

Architectural Sheet List

Sheet Number	Sheet Name	Current Revision	Current Revision Date
A0100	Site Plan	11	15/06/16
A0101	Site Plan Office		
A0200	Ground Floor	12	28/07/16
A0202	Ground floor callouts	15	19/04/17
A0300	Cross Sections	5	18/02/16
A0301	Cross Sections	12	28/07/16
A0303	Refrig Fitout Plan and Sections	12	28/07/16
A0304	Refrig Fitout Sections	3	09/02/16
A0305	Refrig Fitout Sections	12	28/07/16
A0400	Elevations A and C	9	02/05/16
A0401	Elevations B and D	9	02/05/16
A0500	Plumbing Ground Floor		
A0600	D W Ground Floor Plan	12	28/07/16
A0601	D W External		
A0602	D W Internal		
A0603	Balustrades		
A0800	Stairs and Decks		
A1300	Roof Plan	9	02/05/16
A1301	Flashing Details	4	16/02/16
A1302	Flashing Details 2	9	02/05/16
A1400	H1 Compliance		

NZ Dairy Collaborative Group
Infant Formula Blending Plant

9 Ashford Ave., Ashburton

JOB #	12412
DATE:	23/01/16

SITE PLAN

PROJECT NAME: NZ Dairy Collaborative Group
 PROJECT DESCRIPTION: Infant Formula Blending Plant
 PROJECT ADDRESS: 9 Ashford Ave, Ashburton
 APPELLATION: Lot 17 DP 427688

AREA OF PROPOSED NEW BUILDINGS:
 Blending Plant = 4442m²
 Office = 1005m² (Separate Building Consent)

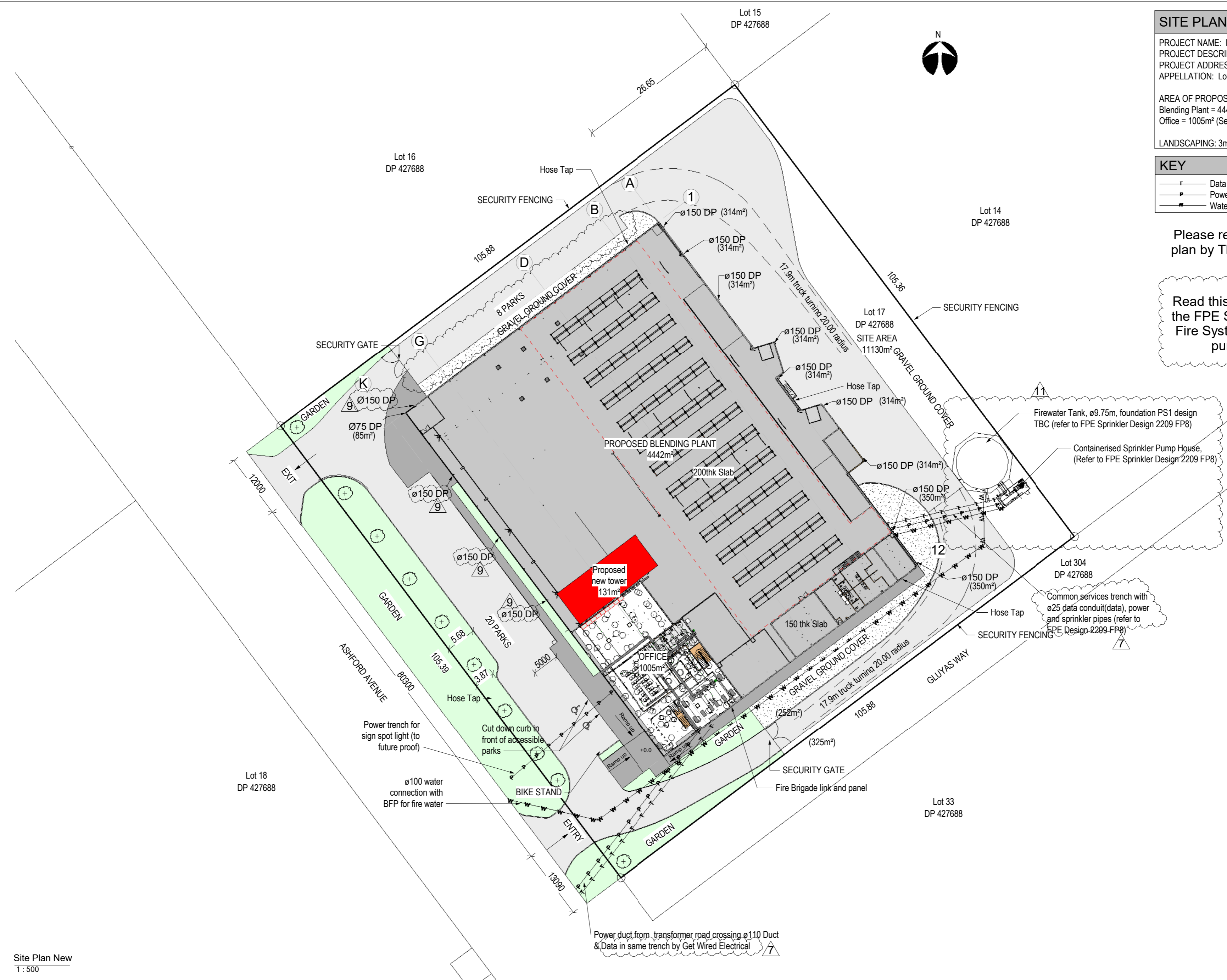
LANDSCAPING: 3m wide landscaping strip

KEY

— Data (Telephone)
 — Power
 — Water

Please refer to Civil and Services plan by TM Consultants for further information.

Read this plan in conjunction with the FPE Sprinkler design 2209 for Fire System, Fire water tank and pump house set out.

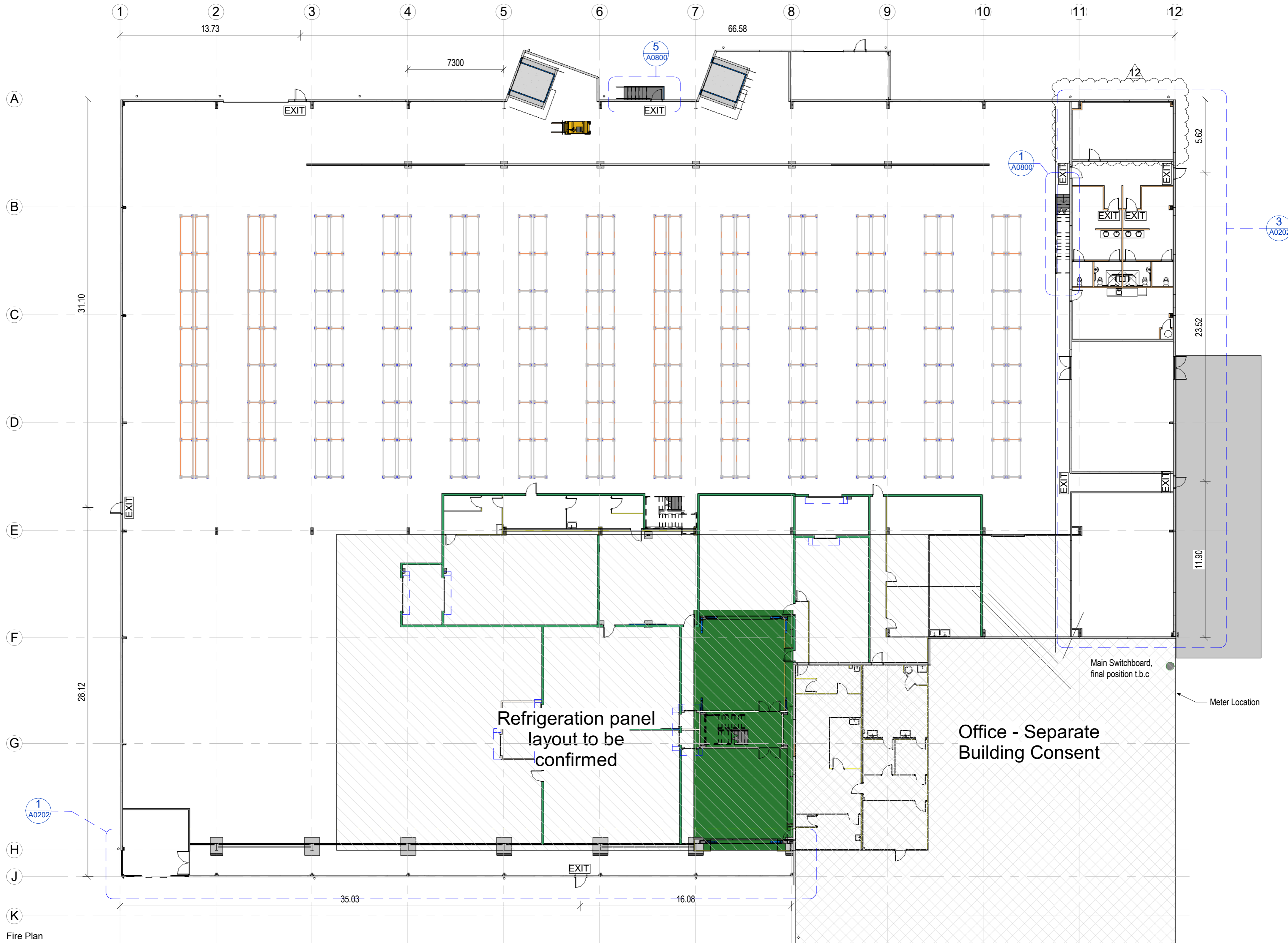
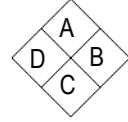


Site Plan New
1:500

Rev#	Amendments	Date
1	PIM Parking	18/12/15
7	Changes for sprinkler and electrical services	21/03/16
9	Changes to DP's	02/05/16
11	Prelim Tank and Pump House layout	15/06/16

SCALE	As indicated@ A2	JOB #	12412
DRAWN BY	B.Holloway	DATE	23/01/16
APPROVED BY	A. Cloake	REV	11
Site Plan		A0100	
Please note: All dimensions to be verified on site			
Paper size: A2			

ELEVATION KEY



Fire Plan
1 : 200

PROJECT

Arch

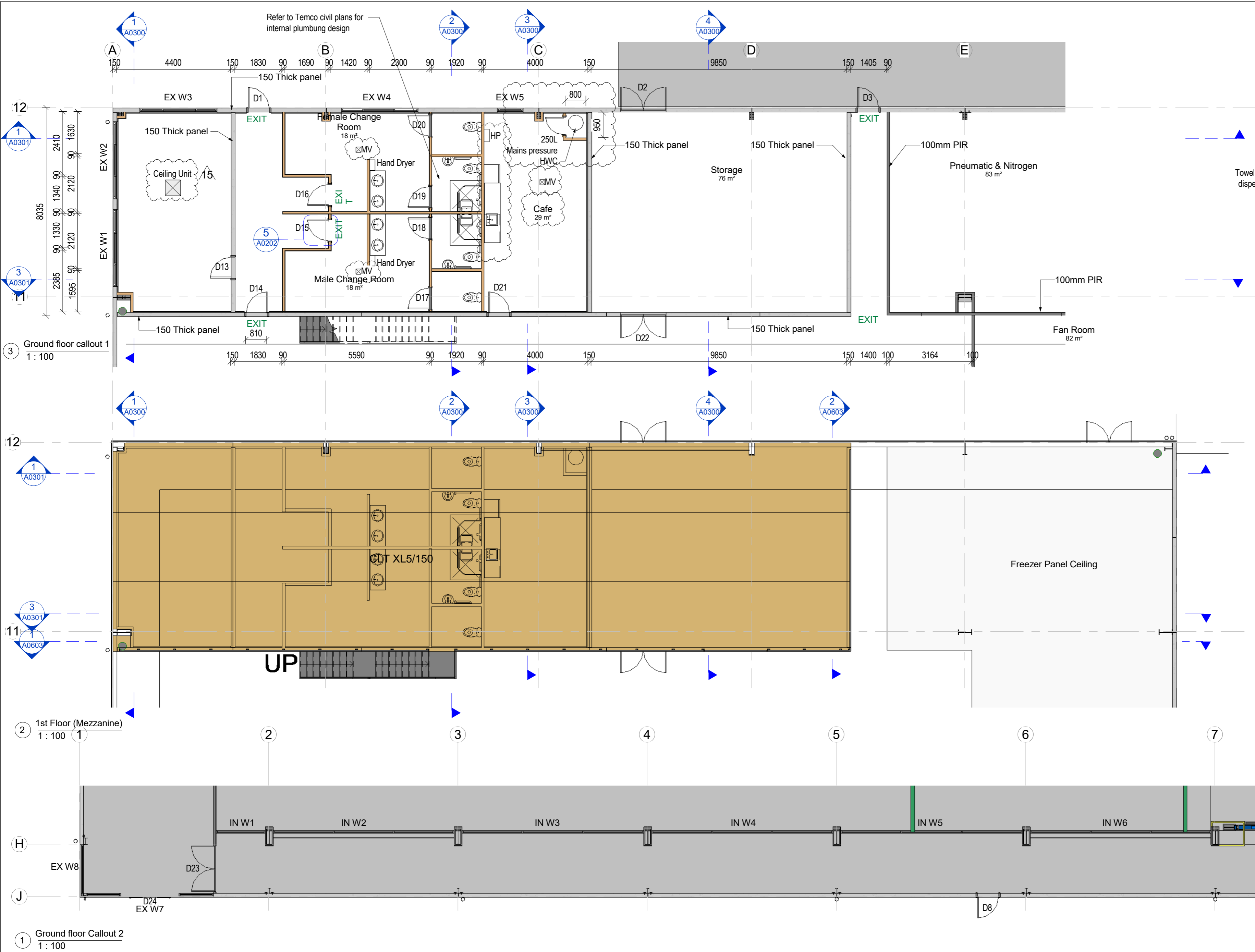
NZ Dairy Collaborative Group
Infant Formula Blending Plant

9 Ashford Ave., Ashburton

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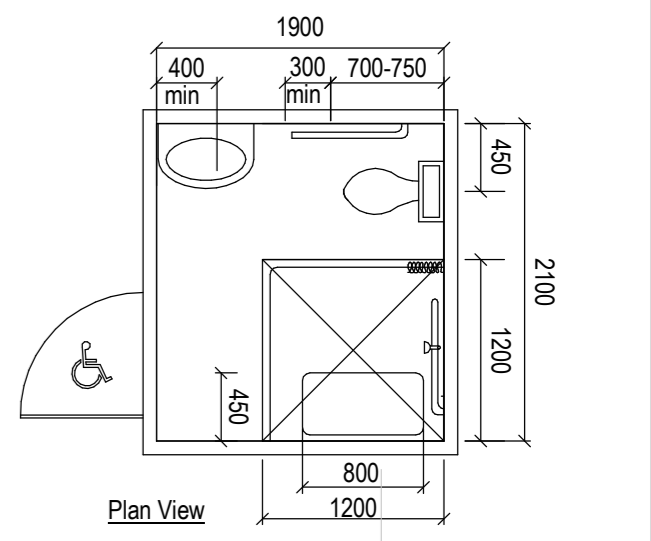
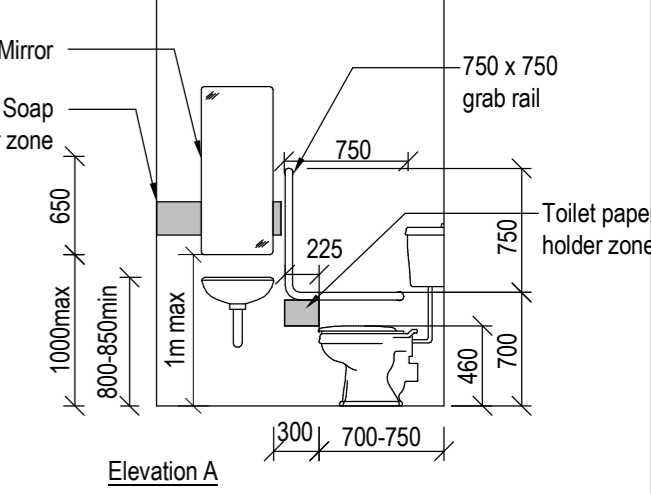
Rev#	Amendments	Date	SCALE	JOB #
12	Mods to operational fitout	28/07/16	As indicated@ A2	12412
			DRAWN BY C. White	DATE 23/01/16
			APPROVED BY A. Cloake	REV 12
			Ground Floor	A0200
Please note: All dimensions to be verified on site				Paper size: A2

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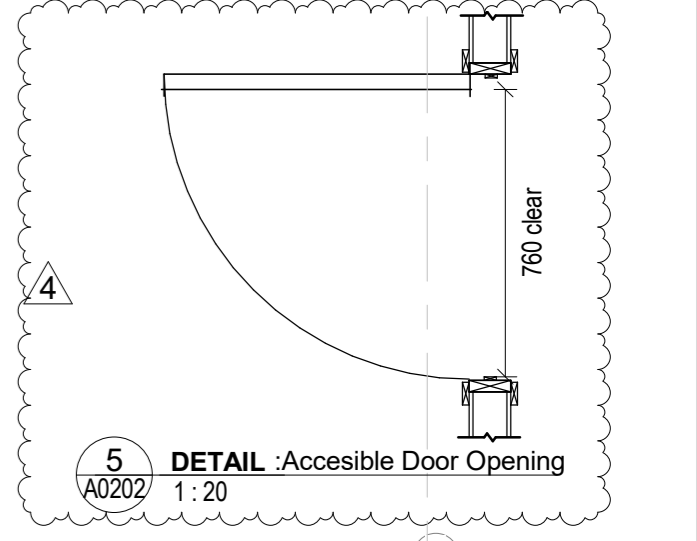


G4 COMPLIANCE

Where indicated, spaces have ventilation (sashed windows) which has open area 5% min. of the floor area.(G4/AS1)
 Where open ventilation is not available, mechanical ventilation is supplied.
 Outdoor air requirements are based on the relevant space designation as per Table 2, NZS4303:1990



To comply with NZS 4121:2001
 Section 10 - Toilet and shower facilities
 Figure 35 - Combined toilet and shower



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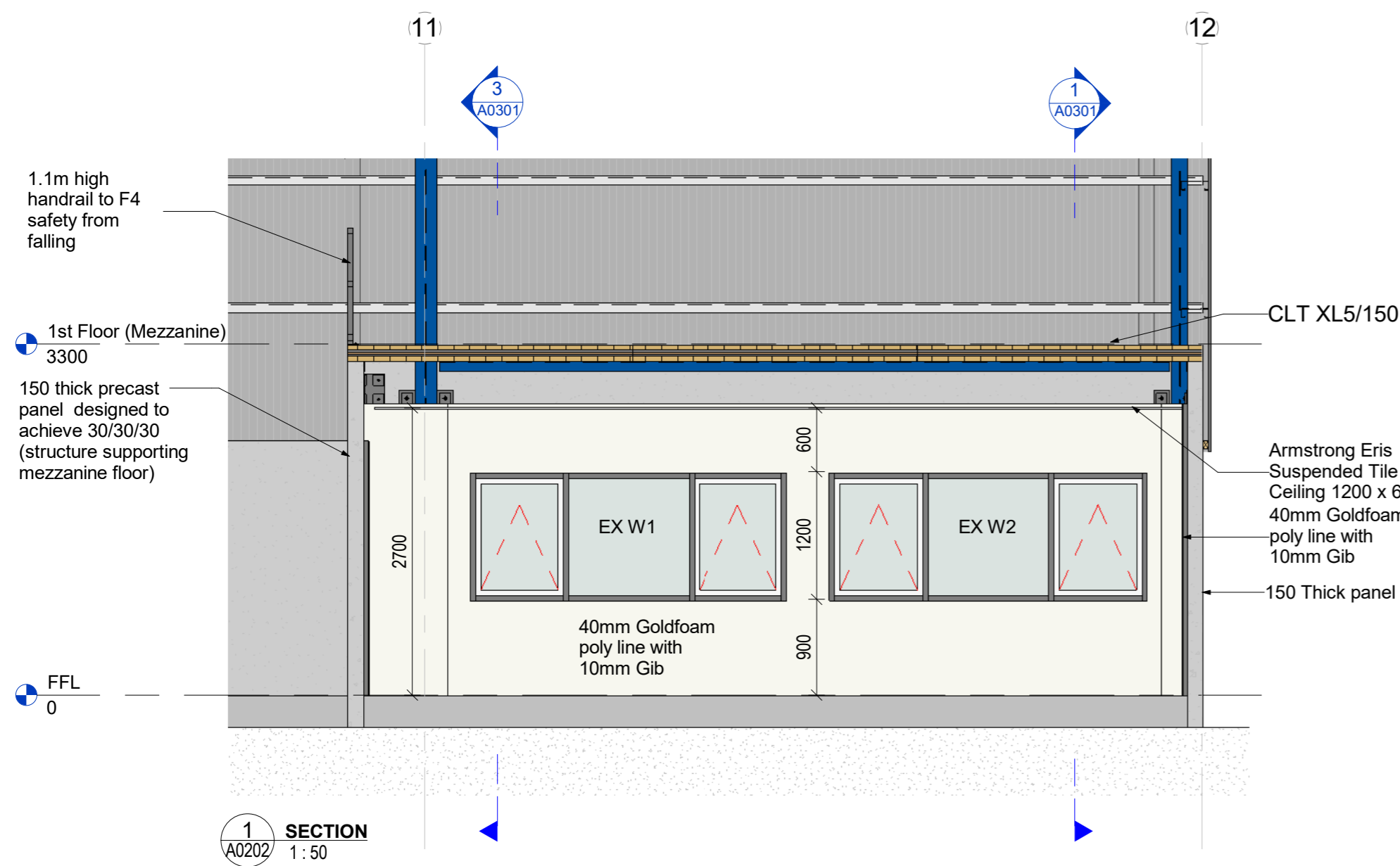
PROJECT
Arch

