

Examples of Weathertightness Remediation Drawings - Preliminary Design

Purpose: These example drawing extracts help convey the levels of presentation and the standard of documentation required by the Ministry for Weathertightness Remediation projects. Reference should also be made to WRP Guide # 3 which lists the deliverables required at the **Preliminary Design** stage. They are intended to aid architects and designers to understand the expectations of the WRP Panel, in order to aim a smooth review process.

Please note, the drawing images in this guide are examples only and do not represent standardised or Ministry approved details. It is also important to note that the levels of documentation need to be appropriate for the scale and complexity of each project. The drawing extracts have been sourced from several architects and designers across a variety of weathertightness remediation projects at school sites. The images have also been adjusted to suit the format of this example set.

This example set and other key documents such as the Design Report template, Site Specific QA Plan template and the Weathertightness Remediation and Regulatory Strategy are available under the following file-path:
<https://www.education.govt.nz/school/property-and-transport/maintenance-repairs-security/weathertightness-remediation/>

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Drawing Example

Site and Location Plan

Sheet 2



PROJECT INFORMATION

SITE ADDRESS:	77 ULYS ROAD PAKURANGA
LEGAL DESCRIPTION:	LOT 2 DP 22598
SITE AREA:	19,706 m ²
WIND ZONE:	LOW
EARTHQUAKE ZONE:	1
RAINFALL INTENSITY:	100mm/hr
EXPOSURE ZONE:	C
CLIMATE ZONE:	1



Notes:

- The example images on this sheet are provided for the sole purpose of conveying the levels of presentation and standard of documentation required by the Ministry for Weathertightness Remediation projects

Key Requirements:

- Clearly identify the building's location at the school site
- Use the Ministry's correct building reference e.g. 'Block 2', noting in some cases these can differ from the name or reference used by the School
- Ensure a north symbol is provided along with the site or location plan's scale
- Provide the legal description of the site and property address as required for the Consent Application
- The site plan is also a useful location to clearly state the wind, earthquake & exposure zones
- Where two or more site plans or aerial views are provided, ensure these all have the same north point orientation for ease of reference

Drawing Example

3D Images – Existing and Proposed Works

Sheet 3

Note:

- The example images on this sheet are provided for the sole purpose of conveying the levels of presentation and standard of documentation required by the Ministry for Weathertightness Remediation projects

Commentary:

- 3D images of the existing and proposed building arrangement help to clearly convey the proposed changes and scope of work to the existing building
- 3D images are particularly useful to convey existing buildings with complex roof and external envelope forms which may be difficult to understand in 2D elevations, or to convey proposed changes in roof forms
- 3D images with annotations can also be very effective for communicating the intended scope
- In this example, the upper images with green shaded roof areas are existing areas to be removed. The lower image shows the revised arrangement with areas of flat roofing reduced
- Although 3D images are not a compulsory requirement, they can be a useful tool to convey the proposed scope to the Reviewer, and can assist in streamlining the review process



- ### Commentary:
- Ensure floor plans or part-floor plans are provided at 1:50 scale for an A1 sheet or 1:100 for an A3 sheet**
 - Embedding photo images of the existing building can be very helpful by providing contextual information
 - Colour is very useful for differentiating between the existing building elements to be demolished and the new construction. In this example, the red dashed line indicates the extent of existing cladding to be removed to remediate wall framing
 - A legend table is provided in the top right-hand corner to clearly label the dashed red line
 - Outline dimensions should be provided for the existing part of the building where remediation works are being proposed. In this example, dimensions are provided alongside the red dashed line
 - **Note: Where the building is large and the scope of works is minor and/or very straightforward, 1:200 scale plans @ A3 may be acceptable if the plan cannot fit on one sheet at 1:100 scale. The Designer may use their discretion, with the caveat that the Reviewer may request plans at a larger scale if the plans at 1:200 are cramped or difficult to read

Drawing Example

Context Drawing

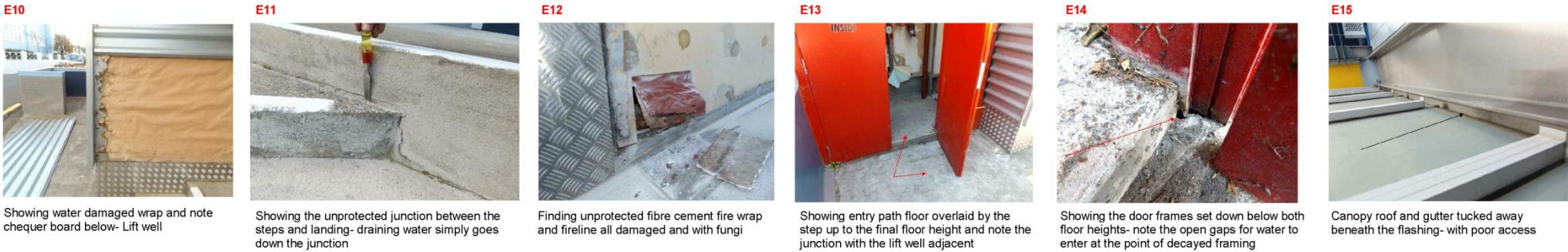
Sheet 5

Note:

