

Proposal || Issue: 4



## Siniat Proposal

### NCC Class 3 - HighRise Hotel

NSW 2036

#### Partition and Ceiling Information

Issued By	Date	Comments
Siniat Technical Services	October 4, 2021	Siniat standard wall and ceiling systems recommended for Class 3 high-rise hotel building made of reinforced concrete structure to meet the deemed-to-satisfy provisions of the NCC.
Reviewed By		
Approved By		

- This document is a proposal only and is subject to the project/builder's approval.
- It is the responsibility of project certifier to determine if the specified products and performance properties including FRL, RISF, Rw, Rw + Ctr, Lnw and Total R-Value, etc. ratings are suitable for the intended applications.
- For dimensions and performance properties of systems in this proposal that use products not manufactured or supplied by Etex Australia and branded Siniat, refer to the relevant product manufacturer.
- In wet areas, replace Mastashield with Watershield, Soundshield with Trurock, and Fireshield with Trurock or Multishield of same thickness, and replace 10mm Opal or 10mm Soundshield with 13mm Watershield.
- For enhanced impact resistance, replace any plasterboard with Trurock of same thickness.
- For framing design of internal steel walls and ceilings, refer to the framing tables in the Blueprint. For framing design of external steel walls and ceilings, please contact Siniat Engineering Services.

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## Warranty

Siniat products are guaranteed by a 10 Year Warranty.

Visit <https://siniat.com.au> for details.

## Disclaimer

Products manufactured and systems designed by Etex Australia Pty Ltd and branded Siniat, are produced in accordance with the Building Code of Australia and relevant Australian Standards. Information in this document is to be used as a guide only and is subject to project approval as many aspects of construction are not comprehensively covered. It is also the responsibility of the project to determine if our products and systems are suitable for the intended application and they meet the relevant building code and project requirements. Etex Australia Pty Ltd will not be held responsible for any claims resulting from the installation of its products or other associated products not in accordance with the recommendations of the manufacturer's technical literature or relevant Australian Standards, or for situations not covered by our certification reports

Siniat technical information is regularly updated. To ensure this document is current with the latest information, visit [siniat.com.au](https://siniat.com.au) or contact Siniat Customer Service Centre on 1300 724 505

## General Notes

Siniat has attempted to match the system properties provided in this document to that published in the latest technical literature. Should there be any discrepancies, please inform Siniat Technical Services.

The total weight of a system provided in this document is an estimate based on available product data, and does not include the weight of the structural members such as columns and beams, floor/roof joists, etc. and finishes such as tiling, roofing, etc.

The Insulation Pathway Total R-Value of a system provided in this document is an estimate based on sum of the thermal resistances (R-Values) of the individual component layers in a composite element including any building material, insulating material, airspace and associated surface resistances. It is calculated along the insulation pathway only without taking into account the thermal bridging effects of framing components and is only valid for summer heat flow (mean temperature of 23°C). Only the NCC Compliant Total R-Value, if provided, complies to the Section J of Building Code of Australia, NCC 2019 Volume One.

# Section 1

## System List



System Reference	System Properties
It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.	
<b>External Wall NCC-C3-NLB-F1R1</b> (Less than 1.5 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/90/90</b> ; Load Bearing FRL : <b>60/60/60</b> ; Airborne Rw : <b>48</b> ; Airborne Rw + Ctr : <b>41</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.53</b>
<b>External Wall NCC-C3-NLB-F1R2</b> (Less than 1.5 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R2.8 requirement.)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/90/90</b> ; Load Bearing FRL : <b>60/60/60</b> ; Airborne Rw : <b>49</b> ; Airborne Rw + Ctr : <b>44</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>4.53</b>
<b>External Wall NCC-C3-NLB-F1R3</b> (Less than 1.5 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.3 requirement.)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/90/90</b> ; FRL2 : <b>60/60/60</b> ; Airborne Rw : <b>61</b> ; Airborne Rw + Ctr : <b>51</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>5.530</b>
<b>External Wall NCC-C3-NLB-F2R1</b> (1.5 m to less than 3 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.)	Fire Protection : <b>Rated from both sides</b> ; FRL from both sides : <b>-/60/60</b> ; Airborne Rw : <b>46</b> ; Airborne Rw + Ctr : <b>39</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.49</b>
<b>External Wall NCC-C3-NLB-F2R2</b> (1.5 m to less than 3 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R2.8 requirement.)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/60/60</b> ; Load Bearing FRL : <b>30/30/30</b> ; Airborne Rw : <b>48</b> ; Airborne Rw + Ctr : <b>42</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>4.49</b>
<b>External Wall NCC-C3-NLB-F2R3</b> (1.5 m to less than 3 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.3 requirement.)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/60/60</b> ; FRL2 : <b>30/30/30</b> ; Airborne Rw : <b>59</b> ; Airborne Rw + Ctr : <b>49</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>5.490</b>
<b>External Wall NCC-C3-NLB-F3R2</b> (Non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R2.8 requirement.)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/120/120</b> ; FRL2 : <b>90/90/90</b> ; Airborne Rw : <b>69</b> ; Airborne Rw + Ctr : <b>57</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>4.640</b>
<b>External Wall NCC-C3-NLB-F3R3</b> (Non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.3 requirement.)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/120/120</b> ; FRL2 : <b>90/90/90</b> ; Airborne Rw : <b>69</b> ; Airborne Rw + Ctr : <b>57</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>6.040</b>
<b>External Wall NCC-C3-NLB-F3R4</b> (Non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.8 requirement.)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/120/120</b> ; FRL2 : <b>90/90/90</b> ; Airborne Rw : <b>72</b> ; Airborne Rw + Ctr : <b>61</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>6.840</b>
<b>External Wall NCC-C3-LB-F1</b> (External loadbearing concrete shear wall)	Fire Protection : <b>Rated from both sides</b> ; FRL : <b>Masonry FRL</b> ; Airborne Rw : <b>64</b> ; Airborne Rw + Ctr : <b>53</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.52</b>
<b>Spandrel Wall NCC-C3-NLB-F1</b> (Lightweight non-loadbearing fire-rated spandrel wall)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/60/60</b> ; Load Bearing FRL : <b>30/30/30</b> ; Airborne Rw : <b>41</b> ; Airborne Rw + Ctr : <b>32</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.310</b>
<b>Spandrel Wall NCC-C3-LB-F1</b> (Lightweight loadbearing fire-rated spandrel wall)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/90/90</b> ; Load Bearing FRL : <b>60/60/60</b> ; Airborne Rw : <b>43</b> ; Airborne Rw + Ctr : <b>34</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.35</b>



System Reference	System Properties
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<p><b>External Wall NCC-C3-NLB-A1R1</b> (Lightweight non-loadbearing external wall - Rw 41, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.)</p>	<p>Airborne Rw : <b>44</b>; Airborne Rw + Ctr : <b>35</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.4</b></p>
<p><b>External Wall NCC-C3-NLB-A2R1</b> (Lightweight non-loadbearing external wall - Rw 47, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.)</p>	<p>Airborne Rw : <b>49</b>; Airborne Rw + Ctr : <b>42</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.49</b></p>
<p><b>External Wall NCC-C3-NLB-A3R1-1</b> (Lightweight non-loadbearing external wall - Rw 52, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.)</p>	<p>Airborne Rw : <b>55</b>; Airborne Rw + Ctr : <b>45</b>; Impact Sound Resistant : <b>Yes</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.41</b></p>
<p><b>External Wall NCC-C3-NLB-A3R1-2</b> (Lightweight non-loadbearing external wall - Rw 52, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.)</p>	<p>Airborne Rw : <b>52</b>; Airborne Rw + Ctr : <b>45</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.62</b></p>
<p><b>Corridor Wall NCC-C3-NLB-S1-1</b> (Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.39 kPa)</p>	<p>Fire Protection : <b>Rated from both sides</b>; FRL1 : <b>-/60/60</b>; FRL2 : <b>30/30/30</b>; Airborne Rw : <b>50</b>; Airborne Rw + Ctr : <b>41</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.110</b></p>
<p><b>Corridor Wall NCC-C3-NLB-S1-2</b> (Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.39 kPa)</p>	<p>Fire Protection : <b>Rated from both sides</b>; FRL1 : <b>-/90/90</b>; FRL2 : <b>60/60/60</b>; Airborne Rw : <b>51</b>; Airborne Rw + Ctr : <b>43</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.150</b></p>
<p><b>Corridor Wall NCC-C3-NLB-S1-3</b> (Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on one side with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.39kPa.)</p>	<p>Fire Protection : <b>Rated from both sides</b>; FRL1 : <b>-/60/60</b>; FRL2 : <b>30/30/30</b>; Airborne Rw : <b>51</b>; Airborne Rw + Ctr : <b>37</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.790</b></p>
<p><b>Corridor Wall NCC-C3-NLB-S2-1</b> (Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.54 kPa)</p>	<p>Fire Protection : <b>Rated from both sides</b>; FRL1 : <b>-/90/90</b>; FRL2 : <b>60/60/60</b>; Airborne Rw : <b>51</b>; Airborne Rw + Ctr : <b>43</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.150</b></p>
<p><b>Corridor Wall NCC-C3-NLB-S2-2</b> (Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.54 kPa)</p>	<p>Fire Protection : <b>Rated from both sides</b>; FRL1 : <b>-/90/90</b>; FRL2 : <b>30/30/30</b>; Airborne Rw : <b>50</b>; Airborne Rw + Ctr : <b>43</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.190</b></p>
<p><b>Corridor Wall NCC-C3-NLB-S2-3</b> (Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on one side with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.54kPa)</p>	<p>Fire Protection : <b>Rated from both sides</b>; FRL1 : <b>-/60/60</b>; FRL2 : <b>30/30/30</b>; Airborne Rw : <b>52</b>; Airborne Rw + Ctr : <b>38</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>2.790</b></p>