**NZ Dairy Collaborative Group
 Infant Formula Blending Plant**

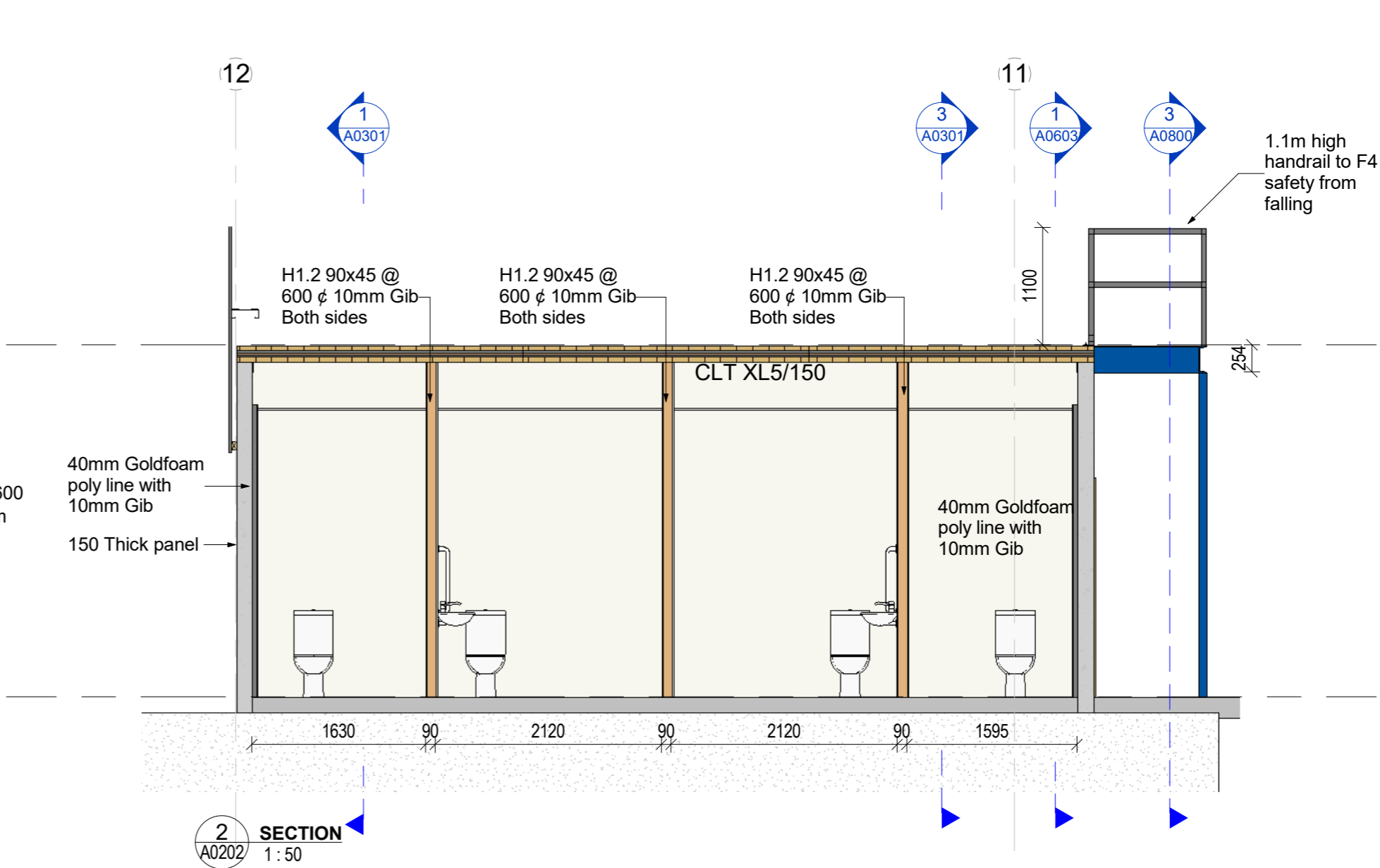
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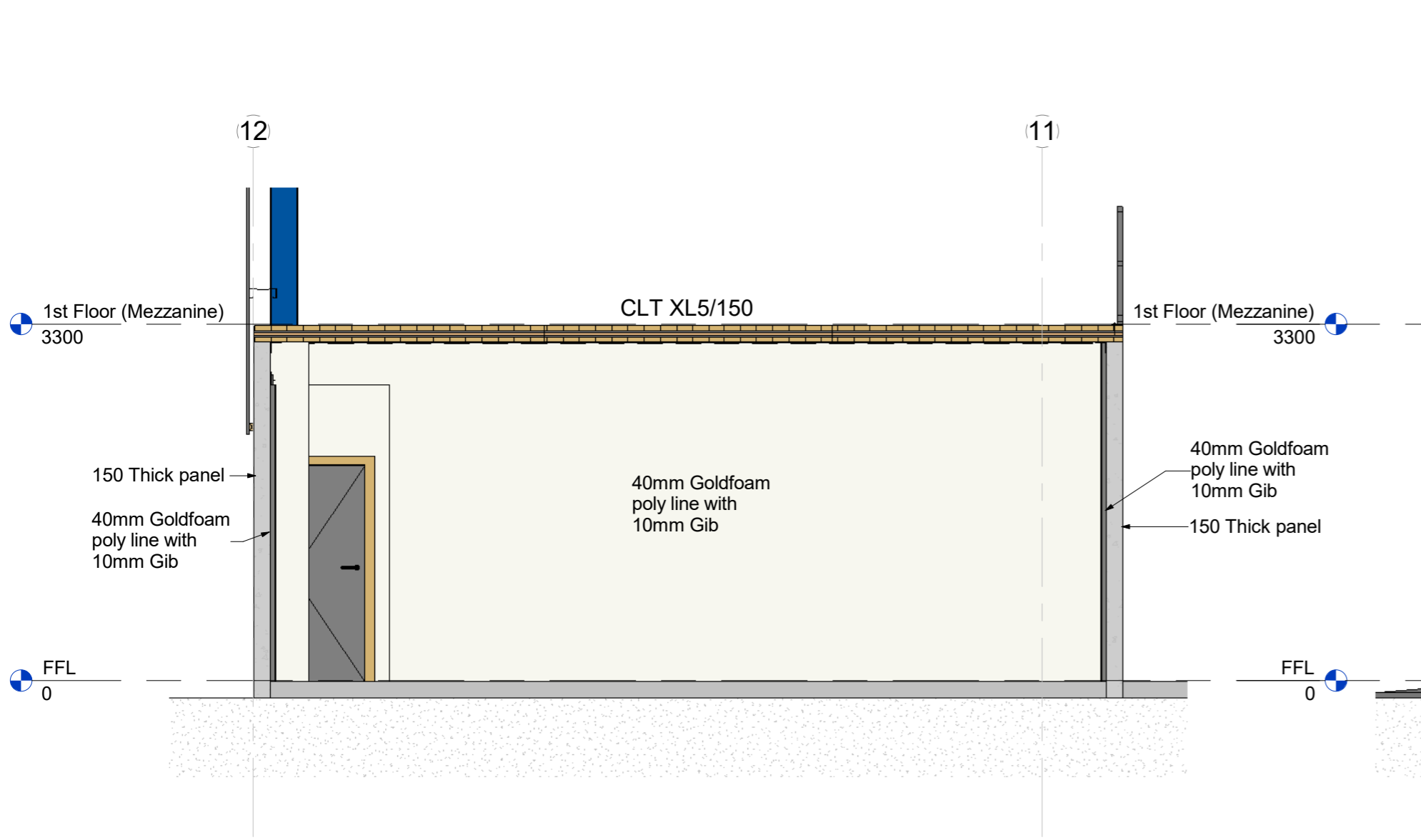
Rev#	Amendments	Date	SCALE	As indicated@ A2	JOB #
4	Council RFI	16/02/16	As indicated@ A2		12412
15	Contract notes	19/04/17			
DRAWN BY C. White		DATE 23/01/16		JOB # 12412	
APPROVED BY A. Cloake		REV 15		DATE 23/01/16	
Ground floor callouts				A0202	
Please note: All dimensions to be verified on site					
Paper size: A2					



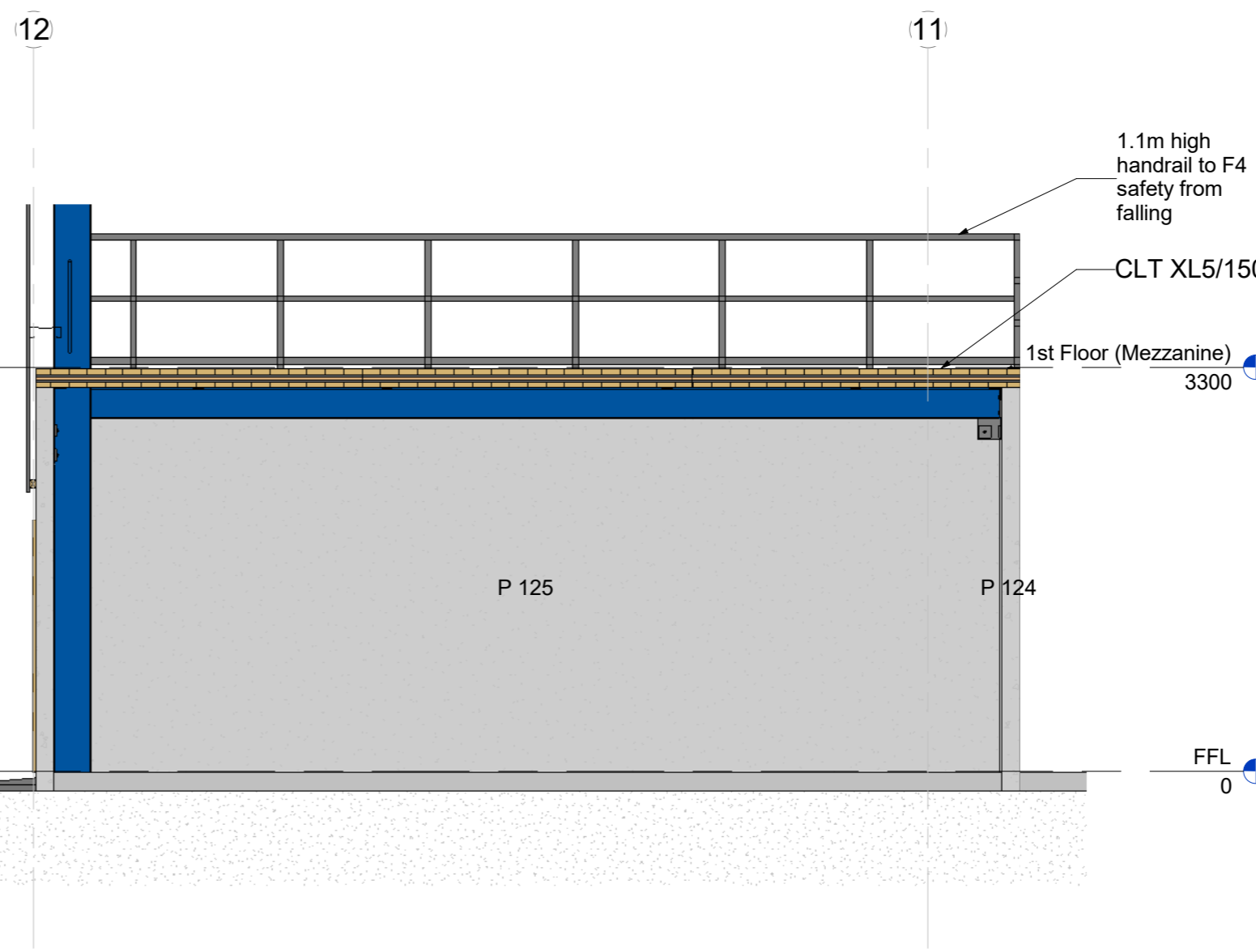
1 SECTION
A0202 1:50



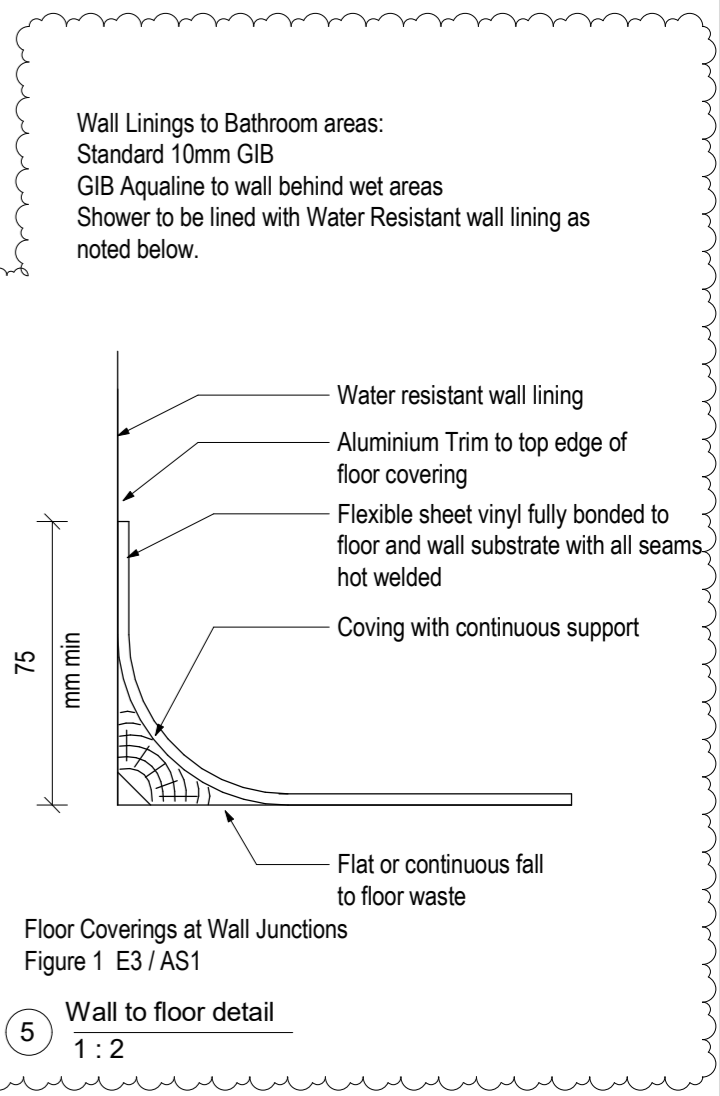
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A0202 1:50

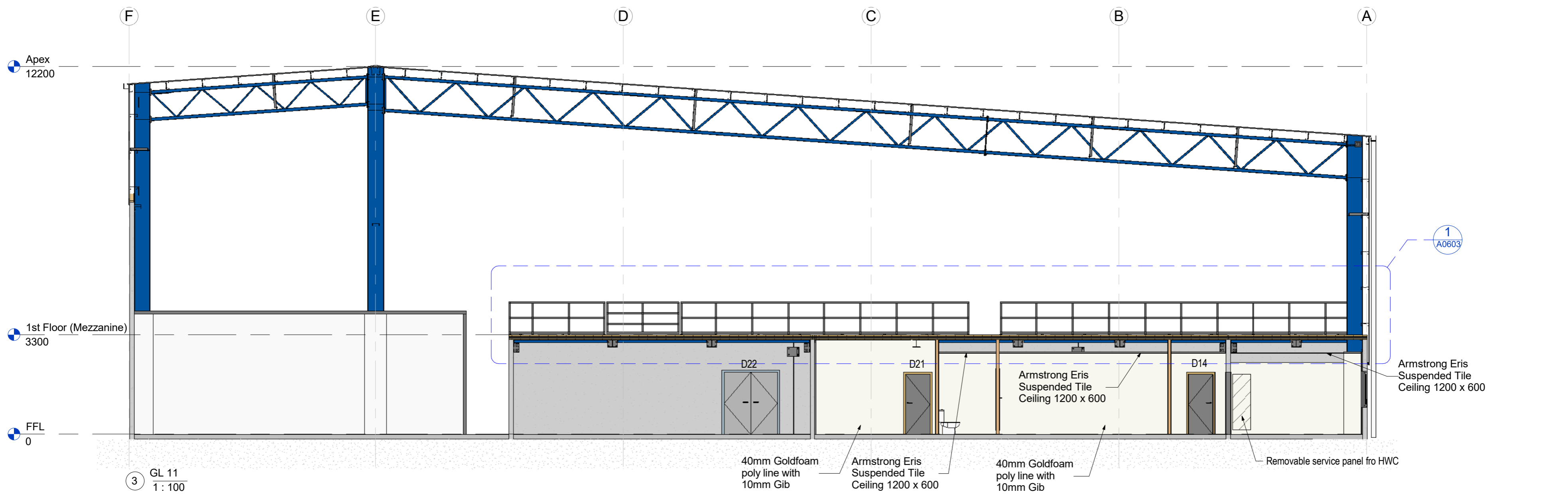
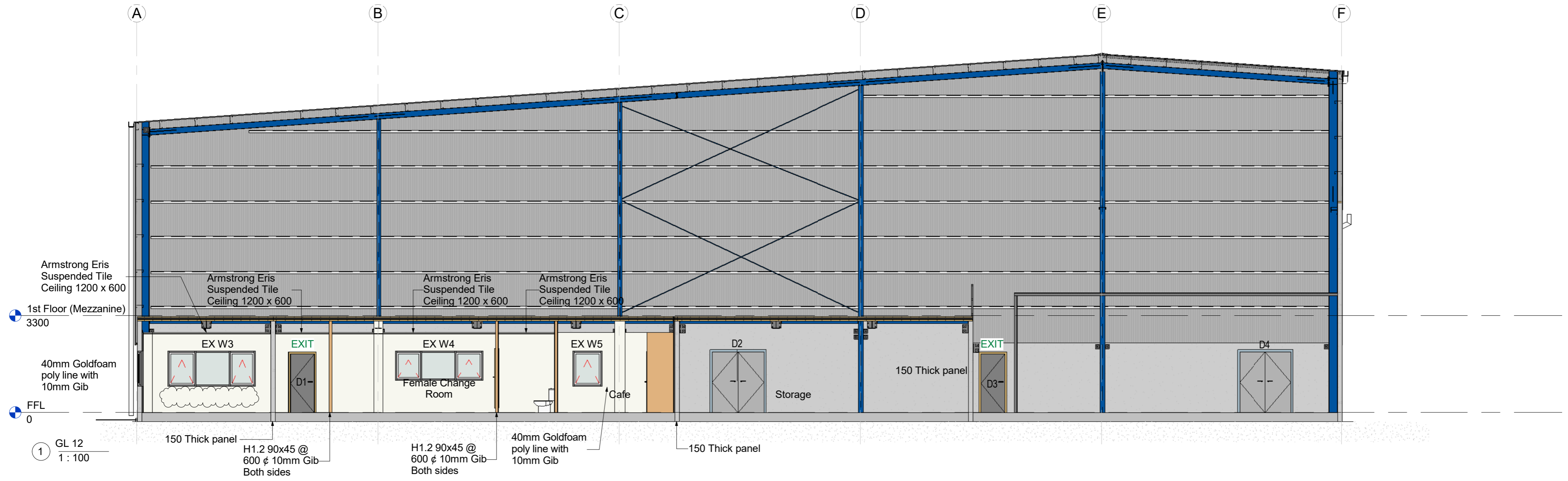