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Commentary:

- Embedding photo images of the existing building can be very helpful by providing contextual information
- The red arrows on the plan in this example anchor in existing images with a summary of the issues



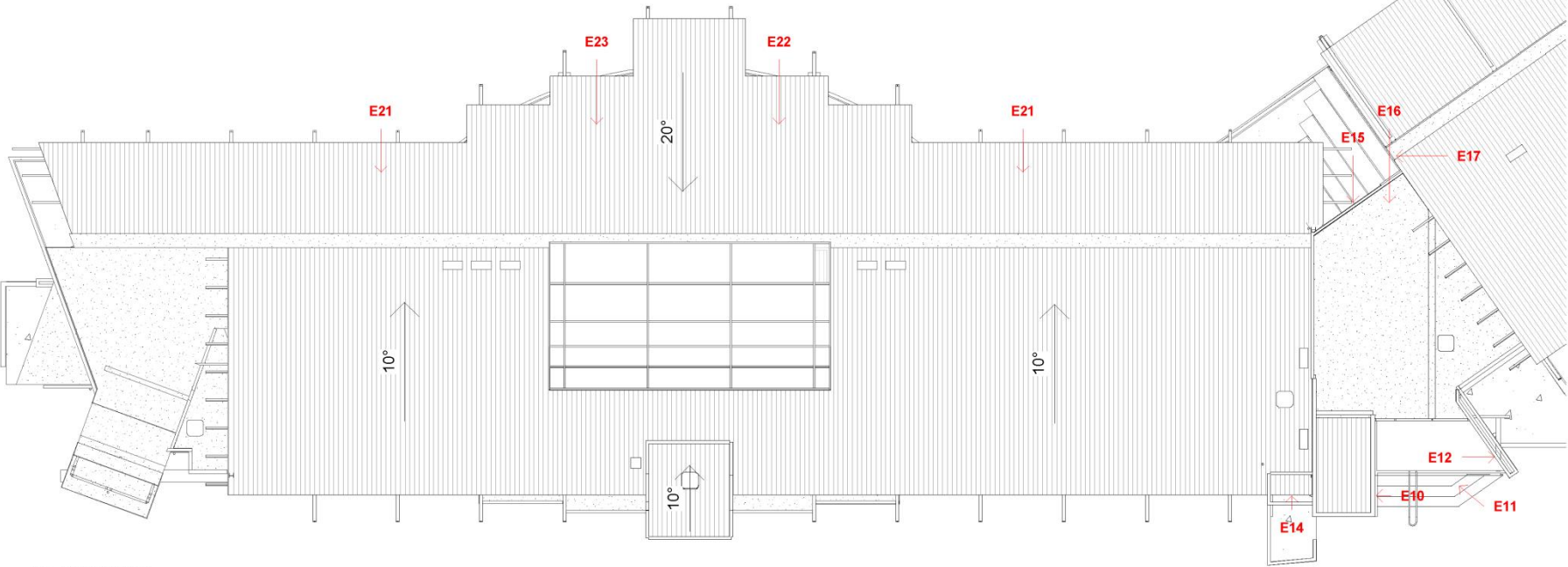
Lower level – from the western corner looking east- note transferred water



In addition to the ground level issues there are several construction deficiencies- such as this poorly mitred western joinery corner



Poorly detailed window to cladding junctions including lack of in-seal and short head flashings



Drawing Example

Demolition Plan

Sheet 6

Notes:

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Commentary:

