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Volvo Retail Sustainable Experience  
(VRSE) Showroom Concept

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**Outline Specifications:**  
**New Build**  
Generic VRSE Concept  
UK Equivalent (VRSE) Specification

Version no.  
**18**

Document no.  
**4 of 5**

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Volvo Retail Sustainable Experience  
Showroom Concept

**VRSE Concept:  
UK Equivalent (VRSE) Outline Specification -  
for Greenfield NEWBUILD Developments**

Issue No. Eighteen  
Issue Date: : July 2022

**Version Control; Rev 18 summary;**

- Introduction of DC charging
- Modification for VRSE specification
- Optional standards highlighted – workshop ceilings and VPS floor up lighting for eg
- Sustainability considerations and accreditation – **annotated in blue**



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NB: All the supplier information and data Appendices can now be found in the Appendix listings on the resource website;

[https://www.experienceda.com/VCUK\\_VRSE\\_Specifications/index.html](https://www.experienceda.com/VCUK_VRSE_Specifications/index.html)



## 1 General

This outline specification is intended to summarise the scope and materials of the Volvo VRSE Concept as value-engineered for UK market.

This specification refers Newbuild works on greenfield sites only.

This is neither a definitive nor a complete specification for the works, and remains subject to detailed design. However, design, materials and workmanship must be in accordance to and comply with, the following:

- Volvo VRSE Sales and Aftersales Datasheets, which can be found at [https://www.experiencemeda.com/VCUK\\_VRSE\\_Specifications/index.html](https://www.experiencemeda.com/VCUK_VRSE_Specifications/index.html)
- Relevant British Building Standards Codes of Practice, Building Regulations and to the satisfaction of the Building Control Officer ('BCO')
- Local Authority planning conditions
- The published recommendations of the CIBSE and the IEE Regulations current at the time of construction
- This outline specification is to be read in conjunction with the Green Design Pack ('GDP') prepared by our partner 'Meda' as part of the 'RAG (Red, Amber and Green) Process'
- Please note that only the 'GDP' indicates an Approved Scheme as design intent
- The above is not to be deemed construction information
- Additional copies of this document should always be downloaded from [https://www.experiencemeda.com/VCUK\\_VRSE\\_Specifications/index.html](https://www.experiencemeda.com/VCUK_VRSE_Specifications/index.html) to ensure you have the current version.

### 1.1 Works Description

The proposed VRSE developments consist of Newbuild motor Retail facilities with associated 'Sales', 'Aftersales' and 'Back of House' (staff) accommodation with associated external works, consisting primarily of:

#### **Ground Floor – 'Sales' and 'Aftersales' *Front of House*:**

- 'The Street' - Car display, Handover Suites and Consultation areas
- 'The Living Room' – Lounge seating, Clean Water Station/ Coffee Point island unit, Host and Service Receptions, Lifestyle shop and Your Car Studio.
- "Aftersales Support" – Service support office, ASM, Viewing Window.
- 'Circulation' - Administration, Consultation, Management offices and Customer amenities.

#### **Ground Floor – 'Aftersales' and 'Administration' *Back of House* (defined as staff-only areas):**

- Workshop - including VPS, MOT, EV and battery bays, Tyre change and balance, Valet
- Workshop ancillary - including Tool Storage, Equipment Store, Battery lift and Unit Repair
- Parts Department – Parts store, Overnight drop, dispatch, pre-pick and waste
- Workshop amenities – Technicians lockers, Key safe, Canteen, staff amenities.



**First Floor “Mezzanine’ *Back of House*  
(defined as a staff-only area):**

- Staff lockers and Technician’s facilities, staff toilets and kitchen / canteen
- Sales and Administration offices, Meeting rooms, F&I offices
- Parts and Archive storage
- Comms and plant areas

The development site also consists of associated Volvo ‘Selekt’ used vehicle display, customer, staff, service and stock parking provision as well as signage and landscaping to prescribed areas.

1.2 Brand Guardian Monitoring

Volvo Car UK (‘VCUK’) are obliged to carry out regular inspections to ensure Retailer Developments are complying with the agreed VRSE scope and specification.

1.2.1 Feasibility RAG (*Feasibility Drawings and Design Pack preparation*):

VCUK will arrange a site feasibility process to assist the Operator in assessing the volume-based opportunity for the facility (‘Greenfield’ {‘Newbuild’}). The RAG Process follows a traffic light system of:

- **Red Stage** - an initial briefing meeting requiring existing CAD plans (Brownfield), site information, boundaries, easements and topography, etc.

The output is an initial schematic plan with photography, showing customer arrivals and orientations of the main external elevations, etc. with indicative £/m2 estimate of the construction cost.

- **Amber Stage** - an exchange of comments and proposals on Red scheme drawings and a follow up meeting to agree the preferred outcome.

The output is developed plans with internal layouts and elevations and internal fixture, furniture and aftersales layouts and notes comparing existing and proposed application of VRSE - along with the updated cost estimate and elements summary of your preferred solution.

- **Green Stage** - a final application of Amber comments in the concluding document.

The output is finalised plans with a visual forming the binding Green Design Pack (GDP).

*NB: Meda cannot issue CAD format design intent drawings from scanned information, unless the GDP is based on initial CAD plans provided by the Operator.*

VCUK operate an internal approval process submitting every VRSE proposal to the in house Network Operating Committee “NOC” – comments of the NOC must be incorporated before final NOC approval of the Green stage is confirmed. Only the NOC can authorise deviations after the Green stage.



### 1.2.2 Construction Stage Project Monitoring

Post the RAG Process' conclusion, VCUK will arrange for Meda to remain available to the Operators' team and assist in the application of the VRSE information in the design development stages.

This Brand Guardianship ('BG') role and the terms of reference will be as follows:

- **Design Stage**

The Volvo GDP and outline specification is 'design intent' and must be worked up into construction information in accordance with all VRSE guidance information. The Brand Guardian is to assist and ensure the design team has correctly interpreted this information and offered it in contract detail for approval.

- **Planning Stage**

The scheme design must be submitted to 'BG' for approval prior to submitting for Planning Application. Similarly, signage should be indicatively shown and is subject to separate Advertisement consent by the signage provider once the Architect has agreed a suitable scheme detail with them.

Planning must not be submitted without 'BG' Stage approval.

- **Design and Tender Stage**

The scheme design information and tender documentation should be submitted to 'BG' for approval prior to submitting to the market. Similarly, any prequalification of tenderers or suppliers or the ultimate tender list should be shared with the 'BG'.

The output at this stage should include in the minimum:

- comprehensive plans, sections and elevations
- internal wall set out
- stairs, roof and external works
- finishes, plans and schedules
- NBS or site specific specification
- detail sections of external walls, entrances, windows, and offices.
- Garage Equipment supplier detailed design and equipment specification.
- Curtain Walling Designs.

It should also include M&E details and a lighting design proposal by one of the approved suppliers which should also include internal and external lux plots And ideally with a co-ordinated, reflected ceiling plan.  
See Suppliers Appendices for details.

A sample of a typical project Master Drawing Issue sheet is included in the Supplier Appendices and the 'BG' expectation is that these are the minimum details that should be presented for approval.



- **Construction Stage**

The subsequent Contract Information and Subcontract Design Development must be shared with the 'BG' and the first audit should be no later than 3 months after award, and then at such necessary intervals thereafter.

Regular reporting should be made to the 'BG' and include progress along with summaries of alternate materials, subcontract proposals and summaries of design revisions.

The 'BG' and a member of VCUK should be invited to attend progress meetings.

The output at this stage should include details of subcontractors and their scheme drawings, verification of mandated supplier orders, approval of any alternate material or proposal, and Progress reports.

- **PC and Handover Stage**

The scheme as-built details are to be submitted to 'BG' for the record and attendance at PC inspections should be requested with minimum of 15 days notice.

The output is as-built information, maintenance recommendations and invitation to induction and Operators' handover sessions.

- **Compliance**

The 'BG' will produce a drawings and comments tracker at each stage, with a compliance status which will log VCUK approvals and flag any non-compliant deviations.

If at any of the above stages non-compliant issues are not cleared by VCUK, **the project will be reported as 'at risk' to VCUK and thus will not meet the brand standards** for the VRSE Sales, Aftersales and Back of House Corporate Identity.

- **Summary**

The 'BG' scope is intended to assist the Operators' team and mitigate on costly, late changes to align construction works with the specification retrospectively.

The BG has no contractual authority and can only advise the Operators' team on design deviation, acceptable alternate materials or VRSE compliance issues.

It should be noted however, that if this process is not fulfilled then the value of the BG support can't be ensured. Moreover, if Operators' choice of programme or process becomes protracted in any stage – for re-design or alternate procurement options for example, then additional time and meetings requiring BG support will be recorded and passed to the Operator as additional cost to VCUK requiring reimbursement.



### 1.3 Design Development

Irrespective of the process set out above, it remains wholly incumbent on the Operators' team to produce a site specific design and floor area solution, based entirely on the 'GDP' design intent produced.

The Operators' 'GDP' constitutes the NOC Approved scheme. Operators' design development must comply with it and the plan, adjacencies, finishes and fixtures associated with this scheme throughout the entire process as stipulated by the 'BG' process - all of which are subject to VCUK NOC approval at each stage.

If changes or amendments become required during the process, the 'BG' meetings provide the opportunity for these to be presented for review and consideration.

In the absence of these approvals, the project will be deemed 'progressing at risk' and the retrospective reinstatement of compliant material or detail will be entirely at the Operators' risk.



## 2 Building Works

This Outline Specification generally refers 'Greenfield' ('Newbuild') developments.

The Outline Specifications set out here are distinguished between:

- Sales areas - all public spaces and those used and in view of customers
- Aftersales area - including the Workshops that are visible to customers
- Back of House areas - all other staff-only offices and facilities.

The VRSE requirement should be demonstrated by the preparation of a specialist "embodied carbon calculation" at the conclusion of the design development stage to be submitted for NOC comment.

This assessment is to be underpinned with a suitable sustainability calculator (if not prescribed as Planning condition) which may include:

- BREEAM – Design stage pre-assessment
- LEED accreditation

### 2.1 Sub-structure and Ground Floor Slab

Site obstructions to be removed completely and site to be excavated to reduced levels to suit new construction with all contaminated materials in arisings removed from site in accordance with related regulations.