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<b>Corridor Wall NCC-C3-NLB-S3-1</b> (Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 1.0 kPa)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/60/60</b> ; FRL2 : <b>30/30/30</b> ; Airborne Rw : <b>51</b> ; Airborne Rw + Ctr : <b>43</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.270</b>
<b>Corridor Wall NCC-C3-NLB-S3-2</b> (Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on one side with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.95 kPa)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/60/60</b> ; FRL2 : <b>30/30/30</b> ; Airborne Rw : <b>52</b> ; Airborne Rw + Ctr : <b>38</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.790</b>
<b>Corridor Wall NCC-C3-NLB-S3-3</b> (Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on both sides with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.95 kPa)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/60/60</b> ; Airborne Rw : <b>55</b> ; Airborne Rw + Ctr : <b>38</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.860</b>
<b>Corridor Wall NCC-C3-LB-M-1</b> (Masonry loadbearing wall separating SOU from public corridor, NCC Deemed-to-Satisfy construction)	Fire Protection : <b>Rated from both sides</b> ; FRL from Both Sides : <b>Masonry FRL</b> ; Airborne Rw : <b>57</b> ; Airborne Rw + Ctr : <b>47</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.28</b>
<b>Separating Wall NCC-C3-NLB-BW</b> (Lightweight non-load bearing wall separating adjoining SOUs, encasing concrete blade wall.)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/90/90</b> ; Load Bearing FRL : <b>60/60/60</b> ; Airborne Rw : <b>61</b> ; Airborne Rw + Ctr : <b>51</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>3.95</b>
<b>Separating Wall NCC-C3-LB-BW</b> (Loadbearing concrete blade wall inside separating wall)	Airborne Rw : <b>60</b> ; Airborne Rw + Ctr : <b>52</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.890</b>
<b>Separating Wall NCC-C3-NLB-1</b> (Lightweight non-load bearing wall separating adjoining SOUs)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/90/90</b> ; Load Bearing FRL : <b>60/60/60</b> ; Airborne Rw : <b>60</b> ; Airborne Rw + Ctr : <b>50</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>4.13</b>
<b>Separating Wall NCC-C3-NLB-2</b> (Lightweight non-load bearing wall separating adjoining SOUs and encasing non-fire protected loadbearing component)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/120/120</b> ; Load Bearing FRL : <b>90/90/90</b> ; Airborne Rw : <b>64</b> ; Airborne Rw + Ctr : <b>55</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>4.07</b>
<b>Separating Wall NCC-C3-NLB-3</b> (Lightweight non-load bearing wall separating adjoining SOUs, non-fire rated penetrations permitted on wall linings)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/60/60</b> ; Airborne Rw : <b>66</b> ; Airborne Rw + Ctr : <b>53</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>4.06</b>
<b>Separating Wall NCC-C3-LB-T</b> (Timber studs loadbearing wall separating adjoining SOUs in the top floor)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/120/120</b> ; Load Bearing FRL : <b>90/90/90</b> ; Airborne Rw : <b>64</b> ; Airborne Rw + Ctr : <b>56</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.47</b>
<b>Separating Wall NCC-C3-LB-M</b> (Masonry loadbearing wall separating adjoining SOUs, similar type of rooms on each side)	Fire Protection : <b>Rated from both sides</b> ; FRL from Both Sides : <b>Masonry FRL</b> ; Airborne Rw : <b>61</b> ; Airborne Rw + Ctr : <b>50</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.82</b>
<b>Lift Shaft Wall NCC-C3-LB-1</b> (Masonry loadbearing wall separating SOU from a lift shaft)	Fire Protection : <b>Rated from both sides</b> ; FRL from Both Sides : <b>Masonry FRL</b> ; Airborne Rw : <b>59</b> ; Airborne Rw + Ctr : <b>52</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.57</b>
<b>Stair Shaft Wall NCC-C3-LB-1</b> (Masonry loadbearing wall separating SOU from a stair shaft, cavity on SOU side only)	Fire Protection : <b>Rated from both sides</b> ; FRL from Both Sides : <b>Masonry FRL</b> ; Airborne Rw : <b>50</b> ; Airborne Rw + Ctr : <b>44</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>0.42</b>

System Reference	System Properties
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<b>Stair Shaft Wall NCC-C3-LB-2</b> (Masonry loadbearing wall separating SOU from a stair shaft, cavities on both sides)	Fire Protection : <b>Rated from both sides</b> ; FRL from Both Sides : <b>Masonry FRL</b> ; Airborne Rw : <b>57</b> ; Airborne Rw + Ctr : <b>47</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.12</b>
<b>Cupboard Shaft Wall NCC-C3-NLB-1</b> (Lightweight non-load bearing wall enclosing cupboard or like space below non fire-isolated stairway and ramp)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/60/60</b> ; Airborne Rw : <b>39</b> ; Airborne Rw + Ctr : <b>32</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>0.4</b>
<b>Riser Shaft Wall NCC-C3-NLB-A1-1</b> (Lightweight non-load bearing wall separating SOU from services riser shaft in a habitable room other than kitchen)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/120/120</b> ; Airborne Rw : <b>50</b> ; Airborne Rw + Ctr : <b>42</b> ; Impact Sound Resistant : <b>No</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.57</b>
<b>Riser Shaft Wall NCC-C3-NLB-A1-2</b> (Lightweight non-load bearing wall separating SOU from services riser shaft in a habitable room other than kitchen, non-fire rated penetrations allowed on room side)	Fire Protection : <b>Rated from both sides</b> ; FRL1 : <b>-/90/90</b> ; Airborne Rw : <b>53</b> ; Airborne Rw + Ctr : <b>41</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.670</b>
<b>Riser Shaft Wall NCC-C3-NLB-A2-1</b> (Lightweight non-load bearing wall separating SOU from services riser shaft in a kitchen or non-habitable room)	Fire Protection : <b>Rated from both sides</b> ; FRL : <b>-/90/90</b> ; Airborne Rw : <b>37</b> ; Airborne Rw + Ctr : <b>34</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>0.39</b>
<b>Plant Room Wall NCC-C3-NLB-1</b> (Lightweight non-load bearing wall separating SOU from plant room)	Fire Protection : <b>Rated from both sides</b> ; Non-Load Bearing FRL : <b>-/120/120</b> ; Load Bearing FRL : <b>60/60/60</b> ; Airborne Rw : <b>59</b> ; Airborne Rw + Ctr : <b>48</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>1.64</b>
<b>Plant Room Wall NCC-C3-LB-1</b> (Masonry loadbearing wall separating SOU from plant room)	Fire Protection : <b>Rated from both sides</b> ; FRL from Both Sides : <b>Masonry FRL</b> ; Airborne Rw : <b>52</b> ; Airborne Rw + Ctr : <b>46</b> ; Impact Sound Resistant : <b>Yes - Discontinuous Construction</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>0.5</b>
<b>Waste Pipe Wall NCC-C3-NLB-A1</b> (Lightweight non-load bearing wall separating SOU from soil and waste pipes without acoustic lagging in a habitable room other than kitchen)	Airborne Rw : <b>48</b> ; Airborne Rw + Ctr : <b>40</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>2.79</b>
<b>Waste Pipe Wall NCC-C3-NLB-A2</b> (Lightweight non-load bearing wall or ceiling separating SOU from soil and waste pipes without acoustic lagging in a kitchen or non-habitable room)	Airborne Rw : <b>29</b> ; Airborne Rw + Ctr : <b>26</b> ; Insulation Pathway Total R-Value (m2.K/W) : <b>0.24</b>
<b>Waste Pipe Ceiling NCC-C3-A1-1</b> (Ceiling separating SOU from soil and waste pipes without acoustic lagging in a habitable room other than kitchen)	Rw : <b>54</b> ; Rw + Ctr : <b>41</b>
<b>Waste Pipe Ceiling NCC-C3-A1-2</b> (Lightweight non-load bearing wall or ceiling separating SOU from soil and waste pipes with acoustic lagging in a habitable room other than kitchen)	Airborne Rw : <b>48</b> ; Airborne Rw + Ctr : <b>40</b>
<b>Separating Floor NCC-C3-LB-1</b> (Floors separating adjoining SOUs)	Airborne Rw : <b>62</b> ; Airborne Rw + Ctr : <b>52</b> ; Impact Ln,w : <b>62</b>
<b>Separating Floor NCC-C3-LB-2</b> (Floors separating adjoining SOUs)	Airborne Rw : <b>63</b> ; Airborne Rw + Ctr : <b>52</b> ; Impact Ln,w : <b>61</b>
<b>Ceiling Under Roof NCC-C3-LB-1</b> (Ceilings under roofs, separating wall only extends to the ceiling level)	Fire Protection : <b>Rated from below only</b> ; RISF : <b>60</b> ; Airborne Rw : <b>59</b> ; Airborne Rw + Ctr : <b>50</b>

System Reference	System Properties
<p>It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.</p>	
<p><b>Fire Escape Wall NCC-C3-LB-1</b> (Loadbearing wall of fire-isolated passageway)</p>	<p>Fire Protection : <b>Rated from outside only</b>; FRL From Outside Only : <b>90/90/90</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>0.63</b></p>
<p><b>Fire Escape Roof NCC-C3-LB-1</b> (Roof of a fire-isolated passageway, fire-resisting lift or stair shaft)</p>	<p>Fire Protection : <b>Rated from outside only</b>; FRL : <b>90/90/90</b></p>
<p><b>Partition Wall NCC-C3-NLB-1</b> (Typical internal partition wall)</p>	<p>Airborne Rw : <b>42</b>; Airborne Rw + Ctr : <b>33</b>; Impact Sound Resistant : <b>No</b>; Insulation Pathway Total R-Value (m2.K/W) : <b>1.51</b></p>