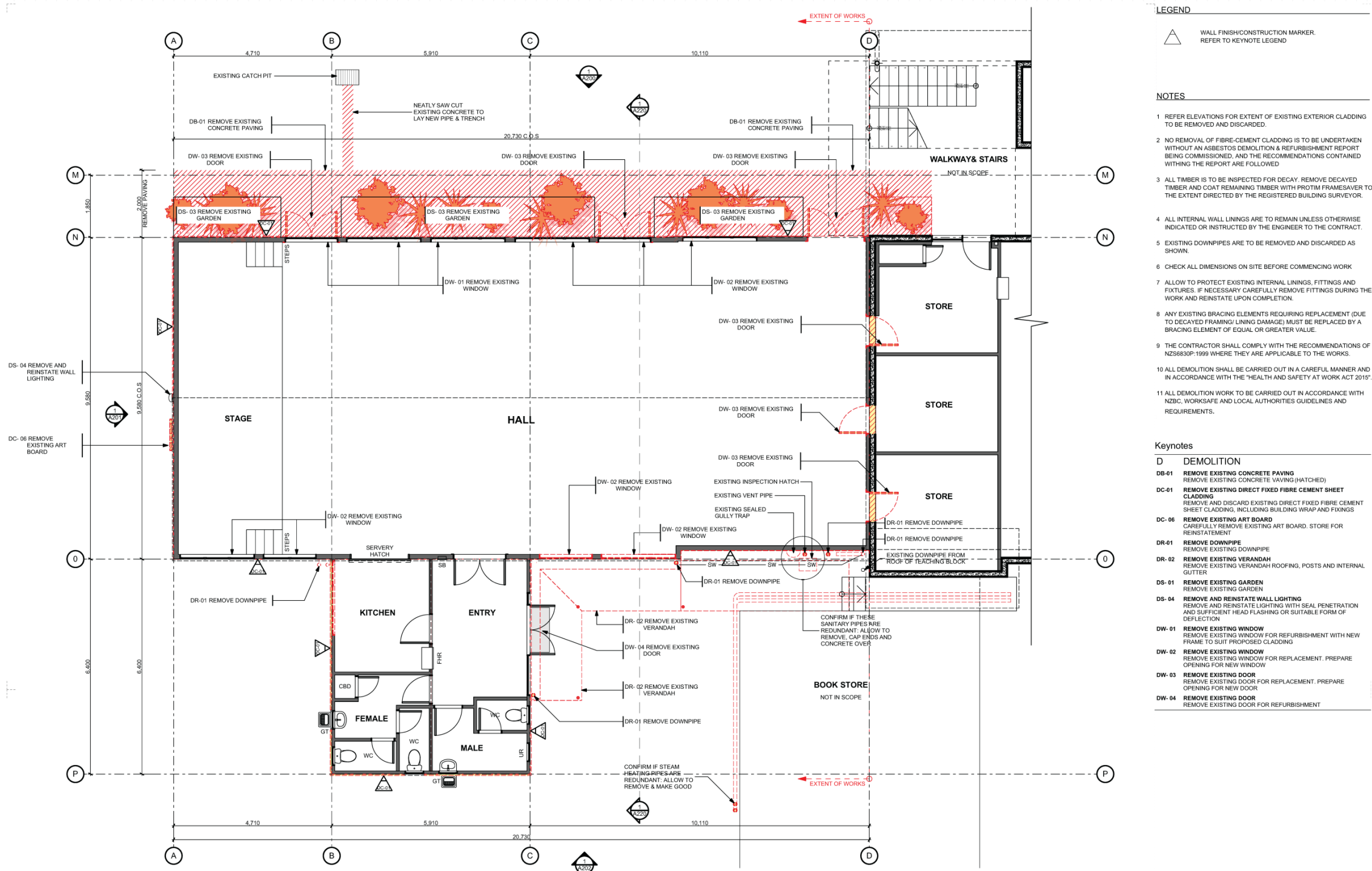
- Ensure floor plans or part-floor plans are provided at 1:50 scale for an A1 sheet or 1:100 for an A3 sheet**
- Ensure that the drawing clearly delineates between existing and proposed work
- Colour is very useful for differentiating between the existing building elements to be demolished or the new construction

- In this example, red dashed lines are used to indicate existing building elements / components to be removed, including external landscaping

- Dimensions and section references are important for relevant parts of the building where remediation works are being proposed

- Where the scope of work is very minor (e.g. replacement of one section of cladding only) it is acceptable to show the existing and proposed works on one plan – as long as any new work is clearly delineated

- **Note: Where the building is large and the scope of works is minor and/or very straightforward, 1:200 scale plans @ A3 may be acceptable if the plan cannot fit on one sheet at 1:100 scale. The Designer may use their discretion, with the caveat that the Reviewer may request plans at a larger scale if the plans at 1:200 are cramped or difficult to read



Drawing Example

Demolition Elevations

Sheet 7

Notes:

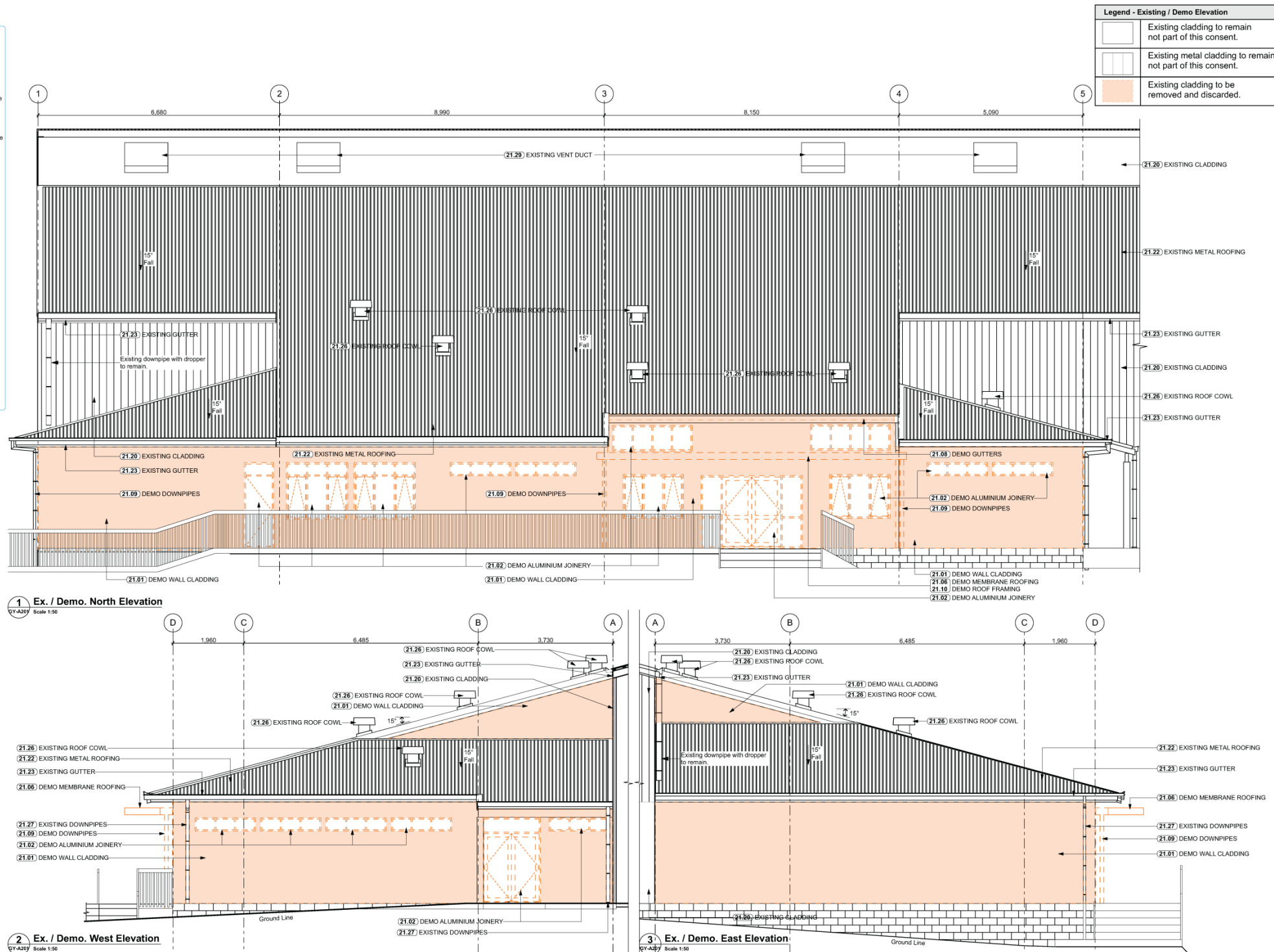
- The example images on this sheet are provided for the sole purpose of conveying the levels of presentation and standard of documentation required by the Ministry for Weathertightness Remediation projects

Commentary:

- Ensure elevations or part-elevations are provided at 1:50 scale for an A1 sheet or 1:100 for an A3 sheet
- Ensure that the drawing clearly delineates between existing and proposed layouts
- Colour is very useful for differentiating between the existing building elements to be demolished or the new construction
- In this example, the beige shaded areas represent existing cladding to be removed and red dashed lines indicate window and door joinery to be removed
- A legend table is provided in the top right-hand corner to clearly labels the proposed cladding systems
- Ensure that elevations are titled by their orientation which helps to convey the location against the plan
- Dimensions and sufficient annotation are important for relevant parts of the building where remediation works are being proposed