Foundations to the frame will be designed by the Structural Engineer to suit the ground conditions. This is assumed to be pad and beam substructure to average 1,500mm deep. Driven piling or vibro compaction to secure ground stabilization if required, is to be logged as a site abnormal cost.

The ground floor will comprise a reinforced concrete ground bearing slab with sub-base, all designed to the Structural Engineer's specification.

Suitable entries for utilities will be accommodated in the foundations and ground slab in accordance with the supply utilities and drainage requirements.

Similarly, all services below slab in suitable ducting including for floorbox locations. Floor slab design to account for workshop equipment ducts, recesses and in ground ramps (by Volvo specialist) to manufacturers' recommendations.

The substructure design should endeavour to maximise Sustainability criteria with suitable insulation layers etc

*See BWIC Section 5.6 and 5.7*

*Engineers' design and calculations to be submitted for approval*

### 2.2 Structural Frame

The superstructure frame will be designed by the Structural Engineer to suit the loadings required. This is assumed to be structural steel frame including glazing



support rails, secondary trimming steel to openings and all necessary connections.

The superstructure frame at the main curtain wall glazing should comprise only one horizontal midrail with underside at 2,400mm high. It should also allow for head restraint at the top of the glazing endeavouring to keep the bulkhead recess free of structure and open for unrestricted access to the head of the glazing for cleaning, vinyl film installation and repairs – recess min 1,000mm wide to back of mullions.

The steel frame will be fire protected - all internal, exposed steel finished to RAL 9003 Signal or Brilliant White or equivalent PPC reference.

## 2.3 Upper Floors

Mezzanine floor levels will be 'metaldeck' formed, in-situ reinforced concrete with its own subframe (on footings through the ground floor slab).

Mezzanine may need to be a suspended or cantilevered structure to avoid any columns impacting The Street or Living Room spaces – Living room to be an open plan space free of columns.

*Engineers' design and calculations to be submitted for approval*

## 2.4 Roof

The roof will comprise a proprietary composite insulated system - 'Kingspan KS1000 DR LPC EcoSafe' roof cladding panels or similar.

**or**

Euroclad built-up roofing system, laid in accordance with manufacturer's recommendations.

*The roof design should include due consideration for PV panel load and fixings plus access for maintenance where applicable – see Section 3.2.10*

Rainwater system will comprise integral gutters set within parapets to conceal the roof pitch from view. Gutter overflow "tell-tale" outlets are not permitted in render areas.

Downpipes to be concealed in web of primary steels where possible.

*The rainwater design should include due consideration for a Rainwater harvesting system – including flow volume calculations and drainage design where applicable – see Section 4.2*

## 2.5 Stairs

*Front of House Sales and Aftersales*

Precast (or reinforced) concrete stairs suitably lined (or polished, off shutter finish) concrete.



Open stringers to be finished with framed glazed balustrading with stainless steel posts and handrails - rails to continue on stairwell walls.

Closed stringers to be finished with stainless-steel handrails (min. 50mm dia) to Brand Guardian approval.

Treads to be matching grey ceramic floor tile (FC1) or husk carpet tile (FP1), proprietary nosings and white painted MDF skirtings (VS1).

*Back of House (or secondary escape)*

Precast (or reinforced) concrete stairs or galvanised structural steel stairs.

Parts store stairs - Open risers, tread in chequer plate (FP2) non-slip steel, primed and gloss painted finish; Dark grey Ral 7037.

BOH Accommodation stairs – Closed risers, tread in heavy duty carpet (FD3); Anthracite finish; frame and stringers gloss painted finish; Dark grey Ral 7037.

Proprietary steel balustrading with painted steel posts and handrails - rails to continue on stairwell walls.

## 2.6 External Envelope

The typical façade will comprise of 1,200mm wide module, vertical full height double glazed curtain wall / cladding.

The curtain wall design should endeavour to maximise Sustainability criteria with suitable insulation, U value and solar properties etc. However, glazing G rating should not exceed 0.4 to maintain a reasonably clear glass colour.  
(Solar gain calculations should include the Contravision film that will be applied to the inside face – see Section 5.23)

Similarly, the curtain wall design should include due consideration for PV glazing technology where applicable – see Section 3.2.10

### 2.6.1 Sales

Proprietary 'Technal MX Capped' (external caps to be RAL 9006 Silver, internal mullions to be RAL 9003 Signal or Brilliant White) or similar thermally insulated curtain walling system with 6-8mm 'Pilkington' clear glazed, toughened low E, Argon filled cavity glazing. Glazing module at external corners can exceed 1,200mm pane width (not exceeding 1,500mm) to achieve glass to glass external corner joints free of mullions.

Clear glazing to be filmed in proprietary dot matrix, translucent film on the interior pane (excluding shop windows) – vinyl film supplied and fitted (by Volvo specialist) in joint-less sheet widths.

*See BWIC in Section 5.23*

Structural mid rail support beam at 2,400mm high. Pressure capping to be PPC RAL 9006 Silver externally, internal frame PPC coated RAL 9003 Signal or Brilliant White.



Signage panels (by Volvo specialist) are to be fixed to rendered sections where possible. Where fixed within glazing systems, the Monolith signage panel should be fixed to the nearest mullions and transoms in consultation with the curtain wall supplier and blocked out internally with either infill spandrel panel or dry-lining to inner panes.

*See BWIC in Section 5.2*

External elevations on Sales elements may include intermediary white render zones between glazed and cladding sections.

These comprise a proprietary 'Sto-rend; Stolit K or StoSilco K' stippled in-situ acrylic/silicone based render system (or equivalent product) on proprietary backboard and mesh solution to 1.5mm aggregate texture. Minimum application maintaining a flush plane with adjacent cladding or glazing and with a minimum of joints possible finished in through-colour acrylic RAL 9003 Signal or Brilliant White or equivalent supplier reference.

See Green Design Pack elevations for approved extent of render / cladding.

#### **Shop Window**

Proprietary frameless, jointless, double glazed 12mm leaf clear glazed, toughened, low E, low iron, Argon filled cavity glazing in single pane (to nearest, full 1,200mm wide module of glazing over).

Size 6,000 x 2,400mm high overall (see internal lining in Section 2.8).

Pre-contract H&S plan to inform contractors of weight and lifting conditions

**or**

single-glazed, solid, jointless panes are acceptable if SBEM can accommodate heat losses.

#### **Showroom Entrance Portal**

Proprietary ACM laminate wood effect cladding with concealed integral flat roof and rain water drainage, recessed track lighting – supplied and installed by Volvo specialist and an Opening Hours sign in acrylic plaque to internal side wall (by Mersons).

*See BWIC in Section 5.22*

NB: Contractor to include external scraper mat "Emco Diplomat Model 510G' (FD2) aluminium frame with black rubber insert to external extent of entrance in recessed concrete plinth.

Mat-well edging in proprietary 'EMCO 500-13AL' recessed frame set in concrete.

#### **2.6.2 Aftersales**

Proprietary 'Kingspan Microrib MR1000' 1,000mm wide panel, insulated composite cladding system, vertically fixed on cladding rails, finished to RAL 9006 Silver.

External Aftersales cladding should match height of elevations to Sales and may require parapet for matching, straight eaves line.



Cladding to comprise formed corners, top hat junctions, proprietary flashings and no horizontal joints - options for Workshop glazing (or proprietary daylight panels) within cladding are discretionary.

All maintenance and cleaning to the façade will be achieved by high pressure water jet (as per manufacturer's recommendations).

## 2.7 External Windows and Doors

### 2.7.1 Sales

Vehicle entrance (Handover Suite) doors - 'Solarlux' folding stacking, top hung or sliding door in 1200mm leafs - with clear glazed sections, trimming steel or frames within reveals and bulkheads.

Pedestrian doors - Clear glazed manual doors and frame with ironmongery as required.

Entrance door - Proprietary 'Geze' or similar single or double glazed leafs of 12mm toughened glass, automatic opening sliding doors. Preferably lobbied entrance. Frame - feature frameless glazed or PPC proprietary door stiles and frames. Door position to be handed within the portal, keeping minimum 50% of the portal width as a fixed pane (free of sliding leafs) for Dealer Name sign.

Handover Suite vehicle doors in "Nassau" or similar Panorama fully glazed segmental shutter door, top hung and trimming steel or frames within reveals and bulkheads.

Frame colour - Stiles and frames to match External fascades PPC finishes of RAL 9006 Silver externally and RAL 9003 Signal or Brilliant White or equivalent supplier reference internally.

### 2.7.2 Aftersales

Workshop entrance doors (including MOT and Valet) - Min 3,500mm W x 3,000mm high opening, electrically operated 'Nassau' or equivalent fast-lift double skin steel roller or high lift shutter door. Door colour in matching RAL 9006 Silver or RAL 7037 Dark grey.

Workshop doors to include fast lift motor action adequately sized for frequency of operations – and include part opaque glazed sections, trimming steel and frame decorated RAL 7037 Dark grey.

Cut out 'IR' beams and override switch with barrel bolt manual locking. Induction loop operated both sides.

Pedestrian doors - Steel lined solid core door and frame with ironmongery as required. Wicket doors are not permitted

Frame colour - Stiles and frames to match external fascades in PPC finish.



### 2.7.3 Ironmongery

All external doors to be masterkeyed, 5-lever secure mortice locking.

Fire exit doors also serving as Personnel doors to include external locking mortice and lever handle with internal thumb turn – and mounted overhead closer to avoid damage to adjacent cladding (subject to Building control approvals).

## 2.8 Internal Walls and Doors

### 2.8.1 Sales

'British Gypsum' plasterboard stud partition walls formed of 2 skins of 12.5mm board **OR** a single skin 15mm "Duraline" board, each side taped and jointed suitably for decoration.

All accommodation walls to include sound insulation. Meeting rooms and toilets in particular to have additional soundproof qualities including full height board to soffits and quilt insulated walls to 45dB rating.

#### **Shop Window**

Window liner to reveals, cill and soffit to frame window internally in satin-lacquered, natural "Ash" timber lining timber lining with formed corners and joints to encase all surrounding steel framing on all sides.

Ash to match the Senab furniture and timber ceiling finish. Adjacent panels to be book matched for continuity of grain across full length of lintel element

#### **Internal doors**

Timber solid core, laminated door in frame and architrave with concealed hinges and ironmongery as required. Doors with exposed HW lip and laminate semi-matt finished to RAL 9003 Signal or Brilliant White.