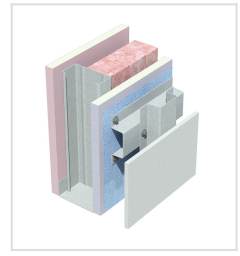
## Section 2

### System Details

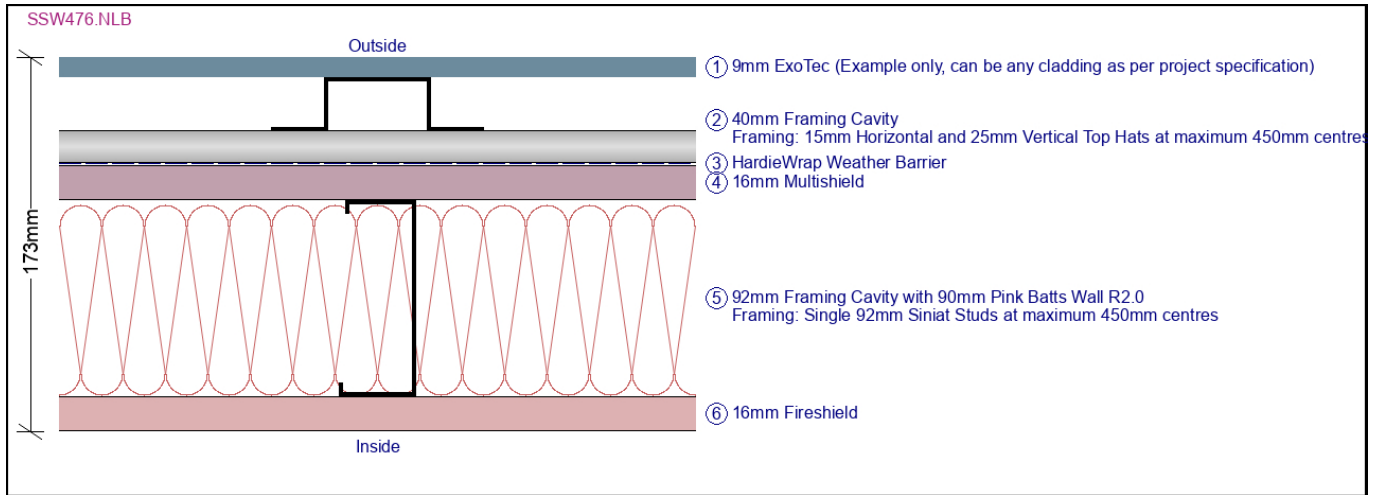




<b>System No.</b>	1
<b>System Reference</b>	External Wall NCC-C3-NLB-F1R1
<b>System Code</b>	<b>SSW476.NLB</b>
<b>Comments</b>	Less than 1.5 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/90/90</b> Load Bearing FRL: <b>60/60/60</b> Airborne Rw: <b>48</b> Airborne Rw + Ctr: <b>41</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>173</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.53</b> Estimated Total Weight (kg/m2): <b>46.85</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> External Lining: <b>16mm Multishield</b> Wall Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>16mm Fireshield</b>

**System Notes**

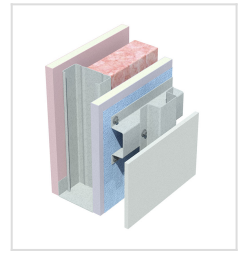
1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

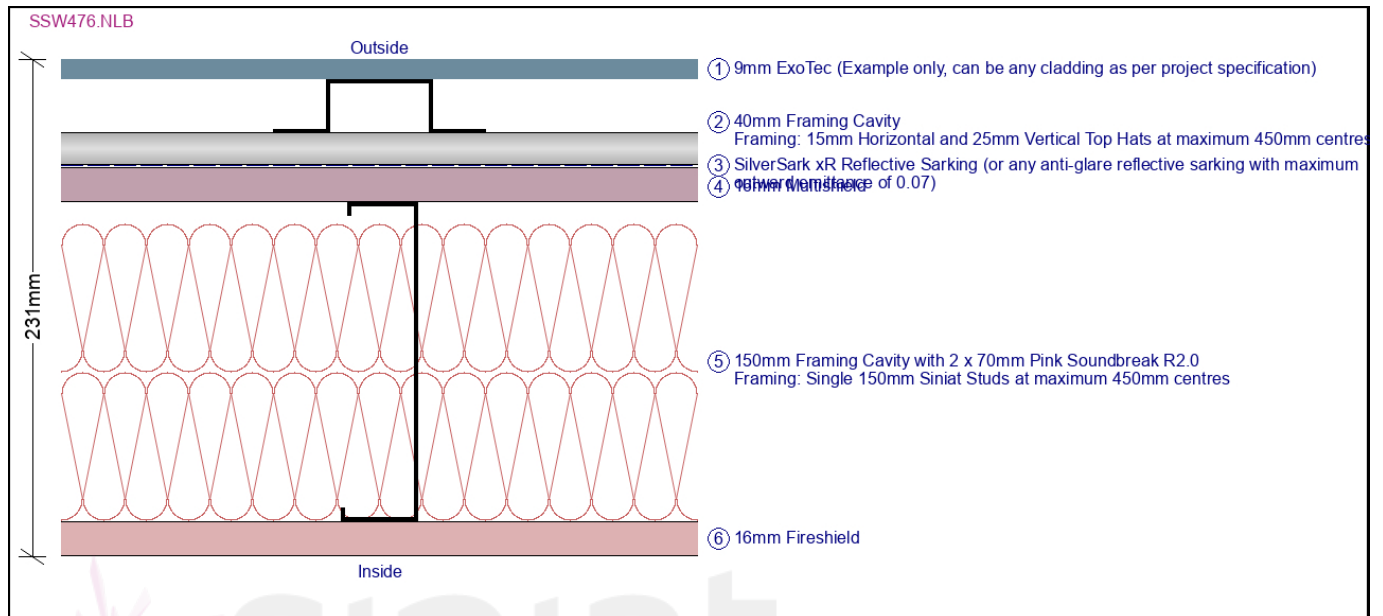
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	2
<b>System Reference</b>	External Wall NCC-C3-NLB-F1R2
<b>System Code</b>	<b>SSW476.NLB</b>
<b>Comments</b>	Less than 1.5 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R2.8 requirement.



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/90/90</b> Load Bearing FRL: <b>60/60/60</b> Airborne Rw: <b>49</b> Airborne Rw + Ctr: <b>44</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>231</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>4.53</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>50.98</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>SilverSark xR Reflective Sarking</b> (or any anti-glare reflective sarking with maximum outward emittance of 0.07) External Lining: <b>16mm Multishield</b> Wall Cavity: <b>150mm Framing Cavity</b> Framing : <b>Single 150mm Siniat Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>2 x 70mm Pink Soundbreak R2.0</b> Internal Lining: <b>16mm Fireshield</b>

### System Notes

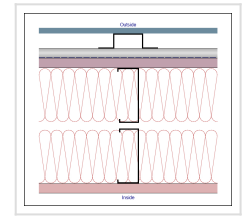
1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

**Framing Details**

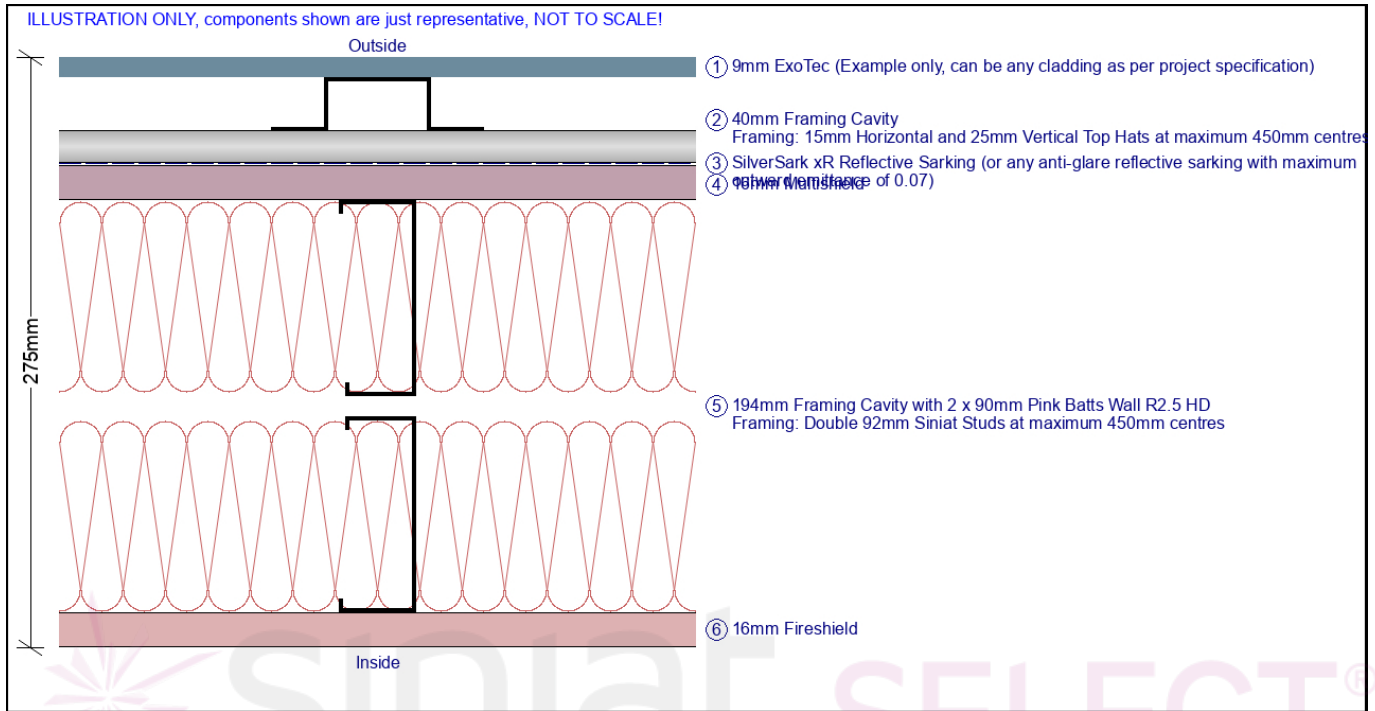
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	3
<b>System Reference</b>	External Wall NCC-C3-NLB-F1R3
<b>Comments</b>	Less than 1.5 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.3 requirement.