Key Notes

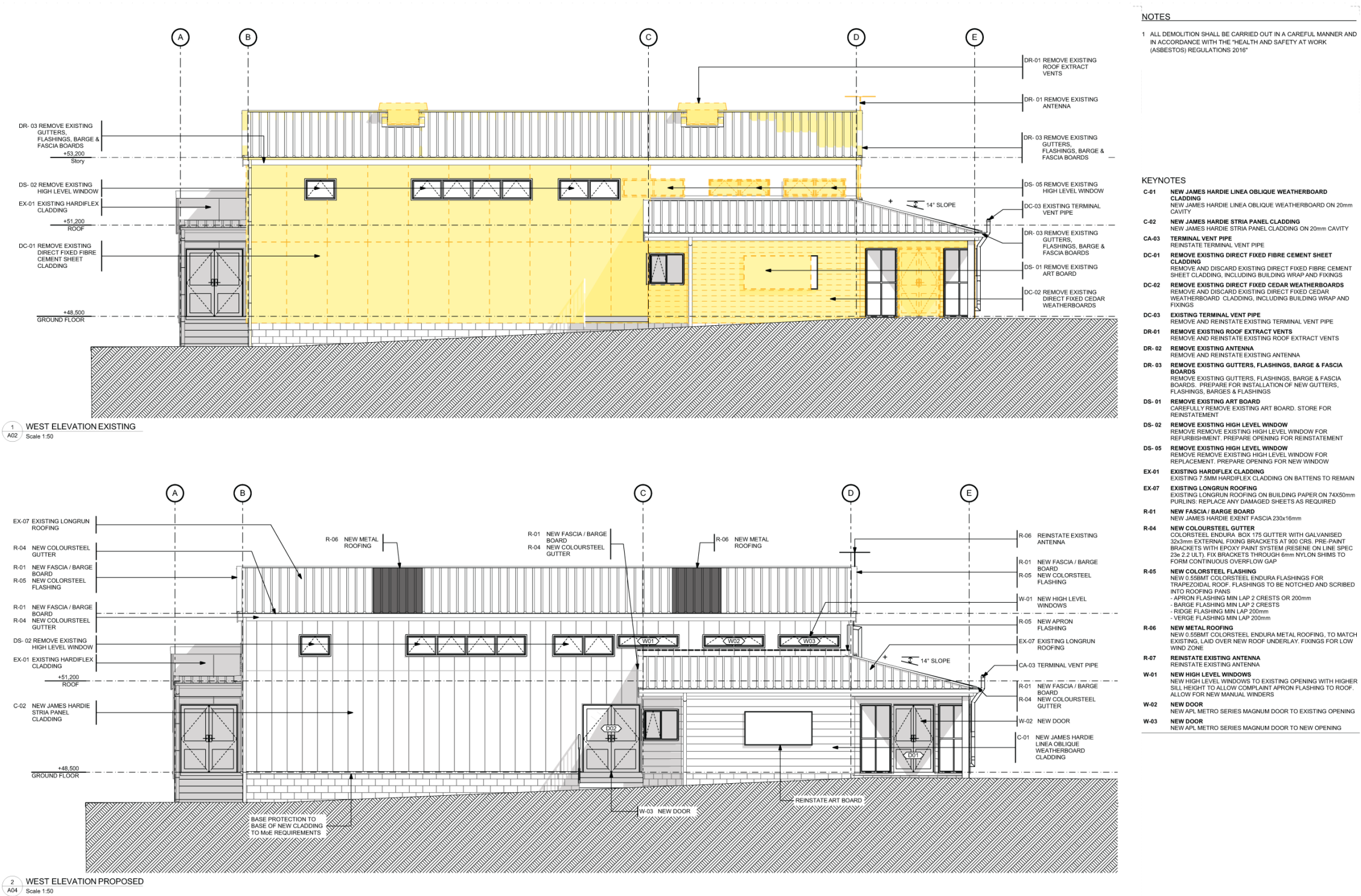
- 2 SITE**
- 2112 Partial Demolition**
- 21.01 DEMO WALL CLADDING**
Existing wall cladding and wall underlay are to be removed and discarded.
2112 Partial Demolition
- 21.02 DEMO ALUMINIUM JOINERY**
Existing external aluminium window/door joineries are to be removed and discarded, unless otherwise noted.
2112 Partial Demolition
- 21.06 DEMO MEMBRANE ROOFING**
Existing membrane roofing and plywood substrate are to be removed and discarded.
2112 Partial Demolition
- 21.08 DEMO GUTTERS**
Existing gutters are to be removed and discarded.
2112 Partial Demolition
- 21.09 DEMO DOWNPIPES**
Existing down pipes are to be removed and discarded.
2112 Partial Demolition
- 21.10 DEMO ROOF FRAMING**
Cut back existing roof joists to outline of external timber framing and discarded.
2112 Partial Demolition
- 21.20 EXISTING CLADDING**
Existing cladding, wall underlay and timber framing are to remain (not part of this consent).
2112 Partial Demolition
- 21.22 EXISTING METAL ROOFING**
Existing metal roofing to remain, not part of this consent.
2112 Partial Demolition
- 21.23 EXISTING GUTTER**
Existing gutter to remain, not part of this consent.
2112 Partial Demolition
- 21.26 EXISTING ROOF COWL**
Existing roof cowl to remain.
2112 Partial Demolition
- 21.27 EXISTING DOWNPIPES**
Existing downpipe to remain.
2112 Partial Demolition
- 21.29 EXISTING VENT DUCT**
Existing vent duct are to remain.
2112 Partial Demolition