Frame and architrave colour - white gloss finished to RAL 9003 Signal or Brilliant White.

*NB: if regulations require colour contrast, frames can be off-white pending Brand Guardian approval.*

#### **Glazed doors**

Glazed doors (frameless V1) on recessed Floor spring closers with 'hold open' at 90deg. See Glazed Partitions section - 2.9

Glazed door in workshop viewing screen (framed GP1) by exception, can have rebated frame for sound attenuation – see 2.9.2



## 2.8.2 *Aftersales*

Timber solid core, laminated door and frame with concealed hinges and ironmongery as required. Door with exposed HW lip and laminate semi-matt finished to RAL 7037 Dark Grey.

Dispatch doors and Shutters - Parts drop and dispatch to be proprietary metal secure shutters, manually operated and fire linked where required. Ironmongery for secure locking and to facilitate out of hours' access.

## 2.8.3 *Ironmongery*

Proprietary 'Eisenware DLine' satin stainless-steel handles and ironmongery (DA1 - DA3) or equal approved.

Doors generally to have "DLine Funktion LH002" 135 x 19mm Dia Lever handle or "DLine Funktion PH029" 450 x 19mm Dia back to back fitted Pull handle or equal approved.

Independent mortice locking to Dealer security requirements.

Glazed Door to be pre drilled for matching ironmongery "DLine Funktion PH029" 450 x 19mm Dia back to back fitted Pull handle.

Glass to Glass proprietary Lever handle and mortice lock to Dealer security requirements.

All internal doors to have closers and stops etc. Workshop link doors to have kickplates. Doors in fire walls to have viewing panes.

Toilet doors to have hat and coat hook.

All door locks to be masterkeyed, mortice locking etc.

'DLine' floor mounted or wall mounted door stops, kick plates, hat and coat hooks, door closers - all in matching satin stainless steel.

Disabled toilet doors to have "Perco" soft close sprung hinge to keep door in closed position.

## 2.9 Glazed partitions

### 2.9.1 *Sales*

Proprietary 'Komfort' or equal approved equivalent glazed office partitioning system.

(V1) Consultation Offices and Sales rooms (Customer-facing) -

Proprietary 'Komfort Polar' or 'PolarTec' Frameless, low iron, single-glazed screen system and glass door with ironmongery as required.

Door - full height glazed.



Frame colour - Frameless. Concealed top and bottom (perimeter) glazing channels PPC white finish.

(V2) Offices (Non-customer-facing) -

Proprietary 'Komfort Polar' or 'PolarTec', low iron, glazed screen system and glass door in rebated aluminium frame with ironmongery as required.

Door - full height glazed or with matching fixed, glazed over-panel.

Frame colour – rebated PPC white finished to RAL 9003 Signal White.

(V3) Back of House offices (Non-customer-facing) -

Proprietary 'Komfort Polar' or 'PolarTec' low iron, glazed screen system in aluminium frame with solid door and ironmongery as required.

Door full height - HW exposed lip and laminate finished to RAL 9003 Signal or Brilliant White with rebated frame and ironmongery as required.

Frame colour – PPC white finished to RAL 9003 Signal White.

(GP2) Screen walls at Car Handover Suite

Proprietary 'Komfort PolarTec' or 'Polar Vision' frameless, highly transparent extra clear, low iron, glazed screen system, fixed vertically.

Laminated and toughened per installation requirements and include frameless glazed door with ironmongery.

All glazing to front of house offices to include full length curtain in lieu of manifestation (by Volvo Direct supplier) see Section 2.13

## 2.9.2 Aftersales

(V1) Service Support Offices (Customer-facing) -

Proprietary 'Komfort Polar' or 'PolarTec' frameless, optical white, low iron, single-glazed screen system and glass door with ironmongery as required.

Door - full height glazed.

Frame colour - Frameless. Concealed top and bottom glazing channels PPC white finish.

(GP1) Screen walls between Showroom and Aftersales. ("Viewing window")

Proprietary 'Komfort PolarTec' or 'Polar Vision' frameless, highly transparent extra clear, low iron glass, fixed vertically.

Frameless double-glazed unit for improved sound insulation may also be specified in fixed panes between Sales and Aftersales.



Door, full height glazed. By exception, GP1 window can have a single rebated mullion in matching aluminium frame for maintaining the sound integrity of the glazed pedestrian door in this screen only.

Frame colour – rebated PPC white finished to RAL 9003 Signal White-

Typically fire-rated glazing is required between Sales and Aftersales.

*NB: If regulations permit, Aftersales viewing glazing can be clear, non fire-rated glass with fire shutters to Aftersales side, in concealed box sections to Brand Guardian approval.*

All glazing to include Manifestation, see Section 2.13

## 2.10 Wall finishes

Walls generally decorated in emulsion paint White matt finished to RAL 9003 Signal or Brilliant White with the exception of the Consultation Room walls and skirtings finished to RAL 9001 Cream.

### 2.10.1 Sales

(P1) Plasterboard walls decorated in emulsion paint matt, finished to RAL 9003 Signal or Brilliant White.

(P1A) Consultation Room plasterboard walls decorated in emulsion paint matt, finished to RAL 9001 Cream.

(P1B) Car handover Suite plasterboard walls decorated in emulsion paint, satin finished to RAL 7037 Dark Grey

(P2) Painted joinery decorated in gloss paint, finished to RAL 9003 Signal or Brilliant White.

(P2A) Painted joinery to Consultation Room decorated in gloss paint, finished to RAL 9001 Cream.

(VS1) Skirting in 56mm Timber (or MDF) skirting lacquer or semi gloss painted white to RAL 9003 Signal or Brilliant White.

(VS1A) Consultation Room skirting in 56mm Timber (or MDF) skirting lacquer or semi gloss painted white to RAL 9001 Cream.

(WT1) Customer toilets - 6mm 'Minoli City, City Bianco" 100 x 300mm white unbleached wall tile, matt, with white grout.

(WT2) Customer toilets - 6mm 'Minoli City, City Cemento" 100 x 300mm warm grey wall tile, matt with grey grout.

Customer toilet walls to have concealed cisterns.

Toilet walls made up of 2 walls in (WT1) Minoli Bianco and the other 2 adjacent walls containing sanware or fittings, to be (WT2) Minoli Cemento warm grey

**or**

Rear wall concealing the cistern can be substituted with a matching IPS panel, colour "Abet 870" Grey.



Toilet skirting comprises 100 x 600mm cut Minoli C-Stone floor tile, grey grouted.  
Wall and floor joints to line through where possible

Wall thicknesses to permit all pipework to be concealed within walls or IPS panels.

### 2.10.2 Aftersales

(M2) Workshop walls - 6mm 'Minoli WR Cemento' 200 x 200mm dark grey wall tile, matt with grey grout (to 2,400mm high).

(P2) Painted joinery decorated in gloss paint, finished to RAL 7037 Dark Grey

(P3) Workshop walls above 2,400mm - washable eggshell paint to drylining or fair face blockwork finished to RAL 9003 Signal or Brilliant White.

(P4) Parts and Valet walls (board or fairface blockwork) decorated in hard wearing epoxy paint finish to RAL 7037 Dark Grey

(P5) Ancillary amenities and store walls decorated walls decorated in washable eggshell paint finish to RAL 7037 Dark Grey

(VS3) Workshop tiled skirting - 12mm 'Minoli Serizzo' 200 x 100mm grey skirting tile, coved angle / edge tiles, with grey grout.

(Other) VPS wall assembly comprising stud wall construction taking in obstructions for flush wall 2,400mm high, assembly of the metal panel and shelf racking system,

(Volvo specialist supply shelf and Panel system components only - in grey metal tray panels RAL 7004; 40 Gloss; Dupont 16-40 finish). 2<sup>nd</sup> fix electrical to include cut out to panel system and VPS wall to be enclosed all around in painted MDF - 100mm high skirting, 100mm top closer, sloping head closer and end closers - all boxed in sides, head (sloping) and reveals in MDF construction finished to RAL 7037 Dark Grey epoxy paint or chequer-plate metal-faced MDF skirting to conceal exposed pedestal legs of VPS wall system.

*VPS wall panel system supplied by others, see BWIC Section 5.6*

### 2.10.3 Back of House

(P1) Plasterboard Walls decorated in emulsion paint matt finished to RAL 9003 Signal or Brilliant White.

(P2) Painted joinery decorated in gloss paint finished to RAL 9003 Signal or Brilliant White.

(M1) Staff toilets – 6mm 'Minoli Neve' or equivalent 200 x 200mm, white unbleached wall tile, matt, with white grout.

(M1) Canteen and cleaners splashbacks - 'Minoli Neve' 200 x 200mm white wall tile, matt, with white grout.

Skirtings to offices - (VS1) 56mm Timber (or mdf) skirting lacquer or semi gloss painted white to RAL 9003 Signal or Brilliant White.



## 2.11 Floor finishes

### 2.11.1 Sales

#### **The Living Room**

(FW1) Wood effect porcelain plank “Minoli ETV” 9mm tile 222 x 895mm plank, rectified porcelain stoneware with grey grout.

Timber effect floors to be laid linear along the longest length of showroom Living space axis generally parallel with customer entrance doors and fully bonded to substrate. Planks laid 1/3 bond

Plank set out to minimise cuts at expansion joints – joints preferably between Street and Living area floor tile interface.

(CA109) Living room lounge rug – Rug (colour; Sand) overlaid on timber effect plank tiles, directly supplied by Volvo supplier. (By Senab)

*See BWIC Section 5.4*

#### **The Street**

(FC1) 10mm ‘Minoli 10mm ‘Minoli C-Stone 750R” 750 x 750mm tile, grey grout.

Set out to minimise tile cuts at expansion joints. VRSE preference is setting out with full tile at junction with Living room ETV tile and cut tiles at outer edges of the Street.

Consultation points - loose laid rugs 3,000 x 3,000mm laid over tiled floor. Direct supplied by Volvo supplier (by Exhibition & Interiors)

*See BWIC Section 5.4*

#### **Circulation**

(FT1) Offices and meeting rooms - 5mm “Interface Unity’ 500 x 500mm carpet tile Monolithic or Ashlar laid - Colour ‘Unity Husk’.

