra 97 by special request
 - P4: building-mounted, aimed at rear parking
 - Spot / flood optics selected per aiming
 - Glare cowl / honeycomb · IP65 · graphite
 - Casambi BLE / DALI — dimmable



Tesis in-ground uplight

- T1 — ERCO, 3000K
- Recessed in-ground luminaire, stainless cover
 - IP68 · drive-over rating to confirm
 - 2 no. inside entrance canopy, one each side
 - Grazes the canopy upstands to frame the entrance
 - Oval flood / wallwash optic
 - Anti-glare louvre where walked over
 - Casambi BLE / DALI — dimmable

DESIGN INTENT

- APPROACH** Applies the Sligo exterior strategy to the Universal generic site layout.
- SHOWCASE** Display cars lit from 6m poles in the grass verges / planting strips (P1), aimed back at the cars so rows read against the glowing façade; guest parking by single-head poles (P2).
- ACCENTS** Pylon uplit front & back; flags by 2 cross-aimed Beamers each (P3) — all on grass.
LEDFlex Optico in-ground linears (LN1) frame the ends of the front display row.
- ENTRANCE** Line of light (L1) full canopy width + 2 × Tesis (T1) inside the frame — warm 3000K.
- REAR / SIDES** Building-mounted Beamers (P4) on workshop rear, west & east walls, aimed out over parking.
- MIDDLE BLOCK** Line of P1 poles on the centre divide, 2 heads each lighting both rows for blanket coverage.
- OBTRUSIVE LIGHT** Aim away from roads & boundaries, cowls / honeycombs; curfew scene after hours (ILP GN01).
- CONTROL** Casambi with astro timeclock: display / after-hours / night-off scenes, linked to façade.

EXTERIOR LUMINAIRE SCHEDULE

Ref	Luminaire type	Manufacturer	Mounting	Location	Optic	Control	CCT	CRI	Finish	Qty
P1	Beamer projector — 2 heads / pole	ERCO	6m pole in verge / planting	Front, Selekt, used, middle & east display rows	Spot / flood — TBC	Casambi / DALI	4000K	97*	Graphite	28 poles / 56 hds
P2	Beamer projector — single head	ERCO	6m pole in planting	Guest parking	Flood — TBC	Casambi / DALI	4000K	97*	Graphite	4 poles / 4 hds
P3	Beamer projector — ground mounted	ERCO	Ground spike, on grass	Volvo flags & pylon — front & back	Narrow spot — TBC	Casambi / DALI	4000K	97*	Graphite	8
P4	Beamer projector — building mounted	ERCO	Wall bracket, workshop	Rear, west & east parking	Flood — TBC	Casambi / DALI	4000K	97*	Graphite	7
T1	Tesis in-ground uplight	ERCO	Recessed in ground	Inside entrance canopy, each side	Oval flood / wallwash	Casambi / DALI	3000K	97*	Stainless	2
L1	Integrated line of light	TBC	Recessed in canopy upstands & soffit	Customer entrance canopy (per previz)	Asymmetric / wallwash	Casambi / DALI	3000K	90+	Dark grey	5.8 m
LN1	Optico in-ground linear	LEDFlex	Recessed in paving	Ends of front display row	TBD	TBD	TBD	TBD	TBD	7.4 m

* Ra 97 by special request under standard ERCO article codes (as interior). Wattage / lumen packages and article numbers to be confirmed with ERCO after aiming study.

PROJECT
Volvo Ireland — Universal Retail

DRAWING
Exterior Lighting — Schedule & Specification

BASE PLAN
0001-VCI UNIVERSAL Site Plan

REVISION
Rev B — Issued for client review

SHEET
2 of 2

DATE
13 October 2026

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