3 SECTION
A0202 1:50



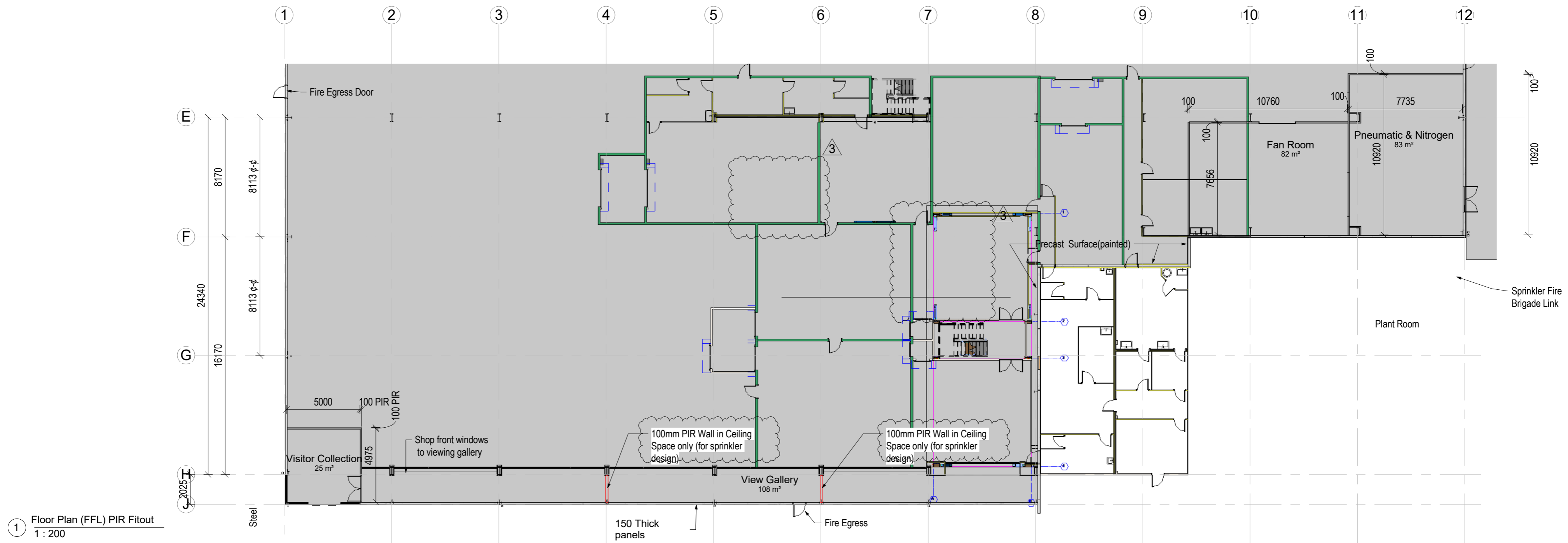
4 SECTION
A0202 1:50



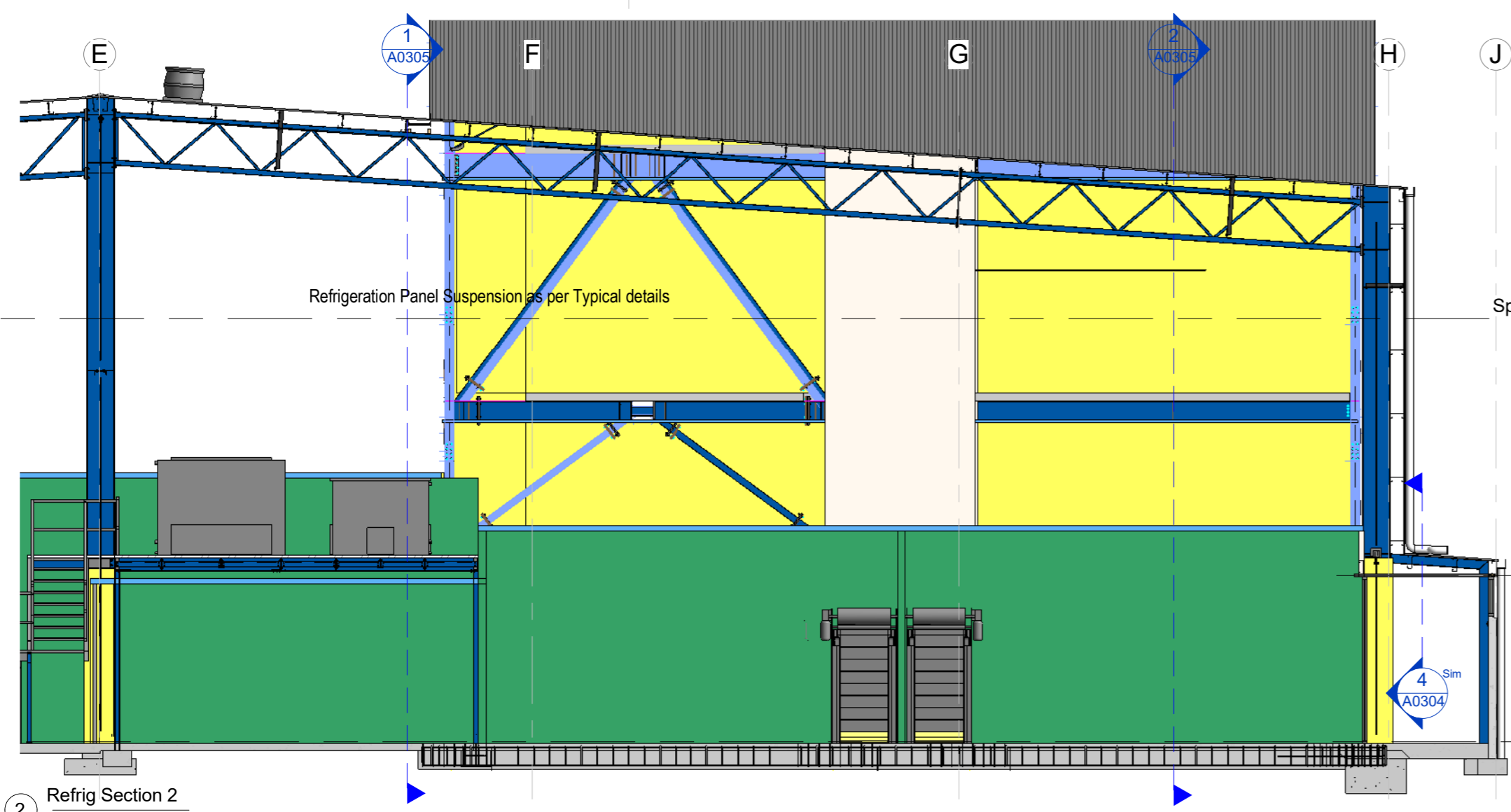


Rev#	Amendments	Date
12	Mods to operational fitout	28/07/16

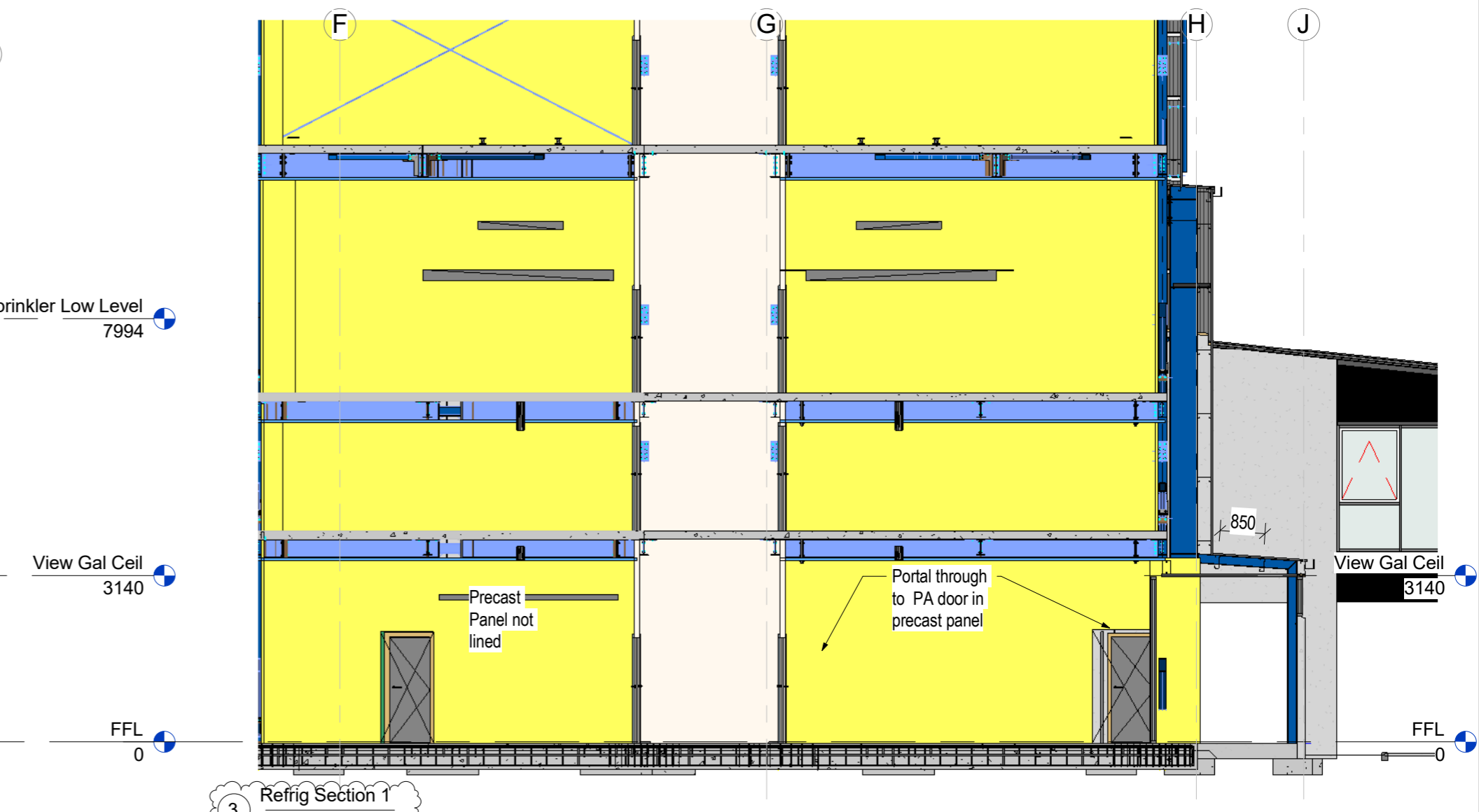
SCALE	JOB #
1 : 100 @ A2	12412
DRAWN BY C. White	DATE 23/01/16
APPROVED BY A. Cloake	REV 12
Cross Sections	
A0301	
Please note: All dimensions to be verified on site	
Paper size: A2	



1 Floor Plan (FFL) PIR Fitout
1 : 200



2 Refrig Section 2
1 : 100



3 Refrig Section 1
1 : 100

PROJECT

NZ Dairy Collaborative Group
Infant Formula Blending Plant

9 Ashford Ave., Ashburton

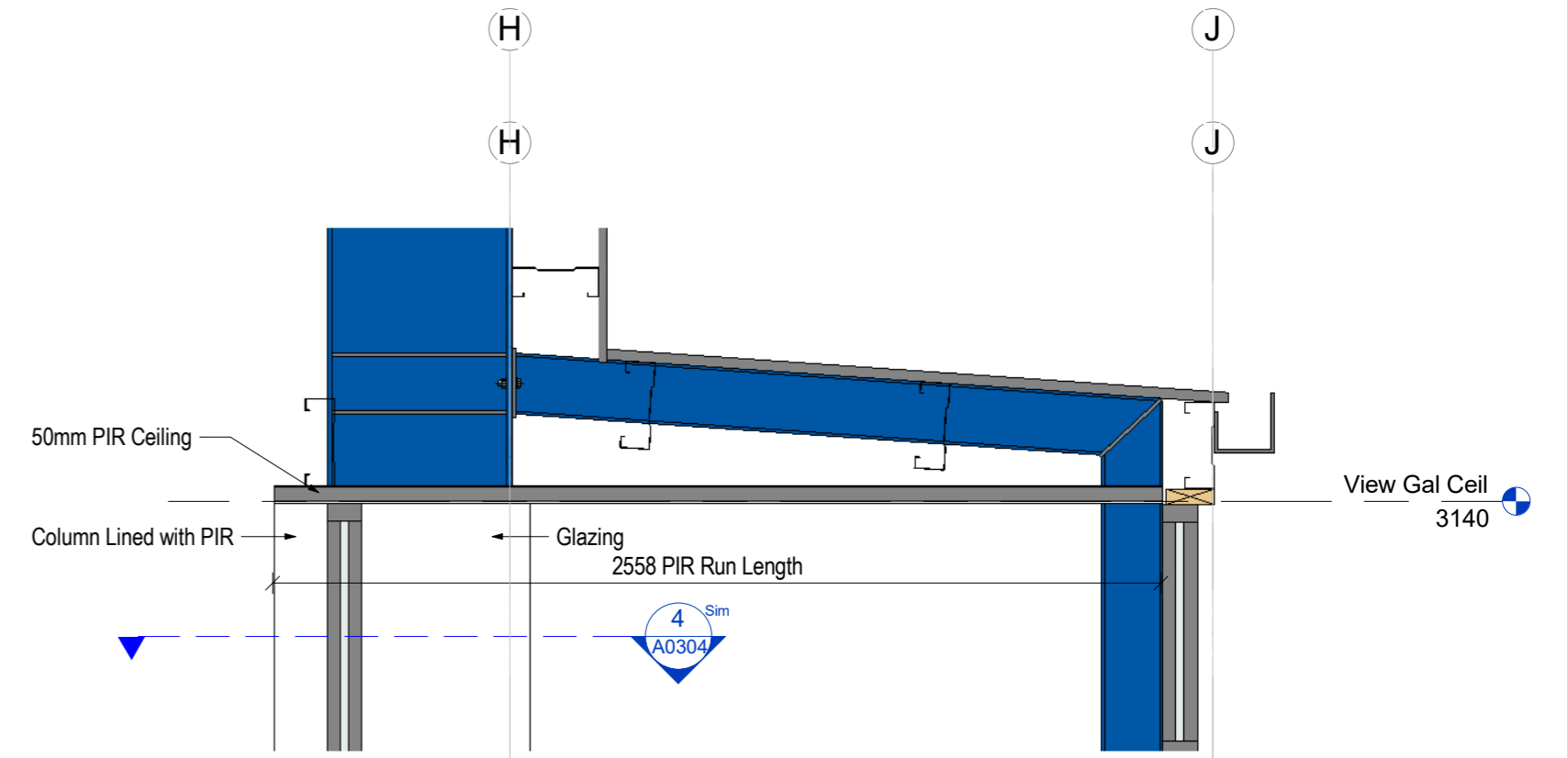
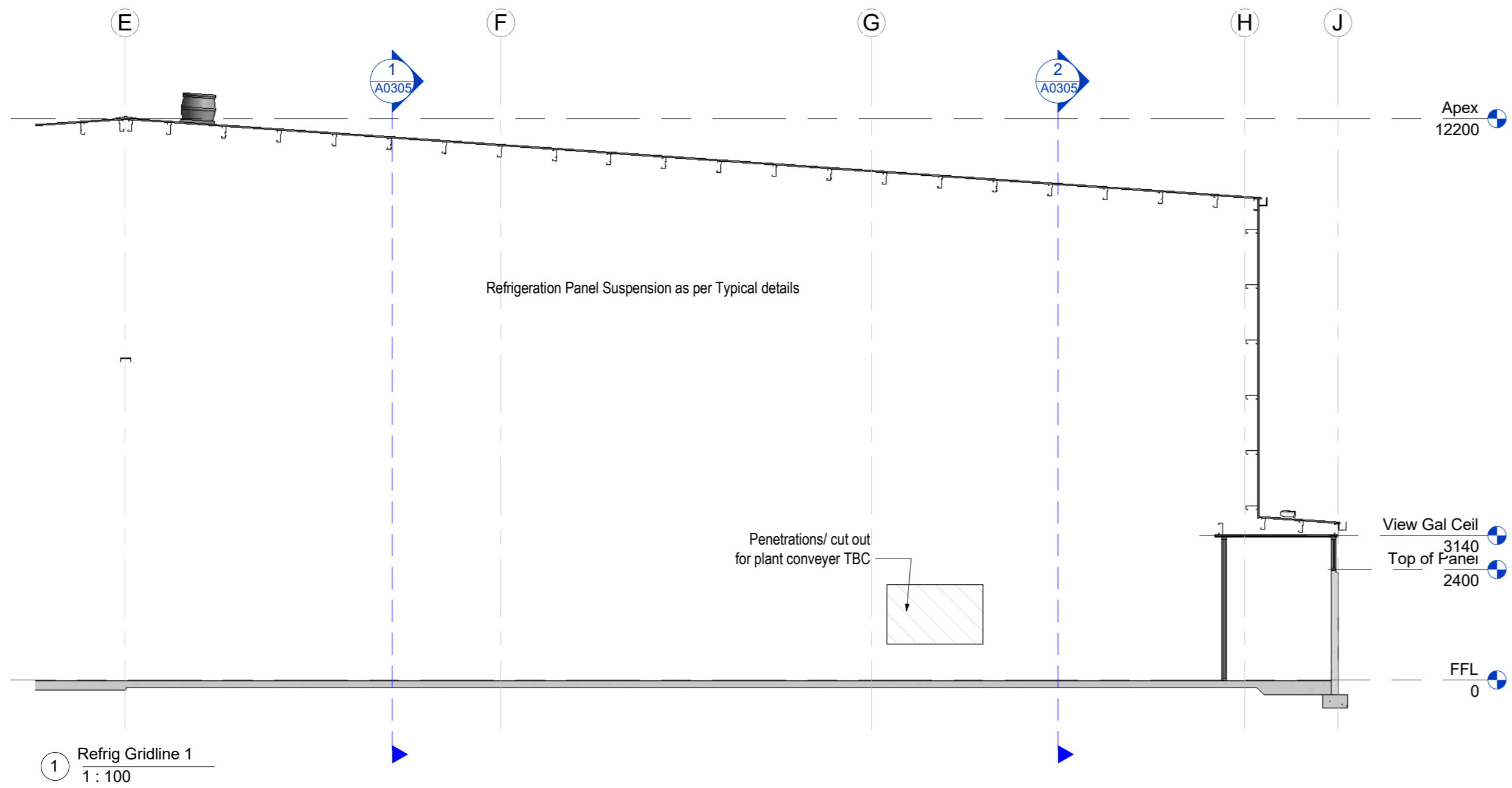
Arch



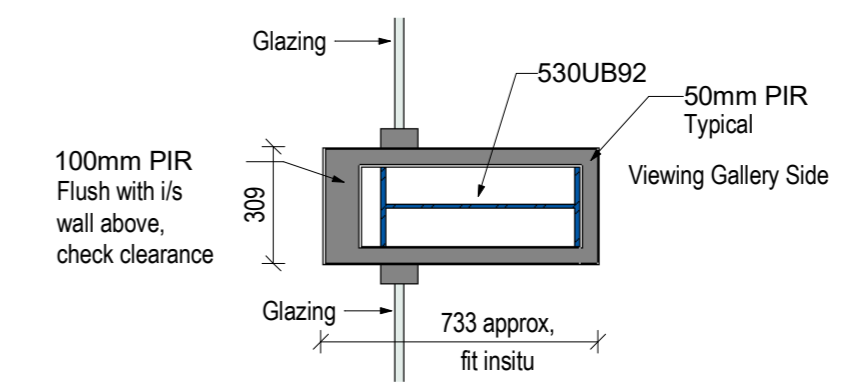
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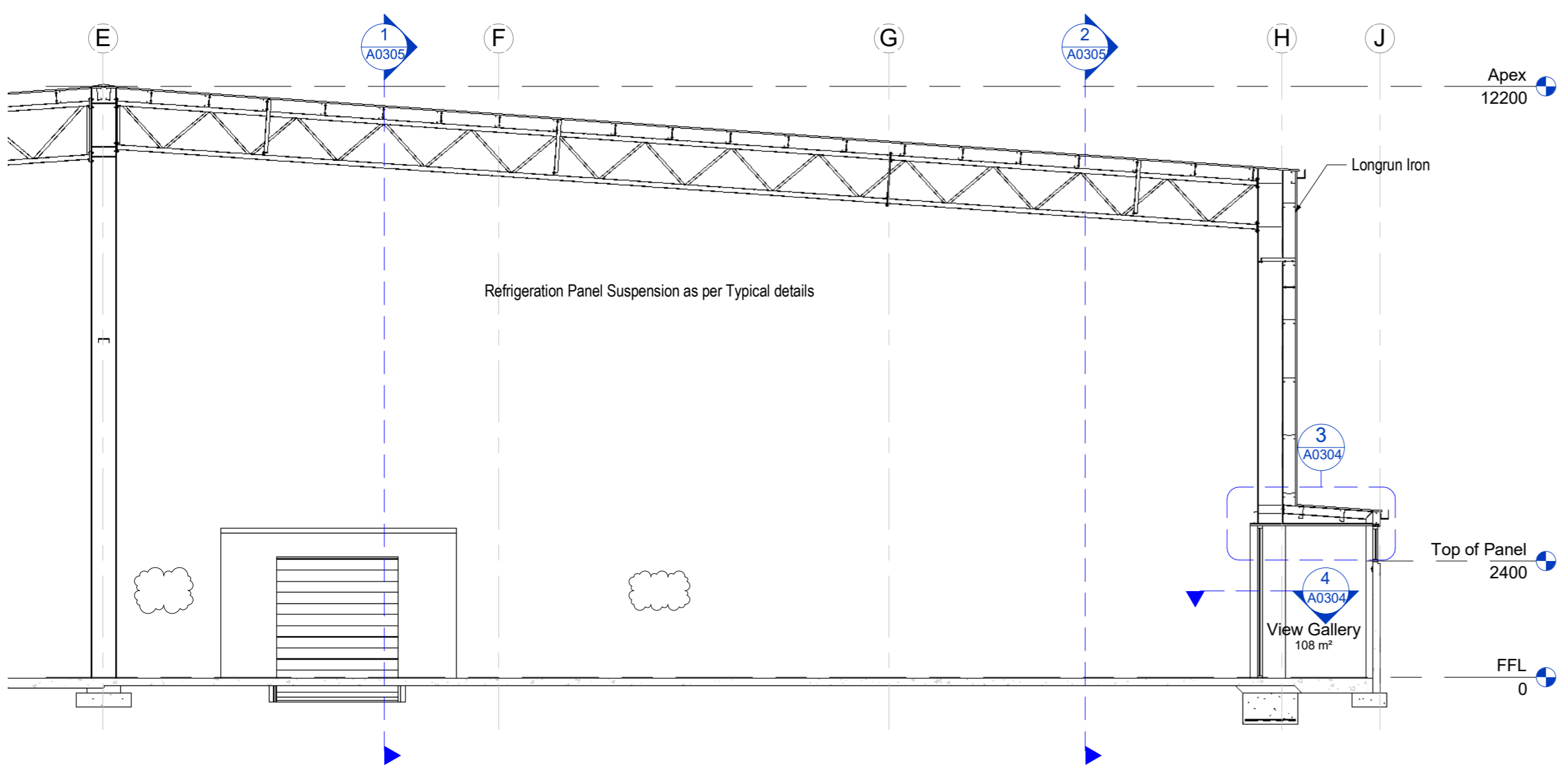
Rev#	Amendments	Date	SCALE	As indicated@ A2	JOB #
3	Mods to Operational Fitout	09/02/16			12412
12	Mods to operational fitout	28/07/16			
DRAWN BY B.Holloway			DATE 23/01/16		
APPROVED BY			REV 12		
Refrig Fitout Plan and					A0303
Please note: All dSections: verified on site					Paper size: A2