(FC2) Customer toilets and lobbies’ - 10mm ‘Minoli C-Stone 600R” 600 x 600mm tile with grey grout.

(FD1) Internal entrance mat - ‘Emco Diplomat Ribbed carpet 510R, Anthracite No. 200’ aluminium framed internal matt with black textile brush strips and anodized aluminium recessed edge strip.

(CA108) Car handover suite rug – Luxury Rug (colour; Lichen green) overlaid on tiles, directly supplied by Volvo supplier. (By Senab)

*See BWIC Section 5.4*

All floor junctions of differing finish should ideally be flush abutments – trims only by exception in proprietary edge trim such as ‘Schluter Reno T’ or similar brushed stainless-steel edge.



### 2.11.2 Aftersales

(FC4) Workshop and associated areas in floor tiles - 12mm 'Minoli Serizzo Matt' 200 x 200mm matt or non slip tile, dark grey with grey grout.

Set out to minimise tile cuts at expansion joints. Cut the tile tolerances in the centre of the VPS bays to retain full tile demarcation bands or at expansion joints to achieve the stated bay widths.

Associated areas include Equipment store and Parts departments.

(FC5) Workshop bay demarcation tile - 12mm 'Minoli Bianco Lasa' 200 x 200mm light grey matt tile with grey grout.

(FP2) Stores and Valet bays - 2-pack Epoxy floor treatment 'Monarcoat 720' or similar in non slip finish to RAL 7037 Dark Grey.

### 2.11.3 Back of House

(FT1) Staff offices and meeting rooms - 5mm 'Interface Unity' 500 x 500mm carpet tile Monolithic laid - Colour 'Unity Husk'.

(FV1) and (VS3) - Stores, Canteens and Tech facilities - 2.5mm sheet vinyl with coved skirting - Colour: 'Grey'.

(FC3) Staff toilets - ceramic tile or (FV1) vinyl sheet.

(FD3) Circulation areas – heavy duty barrier carpet finish; Dark Grey

(FV1) and (VS4) - Tech toilets - 2.5mm sheet vinyl with coved skirtings. Colour: Grey.

## 2.12 Ceiling finishes

### 2.12.1 Sales

**The Living Room** - Ceilings typically 2,800 to 3,000mm above FFL.

(CS4) Consultation, Offices and Meeting Rooms (no less than 2,400mm high) - 'Armstrong Ultima +7674M Microlook 90', 600 x 600mm tegular tile.

Colour: Matt finished white to RAL 9003 Signal or Brilliant White. Ceiling grid in white PPC 15mm micro tee.

(CS6) The Living Room areas - Proprietary 600 x 1,200mm lay in timber ceiling supplied by "Exhibition & Interiors" in real wood "Ash" ribs at 20mm thick x 45mm deep and 30mm spacing gap.

Timber batten edges to be concealed within bulkheads. Battens to be cut out and pattressed for recessed light fittings.

Timber ceilings to have appropriate fire resistance certification.



*NB: "E&I are supply only providers.*

Ceiling grid in black PPC, 25mm suspended tee.

(P3) Living area soffit behind open ceilings. Ceiling (and all services / ducts) decorated in matt black emulsion paint.

**or**

Black fabric mesh to be stapled to back of battens.

Timber ceilings to be laid linear with timber plank floor below.

Dropped bulkhead with nominal (max 300mm) horizontal MF frieze as a margin for tolerance can be used to achieve a layout to a full tile.

**The Street** - Ceilings minimum 4,500mm above FFL.

(CS1) The Street friezes and bulkheads - 'Gyproc Duraline MR or Duraline' painted MF gypsum ceiling. Matt finish to RAL 9003 Signal or Brilliant White.

(CS3) The Street - 'Armstrong Ultima + OP7666M' 1200 x 600mm tegular tile. Standard white, matt finish. Ceiling grid in white PPC 25mm tee.

**or**

(CS3) The Street – 'Armstrong Ultima + BP7680M4 Microlook 90' 600 x 1200mm tegular tile. Standard white, matt finish. Ceiling grid in white PPC 15mm tee.

(CS4) Car handover suite bay - 'Gyproc Duraline MR or Duraline' painted MF gypsum ceiling. Satin finish to RAL 7037 Dark Grey.

**Circulation** - Ceilings typically 2,400mm above FFL.

(CS4) Consultation, Offices and Meeting Rooms – 'Armstrong Ultima+7674M Microlook 90' 600 x 600mm tegular tile. Matt finish to RAL 9003 Signal or Brilliant White PPC 15mm micro tee.

(CS1) Customer toilets - 'Gyproc Duraline MR or Duraline' painted MF gypsum ceiling, moisture resistant. Matt finish to RAL 9003 Signal or Brilliant White.

Ceiling margins where shown on drawings can provide perimeter for shadow gap insert from walls to achieve full tile ceiling grids symmetrically set out within the room.

These margins should be finished as (CS1) painted MF gypsum ceiling. Matt finish to RAL 9003 Signal or Brilliant White.

### 2.12.2 Aftersales

(CS4) Service Consultation, Offices and Support Rooms (Customer facing 2,400mm above FFL.) – 'Armstrong Ultima+ 7674M Microlook 90' 600 x 600mm tegular tile. Matt finish to RAL 9003 Signal or Brilliant White PPC 15mm micro tee.



(CT3) Workshop, including MOT, Tyre change, Equipment stores and Parts dispatch areas – ‘Armstrong Dune’ 600 x 600mm moisture resistant, board tile, clipped tiles throughout. Standard white.

Ceilings min standard 4,500mm above FFL free of any obstruction over ramps (unless under mezzanine or stillages).

Grilles under ambirads or heat sources in white PPC grille to permit radiant heat transfer

Reinforced ceiling grid with grilles to permit installation of Service drops, exhaust extracts and other ceiling penetrations for Workshop equipment.

(excludes Valet areas)

### 2.12.3 Back of House

(CS4) Offices and meeting rooms - ‘Armstrong Ultima+ 7674 M Microlook 90’ 600 x 600mm tegular tile. Matt finish to RAL 9003 Signal or Brilliant White.

(CT1) Stores, Canteens and Tech facilities – ‘Armstrong Dune’ 600 x 600mm moisture resistant lay in grid system. Standard white.

(CT2) Staff and Tech toilets - ‘Armstrong Dune’ 600 x 600mm moisture resistant lay in grid system. Standard white.

Board tiles to be clipped where room ventilation doesn’t prevent pressure differentials dislodging tiles.

## 2.13 Fittings

### 2.13.1 Reception Backdrop (Vertical Ash By others)

Form pattressed wall with a plug and socket connection (saved lighting circuits for illuminated graphics), switches, panels or devices for reception backdrop formed of real wood “Ash” full height, vertical timber batten feature by specialist (by Exhibition & Interiors (see Supplier Appendices).

*See BWIC Section 5.3*

### 2.13.2 Office screens

Office glazing to have graphic vinyl film – semi translucent, timber grain effect vinyl band 400mm above floor to 1,500mm height (by Volvo specialist, E&I) - details to VCUK approval

**or**

VRSE proprietary mesh curtain by Creation Baumann; in Grey colour ref: 320 to offices or White to handover screen; pre-ordered and finished to ‘as-built’ glazing dimensions with tracks for soffit or wall mounted tracks (by Volvo specialist Senab)

*See BWIC Section 5.4 or 5.24*



### 2.13.3 IPS toilet panel system

'Thrislington' or similar IPS access wall to concealed cisterns in Customer and Staff toilet areas. Colour: 'Abet 870 Grey' or Amwell "Mercury AM 274" or equal to match grey tile.

### 2.13.4 Glazing Manifestation

Glazing (not already treated with Vinyl or Curtains) require manifestations to be translucent, semi-opaque vinyl, 2 rows of 40mm dia circle, spaced 120 mm centres at 900mm and 1,500mm above FFL, subject to Building Control regulation.

Excludes box framed (Ash lined) shop windows

### 2.13.5 Fitted Kitchen Units

Kitchenette and Canteen areas to include proprietary wall / sink unit with mixer tap and drainer along with above sink wall storage unit. Carcass to include under counter space for dishwasher and fridge.

Wall unit to have recess over draining board for Zip heater where applicable (see Section 5.15)

### 2.13.6 Customer, Staff and Tech's WC facilities

Mirrors and fittings – Mirrors – 600 x 900 silver backed float glass set in flush with tiled walls.

Customer toilets; wall mounted soap dispensers - satin stainless steel finish. Operators choice of "Molten Brown" or similar soap

Hand driers - 'Airforce' or 'Dyson V' type hand dryers - satin stainless steel finish.

Toilet roll holders, flush plates etc – all in satin stainless-steel to match ironmongery finish consistently including pillar taps.

BOH facilities; soap dispensing and fittings at Operators' discretion.

### 2.13.7 Parts Serving Counters

Worktops to be postformed joinery counter with chequer-plate (or equivalent) protection on serving counters with shutters, fire-linked or lockable to suit fire and security requirements.

### 2.13.8 Solar Blinds

By exception, full height glazed/curtain wall facades affected by low sun or glare can be treated with VRSE proprietary solar backed mesh curtain; in Grey pre-ordered and finished to 'as-built' glazing dimensions with tracks for soffit or wall mounted tracks (by Volvo specialist, Senab)

See BWIC Section 5.4



### **3 Mechanical & Electrical and Plumbing Services**

#### **3.1 Sanitaryware**

##### **3.1.1 Sales and Aftersales**

Customer toilets - WC and basin range from 'Ideal Standard - Jasper Morrison' range, white vitreous china sanware, concealed cistern, basin and satin stainless-steel. Single mixer pillar tap 'Hansgrohe' or similar range satin stainless-steel finish.

WC preferably wall mounted. Basins with bottle trap concealed in half pedestal.

Contemporary Doc M pack 'Armitage Shanks' white vitreous china and satin stainless steel ironmongery including rails and wall brackets.

Baby change nursing unit – 'Magrini' tip down, wall mounted.

All pipework (including waste) to be concealed in walls - exposed bottle traps to be chrome-plated.

Customer toilets are preferably separate Male, Female and Disabled. Where only two are available, these are to be allocated as Unisex / Disabled with Baby Change and Female.

Customer toilets are not to be shared with Dealership staff facilities.

