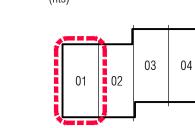


4791PG100 - xref's loaded in file Key Plan (nts)



- CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND
- . WRITTEN DIMENSIONS ONLY TO BE TAKEN THIS DRAWING MUST NOT BE SCALED
- 3. ARCHITECT TO BE IMMEDIATELY NOTIFIED OF SUSPECTED OMISSIONS OR DISCREPANCIES

| REVISIONS | C1 | ISSUED FOR CONSTRUCTION 24.10.16

Wall Types Legend

Type A: External Wall.

102.5mm stretcher bond facing brickwork with 10mm mortar joints, 50mm cavity, Breather membrane, 9mm OSB, 140mm x 38mm timber stud frame with 115mm PIR insulation, VCL, finished internally 15mm plasterboard

Type B: External Subfloor Wall 100mm stretcher bond lightweight blockwork with 10mm mortar joints, 59mm cavity, 140mm stretcher bond light weight concrete blockwork with 10mm mortar joints.

Type C: Internal Party Wall. 64mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type D: Internal Party Wall (between staggered terraces). 100mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type E: Internal Timber Stud Wall. 38mm x 89mm timber studs at 400mm¢ with 15mm Soundbloc plasterboard each side

Type F: Internal Timber Stud Wall to bathrooms. 38mm x 89mm timber studs at 400mm¢ with 1 layer 15mm moisture resistant plasterboard to the "wet" side and 15mm Soundbloc plasterboard to the other

Type G: Internal Services Boxing Stud Wall. 38mm x 89mm timber stud at 400mm¢ with 2 layer 12.5mm moisture resistant plasterboard one side

Opening Reference Legend

Denotes house type -Denotes opening type:— Door, Window, Screen Denotes room n°—

— Denotes opening / fenstration / aperture

Denotes floor level



RUSHMON

CONSTRUCTION



#### ARCHITECTS



RDjW ARCHITECTS LIMITED QUOIN HOUSE . 9-11 EAST PARK CRAWLEY . WEST SUSSEX . RH106AN TEL: 01293 404300 . FAX: 01293 404299 EMAIL: info@rdjwarchitects.co.uk WEBSITE: www.rdjwarchitects.co.uk

Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 1: Units 1 - 4 General Arrangement

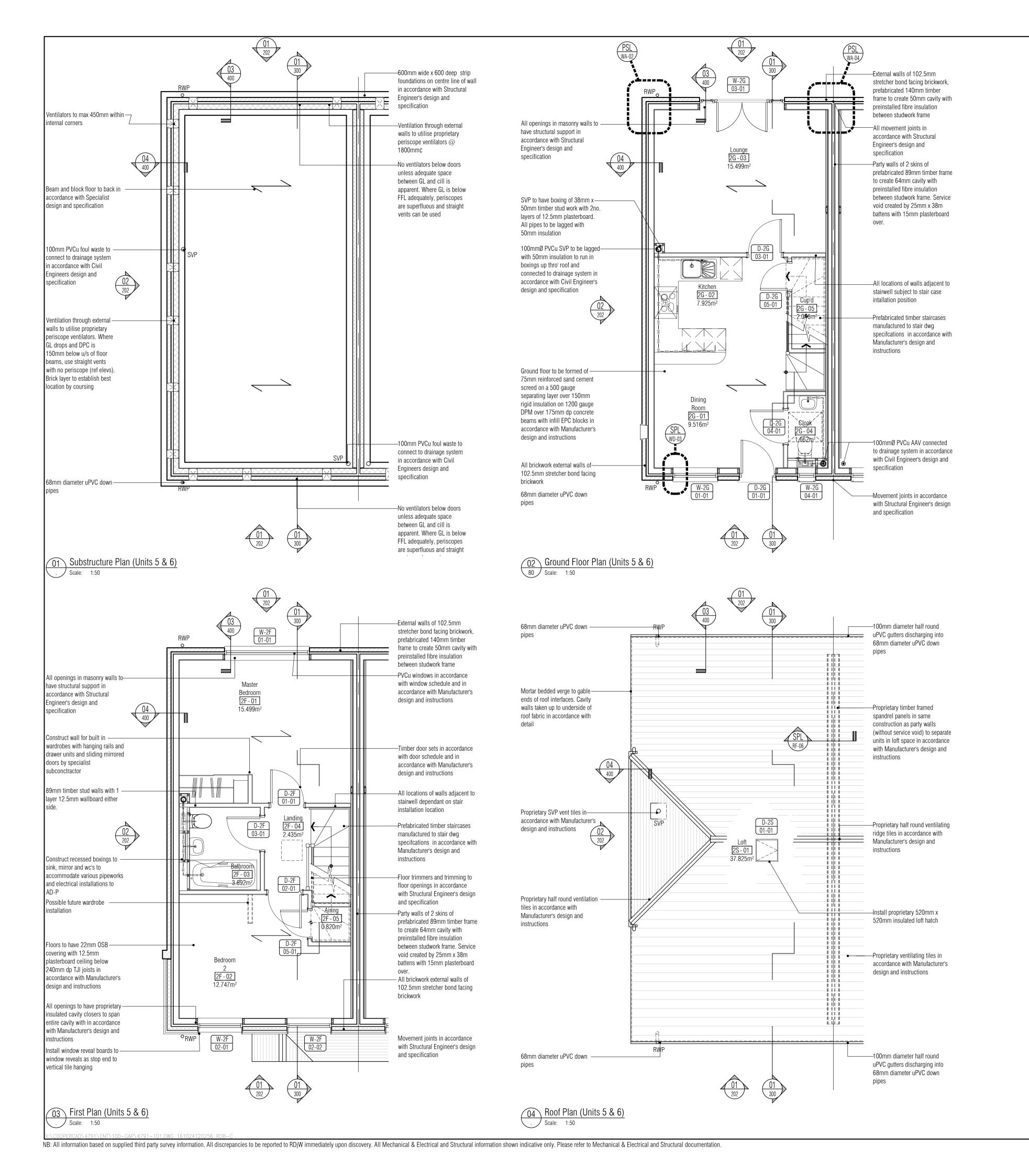
22.02.16

HECKED

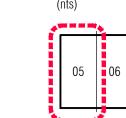
Refer to Fire Stategy Plans for cavity barriers and closers,

door and wall fire ratings

1:50 **@** A1 4791-100



4791PG200; 4791PG201; 4791PG202 - xref's loaded in file



- CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND
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SUSPECTED OMISSIONS OR DISCREPANCIES

Wall Types Legend

Type A: External Wall.

| REVISIONS | I ISSUED FOR CONSTRUCTION

102.5mm stretcher bond facing brickwork with 10mm mortar joints, 50mm cavity, Breather membrane, 9mm OSB, 140mm x 38mm timber stud frame with 115mm PIR insulation, VCL, finished internally 15mm plasterboard

24.10.16

Type B: External Subfloor Wall 100mm stretcher bond lightweight blockwork with 10mm mortar joints, 59mm cavity, 140mm stretcher bond light weight concrete blockwork with 10mm mortar joints.

Type C: Internal Party Wall. 64mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type D: Internal Party Wall (between staggered terraces). 100mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type E: Internal Timber Stud Wall. 38mm x 89mm timber studs at 400mm¢ with 15mm Soundbloc plasterboard each side

Type F: Internal Timber Stud Wall to bathrooms. 38mm x 89mm timber studs at 400mm¢ with 1 layer 15mm moisture resistant plasterboard to the "wet" side and 15mm Soundbloc plasterboard to the other

Type G: Internal Services Boxing Stud Wall. 38mm x 89mm timber stud at 400mm¢ with 2 layer 12.5mm moisture resistant plasterboard one side

Opening Reference Legend

Denotes house type -Denotes opening type:— Door, Window, Screen

Denotes room n°—

 Denotes floor level — Denotes opening / fenstration / aperture

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CONSTRUCTION

# ARCHITECTS



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Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 2: Units 5 & 6 General Arrangement

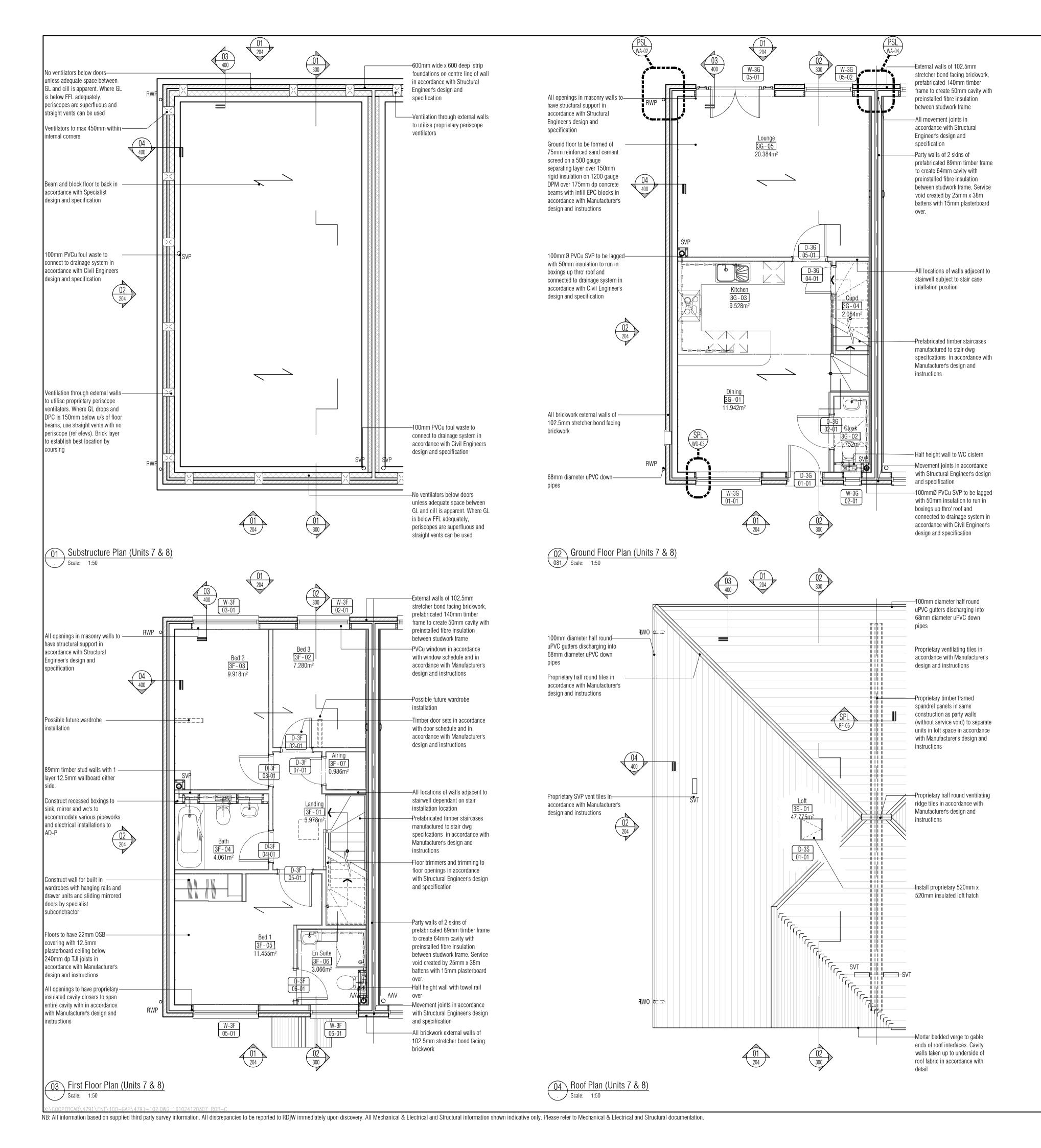
'<sup>-</sup> 25.01.2016

Refer to Fire Stategy Plans for

cavity barriers and closers,

door and wall fire ratings

SCALE 1:50 @ A1 4791-101 HECKED



4791PG200; 4791PG201; 4791PG202 - xref's loaded in file

- CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE
- BEFORE WORK IS PUT IN HAND . WRITTEN DIMENSIONS ONLY TO BE TAKEN THIS DRAWING MUST NOT BE SCALED
- 3. ARCHITECT TO BE IMMEDIATELY NOTIFIED OF

SUSPECTED OMISSIONS OR DISCREPANCIES REVISIONS
C1 ISSUED FOR CONSTRUCTION

Wall Types Legend

Type A: External Wall.

102.5mm stretcher bond facing brickwork with 10mm mortar joints, 50mm cavity, Breather membrane, 9mm OSB, 140mm x 38mm timber stud frame with 115mm PIR insulation, VCL, finished internally 15mm plasterboard

24.10.16

Type B: External Subfloor Wall 100mm stretcher bond lightweight blockwork with 10mm mortar joints, 59mm cavity, 140mm stretcher bond light weight concrete blockwork with 10mm mortar joints.

Type C: Internal Party Wall. 64mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type D: Internal Party Wall (between staggered terraces). 100mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type E: Internal Timber Stud Wall. 38mm x 89mm timber studs at 400mm¢ with 15mm Soundbloc plasterboard each side

Type F: Internal Timber Stud Wall to bathrooms. 38mm x 89mm timber studs at 400mm¢ with 1 layer 15mm moisture resistant plasterboard to the "wet" side and 15mm Soundbloc plasterboard to the other

Type G: Internal Services Boxing Stud Wall. 38mm x 89mm timber stud at 400mm¢ with 2 layer 12.5mm moisture resistant plasterboard one side

Opening Reference Legend

Denotes room n°-

Denotes house type -Denotes opening type:— Door, Window, Screen

— Denotes opening / fenstration / aperture

Denotes floor level

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HOMES

CONSTRUCTION

## ARCHITECTS



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Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 3: Units 7 & 8 General Arrangement

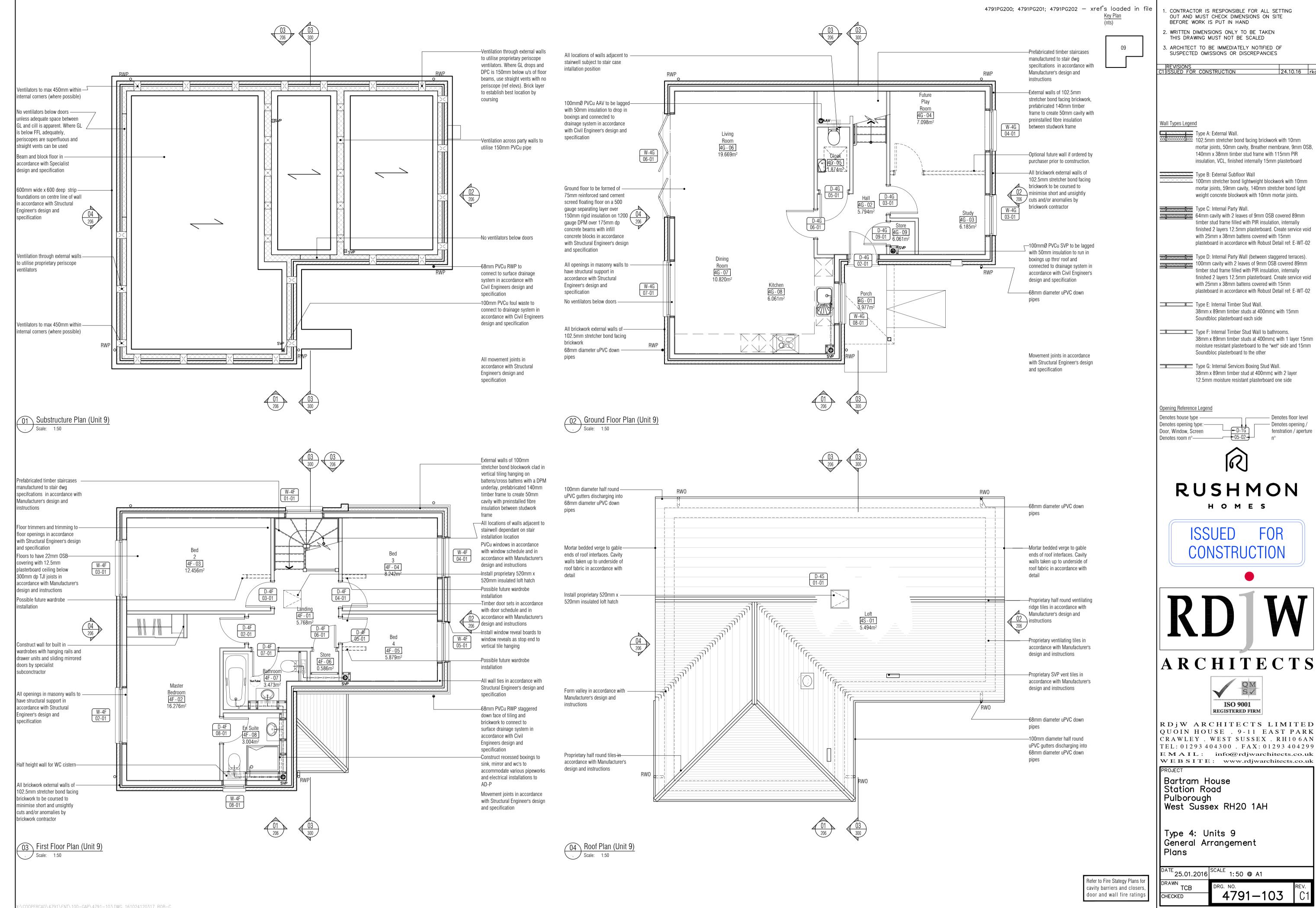
<sup>1</sup>25.01.2016

Refer to Fire Stategy Plans for

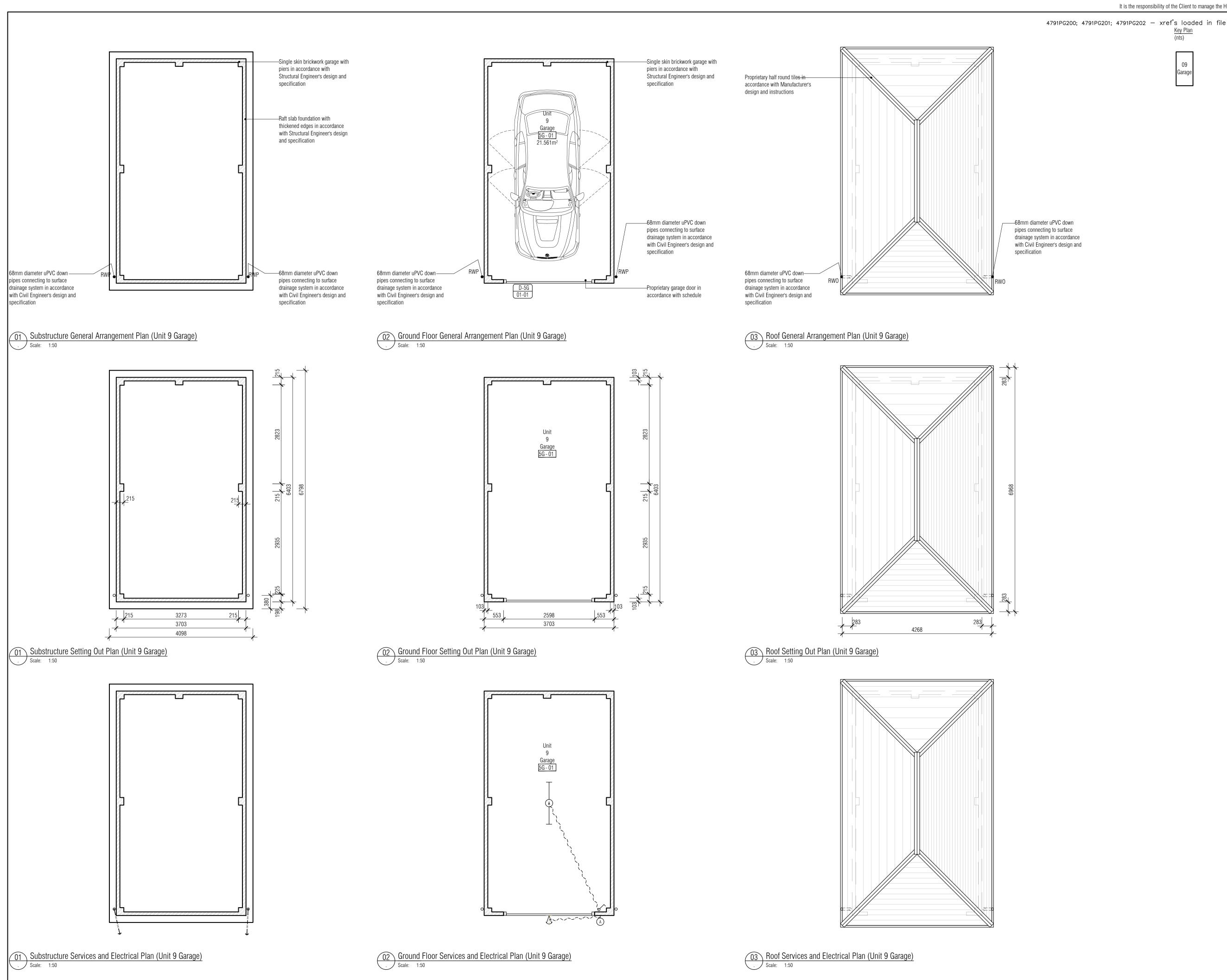
cavity barriers and closers

door and wall fire ratings

SCALE 1:50 @ A1 4791-102 CHECKED



Key Plan (nts)



. CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND . WRITTEN DIMENSIONS ONLY TO BE TAKEN THIS DRAWING MUST NOT BE SCALED 3. ARCHITECT TO BE IMMEDIATELY NOTIFIED OF SUSPECTED OMISSIONS OR DISCREPANCIES REVISIONS
C1 ISSUED FOR CONSTRUCTION Services Legend Circuit Line Consumer Unit With Electric Meter Adjacent Ceiling Mounted Flourescent tube
Pendant Luminaire Luminaire Ceiling Mounted Low Voltage Led Down Lighter (all) Wall Mounted Luminaire Double 13a Switched Socket Outlet With Usb Switched Fused Connection Unit CCU Cooker Control Unit Lightswitch Lightswitch - Neon indicator Heat Detector 2 Way Lightswitch Co Detector Dimmer Switch Smoke Detector With WH Worktop Height Door Bell Sounder BW Below Worktop DW Dishwasher Door Bell Button Fridge Freezer Boiler With Horizontal HC Hob & Cooker Flue CH Cooker Hood WD Washer Drier Boiler With Vertical Flue TR Towel Rail Thermostat Presence Detector (PIR) Radiator (with Length) Telephone Outlet Cyl Hot Water Cylinder TV outlet **€** Stopcock With Flow Arrow Satellite Outlet Extract Fan All electrical services/installations should comply to BS7671 and AD Part P All services and equipment are shown indicative only. All services should be set out on site prior to installation and location checked by Site Manager prior to installation. All equipment manufacturer's instructions and specifications, along with Building Regulations, should be checked for location compliance Opening Reference Legend Denotes house type — Denotes floor level

RUSHMON

H O M E S

— Denotes opening /

fenstration / aperture

Denotes opening type:—

Door, Window, Screen

Denotes room n°----

CONSTRUCTION



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REGISTERED FIRM

Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 5: Unit 9 Garage General Arrangement, Setting Out and Electrical Services Plans

ATE 25.01.2016 SCALE 1:50 @ A1 4791-104 CHECKED

Bartram House Station Road

DATE 22.02.16

CHECKED

Pulborough West Sussex RH20 1AH

Units 1 & 2 (3 & 4 handed)
Setting Out

SCALE 1:50 @ A1

4791-110

First Floor Setting Out Plan (Units 1-4)
Scale: 1:50

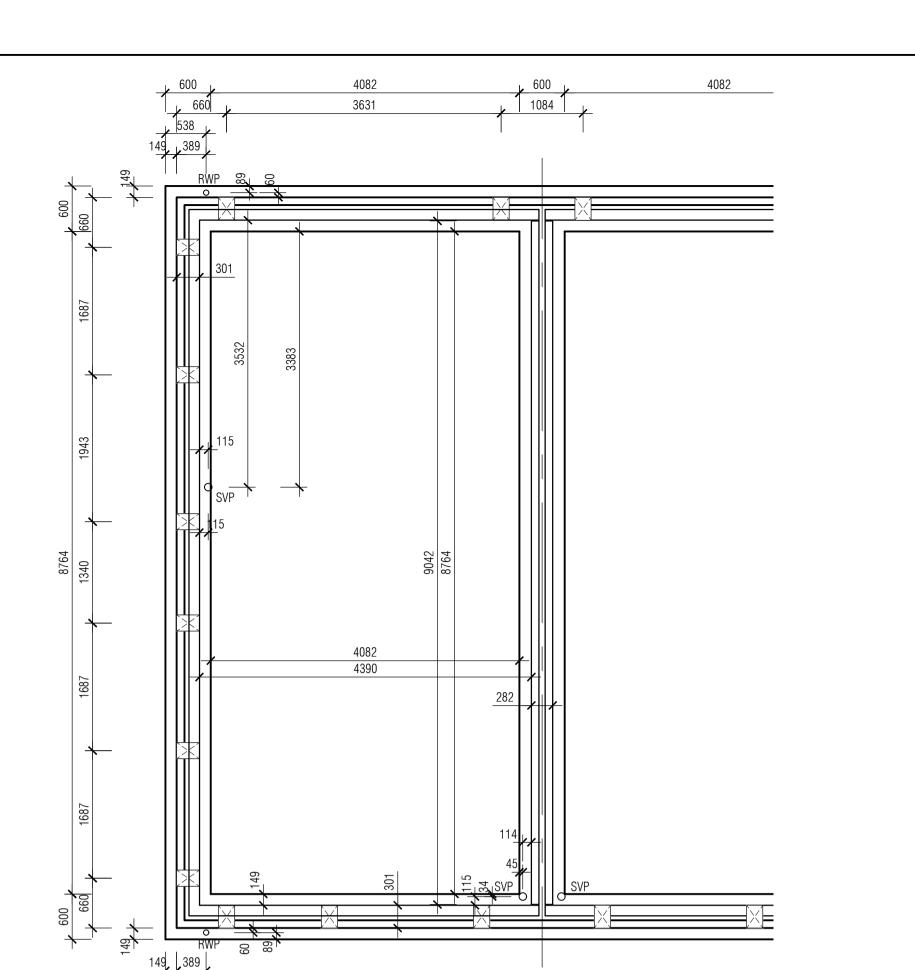
REVISIONS
C1 ISSUED FOR CONSTRUCTION

I. CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND

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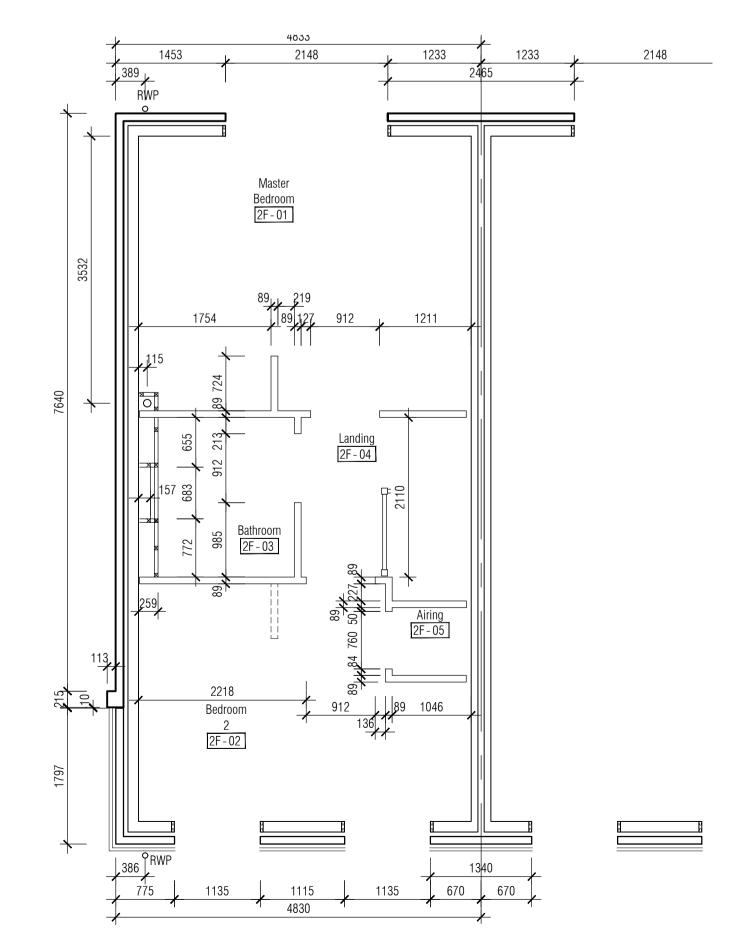
4791PG200; 4791PG201; 4791PG202 - xref's loaded in file



O1 Substructure Setting Out Plan (Units 5 & 6)
Scale: 1:50

Ground Floor Setting Out Plan (Units 5 & 6)

Scale: 1:50



03 First Setting Out Plan (Units 5 & 6)

Scale: 1:50

X:\COOPERCAD\4791\ENT\100-GAP\4791-111.DWG 161024120341 ROB-C

NB: All information based on supplied third party survey information. All discrepancies to be reported to RDjW immediately upon discovery. All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.