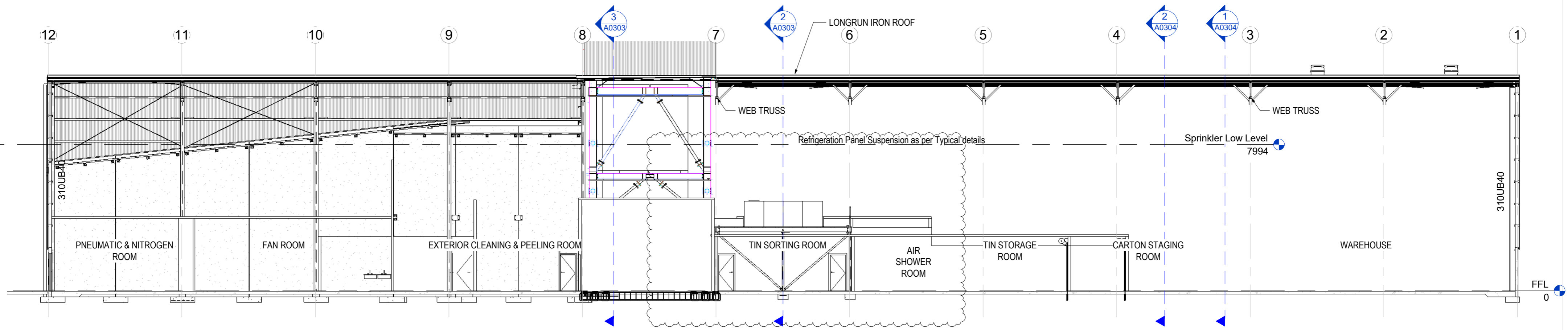
3 Viewing Gallery Ceiling
1:20



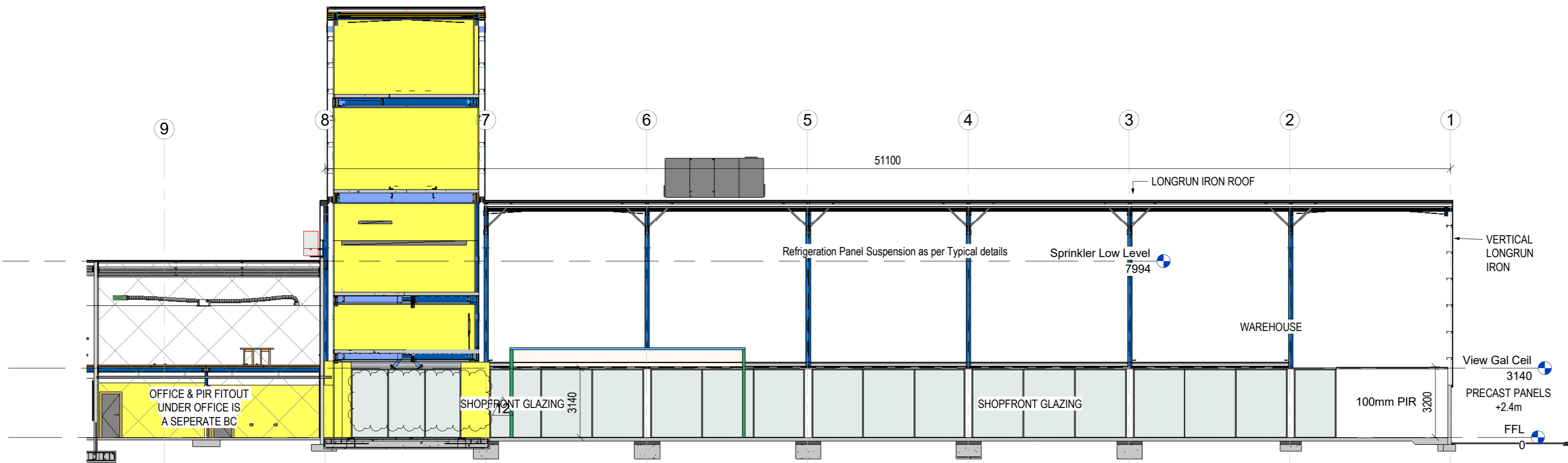
4 530UB92 Lining
1:20



2 Refrig Gridline 4
1:100



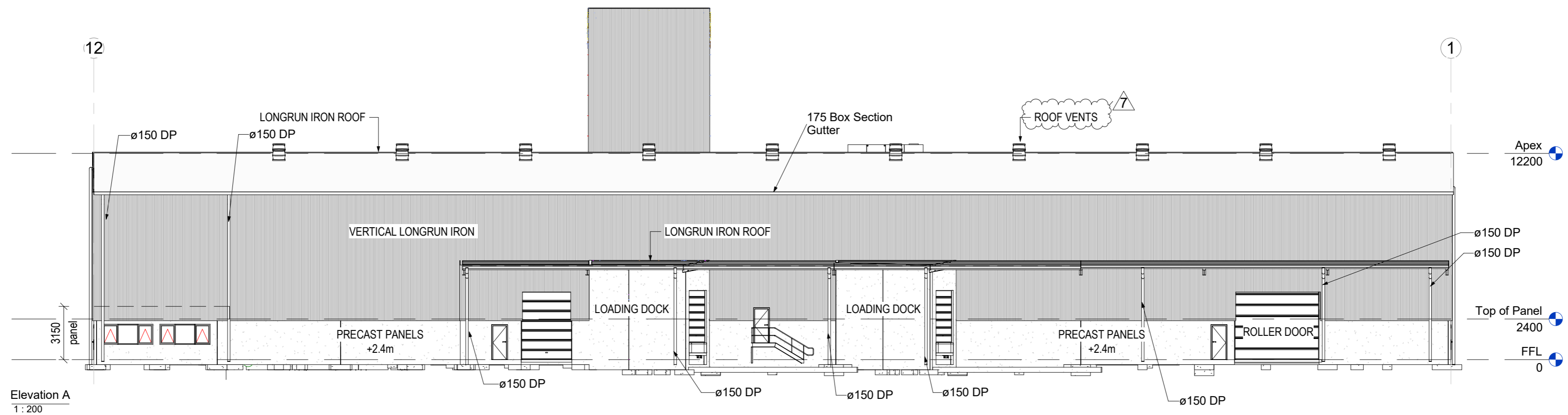
1 Refrig Gridline D
1 : 150



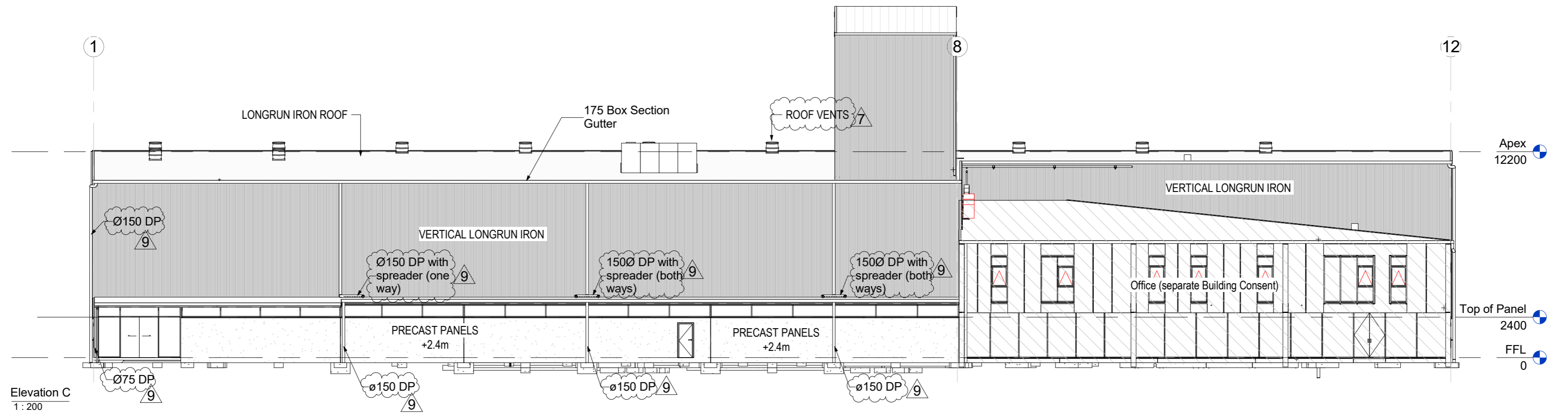
2 Refrig Gridline E
1 : 150

Rev#	Amendments	Date
3	Mods to Operational Fitout	09/02/16
12	Mods to operational fitout	28/07/16

SCALE	JOB #
1 : 150 @ A2	12412
DRAWN BY B.Holloway	DATE 23/01/16
APPROVED BY	REV 12
Refrig Fitout Sections	
A0305	
Please note: All dimensions to be verified on site	



Elevation A
1:200



Elevation C
1:200

PROJECT

Arch

NZ Dairy Collaborative Group
Infant Formula Blending Plant

9 Ashford Ave., Ashburton

Rev#

7
9

Amendments

Changes for sprinkler and electrical services
Changes to DP's

Date

21/03/16
02/05/16

SCALE 1:200 @ A2

DRAWN BY M Valentine

APPROVED BY A. Cloake

JOB # 12412

DATE 23/01/16

REV 9

Elevations A and C

A0400

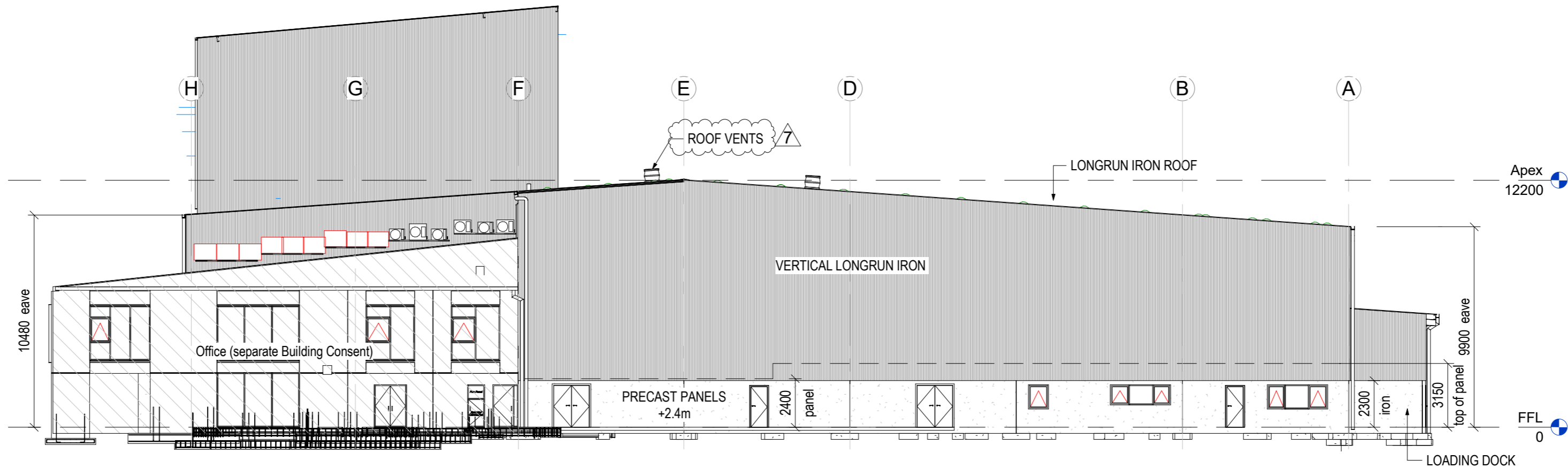
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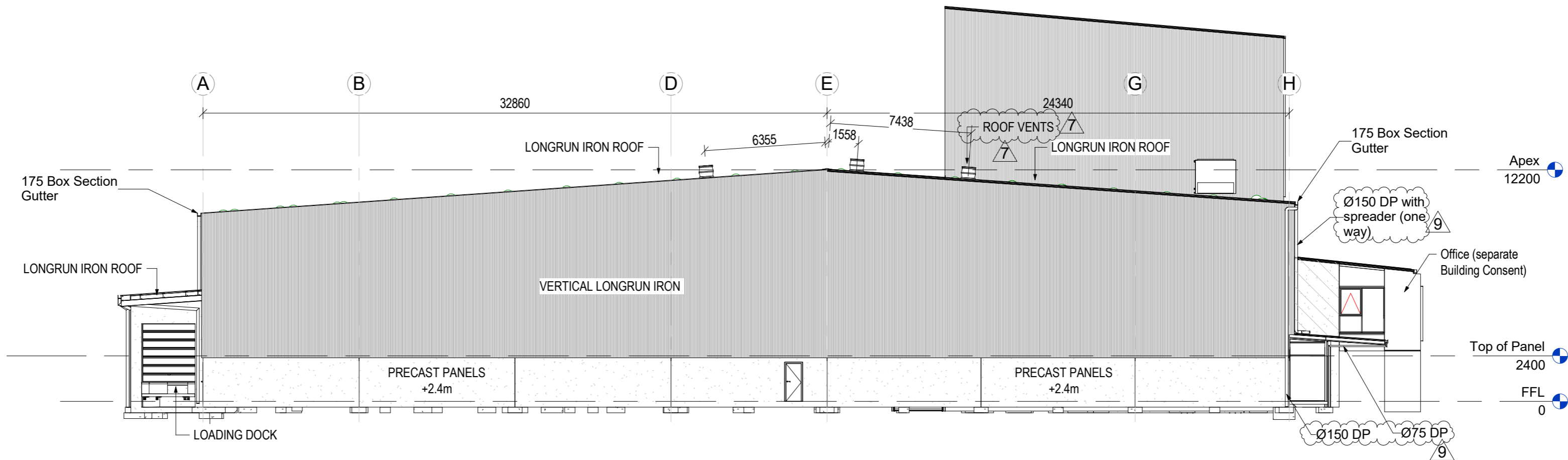


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Elevation B
1:200



Elevation D
1:200

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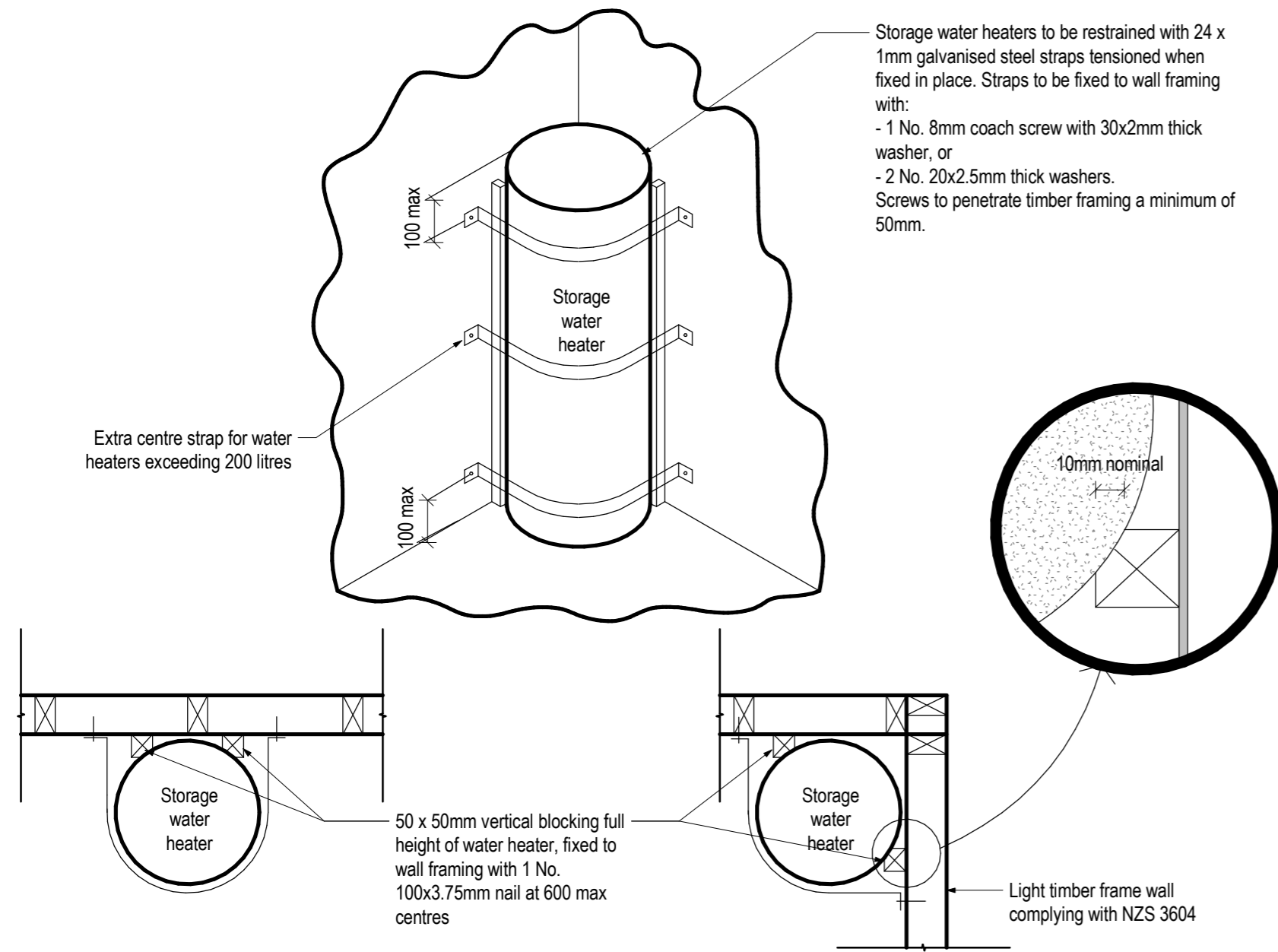
9 Ashford Ave., Ashburton

Rev#	Amendments	Date	SCALE	JOB #
7	Changes for sprinkler and electrical services	21/03/16	1:200 @ A2	12412
9	Changes to DP's	02/05/16		
			DRAWN BY M Valentine	DATE 23/01/16
			APPROVED BY A. Cloake	REV 9
Elevations B and D				A0401
Please note: All dimensions to be verified on site				Paper size: A2



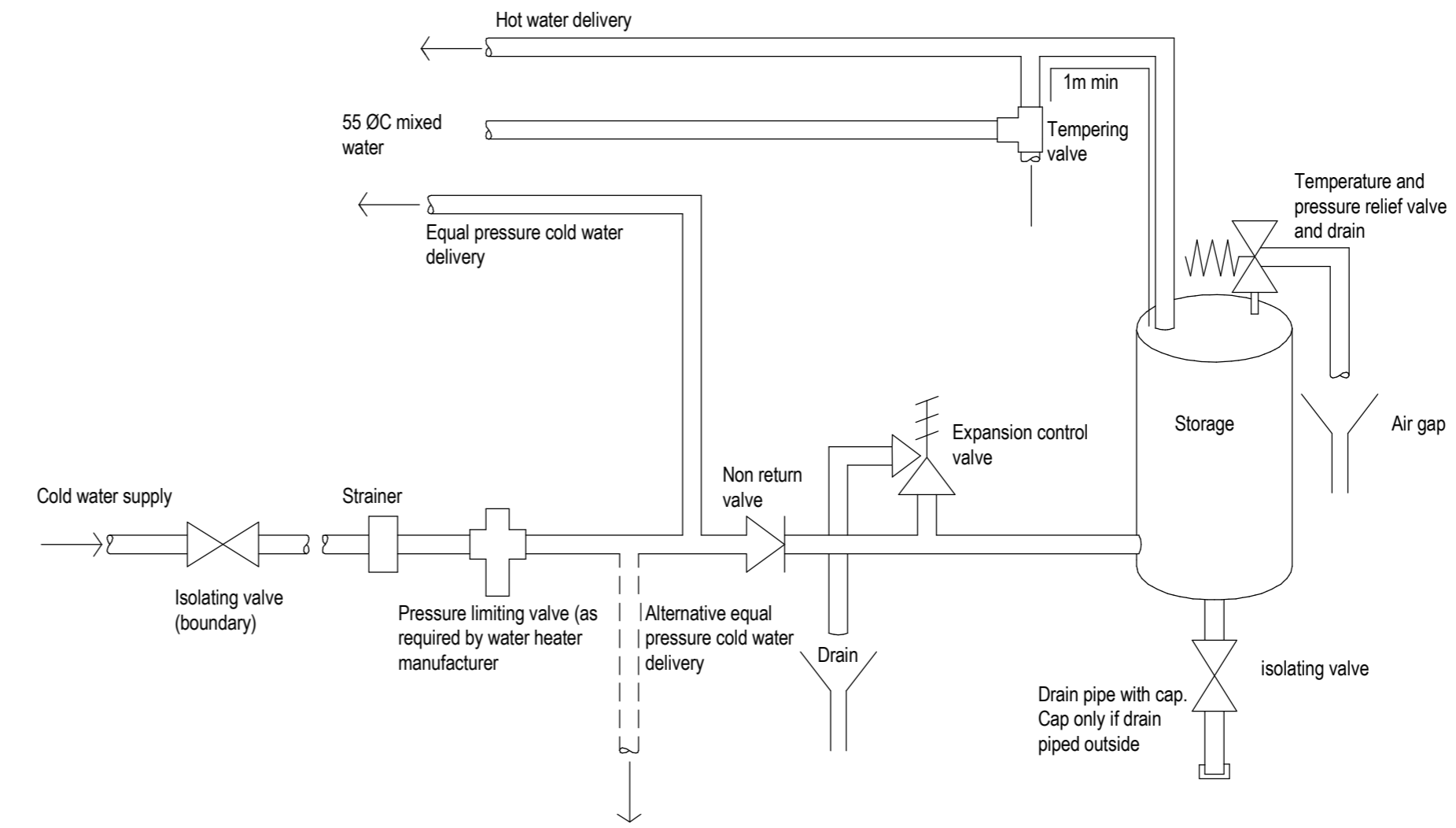
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① HWC restraint
1 : 10

② HWC (unvented)
1 : 10



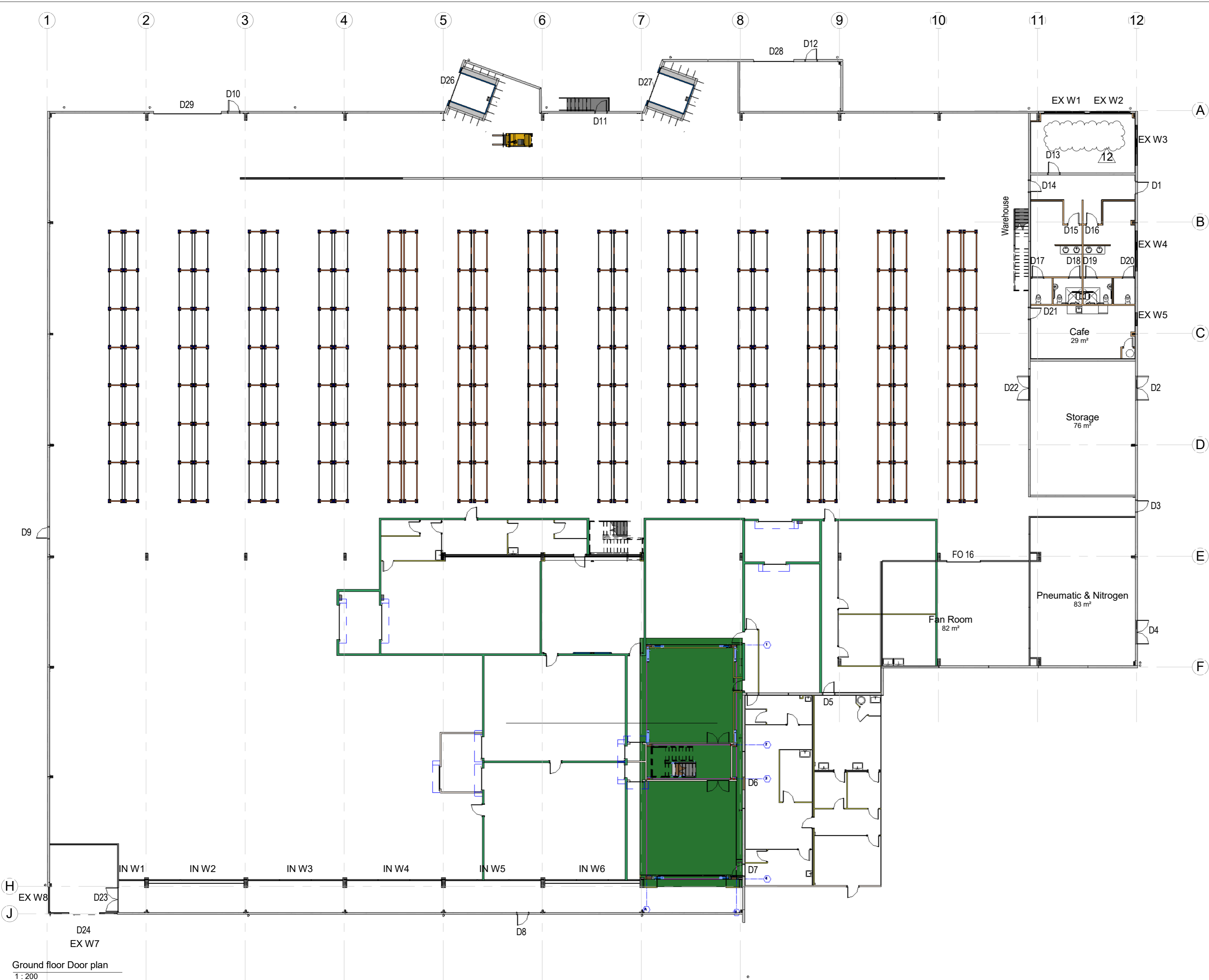
PLUMBING LEGEND		
FIXTURE	PIPE SIZE	GRADIENT
WC	100Ø	1:60
Vanities	65Ø	1:40
Wash Trough	40Ø	1:40
Shower	40Ø	1:40
Sink	65Ø	1:40
Urinal	50Ø	1:20
Foul Drain	100Ø	1:60
Stormwater	as per plan	as per plan

- - - sewer
 - - - water
 - - - stormwater

All fixtures to be back vented or to approval of inspector on-site

Internal plumbing to ASNZ 3500.2.2003

Refer to TM Consultants civil plans for plumbing and drainage for details



Door Schedule			
Mark	Type	Width	Rough Height
D1	810 leaf in precast panel External	810	2000
D2	810 Double leaf in precast panel External	1760	2070
D3	810 leaf in precast panel External	810	2000
D4	810 Double leaf in precast panel External	1760	2070
D5	810 leaf in precast panel External	810	2000
D6	945 x 2100	945	2100
D7	810 leaf in precast panel External	810	2000
D8	810 leaf in precast panel External	810	2000
D9	810 leaf in precast panel External	810	2000
D10	810 leaf in precast panel External	810	2000
D11	810 leaf in precast panel External	810	2000
D12	810 leaf in precast panel External	810	2000
D13	810 leaf in precast panel Internal	810	2000
D14	810 leaf in precast panel Internal	810	2000
D15	810x1980 leaf in timber frame	810	1980
D16	810x1980 leaf in timber frame	810	1980
D17	810x1980 leaf in timber frame	810	1980
D18	810x1980 leaf in timber frame	810	1980
D19	810x1980 leaf in timber frame	810	1980
D20	810x1980 leaf in timber frame	810	1980
D21	810 leaf in precast panel Internal	810	2000
D22	810 Double leaf in precast panel Internal	1760	2070
D23	810 Double leaf in freezer panel	1760	2070
D24	Double Doors (Sliding)	2225	2400
D26	3.1m h x 3m w Roller Door(3p)	3000	3100
D27	3.1m h x 3m w Roller Door(3p)	3000	3100
D28	4m h x 3m w Roller Door(3p)	3000	4000
D29	4.5m h x 5m w Roller Door(3p)	5000	4500

Refrig Fitout Door Schedule			
Mark	Type	Width	Rough Height
FO 16	2.7m h x 2.5m w Roller Door(3p)	2500	2700