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/90/90</b> FRL2: <b>60/60/60</b> Airborne $R_w$ : <b>61</b> Airborne $R_w + C_{tr}$ : <b>51</b> Total Thickness (mm): <b>275.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>5.530</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>52.22</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>Horizontal and Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>SilverSark xR Reflective Sarking</b> (or any anti-glare reflective sarking with maximum outward emittance of 0.07) External Lining: <b>16mm Multishield</b> Wall Cavity: <b>194mm Framing Cavity</b> Framing : <b>Double Steel Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>2 x 90mm Pink Batts Wall R2.5 HD</b> Internal Lining: <b>16mm Fireshield</b>

**System Notes**

1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

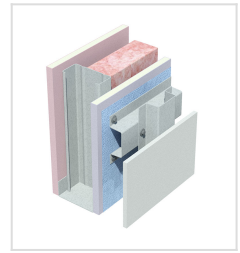


**Framing Details**

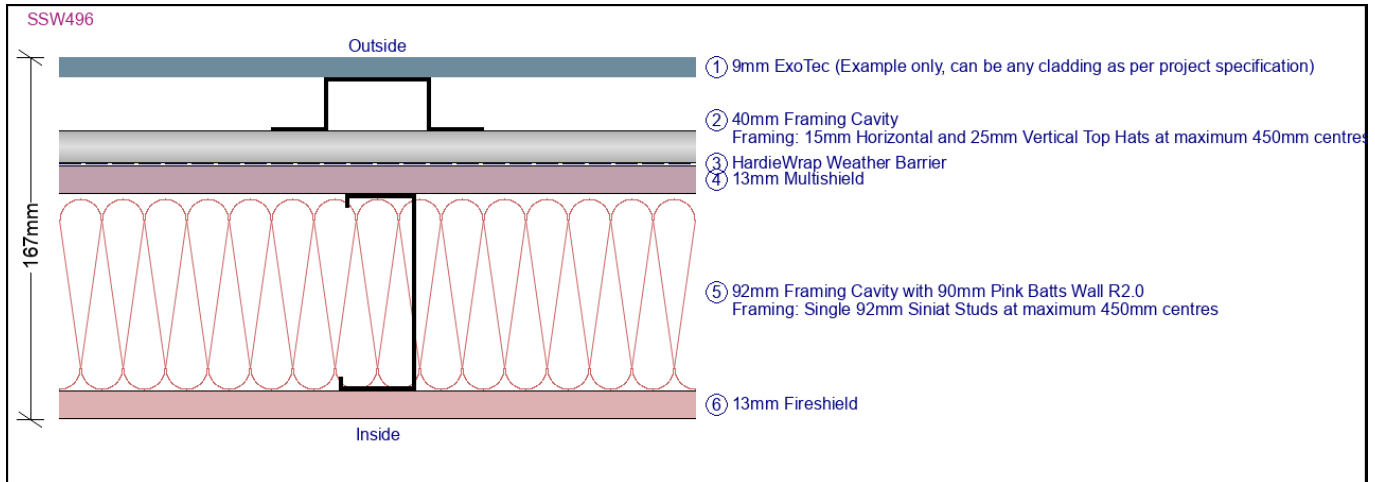
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	4
<b>System Reference</b>	External Wall NCC-C3-NLB-F2R1
<b>System Code</b>	<b>SSW496</b>
<b>Comments</b>	1.5 m to less than 3 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL from both sides: <b>-/60/60</b> Airborne $R_w$ : <b>46</b> Airborne $R_w + C_{tr}$ : <b>39</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>167</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.49</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>42.05</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> External Lining: <b>13mm Multishield</b> Wall Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>13mm Fireshield</b>

### System Notes

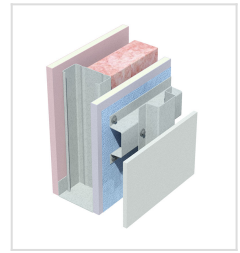
1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

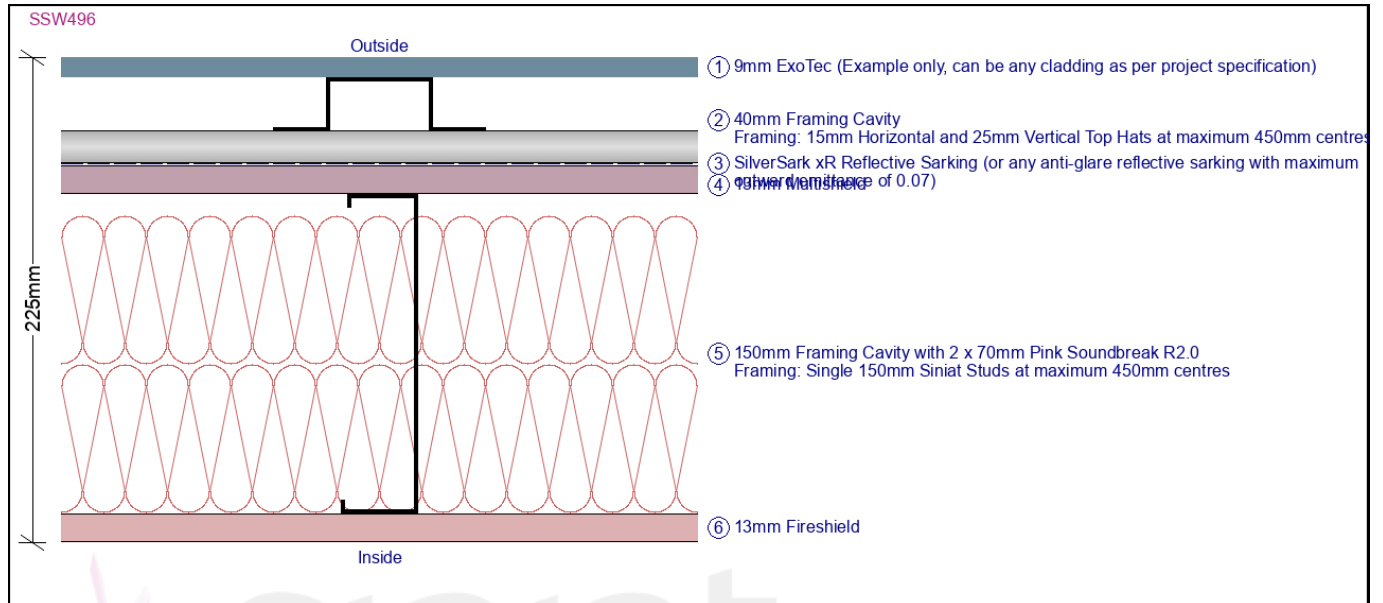
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	5
<b>System Reference</b>	External Wall NCC-C3-NLB-F2R2
<b>System Code</b>	<b>SSW496</b>
<b>Comments</b>	1.5 m to less than 3 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R2.8 requirement.



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/60/60</b> Load Bearing FRL: <b>30/30/30</b> Airborne Rw: <b>48</b> Airborne Rw + Ctr: <b>42</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>225</b> Insulation Pathway Total R-Value (m2.K/W): <b>4.49</b> Estimated Total Weight (kg/m2): <b>46.18</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>SilverSark xR Reflective Sarking</b> (or any anti-glare reflective sarking with maximum outward emittance of 0.07) External Lining: <b>13mm Multishield</b> Wall Cavity: <b>150mm Framing Cavity</b> Framing : <b>Single 150mm Siniat Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>2 x 70mm Pink Soundbreak R2.0</b> Internal Lining: <b>13mm Fireshield</b>

**System Notes**

1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

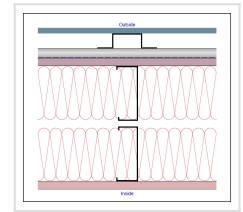
**Framing Details**

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

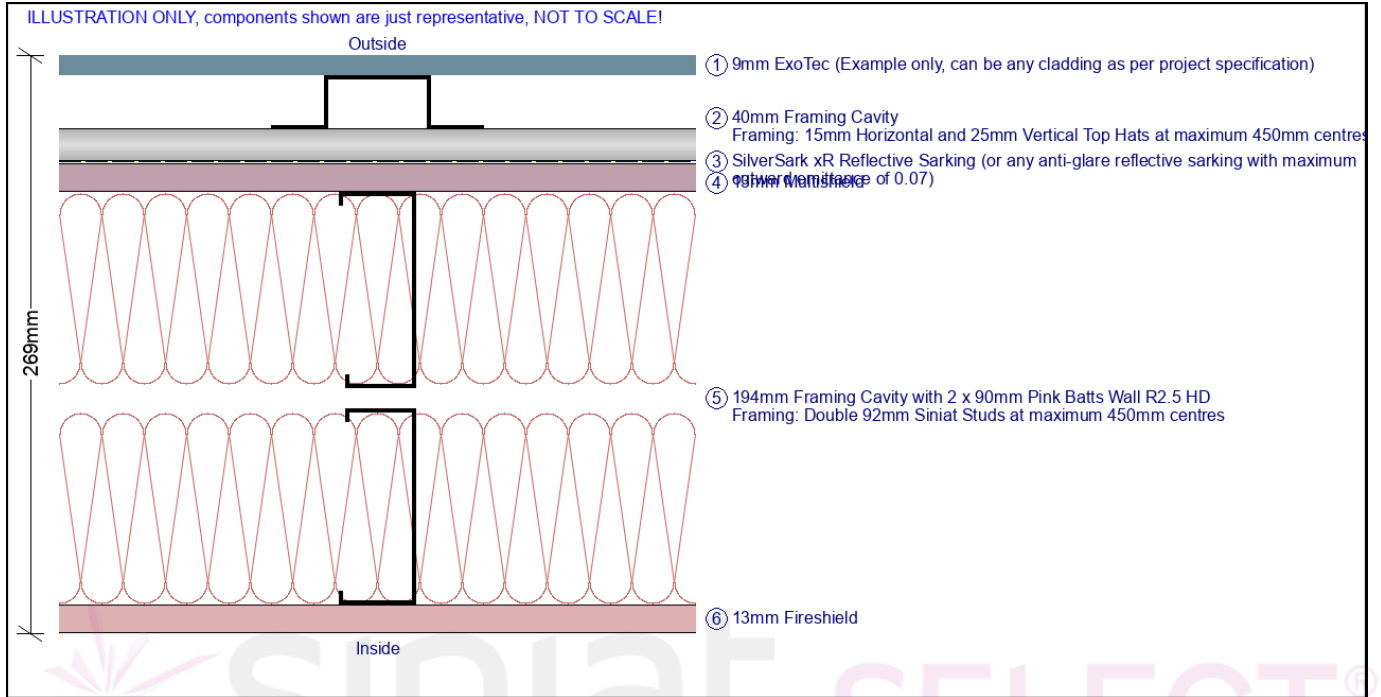




<b>System No.</b>	6
<b>System Reference</b>	External Wall NCC-C3-NLB-F2R3
<b>Comments</b>	1.5 m to less than 3 m from fire-source feature, no non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.3 requirement.