Drawing Example

Elevations – Existing and Proposed Works

Sheet 8



Notes:

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Commentary:

- Ensure elevations or part-elevations are provided at 1:50 scale for an A1 sheet or 1:100 for an A3 sheet**
- Ensure that the drawing clearly delineates between existing and proposed layouts
- In this example, both the existing and as proposed elevations are provided on the same sheet. This is an excellent way of clearly identifying the proposed scope of works for ease of comparison
- The yellow shaded area represents existing cladding and other components to be removed
- Ensure that elevations are titled by their orientation which helps to convey the location against the plan
- Dimensions and sufficient annotation are important for relevant parts of the building where remediation works are being proposed

- **Note: Where the building is large and the scope of works is minor and/or very straightforward, 1:200 scale elevations @ A3 may be acceptable if the elevation cannot fit on one sheet at 1:100 scale. The Designer may use their discretion, with the caveat that the Reviewer may request elevations at a larger scale if the plans at 1:200 are cramped or difficult to read

Drawing Example

Elevations – Proposed Works

Sheet 9

Notes:

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Commentary:

- Ensure elevations or part-elevations are provided at 1:50 scale for an A1 sheet or 1:100 for an A3 sheet
- Ensure that the drawing clearly delineates between existing and proposed layouts
- Colour is very useful for differentiating between the existing building elements to be demolished or the new construction
- In this example, there are three different types of new cladding systems that are colour-shaded and hatched. A legend table is provided in the top right-hand corner to clearly labels the proposed cladding systems
- Ensure that elevations are titled by their orientation which helps to convey the location against the plan
- Dimensions and sufficient annotation are important for relevant parts of the building where remediation works are being proposed

Key Notes

2 SITE

2112 Partial Demolition

21.20 EXISTING CLADDING
Existing cladding, wall underlay and timber framing are to remain (not part of this consent).
2112 Partial Demolition

21.21 EXISTING JOINERY
Existing joinery to remain, not part of this consent.
2112 Partial Demolition

21.22 EXISTING METAL ROOFING
Existing metal roofing to remain, not part of this consent.
2112 Partial Demolition

21.23 EXISTING GUTTER
Existing gutter to remain, not part of this consent.
2112 Partial Demolition

21.24 LOWER EXISTING GROUND
Hatched Area. Existing ground level to be lowered to allow 225mm min clearance to finish floor level.
2112 Partial Demolition

3 STRUCTURE

3102 Concrete Work - Standard

31.01 NEW CONCRETE NIB
New concrete nib, refer to Structural Engineer drawings for more details.
Note: All new concrete nib location to be confirm on site to allow 150mm minimum clearance to paved area and 225mm to upaved area.
3102 Concrete Work - Standard

4 ENCLOSURE

4231HF James Hardie® Facade Panel Cladding

42.07 NEW EXOTEC CLADDING
James Hardie ExoTec Facade Panel, 9mm thick over 20mm drained cavity system.
4231HF James Hardie® Facade Panel Cladding

4241DANu-Wall Profiled Metal Cladding

42.20 NEW NU-WALL HORIZONTAL CLADDING
New Mono 200 profile NuWall aluminium horizontal cladding over 20mm drained cavity, installed as per manufacturer installation manual and specifications.

42.21 NEW NU-WALL VERTICAL CLADDING
New E 100 profile NuWall aluminium vertical cladding over 20mm drained cavity, installed as per manufacturer installation manual and specifications.

44.01 NEW TPO MEMBRANE
New 1.5mm single ply grey membrane roofing "Ardex WPM 615" to be installed as per manufacturer specification over new 19mm thick H3.2 CCA treated Plywood to form 1.5° fall min.
4422AT Ardex TPO Membrane Roofing

4521OCAltus Commercial Aluminium Windows & Doors
4521OC Altus Commercial Aluminium Windows & Doors

45.01 NEW ALUMINIUM DOOR
New Duratec powder-coated aluminium single glazed 40mm "Altus Commercial Door Suite units".
- All units installed complete with flashings & drafts seals all round as per Window Association NZ standard details.
- All fixings to timber framing (through timber reveal with 75mm galv. Jolt head nail bolt @450 c/s.)
- All fixings to concrete (12g screw on ramplug @450 c/s. @ min. 45mm embedment).
4521OC Altus Commercial Aluminium Windows & Doors