#### ARCHITECTS



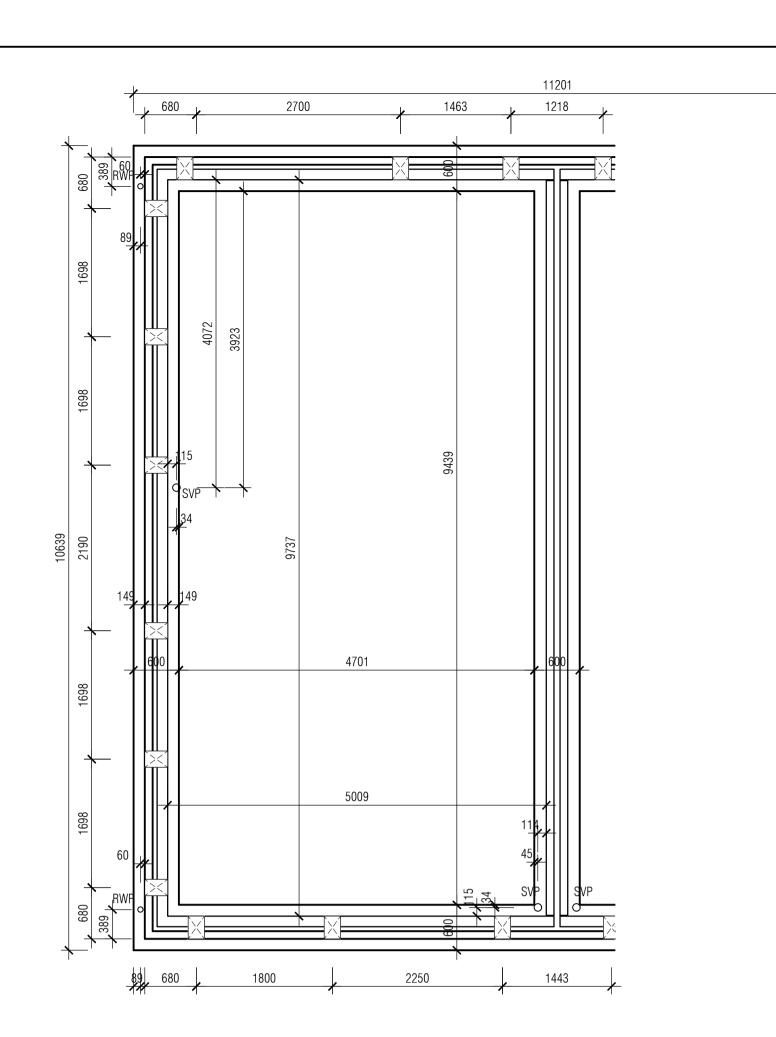
RDjW ARCHITECTS LIMITED QUOIN HOUSE . 9-11 EAST PARK CRAWLEY . WEST SUSSEX . RH10 6AN TEL: 01293 404300 . FAX: 01293 404299 EMAIL: info@rdjwarchitects.co.uk WEBSITE: www.rdjwarchitects.co.uk

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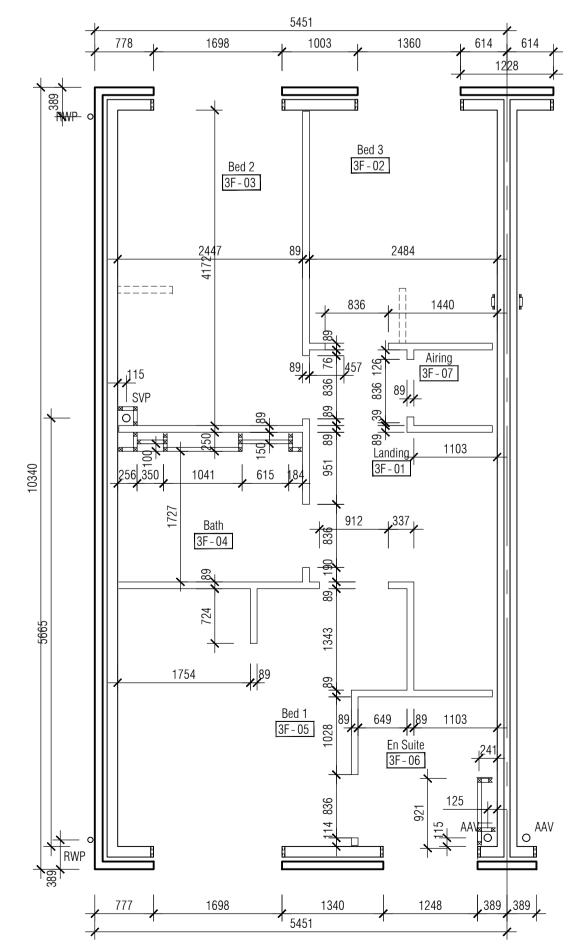
Units 5 & 6 Setting Out Plans

DATE 25.01.2016 SCALE 1:50 @ A1

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CHECKED DRG. NO.
4791-111



O1 Substructure Setting Out Plan (Units 7 & 8)



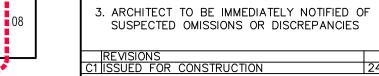
1248 3G - 04

Ground Floor Setting Out Plan (Units 7 & 8)

Scale: 1:50

I. CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND 4791PG200; 4791PG201; 4791PG202 — xref's loaded in file

2. WRITTEN DIMENSIONS ONLY TO BE TAKEN THIS DRAWING MUST NOT BE SCALED











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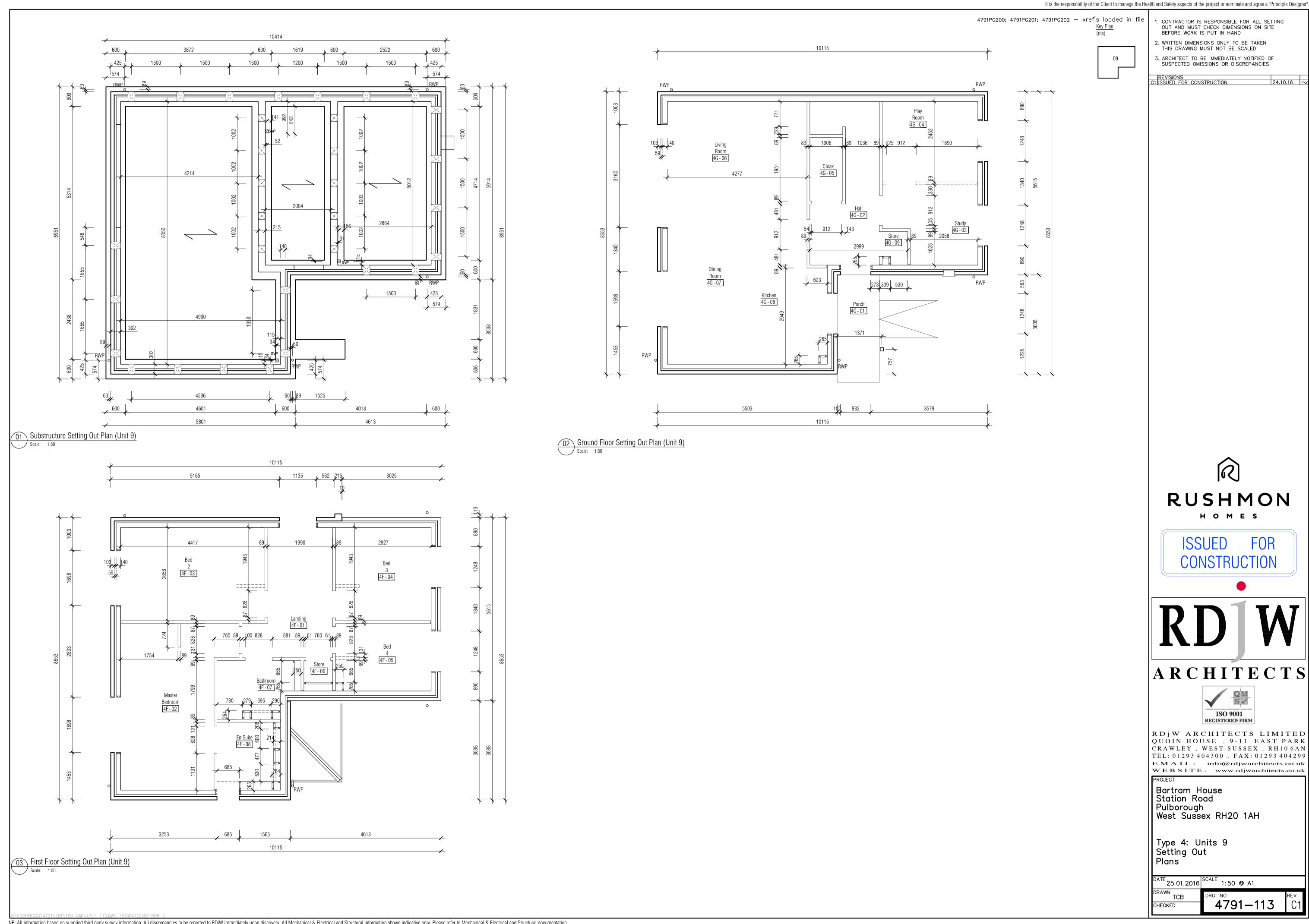
| Bartram House | Station Road Pulborough West Sussex RH20 1AH

Units 7 & 8 Setting Out

DATE 25.01.2016 SCALE 1:50 @ A1 4791-112 CHECKED

First Floor Setting Out Plan (Units 7 & 8)

Scale: 1:50



DATE 22.02.16

CHECKED

SCALE 1:50 @ A1

4791-120

CCU Cooker Control Unit

Co Detector

Smoke Detector With

Door Bell Sounder

Door Bell Button

Boiler With Horizontal

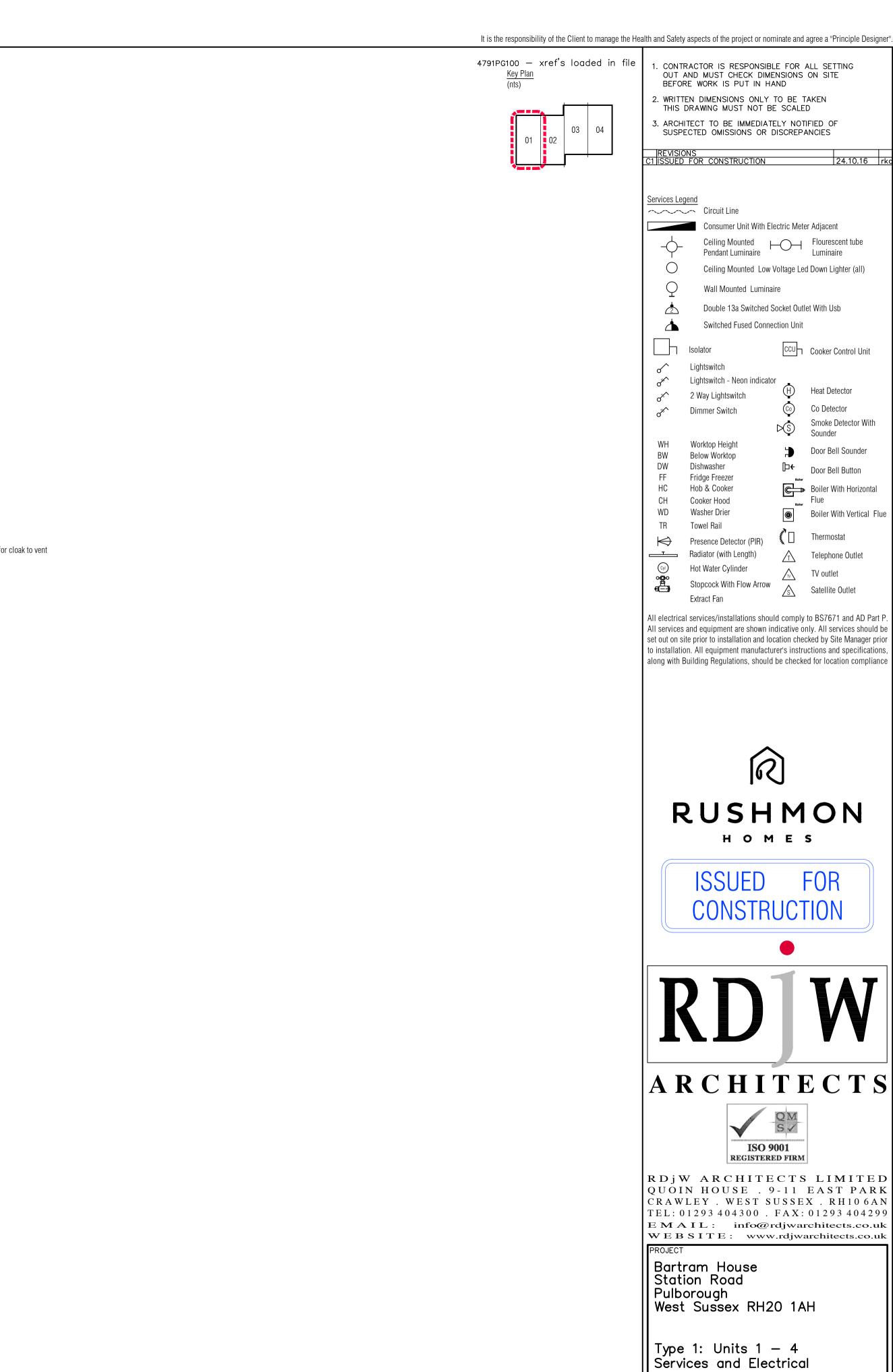
Boiler With Vertical Flue

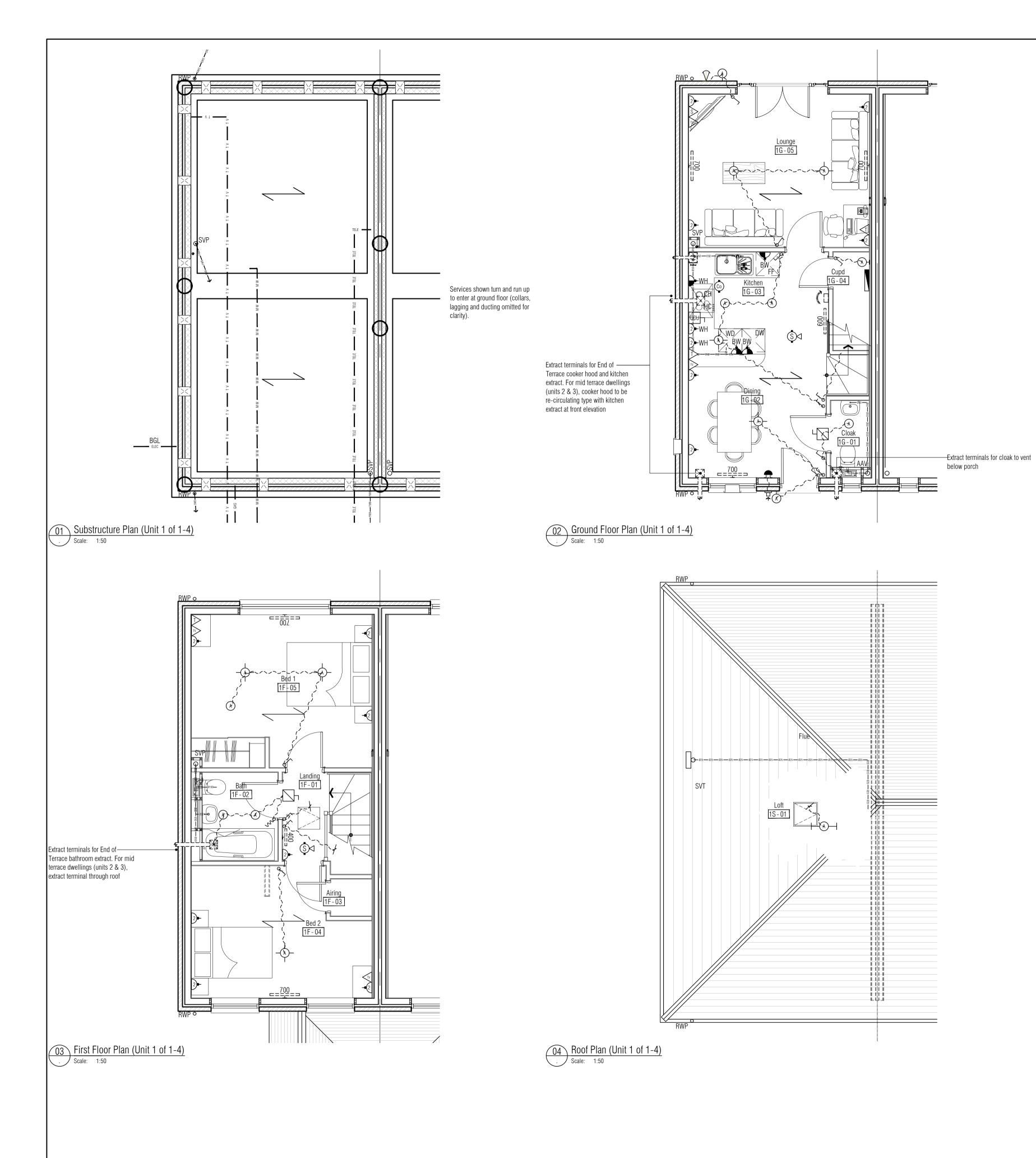
Telephone Outlet

Satellite Outlet

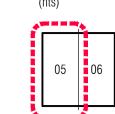
TV outlet

Flue



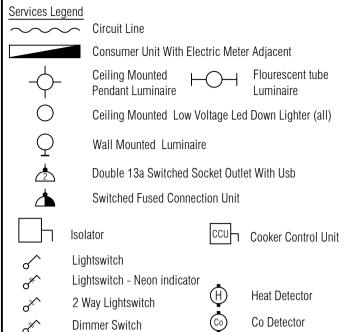


4791PG200; 4791PG201; 4791PG202 — xref's loaded in file <u>Key Plan</u> (nts)



- 1. CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND
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REVISIONS
C1 ISSUED FOR CONSTRUCTION 24.10.16 ri



Worktop Height
Below Worktop
Dishwasher
Fridge Freezer

Smoke Detector With
Sounder

Door Bell Sounder

Door Bell Button

FF Fridge Freezer
HC Hob & Cooker
CH Cooker Hood
WD Washer Drier
TR Towel Rail
Presence Detector (PIR)
Radiator (with Length)

Booler With Horizontal
Flue
Boiler With Vertical Flue
Thermostat
Thermostat

DW

Hot Water Cylinder

Stopcock With Flow Arrow
Extract Fan

TV outlet

Satellite Outlet

All electrical services/installations should comply to BS7671 and AD Part P. All services and equipment are shown indicative only. All services should be set out on site prior to installation and location checked by Site Manager prior to installation. All equipment manufacturer's instructions and specifications, along with Building Regulations, should be checked for location compliance









RDjW ARCHITECTS LIMITED QUOIN HOUSE . 9-11 EAST PARK CRAWLEY . WEST SUSSEX . RH10 6AN TEL: 01293 404300 . FAX: 01293 404299 EMAIL: info@rdjwarchitects.co.uk WEBSITE: www.rdjwarchitects.co.uk

Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 2: Units 5 & 6 Services and Electrical Plans

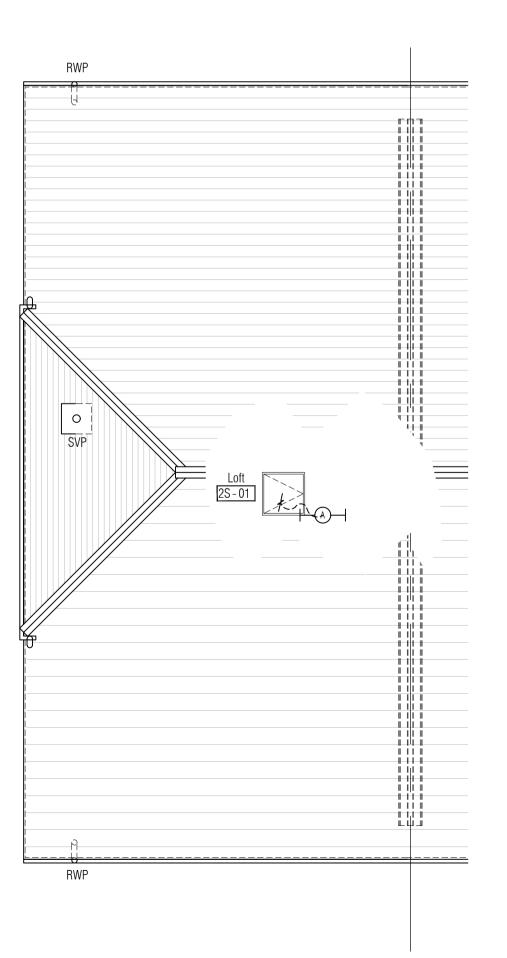
DATE 25.01.2016 SCALE 1:50 @ A1

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CHECKED DRG. NO.

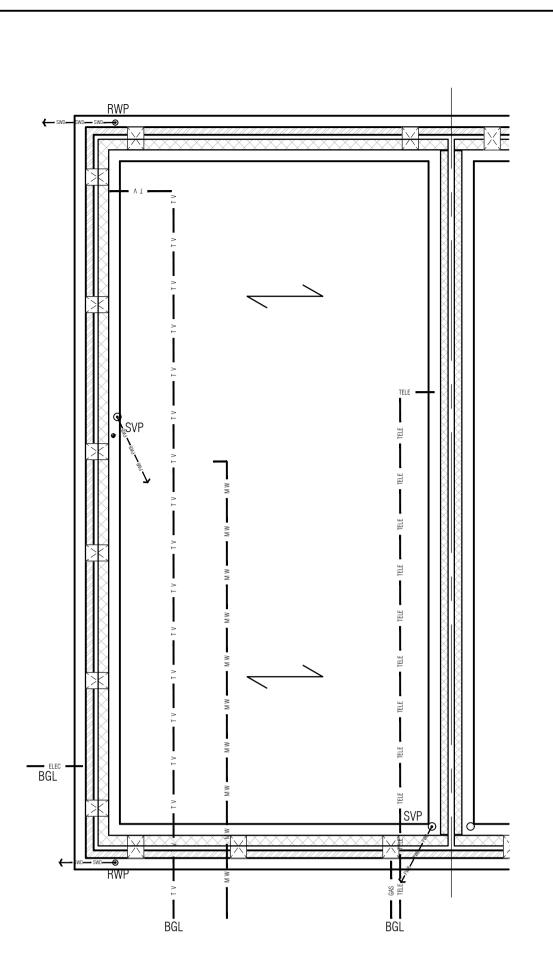
4791—121 RE

RWP COUNTY TO THE PARTY OF THE

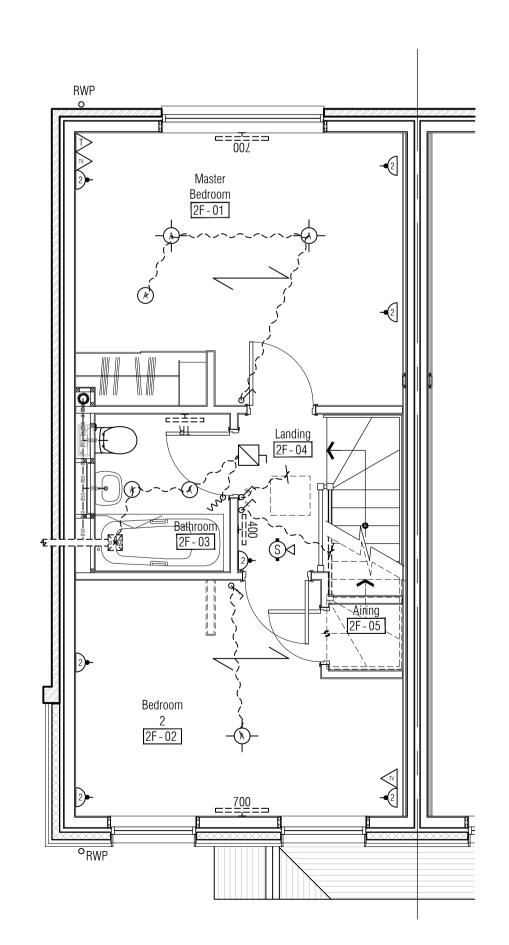
Ground Floor Plan (Units 5 & 6)
Scale: 1:50



04 Roof Plan (Units 5 & 6)
Scale: 1:50



Substructure Plan (Units 5 & 6)
Scale: 1:50

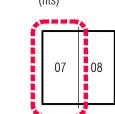


03 First Plan (Units 5 & 6)
Scale: 1:50

\(\text{\COOPERCAD\4791\ENT\\100-GAP\\4791-121.DWG}\) 161024120416 \(\text{ROB-C}\)

NB: All information based on supplied third party survey information. All discrepancies to be reported to RDjW immediately upon discovery. All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.

4791PG200; 4791PG201; 4791PG202 — xref's loaded in file

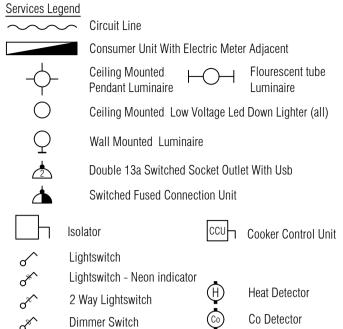


CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND

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| REVISIONS | C1 | ISSUED FOR CONSTRUCTION |



Smoke Detector With Worktop Height Door Bell Sounder Below Worktop Dishwasher Door Bell Button Fridge Freezer

Boiler With Horizontal HC Hob & Cooker Flue CH Cooker Hood Boiler With Vertical Flue WD Washer Drier Presence Detector (PIR) Radiator (with Length) Telephone Outlet

DW

Cyl Hot Water Cylinder TV outlet Stopcock With Flow Arrow Satellite Outlet Extract Fan

All electrical services/installations should comply to BS7671 and AD Part P. All services and equipment are shown indicative only. All services should be set out on site prior to installation and location checked by Site Manager prior to installation. All equipment manufacturer's instructions and specifications, along with Building Regulations, should be checked for location compliance



FOR CONSTRUCTION



# ARCHITECTS



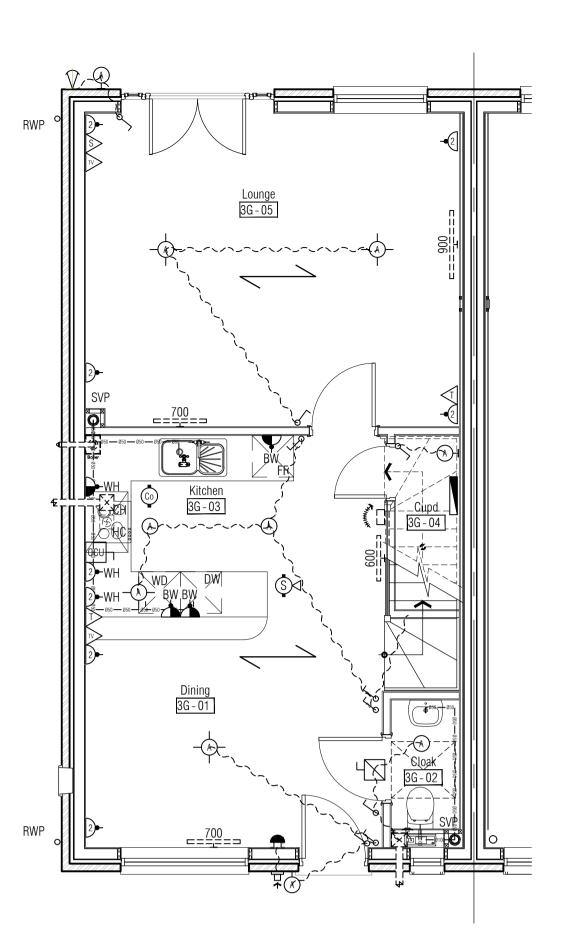
RDjW ARCHITECTS LIMITED QUOIN HOUSE . 9-11 EAST PARK CRAWLEY . WEST SUSSEX . RH106AN TEL: 01293 404300 . FAX: 01293 404299 EMAIL: info@rdjwarchitects.co.uk WEBSITE: www.rdjwarchitects.co.uk

Bartram House Station Road Pulborough West Sussex RH20 1AH

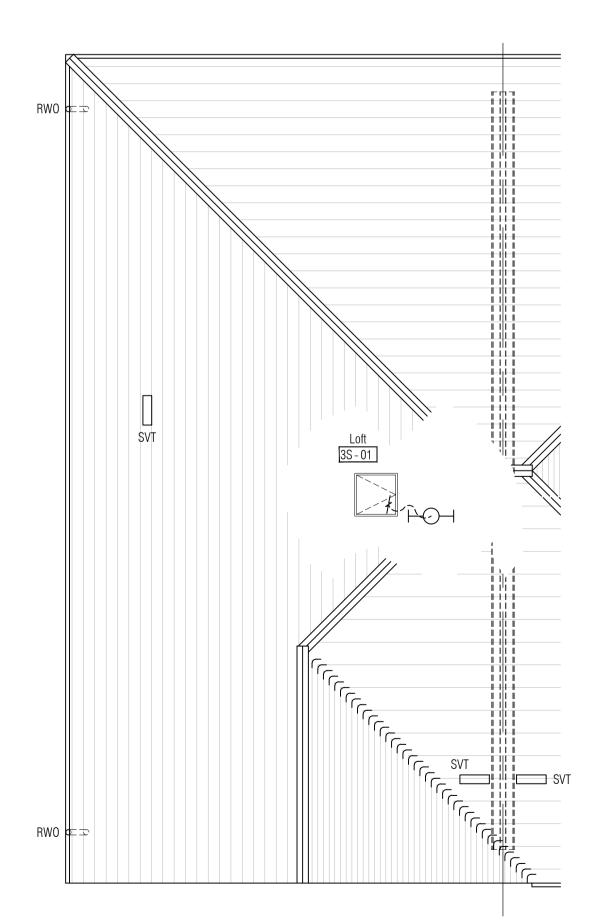
Type 3: Units 7 & 8 Services and Electrical

CHECKED

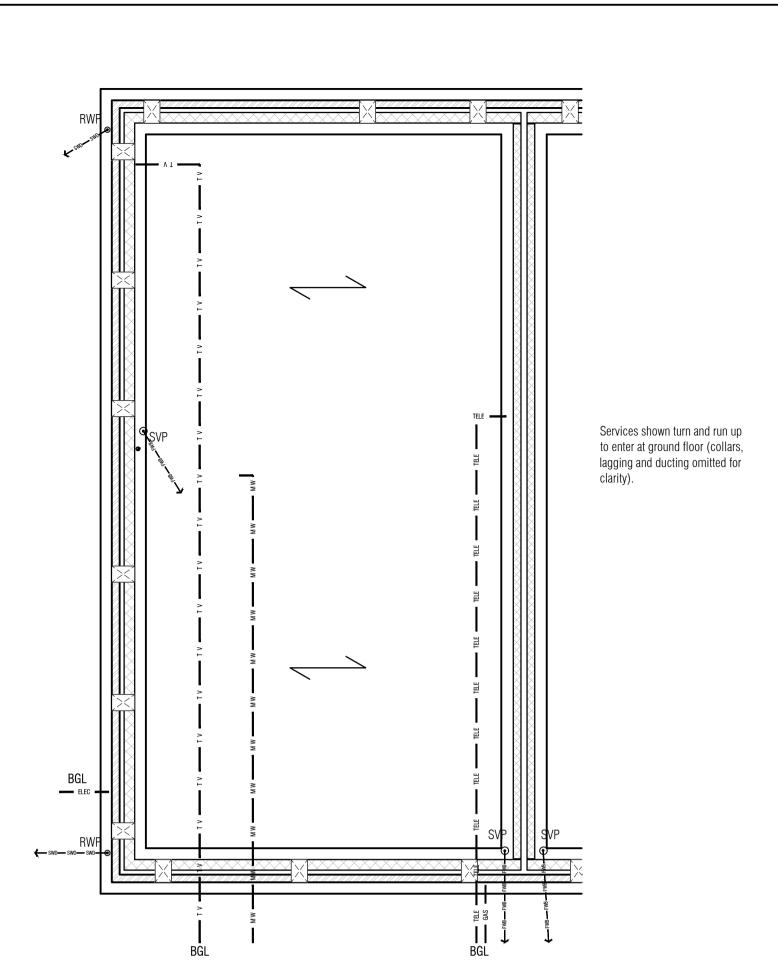
<sup>SCALE</sup> 25.01.2016 SCALE 1:50 **A** A1 4791-122