##### **3.1.2 Staff Areas**

Staff toilets - WC and basin range 'Ideal Standard - Jasper Morrison' white vitreous china sanware, basin and satin stainless-steel single mixer pillar tap.

Tech Toilets - WC and basin range 'Armitage Shanks' white vitreous china. Urinal 'Acorn Powell Apinox – 064' flushing trough urinal 1,600 x 500mm with integral cistern, wall mounted.

Wash trough (Tech toilets and Workshop) - 'Armitage Shanks HTM64 (SU H)' firth scrub-up trough 1,600 x 500mm with 'Marwik' in-wall mounted thermostatic mixer single elbow lever tap (x3) - located at access points to Service support office and Tech facilities.

Cleaners Sink - 'Armitage Shanks Adler' cleaners sink with high splash-back and bucket grating in white vitreous china with 'Alterna Quadrant' lever handles taps.

Shower units - 'Kohler Mira Zest' electric shower, tray and cubicle folding door.

Kitchenette and Canteen - to have mixer tap and single bowl sink with drainer.



## 3.2 Electrical Installation

### 3.2.1 Mains incoming Electrical

The incoming electricity service shall be located within an electrical services cupboard and will be sufficient to allow for the full load capacity of all plant, lighting and general services units for all external services including EV charging.

The main and local distribution boards shall be similarly located in an intake / metering or plant room space. The workshop services MCB distribution board shall be provided and installed locally to those areas.

'Merlin Gerin' type MCCB and MCB distribution boards.

A network wire basket cable support system shall be provided within the ceiling voids of the car showroom and offices. Metal rigid cable tray or Snakeway containment systems shall be provided from the telephone and data communications cupboard to run at high level above the ceiling where fitted throughout the building 'Marshall Tufflex Snakeway' system for data cabling.

### 3.2.2 EV Charging

In calculating the size of the electricity supply requirements, allowance should be made for the installation of;

Externally;

- Customer parking – 2 x 11kW. Shared bays can have dual head posts
- Customer parking – 1 x 175kW DC "Delta" charger – accessible in customer parking areas during opening hours, shared bays can have dual head posts
- Demonstrator parking – 2 x 22kW. Shared bays can have dual head posts
- Workshop WIP parking – 4 x 22kW. Shared bays can have dual head posts
- WiFi Download – 4 x 13Amp. External IP rated power sockets
- Staff and Selekt used display - Operators' option

Internally;

- Workshop Traditional bay for EV / Battery service – 1 x 22kW single charger (counts as 1 of the 4 required above)
- Handover Suite (enclosed) – 11kW per delivery bay (where Handover is an enclosed room)
- Showroom – dummy chargers don't require live feed

Suitable containment, cable tray, trunking and below ground ducts, shall be installed from a dedicated distribution board with suitably rated protection devices for EV chargers. Suitably sized cables shall be run from the dedicated distribution board to each EV charger to facilitate installation and commissioning (by Volvo specialist supplier).

*EV Charger units are direct supply by others -  
See supplier Appendix and BWIC - Section 5.21*



### 3.2.3 Lighting

#### 3.2.3.1 Sales and Aftersales

For the purpose of the lighting design, the Showroom shall be considered as three distinct areas (A – C):

- (A) The Street - Car Display
- (A2) The Street - Consultation Areas
- (B) The Living Room
- (C) Circulation - Toilets and Offices
- (D) Workshop Lighting
- (E) Other.

The lighting requirements for each area shall be as described below.

In addition the showroom may require perimeter lighting at high level adjacent the glazing to provide a consistent external appearance to the glazed cladding - only in circumstances where excessively deep bulkheads might 'shadow' the glazing.

The Street to remain on after dark and consistently illuminate the glazed cladding as well as the Shop Window displays with variable circuits and time clock control for night-time settings.

LED Lighting shall be provided by either 'iGuzzini', 'Artemide' or 'Erco' - all as specialist design based on iGuzzini LED concept lighting (see Suppliers Appendices)

All LED lighting environmental performance requires that fittings are EMC certified, have 'Macadam Ellipse' of less than 3 and L70B10 ratings of longevity.

Light fittings shall generally be white finish with exception of The Living Room, white bezels and dimmable to comprise the following:

#### **(A) The Street - Car Display**

- The Street (car display areas) shall allow 4 to 6 spotlights per vehicle to provide an average level of illumination of not less than 1,200lux on the vehicle as measured at 850mm above finished floor level (AFFL)
- The lighting shall be designed to give a rapid drop off in the level of illumination immediately adjacent the vehicles
- Remainder of The Street areas shall be provided with a level of illumination of not less than 700lux average at a working plane of 850mm AFFL and with a uniformity of not less than 30%
- Fittings - generally circular downlight, max 240mm dia, with white colour bezel
- Colour temperature shall be 4,000 - 4,200K
- Typically to specialist supplier design.



**(A2) The Street - Consultation Areas (Includes enclosed Handover suite)**

- The lighting shall be designed to give an average level of illumination across the sales desk areas of not less than 500lux at desk top height
- Fittings - generally circular downlight, maximum 240mm dia, with white colour bezel
- Colour temperature shall be 4,000 - 4,200K
- Typically; to specialist supplier design.

**(B) The Living Room**

- The Living Room spaces' Offices shall be 500lux at desk working plane
- The Clean Water Station/ Coffee Point island and Lounge areas shall be 300 - 400lux
- Allow for ceiling rose and circuitry to suit large and suspended pendants lights to Lounge areas (fittings supplied by others – see Section 5.4))
- The Consultation Areas shall be 500lux at desk working plane
- Colour temperature should be 3,000K
- Typically to specialist supplier design
- Fittings in timber slatted ceilings generally circular downlights in square recessed box sections all black, max 140mm dia set into 160 -180mm square boxes. Timber batons to be cut out for recessed fitting, black-finished bezel to be flush with timber ceiling.

**(C) The Circulation – Toilets and Offices**

- The Circulation space shall be 300 - 400lux
- The Consultation areas shall be 500lux at desk working plane
- Colour temperature should be 3,000K
- Typically to specialist supplier design
- Fittings in general – circular, recessed downlight, max 140mm dia, with white colour bezel in ceilings  
or
- where timber slatted ceilings extend into Circulation areas, as above, square recessed box sections all black, max 140mm dia.

**(D) Workshop Lighting**

- Workshop lighting shall be LED sealed fluorescent luminaires or similar with average luminance of 750lux at 850mm AFFL– with not less than 1,000lux at car bonnet level.
- Temperature to be 4,000 - 4,200K. The lighting shall be switched and controlled from a central switch control position.

**(E) Other**

- Emergency lighting within this fitting arrangements as required.
- External Hero display car uplighting – see 4.1.3



### 3.2.3.2 Back of House

Luminaires to offices and corridors shall be metal parabolic reflector 600 x 600 modular LG7 type. Offices shall be no less than 500lux at a working plane of 850mm.

All offices, meeting rooms, toilets and general circulation spaces shall be controlled by PIR movement detector or absence detector.

Parts storage area, overnight drop bay and parts counter shall have fluorescent luminaires of no more than 1,500mm length.

Dry Valet and Smart Repair shall be illuminated employing suitably IP rated sealed 1,500mm fluorescent luminaires mounted at 1,750mm above finished floor level around the perimeter and mounted on the soffit overhead with switching arranged to allow for either perimeter or central lighting to be employed.

Wet Valet illuminated employing suitably IP rated sealed 1,500mm fluorescent luminaires overhead.

### 3.2.4 Small Power and data cabling

Data installation of CAT 6 cabling from the data / comms rack located within the Comms cupboard to all data/telecom outlets throughout including provision of all plates and RJ45 outlets. All terminations and labelling to be included and tested to facilitate Client commissioning at Patch cabinet (racking by Volvo specialist)

*See BWIC Section 5.19*

'Schneider Electric Optiline' or 'CMS Ltd' heavy duty in-screed floor boxes fitted either with flush stainless-steel lids or with recessed lids to take a floor finish depending on the location - socket floor-box outlets to each desk and under each powered fixture containing 4 x 13 A power and 4 x RJ 45 data.

'Schneider Electric Optiline' or similar mini floorbox with similar HD lid under display car locations set flush in floor containing 2 x 13 A power and 2 x RJ 45 data.

Kitchenette and Canteen areas to include switched fused spurs above worktops connected to low level socket outlets to serve a dishwasher and a refrigerator.

Customer, Staff and Tech's WC facilities to include for 'Airforce' or 'Dyson V' type hand dryers in satin stainless-steel.

Power and Data gang plates or socket face plates in brushed stainless finish

USB charging to be included in Customer areas with wall-mounted gang-plates or cleaner sockets to include USB sockets.

VPS wall panel sockets similarly to include USB charging – and one DSSO with USB charging to be installed within the tool cabinet. *See BWIC Section 5.6*



### 3.2.5 Fire Alarm

The fire alarm system shall be a manual / automatic, fully monitored system to BS 5839: Part 1 – 2004 Category L3 (Cat L1 if Operators' preference) to comply with Building Regulations recommendations and will be based on a multi-zone design.

### 3.2.6 TV and Audio

Allow for a complete containment system for digital off-air television, cable network, networked video systems to designated locations (TV install by Volvo specialist)

*See BWIC Section 5.20 and 5.26*

Allow for Sound system comprising MP3 digital solution in the Comms rooms with IT linked control and ceiling speakers – speakers to Street, Workshop and Living areas to be on separate circuits for independent volume control.

### 3.2.7 CCTV

Make allowance for a dedicated distribution to provide radial power circuits for supplies to CCTV locations both internally and externally as required by the CCTV specialist within the Comms Room (CCTV installation by Volvo specialist).

*See BWIC Section 5.18*

### 3.2.8 Intruder Alarm

Make allowance for a dedicated distribution of power circuits and containment to contactor and detection locations both internally and externally as required by the alarm specialist along with dedicated phone line / redcare within the communications room (alarm installation by Volvo specialist).

*See BWIC Section 5.18*

### 3.2.9 Lightning protection

Make allowance for the provision and installation of a lightning strike (transient over-voltage) surge arrester system as 'Furse' or equivalent.

### 3.2.10 PhotoVoltaic (PV) power supply

Provide an accredited specialist design, supply, installation and commissioned Photovoltaic system including all necessary secondary support framework. PV modules shall be arranged to minimise over shading, achieve optimum orientation, and facilitate maintenance personnel access between the strings of modules for cleaning.