Ground floor Door plan
1:200

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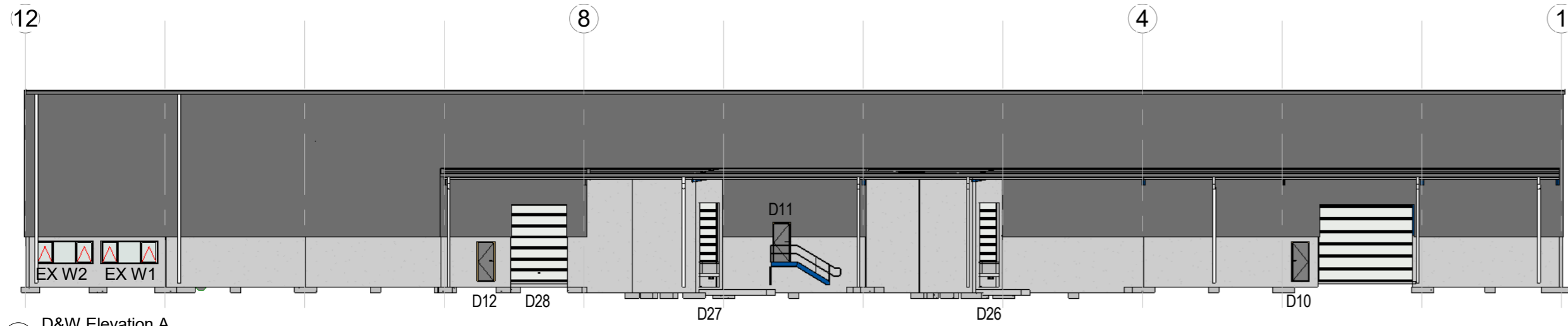
PROJECT
Arch

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Infant Formula Blending Plant
9 Ashford Ave., Ashburton

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Rev#	Amendments	Date
10	Electrical Details	12/05/16
12	Mods to operational fitout	28/07/16

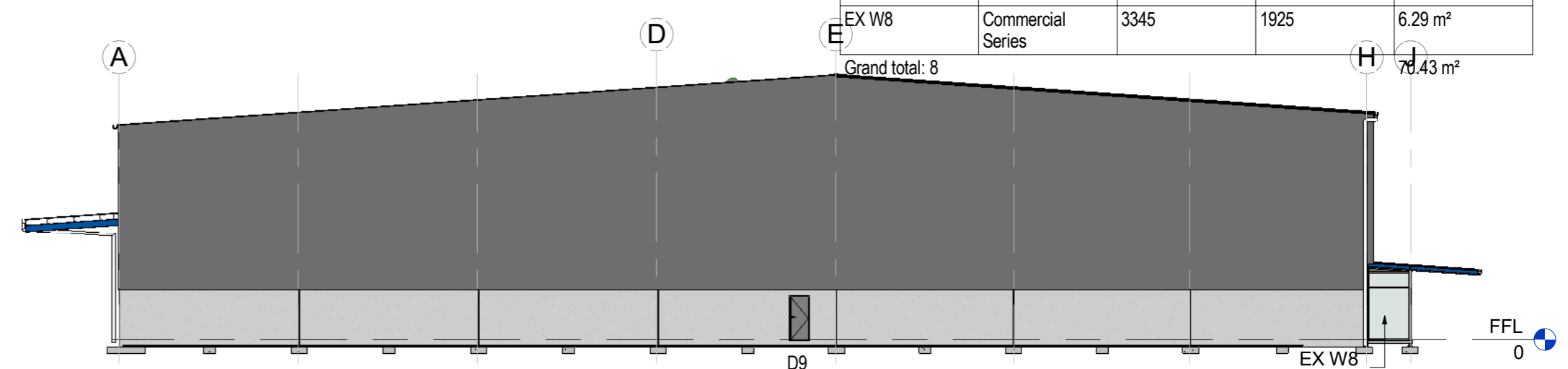
SCALE	1:200 @ A2	JOB #	12412
DRAWN BY	C. White	DATE	23/01/16
APPROVED BY	A. Cloake	REV	12
D W Ground Floor Plan		A0600	
Please note: All dimensions to be verified on site			
Paper size: A2			



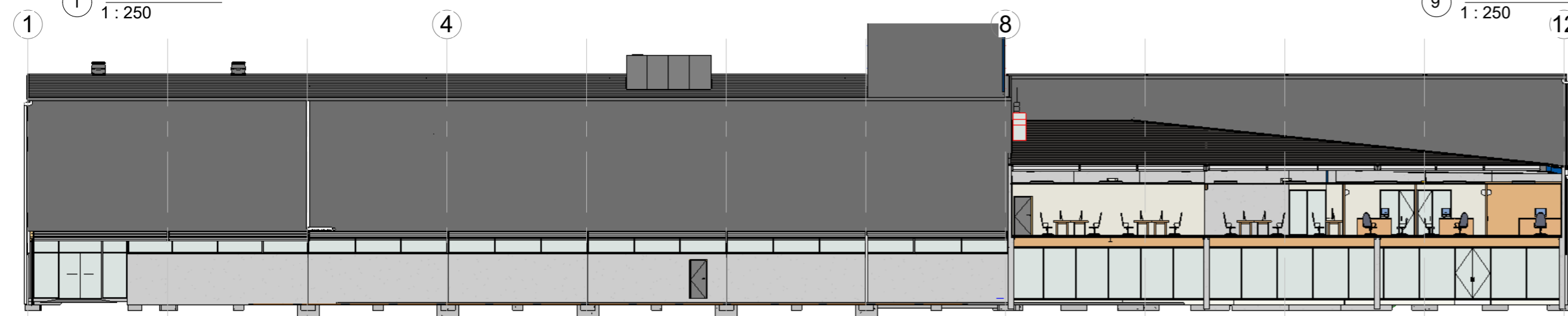
7 D&W Elevation A
1 : 250



1 D&W Elevation B
1 : 250



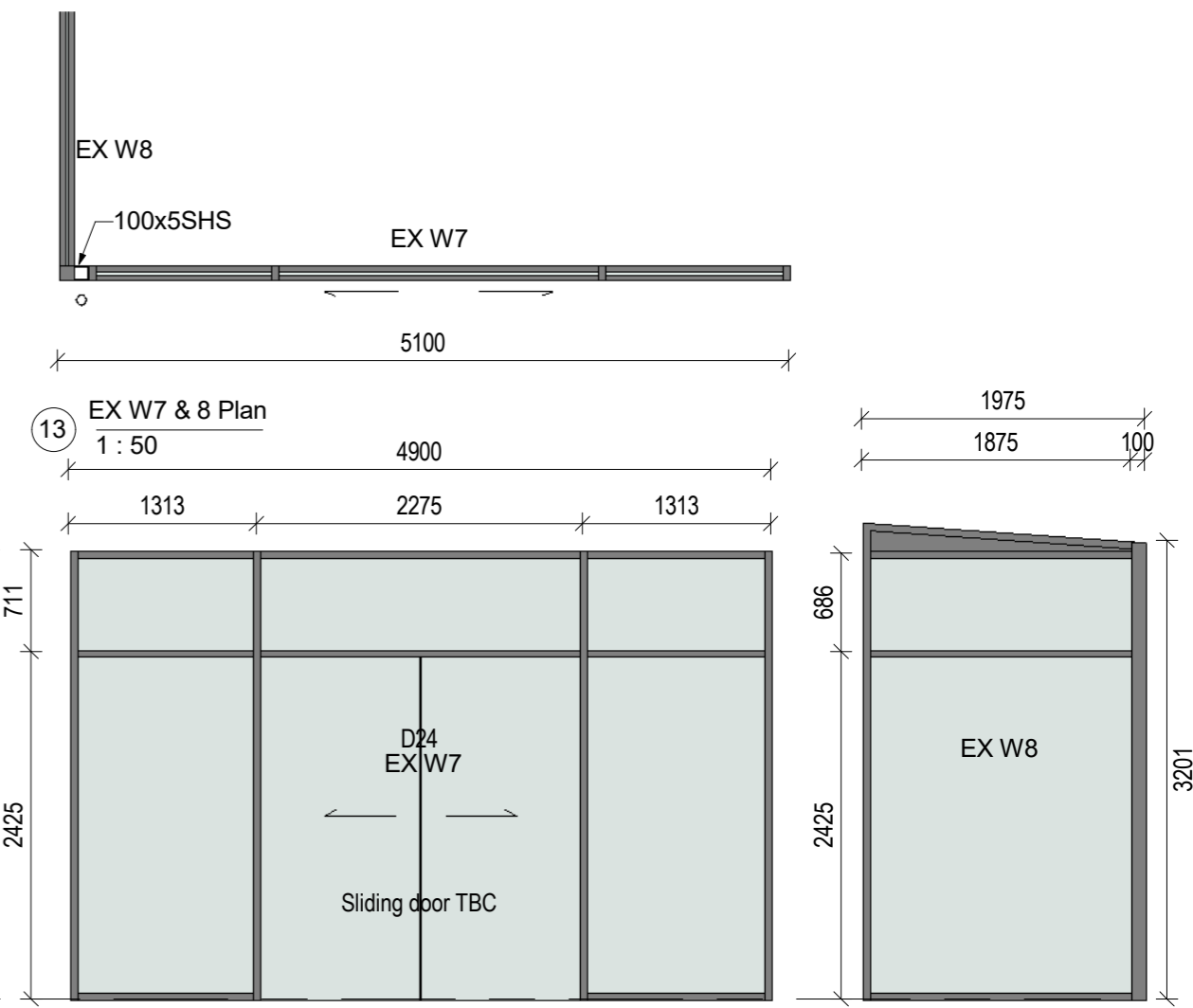
9 D&W Elevation D
1 : 250



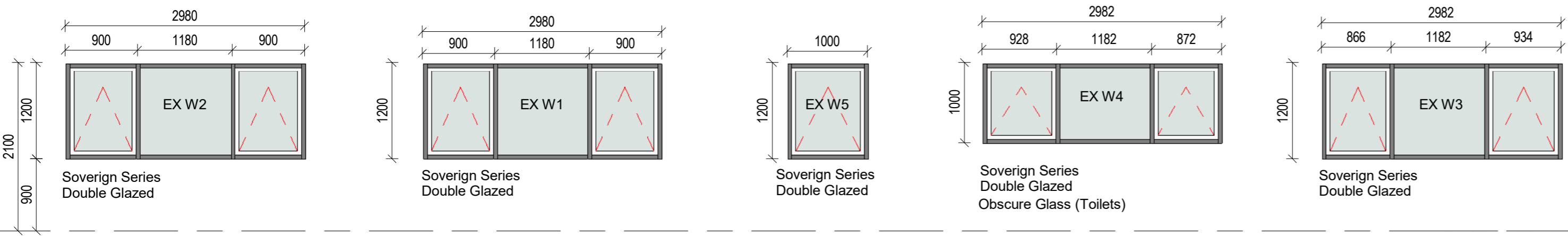
8 D&W Elevation C
1 : 250

D & W Schedule NOTE:
The main contractor is to ensure all door and window opening dimensions are checked prior to the manufacturer of any doors or windows, refer to the floor plans and elevations for positions. Glazing within 1500mm above the FFL is to be grade A safety glass in accordance with table 3.1, glazing greater than 1500 of the floor level to be annealed glass NZS 4223:part 4 & part 3

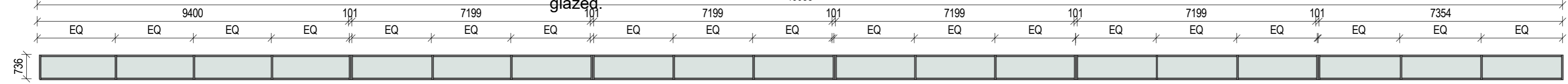
External Window Schedule				
Mark	Type	Unconnected Height	Length	Area
EX W1	Sovereign Series Double Glazed	1200	2980	3.58 m ²
EX W2	Sovereign Series Double Glazed	1200	2980	3.58 m ²
EX W3	Sovereign Series Double Glazed	1200	2982	3.58 m ²
EX W4	Sovereign Series Double Glazed	1000	2982	2.98 m ²
EX W5	Sovereign Series Double Glazed	1200	1000	1.2 m ²
EX W6	Commercial Series	736	46080	33.86 m ²
EX W7	Commercial Series	3136	4950	15.37 m ²
EX W8	Commercial Series	3345	1925	6.29 m ²
Grand total: 8				78.43 m ²



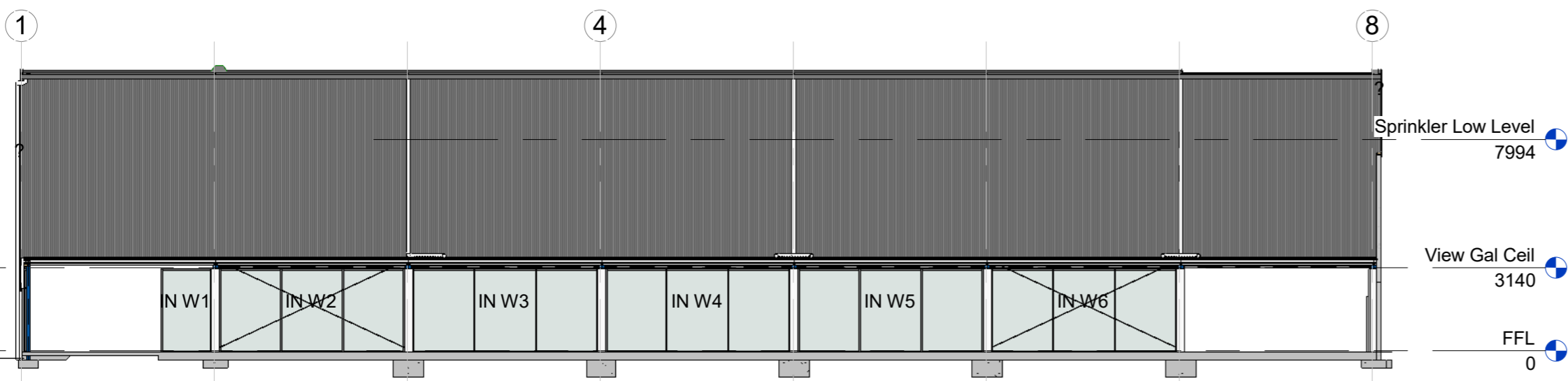
13 EX W7 & 8 Plan
1 : 50



NOTE: All external joinery to be double glazed.



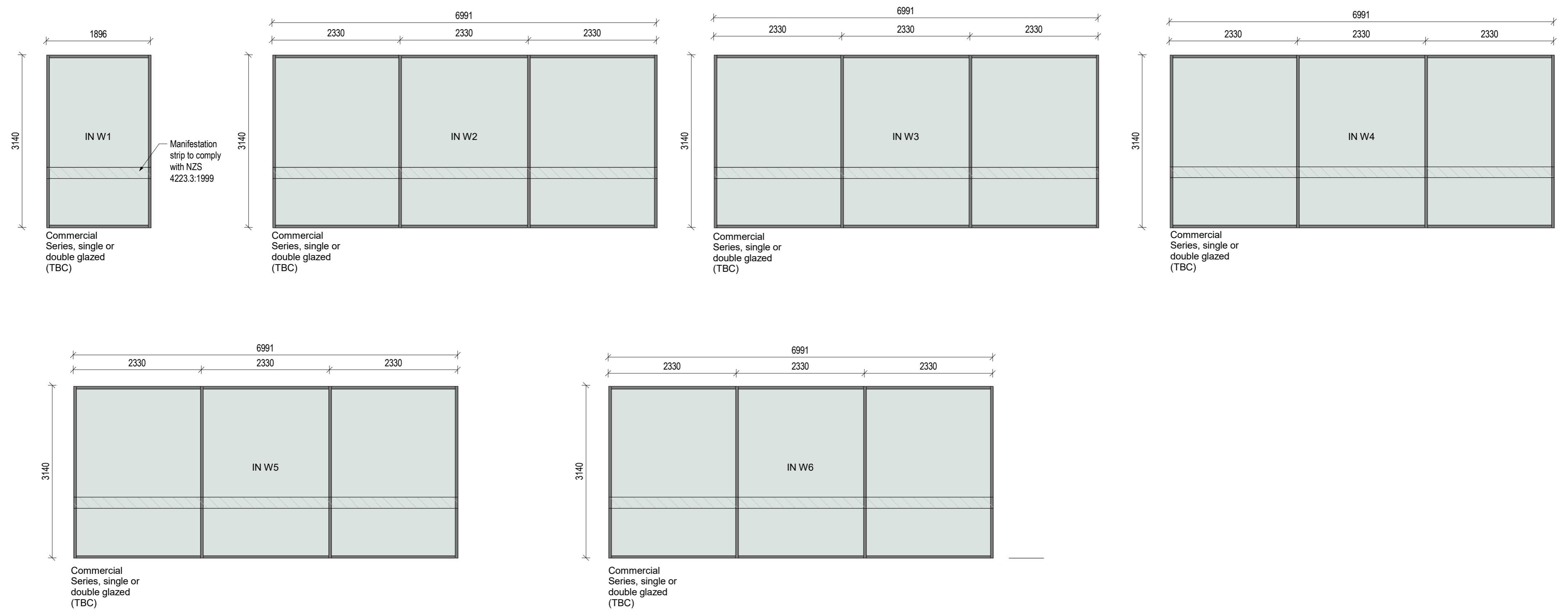
10 EX W6
1 : 100
Commercial Series double glazed

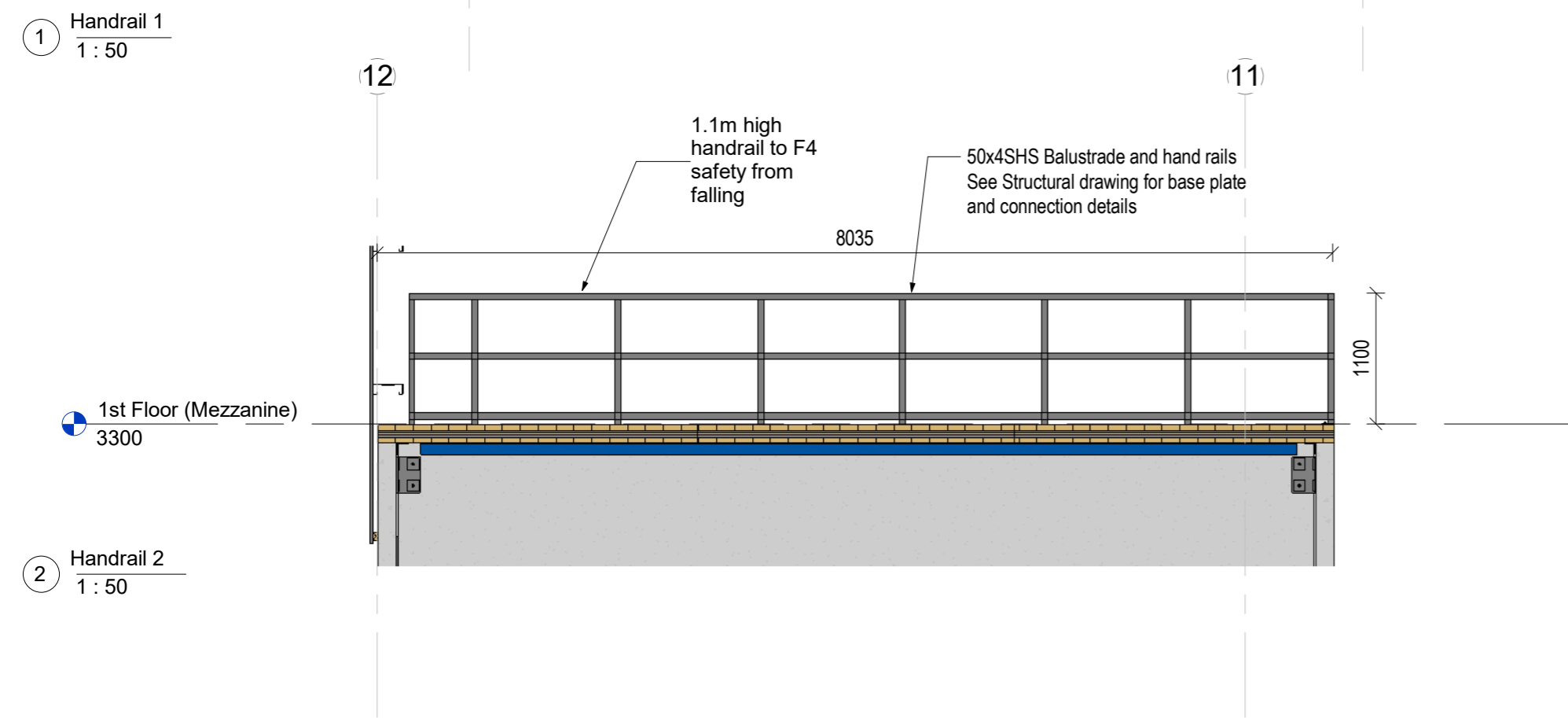
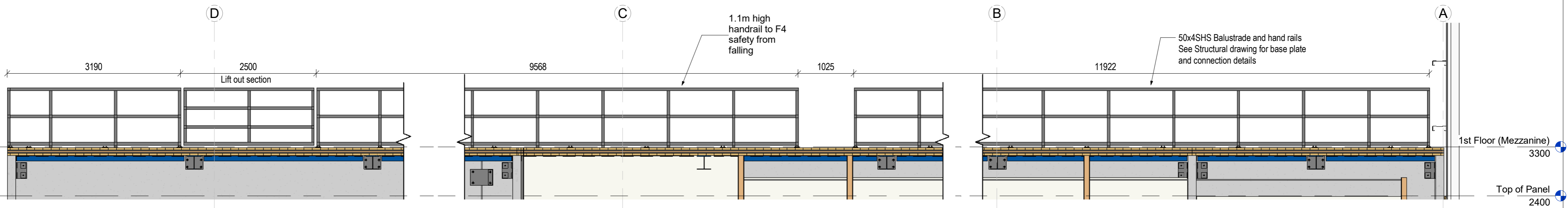


1 Internal window elevations
1 : 200

D & W Schedule NOTE:
The main contractor is to ensure all door and window opening dimensions are checked prior to the manufacturer of any doors or windows, refer to the floor plans and elevations for positions. Glazing within 1500mm above the FFL is to be grade A safety glass in accordance with table 3.1, glazing greater than 1500 of the floor level to be annealed glass NZS 4223:part 4 & part 3

Internal Window Schedule				
Mark	Type	Unconnected Height	Length	Area
IN W1	Commercial Series single glazed	3140	1971	5.95 m ²
IN W2	Commercial Series single glazed	3140	7041	21.95 m ²
IN W3	Commercial Series single glazed	3140	7041	21.95 m ²
IN W4	Commercial Series single glazed	3140	7041	21.95 m ²
IN W5	Commercial Series single glazed	3140	7041	21.95 m ²
IN W6	Commercial Series single glazed	3140	7041	21.95 m ²
Grand total: 6				115.71 m ²