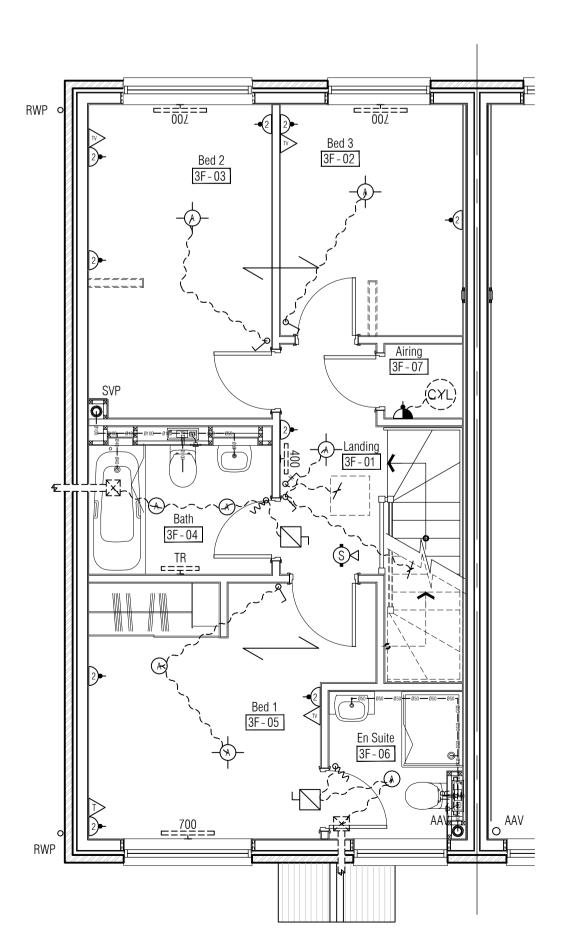
©2 Ground Floor Plan (Units 7 & 8)



Roof Plan (Units 7 & 8)
Scale: 1:50







03 First Floor Plan (Units 7 & 8)

4791PG200; 4791PG201; 4791PG202 — xref's loaded in file

- . CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND . WRITTEN DIMENSIONS ONLY TO BE TAKEN
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| REVISIONS | C1 | ISSUED FOR CONSTRUCTION |

Circuit Line

Consumer Unit With Electric Meter Adjacent Ceiling Mounted Flourescent tube
Pendant Luminaire Luminaire Ceiling Mounted Low Voltage Led Down Lighter (all) Wall Mounted Luminaire

Double 13a Switched Socket Outlet With Usb

Switched Fused Connection Unit CCU Cooker Control Unit

Lightswitch Lightswitch - Neon indicator 2 Way Lightswitch Co Detector Dimmer Switch Smoke Detector With

Worktop Height Door Bell Sounder BW Below Worktop DW Dishwasher Door Bell Button Fridge Freezer Boiler With Horizontal HC Hob & Cooker Flue CH Cooker Hood WD Washer Drier

Cyl

Boiler With Vertical Flue Thermostat Presence Detector (PIR) Radiator (with Length) Telephone Outlet Hot Water Cylinder TV outlet

Stopcock With Flow Arrow Satellite Outlet All electrical services/installations should comply to BS7671 and AD Part P. All services and equipment are shown indicative only. All services should be

set out on site prior to installation and location checked by Site Manager prior to installation. All equipment manufacturer's instructions and specifications, along with Building Regulations, should be checked for location compliance



CONSTRUCTION





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Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 4: Units 9 Services and Electrical

OATE 25.01.2016 SCALE 1:50 @ A1 4791-123

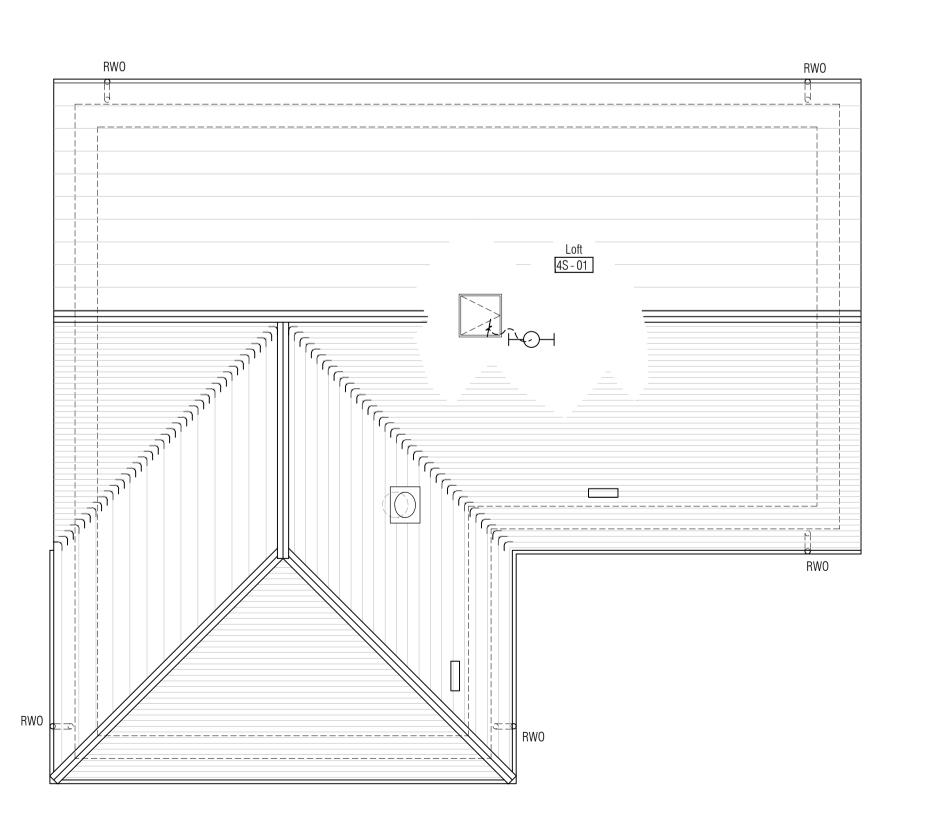
CHECKED

-(A)----(A)-\_\_\_\_\_



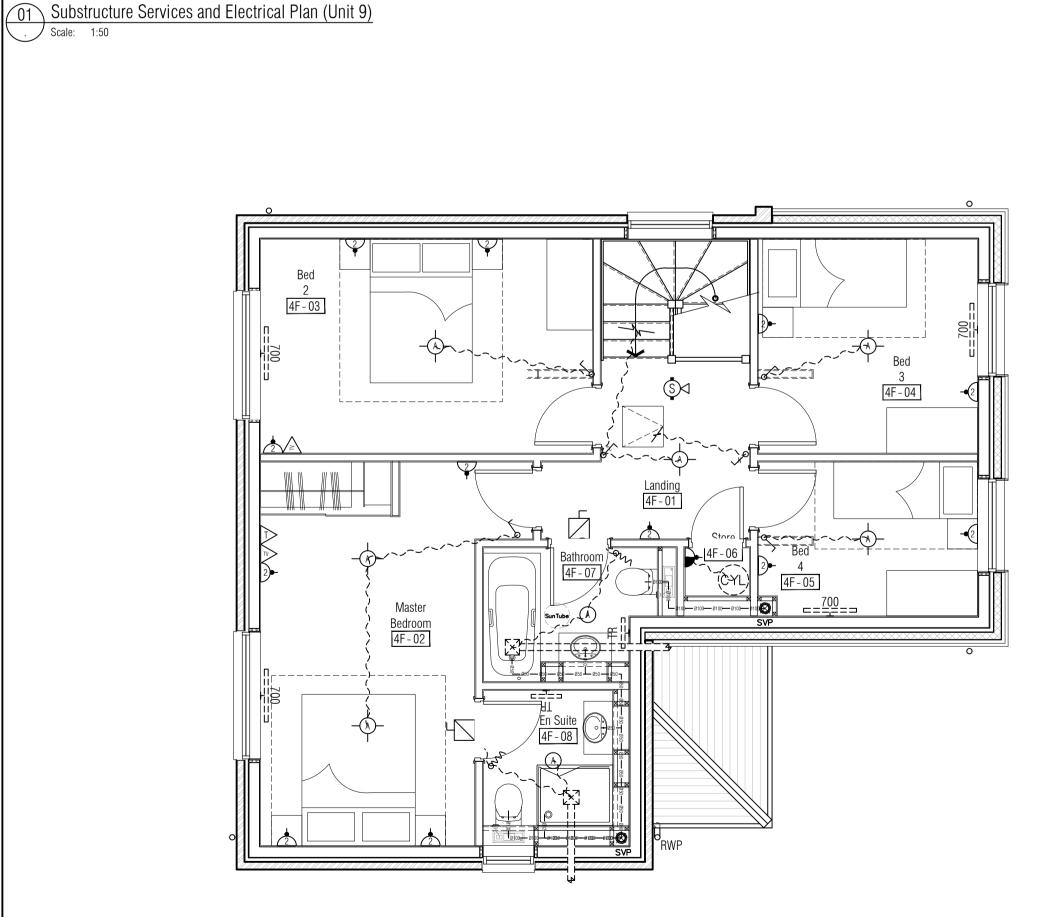
RWP

GAS — GAS — BGL

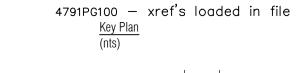


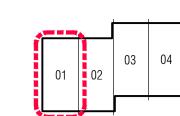
Ground Floor Services and Electrical Plan (Unit 9)

Scale: 1:50



03 First Floor Services and Electrical Plan (Unit 9)





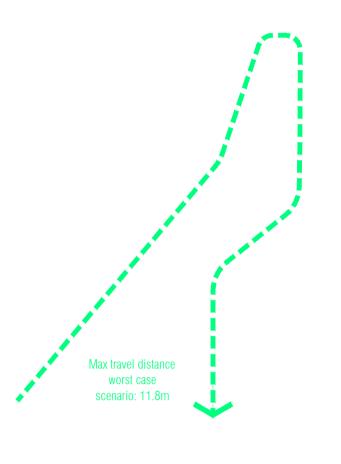
- 1. CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND
- 2. WRITTEN DIMENSIONS ONLY TO BE TAKEN
  THIS DRAWING MUST NOT BE SCALED
- 3. ARCHITECT TO BE IMMEDIATELY NOTIFIED OF SUSPECTED OMISSIONS OR DISCREPANCIES

REVISIONS
C1 ISSUED FOR CONSTRUCTION

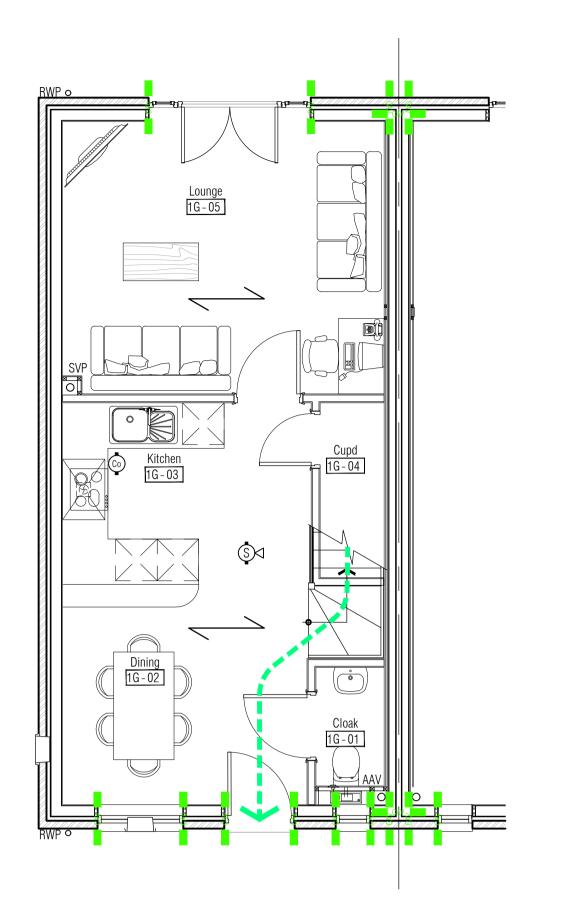
Fire Strategy Key

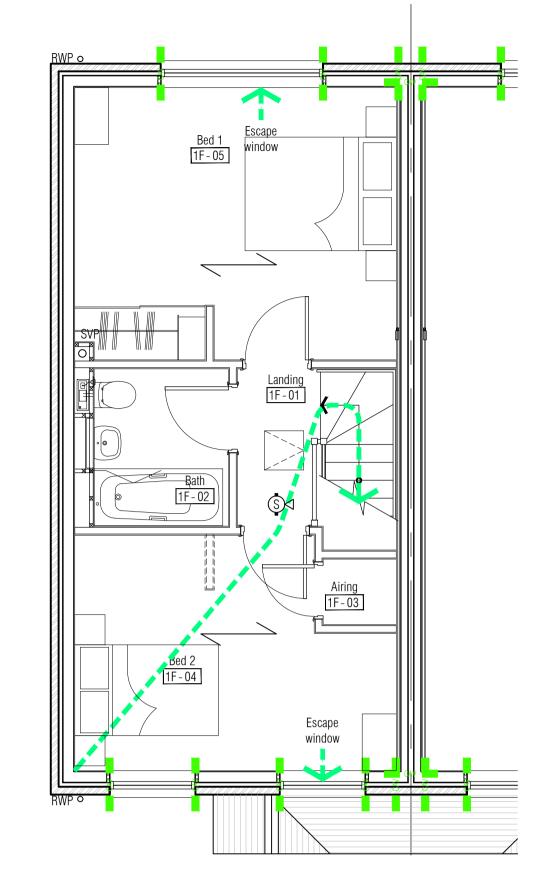
CAV Denotes 30 minute fire rated cavity barrier Denotes direction of escape

While every attempt to maintain correct fire compartmentation during the design, it remains the Contractors responsibility to ensure fire compartmentation integrity is maintained, repaired and made good.



04 Max Travel distance (Units 1-4) Scale: 1:50

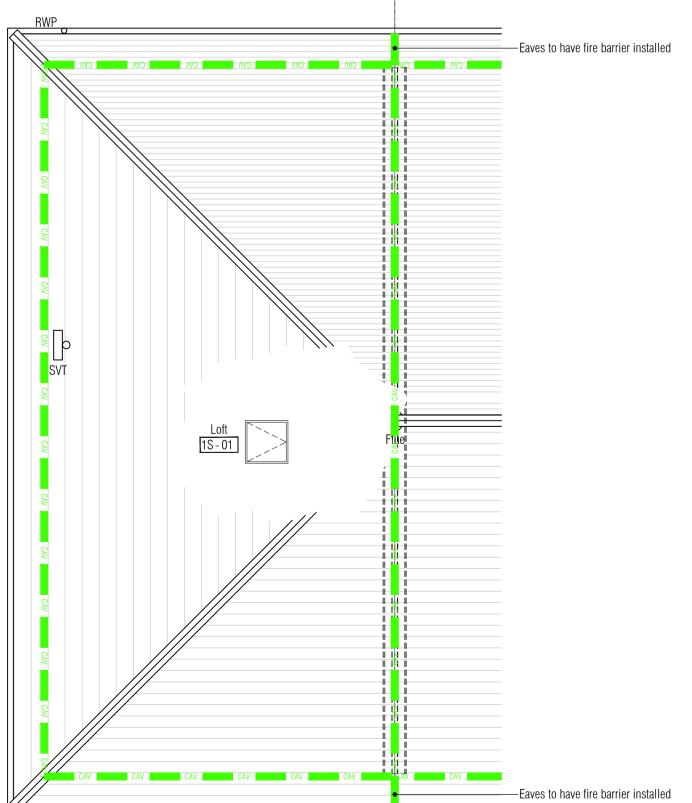




02 First Floor Plan (Units 1-4)

. Scale: 1:50

O1 Ground Floor Plan (Units 1-4)



Roof Plan (Units 1-4)

NB: All information based on supplied third party survey information. All discrepancies to be reported to RDjW immediately upon discovery. All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.

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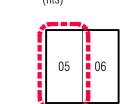
RDjW ARCHITECTS LIMITED QUOIN HOUSE . 9-11 EAST PARK CRAWLEY . WEST SUSSEX . RH106AN TEL: 01293 404300 . FAX: 01293 404299 EMAIL: info@rdjwarchitects.co.uk WEBSITE: www.rdjwarchitects.co.uk

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Type 1: Units 1 — 4 Fire Strategy

DATE 22.02.16 SCALE 1:50 @ A1

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2. WRITTEN DIMENSIONS ONLY TO BE TAKEN THIS DRAWING MUST NOT BE SCALED

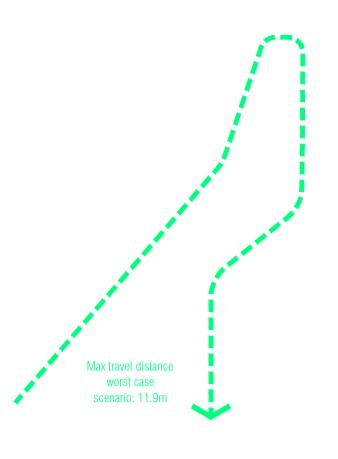
3. ARCHITECT TO BE IMMEDIATELY NOTIFIED OF

SUSPECTED OMISSIONS OR DISCREPANCIES REVISIONS
C1 ISSUED FOR CONSTRUCTION

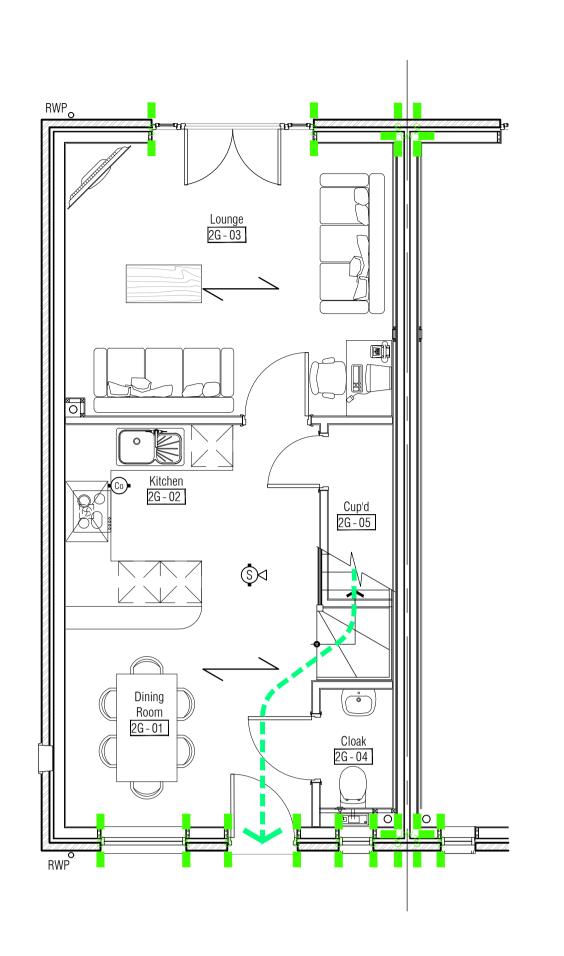
Fire Strategy Key

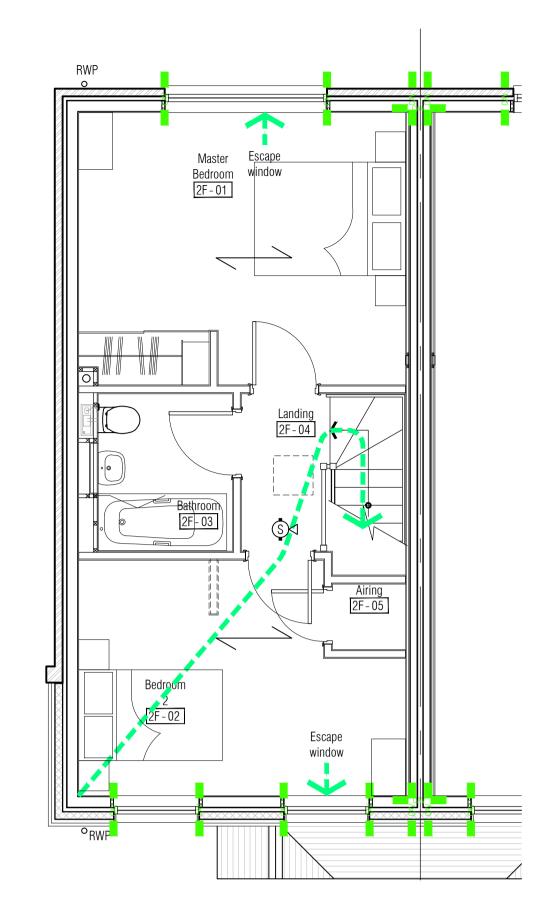
CAV CAV Denotes 30 minute fire rated cavity barrier Denotes direction of escape

While every attempt to maintain correct fire compartmentation during the design, it remains the Contractors responsibility to ensure fire compartmentation integrity is maintained, repaired and made good.



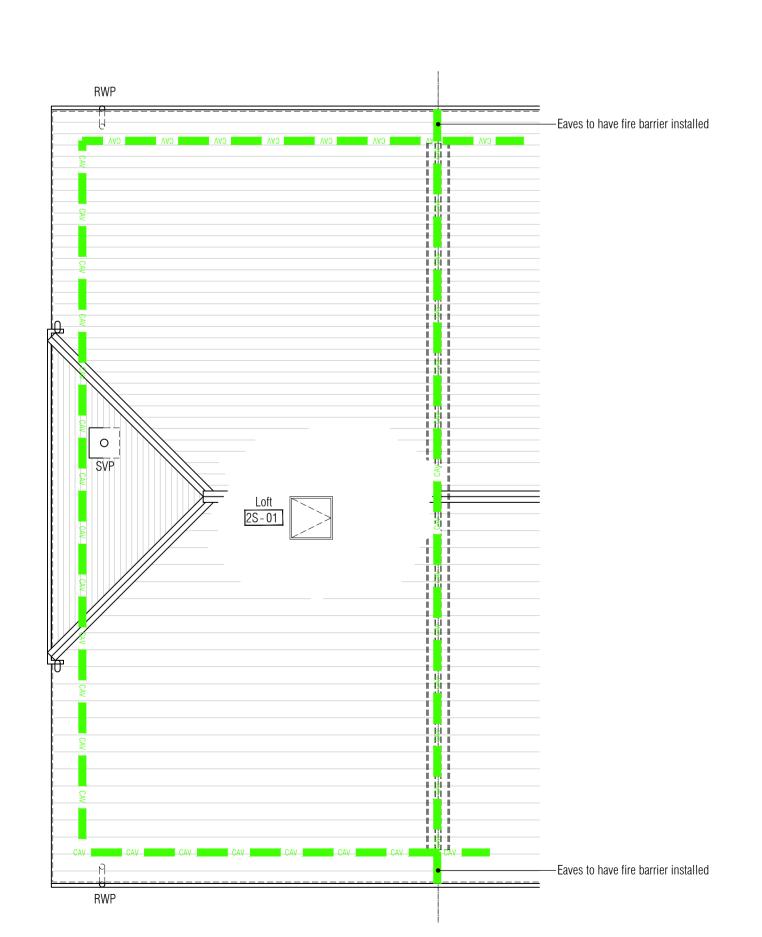
Scale: 1:50





O2 First Floor Plan (Units 5&6)

. Scale: 1:50



04 Max Travel distance (Units 5&6)

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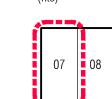
Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 2: Units 5 & 6 Fire Strategy

DATE 22.02.16 SCALE 1:50 @ A1 4791-131 CHECKED

Roof Plan (Units 5&6)

01 Ground Floor Plan (Units 5&6)



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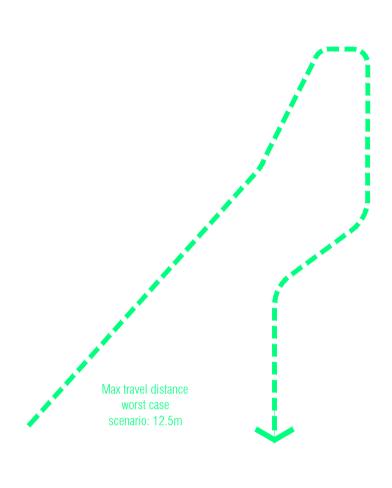
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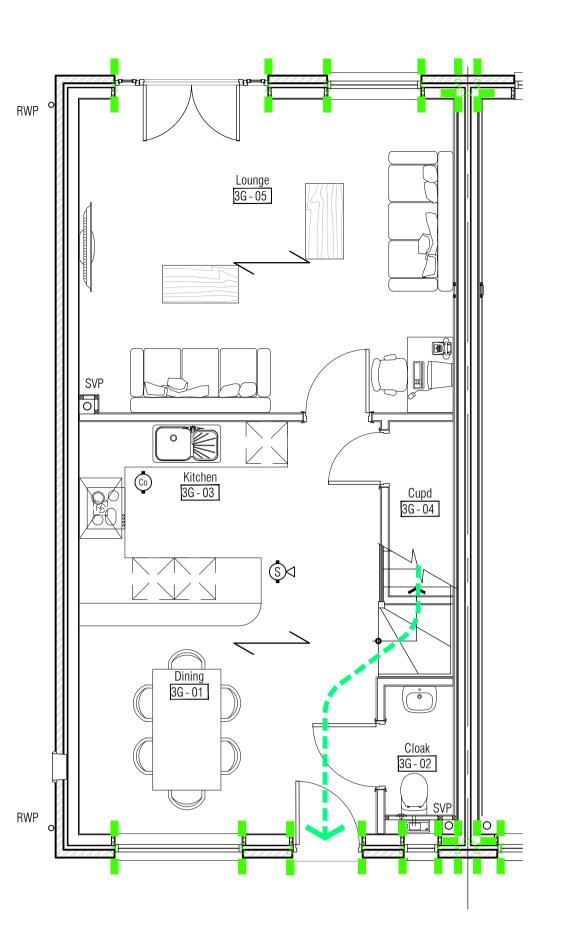
SUSPECTED OMISSIONS OR DISCREPANCIES REVISIONS
C1 ISSUED FOR CONSTRUCTION

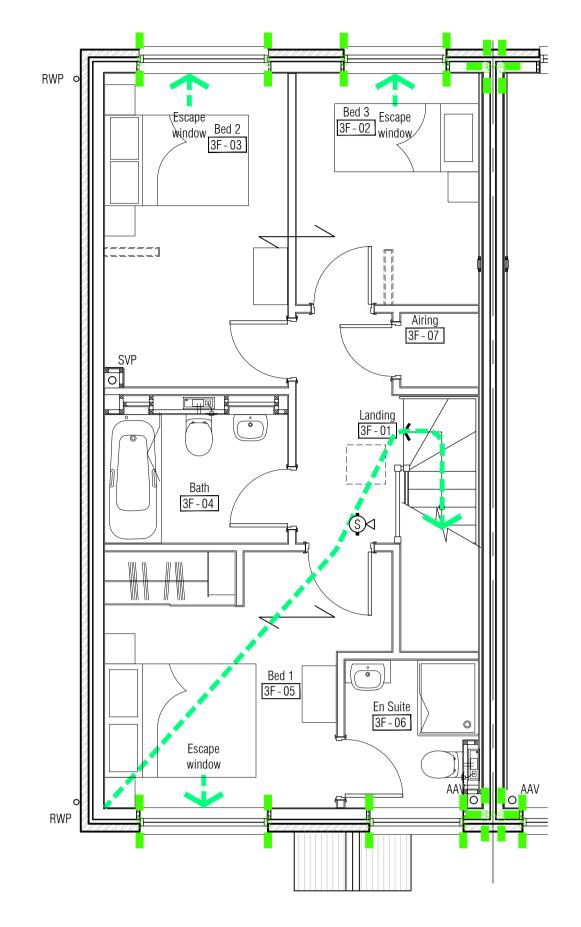
Fire Strategy Key

CAV CAV Denotes 30 minute fire rated cavity barrier Denotes direction of escape

While every attempt to maintain correct fire compartmentation during the design, it remains the Contractors responsibility to ensure fire compartmentation integrity is maintained, repaired and made good.