PV generation may include photovoltaic glazing in proprietary curtain walling where applicable (see Section 2.6)



Similarly, PV may include generation from external canopies in addition to Roof mounted system where applicable (see Section 4.6)

The isolators, inverters and PV distribution board shall be located with due consideration given to the maximum distance limitations between the array and the inverters, with the generation meter being located in the ground floor electrical intake & switchgear position.

The system shall be sized to provide a minimum total kWp generation to satisfy Approved Document Part L requirements, any Local Authority Planning Conditions, any BREEAM requirements and be connected via inverters to the building electrical supply. (Provide an optional additional cost for an enhanced PV array optimising the total available roof area to enable the Dealer to consider the resultant energy saving benefits against the increased capital expenditure).

The system shall include a display panel to be located in the Showroom to indicate power output (kW), total energy generated (kWh) and carbon emissions avoided (kg). All equipment shall be listed on the MCS accredited list, with the installation carried out by an MCS accredited installer. The MCS accredited installer shall be responsible for the application process to install a PV System to the local District Network Operator (DNO) and for the formal G59 application.

The MCS accredited installer shall be responsible for the application process to enable the building owner to benefit from the feed-in tariff scheme.

The system shall be installed strictly in accordance with the manufacturer's recommendations, and be commissioned by the accredited specialist with the appropriate certification provided on completion.



### 3.3 Mechanical installation

#### 3.3.1 Heating and Cooling

##### 3.3.1.1 Sales and Aftersales

A system of 'variable refrigerant flow (VRF)' or 'variable refrigerant volume (VRV)' comfort cooling and heating with heat recovery shall serve the Showroom and Offices at ground and mezzanine levels - by either 'Mitsubishi' or 'Daikin'.

The comfort cooling and heating system shall use refrigerant R410A - subject to Regs, may require R32.

Ventilation shall be provided by heat recovery ventilation units (HRVUs).

All FCU and HRVUs shall be in-void ceiling mounted and ducted to ceiling supply with extract air at high level and to external inlet and exhaust louvres (louvres are not permitted in FOH glazed or rendered elevations).

Showroom display areas with higher ceilings shall be in-void ceiling mounted units ducted to white PPC linear ceiling grilles preferably in MF margins rather than accessible ceiling tiles (subject to meeting performance design criteria). Swirl diffusers in the ceiling tiles by exception if an absolute design requirement. No Eyeball diffusers nor grilles will be permitted in vertical bulkheads.

Office areas where ceiling voids are restricted can have lay in grid cassette units – in matching 'Mitsubishi or Daikin' or equivalent plant to be approved, white 600 x 600mm units laid flush in plane with ceiling grid and suitable fall to condensate drainage.(this is expressly excluded in Street and Living areas)

The VRF / VRV comfort cooling and HRVU units shall be provided with a central intelligent touch controller package. Enabling and disabling of the unit shall be provided by a centralised remote control located in the mechanical services control panel. Room sensors shall be provided within the showroom to maintain the showroom set temperatures.

No customer facing wall mounted cassette units are permitted.

Comms room to have split DX cooling system with independent controls.

The Workshop areas shall be heated by gas-fired, black heat, tubular radiant heaters - 'Ambi-Rad AR Series' or equivalent - mounted at high level.

##### 3.3.1.2 Back of House

Offices, Meeting rooms, Mezzanine and Staff areas to be included in the VRF / VRV cooling and heating system

**or**

amended to independent split cassette system.

Dry Valet Bays must be heated with either gas or electric radiant heating.



Heater flues shall discharge, either singly or in groups through the roof of the building or in rear elevations – but not in glazed or rendered cladding FOH elevations.

### 3.3.2 Domestic water

Hot water service shall be provided via an unvented hot water cylinder.

Cold water service shall comprise mains cold water only.

### 3.3.3 Above-ground drainage

Make allowance and install above ground drainage services to all sanitary ware, appliances and un-vented hot water cylinder. Foul drainage pipework shall be concealed within casing.

### 3.3.4 Toilet extract ventilation

Extract ventilation to toilets shall be provided by a twin-fan internal unit, including automatic change-over on fan failure and duty sharing 'NUAIRE Ecosmart EST4' or equivalent.

## 3.4 Lift installation

Electrically operated lifting platform 'Gartec Disabled Access Platform Lift' to RAL 9006 Silver to lift enclosure, including door and frames.



## 4 External Works

### 4.1 Hard landscaping and pavings

Roadways formed of tarmac paving ('SMA' 6 - 10mm stone) with delivery areas in designated HD grade suitably rolled up to battered face precast kerb all to gradient per the Civil Engineer's specification.

Apron paving to building perimeter of 'Marshalls' 60mm brick paviour – Charcoal colour, in sand bed

**or**

brushed concrete hardstanding min. 600mm wide behind half battered face precast kerb (glazing protection).

Roadmarking – directional arrows, lanes and traffic controls in thermoplastic white roadmarking paint.

#### 4.1.1 Plaza Customer Parking

Customer Parking bays typically 3,000 w x 5,000mm L

(D/A and M&C bays 3,500 w x 5,000mm L)

Demonstrator Parking bays typically 3,000 w x 5,000mm L (minimum 13 No).

Area comprising either mass concrete hard-standing on sub-base with brush finish

**or**

'Marshalls Mistral PV570640F' 60 or 80mm concrete block paving (to Civil Engineers design) with textured granite effect, 160 x 160mm (or 120 x 160mm) Silver Grey

**or**

'Tobermore Fusion' 80mm concrete block paving with textured granite effect, 100 x 200mm Silver Grey.

Parking bays in Silver Grey paved parking areas to be demarcated with full length charcoal pavours between bays.

Stone pebble bed to Shop Window bay only – 6,000mm W x 1,200mm Deep within depth of apron paving, comprising pc edge kerb and filled with 'Marshalls Spanish white' 20 - 40mm diameter cobble.

Low height boundary walls in brushed concrete plaster finish and 'Marshalls' smooth concrete paving slabs.

Planter beds formed with edge kerb and filled with topsoil and long grass species including walkway decking formed of timber reeded decking planks on subframe.

#### 4.1.2 The Volvo Selekt Display Parking

Selekt Parking bays typically 3,000mm w x 5,000mm L - layout to permit open door viewing.

Area comprising brick paving of 'Marshalls' 60mm Charcoal 100 x 200mm brick paviour. Buffer soldier course half battered face edge pavours at junctions with



black tarmac circulation lanes. Overall demise demarcated with white lining to the perimeter. No individual bay demarcation within the Selekt demise.

All designed to the Structural Engineer's specification.

#### 4.1.3 *The Podium "Hero" car display*

Feature car area comprising "Tobermore Fusion" granite 100 x 200 block paving with circular edge course and drop kerb edging and in ground display up-lighting all to the Civil Engineer's specification.

#### 4.1.4 *Kerbs*

Generally to external edges and landscape areas to be pre-cast concrete, HB2 half battered face or similar.

Between circulation, display and parking areas, all finishes to be low profile HB2 laid flat or in matching battered edge paving ranges (to prevent damage to alloy wheels).

#### 4.1.5 *Other (Signage)*

Where required ducting for Comms panel and illuminated secondary signage should be installed to suit layout – ideally in the soft landscape areas or in kerb protected paved "islands" .

*See supplier Appendix and BWIC - Section 5.2*

#### 4.2 *Drainage*

Below ground foul drainage, manholes, chambers and Utility connections in the carriageway.

Surface and rain water collection drainage channels of precast concrete, 'Aco' drainage, kerbside gullies and the like to achieve minimum falls for avoidance of standing water.

Drainage Utility connections should be within the carriageway per the Civil Engineer's specification.

SUDS drainage criteria where applicable. Porous paving where required – to be consistent with the colour ranges specified above.

Rainwater harvesting should be given due consideration for sustainable water consumption – either for wet Valet wash only or, if suitably filtered, for WC cistern CWS. Tanks can be surface mounted above ground if disposal of arisings from below ground tanks is not viable.

Float switches and control systems to resort to mains fed CWS at tank low levels to be incorporated along with digital read out of economies achieved.



#### 4.3 Perimeter treatments

Boundary secure hoops of 1,600mm long x min 60mm diameter galvanised CHS set in concrete – spaced at 2,600mm centres (1,000mm gaps) set 750mm high.

‘Rhino’ or similar min 90mm diameter 750mm high stainless-steel post bollard set in concrete – including within apron paving at external corners of glazing / cladding, at pedestrian Portal entrances and at vehicle entrances.

‘Rhino Retractable’ or similar min 90mm diameter x 750mm high stainless-steel bollard and sleeve with locking handle set in concrete and free draining in shingle at site entrances.

2,000mm high slatted timber screen fence on posts set in concrete to waste and bin stores.

2,400mm high ‘Paladin’ PPC green or black mesh fencing on posts set in concrete.

Gates to be 2,400mm high manual sliding or double leaf swing gates, framed and matched ‘Paladin’ mesh with drop bolt and hasp for padlocking.

#### 4.4 External lighting

Galvanised post lighting columns (6,000mm) set in concrete of suitable gauge (89mm) to accommodate CCTV bracket fixing and weights (by CCTV installer).

External lighting column mounted LED lighting clusters to achieve external illumination levels to the car parking spaces at 50lux and general surrounding areas at 20lux at ground level.

Below ground ducting and distribution, time-clock and photoelectric cell control for the complete external lighting installation.

External illuminated signage will include similarly time-clock controlled below ground ducted power supply and includes Pylons, directional signs, flags, Volvo Selekt Comms and Totem signage, Podium car display, Expo Wall and building elevations. See Suppliers Appendices for more details.

External security requirements will require power and duct provision - installation will be by direct security specialist.

All necessary below-ground duct-work and draw chambers to accommodate cabling (including EV, security, illuminated signage, lighting, etc.) to be installed.

*See BWIC - Section 5.2*

#### 4.5 Soft Landscaping

The Plaza includes planter beds filled with topsoil and long grass species.



Other areas of soft landscaping are to comply with approved Local Authority landscaping conditions. These areas must be free draining, filled with suitable topsoil and edged where necessary with timber toe board to prevent mulch drifting onto paved areas.