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/60/60</b> FRL2: <b>30/30/30</b> Airborne $R_w$ : <b>59</b> Airborne $R_w + C_{tr}$ : <b>49</b> Total Thickness (mm): <b>269.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>5.490</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>47.42</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>Horizontal and Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>SilverSark xR Reflective Sarking</b> (or any anti-glare reflective sarking with maximum outward emittance of 0.07) External Lining: <b>13mm Multishield</b> Wall Cavity: <b>194mm Framing Cavity</b> Framing : <b>Double Steel Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>2 x 90mm Pink Batts Wall R2.5 HD</b> Internal Lining: <b>13mm Fireshield</b>

**System Notes**

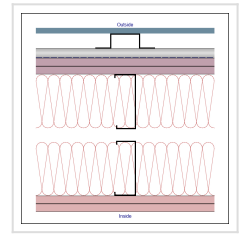
1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

**Framing Details**

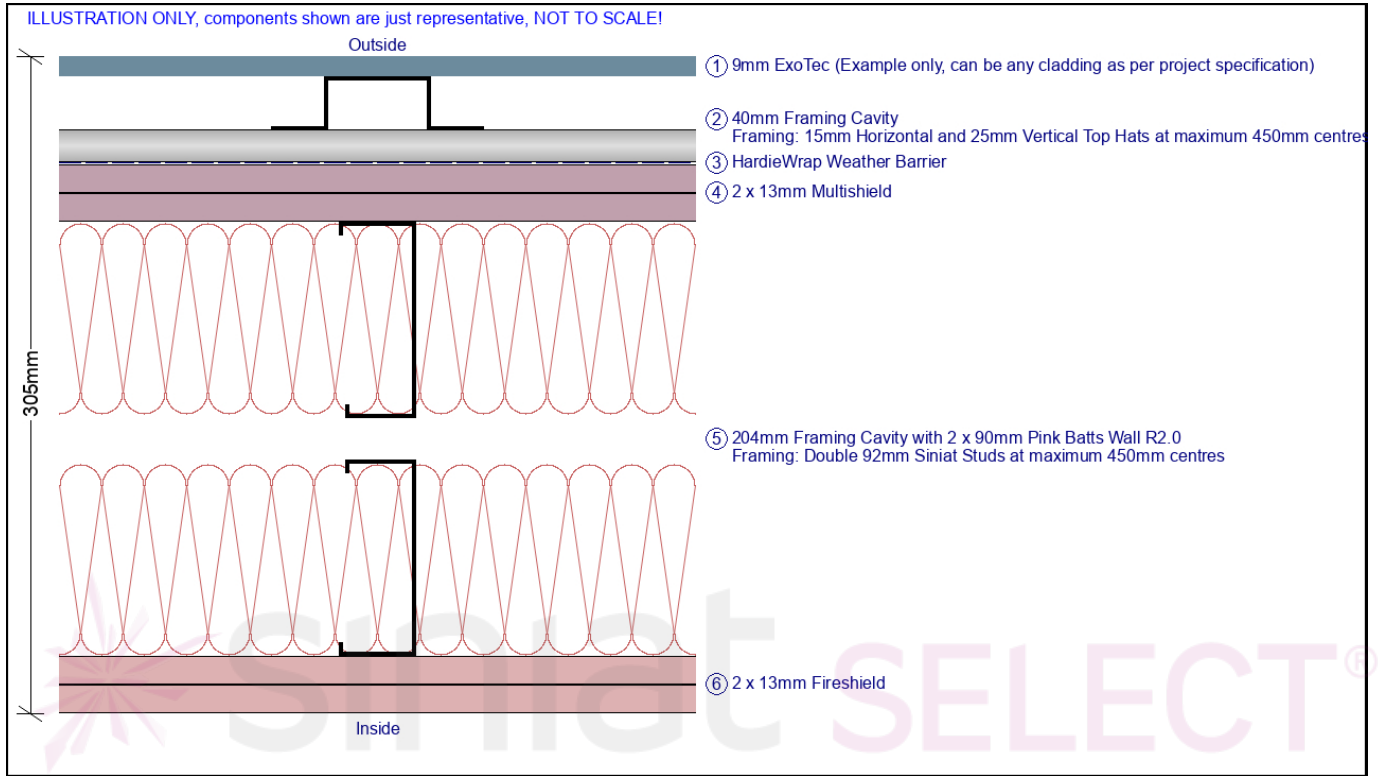
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	7
<b>System Reference</b>	External Wall NCC-C3-NLB-F3R2
<b>Comments</b>	Non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R2.8 requirement.



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/120/120</b> FRL2: <b>90/90/90</b> Airborne $R_w$ : <b>69</b> Airborne $R_w + C_{tr}$ : <b>57</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>305.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>4.640</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>66.10</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>Horizontal and Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> External Lining: <b>2 x 13mm Multishield</b> Wall Cavity: <b>204mm Framing Cavity</b> Framing : <b>Double Steel Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design. Cavity size can be increased as required to encase loadbearing elements.) Insulation : <b>2 x 90mm Pink Batts Wall R2.0</b> Internal Lining: <b>2 x 13mm Fireshield</b>

## System Notes

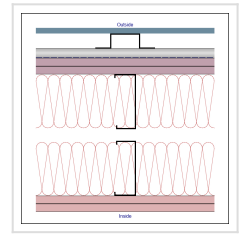
1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

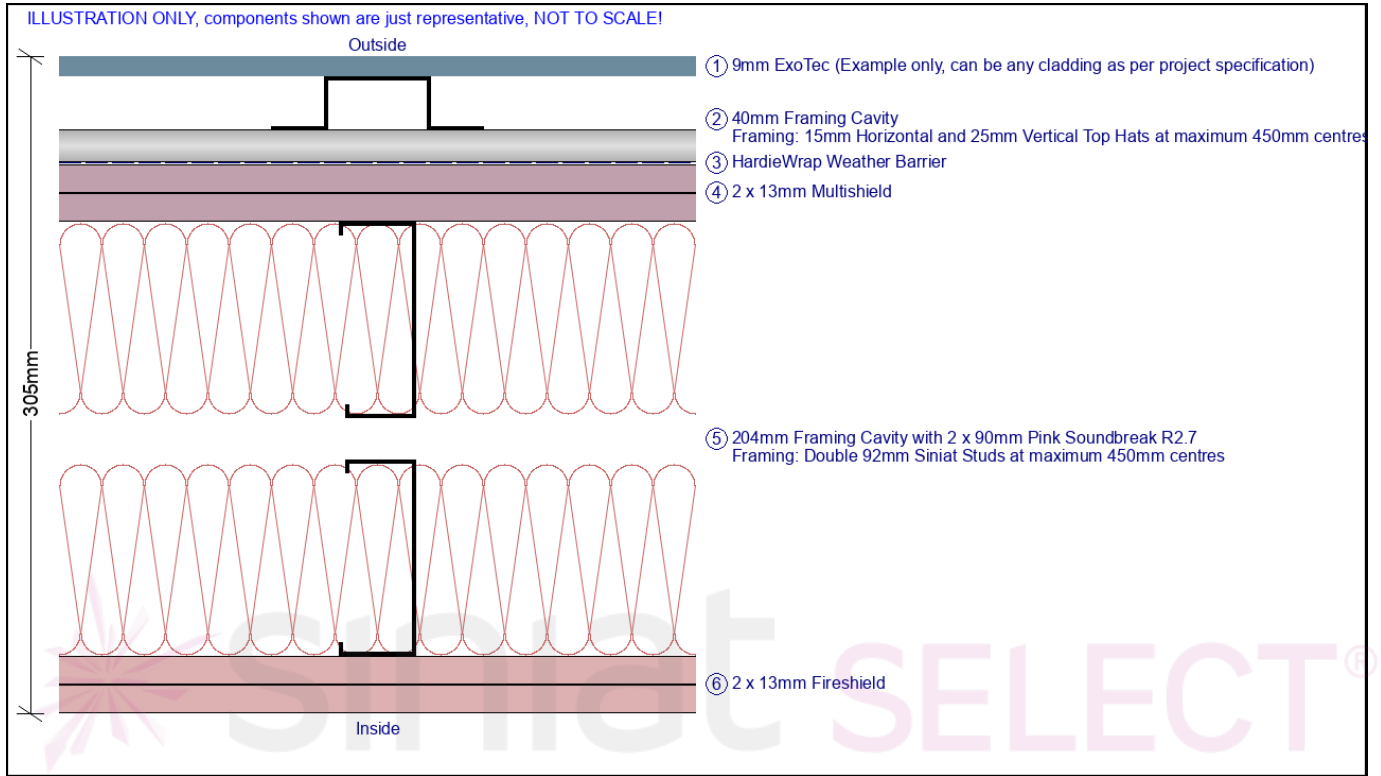
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	8
<b>System Reference</b>	External Wall NCC-C3-NLB-F3R3
<b>Comments</b>	Non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.3 requirement.