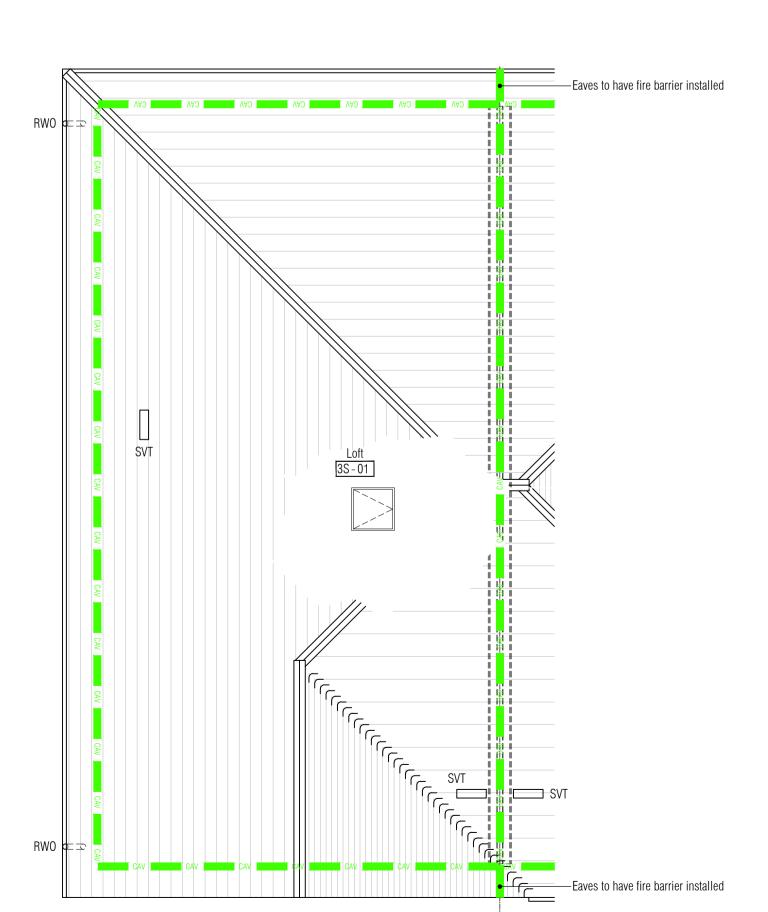






O2 First Floor Plan (Units 7&8)

. Scale: 1:50



04 Max Travel distance (Units 7&8) Scale: 1:50

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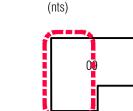
Bartram House Station Road Pulborough West Sussex RH20 1AH

Type 3: Units 7 & 8
Fire Strategy

DATE 22.02.16 | SCALE 1:50 @ A1 4791-132 CHECKED

Roof Plan (Units 7&8)

01 Ground Floor Plan (Units 7&8)



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Fire Strategy Key

CAV CAV Denotes 30 minute fire rated cavity barrier Denotes direction of escape

While every attempt to maintain correct fire compartmentation during the design, it remains the Contractors responsibility to ensure fire compartmentation integrity is maintained, repaired and made good.



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4791-133

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Type 4: Unit 9 Fire Strategy

CHECKED

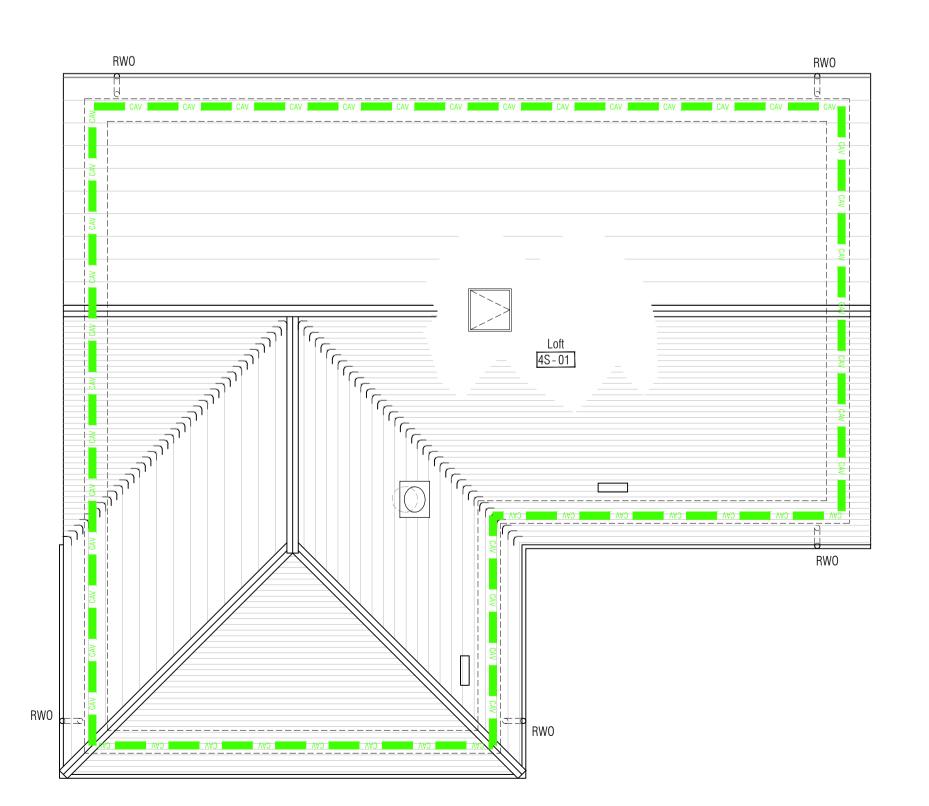
DATE 22.02.16 SCALE 1:50 @ A1

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window **L**-----

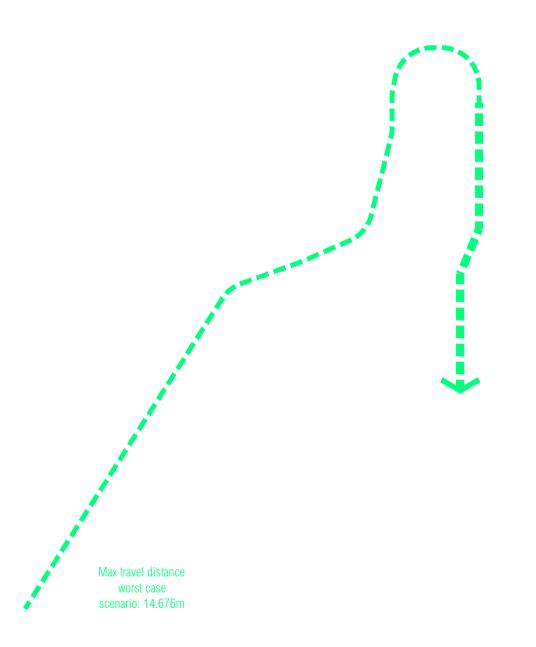
01 Ground Floor Plan (Units 9)

03 Roof Plan (Units 9)

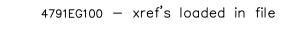


Escape window

First Floor Plan (Units 9)
Scale: 1:50



Max Travel distance (Units 9)
Scale: 1:50



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Glazing Legend

Refer to elevations for varying glass types and treatments

Denotes safety glass in all areas below 800mm above finished floor level

Denotes obscure glazing

Denotes obscure safety glass in all areas below 800mm above finished floor level









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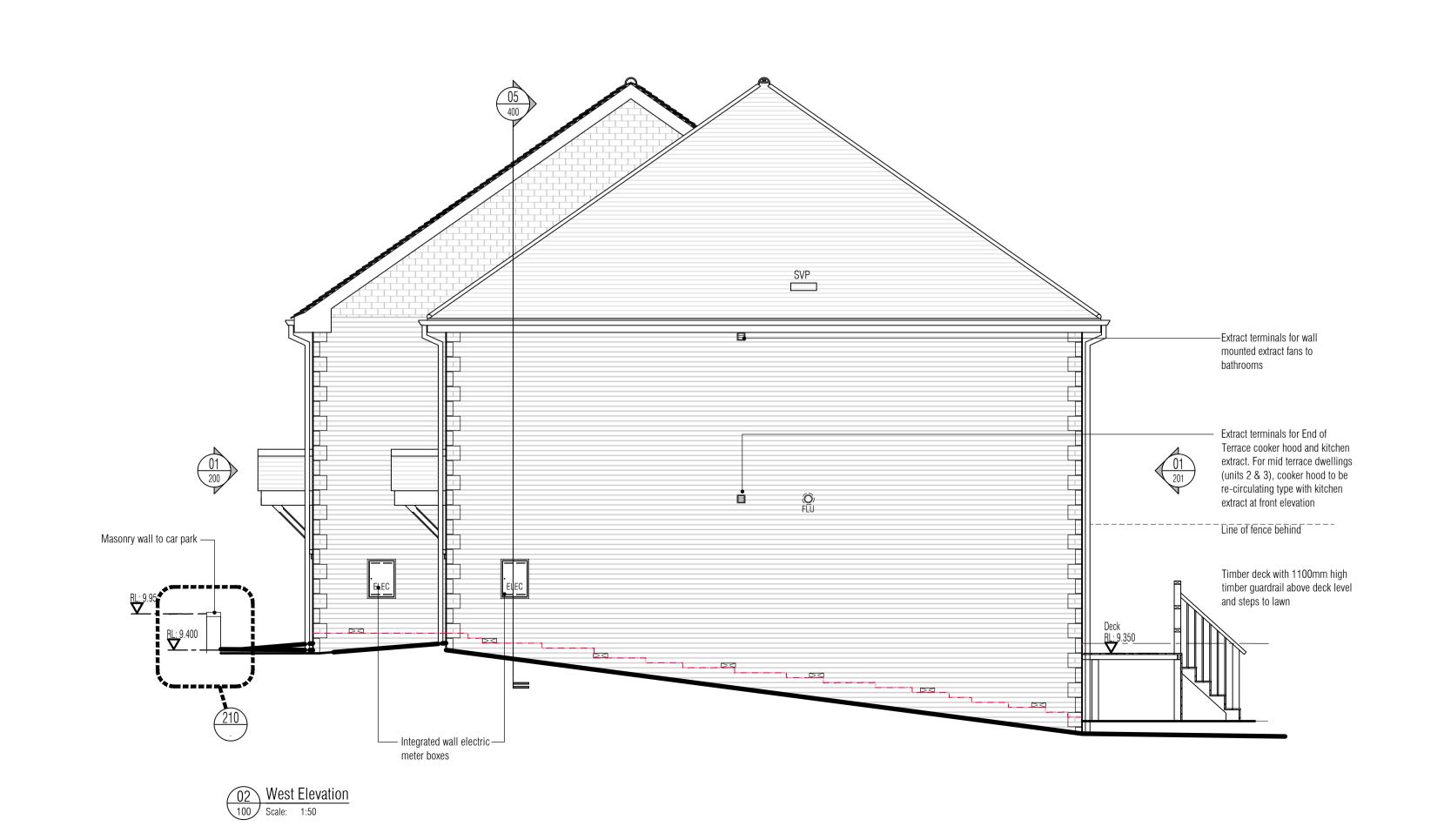
Units 1 - 4 North & West Elevations

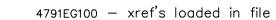
CHECKED

DATE 25.01.2016 SCALE 1:50 @ A1

4791-200

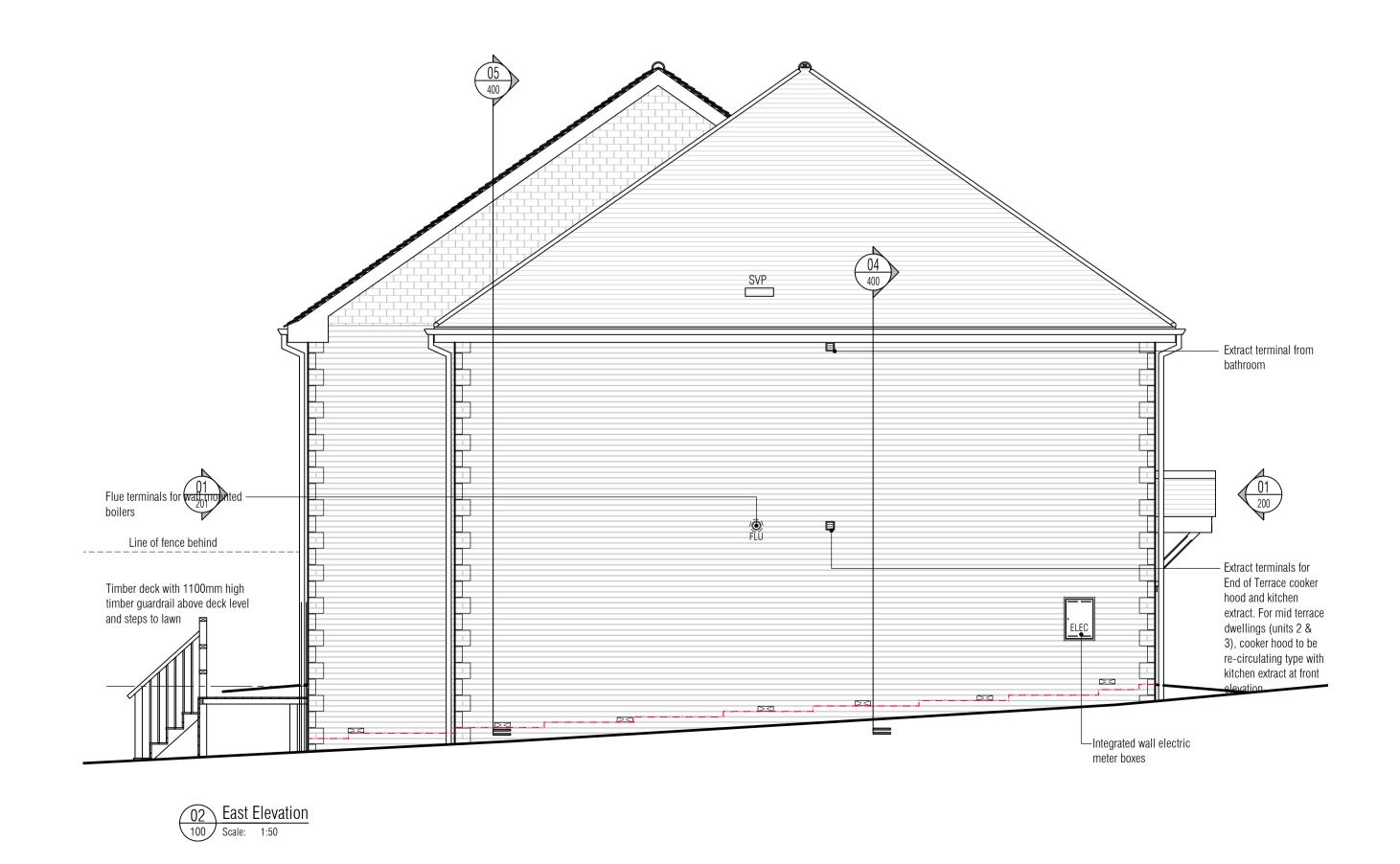












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| REVISIONS | C1 | ISSUED FOR CONSTRUCTION 24.10.16 rkd

Glazing Legend

Refer to elevations for varying glass types and treatments

Denotes safety glass in all areas below 800mm above finished floor level

Denotes obscure glazing

Denotes obscure safety glass in all areas below 800mm above finished floor level







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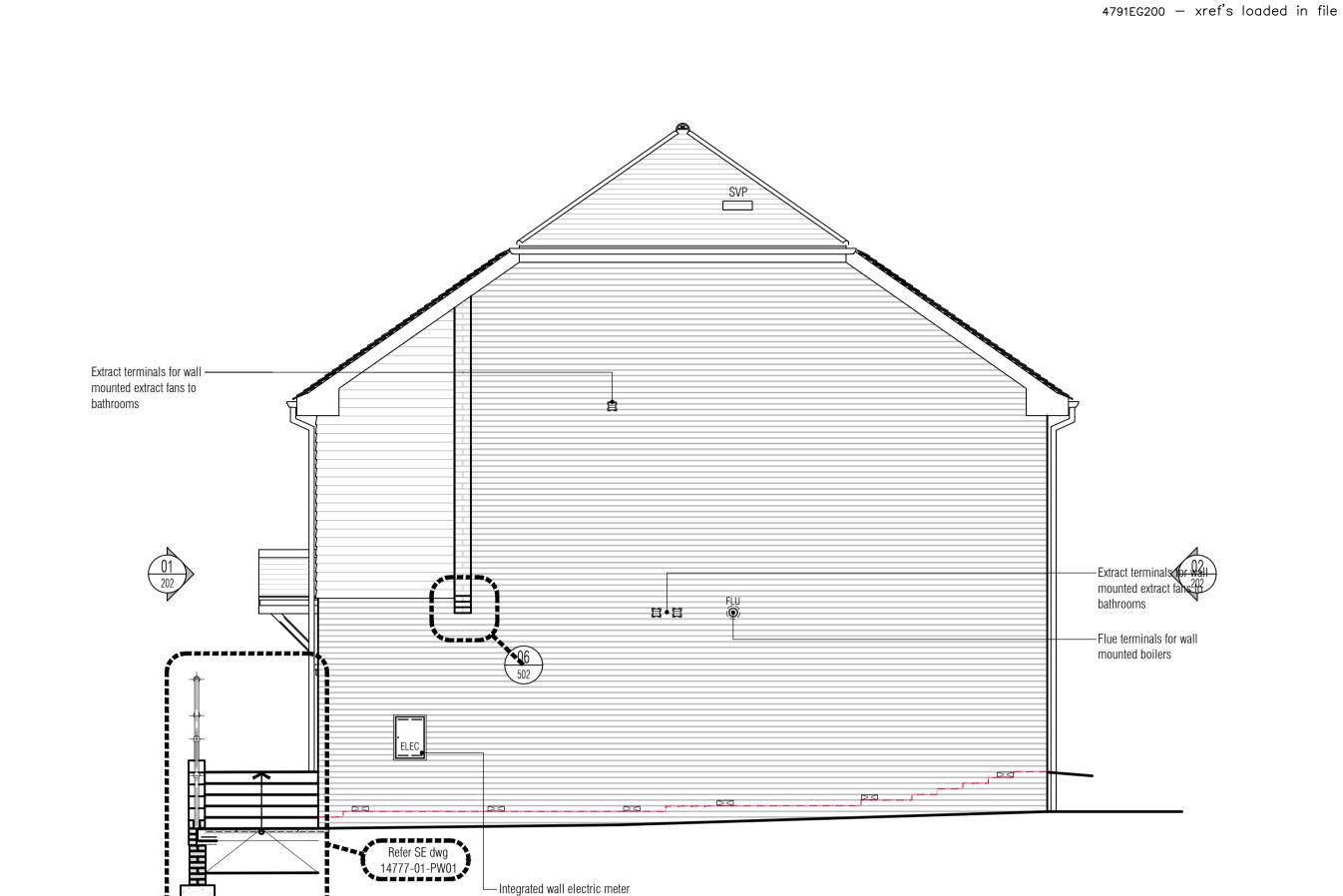
Bartram House Station Road Pulborough West Sussex RH20 1AH

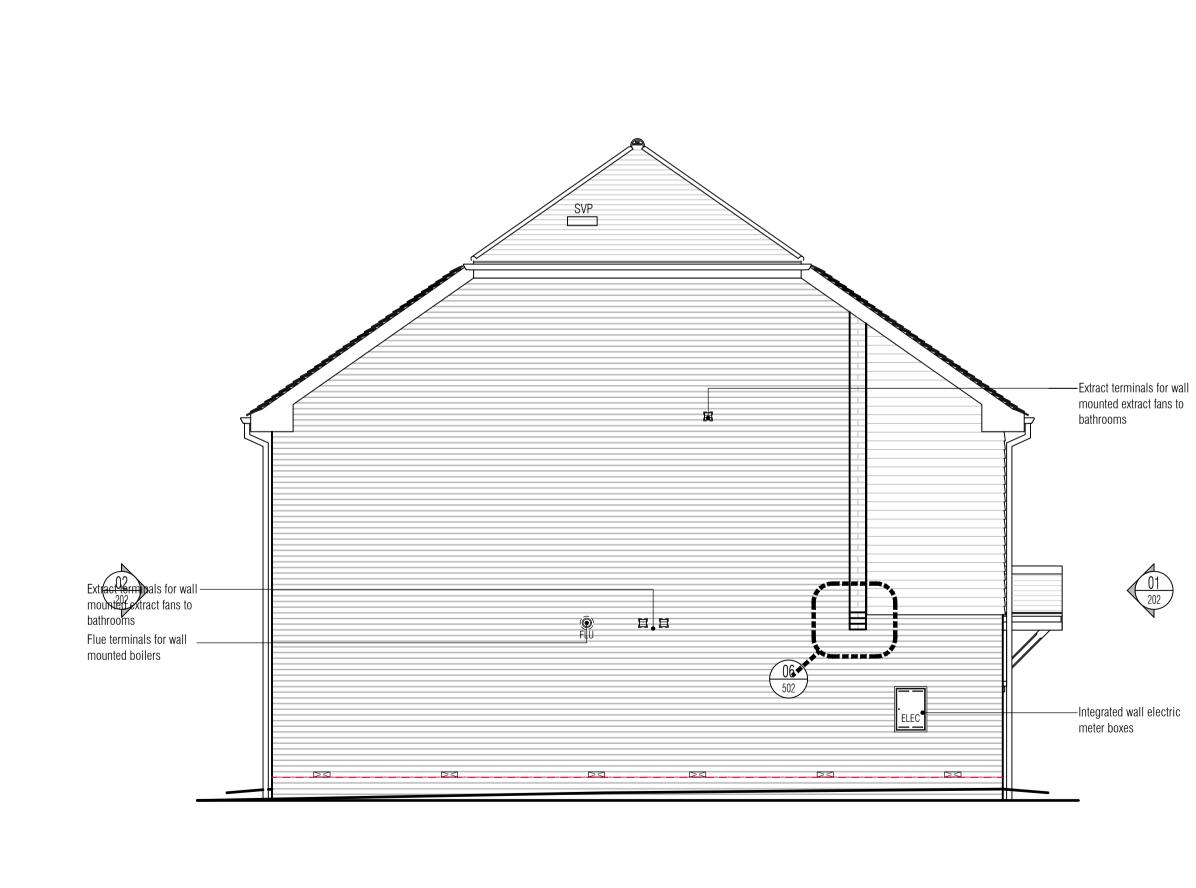
Units 1 - 4 South & East Elevations

CHECKED

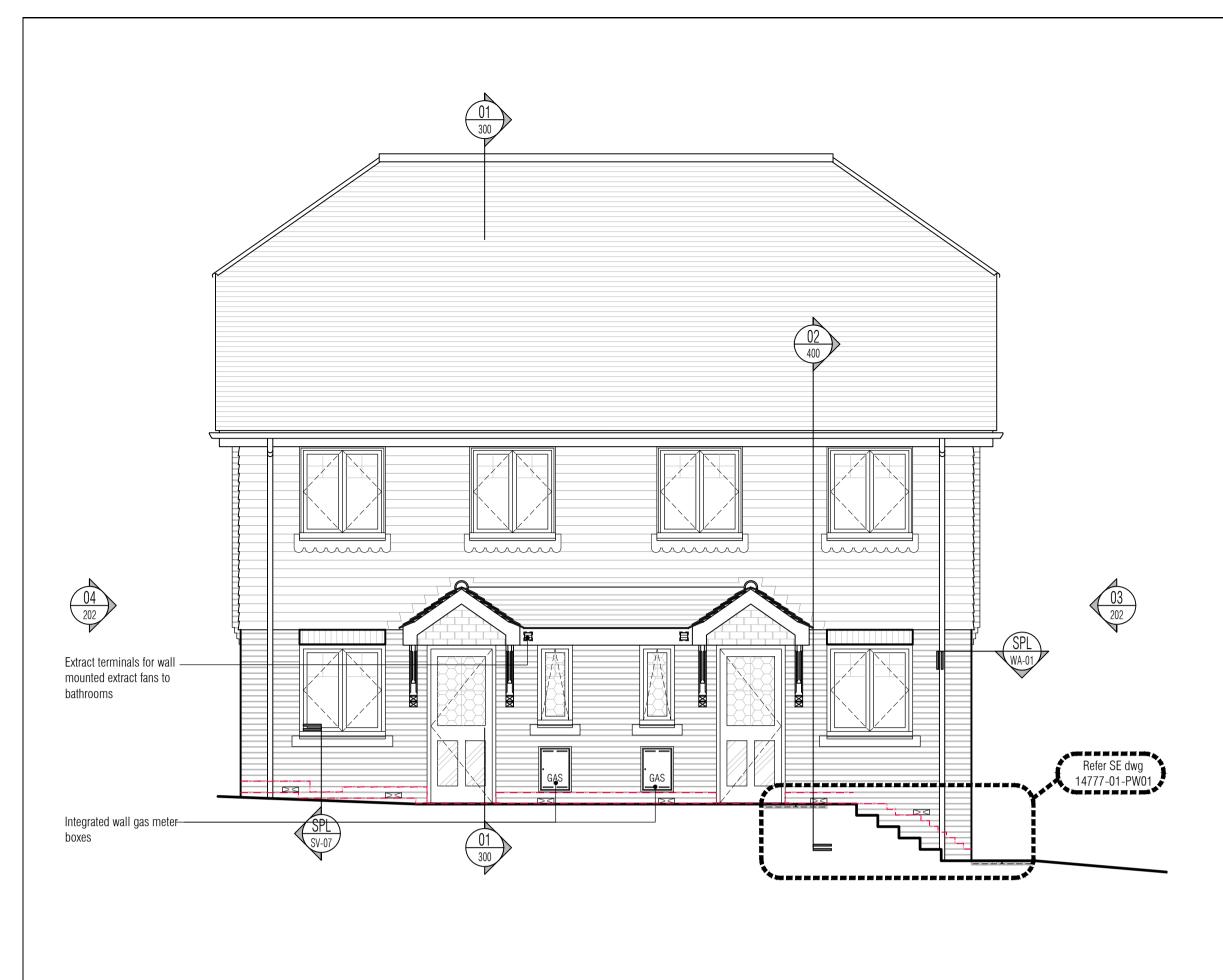
DATE 25.01.2016 SCALE 1:50 @ A1

4791-201

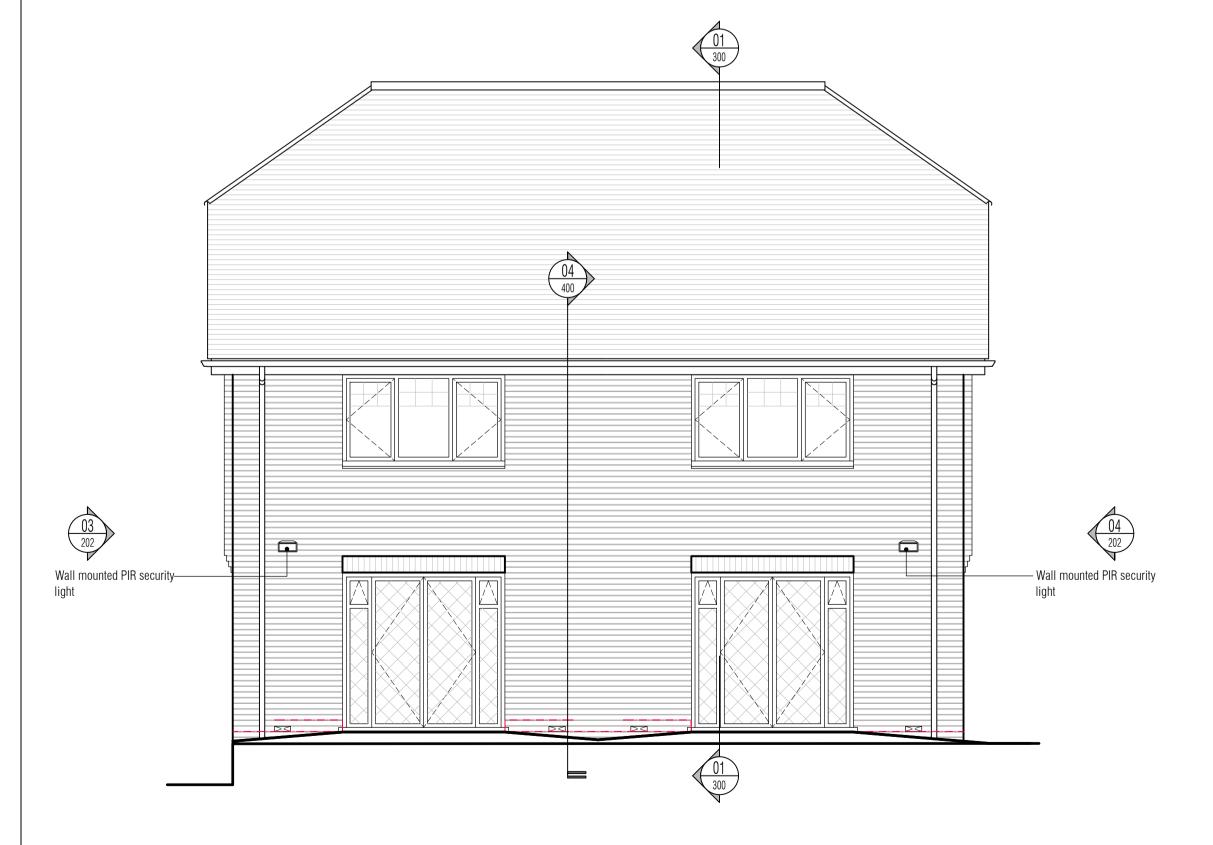




North Elevation
Scale: 1:50









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| REVISIONS | C1 | ISSUED FOR CONSTRUCTION 24.10.16 rkd