① Handrail 1
1 : 50

② Handrail 2
1 : 50

PROJECT

Arch

NZ Dairy Collaborative Group
Infant Formula Blending Plant

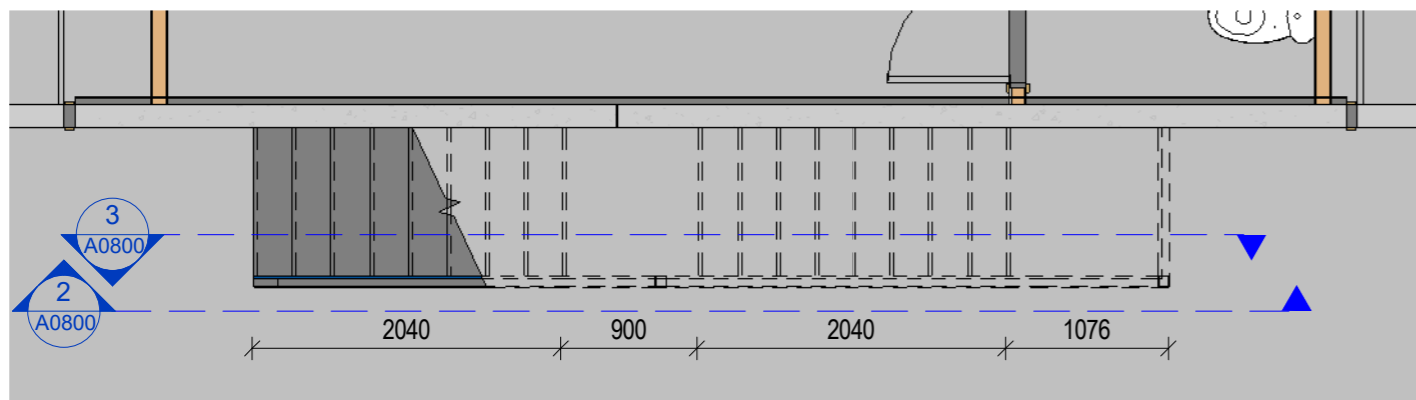
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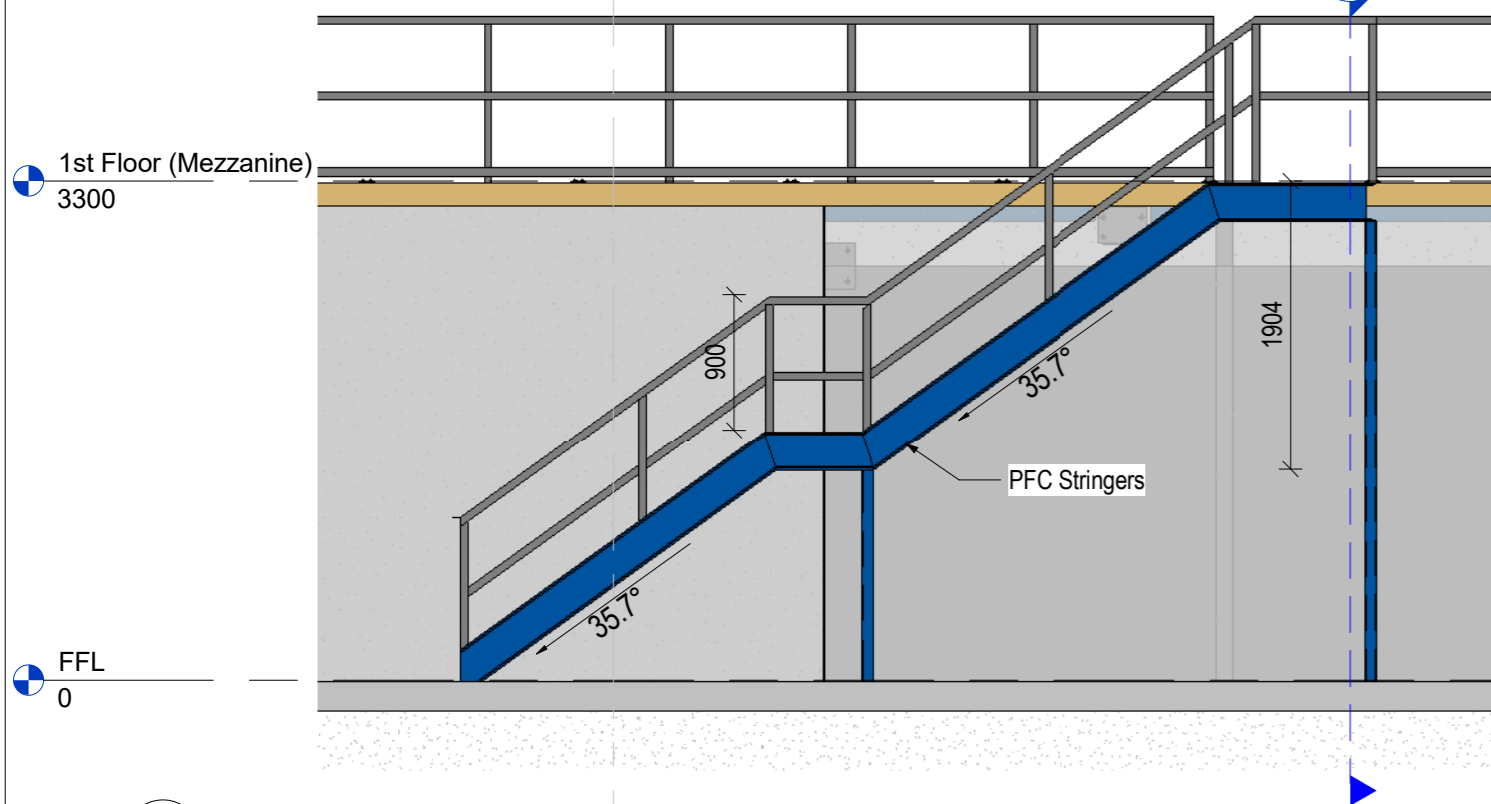
Rev#	Amendments	Date	SCALE	JOB #
			1 : 50 @ A2	12412
			DRAWN BY C. White	DATE 23/01/16
			APPROVED BY A. Cloake	REV
			Balustrades	A0603
Please note: All dimensions to be verified on site				Paper size: A2



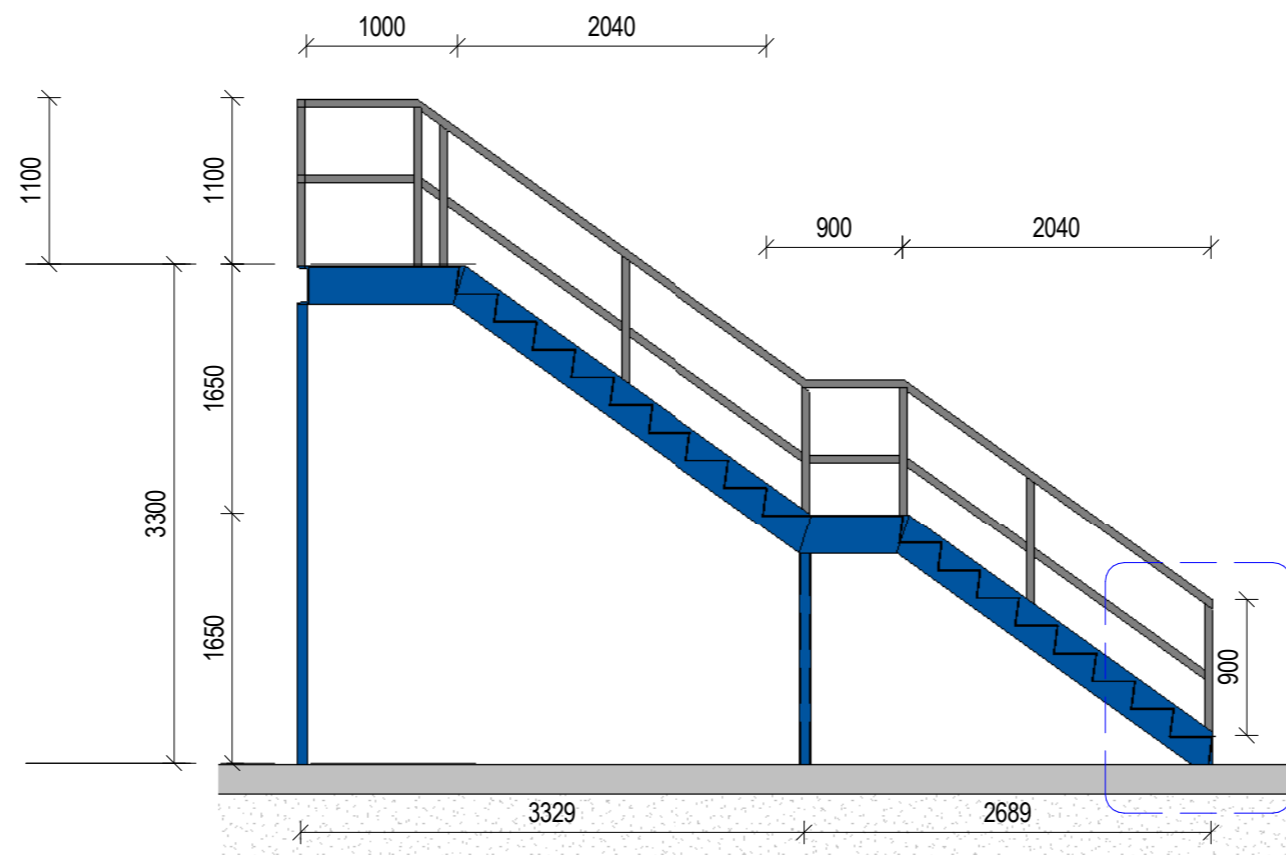
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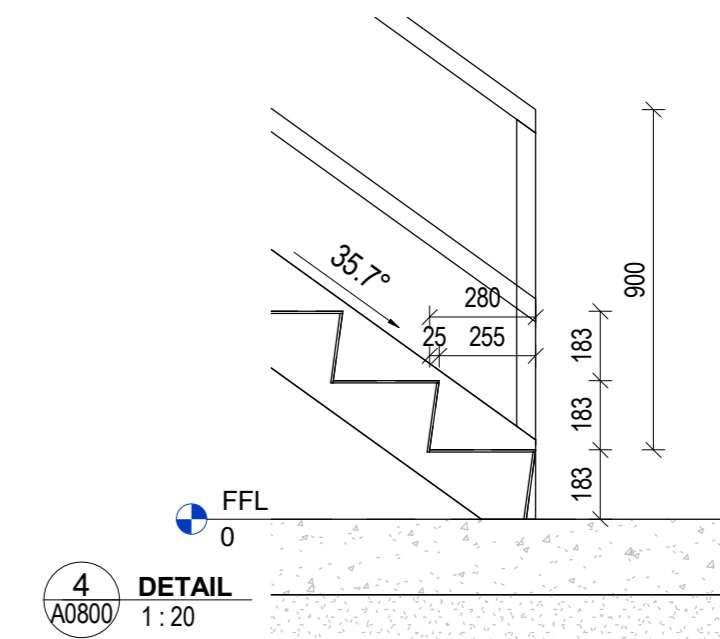
1 PLAN :Mezzanine Floor Stairs
1: 50



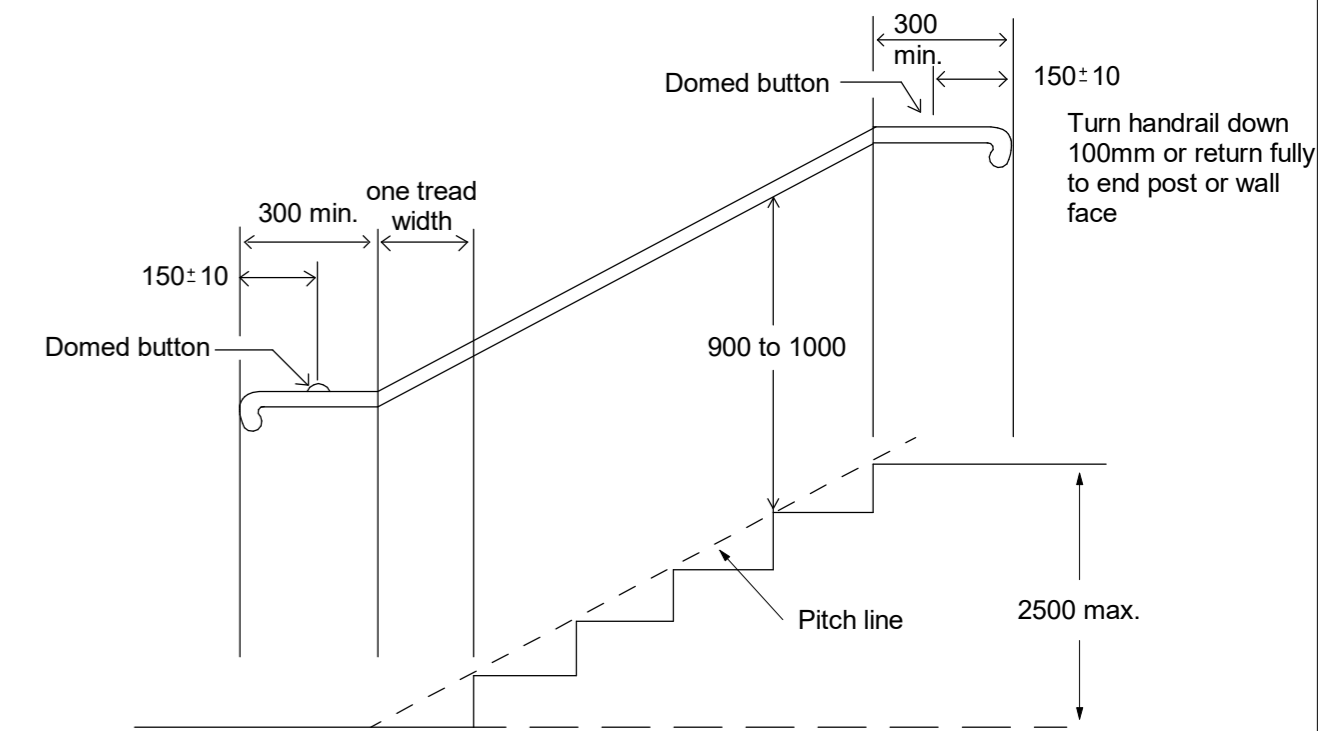
2 DETAIL :Mezzanine Floor Stairs
1: 50



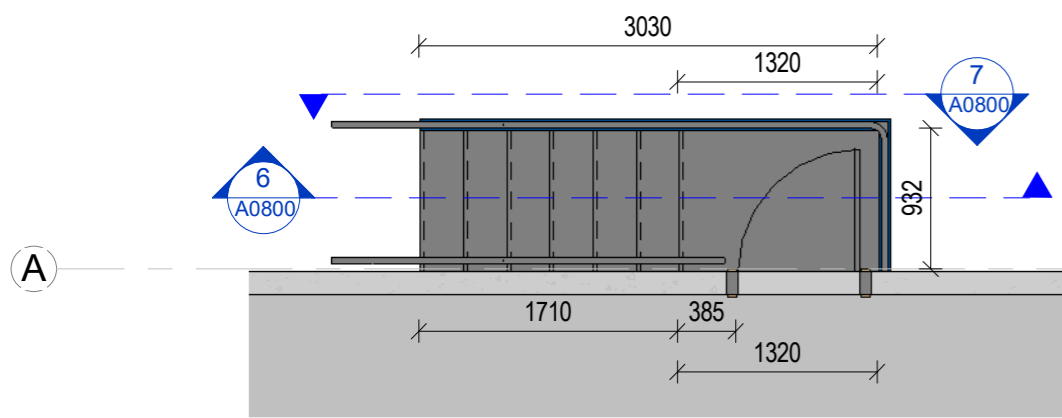
3 SECTION
1: 50



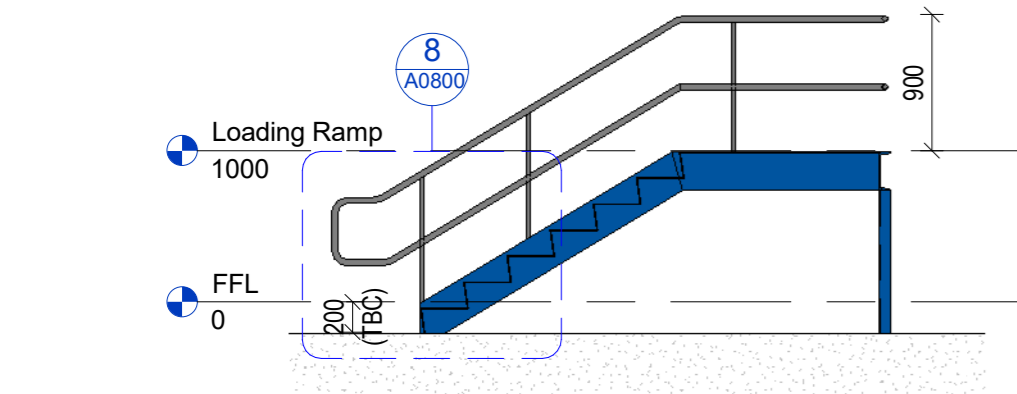
4 DETAIL
1: 20



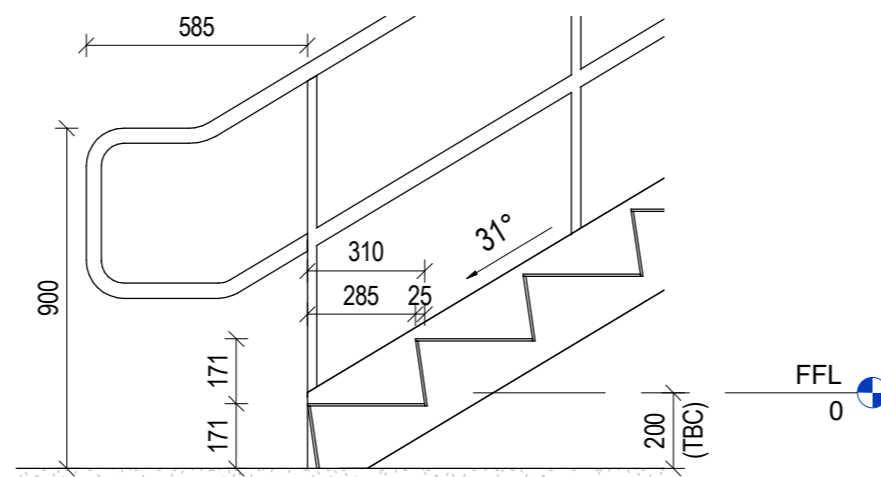
NOTE:
(1) The dimensions indicating the heights of handrails are taken from the nosing of the tread to the top of the handrail.
(2) The 300mm extension is not required where the handrail is continuous, e.g. on the inside of an intermediate landing.
NZS 4121-2001 Figure 23 pitchline and extension of handrails
1: 50