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/120/120</b> FRL2: <b>90/90/90</b> Airborne $R_w$ : <b>69</b> Airborne $R_w + C_{tr}$ : <b>57</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>305.00</b> Insulation Pathway Total R-Value ( $m^2.K/W$ ): <b>6.040</b> Estimated Total Weight ( $kg/m^2$ ): <b>68.98</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>Horizontal and Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> External Lining: <b>2 x 13mm Multishield</b> Wall Cavity: <b>204mm Framing Cavity</b> Framing : <b>Double Steel Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design. Cavity size can be increased as required to encase loadbearing elements.) Insulation : <b>2 x 90mm Pink Soundbreak R2.7</b> Internal Lining: <b>2 x 13mm Fireshield</b>



## System Notes

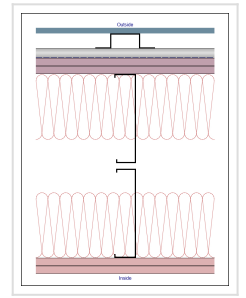
1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

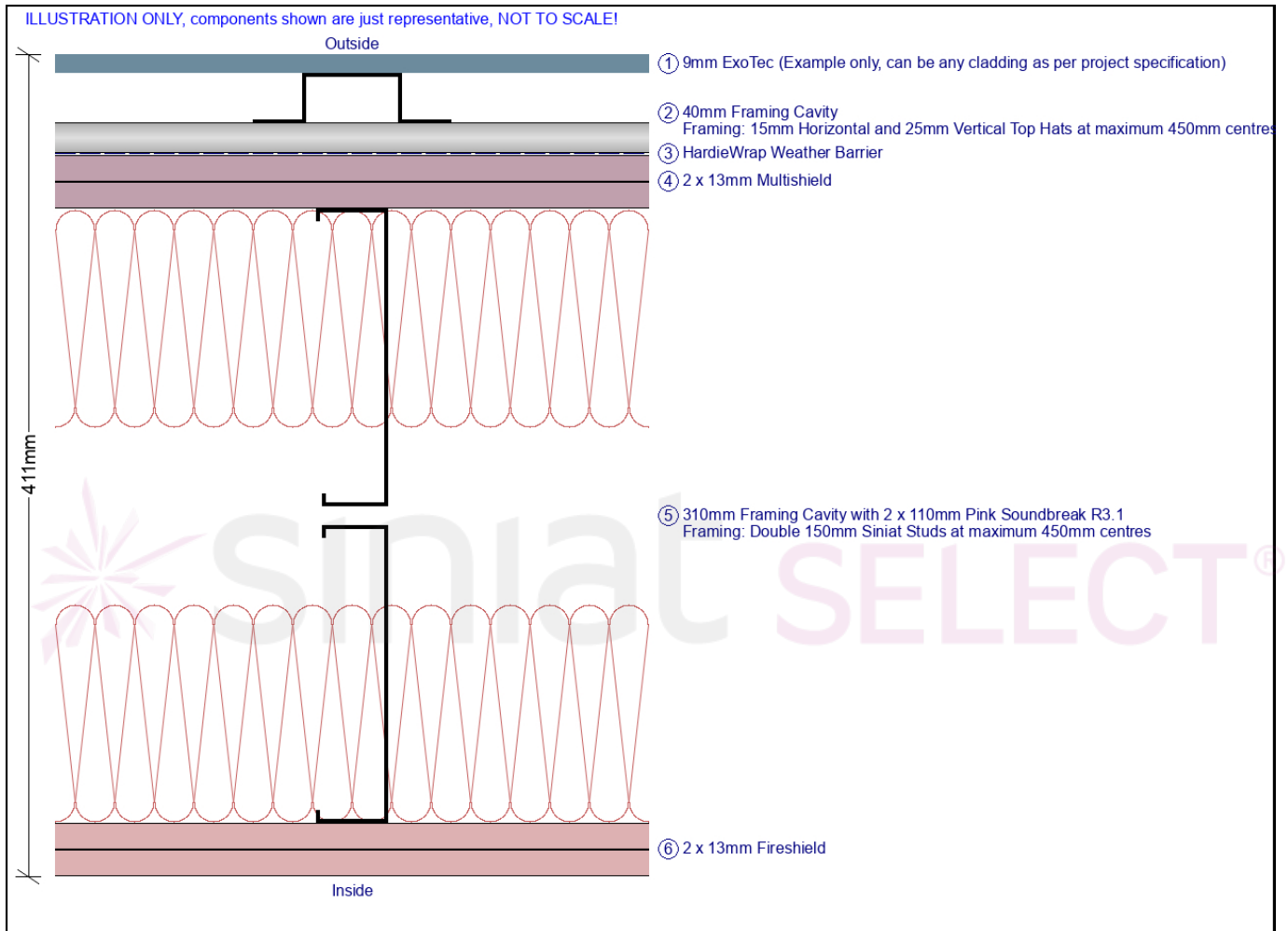
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	9
<b>System Reference</b>	External Wall NCC-C3-NLB-F3R4
<b>Comments</b>	Non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R3.8 requirement.



**System Illustration**



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/120/120</b> FRL2: <b>90/90/90</b> Airborne Rw: <b>72</b> Airborne Rw + Ctr: <b>61</b> Total Thickness (mm): <b>411.00</b> Insulation Pathway Total R-Value (m2.K/W): <b>6.840</b> Estimated Total Weight (kg/m2): <b>72.91</b>	External Cladding: <b>9mm ExoTec</b> ( <i>Example only, can be any cladding as per project specification</i> ) Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>Horizontal and Vertical Top Hats at maximum 450mm centres</b> ( <i>Example only, specific framing system as per cladding manufacturer</i> ) Sarking: <b>HardieWrap Weather Barrier</b> External Lining: <b>2 x 13mm Multishield</b> Wall Cavity: <b>310mm Framing Cavity</b> Framing : <b>Double Steel Studs at maximum 450mm centres</b> ( <i>Specific stud BMT and spacing as per framing design. Cavity size can be increased as required to encase loadbearing elements.</i> ) Insulation : <b>2 x 110mm Pink Soundbreak R3.1</b> Internal Lining: <b>2 x 13mm Fireshield</b>

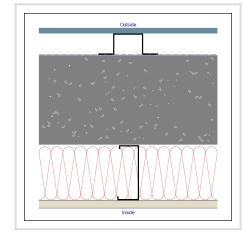
### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

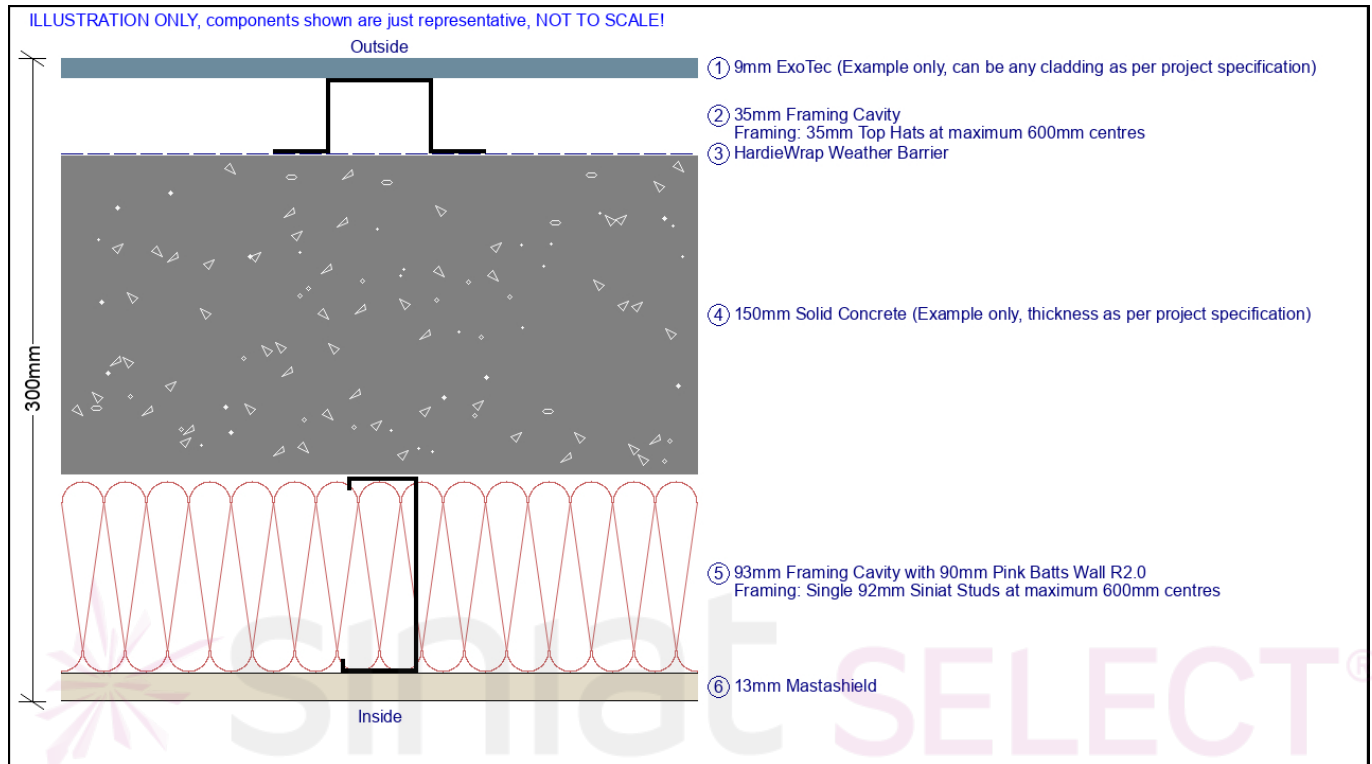
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	10
<b>System Reference</b>	External Wall NCC-C3-LB-F1
<b>Comments</b>	External loadbearing concrete shear wall



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL: <b>Masonry FRL</b> Airborne $R_w$ : <b>64</b> Airborne $R_w + C_{tr}$ : <b>53</b> Total Thickness (mm): <b>300</b> Insulation Pathway Total R-Value ( $m^2.K/W$ ): <b>2.52</b> Estimated Total Weight ( $kg/m^2$ ): <b>390.96</b>	External Cladding: <b>9mm ExoTec</b> (Example only, can be any cladding as per project specification) Cladding Cavity: <b>35mm Framing Cavity</b> Framing : <b>35mm Top Hats at maximum 600mm centres</b> (Example only, any framing as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> Shear Wall: <b>150mm Solid Concrete</b> (Example only, thickness as per project specification) Internal Wall Cavity: <b>93mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 600mm centres</b> (Cavity size and insulation as required to comply with NCC Volume One Section J requirements) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>13mm Mastashield</b>