Glazing Legend

Refer to elevations for varying glass types and treatments

Denotes safety glass in all areas below 800mm above finished floor level

Denotes obscure glazing

Denotes obscure safety glass in all areas below 800mm above finished floor level



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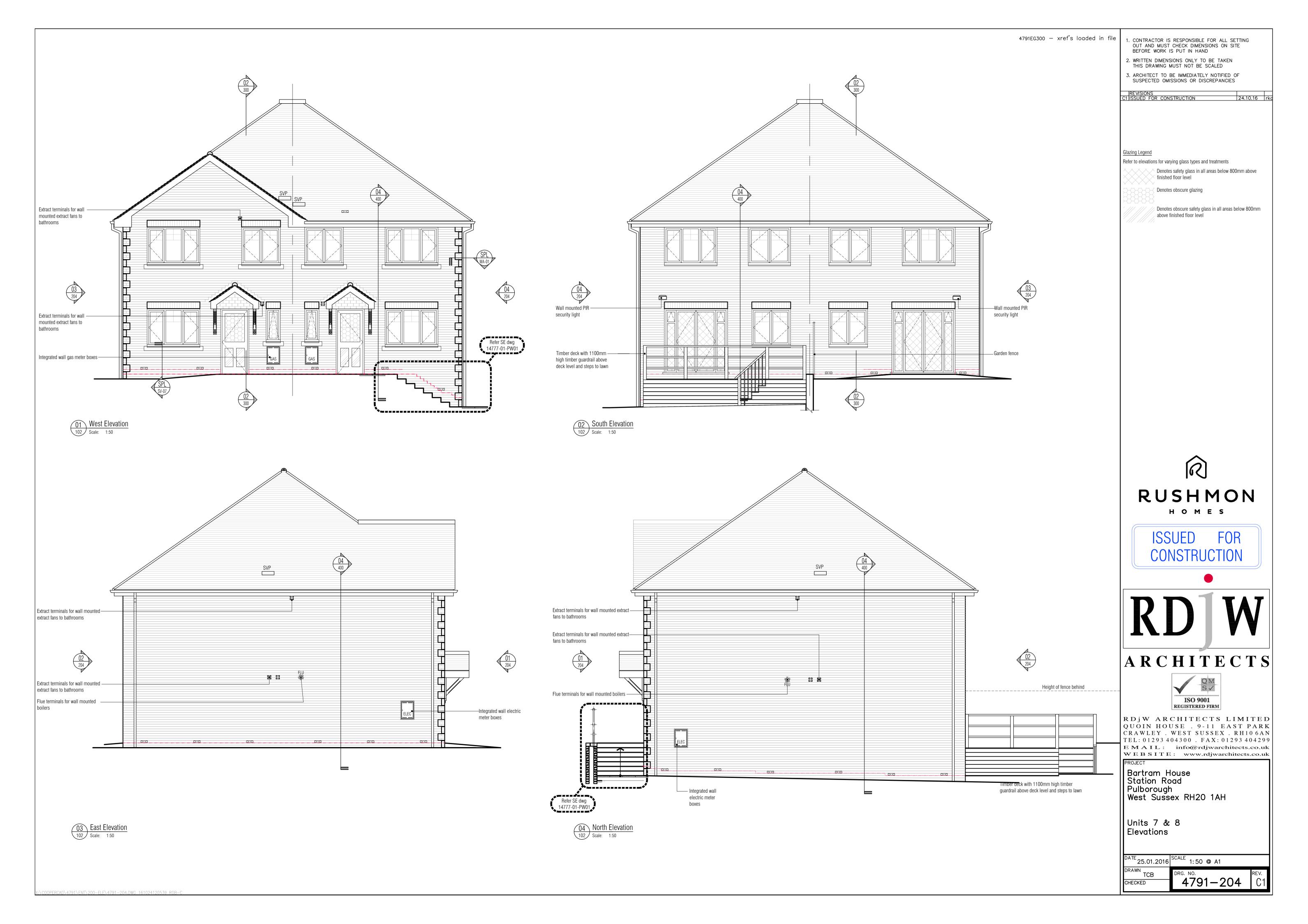
Bartram House Station Road Pulborough West Sussex RH20 1AH

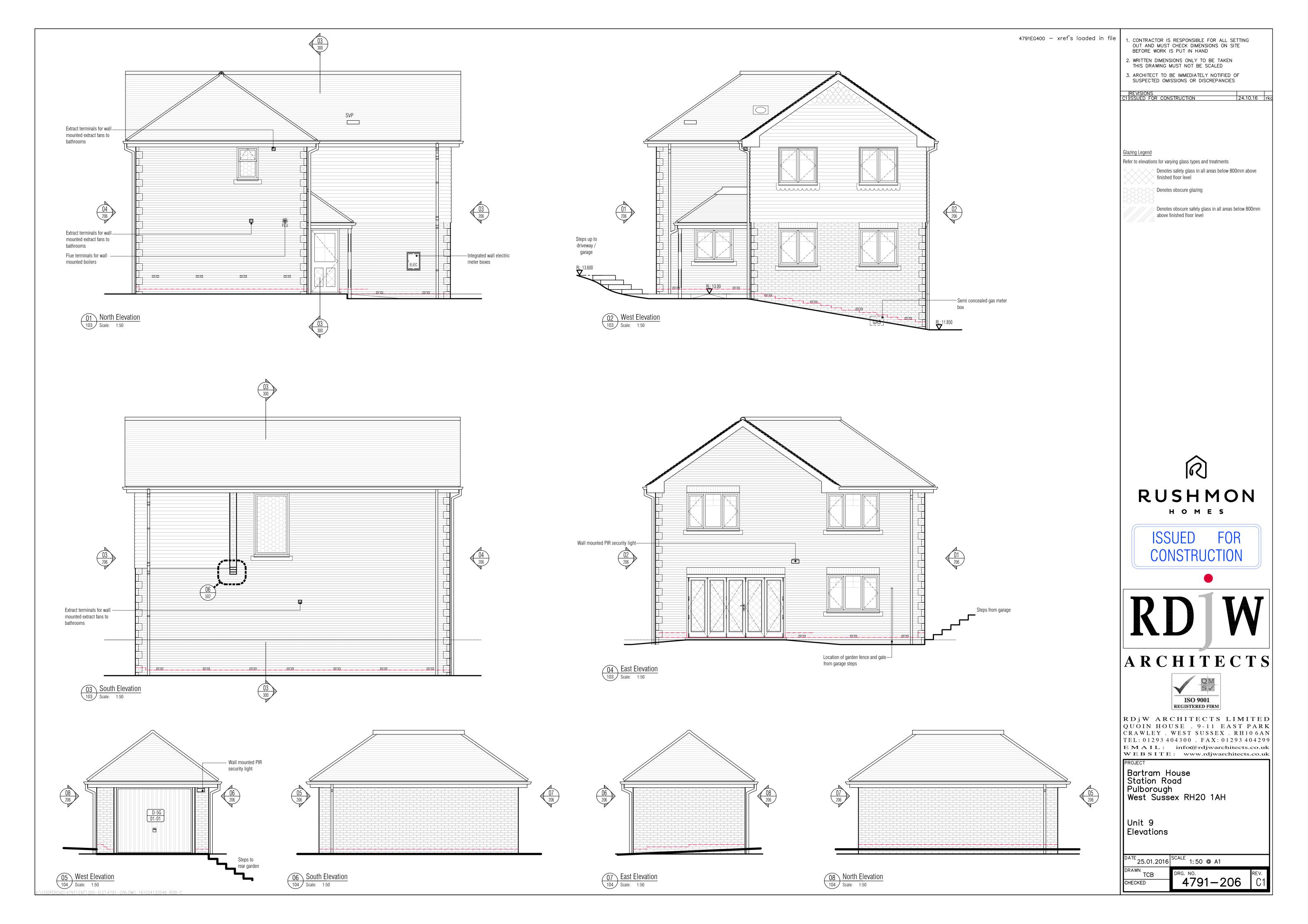
Units 5 & 6 Elevations

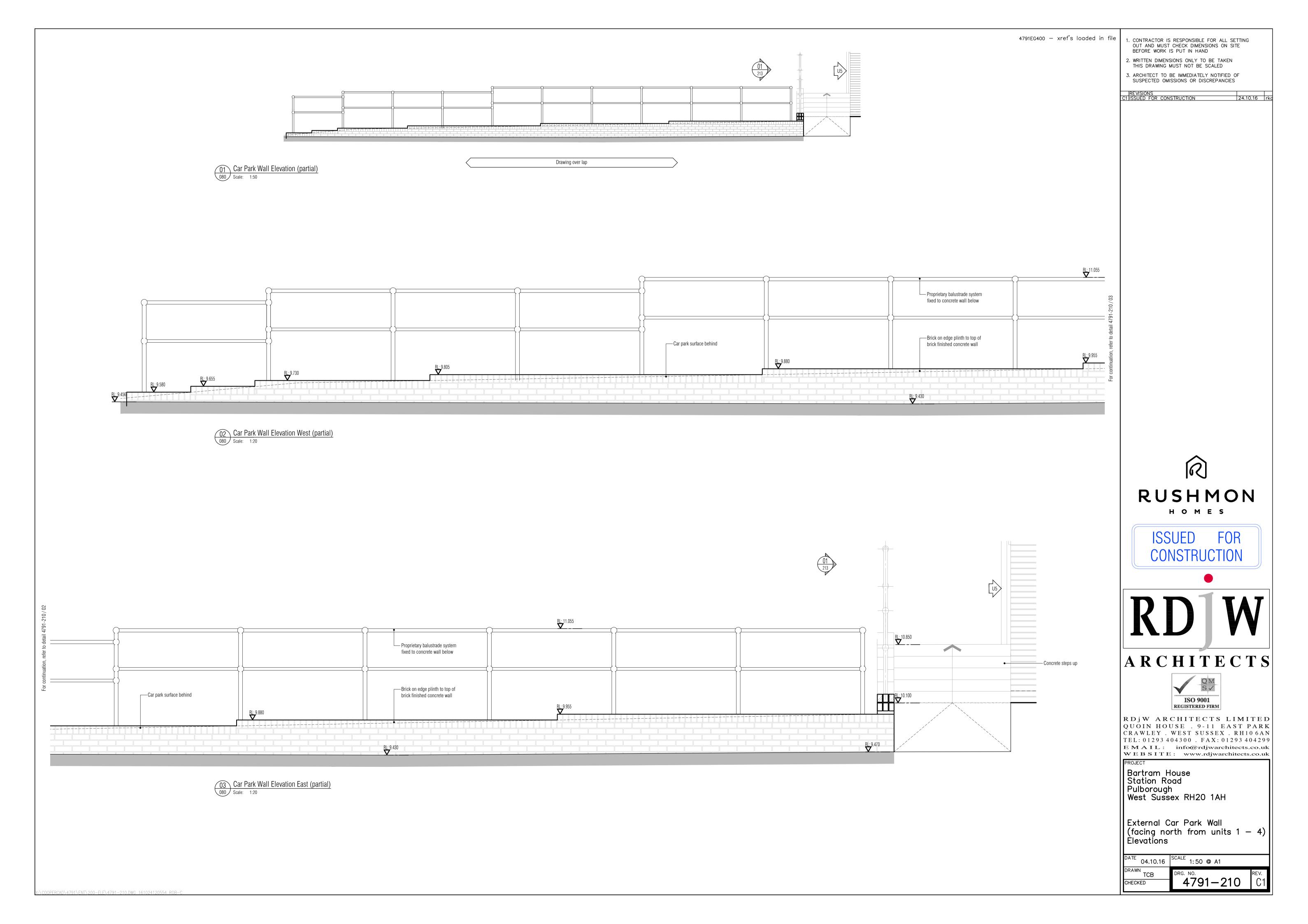
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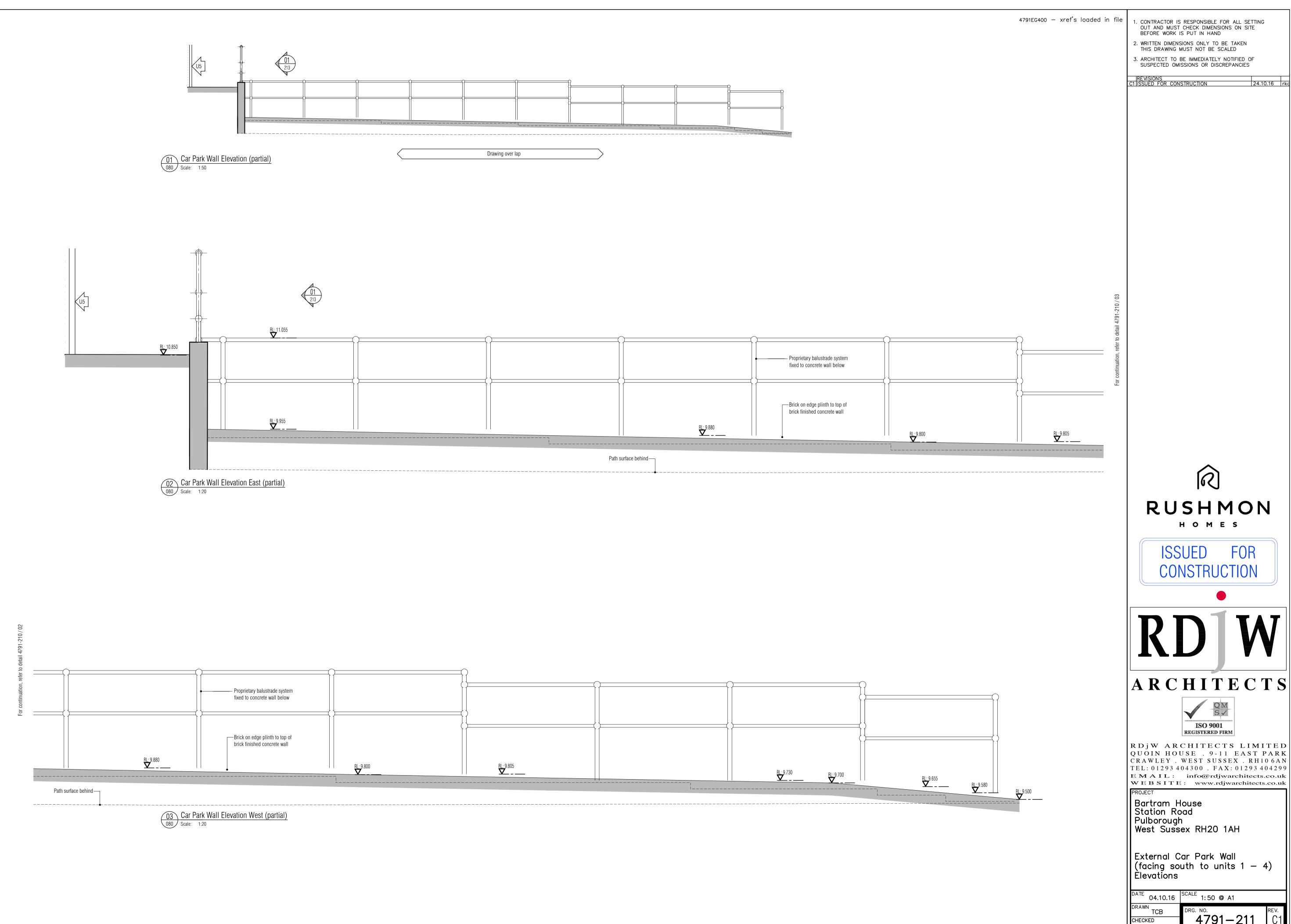
DATE 25.01.2016 SCALE 1:50 @ A1

4791-202 CHECKED





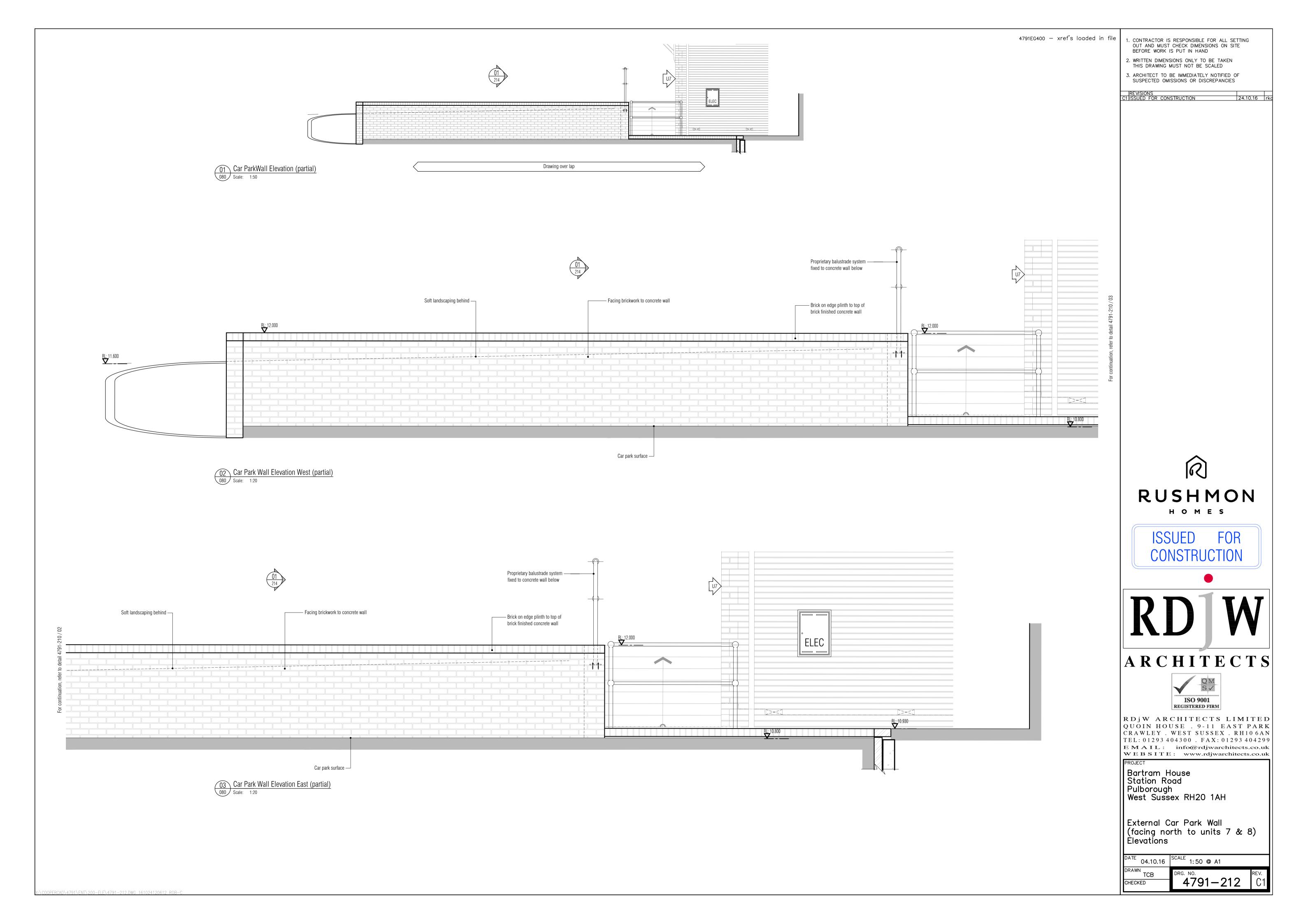


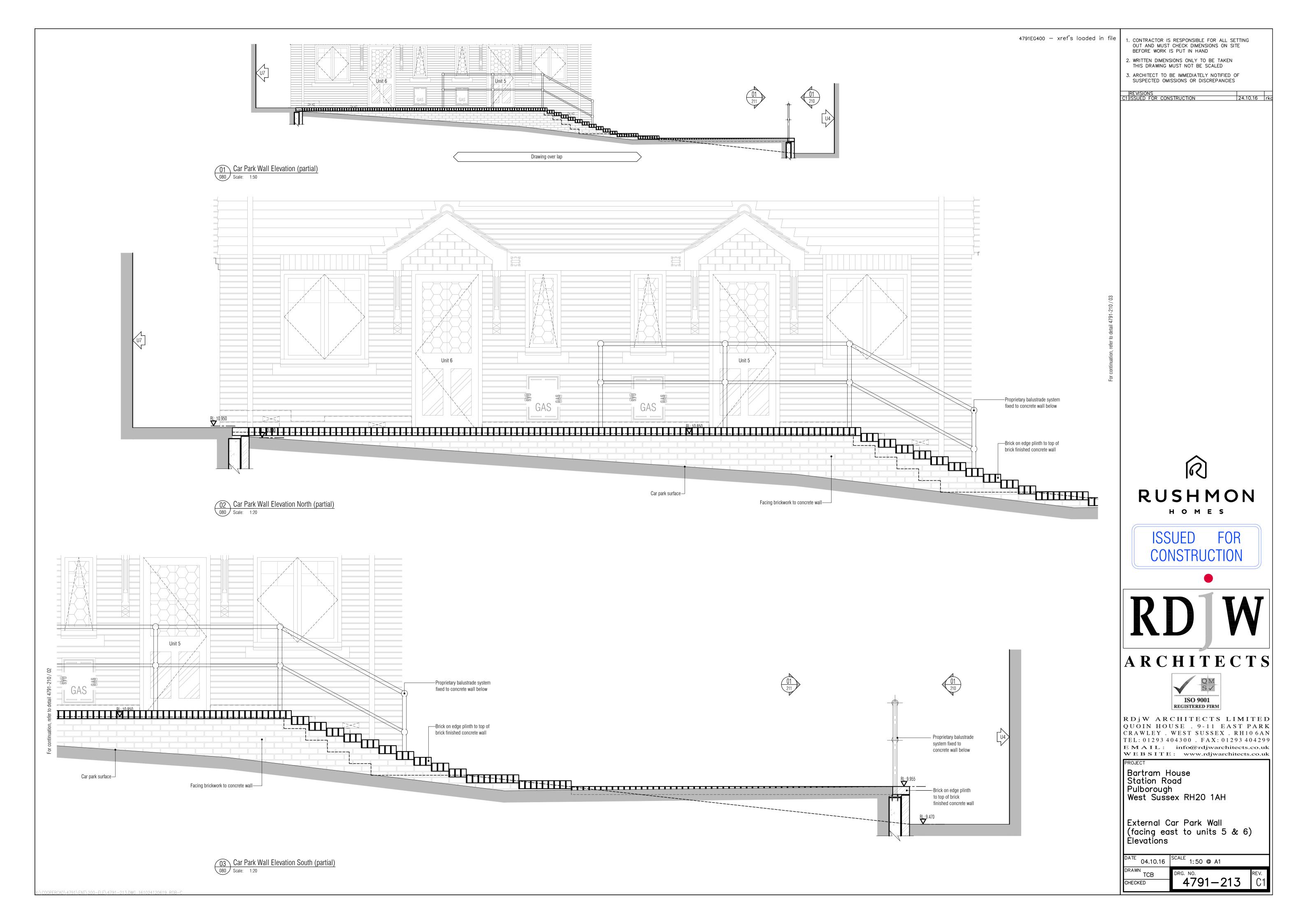


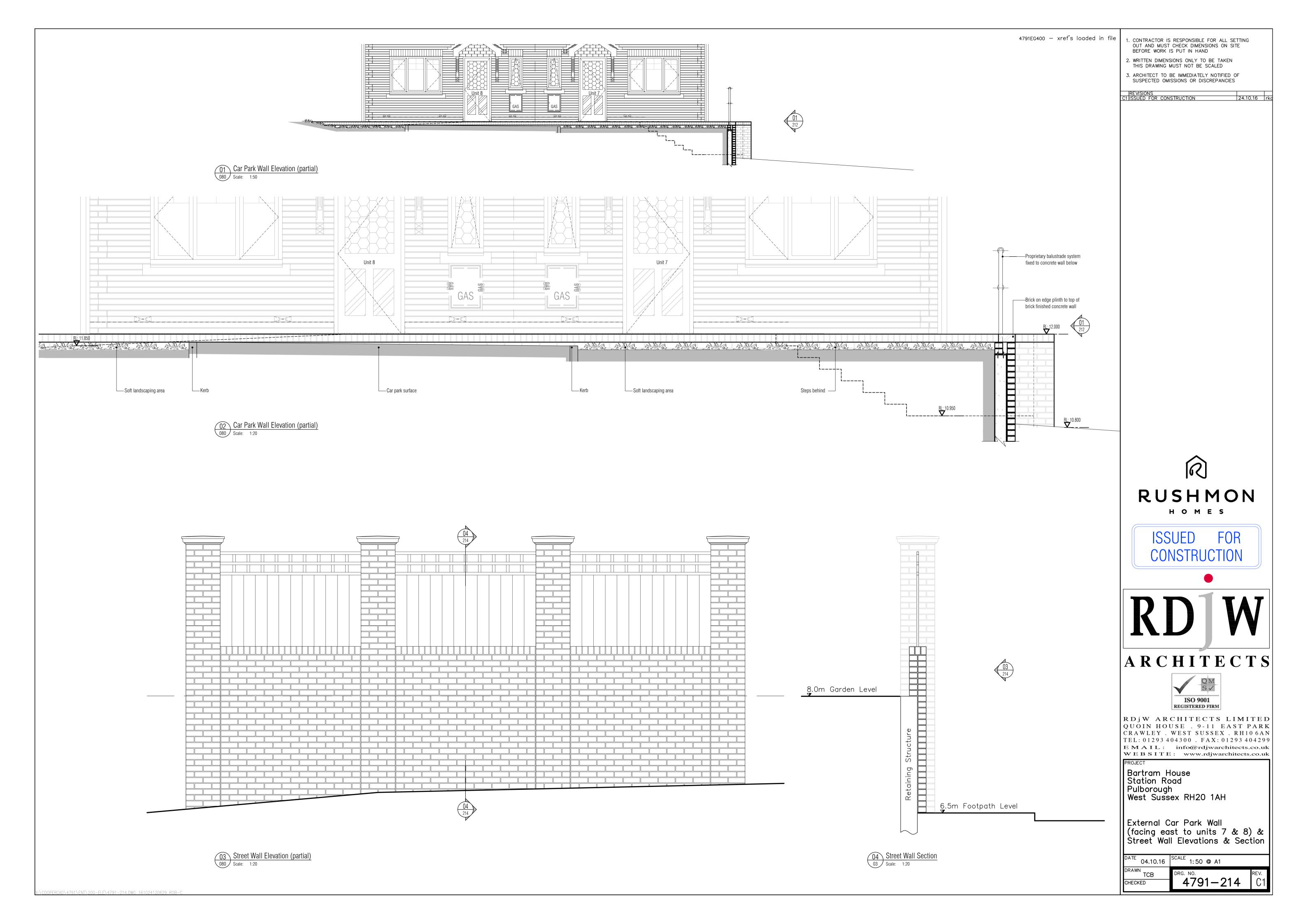


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Type A: External Wall. 102.5mm stretcher bond facing brickwork with 10mm mortar joints, 50mm cavity, Breather membrane, 9mm OSB, 140mm x 38mm timber stud frame with 115mm PIR

Type B: External Subfloor Wall 100mm stretcher bond lightweight blockwork with 10mm mortar joints, 59mm cavity, 140mm stretcher bond light weight concrete blockwork with 10mm mortar joints.

24.10.16 rl

Type C: Internal Party Wall. 64mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type D: Internal Party Wall (between staggered terraces). 100mm cavity with 2 leaves of 9mm OSB covered 89mm timber stud frame filled with PIR insulation, internally finished 2 layers 12.5mm plasterboard. Create service void with 25mm x 38mm battens covered with 15mm plasteboard in accordance with Robust Detail ref: E-WT-02

Type E: Internal Timber Stud Wall. 38mm x 89mm timber studs at 400mm¢ with 15mm Soundbloc plasterboard each side

Type F: Internal Timber Stud Wall to bathrooms. 38mm x 89mm timber studs at 400mm¢ with 1 layer 15mm moisture resistant plasterboard to the "wet" side and 15mm Soundbloc plasterboard to the other

Type G: Internal Services Boxing Stud Wall. 38mm x 89mm timber stud at 400mm¢ with 2 layer 12.5mm moisture resistant plasterboard one side

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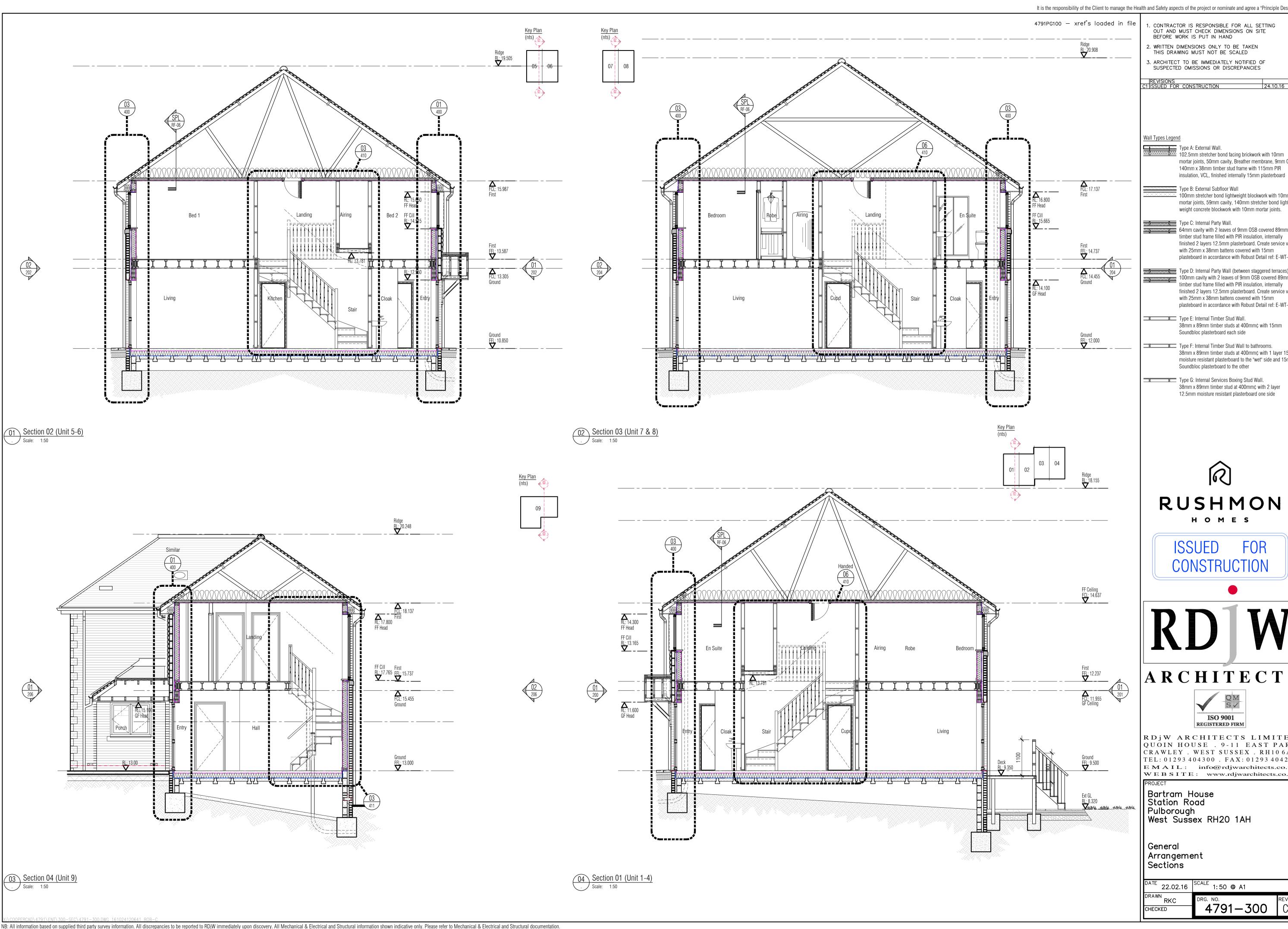
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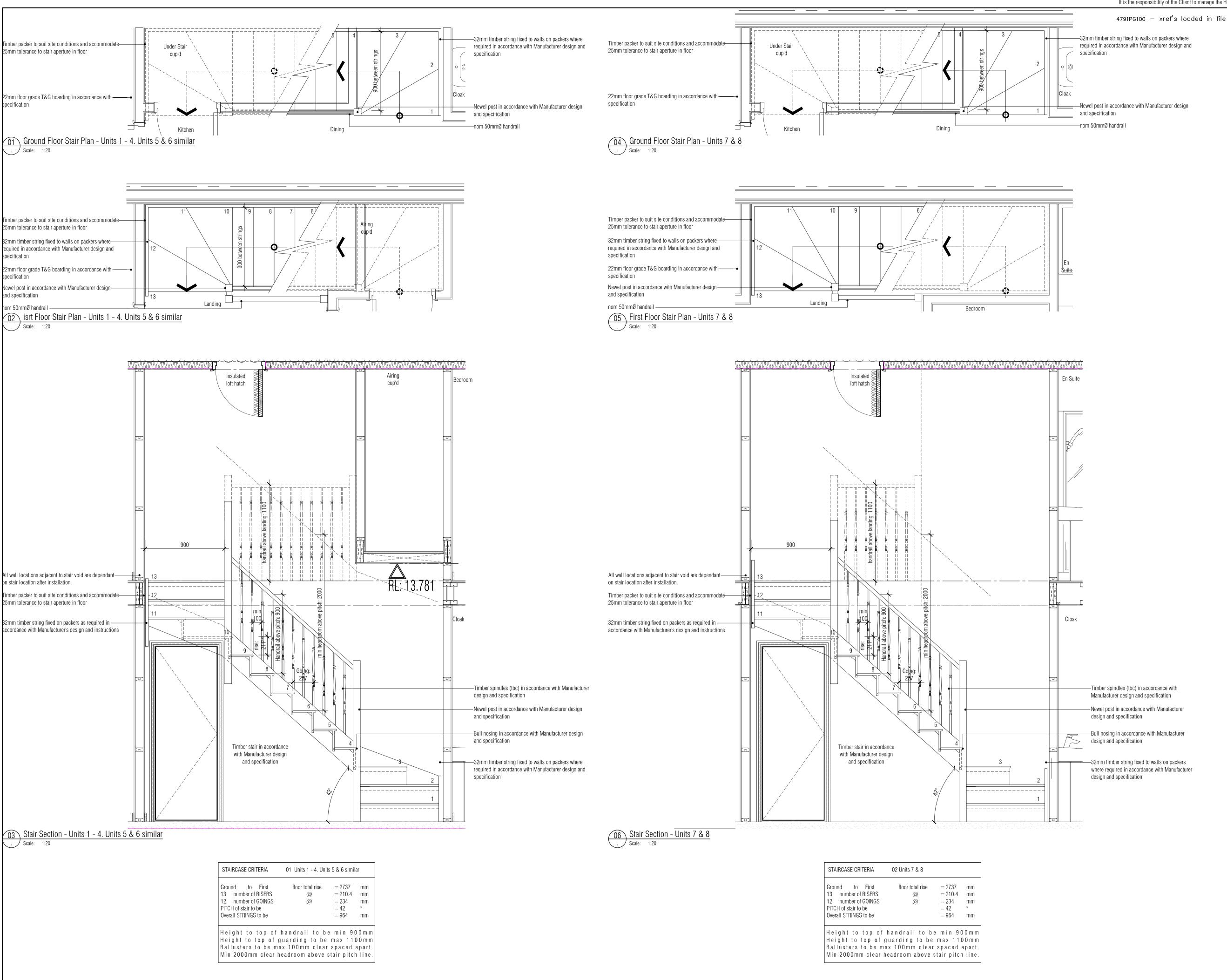
Bartram House Station Road Pulborough West Sussex RH20 1AH

General Arrangement

1:50 **@** A1

4791-300





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Typical Stair Details Units 1 — 8

DATE 22.02.16 | SCALE 1:20 @ A1 | DRG. NO.