#### 4.6 Features

Volvo Selekt Expo Wall feature wall – min 8,000mm wide x 3,200mm high, comprising blockwork on footings with white through-colour acrylic render. Top of wall in suitable precast coping, natural colour, drip moulding proud of render. Signage element supplied by Others as a direct signage item (by Mersons)

**or**

footings for bespoke free standing framed structure and stretch material signage supplied by Others as a direct signage item - (by Wellstock )

BWIC to include ducting for lighting with power for illuminated signage.

*See supplier Appendix and BWIC - Section 5.2*

Cycle shed and racking - 'Ollerton' stainless-steel racking set in concrete or similar to comply with approved Local Authority conditions, covered polycarbonate shelter.

EV Charging points - in locations as noted in Section 3.2.2 or in GDP - set on concrete plinth topped in 'Marshalls' 60mm brick paviour in 'Charcoal' colour, including hooped bollard protection rail set into concrete.

"Powerstop" dedicated Charging stations on the site to have dedicated signage visibly highlighting EVC locations

*See supplier Appendix and BWIC - Section 5.2*

[Proprietary parking canopies – Selekt parking areas can have bespoke covered parking under freestanding canopy structure on footings with integral illumination to carry an integrated PV system wired into the mains intake panel – see Section 3.2.10](#)

Parking demarcation - to be delineated in parking areas with darker paving of same specification and corners of each bay highlighted with minimum "T" darker paving blocks.

Signage - in locations as GDP should be in the soft landscaped areas 600mm in from kerb

**or**

protected from circulating traffic by paved islands at intersections of bays.

External wash points – provide frost protected bib tap and IP rated external power point (ideally in soft verge) for stock vehicle washing – 1 x Selekt parking area and 1 x Service WIP or new vehicle stock area.



## 5 Furniture, Fit-Out and Equipment (Direct Trades)

### 5.1 Generally

All items of loose furniture, equipment and fixturing including Volvo CI content and signage shall be excluded from Estimates of Construction cost.

These will be sourced as direct quotes from Volvo's approved supplier network by the Operator.

*The main exception is the associated builders' works (BWIC - highlighted here) to facilitate these installations and this must be anticipated and included within the specification as follows.*

### 5.2 Brand signage – External (by Mersons)

Brand signage to external areas in accordance with signage scheme design procured by specialist supplier - includes fascia signs on cladding, entrance statement, Pylon and secondary, directional and parking signs and flags etc.

Facades to have monolithic Volvo sign panel on render or glazed facades. Monoliths signs typically set in min 1,200mm from corner (not over entrances) and full height from 2.4m top of shop window to head of glazing – to Mersons survey

Opening Hours sign to Entrance Portal similarly supplied by specialist supplier.

Volvo Selekt display areas to include illuminated signs, including totems, comms panel and Expo Wall.

Volvo Selekt wall (Expo wall) signage for rendered wall (by Mersons) OR freestanding, direct supplied options (by Wellstock)

"Powerstop" illuminated signage to highlighting EVC locations (by Visotec).

*BWIC - secondary subframing in cladding (or glazing) for sign fixings, and 10 A power supply in ducting to illuminated signage, photoelectric cell operated and time clock controlled on independent circuit.*

*Concrete bases for pylons and secondary signs - take delivery of hd cages (by Mersons) for larger plinths. Provide fixing brackets in proprietary curtain walling to accommodate signage loads, subject to Engineers' design.*

*Signage in tarmac or circulation areas must be protected with kerbed islands or paved surrounds as per Merson (signage contractors) details. See Suppliers Appendices for more information.*

### 5.3 Brand signage & Graphics – Internal (by Exhibition&Interiors E&I)

Brand signage and fixturing to internal areas in accordance with signage scheme design, supplied installed by specialist supplier - includes Volvo 'Ironmark' (by



Senab), graphic and vertical “Ash” timber system to Customer Reception backdrop (by Exhibition&Interiors E&I)

*BWIC pattress Reception backdrop wall with ply.*

*Provide power supply for illuminated fixtures, graphics or signs – ideally on centrally switched and time clocked lighting circuits (includes illuminated Lifestyle Shop shelf unit when face fitted to timber backdrop)*

*Provide pattress to MF ceiling frieze to separate Vertical “Ash” timber cladding from “Ash” timber ceilings where these meet over Reception*

#### 5.4 Loose Furniture - Sales and Aftersales (supplied by Senab, installed by Exhibition&Interiors E&I)

Desks, chairs, consultation points, configuring fixtures, The Living Room installations, merchandising and display fixturing etc all in accordance with Showroom furniture plans procured by specialist supplier.

The Living Room includes the Scandinavian Group circular table sample unit and colour/trim shelving (previously Your Car Studio). Similarly, the granite top Clean Water Station/Coffee Point island unit with seating (optional sink and water tap). The Lifestyle shop for merchandising is now in component parts adjacent the reception with illuminated shelf unit.

Internal front of house office glazed screen full length curtain option by E & I – hemmed and finished gauze curtains (see 5.24) as separate, direct supply order.

Typically, supplied by Senab, unpacked and installed by Exhibition & Interiors.

Rugs at Handover suite and Lounge areas (by Senab).

Rugs at consultation points (by Exhibition & Interiors).

*BWIC - Co-ordination of floor-boxes to sit under credenzas and not in seated areas of desks etc. Cut out loose rug to expose floorbox lid.*

*Water and power points to Clean Water Station/ Coffee Point island unit in The Living Room.*

*Provide ceiling roses in void and fit direct-supplied pendant lights - 1 x metal pendant in Consultation Room and 2 x large pendant over Sofa Lounge table, 1x large pendant over Scandinavian Gp table and 1 x large pendant over Handover suite seating.*

*Provide power for tripod lamps in Living room – (ideally mini floorbox located under chairs or furniture to avoid trailing leads and trip hazards)*

*Provide pattress to MF ceiling frieze at office glazing for curtain track fixing.*

*Provide attendances and supervision including but not limited to protection of finishes, waste, access, power and amenities.*



## 5.5 Loose Furniture - Back of House

Operator's choice of supplier - BOH Office desks, chairs, storage units etc. in accordance with furniture plans.

Includes Printer/ copiers etc

*BWIC - Co-ordination of floor-boxes to sit under the desks and not in seated areas of desks etc.*

*Extra IT and data to copier / printer locations.*

## 5.6 Workshop Furniture & Equipment

Generally Operators' choice, matching desks, chairs, storage units etc. in accordance with furniture plans procured by Operators' own supplier.

Operator's choice of supplier for Workshop equipment in accordance with Layout plans and VPS guidelines.

VPS bays to have 3.5T in-ground fully recessed cassette ramps, installed to manufacturers recommendations and ducted supplies with isolator control built into VPS wall

### **Or (by exception)**

where ground conditions or structural slab design prevent in-ground cassettes, VPS bays can have hydraulic scissor ramps fully recessed into the top of the slab, flush with floor in the down position. Scissors similarly installed to manufacturers recommendations and ducted supplies with isolator control built into VPS wall. Hydraulic reservoir units to be set out within the void behind the VPS wall to prevent obstruction in the working areas.

Traditional / Andon bay to have 2 post ramp installed to manufacturers recommendations and ideally supplies ducted in slab (overhead power supply only by exception) with isolator control built into VPS wall.

EV/Battery service requires 4T 2 post ramp installed to manufacturers recommendations and ideally supplies ducted in slab with EV charger and isolator control built into VPS wall. In ground cassettes must be full width type to permit battery removal (no cantilevered arms with rams within chassis width).

Battery/Flat bay should provide a flat working surface without a ramp located adjacent to the EV bay (if a ramp is installed in this bay, it must have retractable swing arms or be a fully recessed scissor or in ground cassette so that there is no obstruction to manoeuvring the mobile battery lift for unimpeded working space between the EV and Battery bays). The battery bays similarly to include VPS wall and tool storage.

Battery lift – mobile lifting battery jack with 1,300 x 768mm table size (base frame 1,400 x 1,055mm) and 1,000kg capacity to 1,800mm lifting height (1,320mm useable height)



Diagnostic tyre tread and wheel align reader at workshop entrance with recess in slab and concealed ducting for services and with data connection to Service reception area.

Oil, air and water reels to be suspended from soffit with hoses located to the front axle position of the Bays.

Equipment storage; Minimum standard of 50m<sup>2</sup> – comprising Min 36m<sup>2</sup> unrestricted, open storage with a min 1,800mm wide clear opening access on level floor. Unit repair in this area; Min 4m<sup>2</sup>. Tyre change and balancing in this area; Min 6m<sup>2</sup> and finally, the Battery trolley stowed in this area; Min 4m<sup>2</sup>.

VPS wall units - supplied as Parts Ordering System - modular units including shelf and tool storage etc Panels RAL 7004 40 gloss, Dupont 16-40. See Aftersales Datasheets for construction and set out.

*BWIC supply and co-ordination of 3-Phase power to an isolator and duct to each ramp / workstation (specialist installer to commission and test equipment at ramps).*

*Allow 4 x 13A power and 2 x data in VPS wall with USB charging – allow 2<sup>nd</sup> fix faceplate brought through holes cut into VPS panels.*

*Allow 1 x 13A DSSO with USB charging to be installed within the tool cabinet.*

*Floor slab to be chased or modified for below-ground cassettes (or recessed scissor ramps) – cassette box issued FOC by specialist for casting into concrete; allow all below slab ducting.*

*Provide water spur at suitable locations.*

*Compressor to have natural ventilation space on external walls.*

*Take delivery of VPS wall units and assemble on and including stud frame construction and mdf closers to head, reveals and returns for complete false wall to extent of VPS bays.*

*See Suppliers Appendices for VPS and Aftersales Datasheets for setting-out details*

*NB – it is the responsibility of the main contractor to achieve the level tolerances required for the BWIC with ramp cassettes (or recesses). The equipment supplier must check before final fix of below ground cassette(or recessed scissor) ramps are installed.*

## 5.7 MOT Bay - Aftersales

Operator's choice of supplier to MOT areas in accordance with layout plans - with VOSA approval to be confirmed by installer.