## System Notes

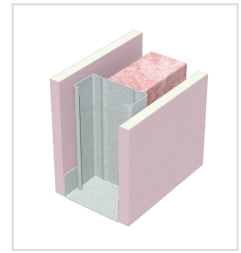
1. Fire Report: Refer to masonry manufacturer
2. Acoustic Report: Insul v9 prediction
3. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

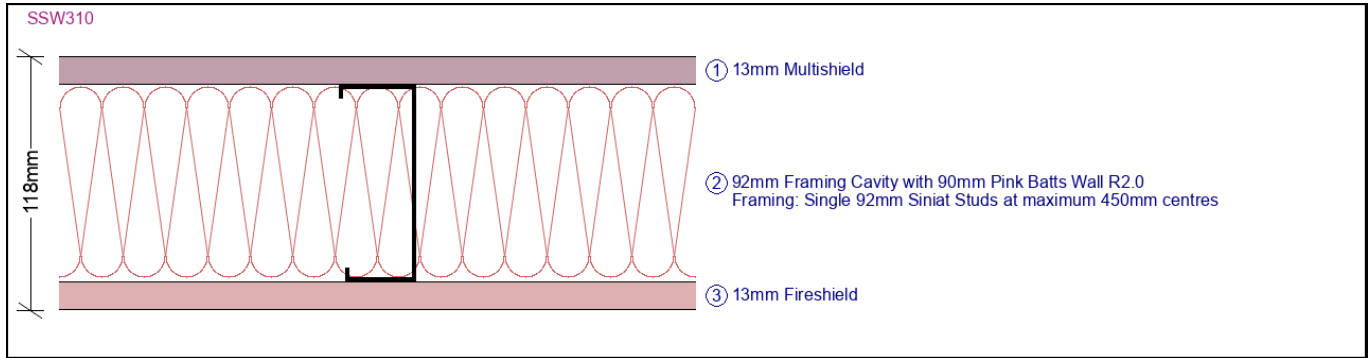
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	11
<b>System Reference</b>	Spandrel Wall NCC-C3-NLB-F1
<b>Comments</b>	Lightweight non-loadbearing fire-rated spandrel wall



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/60/60</b> Load Bearing FRL: <b>30/30/30</b> Airborne Rw: <b>41</b> Airborne Rw + Ctr: <b>32</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>118.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.310</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>24.05</b>	External Lining: <b>13mm Multishield</b> Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres</b> ( <i>Specific stud BMT and spacing as per framing design</i> ) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>13mm Fireshield</b>

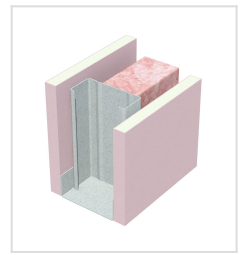
### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. Acoustics ratings valid for 1.0mm to 1.6mm BMT studs at minimum 450mm centers.
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

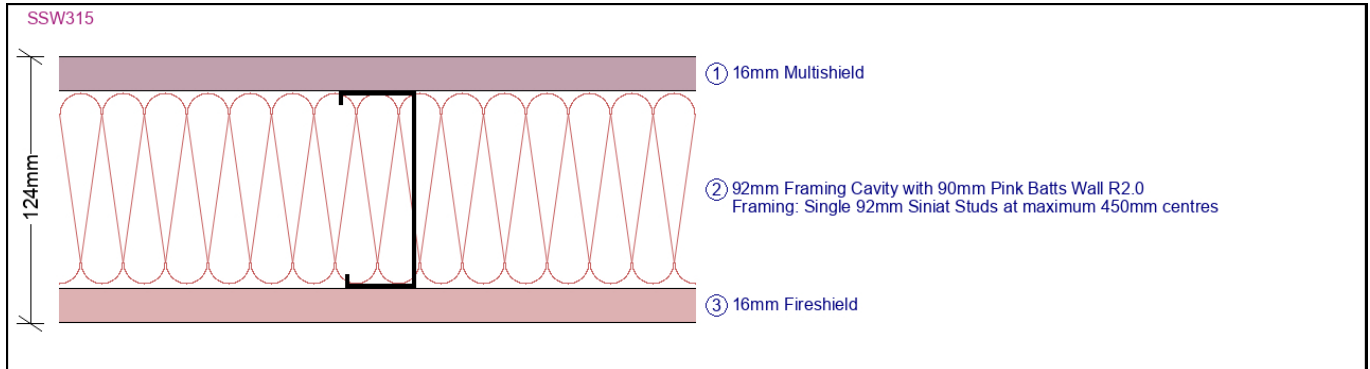
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	12
<b>System Reference</b>	Spandrel Wall NCC-C3-LB-F1
<b>System Code</b>	<b>SSW315</b>
<b>Comments</b>	Lightweight loadbearing fire-rated spandrel wall



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/90/90</b> Load Bearing FRL: <b>60/60/60</b> Airborne $R_w$ : <b>43</b> Airborne $R_w + C_{tr}$ : <b>34</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>124</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.35</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>28.85</b>	External Lining: <b>16mm Multishield</b> Cavity 1: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 450mm centres</b> ( <i>Specific stud BMT and spacing as per framing design</i> ) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>16mm Fireshield</b>

### System Notes

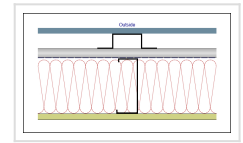
1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. Acoustics ratings valid for 1.0mm to 1.6mm BMT studs at minimum 450mm centers.
4. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

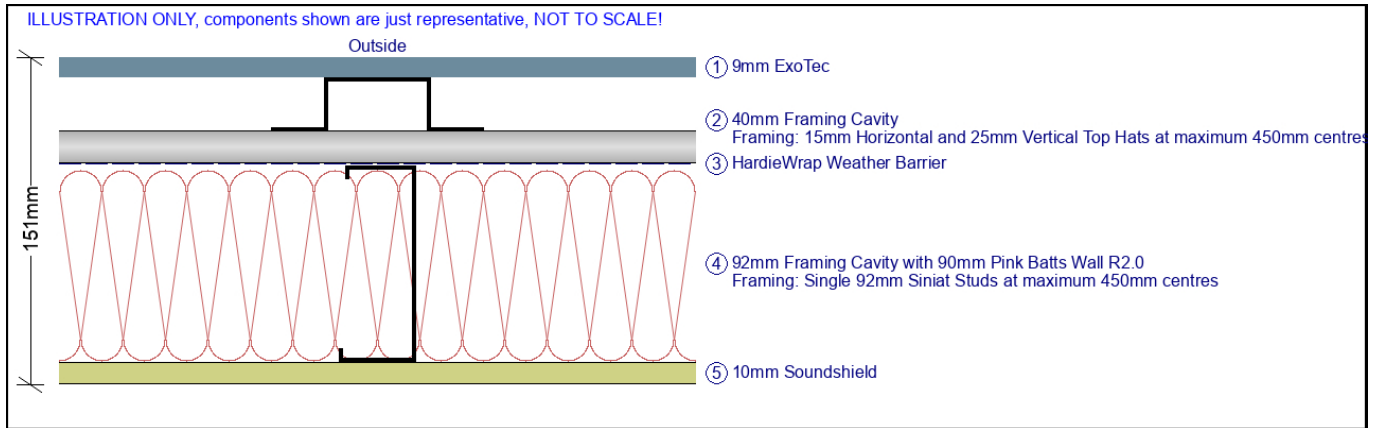
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	13
<b>System Reference</b>	External Wall NCC-C3-NLB-A1R1
<b>Comments</b>	Lightweight non-loadbearing external wall - Rw 41, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>44</b> Airborne Rw + Ctr: <b>35</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>151</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.4</b> Estimated Total Weight (kg/m2): <b>29.25</b>	External Cladding: <b>9mm ExoTec</b> Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> Wall Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>10mm Soundshield</b>

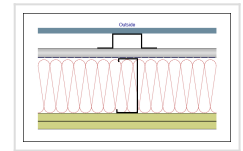
### System Notes

1. Acoustic Report: Insul v9 prediction
2. 10mm Soundshield can be substituted with 13mm Watershield in wet areas
3. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
4. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
5. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

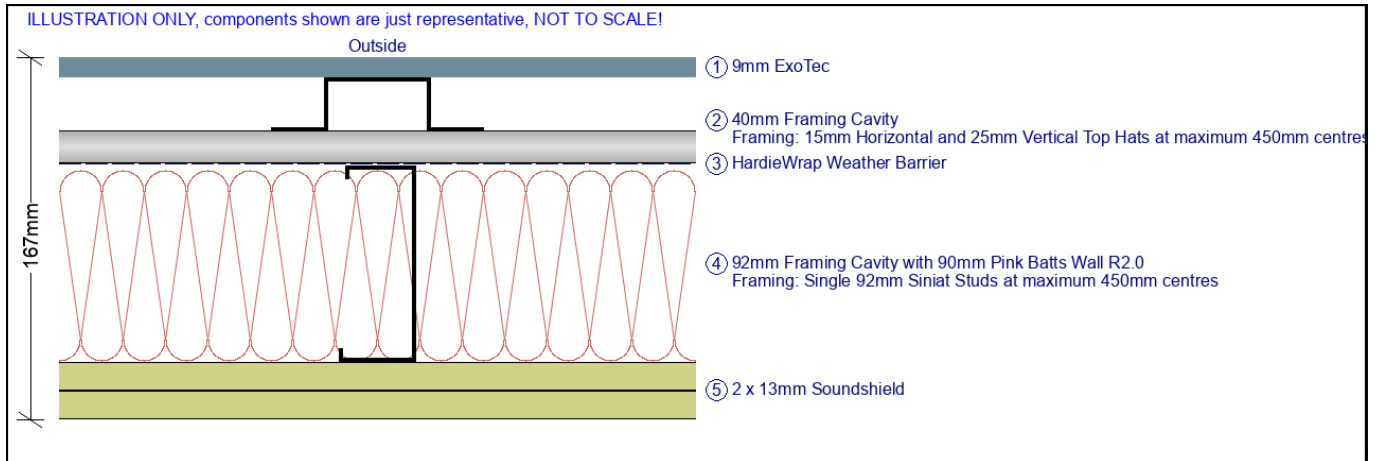
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	14
<b>System Reference</b>	External Wall NCC-C3-NLB-A2R1
<b>Comments</b>	Lightweight non-loadbearing external wall - Rw 47, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>49</b> Airborne Rw + Ctr: <b>42</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>167</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.49</b> Estimated Total Weight (kg/m2): <b>45.65</b>	External Cladding: <b>9mm ExoTec</b> Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> Wall Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>2 x 13mm Soundshield</b>