DRAWN RKC
CHECKED

DRG. NO.

4791-410

REV.

C1

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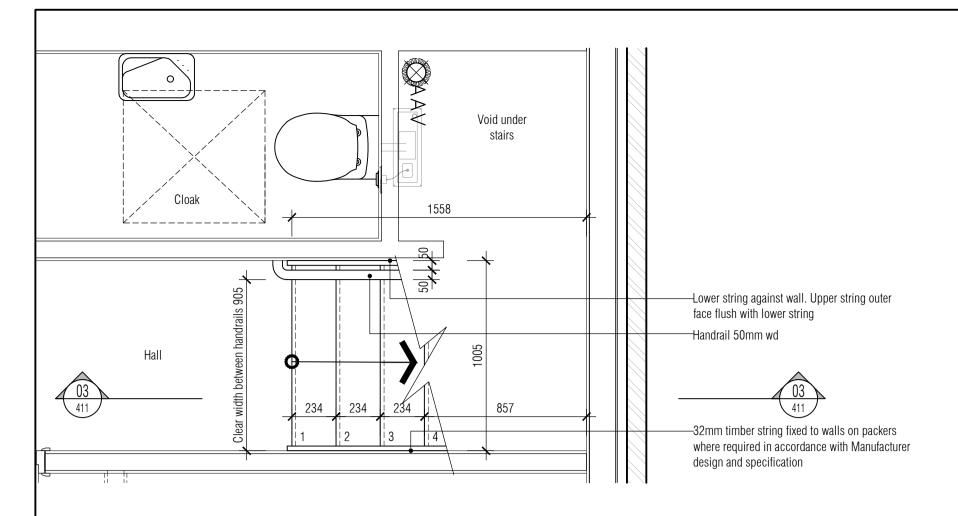
REVISIONS
C1 ISSUED FOR CONSTRUCTION

STAIRCASE CRITERIA 3 Unit 9 floor total rise = 2737 mm Ground to First 13 number of RISERS = 210.4 mm = 234 mm 12 number of GOINGS = 42 ° PITCH of stair to be Overall STRINGS to be = Varies mm

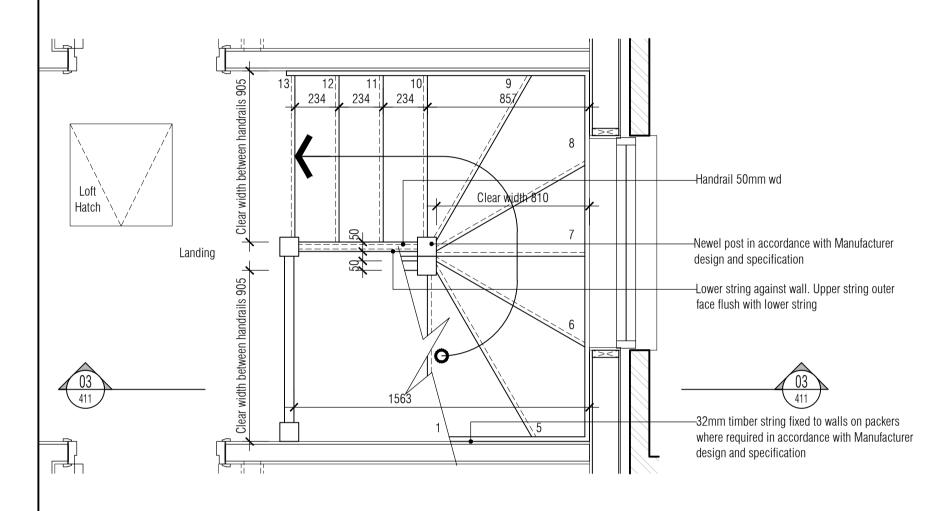
Height to top of handrail to be min 900mm Height to top of guarding to be max 1100mm

Ballusters to be max 100mm clear spaced apart

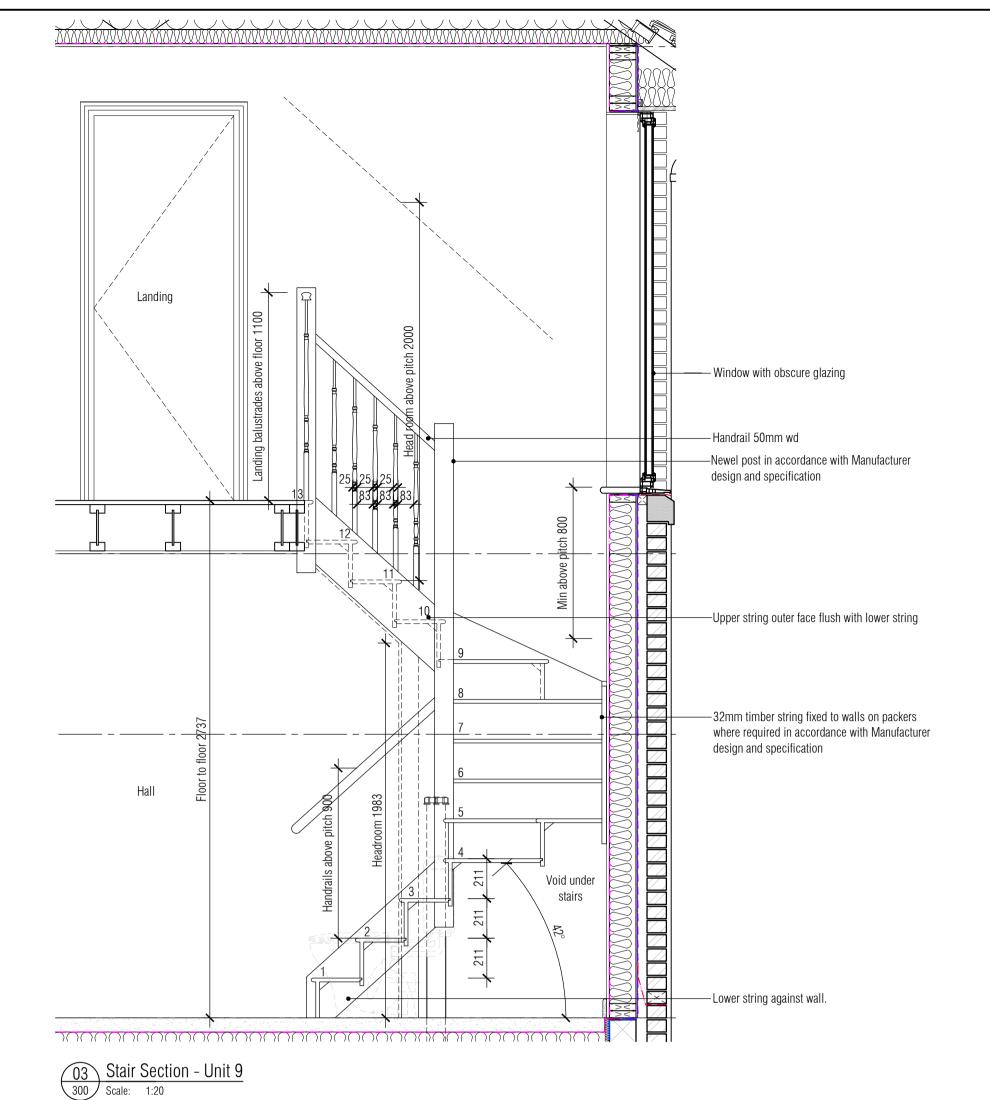
Min 2000mm clear headroom above stair pitch line.



01 Ground Floor Stair Plan - Unit 9 103 Scale: 1:20



02 First Floor Stair Plan - Unit 9











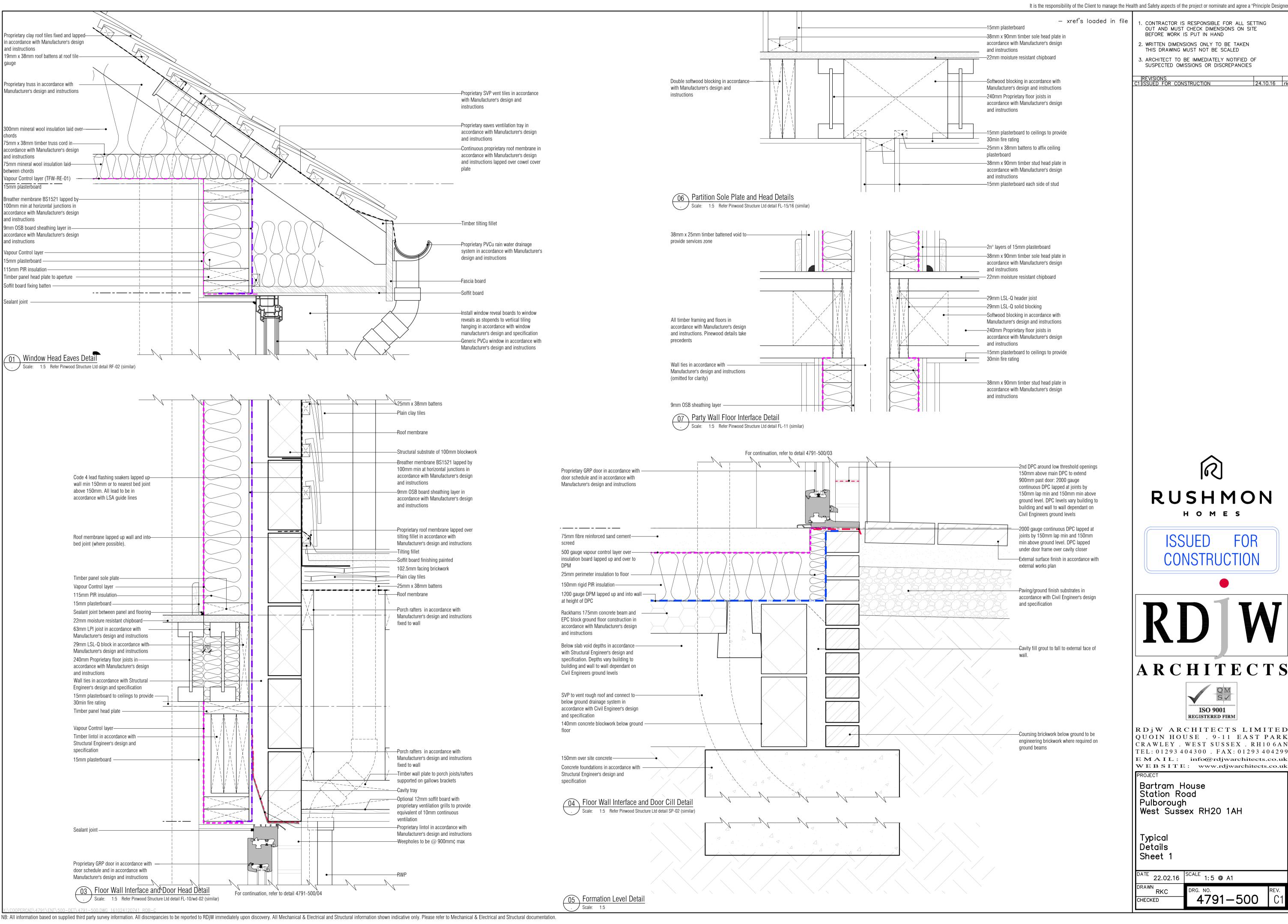
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Typical Stair Details Units 9

DATE 22.02.16 SCALE 1:20 @ A1 4791-411 CHECKED

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West Sussex RH20 1AH

and instructions

Wall ties in accordance with Structural

05 Gable Abutment Detail

Scale: 1:5 Refer Pinewood Structure Ltd detail RF-05 Opt C (similar)

Engineer's design and specification

DATE 22.02.16 SCALE 1:5 @ A1

DRAWN RKC
CHECKED DRG. NO. 4791-501

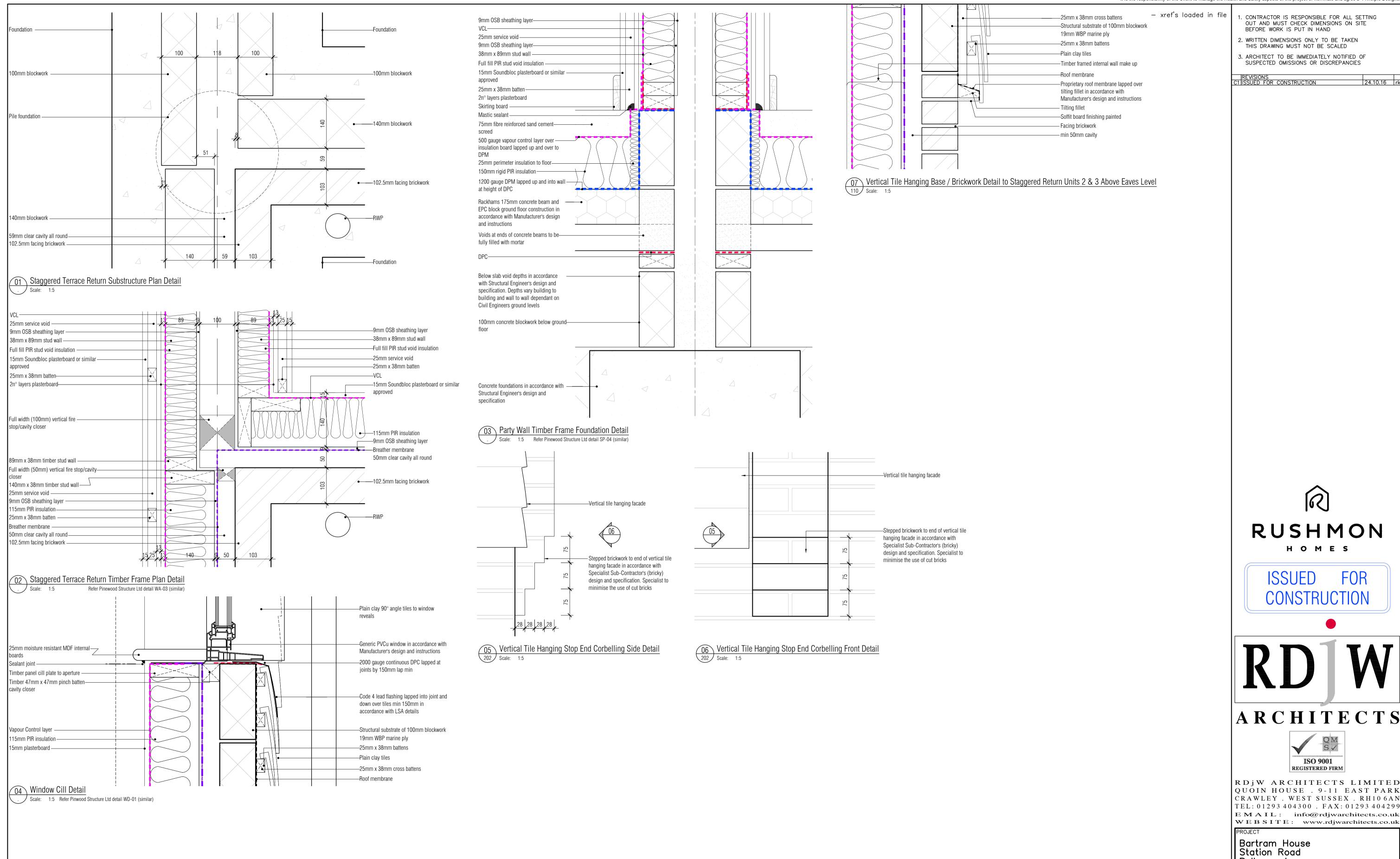
Manufacturer's design and instructions

Line of brickwork face to stagger return

02 Floor / Ventilator / Wall Interface Detail

. Scale: 1:5 Refer Pinewood Structure Ltd detail SP-01 (similar)

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**ISO 9001** REGISTERED FIRM

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Typical Details Sheet 3

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DATE 22.02.16 SCALE 1:5 @ A1

4791-502

All below ground drainage is to be in accordance with the Civil / Structural Engineer and Specialist Contractor's drawings and specification. **GROUND FLOORS** 

**Ground Floor Construction** 

75mm thick fibre reinforced sand cement screed on, 500 gauge damp proof membrane separating layer (as recommended by ground floor insulation manufacturer) on, 150mm rigid PIR insulation (thermal conductivity 0.020W/mK), (or similar approved), with 25mm thick Insulation strips to perimeter (minimum thermal conductivity 0.025W/mK), on 1200 gauge damp proof membrane, on Rackhams precast concrete beam and EPC block floor system, (Design and void depth as specified by the Structural Engineer), built off of load bearing wall construction. Overall ground floor build-up is to achieve a minimum U-value of 0.12W/m<sup>2</sup>K. Damp proof membrane is to be lapped and taped and taken up and taped around all incoming pipe and service penetrations, in accordance with specialist manufacturer's installation guidance and recommendations. Ventilation is to be provided in two opposing external substructure walls with free path between sides and to all parts to give an actual opening equivalent to at least 5500mml of free air flow at 1m maximum centres. Ventilators are to be maximum 450mm from internal corners. Intermediate sleeper walls are to have a 100mm Ø PVCu pipe (with rodent prevention) with no lintel (unless Structural Engineer specifies to the contrary) to maintain air flow through the sub-floor void. All telescopic ventilators are to have a cavity tray over. Air bricks are not to be positioned under doorways or entrances. A continuous 2000 gauge polythene DPC is to be provided to internal leaf of blockwork below level of precast concrete beams. Minimum depth of sub floor ventilation void is to be in accordance with the Structural Engineer's details and specification. The floor Insulation should tightly abut the blockwork Inner leaf. Cavity wall insulation to be in accordance with details. Cold Water Supply

Insulate throughout length of cold water supply pipe when it enters the building less than 750mm from the outside face of the external wall. Seal the DPM where pipes pass through the floor. Insulation thickness dependent on pipe diameter and thermal conductivity, refer to British Standard. Water Authority supply pipe size and material is to be in accordance with local water authority regulations/requirements. The supply pipe must be continuous from the water meter to the internal stopcock. Refer to Utilities Consultant and Civil Engineer's drawings for full details of all proposed incoming services. UPPER FLOORS

Upper Floor Construction within Houses

Generally moisture resistant 22mm thick floor grade T&G OSB board throughout, on timber engineered floor joists (depths as specified on the working drawings and specialist supplier's information) laid at centres indicated on specialist designer's drawings. Typically, joists are to be built in to walls and internal frame of all external walls. All voids around joists are to be filled with so that no gaps remain. The joint Interface between the joist and the wall is to be sealed with flexible Intumescent mastic sealant. Internal floors should not be continuous between dwellings. 30 x 5mm lateral restraint straps are to be provided at floor joist level spaced at maximum 2m centres, with associated blocking and noggins, unless otherwise stated by specialist frame supplier or the Structural Engineer. Trimmers and trimmed joists are to be provided to all staircase openings, in locations as indicated on the working drawings and specialist manufacturer's design drawings. Proposed floor finish to have 100mm thick mineral wool (minimum density 10kg/m²) laid within depth of joists to provide minimum 40db sound reduction from airborne sound (unless approved joist supplier's technical literature confirms otherwise). This applies to upper floors between a room and a bedroom or room containing a W/C. Ceiling finish is to be 1 no. layer of 15mm thick British Gypsum wallboard (minimum 10kg/m<sup>2</sup> mass per unit area, or similar approved, to provide minimum fire resistance of 30 minutes. All plaster board joints to be taped and jointed in accordance with manufacturer's recommendations. Consideration should be given to the impact of placing light fittings within the ceiling finish. Please refer to relevant NHBC guidance, 6.4/10 dated December 2008. Important Note: The appointed timber engineered floor joist manufacturer is to provide designs based on the working drawings, which are to be submitted to the Architect and Structural Engineer for comment, prior to manufacture. Limiting Thermal Bridging & Air Leakage

Upper floor construction to houses, due consideration should be given to the requirements associated with ACD Number TFW-IF-01 around the junctions with the external walls. The appointed contractor(s) should familiarise themselves with the above mentioned details, prior to undertaking the works. EXTERNAL WALLS 7.1 Facing Brickwork & Block Inner Leaf

316.5mm Cavity external wall (u-value 0.19W/m<sup>2</sup>K) construction comprising: 102.5mm approved facing brick outer skin laid in stretcher bond (except where elevations show otherwise) with bucket handle joints (mortar mix and brickwork to NHBC Standards Chapter 6). Facing brickwork to extend 3 courses below finished ground level. For details of external finishes, see materials schedule and specification. Below ground floor: 140mm thick lightweight block inner leaf. Density and strengths to be as specified by the Structural Engineer. Above ground floor: Internal wall finish is to be 1 no. layer 15mm plasterboard. Provide flexible stainless steel wall ties, set at 450mm vertical and 750mm horizontal staggered centres. Specification to be confirmed by the structural Engineer. DPC to be 2000 gauge polythene in accordance with BS 743 and located minimum 150mm above external ground level. Refer to detailed construction drawings. Cavity wall insulation to height, width and depth in accordance with the specialist frame manufacturer's design. Internal frame to be 140mm timber studs with 115mm PIR insulation between studs. Frame to have external sheathing of 9mm OSB with breather membrane over. Internal face of frame to be covered with VCL ready to receive plasterboard. Internal structural timber frame to be factory prefabricated in accordance with specialist manufacturer's design, specifications and installed according to relevant details and delivered to site ready for installation by specialist contractor. All fittings to the external leaf (for example canopies and railings) are to be fixed in accordance with Structural Engineer's instructions. Generally, close cavity at door and window openings with a timber pinch batten in accordance with

specialist frame manufacturer's design or proprietary insulated cavity closer (minimum thermal resistance path through the closer of not less than 0.45m<sup>2</sup>K/W). All windows and doors are to be positioned within opening in such a way to avoid cold bridging, generally, front of frame to overlap the outer leaf by 30mm. Openings in external walls generally to have cavity trays over with minimum 2no. weep holes at 450mm maximum centres. All window jambs are to be constructed in accordance with ACD Number TFW-WD-04. Generally, continuous cavity fire stops are to be provided at all separating wall and floor junctions in the form of an oversized sleeved mineral wool cavity sock. Wall flexible stainless steel ties are to be provided at maximum 225mm centres around all window and door openings and no more than 225mm from either side of all masonry expansion joints. Expansion Joints

Expansion joints are to be provided in accordance with the GA plans, elevations and specialist frame manufacturer and/or Structural Engineer's details. Refer to working drawings for locations. Wall ties are to be placed within 225mm (either side) of all movement joints.

Refer to Specialist Timber frame manufacturer's details. Generally, galvanised steel lintels designed, tested and manufactured fully in accordance with the British standard, suit cavity width. Openings over 1.2m wide may require 'propping' until the brickwork over has matured as recommended by specialist brickwork contractor. Minimum bearing/flypast of lintels to be 150mm each end bearing to be fixed to structural frame. Lintels above internal doors are to have minimum 100mm end bearing up to 1200mm clear span and 150mm bearing/flypast over 1200mm openings. All lintels are to be in accordance with the manufacturer's schedules and calculations and are to be installed in accordance with the manufacturer's installation guidance and recommendations. Important Note: The appointed lintel manufacturer is to provide schedules and calculations for all cavity wall lintels, which are to be submitted to the Architect and Structural Engineer for comment, prior to manufacture. Cavity Trays

All openings, apertures, penetrations through external walls are to have a cavity tray and adequate weep holes. DPC cavity trays are to be fitted over all external cavity lintels. The length of the trays to extend 150mm beyond the opening ends and have stop ends. Allow at least 2 no. proprietary plastic pre-formed weep holes per opening, colour to match brickwork, not more than 450mm apart. Cavity trays are to be filled over all air bricks bridging the cavity. The cavity tray is to extend 150mm minimum each side of bridge. Proprietary weep holes at 450mm maximum centres (colour to match mortar). Continuous horizontal cavity trays are to be provided immediately above all fire barriers at all separating floor levels. In situations where a roof abuts an external wall, a stepped cavity tray is to be installed above the roof raking down the line of roof. Terminate this above Code 4 lead flashing also running along the line of the roof with minimum 150mm up-stand. Lead work to be installed strictly in accordance with Lead Sheet Associations instructions and recommendations. In brickwork, use proprietary, plastic pre-formed weep holes (colour to match brickwork) are to be located at max 450mm centres. Where, wall above roof is tile hung, lap flashings down over soakers. Refer to details for further information.

PARTY WALLS 326mm timber party wall (u-value 0.0W/m<sup>2</sup>K) construction comprising: 2 No. leaves of 89mm x 38mm timber frame faced with 9mm OSB sheathing to the cavity side with plasterboard to the habitable side. Cavity and wall ties are to be kept free from debris. Fully fill all joints with mastic. Ensure that all holes are made good by fully filling with foam and mastic sealant. Timber frame contractor to provide proprietary wall flexible stainless steel ties to all party walls. Walls to be finished with 2no.layer 15mm Soundbloc plasterboard (nominal 8.0kg/m<sup>2</sup> gypsum based). Each side is to have additional service void constituting 25mm x 38mm timber battens and 1 layer 12.5mm plasterboard. All joints are to be taped and jointed in accordance with manufacturer's recommendations. Leave no voids. Cavities between external and separating walls to be linked and cavity insulation carried across separating walls to form continuous cavity barrier. Party wall construction is to continue up to the underside of the roof finish and junction between separating wall and roof filled with a flexible mineral wool fire stop closer. Important Notes: Party wall construction is to be strictly in accordance with Robust Detail E-WT-2. Make sure that there is no connection between the two leaves of timber frame except for the wall ties, insulation and foundations. Due consideration should be given to the requirements associated with ACD Number TFW-IW-01 in respect of thermal bridging at party wall junctions. It should be noted that the party wall construction, noted previously within this document, is to be adhered to for

Non-Load Bearing Timber Internal Partitions (Houses).

Robust Detail Compliance.

119mm overall thickness timber partition comprising: Treated softwood timber stud partition, or similar approved. To be finished with 1no. layer 12.5mm Soundbloc plasterboard, applied to both sides. Important Notes: Moisture resistant plasterboard is to be installed to all kitchens and wet rooms, unless otherwise indicated on the working drawing general arrangement floor plans. Reinforcement framing is to be provided to support medium to heavy fixtures such as radiators and kitchen wall units etc., where appropriate. Where protected hallways are provided within dwellings, the surrounding partition construction is to continue to the underside of the ceiling. Services and ducting passing through partitions are to be sealed/filled. Ducting for soil and vent pipes is to be lined with 2no. layers of 12.5mm plasterboard. Timber frame manufacturer to incorporate noggins and pattressing for fixtures and fittings prior to manufacture as taken from GA and FFE plans. LIMITING THERMAL BRIDGING AND AIR LEAKAGE

Ensure all gaps are sealed around partition perimeters and junctions. Apply flexible sealant as necessary. Continuous plasterboard sealant is to be applied around all door and window openings and room perimeters at ceiling and floor level and vertical wall junctions and all electrical points. Seal all penetrations where service pipes pass through any walls, partitions and duct casings with expanding foam or other suitable flexible sealant. Please refer to the Accredited Construction Details for Thermal Bridging.