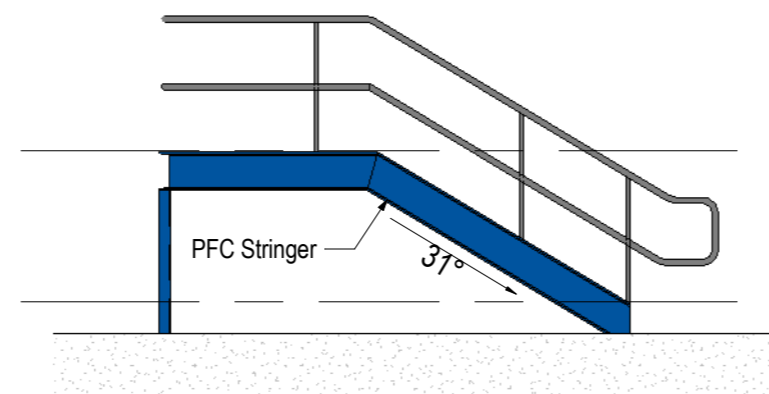
5 PLAN :Dock level Stairs
1: 50



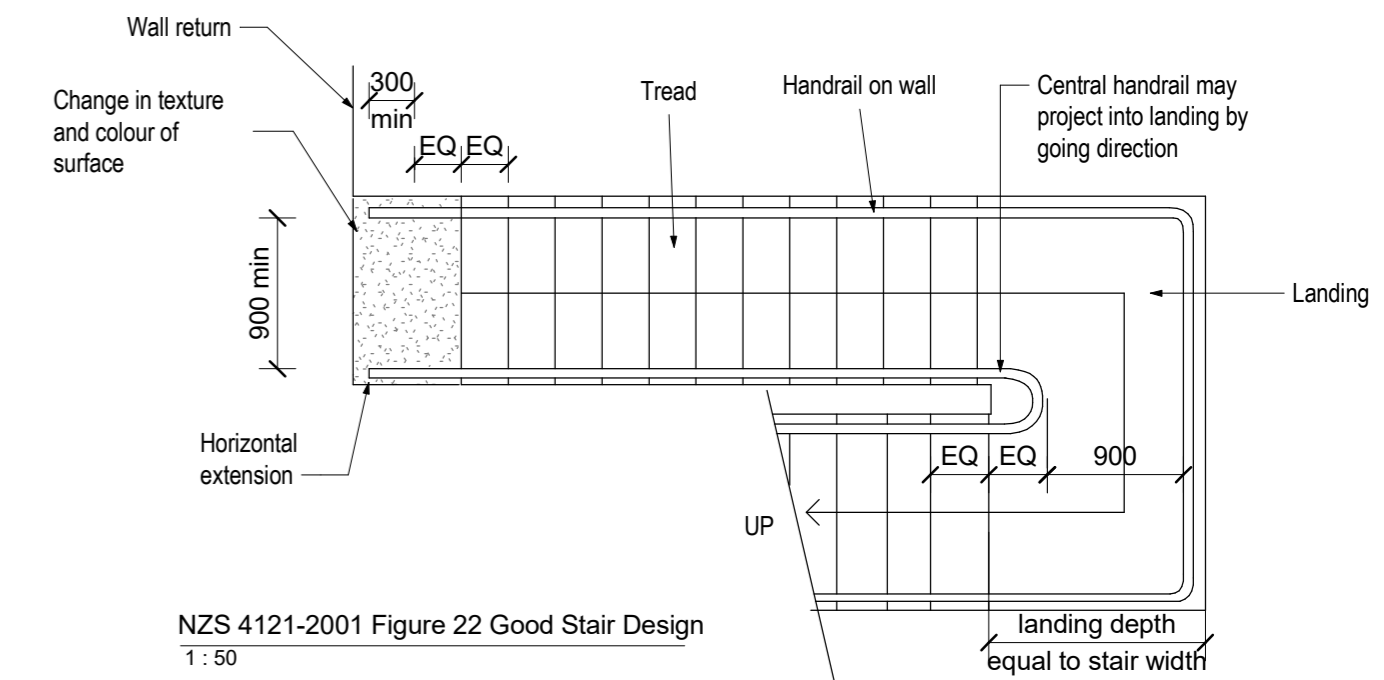
6 SECTION :Dock Stair
1: 50



7 DETAIL
1: 20



8 SECTION
1: 50



PROJECT

Arch

NZ Dairy Collaborative Group
Infant Formula Blending Plant

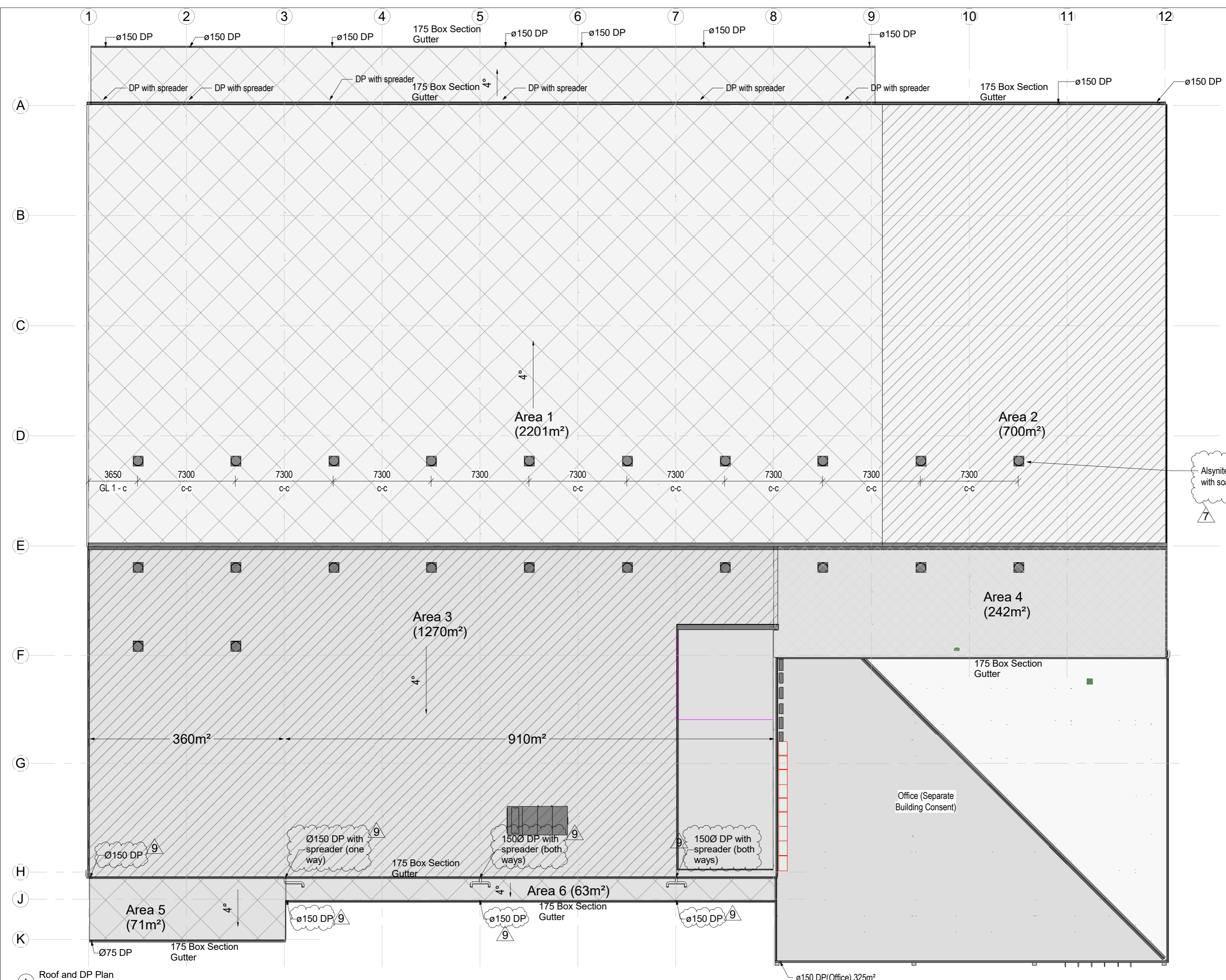
9 Ashford Ave., Ashburton

All Drawings property of Thompson Engineering 2002 Ltd

Rev#	Amendments	Date	SCALE	As indicated@ A2	JOB #	12412
			DRAWN BY	C. White	DATE	23/01/16
			APPROVED BY	A. Cloake	REV	
			Stairs and Decks		A0800	
Please note: All dimensions to be verified on site						Paper size: A2



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DOWNPIPE SCHEDULE	
Downpipe size (mm) for 0-25° pitch roof for given roof area	
Minimum internal Pipe Size	Plan area of roof served by the downpipe (m²)
63mm Ø	60
74mm Ø	85
100mm Ø	155
150mm Ø	350

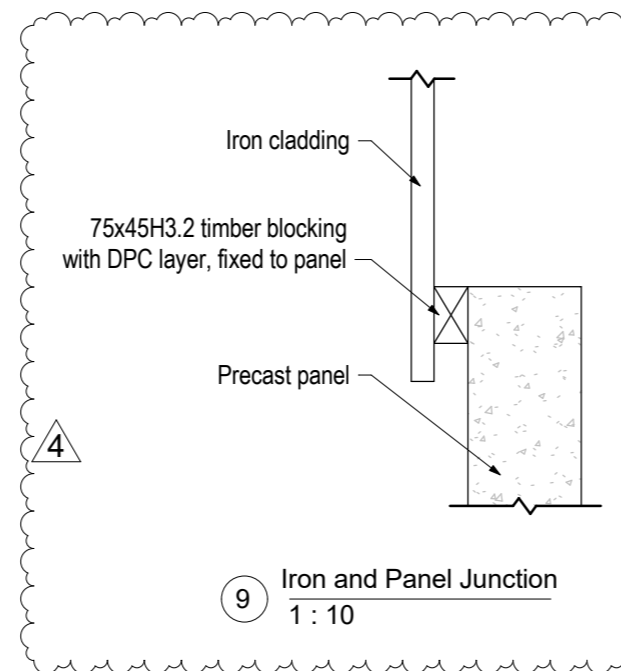
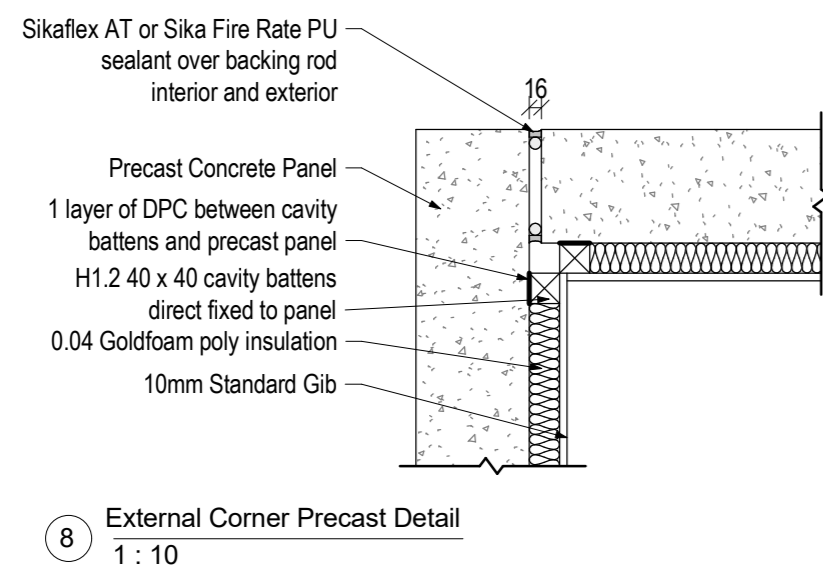
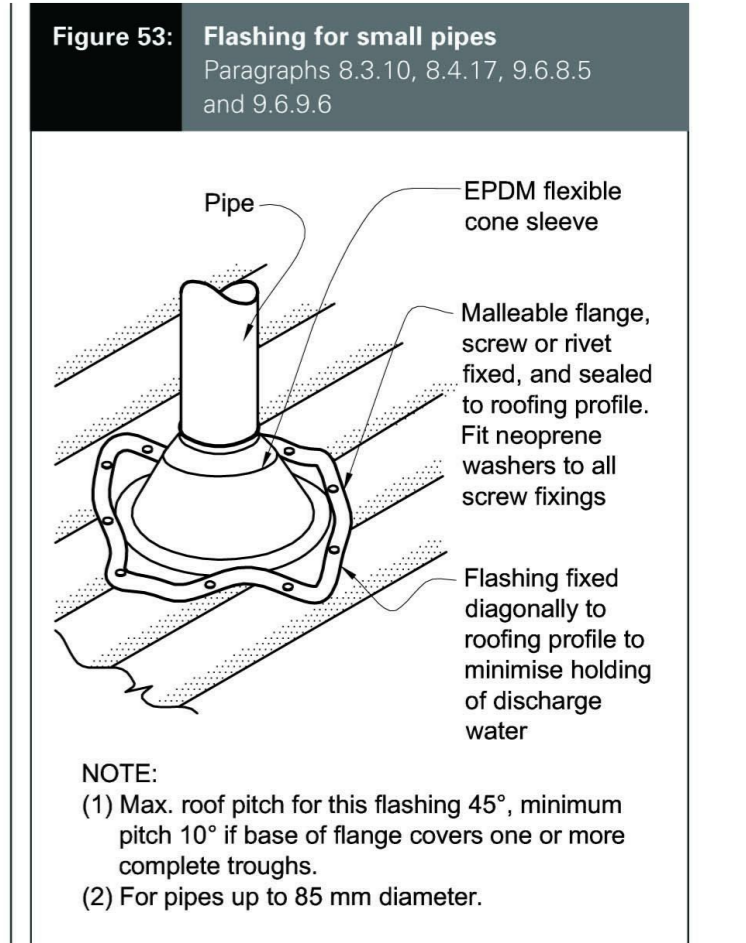
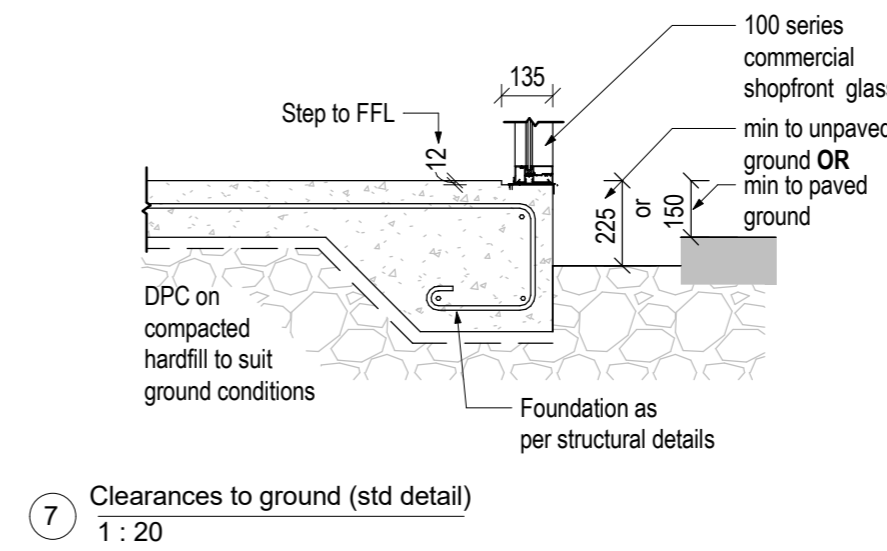
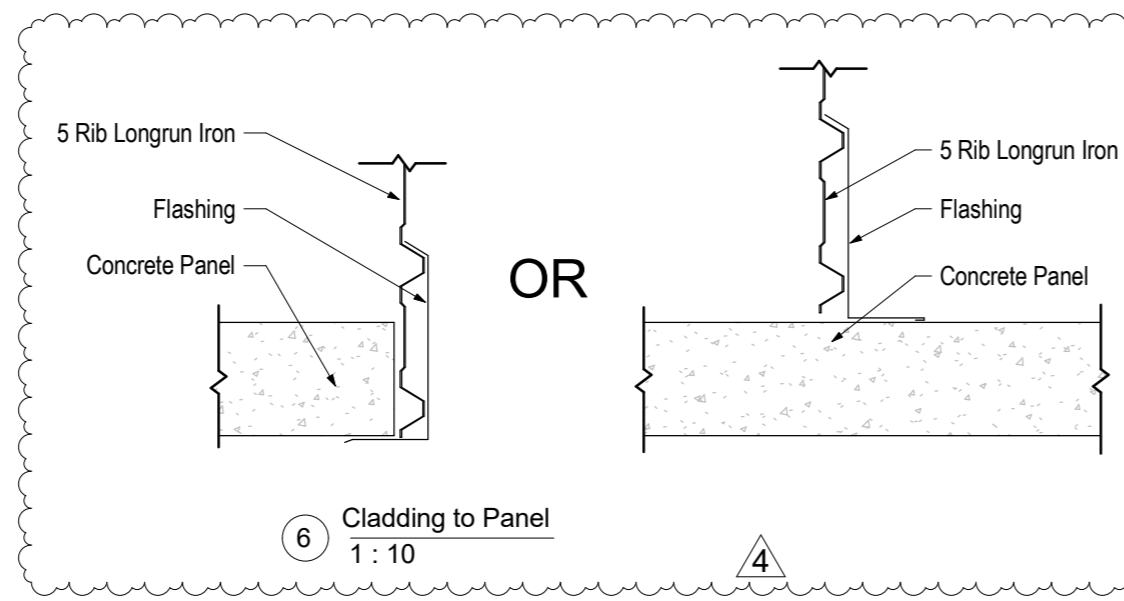
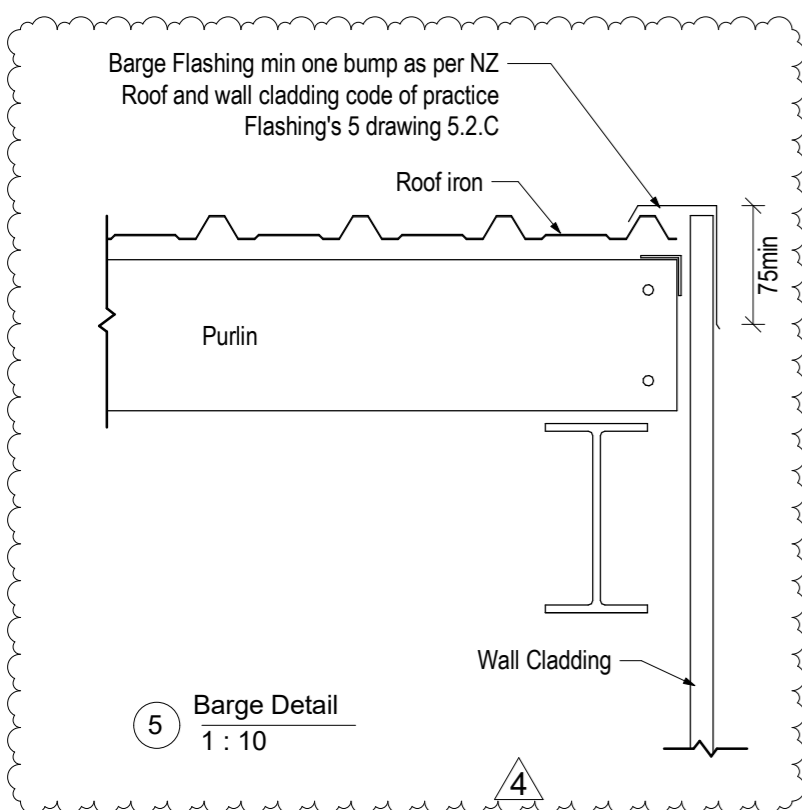
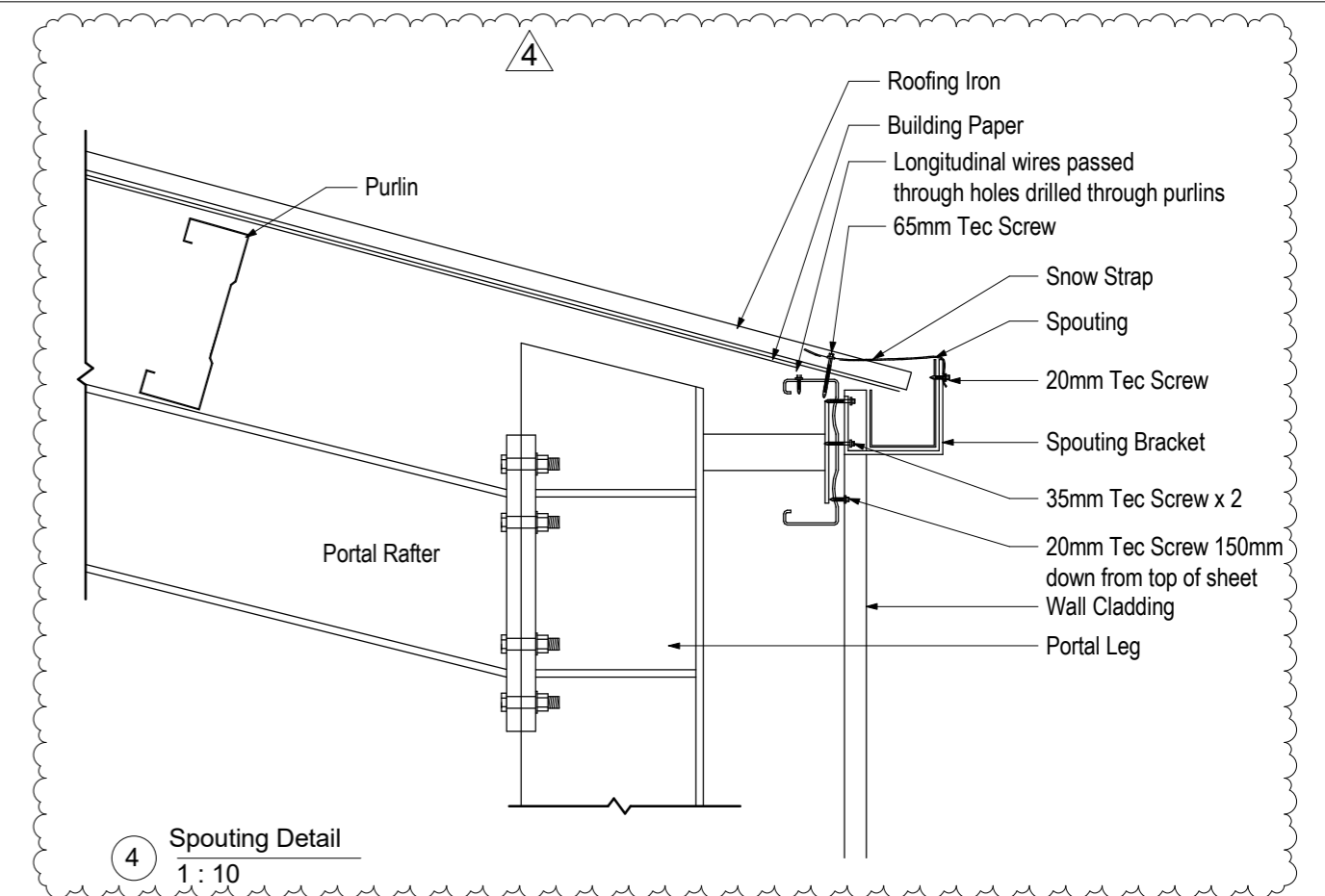
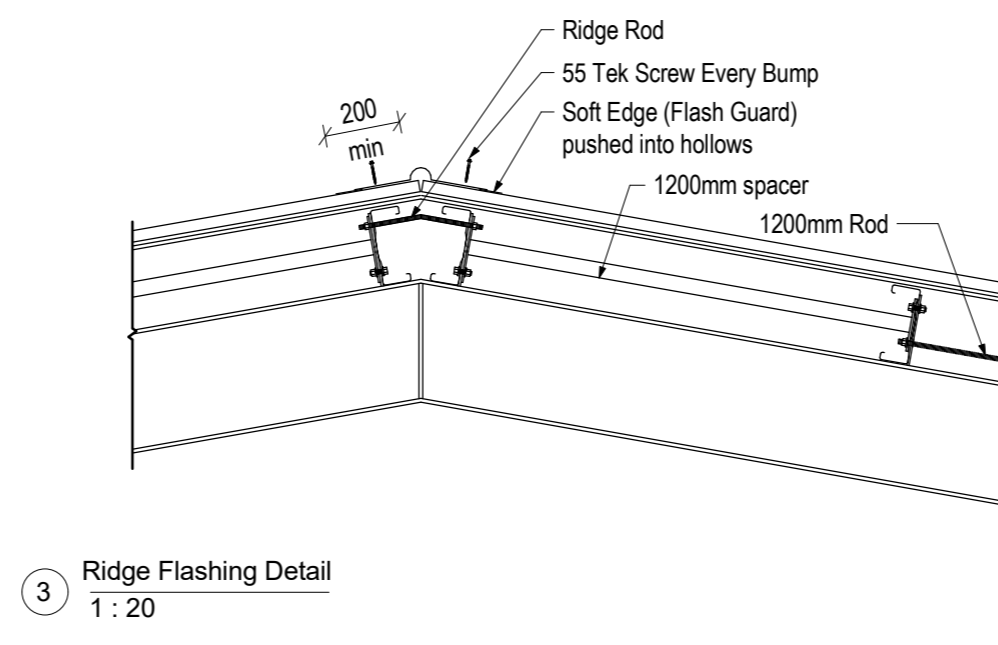
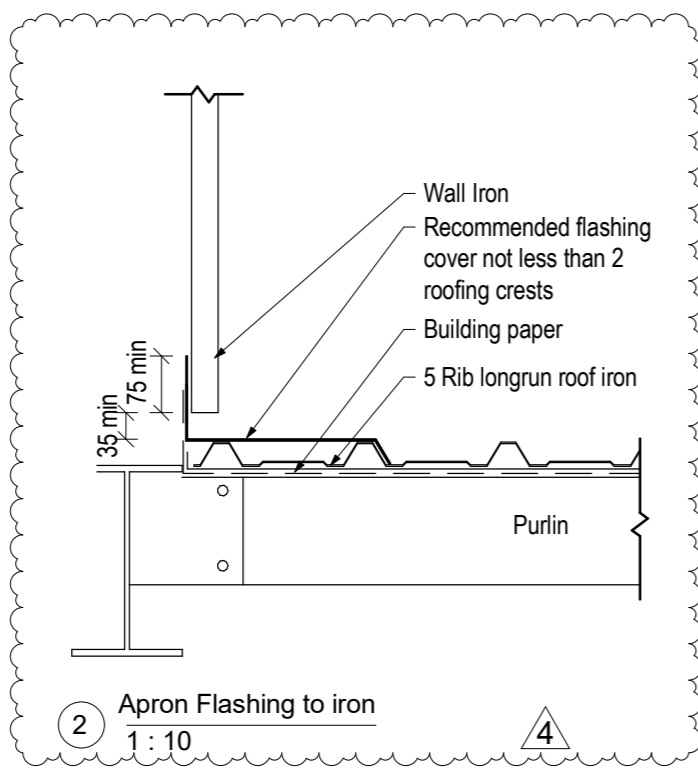
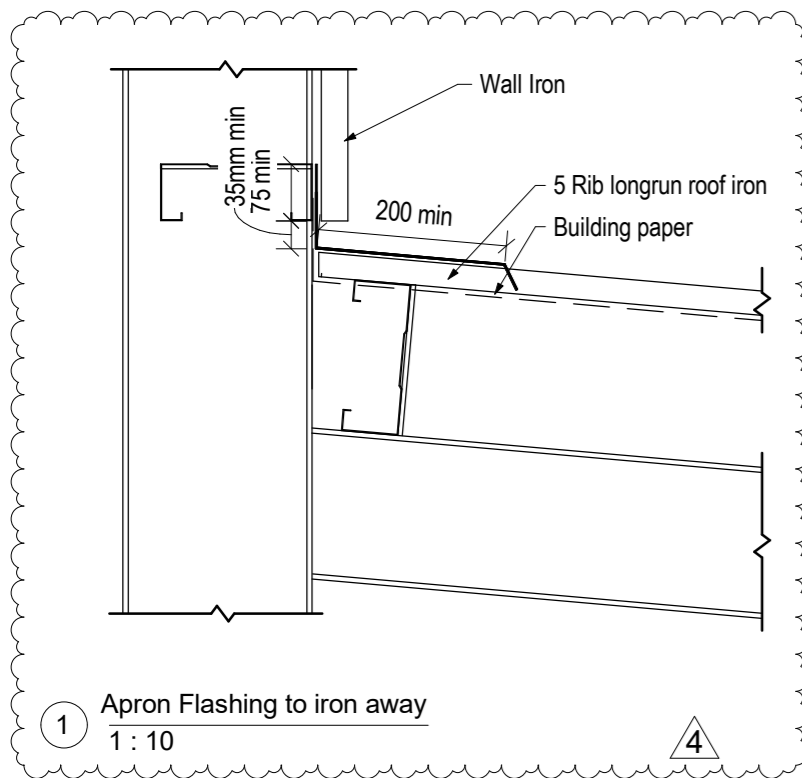
SURFACE AREA CATCHMENTS	
Total Roof Area = 4547m²	
area 1 = 2201m² - 7 x 150 Ø DP's	
area 2 = 700m² - 2 x 150 Ø DP's	
area 3 = 1270m² - 4 x 150 Ø DP's	
area 4 = 242m² - 1 x 150 Ø DP's	
area 5 = 71m² - 1 x 74Ø DP's	
area 6 = 63m² - 1 x 150 Ø DP's	