*BWIC - supply and co-ordination of 3-Phase power and data to MOT ramp (specialist installer to commission and test equipment at ramps).*



*Floor slab to be recessed to VOSA dimensions, edge protected recessed pit for MOT 4 post ramp (or scissor lift) and separate recess for brake tester, with gulley connected into drainage and edges highlighted in yellow chevron paint, all in accordance with specialist's requirement and subject to Structural Engineer approval.*

*See Suppliers Appendices for VPS and Aftersales Datasheets for setting-out details.*

*NB – it is the responsibility of the main contractor to achieve the level tolerances required for the BWIC with MOT ramp and RBT recesses in the slab. The equipment supplier must check before final fix of MOT ramps are installed.*

#### 5.8 Exhaust Extract - Back of House

Operator's choice of supplier to workshop areas in accordance with Layout plans.

Exhaust extract system with air handling and hose reels to be suspended from soffits to the rear of the vehicle / bay positions.

Flues and exhaust to discharge to exterior but not through Volvo glazed, cladding or rendered areas.

*BWIC - Form holes in envelope with flashing for exhaust flue.*

*Provide Unistrut brackets between purlins for suspended exhaust extract reels*

#### 5.9 Tyre Fit Equipment - Back of House

Operator's choice of supplier to workshop areas in accordance with Layout plans.

Tyre Fit and Wheel Balance - surface fixed, bolted to concrete floor slab.

Tread and Alignment reader – recessed into slab with control panel rebated in side wall. Containment for data to link to Service support area.

*BWIC - supply and co-ordination of 3-Phase power and data to equipment (Specialist installer to commission and test equipment at ramps).*

*Floor slab to be recessed and edge protected for wheel alignment 4-post ramp (or scissor lift) - all in accordance with specialist's requirement and subject to Structural Engineer approval. Ditto, for Tread reader equipment.*

#### 5.10 Oil Tanks - Back of House

Operator's choice of supplier to workshop areas in accordance with layout plans.

Oil tanks with pipe supply to each bay by specialist.



Waste oil return system and tank suitably located to have filler cabinets near entrance to accommodate tanker access.

*BWIC - Form opening in wall or cladding for filler cabinet.*

#### 5.11 Parts Racking - Back of House

Operator's choice of supplier to parts areas in accordance with layout plans.

*BWIC - co-ordinate lighting in accordance with Racking plan*

#### 5.12 Valeting Equipment - Back of House

Operator's choice of supplier to valeting areas in accordance with Layout plans.

Wet valet equipment assumed to be mobile 'Karcher' units (gas fired plant and overhead lance not included).

Compressed air feed to valet bay all by specialist.

Dry valet equipment to include workbenches and storage units.

*BWIC - Provide water spur at suitable location with separate break tank to valet spurs.*

*Allow for ventilation if powered valeting plant installed.*

*Dry valet to include IP rated batten lighting to side walls at low height.*

#### 5.13 Smart Repair Bay and Photography booths - Back of House

Operator's choice of supplier to Smart Repair and/ or Photography booths installations and location.

Assumes Infra-red or specialist heating / paint drying / polishing all by specialist.

*BWIC - Provide water and power spur at suitable location.*

*Allow for specialist local extract ventilation (LEV) ventilation (standalone) to paint areas.*

*Form holes in envelope with flashing and include louvers to specialist installer's specification.*

*Smart Repair to include IP rated batten lighting to side walls at low height.*

*Photography booth walls to be drylined and painted.*

*Photography booth to have uniform lux levels to meet camera requirements and recessed slab with level tolerances and edge protection to meet rotating turntable Manufacturers' requirements.*



#### 5.14 Technician's Lockers - Back of House

Operator's choice of supplier of lockers in accordance with Layout plans - includes lockable locker units - floor mounted by Tenants' supplier.

*BWIC - None.*

#### 5.15 Canteen Equipment - Back of House

Operator's choice of supplier of Canteen furniture and white goods in accordance with layout plans – includes:

- Canteen integral table and seating units fixed to floor
- Canteen zip heater or urn for boiling water
- White goods including microwave, dishwasher and fridges as required.

*BWIC - Water points for drinks machine.*

*Drain spur for dishwasher.*

#### 5.16 Key Safes - Back of House

Operator's choice of supplier of Safe:

- Lockable key safe cabinet fixed to wall and floor (on baseplate)
- Lockable cash safe (AFRL) fixed to floor on bolted baseplate.

*BWIC - Provide plywood pattress to wall mounted fixtures.*

*Cast in template of floor-mounted safes (Issued FOC by supplier).*

#### 5.17 Fire Fighting Equipment - Back of House

Operator's choice of supplier with all fixed and loose fire fighting equipment on floor mountings or fixed to walls, with associated local graphics and signage fixed to walls.

Loose extinguishers and fire-buckets in accordance with Tenants' (Occupiers') Fire Risk Assessment.

*BWIC - Provide plywood pattress to wall mounted fixtures.*

#### 5.18 CCTV and Security Systems

Operator's choice of supplier to all areas in accordance with layout plans to include the following.

Occupiers intruder alarm system with door / window contacts plus detection and PIR alarm. 'Redcare' telephone line as appropriate.



CCTV System - internal PIR camera detection with multiplex screen monitoring in Managers office.

CCTV System - external system of PTZ camera detection connected to building fabric or to external lighting columns with co-ordinated external lux levels, multiplex screen monitoring in Managers Office.

Cameras may not be fixed to cladding without prior 'BG' approval.

*BWIC - Provide power and containment (internal trays and externally in concealed below ground ducting) for secure camera cabling - assume supplier can apply fixing brackets for column mounting but not on cladding.*

#### 5.19 Voice and Data Systems

Operator's choice of supplier to all areas in accordance with layout plans and to include:

- Supply patch cabinet to Comms room
- Supply, install and commission all necessary IT installations, hardware, PC desktop and telephone fit out.

*BWIC - Provide power, cabling and containment in concealed ducting for secure cabling routes to Comms room.*

*Base build includes for flood wire CAT 6 data cabling in conduits and trays terminated in wall or floor-box locations and patched back to Comms room.*

#### 5.20 TV and Audio Systems

Passive screen with integrated Media player to Living room wall - unit supplied by VCUK.

Digital Point of Sale lecterns at each display car.

Team target board to workshop (not within customer views) comprising a 65" touch screen TV and a PC/ laptop that will operate Google Chrome

Operator's choice of supplier to all areas in accordance with layout plans and to include:

- TV units in staff canteen / amenities
- TV units in board / meeting room.

*BWIC - Provide power and containment in concealed ducting for secure cabling.*

*Base build includes for sound system with ceiling speakers to Showroom, Workshop and The Living Room cabling and MP3 player in Comms room.*



## 5.21 EV Charging (DC charger by Delta)

Operator supplied EV charge units.

*BWIC - Provide power and containment in concealed ducting for secure cabling and independent isolation in SDB for charger supply with capacity to be provided for in Utility applications and the power load design.*

*Base build to include for concrete plinth and protective barrier to external charger points and patressing to wall mounted chargers.*

*Provide attendance and support including design sub-contractors to enable specialist installation and commissioning*

## 5.22 Entrance Statement (by Mersons)

Direct supplied Wood effect ACM panel with integral LED sealed beam illumination as proprietary entrance statement – 1,500mm deep x 3,600 / 4,800 / 6,000mm wide and 2,400mm high with integral frame, lighting, flat roof and drainage.

Fixed independent to the envelope - min 50mm off glazed frame or cladding on base plates to rebates in concrete plinth, backfilled with shingle or slate chipping.

*BWIC - Provide level brushed concrete plinth to suitable dimensions (with recess for mat noted elsewhere), ramp and grade finishes to perimeter including duct with power from external signage / lighting circuits.*

*Provide below ground drainage point for downpipe discharge.*

*Provide small PPC in colour "U" section channel in the gap between glazing and rear of portal – fixed to transom capping to catch run off from the glazing above.*

*Provide attendances and supervision including but not limited to protection of finishes, waste, access, power and amenities.*

## 5.23 External Glazing Film (only for Newbuild external glazing with Shop Windows)

Volvo approved supplier glazing film – 'Contravision' internal dot matrix film fitted to all glazing except Entrance and Shop Windows for moderate, one way viewing from interior to exterior (by Williams Lea TAG).

View from exterior to be semi opaque white frosting with no overlap **or** Equivalent Operator sourced window vinyl to matching specification – sample to be 'BG' approved prior to installation.

*BWIC - Provide attendances and supervision including but not limited to protection of finishes, and high-level access.*

*Environment should be room temperature and dust free to permit this installation.*



#### 5.24 Internal Office Glazing Film

Volvo approved supplier glazing film – ‘Timber Grain’ internal glass film fitted to all FOH Office glazing in lieu of Senab curtains (by Exhibition & Interiors).

*BWIC - Provide attendances and supervision including but not limited to protection of finishes, and high-level access etc*

*Environment should be room temperature and dust free to permit this installation.*

#### 5.25 Door access control

Specialist electronic fob or secure area access control to Operators security requirements are Operators discretionary installations.

*BWIC – Provide electrical supply to doors requiring electronic or ‘maglock’ installation and a control point in the Comms or Plant room.*

#### 5.26 Digital signage and Silent salesmen

Volvo approved supply published on Inside Volvo as follows:

<https://insidevolvo.volvocars.biz/content/articles/2017/12/22/digital-silent-salesman-dss/>

for implementing Digital Silent Salesman (DSS) at every display car, including handover bay. As part of the VRSE environment power and data points have been specified underneath each display car, the DSS devices will plugin to one of the sockets available underneath each car.

Website includes order forms for DSS equipment, install and support. Submit to: [martin.ashton@volvocars.com](mailto:martin.ashton@volvocars.com) and Cc [andy.partington@volvocars.com](mailto:andy.partington@volvocars.com)  
Please supply the details of the Sales Manager and Product Specialist for access to the admin tool. DSS devices will need to be connected to the data network with outbound internet access over http and https, (either a wired (preferred) or Wi-Fi connection). Training will be planned prior to DSS install via WebEx.

DSS Display Screen 22" on the order form is the screen that will be mounted on the Digital POS stand that is ordered from E&I as part of VRSE furniture - one DSS Display Screen 22" for each Digital POS stand.

*BWIC – Provide electrical and data supply to these locations.*



## 6 Appendices

NB: All the supplier information and data Appendices can now be found in the Appendix listings on the resource website:

[https://www.experiencemeda.com/VCUK\\_VRSE\\_Specifications/index.html](https://www.experiencemeda.com/VCUK_VRSE_Specifications/index.html)