Brick and mortar manufacturer's suitability for use guidance. Plasterboard manufacturer's installation guides to linings and partitions. **EXTERNAL WINDOWS & DOORS** 

New External Windows & Doors Generally.

Windows and doors are to provide opening lights and styles, as indicated on the working drawing elevations. All windows and doors are to include draught excluder, weather strips etc. All windows and doors are to be manufactured in PVCu; colour in accordance with planning approval. All entrance doors are to be manufactured in PVCu and finished to match as close as possible the proposed windows. Sills are to be factory fitted and sized to suit set back of frame and sub-sill detail. The window manufacturer should ensure they refer to this document, in conjunction with the Employer's Requirements, prior to undertaking the works/manufacture. All proposed apertures are to be checked on site, prior to manufacture. Sill profile acceptors to receive 25mm moisture resistant MDF internal boards. Each and every frame should have the

appropriate BS or BBA certification reference clearly visible. All windows are to

be located as identified on working drawings. All windows (including frames

etc.,) to achieve a minimum U-value of 1.40W/m<sup>2</sup>k, in accordance with the

SAP calculations, unless project dictates otherwise. All external doors (including frames etc..) to achieve a minimum U-value of 1.00W/m<sup>2</sup>k, in accordance with the SAP calculations, unless project dictates otherwise. All upper floor and other externally inaccessible windows are to be fitted with easy clean hinges, for cleaning purposes. Level thresholds are to be provided where indicated on the working drawings, in accordance with Approved Document M of the Building Regulations. All front entrance doors are to be manufactured to provide a minimum 800mm clear opening. Background Ventilation

Background ventilation should be provided to satisfy the requirements of Approved Document F of the Building Regulations in relation to ventilation system 01. Ventilators should be located in all rooms with external walls, with at least 5000mm<sup>2</sup> equivalent area in each habitable room and 2500mm<sup>2</sup> equivalent area in each wet room. Refer to Window schedule 4791-601 Purge Ventilation

Windows to habitable rooms are to provide opening lights with a free open-able area of at least 1/20th of the internal floor area of the room. Window manufacturer is to ensure that this achievable via the windows indicated on the working drawings. Refer to Window schedule 4791-601 Ironmongery & Security

All ironmongery and security features in respect of the proposed windows are to be in accordance with the relevant British Standards and codes of practice.

Windows are to be supplied with suitable requisite fixing cleats and head fixing ties. Internal plaster stops are not required. The sub-frame is to be manufactured to suit the brickwork opening; the window to be fitted is to be exactly sized to give the manufacturer's required clearance. The sub-frame is to be built in as work proceeds in accordance with the BBA Certificate procedure. All window openings are to be site measured prior to manufacture of the window modules. All external window and door sets are to be securely fixed to the fabric of the building, in accordance with the specialist manufacturer's installation specifications. The window manufacturer is to make sufficient allowances/tolerances for the window modules to be fitted within the structural openings indicated on the working drawings. SECURITY

All windows, doors and aperture treatments must have reasonable provision to resist unauthorised access from the outside and be suitably robust and be fitted with appropriate hardware to resist physical attack by a casual or opportunist intruder. All windows, doors and aperture treatments should be manufactured to satisfy BS PAS 24:2012. All glazing is to satisfy BS EN356. All theft resistant locks to satisfy BS 3621, BS 8621, BS 10621. All security, including windows, doors and aperture treatments, shall be in accordance with and satisfy Approved Document Part Q. INTERNAL DOORS

Internal doors on escape routes, whether or not the doors are fire doors, shall not be fitted with lock, latch or bolt fastenings unless they are filled with simple fastenings that can be readily operated from the side approached by people making an escape. The operation of any such fastenings shall be without the use of a key and without having to operate more than one mechanism. All internal doors are to provide a minimum clear opening of 750mm, unless noted otherwise within the internal door schedules (i.e. cupboards for example). To ensure good transfer of air throughout the building, there should an undercut of a minimum 15mm undercut. Notwithstanding the above mentioned maximum allowable threshold gap below a fire door. Please refer to finishes schedule for details of required finish etc. Please refer to selected specialist manufacturer's typical non-loadbearing stud work details and guidance for information relating to provisions to be made when setting out the structural openings for all internal doors (i.e. an allowance should be made for the fixing of a timber packer to the vertical studs at all door jambs, to aid the fixing of the softwood linings etc.).

AIR LEAKAGE All windows and external doors to have suitable mastic sealant applied to front and back of frames in accordance with manufacturer's recommendations. Provide adequate draft stripping to loft hatches and roof access doors. Separating/party walls and floors to be constructed and sealed. STAIRCASES

New staircases are to achieve full compliance with Approved Document Part K of the Building Regulations. Headroom at stairs and landings to be minimum 2000mm, unless otherwise detailed. Risers are not to be open. Handrails to be 900mm above pitch line and landings. Landings should be provided at the top and bottom of every flight and the width and length should be at least as great as the width of the flight. A door may swing across a landing providing it is infrequently used (i.e. a store cupboard door) and leaves a minimum of 400mm clear space across the full width of the flight. Please refer to the working drawings for precise rise and goings etc. No opening in the balustrade is to allow the passage of a 100mm diameter sphere and should not be readily climbable. Where tapered treads are formed, treads should measure minimum 50mm at the narrow end and min 234 going, mid-width. Maximum pitch of 42°. Important Note: The appointed staircase manufacturer is to provide designs based on the working drawings, which are to be submitted to the Architect for comment, prior to manufacture.

FLASHINGS & LEAD WORK Code 4 stepped and cover flashing dressed over ties by at least 150mm (see manufacturer's recommendations) and turned up brickwork 150mm min or to Lead Sheet Association requirements. Flashing fixed in position with lead wedges 25mm minimum into brickwork joint and pointed. Cavity trays are to be provided above lead work where external wall becomes internal. All lead work is to be carried out in strict accordance with the Lead Sheet Association's recommendations and guidance.

Corrosion protection to all steelwork is to be as specified by the Structural Engineer. Structural steelwork is to be fire protected to a minimum 30 minutes. All steelwork and associated connections are to be in accordance with Structural Engineer's drawings and specification.

Steel Beams & Columns Any steelwork (to Structural Engineer's calculations) to be built-in solid (supported on pad stones to Structural Engineer's design) and levelled with steel shims provided and treated with either: Finished with intumescent paint, encased with suitable number of layers of cement bonded particle board, or plasterboard, applied in strict accordance with specialist manufacturer's recommendations to achieve minimum 30 minutes fire resistance where appropriate. All joints are to be sealed with intumescent mastic, or similar approved.

Pitched Roof Construction Generally Where possible, the main roofs are to generally be formed using prefabricated timber trussed rafters. manufactured in accordance to specialist design and calculations and the requirements of 886399; Part 2 & 3, BS 5268; Part 2 & 3, BS 4978. Sizes are to take account of the type of roof covering and weight. Roof pitches are to be as shown on working drawings. Roof trusses are to bear on to a minimum 100mm wide treated softwood timber wall plate, strapped to timber walls at maximum 2m centres with 30 x 5mm galvanised mild steel straps, unless otherwise specified by the Structural Engineer, if required in accordance with specialist frame manufacturer specification. Where applicable, gable ladders are to be specified by truss manufacturers and fixed to last truss

(and built solidly in to the external wall). External walls are to be built around gable and to finish level with the top of the gable ladder. Provide and trim for a nominal 520 x 520mm roof access hatch, in locations indicated on the working drawings. Hatch to be located a minimum of 300mm from all vertical internal wall faces. Roof access space hatches are to be insulated and draught sealed with a bolt or catch to compress the seal. Undersides of roof trusses are to be finished with 1 no. layer of 15mm plasterboard. Provide 30 x 5mm galvanised mild steel straps at a maximum of 2m centres along ceiling and verge levels, in scenarios where the roof trusses and floor joists run parallel to the external walls if required in accordance with specialist frame manufacturer specification. Straps are to be securely fixed to 3no. trusses/joists and turned down the cavity face, of the inner leaf of frame, a minimum of 1500mm. Softwood noggins are to be provided between trusses/joists, on line of straps. New roof structure, dead and imposed loads should be calculated in accordance with the British standard. Structural timber should be specified according to strength classes of British Standard in conjunction with Approved Document A of the Building Regulations. Wind loads appropriate to the site location should be calculated in accordance with British Standard and the roof designed to resist wind uplift, holding down straps should be utilised where the self-weight of the roof is not sufficient-check with the local building control. Selected roof tiles are to be suitable for the pitch stated on the working drawings. All roof tiles are to be laid in accordance with the manufacturer's installation guidance and laid on a low resistance (LR) vapour permeable underlay that has a water vapour resistance not more than 0.25 MNs/g, which allows the transfer of water vapour in accordance with BS5534. All equipment, if any, located on the proposed roof structure, is to be in accordance with specialist's design and specification. Roof truss manufacturer is to take into account the weight of the above, as part of the design. Provide 100mm diameter deep flow PVCu gutters discharging into 68mm diameter PVCu down pipes in locations indicated on the general arrangement floor plans and elevations. All jointing, fixing and falls are to be in accordance with the manufacturer's instructions. All penetrations through the proposed roof finishes (i.e. SVP's) are to be installed and weatherproofed in accordance with the manufacturer's guidance. Sleeved mineral wool fire stop cavity barriers (oversized and friction fitted) should be provided at eaves level,

in accordance with the detailed construction drawings. All fire stopping is to be interlinked accordingly.

**ROOF INSULATION & VENTILATION** 

In cold roofs provide insulation consisting of 75mm thick mineral wool insulation (thermal conductivity 0.044W/mk) laid between the bottom chords of the roof trusses or ceiling joists and 1 no. layer of 300mm thick mineral wool insulation (thermal conductivity 0.044W/mk) cross laid over the bottom chords of the roof trusses or ceiling joists. Overall build-up is to achieve a minimum u-value of 0.14W/m<sup>2</sup>K. High level ventilation to the roof void equivalent to a continuous opening of 5mm in accordance with BS 5250 is to be provided using a tile ventilation system, as indicated on the detailed construction drawings, to achieve ventilation, as required by the NHBC Standards. Ensure an air path above the roof insulation.

Limiting Thermal Bridging & Air Leakage Due consideration should be given to the requirements associated with following Accredited Construction Details for Thermal Bridging, in respect of the roof construction, as follows: Eaves (insulation at ceiling level) - ACD TFW-RE-01.

Eaves (insulation at rafter level) - ACD TFW-RE-04. Gable (insulation at ceiling level) - ACD TFW-RG-01 Gable (insulation at rafter level)- ACD TFW- RG-02.

VENTILATION Approved Document F ventilation strategy is to be used, which consists of background and purge ventilators and intermittent extract fans. General layouts are shown on the working drawing general arrangement floor plans, however, these are to be verified by a specialist designer. Purge, background and mechanical ventilation requirements are all subject to specialist designer's/manufacturer's details. Natural ventilation is to be provided within all cycle and refuse stores, in accordance with the working drawings. SMOKE DETECTION, CARBON MONOXIDE ALARMS & ESCAPE SIGNAGE Refer to services and fire strategy dwgs. All new houses should be provided with fire detection and fire alarm systems, in accordance with the relevant recommendations of BS 5839-6:2013 Code of Practice for the Design,

Installation and Maintenance of Fire Detection and Fire Alarm Systems in Dwellings to at least Grade D Category LD3 Standard. Smoke and heat alarms must be mains operated and conform to BS 5446-1:2000 or BS 4446-2:2003 respectively: Fire Detection and Alarm Devices for Dwellings, Part 1 Specification for Smoke Alarms, or Part 2 Specification for Heat Alarms, They should have a standby power supply such as a battery (either non-rechargeable or rechargeable) or capacitor. More information is given in clause 15 of BS 5839-6. At least one approved smoke alarm unit must be fitted in circulation areas at each floor level in every dwelling and be positioned a maximum of 7m from kitchen or living room doors, maximum of 3m from bedroom doors and a minimum of 300mm from light fittings and walls. Large circulation areas may require two units; check Approved Document B of the Building Regulations. Alarms must be connected to a separately fused mains electricity supply with a transformer (if needed), a three hour capacity battery back-up and where more than one unit is fitted within a dwelling, they must be interconnected. The installation must comply with the current IEE regulations. Detectors should not be placed over stairwells. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be a compatible interlinked heat detector of heat alarm in the kitchen, in addition to whatever smoke alarms are need within the circulation spaces. Carbon Monoxide detectors are to be located where shown on drawings but, generally adjacent the boiler location and in any room containing a solid fuel appliance (e.g. open

**ELECTRICAL SERVICES** 

Electrical installation-please see the services drawings for the electrical layout only. Particular consideration should be given to the need to de-rate cables which are covered or surrounded by thermal insulation. Switches, outlets and controls are to be located as follows: Any service control needed to be operated or read on a frequent basis, or in an emergency, should be included within the height band of 450-1200mm from finished floor level. Please refer to diagram 22 within Approved Document M of the Building Regulations. Switches for permanently wired appliances are located between 450mm and 1200mm above the floor, unless needed at a higher level for particular appliances. Simple push button controls that require limited dexterity are not more than 1200mm above the floor. The operation of switches, outlets and controls does not require the simultaneous use of both hands, except where this mode of operation is necessary for safety reasons. Switched socket outlets indicate whether they are 'on'. Mains and circuit isolator switches clearly indicate that they are on or off. Front plates contrast visually with their backgrounds. Installation is to be carried out in accordance with the current IEE regulations, the electricity supply regulations, and CIBSE guides and to the approval of the Electricity Board. Where ducts, conduits and cables pass through separating or load bearing walls, the surrounding gap is to be filled with intumescent mastic or expanding foam to maintain fire rating of wall. All external space lighting light fittings are to be dedicated low energy fittings and controlled by movement detecting shut-off devices (PIR) or timer switches. All burglar security lights are to have a maximum wattage of 150W and are to be fitted with movement detecting shut-off devices (PIR) and daylight cut-off devices. All other security lighting is to be specially designed to accommodate CFL, luminaries or strip lights and be fitted with dawn-to-dusk sensors or timers. All

internal energy efficient light fittings must be capable of only accepting lamps having an average luminous efficiency not less than 45 lumens per circuit watt. All fittings will comprise of the lamp, control gear and appropriate housing, reflector, shade or diffuser. All external energy efficacy light fittings will be capable of only accepting lamps having an average luminous efficacy not less than 40 lumens per circuit watt. All fittings will accommodate only compact fluorescent lamps (CFL) luminaries or strip lights and be controlled by a time clock or daylight sensor. The electrical contractor is to provide a whole house electrical certificate, for each dwelling, prior to final completion. Important Notes: All dwellings are to be fitted with 100% dedicated low energy lighting PLUMBING & SPACE HEATING

Plumbing and heating designs are all to be in accordance with specialist

sub-contractor's design and details. Suggested radiator locations have been

indicated on the working drawing general arrangement floor plans however, the

heating designer's drawings are to be referred to in respect of required output

and sizes etc. Generally, space heating is to be provided by wall mounted

balanced flue condensing type boilers, supplying a wet radiator system. Gas boiler to be installed by a GAS SAFE registered engineer, to comply with the current Building Regulations and British Standards. Typically, boiler flues are to be positioned a minimum of 300mm from openings into buildings and returns (including extractor fans), as indicated in Diagram 3.4 within Approved Document J of the Building Regulations. Provide durable wire guard to flue if less than 2m from external ground level. The boiler should only fire when there is a demand for heating and hot water. A copy of the operating and maintenance information for the heating and hot water systems is to be provided on completion of the installation. This information should be in an accessible location and directly relate to the system installed. The instructions should explain how to operate and maintain the system to ensure efficiency and the conservation of fuel and power. Certification to be provided on completion, to confirm that the space and water heating, and relevant information regarding the operation, has conformed to Approved Document L1A of the Building Regulations. The contractor is to provide the relevant Benchmark certificates prior to handover. Provide insulation to pipes and ducts unless the heat loss from the pipe contributes to the useful heat requirement of the room space. All radiators are to be fitted with thermostatic controlled radiator valves to shut off heat when room temperature is reached, except those fitted in the same room/zone as the location of the room thermostat which provides boiler interlock in accordance with Approved Document L1A of the Building Regulations. Room thermostat(s) are to be provided to switch off the boiler when no heat is required. Additional zonal room thermostats and timing controls are to be provided where the floor area of the dwelling exceeds 150m<sup>2</sup>. Separate timing devices should be provided for room space heating and hot water control. Boilers used for the operation of space heating and hot water systems, for each dwelling, to have a dry NO2 emission level of equal or less than 40mg/Kwh. Important Note: The above specification notes are all subject to specialist Contractor/Plumbing and heating designer's details and therefore, may be superseded. ABOVE GROUND DRAINAGE & PLUMBING INSTALLATION

Plumbing installation to be specialist designed in accordance with the local Water Supply Bylaws. All materials in respect of sanitary pipework are to meet all current British Standards and codes of practice. Insulate incoming main. All fittings are to have 75mm deep seal traps. Basins and bidets to have 32mm diameter wastes maximum 1. 7m length (anti-siphon trap or increased pipe diameter if longer); all other wastes (excluding WC) to be 40mm diameter. 1.7-3m length (anti-siphon trap or increased pipe diameter if longer. This will increase to 50mm diameter where pipework length is in excess of 3-4m in length and where there is combined appliance waste. WC waste is to be 100mm diameter. All waste pipes shall be laid to falls. Provide waste connections for washing machines and dishwashers, where applicable. All plumbing shall be installed in accordance with manufacturer's instructions. The maximum lengths of waste pipes shall be as follows: 32mm pipe = 1.7m maximum length 40mm pipe = 3.0m maximum length 50mm pipe = 4.0m maximum length 100mm pipe = 6.0m maximum length Soil and ventilating stacks to terminate via 'tile' ventilator and 900mm minimum above any window head within 3000mm horizontally from the pipe (the dry part of the stack may reduce from 100mm to 75mm diameter above the highest branch). Discharge/soil stacks may terminate inside a building when fitted with air admittance valves provided they are accessible and within the insulated envelope of the building. Air admittance valves can only be fitted to a limited number of ventilation stacks without ventilation of the drainage system-Civil Engineer must confirm locations of open vented stacks required. Soil pipes to be fully insulated with 50mm thick mineral wool, or similar approved (internally, up to underside of roof insulation) and enclosed with 2 no. layers of 12.5mm plasterboard on 38 x 50mm, softwood timber framing. Provide access for rodding as required. Pipework laid between joists is to be adequately supported. All layers of wall plasterboard to be carried through behind soil and vent pipe. Anti-Syphon traps are to be used where noted above. Provide branch ventilation pipes where required over spill over levels. Provide removable access panels to facilitate rodding and access panels to WC cisterns at appropriate locations. Stub stacks are to terminate minimum of 100mm above flood level of highest appliance with air admittance valve fitted. Rodding eyes provided above flood level at all lengths, not otherwise accessible. A large radius bend (at least 200mm at centreline) is to be provided at the base of all soil and vent pipes, unless otherwise noted by the SPECIALIST or Civil Engineer's, with access above floor level for rodding. SANITATION, HOT WATER SUPPLY & WATER EFFICIENCY

Approved Document Part G1-Cold Water Supply Wholesome water required to places where output is used for drinking or for a sanitary convenience. All cold water storage tanks are to be supported on a rigid platform. All water provided for human consumption and personal hygiene is to be provided by a licensed water supplier. Reclaimed water; where specified, the water generated should not be supplied to appliances where water is drawn off for personal hygiene, drinking or culinary use. Reclaimed water which has been suitably filtered and/or treated in accordance with the relevant standards and regulations can be used to supply W/C's, washing machines and garden taps. Marking of pipework to be in accordance with WRAS Information and guidance note number 9-02-05. Approved Document Part G2 Water Efficiency

Potential consumption of wholesome water by occupants of a single dwelling must not exceed 125 litres per person per day for compliance, 125 litres for Building Regulations compliance. Contractor is to provide a record of details of the installed system to ensure that the home owner can renew at a later date (sanitary appliances/white goods). 5 litres of the 125 litres per day per occupant allows for external use. Important.

Approved Document Part G3-Hot Water Supply, Systems & Safety Any storage vessels should not allow water to exceed 100°C. Discharge from any safety devices should be located so as not to endanger anyone in or about the building. Hot water supply to baths is not to exceed 48°C. Hot water system needs to resist temperature and pressure variations in normal use or if malfunction occurs. In line blending valve/thermostatic mixing valve on bath (48°C maximum) should not be easily altered by the occupants. Vented systems; need to have a vent pipe from the storage vessel to terminate over a cold water store cistern, as well as a thermostat on the vessel (100°C maximum). Unvented systems; need at least 2no. safety devices to prevent water from being stored over 100°C. System is to be commissioned. Cold water tank should be fully supported. Support to extend 150mm beyond the tank in all directions. Important Note: The above specification notes are all to

4791PG500; 4791PG501; 4791EG500 - xref's loaded in file

read in conjunction with Approved Document G of the Building Regulations and the Plumbing Engineer's specification. INCOMING SERVICES

Incoming Services

Service entries at GF level of houses installed to local Service Company's requirements in locations indicated on the working drawings; all incoming services to enter dwelling via sleeve. In general the following criteria apply but refer to site specific conditions:

Gas supply: Independent gas main to be provided to each dwelling of suitable size, capacity and pressure. Gas meter to be located in ground mounted box in position indicated on working drawings and to Gas Authority/Gas Safety Body

Electric supply: Independent electric main provided to each dwelling of suitable size and capacity. Electric meter located in semi-recessed wall mounted box in position indicated on working drawings and to Electric Authority/IEE requirements. Where meter is 2m or more from RCCB then an

Water supply: Independent water main 750mm below FGL provided to each dwelling of suitable size, capacity & pressure. Water meter sited in external chamber or within dwelling under sink as indicated on working drawings and to Water Authority requirements. Incoming supply to rise to stopcock/drain valve located under sink.

Telecom supply: Independent telecom cable provided to each dwelling at the external Termination Equipment (NTE) and all internal telecom points wired and connected to it; all to telecom supplier's requirements.

Sky/Cable TV: Where specified, an independent cable is to be provided to each dwelling in accordance with communication provider's requirements. Important Note: The above specification notes are provided for guidance only and are all subject to Specialist Contractor's/Utilities Consultant's details and therefore. may be superseded. KITCHEN DESIGN

A detailed kitchen design shall be provided by the specialist supplier utilising the indicative layout provided on the working drawings. AIR PERMEABILITY & AIR PRESSURE TESTING

A schedule of proposed plots for air pressure testing is to be agreed with the appointed Building Control Authority by main contractor. INTERNAL FINISHES SPECIFICATION

Please refer to internal finishes specification for full details.

The electrical and associated services serving the site shall be designed, tested

and commissioned to comply with all relevant British and European Standards, IEE Regulations as well as the requirements of the Local Planning Authority, Building Regulations and current CIBSE Guides. The installations shall be installed and finished to a high standard and all equipment and accessories shall be selected to suit the environment. Where requested, the contractor shall provide samples of all visible accessories and luminaries for consideration by the Client or his/her representative. The electrical installations shall only be carried out by an NIC/EIC registered company. All wiring shall be concealed. Prior to Practical Completion the contractor will provide copies of NIC/EIC completion and inspection certificates for the whole of the project. Practical Completion will not be certified until all certificates are provided. The certificates will be without departures. The certificate will be duly completed in full by a qualified person. A copy of each circuit schedule will be included within the operating manual. All luminaries and the design of the illumination in each area shall comply with the current CIBSE lighting guidance notes for the relevant environment.

All sanitaryware is to be in accordance with internal finishes specification. EXTERNAL WORKS

Please refer to the Civil Engineer's

Level Threshold Access A hard surfaced level threshold is to be provided to all front entrance doors, where indicated on the working drawings, in accordance with Approved Document M of the Building Regulations. Note: Front and rear level access required for CfSH compliance. Where achievable, a level standing is to be provided at the front and rear entrance doors which is a minimum of 900 x 900mm, in accordance with Approved Document M of the Building Regulations. Maximum cross fall away from doorway of 1:40. Mobility thresholds to be provided at all entrance doors with a maximum up-stand height of 15mm. Please refer to Civil Engineer's drawings for site specific requirements. 'Ramped' approach of gradient not sleeper then 1:15 for 10m flights or 1:12 for 5m flights with final 1.2m falling away from door at 1:40. Stepped' approach (steep sites only) of max 1.8m flight rise consisting of 75-150mm risers and 280mm min goings with top/ bottom/intermediate landings of 0.9m x 0.9m. If 3 or more risers single grip-able handrail

required. Soft Landscaping

Please refer to appointed Landscape Architects' drawings and specification for detailed proposals.

850-1000mm above pitch line to extend 300mm beyond top/bottom riser

CONTRACTOR IS RESPONSIBLE FOR ALL SETTING OUT AND MUST CHECK DIMENSIONS ON SITE BEFORE WORK IS PUT IN HAND

WRITTEN DIMENSIONS ONLY TO BE TAKEN THIS DRAWING MUST NOT BE SCALED

ARCHITECT TO BE IMMEDIATELY NOTIFIED OF SUSPECTED OMISSIONS OR DISCREPANCIES

24.10.16 rk











RDiW ARCHITECTS LIMITED OUOIN HOUSE . 9-11 EAST PARK CRAWLEY . WEST SUSSEX . RH106AN TEL: 01293 404300 . FAX: 01293 404299 EMAIL: info@rdjwarchitects.co.uk WEBSITE: www.rdjwarchitects.co.uk

Bartram House Station Road Pulborough West Sussex RH20 1AH

Construction Notes

<sup>TE</sup> 25.01.2016 SCALE nts 4791-700 CHECKED



Calculated by:

R. K. Cooper RDJW Architects Quoin House 11 East Park Crawley West Sussex RH10 6AN

Tel: 01293 404300 Fax: 01293 404299

E-mail: info@RDJWArchitects.co.uk

U-value calculation by BRE U-value Calculator version 2.04b - Printed on 08 Jul 2016 at 12:37

Filename: F:\Projects\4791\blo\Rackhams 175mm Beam White EPS Block Floor.uva (File saved: 08 Jul 2016 12:14)

**Element type: Floor - Suspended beam-and-block floor -** Calculation Method: BS EN ISO 6946, BS EN ISO 13370

### Rackhams 175mm Beam White EPS Block Floor

4791 RUSHMON HOMES

Station Road Pulborough

West Sussex RH20 1AH

### U-value of floor construction:

<u>Layer</u>	<u>d (mm)</u>	<u>λ layer</u>	<u>λ bridge</u>	Fraction	R layer	R bridge	Description
					0.170		Rsi
1	75	1.150			0.065		Screed
2	75	0.025			3.000		insulation board
3	175	0.036			4.861		Rackhams 175 Beams White EPS
blocks							
					0.170		Rs (underfloor)
	325 mm				8.266		

Total resistance: Upper limit: 8.266 Lower limit: 8.266 Ratio: 1.000 Average: 8.266 m<sup>2</sup>K/W

U-value of floor construction: 0.121 W/m<sup>2</sup>K

**Ground parameters:** 

Perimeter P: 17584.00 m Wall thickness: 353 mm

Area A: 38.64 m<sup>2</sup> Ground type: Clay/silt ( $\lambda = 1.5 \text{ W/m} \cdot \text{K}$ )

P/A: 455.072 Rse: 0.04 m²K/W
Resistance on solum Rg: 0.000 m²K/W
Depth of underfloor space below ground: 0.180 m
Floor height above ground: 575.000 m
U-value of walls above ground (but below inside floor level): 0.30 W/m²K
Mean wind speed: 5.00 m/s

Wind shielding factor:

Ventilation openings per metre length:

3.00 m/s

0.050

0.0015 m²/m

U-value for ground (Ug) 2.239 U-value of floor deck (Uf) 0.121 Ventilation equivalent U-value (Ux) 78623.700

U-value overall 0.121

U-value (rounded) 0.12 W/m<sup>2</sup>K



# This is a Construction Phase Plan for the following project:

# **Bartrams House**

## Your name/company:

**RDJW Architects** 

### Your email address:

Rob.cooper@rdjw.co.uk

### **Client Name:**

Rushmon Homes

### **Client Address:**

2 Esher Rd, Hersham KT12 4JY

### Job Address:

New Bartram House, Swan Court, 3-5 Station Rd, Pulborough RH20 1RL

### What is the job associated with?:

Ground works, Two storey new build, Roads, paving, hard-standings, or landscaping

### Is there anything the client has made you aware of?:

Asbestos present:

### Start date:

Unknown date

### End date:

Unknown date

### Who else is working on the job with you?:

Other trades / contractors / sub-contractors

### Please list all other trades / contractors / sub-contractors.:

**Rushmon Homes** 

2 Esher Rd, Hersham KT12 4JY

### Who will be responsible for ensuring the job runs safely?:

Robert Lawrie

### Who will be the principal contractor?:

**Rushmon Homes** 

### How will you keep everyone on site updated during the job?:

Daily briefing before work starts, Face to face as changes arise, Written work instruction

# Where are your toilet, washing (basin with hot and cold running water) and rest facilities?:

Using temporary facilities

### Select the relevant task or trades you will be undertaking on this job:

Ground works / drainage / foundations / screeding, Brickwork, block work, Roof work and installing upper floors, Plastering, rendering, dry-lining, Carpentry work (internal and external), Plumbing and heating, Electrical work, Painting, decorating and internal finishing

### **Plan**



### **Activity:**

Client advised: Asbestos present



### Risks:

Client advised risk: Exposure to asbestos can cause four main diseases: Asbestos-related lung cancer (which is almost always fatal), Mesothelioma, Asbestosis and Diffuse pleural thickening



### You will need to:

! STOP!

- Asbestos can be found in any building built before the year 2000 and causes around 5000 deaths every year
- If possible, you should plan for work to avoid disturbing any asbestos, but if not possible, you must not start work unless you have the correct instruction, information and training to do it safely
- You may need to use a licensed contractor and can find more information on the HSE's asbestos web pages at www.hse.gov.uk/asbestos
- The HSE also have a FREE 'Beware Asbestos' web based app that includes an asbestos photo gallery www.beware-asbestos.info

# **Working Together**



### **Activity:**

Working on this job for more than 500 person days or 30 working days, with more than 20 people working at the same time?