Alsynite Passive Ventilator AITV 900 with soaker flashing as per NZBC E2/AS1

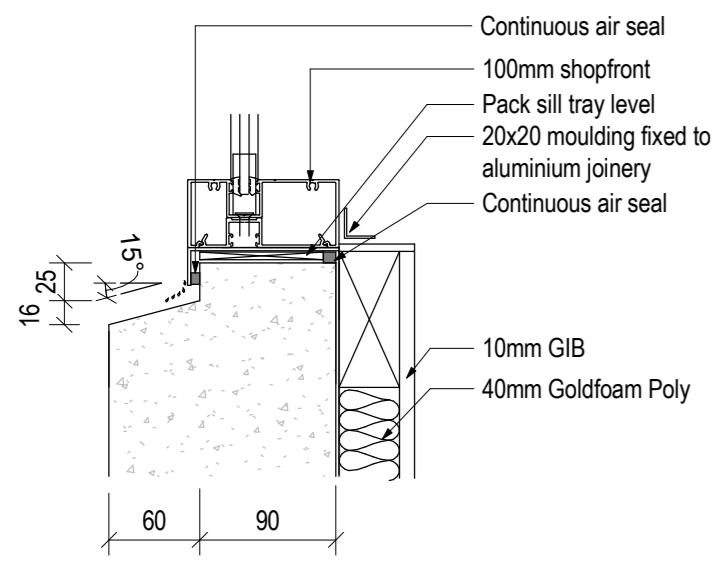
1 Roof and DP Plan
1:200

Rev#	Amendments	Date
7	Changes for sprinkler and electrical services	21/03/16
9	Changes to DP's	02/05/16

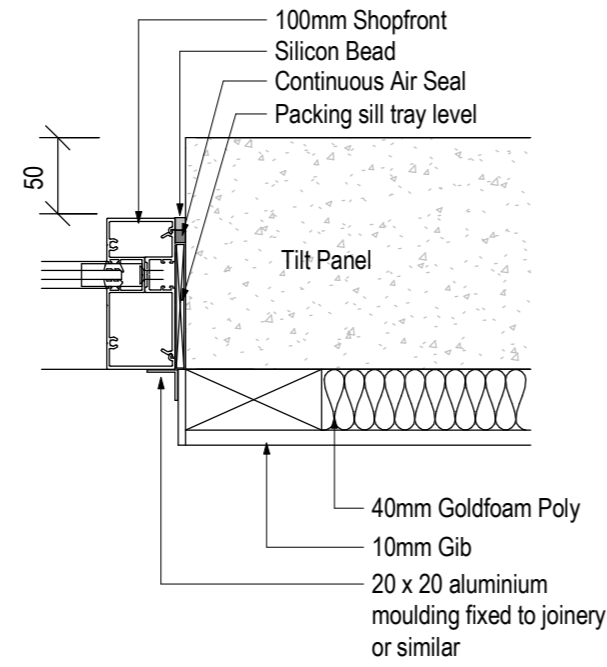
SCALE	As indicated@ A2	JOB #	12412
DRAWN BY	B Holloway	DATE	23/01/16
APPROVED BY	A. Cloake	REV	9
Roof Plan		A1300	
Please note: All dimensions to be verified on site			Paper size: A2



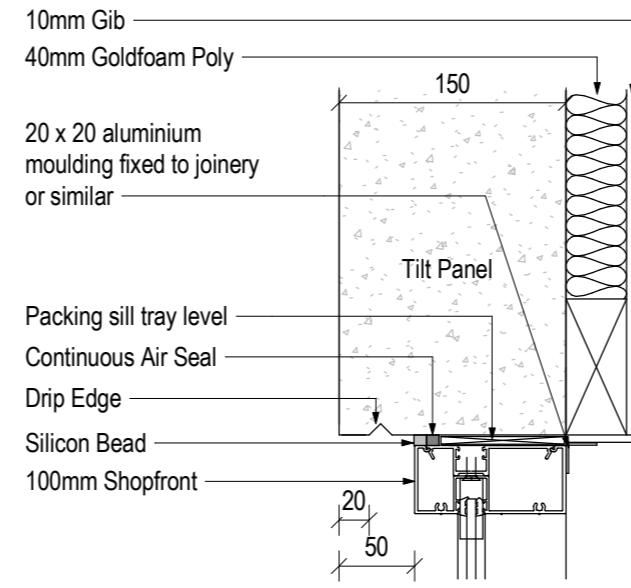
Rev#	Amendments	Date	SCALE	As indicated@ A2	JOB #
4	Council RFI	16/02/16			12412
			DRAWN BY	C. White	DATE
			APPROVED BY	A. Cloake	REV
			Flashing Details		A1301
Please note: All dimensions to be verified on site					Paper size: A2



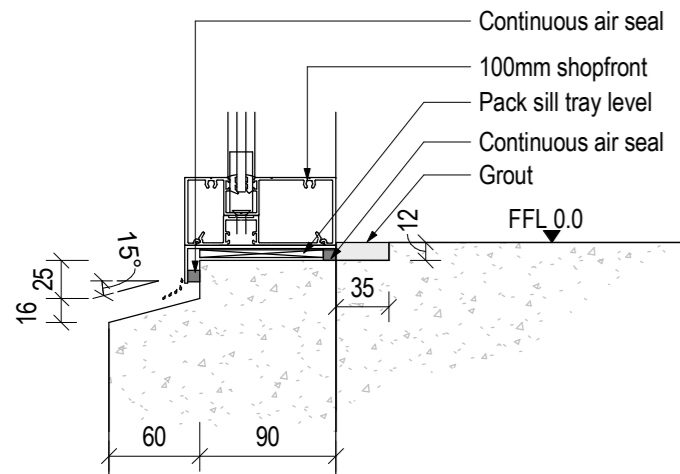
COMMERCIAL SILL DETAIL ABOVE FFL



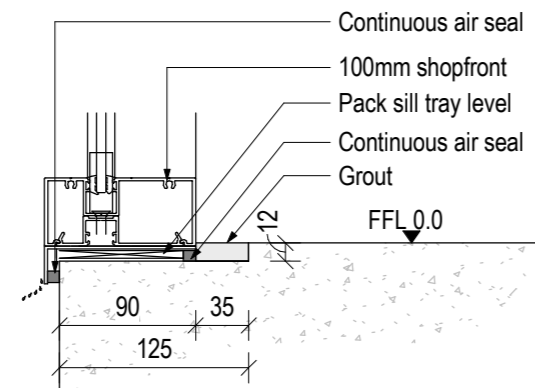
COMMERCIAL JAMB DETAIL



COMMERCIAL HEAD DETAIL

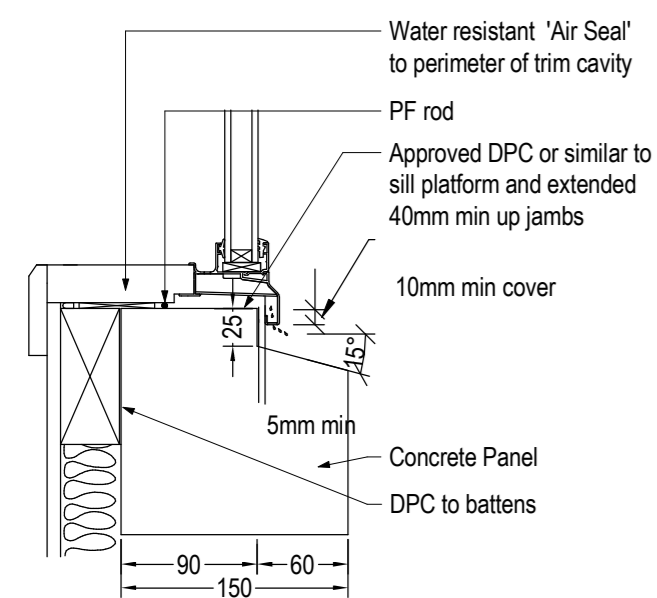


COMMERCIAL SILL DETAIL AT FFL IN PRECAST PANEL

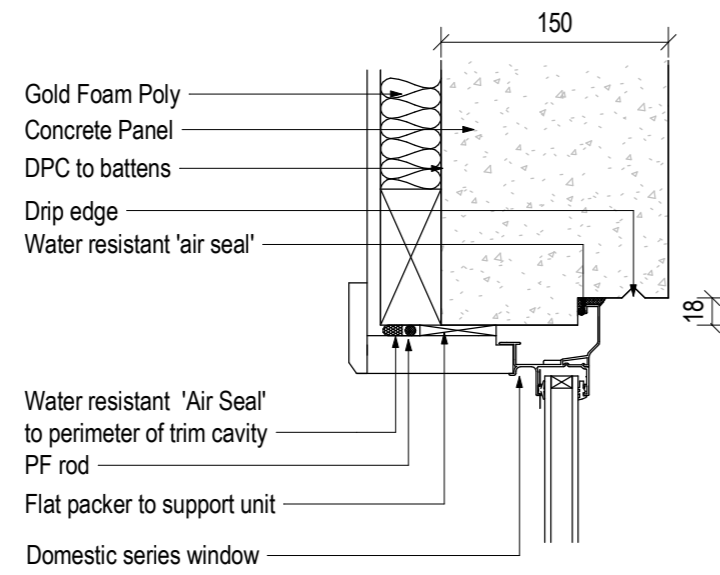


COMMERCIAL SILL DETAIL AT FFL STANDARD FOUNDATION EDGE

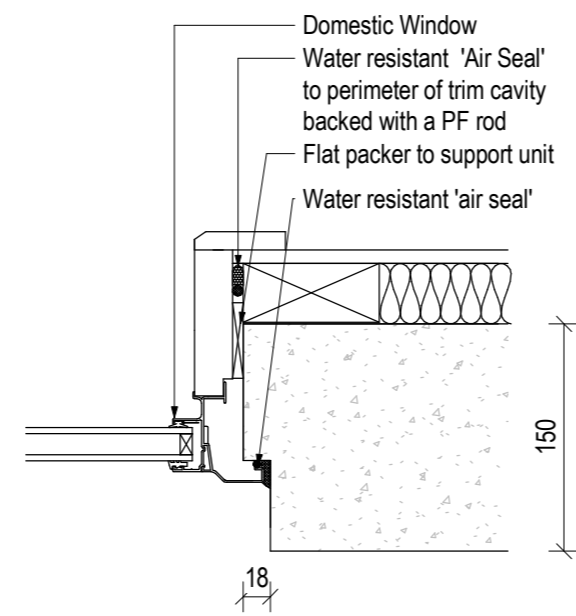
Commercial window details
1:5



WINDOW SILL DETAIL

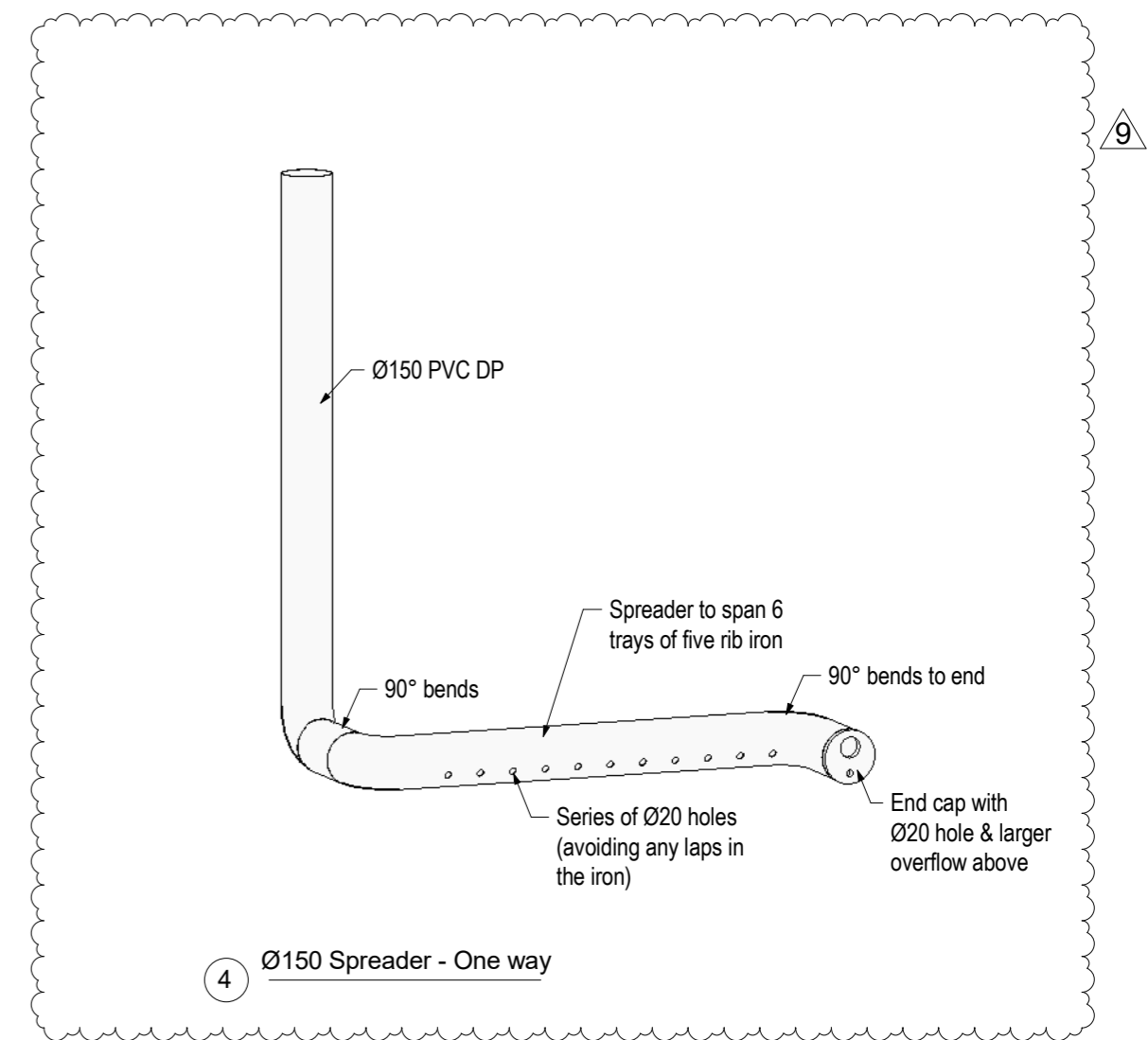
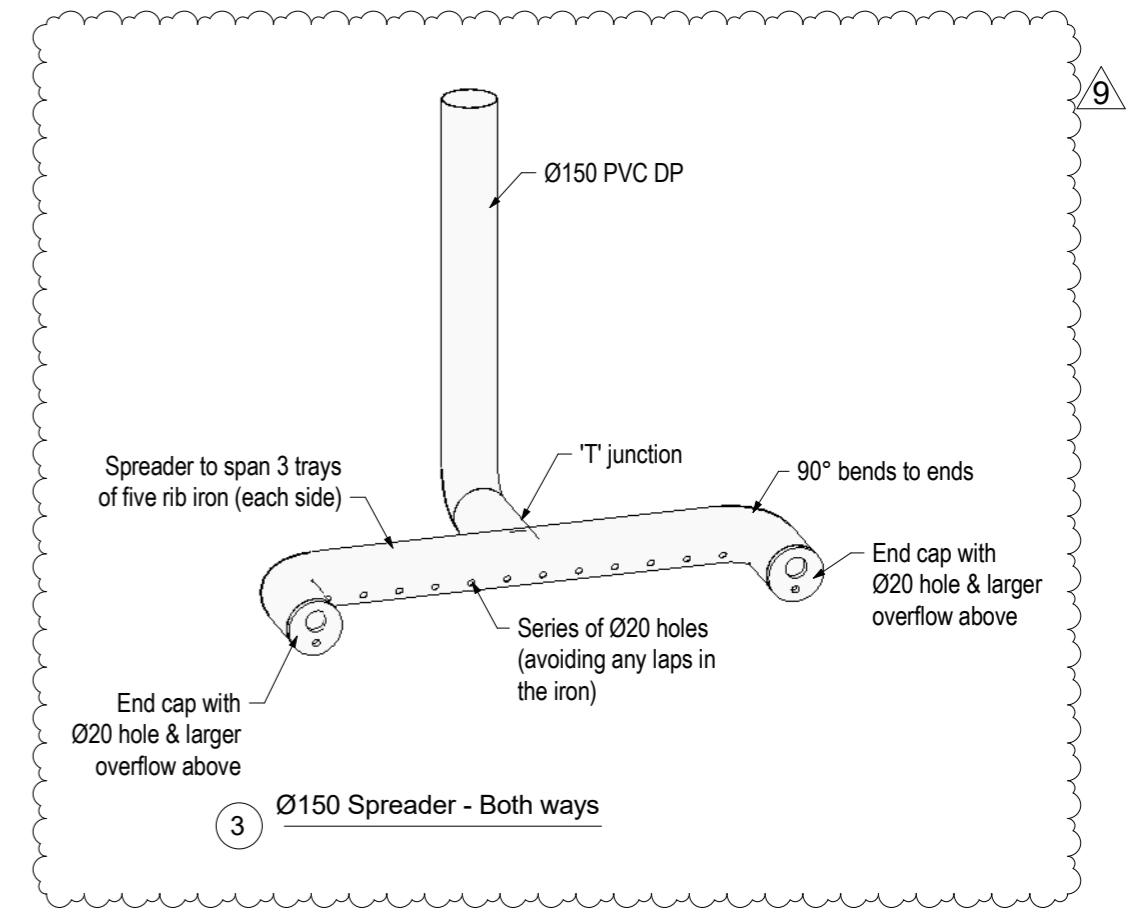


DOMESTIC HEAD DETAIL



DOMESTIC JAMB DETAIL

Domestic window details
1:5



Rev#	Amendments	Date	SCALE 1:5 @ A2	JOB # 12412
9	Changes to DP's	02/05/16	DRAWN BY A. Cloake	DATE 23/01/16
APPROVED BY			REV 9	
			Flashing Details 2	
			A1302	
Please note: All dimensions to be verified on site				
Paper size: A2				

NZBC H1 ENERGY EFFICIENCY - Small Buildings (> 300m²)

Floor Area - (to outside of external walls) 140m²

Wall Area	Glazing Area
South 20m ²	South N/A (borders to factory)
East 490m ²	East 17m ²
West 490m ²	West N/A (borders to factory)
Total Wall Area 1000m ²	Total Glazing Area 17m ²

Glazed Area = 0.17% of total wall area

If less than 30% then schedule method is OK

Climate Zone 3

SCHEDULE METHOD VM H1/VM1

Table 2(b) - Solid Construction (excluding solid timber) - Alternative minimum R-values for schedule method

Building Thermal Envelope Component	Minimum R-values climate zone 3 (option1)	Minimum R-values provided	
Roof	R 3.5	R 3.59	Complies
Wall	R 1.2	R 1.31	Complies
Floor	R 1.5	R 2.5	Complies
Glazing	R 0.26	R 0.26	Complies

Please refer to the attached design navigator tables showing material compliance with R values

R Value of mid floor construction	
150mm thick XLAM	1.22
R 2.2 Pink Batts	2.2
Armstrong Eris Suspended Ceiling	0.17
Total R Value achieved:	3.59

Name: Floortype 1 2.50 m²K/W

Type: Floor: Slab floor
Slab floor

internal surface 0.09

Flooring : 50-100mm Concrete Topping Screed
R-value: 0.04

Slab Insulation

Slab floor area [m²]: 140

Perimeter length [m]: 51.8

External wall thickness [mm]: 800 i

Soil conductivity [W/m °C]: 1.2 i

Underslab insulation: none v Insulation : i

Piles Footings: Number: i Penetration Diameter: i

Slab edge insulation: none v Insulation : i

Name: Walltype 1 1.31 m²K/W

Type: Wall: Solid wall (concrete, masonry or other) without vented cavity, with internal insulation
Solid wall (concrete, masonry or other) without vented cavity, with internal insulation

external surface 0.03

Cladding : None (facing outside air)
R-value: 0.00

Solid Masonry : Structural Concrete 150mm
R-value: 0.09

Strapping : Timber batten, 40mm deep, 45mm wide @ 600mm centers
Strapping Area: 11.0% Cavity Area: 89.0%

Thermal Break : none
R-value: 0.00

40mm Goldfoam, 30kg/m³ 1.44
still Airgap: none
R-value: 0.00

Strapping :
R-value: 0.34

Wall Lining : Gypsum plasterboard 10mm
R-value: 0.04

internal surface 0.09

Thermal Design

Thermal Resistance of CLT

NZS 4214 Table E provides thermal conductivities of materials and thermal resistances (R-values) calculated according to thickness. CLT has the same thermal performance as solid pine. The conductivity (U-Value) of Radiata Pine is 0.120 W/m²K at 12% moisture content which is the expected condition of CLT in use.

Thermal Resistance R-values (thickness in metres divided by conductivity) for XLam CLT panels are calculated as:

60mm CLT:	R 0.50
75mm CLT:	R 0.625
90mm CLT:	R 0.75
105mm CLT:	R 0.875
145mm CLT:	R 1.22
175mm CLT:	R 1.46



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PROJECT

Arch

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Infant Formula Blending Plant

9 Ashford Ave., Ashburton

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Rev#	Amendments	Date	SCALE	JOB #
			1 : 100 @ A2	12412
			DRAWN BY A. Cloake	DATE 23/01/16
			APPROVED BY	REV
			H1 Compliance	A1400
			Please note: All dimensions to be verified on site	Paper size: A2