4521PAAltus Pacific Architectural Suite
4521PA Altus Pacific Architectural Suite

45.02 NEW ALUMINIUM WINDOW
New Duratec powder-coated aluminium single glazed 40mm "Altus Pacific Architectural Suite units".
- All joinery units shall be provided with new WIANZ support bars as per figure 65 - E2A51.
- All units installed complete with flashings & drafts seals all round as per Window Association NZ standard details.
- All opening windows with 2m fall to ground level are fitted with a pair of factory-installed stainless steel sash restrictor maximum 100mm opening, to ensure compliance with NZBC acceptable solution F4A51/2.
- All fixings to timber framing (through timber reveal with 75mm galv. Jolt head nail bolt @450 c/s.)
- All fixings to concrete (12g screw on ramplug @450 c/s. @ min. 45mm embedment).
4521PA Altus Pacific Architectural Suite

74.02 NEW DOWN PIPE
New Colortel Maxx 1000 down pipe with new two part round aluminium downpipe bracket (colour to match cladding), allow for new connection to existing storm water pipe.
7411S Steel & Tube Rainwater Spouting Systems

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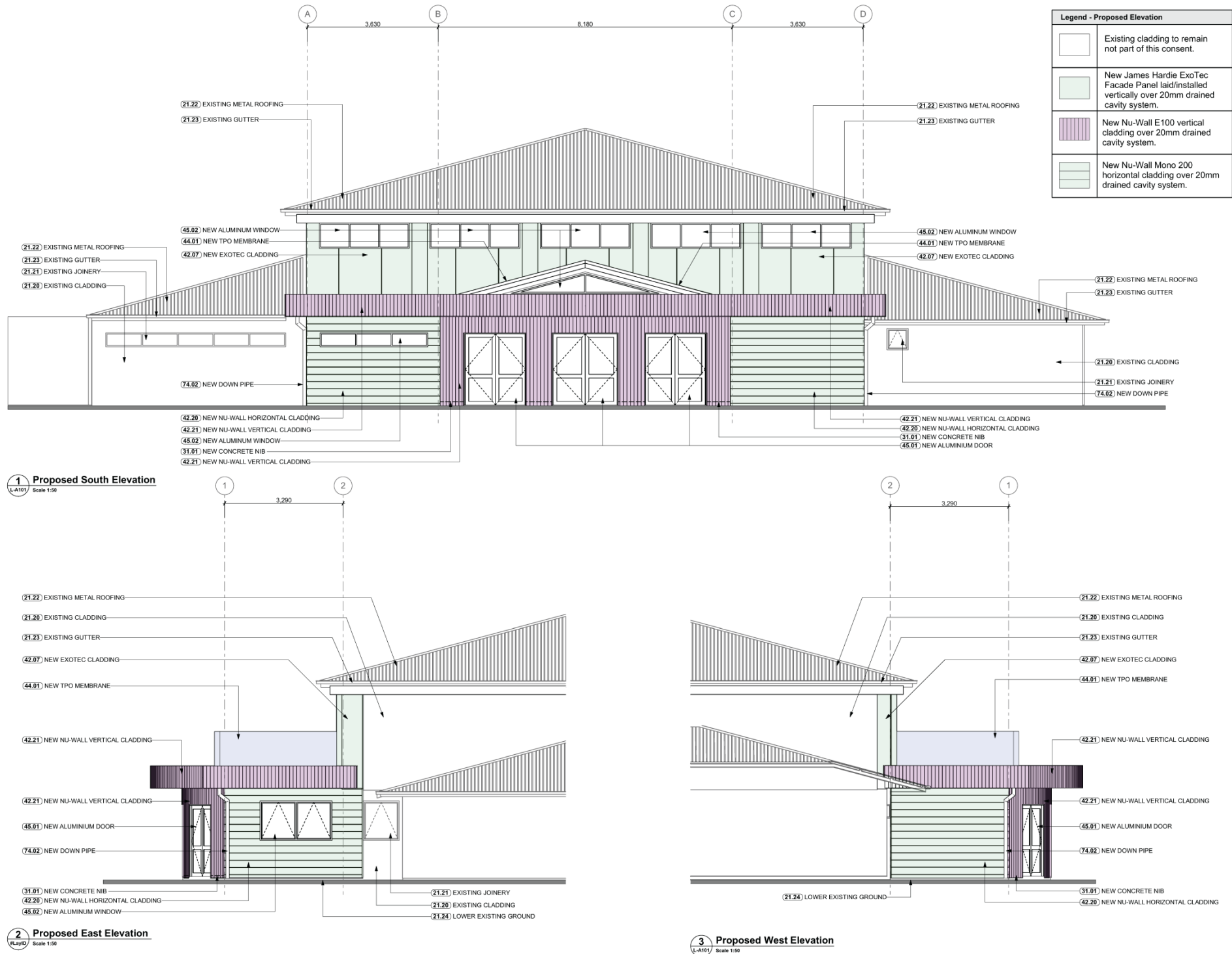
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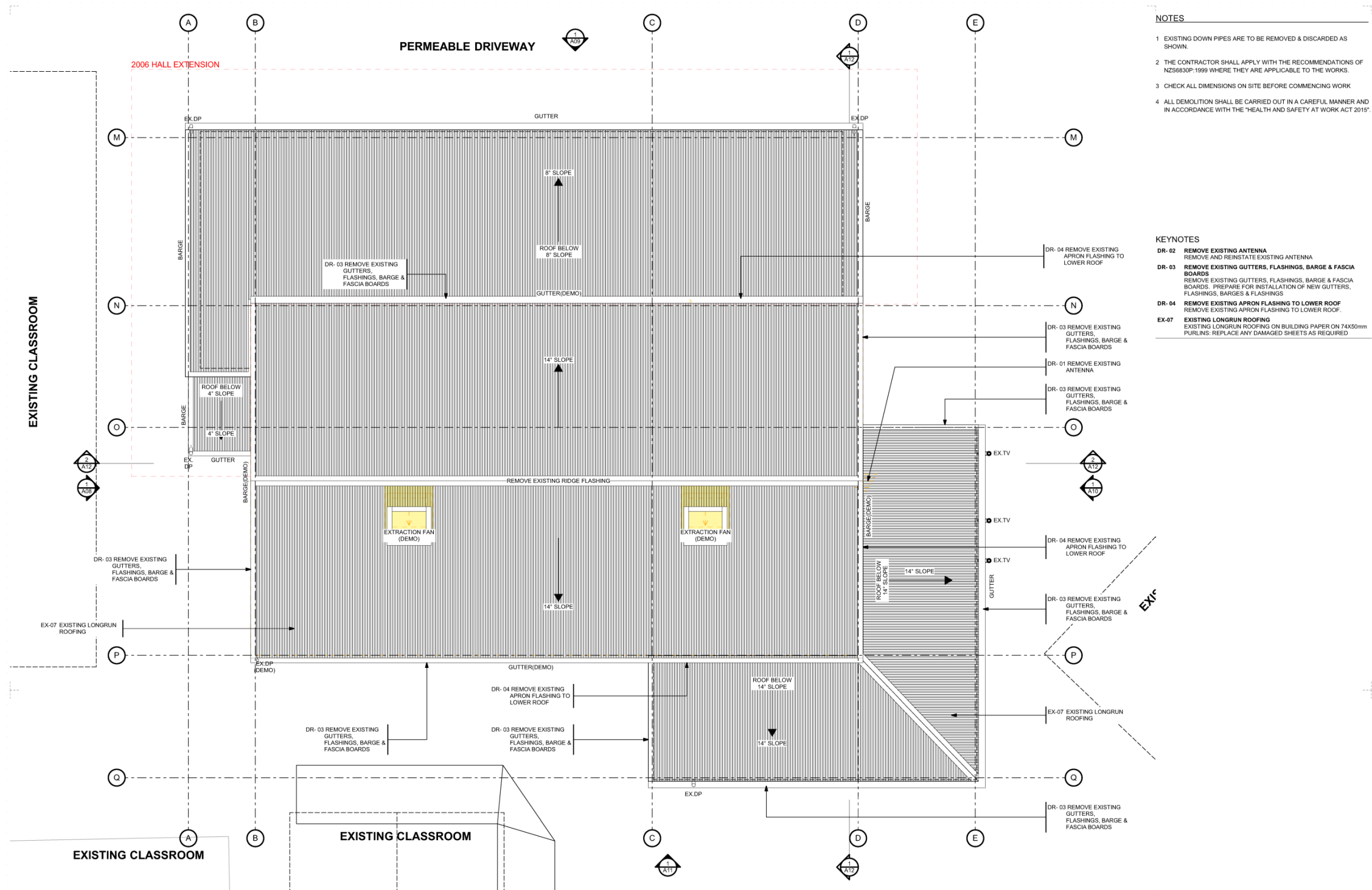
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7411S Steel & Tube Rainwater Spouting Systems



Drawing Example

Roof plan

Sheet 11



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Commentary:

- Ensure roof plans or part-roof plans are provided at 1:50 scale for an A1 sheet or 1:100 for an A3 sheet
- Ensure that the drawing clearly delineates between existing and proposed layouts
- In this example, the existing guttering and flashings to be removed are notated through the use of annotations and location arrows
- The slope and direction of roof falls is indicated for each existing roof plane