# Risks:

Notification risk: Prosecution through not notifying the project to the HSE, which is a legal requirement



# You will need to:

Your job needs to be notified to the HSE. The easiest way is to use the electronic notification form F10 on HSE's website.

Further information on how to notify construction work can be found on HSE's website https://www.hse.gov.uk/forms/notification/f10.htm

# **Organise - Health Risks**



### **Activity:**

Cutting, sawing, drilling, breaking out, chasing, sanding/rubbing down or sweeping up which creates harmful dust or working in a dusty work place?



### **Risks:**

Health risk: Breathing in harmful construction dust leading to lung diseases such as silicosis



# You will need to:

- Maintain good ventilation
- Avoid creating dust
- Use on-tool extraction systems
- Dampen down or use wet cutting techniques
- Use a vacuum rather than sweeping with a brush if possible
- Wear respiratory protection such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)

! Avoid 'nuisance' or 'general' dust masks as they have no 'protection rating' and offer you little or no protection!



### **Activity:**

Working on a building which was built before the year 2000?



### Risks:

Health risk: Exposure to asbestos can cause four main diseases: Asbestos-related lung cancer (which is almost always fatal), Mesothelioma, Asbestosis and Diffuse pleural thickening



### You will need to:

### ! STOP!

- Asbestos can be found in any building built before the year 2000 and causes around 5000 deaths every year
- If possible, you should plan for work to avoid disturbing any asbestos, but if not possible, you must not start work unless you have the correct instruction, information and training to do it safely
- You may need to use a licensed contractor and can find more information on the HSE's asbestos web pages at www.hse.gov.uk/asbestos
- The HSE also have a FREE 'Beware Asbestos' web based app that includes an asbestos photo gallery www.beware-asbestos.info



### **Activity:**

Lifting and carrying heavy or awkward materials and equipment?



### Risks:

Health risk: Manual handling injuries and repetitive strains such as back pain

### You will need to:

Think about ways to reduce the risk by:

- Ordering materials cut to size
- Splitting the load if possible
- Ask someone to help with the lift
- Use lifting aids (wheel barrow, hoist, sack barrow)



## **Activity:**

Using hand held vibratory tools and equipment? Such as drills, breakers, grinders, cut-off saws, sanders, chasers?



### Risks:

Health risk: Permanent damage to nerves and blood supply to fingers, wrists and hands known as vibration white finger or hand arm vibration syndrome HAVS



- You will need to:
   Reduce the amount of time on the tools
  - Rotate the work with others
  - Keep your hands warm and dry
  - Keep drill bits, points and chisels sharp
  - When purchasing or hiring tools and equipment select those with low vibration ratings
  - TIP: Don't grip too tightly let the tool do the work

! If your hands tingle after using equipment it's an early warning sign. Repetitiveness can lead to permanent damage!



### **Activity:**

Using noisy tools, plant and equipment or working in a noisy work place?



Health risk: Permanent damage or loss to hearing / or ringing in ears known as tinnitus



### You will need to:

- Wear hearing protection (i.e. ear plugs or ear defenders/muffs) every time you use noisy tools and equipment even for short periods or if you work in a noisy area



### **Activity:**

Working outside in sunny weather?



### Risks:

Health risk: Over exposure to sun resulting in skin cancer



- Cover up bare skin (keep your top on)
- Use high factor sun cream
- Drink plenty of fluids to avoid dehydration



Using hazardous materials such as cement, solvents, paints, chemicals?



Health risk: Risk developing skin conditions such as dermatitis or cement burns



- You will need to:
   Avoid contact with skin
  - Use the correct gloves
  - Wash any cement off your skin immediately
  - Follow any hazard label instructions

# **Organise - Safety Risks**



### **Activity:**

Working in a confined space such as a loft or basement



### Risks:

Safety risk: Lack of oxygen, fire, excessive heat, falls



### You will need to:

- Use a secure tied ladder or other suitable access equipment and cover the hatch to prevent falls
  - Use boards or staging over ceiling joists to create a stable working area
  - Ensure there is good ventilation and lighting
  - Check labels and data sheets for the controls to follow if using hazardous substances such as paints, solvents etc.



### **Activity:**

Working off a ladder or step ladders?



Safety risk: Overreaching, losing balance resulting in falls, or unsecured ladder or step ladder toppling over



- You will need to:
   Only use them for light work of a short duration
  - Check they are in good condition before use
  - Secure ladders by tying them at the top or if able to then secure at the bottom.
  - Check ladders are on a firm base and lean at the correct angle (1 unit out to 4 units up)
  - Use step ladders on firm level surfaces
  - Consider the equipment you will be using and the location and use proprietary attachments such as stabilisers, 'stand-offs' and clip on trays



## **Activity:**

Working on or erecting a mobile tower, trestles, scaffolding or other access equipment?



### Risks:

Safety risk: Falling off or collapse or overturning of equipment



- You will need to:
   Check what training or instruction you will need to erect and use the equipment safely
  - Follow the manufacturers instructions
  - Consider using modern trestle systems that have ladder access, guard rails and secure platforms rather than traditional trestles or band stands that can be unstable
  - Check that any scaffold is erected by trained and competent persons.

! Do not alter scaffolding unless authorised!



# **Activity:**

Working on or over exposed roof trusses, rafters, joists, staircases or open holes in floors?



### Risks:

Safety risk: Falls, dropping materials or equipment onto others



# You will need to:

- First consider working in ways which prevent falls, such as boarding out the area and providing quardrails
  - Alternatively use methods which 'save you' in the event of a fall such as safety nets or soft landing systems
  - Only consider fall arrest and suspension equipment (harnesses and lanyards) if you can't do the work any other way
  - Fix covers over any open holes or voids that are large enough for someone to fall through



### **Activity:**

Working on or accessing a roof or other place where there are unprotected edges or no barriers to stop you falling?



### Risks:

Safety risk: Falls, dropping materials or equipment onto others



# You will need to:

- Consider safe ways of working almost all domestic roof work needs scaffolding or access equipment
  - Fit edge protection to stop people and materials from falling from eaves and gable ends
  - On terraced properties make sure you provide scaffolding at the front and back of the property
  - Stop materials falling onto the street, and people for example, use debris netting sheeting and/or close fitting scaffold boards



### **Activity:**

Working on or accessing a roof or other place which may be a fragile surface (i.e. one that can't take a person's weight such as an asbestos cement roof) or near skylights, conservatory roofs etc.?



### Risks:

Safety risk: Falls through roof or structure



### You will need to:

- Always assume that the roof is fragile unless you are certain it is not
- Do not go onto a fragile roof, or ask anyone to go on, unless you/they have the right equipment and the skills and experience to use it correctly
- If possible, do the work without going onto the roof: work from underneath, reach from an access platform or cover fragile areas on the roof
- If you need to work on the roof, prevent falls through the roof using equipment such as boards with quard rails
- Cover or barrier-off skylights to stop people falling through them

! If you don't have all the equipment with you to prevent falling off or through the roof -



Carrying out short duration work such as inspections, cleaning, maintenance or quick repairs to places that are above the ground or in places where you could fall?



### **Risks:**



### You will need to:

! Stop and assess what the safest option is by reassessing the previous safety options as they may apply but have not been considered as part of short duration work!



### **Activity:**

Carrying out 'hot work' with a naked flame or using items that could produce sparks or heat (such as using a blow torch, bitumen boiler, grinder, cut-off saw, heater or halogen lamp?



### Risks:

Safety risk: Fire or explosion



### You will need to:

- Remove or protect flammable materials and keep an appropriate fire extinguisher nearby when carrying out 'hot work'
- Position bitumen boilers, soldering irons and gas-rings on non-combustible stands
- Cease 'hot work' activities at least one hour before the end of the day's work (two hours for higher risk sites, such as large timber-frame projects) and regularly monitor the area and surrounding structure in the intervening time



### **Activity:**

Using or storing flammable materials or substances such as LPG, petrol or solvents?



### **Risks:**

Safety risk: Fire or explosion



### You will need to:

- Make sure petrol and other flammable substances are stored in correct containers and used away from sources of ignition
- Never refuel petrol or diesel-powered equipment and plant whilst it is still hot
- Store all gas cylinders so that they cannot fall or roll and transport cylinders in vehicles with good ventilation
- Ensure flashback arrestors are fitted when using mixed gases (such as when welding)

! If gas cylinders are being heated in a fire, call the fire brigade and immediately evacuate the area!

# **Organise - Environmental Risks**



### **Activity:**

Using or storing materials?



### Risks:

Environmental risk: Every year millions of pounds are wasted by poor management of materials that end up being damaged or just thrown away



### You will need to:

- Store materials properly and safely to prevent damage before use e.g. bags of cement
- Keep significant off-cuts for reuse and know the correct place to stockpile and protect materials for reuse
- Consider the quantity of material to be used before ordering or opening a pack and use it all before opening a new pack



### **Activity:**

Using or hiring a waste skip, 'muck away' lorries or other waste collection services?



Environmental risk: Illegal removal or dumping of waste



### You will need to:

- Ensure you use a registered and licensed waste contractor
  - Note: You can use the public registers to find a waste carrier to move your waste at www.gov.uk/find-registered-waste-carrier
  - Ensure you only fill the skip with waste that it is intended for
  - It is illegal to mix hazardous waste (such as asbestos, used batteries, fluorescent light bulbs, waste solvents such as white spirit, oil based paints, bitumen, epoxy resins and mastics) into a general mixed waste skip
  - Waste plasterboard should be segregated and disposed of separately to general waste
  - Ensure you keep any documentation such as transfer notes or skip tickets
  - You must not burn or bury general building waste



### **Activity:**

Storing diesel, petrol, oil or other hazardous liquids on site?



### Risks:

Environmental risk: Spills polluting the ground or nearby watercourses or drains



- Ensure that bulk fuel and oil storage tanks are bunded with a capacity of 110%, kept secure (locked when not in use) and checked regularly
- Ensure all containers are stored in secure, bunded areas with a capacity of at least 25% more than the total volume of the containers
- Refuel in controlled areas, where possible, and place drip trays or absorbent mats under static plant



Working in a residential area or near other neighbours such as schools and shops?



### Risks:

Environmental risk: Causing a statutory nuisance or just getting a bad reputation



### You will need to:

- Be a good neighbour always be polite and considerate
- Arrange for deliveries when traffic flow is likely to be low and avoid school arrival and departure times
- Keep disruption from the site to a minimum by minimising dust, noise and vibration, such as damping down and using wet cutting to reduce the potential for creating dust
- Maintain good housekeeping by keeping roads and pathways clean
- Let people know in advance of any noisy operations, especially at night and on weekends
- Environmental Health Officers can issue notices to stop you working if you are creating a statutory nuisance



### **Activity:**

Mixing concrete or mortar and washing out or pumping water from excavations?



### **Risks:**

Environmental risk: Illegally discharging into or polluting drains or nearby watercourses



### You will need to:

- Carry out mixing and batching works in areas well away from watercourses, gullies and drains
- Use designated wash out areas and ensure that delivery drivers (of concrete or similar) are aware of where they can wash out
- You must seek approval before you pump water into drains or watercourses

Note: Where there is a requirement to discharge effluent from any construction activity to drainage systems, watercourses or rivers and streams, an application for consent to discharge must be made to the relevant authority. The issuing authority for discharges to foul sewers is usually regulated by the local water company, whereas any discharges to surface water systems, rivers lakes or ponds would be regulated by the EA, NRW, NIEA or SEPA



### **Activity:**

Removing or cutting back trees, hedges or vegetation?



### Risks:

Environmental risk: Disturbing protected wildlife



- Check with the Local Authority as some trees and hedges are protected and have a preservation order
- At certain times in the year they may contain nesting birds, which should not be disturbed as they are protected by law

# Ground works / drainage / foundations / screeding risks



### **Activity:**

Digging in an area that could have buried services (water, gas, electricity, cable etc.)?



### Risks:

Safety risk: Injury through striking live services



- You will need to:
   Obtain relevant service drawings
  - Check the area by using a Service locating device (CAT & Genny)
  - Hand dig when you are within 500mm of any known service



### **Activity:**

Excavating foundations, drainage trenches or bulk / reduced level dig?



### Risks:

Safety risk: Crush injuries or being buried by sudden collapse of excavation



### You will need to:

- Adequately support all excavations as you go (shore, step or batter) regardless of any depth
- Check the excavation before work starts and after any event that may affect its stability (i.e. heavy rain)
- Keep records of your inspections so that people can be sure it is safe for work to continue



### **Activity:**

Working in an excavation or trench?



### Risks:

Safety risk: People and materials falling in, sudden collapse



### You will need to:

- Provide access either by ladder, scaffolding, staircase etc. to get in and out of the excavation
  - Keep plant, soil and materials away from the edge
  - Prevent access if unsafe or unsupported



### **Activity:**

Leaving an excavation or manhole open?



### Risks:

Safety risk: People falling in



### You will need to:

- Fit temporary covers over open manholes, inspection chambers etc. and erect barriers or guards around the edge that are strong enough to take a person's weight



Excavating near to an existing structure such as a building, garden wall or garage?



### Risks:

Safety risk: Sudden collapse due to undermining or weakening the existing structure



### You will need to:

- Make sure structures are not undermined, dig well away from them or install suitable temporary works support

! If in doubt seek advice from a structural engineer !



### **Activity:**

In contact with sewage?



### Risks:

Health risk: Weil's disease or Leptospirosis - starts as mild illness similar to flu but left untreated can be fatal



### You will need to:

- Wear protective clothing such as rubber or non-absorbent gloves
- Wash hands after any contact good personal hygiene is essential



### **Activity:**

Using driver operated plant, such as mini diggers and dumpers?



### Risks:

Safety risk: Plant overturning, striking other people, overcome by exhaust fumes/asphyxiation



### You will need to:

- Only operate the plant if you are competent (blend of knowledge, ability, training and experience)
- Keep others away from plant movements and traffic routes
- Be aware of crush zones (mini diggers slewing near buildings)
- Avoid driving close to excavations
- Only operate the plant for which it is designed for
- Be aware that exhaust fumes are heavier than air and can quickly fill spaces such as excavations and basements. Regularly 'stir the air' or provide mechanical ventilation/extraction



### **Activity:**

Working in an occupied home or workplace?



### Risks:

Safety risk: Injury to homeowners, children, elderly, others



### You will need to:

- Ensure you leave the work areas safe and tidy before you leave each day

- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders



Mixing or using screeds, mortar or concrete on site?



### Risks:

Health risk: Manual handling, dermatitis and cement burns

Safety risk: Crushed if mixer topples, eye injuries, caught in moving parts, electric shock



### You will need to:

- Locate mixer on firm level ground
- Ensure mixer is fully guarded and guards are in place during operation
- Protect electrical leads and use an RCD / circuit breaker
- Ensure that mixer is positioned to allow the shortest possible route, free from obstructions, for operatives carrying either bags of or mixed cement
- Use cement or cement containing products by their use-by date
- Avoid direct skin contact wear non-absorbent CE marked gloves when handling wet cement and do not kneel on wet screed unless wearing suitable protective clothing such as waterproof trousers and footwear
- Have good washing facilities on site, with hot and cold water, soap and basins large enough to wash forearms
- Have emergency eyewash to hand

! Ensure washout does not enter drains or watercourses!



### **Activity:**

Pumping screeds or concrete?



### Risks:

Health risk: Noise, vibration, dermatitis and cement burns

Safety risk: Injuries due to sudden bursting of hoses or struck by screed / concrete at high pressure, caught in moving parts of pump, electric shock



### You will need to:

- Ensure the mixer is positioned to allow the shortest possible route, free from obstructions, for operatives carrying either bags of or mixed cement
- Locate screed pump on firm, level ground and use stabilisers if fitted
- Set up a safety exclusion zone
- Ensure pump is fully guarded and guards are in place during operation
- Ensure delivery hoses are in good condition and purpose designed securing pins in place on all hose couplings
- Protect electrical leads and use an RCD / circuit breaker

! If hiring a concrete pump, additional controls will be required due to the high risk operation, such as high pressures, blockages, vehicle / wagon movements. Workers may need

additional information, instruction, training or supervision!



### **Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?



Health risk: Chronic knee pain leading to permanent damage



### You will need to:

- Use kneeling pads, kneeling mats or cushions and padded trousers



### Activity:

Using epoxy resins, additives, or other chemicals?



### Risks:

Health risk: Breathing in harmful fumes, damage skin, eyes and respiratory tract



### You will need to:

- Check labels and data sheets for the necessary controls to follow when using hazardous substances including PPE such as gloves, clothing and eye protection



### **Activity:**

Cutting, chasing or drilling screeds, concrete, bricks or blocks?



### Risks:

Health risk: Breathing in harmful construction dust leading to lung diseases

Safety risk: Eye injuries



- Stop using dry cutting methods
- Where possible, replace angle grinders and cut-off saws with a block splitter (removing the risk of significant dust exposure)
- Use wet cutting techniques such as using a water feed while cutting
- Use a wall chaser with on-tool dust extraction
- Wear eye protection when cutting brick bands or using chisels and bolsters
- Wear respiratory protection such as a disposable face mask, making sure it has a CE mark and is FFP rated (preferably FFP3)

# Brickwork, block work risks



### **Activity:**

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



# You will need to:

- Use brick guards to prevent falls of materials onto others
- Stack pallets of bricks and blocks on firm level ground and not more than two high
- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish
- Wear safety footwear



### **Activity:**

Loading out bricks, blocks, mortar and lintels?



### Risks:

Health risk: Manual handling

Safety risk: Overloading scaffold or access equipment working platforms



- You will need to:
   Get bricks, cements, lintels delivered as close to work area as possible
  - Use lightweight blocks where possible
  - Cover bricks/blocks with tarpaulin when stored on site to prevent taking up water
  - Use trolleys and lifting aids to load out materials
  - Raise spot boards with blocks to easy working height

! Do not overload working platforms or floors!



### **Activity:**

Mixing mortar and concrete on site?



### Risks:

Health risk: Dermatitis and cement burns

Safety risk: Crushed if mixer topples or caught in moving parts, electric shock



- Use cement or cement containing products within the use-by date
- Avoid direct skin contact wear non-absorbent CE marked gloves when handling mortar
- Have good washing facilities on site, with hot and cold water, soap and basins large enough to wash forearms
- Have an emergency eyewash to hand
- Locate cement mixer on firm, level ground
- Ensure mixer is fully guarded and guards in place during operation
- Protect electrical leads and use an RCD / circuit breaker

! Ensure washout does not enter drains or watercourses!



### **Activity:**

Cutting, chasing or drilling bricks or blocks?



### Risks:

Health risk: Breathing in harmful construction dust leading to lung diseases

Safety risk: Eye injuries



# You will need to:

- Stop using dry cutting methods
- Where possible replace angle grinders and cut-off saws with a block splitter (removing the risk of significant dust exposure)
- Use wet cutting techniques such as using a water feed while cutting
- Use a wall chaser with on-tool dust extraction
- Wear eye protection when cutting brick bands or using chisels and bolsters
- Wear respiratory protection such as a disposable face mask make sure it has a CE mark and is FFP rated (preferably FFP3)



### **Activity:**

Using epoxy resins, brick acid or other chemicals?



### Risks:

Health risk: Breathing in harmful fumes, damage skin, eyes and respiratory tract



- Check labels and data sheets for the controls to follow including necessary PPE such as gloves and eye protection
- Always use in a well-ventilated area

# Roof work and installing upper floors risks



### **Activity:**

Working at height or carrying out short duration work such as inspections, cleaning, maintenance or quick repairs to places that are above the ground or in places where you could fall?



### Risks:



### You will need to:

! Stop and assess what the safest option is by reassessing the previous safety options as they may apply but have not been considered as part of short duration work!



### **Activity:**

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



- You will need to:
   Use brick guards to prevent falls of materials onto others
  - Stack pallets of materials on firm level ground and not more than two high
  - Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish
  - If possible, use a hoist or other lifting devices to raise and lower materials and equipment to the work area



### **Activity:**

Mechanically cutting roof tiles or slates?



### Risks:

Health risk: Breathing in harmful construction dust leading to lung diseases



- You will need to:
   Stop using dry cutting methods
  - Use wet cutting techniques such as using a water feed while cutting
  - Wear respiratory protection such as a disposable face mask make sure it has a CE mark and is FFP rated (preferably FFP3)



### **Activity:**

Working above or near public areas?



### Risks:

Safety risk: Injury to public



### You will need to:

- Stop materials and debris falling onto members of the public by netting scaffolding and

covering the boards if people are walking under (or near) scaffolding - or barrier the area off



### **Activity:**

Stripping off existing roof coverings or structures?



### Risks:

Safety risk: Fragile roof surfaces, falls from height, materials falling, injury to other people



# You will need to:

- Provide working platforms and edge protection such as scaffolding
- Keep people away from the area in case of loose or falling materials
- Do not throw materials from the roof or the scaffold ('bombing') use a chute or similar.



### **Activity:**

Working in high winds, frosty/icy conditions, heavy rain?



### Risks:

Safety risk: Slips, falls, materials blowing off roof



### You will need to:

- Secure materials to stop them being blown off the roof
  - Provide walkways or treat surfaces so they are not slippery
  - Avoid working on frosty or icy roofs and surfaces



# Activity:

Using bitumen boilers?



### Risks:

Safety risk: Fire, molten bitumen, burns



- Site boiler on firm level surface and do not move or leave unattended when lit
- Leave a minimum of 3m between the boiler and any LPG cylinder
- Use lids on containers carrying hot bitumen to minimise splashes and check routes are free from trip hazards
- At least one dry powder fire extinguisher should be available near the boiler
- Wear appropriate personal protective equipment including gloves

# Plastering, rendering, dry-lining risks



### **Activity:**

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### **Activity:**

Lifting and handling heavy or awkward objects, e.g. plasterboard or bags of plaster?



### Risks:

Health risk: Injuries such as back pain



### You will need to:

- Consider using smaller or half sheets of plasterboard if possible
- Use mechanical lifting aids such as sack barrows and board trolleys
- Use board and panel mechanical lifters, jacks and telescopic props



# **Activity:**

Mixing plaster?



### Risks:

Safety risk: Electrocution



### You will need to:

- Protect electrical leads and where possible, use 110v paddle mixer to reduce the risk else use an RCD / circuit breaker for 240v equipment
- Keep the mixing area clean and tidy to prevent slips and trips

! Ensure washout does not enter drains or watercourses!



### **Activity:**

Working off hop-ups



### Risks:

Safety risk: Falls



- Ensure the floor is firm and free of wet material and debris
- Keep the hop-up top clean and dry
- Move it regularly don't over reach



Plastering near electrical sockets, spurs etc.?



### Risks:

Safety risk: Electrocution



# You will need to:

- Check with the electrician that any exposed wires and open power points are not live



## **Activity:**

Rubbing down plaster / tape and jointing?



### Risks:

Health risk: Irritation of eyes or sensitive skin, or short-term irritation of respiratory system



- Avoid skin contact, excessive dust build-up and contact with eyes
- Ensure there's a water supply nearby to wash dust off skin
- Wear eye protection when plastering ceilings
- Consider using a 'mechanical drywall sander' with on-tool dust extraction system that is cleaner and faster than traditional drywall pole sanders

# Carpentry work (internal and external) risks



### **Activity:**

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### **Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?



### Risks:

Health risk: Chronic knee pain and permanent damage



### You will need to:

- Use kneeling pads, kneeling mats or cushions and padded trousers



### **Activity:**

Using hand tools and power tools?



### Risks:

Safety risk: Contact with moving parts



### You will need to:

- Where possible, use 110v tools or battery operated portable tools to reduce the risk
- Ensure an RCD / circuit breaker is used if using 240v equipment and that plugs and sockets are protected from damage and weather
- Ensure power tools are in good condition and well maintained
- Always use the correct guard and ensure it is adjusted correctly and working correctly
- Keep loose clothing and trailing cables away from moving parts
- If fitted, regularly test emergency stops and other cut-out or breaking switches
- Ensure hand tools are properly maintained and stored safely when not in use



### **Activity:**

Using compressed gas or cartridge operated tools?



### Risks:

Safety risk: Struck by nails, fragments or rebounds



- Always wear eye protection that is high impact rated
- Use the correct power cartridge or settings to avoid nails firing through and out the other side
- Load the tool with the barrel pointing away from you

- Never keep the tool loaded when not in use



# **Activity:**

Creating harmful wood dust (softwood, hardwood or MDF)?



### Risks:

Health risk: Breathing in harmful construction dust leading to allergic respiratory symptoms, lung diseases, cancers as well as skin disorders



- Maintain good ventilation
- Avoid creating dust
- Use on-tool extraction systems designed for the task and regularly clean filters and bags
- Use a vacuum rather than sweeping with a brush if possible
- Wear respiratory protection such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)

# Plumbing and heating risks



### **Activity:**

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### **Activity:**

Working with naked flames (using a blow torch / hot works)?



### Risks:

Safety risk: Fire



- You will need to:
   Keep a fire extinguisher next to the work area
  - Dampen down the area prior to undertaking hot works (if applicable)
  - Use a fire blanket or non-combustible material to protect surrounding area from the heat
  - Check the area at least 1 hour after to check there are no hot spots or smouldering materials



### **Activity:**

Working with lead?



### Risks:

Health risk: Lead poisoning from inhaling or ingesting lead paint chips, and lead dust, fume or vapour



# You will need to:

- Wash hands after any contact with lead good personal hygiene is essential
- Wear respiratory protection to protect against lead dust, such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)
- For further advice visit www.lipsa.org.uk



### **Activity:**

Using, installing or removing glass-wool or mineral wool insulation?



### Risks:

Health risk: Fibres can irritate the eyes, skin and respiratory system



- Cover up bare skin and wear gloves
  - Wear respiratory protection such as a disposable face mask and make sure it has a CE mark



In contact with sewage?



### Risks:

Health risk: Weil's disease or Leptospirosis - starts as mild illness similar to flu but left untreated can be fatal



### You will need to:

- Wear protective clothing such as rubber or non-absorbent gloves
- Wash hands after any contact good personal hygiene is essential



### **Activity:**

Working on, maintaining, moving or installing gas appliances such as boilers, fires and cookers?



### Risks:

Safety risk: Explosion, electric shock, build up of fumes endangering occupiers



### You will need to:

- You must be or use a 'GasSafe' registered engineer by law when working on gas carrying parts of gas appliances
  - For more information visit www.gassaferegister.co.uk



### **Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?



### Risks:

Health risk: Chronic knee pain and permanent damage



### You will need to:

- Use kneeling pads, kneeling mats or cushions and padded trousers

### **Electrical work risks**



### **Activity:**

Carrying out electrical installations?



### Risks:

Safety risk: Electrocution, fire



### You will need to:

- Hold industry recognised training and qualifications to carry out electrical work (such as 17th Edition (IET) Wiring Regulations)
- Ensure all work complies with the safety standards in BS 7671 (the 'wiring regulations')
- Provide the client with handover certification when the work needs to comply with building regulations



### **Activity:**

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### **Activity:**

Drilling or chasing walls?



### Risks:

Safety risk: Hitting hidden cables - electrocution



### You will need to:

- Check for the presence of cables or services before starting and mark them on the wall, floor or ceiling



### **Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?



### Risks:

Health risk: Chronic knee pain and permanent damage



### You will need to:

- Use kneeling pads, kneeling mats or cushions and padded trousers

# Painting, decorating and internal finishing risks



### **Activity:**

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### **Activity:**

Using solvent based paints, epoxy resins and chemical strippers?



### Risks:

Health risk: Irritation of eyes or sensitive skin, or short-term irritation of respiratory system, long term cancers



### You will need to:

- Consider using water-based products that are more environmentally-friendly and contain very low levels of solvents
- Always take note of any cautions or potential dangers indicated on the paint can, and take the appropriate preventative action
- Always remember to use protective equipment especially eye-goggles and a face mask to cover the mouth and nose
- Take precautions when handling and storing solvents
- Wash your hands after use
- Remember to ensure adequate ventilation in rooms you are painting open windows and doors wherever possible
- Keep children away from areas you are painting

! Do not pour paints, solvents or let brush washings enter drains or watercourses !



### **Activity:**

Disturbing paint in existing buildings that may contain lead?



### Risks:

Health risk: Lead poisoning from inhaling or ingesting lead paint chips, and lead dust, fume or vapour



# You will need to:

- Carry out a lead paint or lead dust tests using lead check swabs (available from merchants and DIY stores)
- Seek professional advice if positive www.lipsa.org.uk

! There is an increased risk in pre-1970's buildings and structures!



Preparing and rubbing down surfaces?



Health risk: Irritation of eyes or sensitive skin, or short-term irritation of respiratory system



# You will need to:

- Avoid skin contact, excessive dust build-up and contact with eyes
  - Wear respiratory protection such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)
  - Consider using a 'mechanical drywall sander' with on-tool dust extraction system that is cleaner and faster than traditional drywall pole sanders when rubbing down walls and ceilings



### **Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?



### Risks:

Health risk: Chronic knee pain and permanent damage



### You will need to:

- Use kneeling pads, kneeling mats or cushions and padded trousers

### **About This Plan**

This plan contains information on controls that can help keep you and others healthy and safe.

If you are the principal contractor you are responsible for this plan. Other contractors may use the CDM Wizard app to generate a CDM Action Plan for their own work.

It's important that everyone knows what is expected of each other, especially as things can change quickly form day to day. You may have to amend the report as the job changes or new trades / contractors start.

Speak to each other about what's to be done, when and how it can be done safely.

It is also vital that those carrying out the work have the right combination of skills, knowledge, training and experience and are provided with the right tools, plant and equipment, information, instruction and supervision.

### **Further Information**

If you are unsure about how you can make your site safer or about the health risks, more information can be found at www.hse.gov.uk/construction. You can download Busy Builder sheets for activities such as loft conversions and small building work, and for advice on hazards such as dust and lead, and the Client leaflet.

Six CDM industry guides based on sound industry practice can be found at www.citb.co.uk/cdmregs and will help small businesses deliver building and construction projects in a way that secures health and safety. It includes guidance for clients, designers, contractors, and workers.

For information about training, apprenticeships or advice on running your business go to www.citb.co.uk

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Date:
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