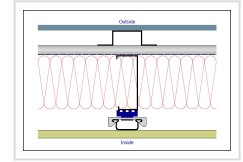
### System Notes

1. Acoustic Report: Insul v9 prediction
2. 13mm Soundshield can be substituted with 13mm Trurock in wet areas
3. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
4. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
5. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

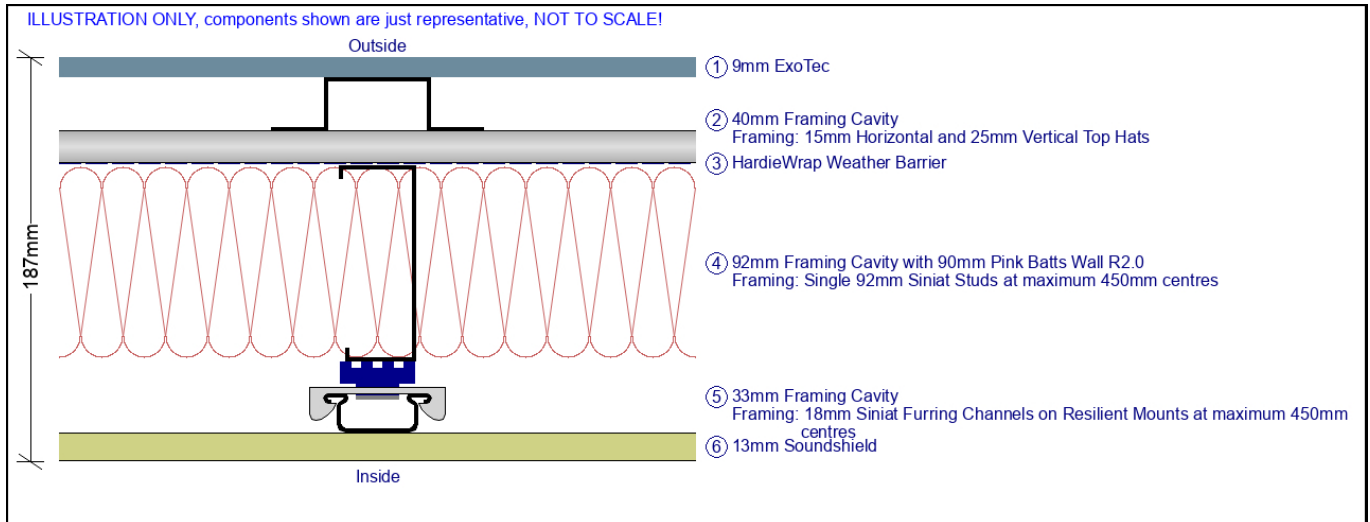
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	15
<b>System Reference</b>	External Wall NCC-C3-NLB-A3R1-1
<b>Comments</b>	Lightweight non-loadbearing external wall - Rw 52, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>55</b> Airborne Rw + Ctr: <b>45</b> Impact Sound Resistant: <b>Yes</b> Total Thickness (mm): <b>187</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.41</b> Estimated Total Weight (kg/m2): <b>33.66</b>	External Cladding: <b>9mm ExoTec</b> Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats</b> (Example only, specific framing as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> Wall Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 450mm centres</b> (Specific studs BMT and spacing as per framing design) Insulation : <b>90mm Pink Batts Wall R2.0</b> Additional Frame Cavity: <b>33mm Framing Cavity</b> Framing : <b>18mm Siniat Furring Channels on Resilient Mounts at maximum 450mm centres</b> Internal Lining: <b>13mm Soundshield</b>

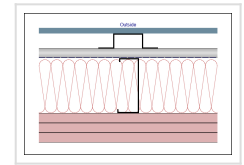
### System Notes

1. Acoustic Report: Insul v9 prediction
2. 13mm Soundshield can be substituted with 13mm Trurock in wet areas
3. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
4. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
5. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

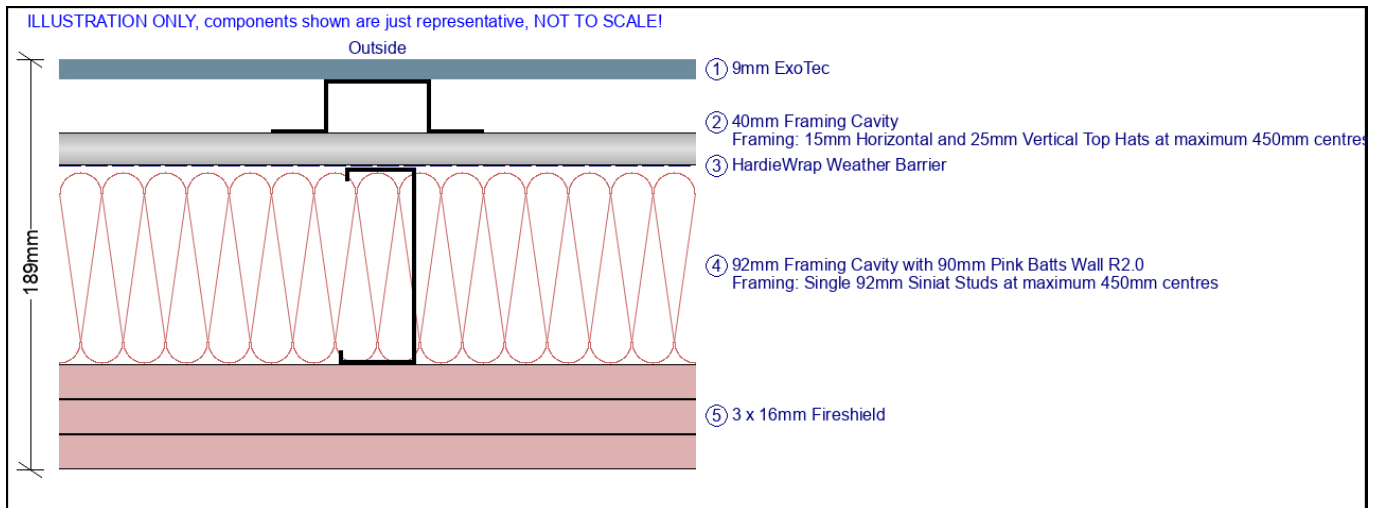
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	16
<b>System Reference</b>	External Wall NCC-C3-NLB-A3R1-2
<b>Comments</b>	Lightweight non-loadbearing external wall - Rw 52, 3 m or more from fire-source feature. No non-fire protected loadbearing components inside the wall. This wall meets NCC 2019 Volume One Section J R1.4 requirement.



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>52</b> Airborne Rw + Ctr: <b>45</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>189</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.62</b> Estimated Total Weight (kg/m2): <b>59.85</b>	External Cladding: <b>9mm ExoTec</b> Cladding Cavity: <b>40mm Framing Cavity</b> Framing : <b>15mm Horizontal and 25mm Vertical Top Hats at maximum 450mm centres</b> (Example only, specific framing system as per cladding manufacturer) Sarking: <b>HardieWrap Weather Barrier</b> Wall Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 450mm centres</b> (Specific stud BMT and spacing as per framing design) Insulation : <b>90mm Pink Batts Wall R2.0</b> Internal Lining: <b>3 x 16mm Fireshield</b>

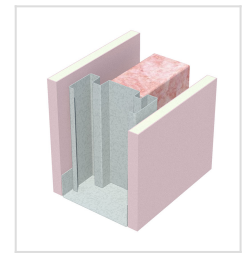
### System Notes

1. Acoustic Report: Insul v9 prediction
2. 16mm Fireshield can be substituted with 16mm Multishield in wet areas
3. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
4. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
5. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

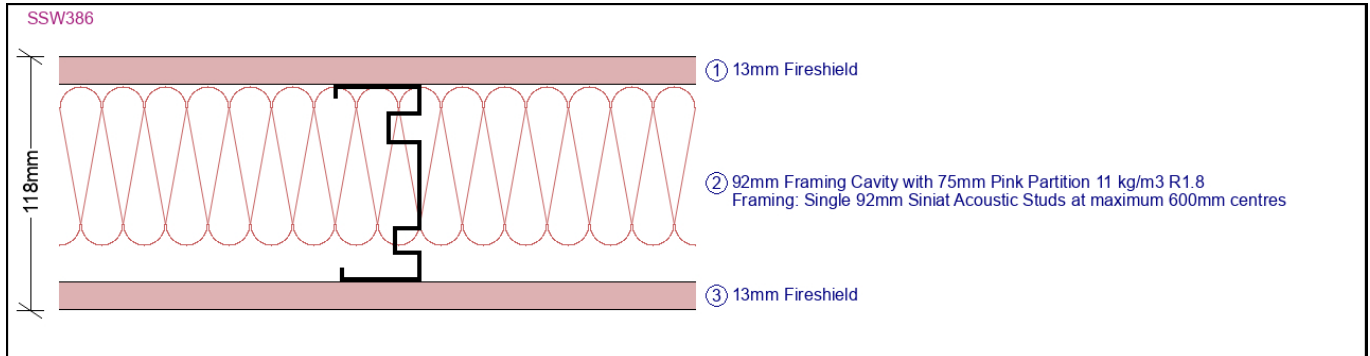
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	17
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S1-1
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.39 kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/60/60</b> FRL2: <b>30/30/30</b> Airborne Rw: <b>50</b> Airborne Rw + Ctr: <b>41</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>118.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.110</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>23.91</b>	Side 1: <b>13mm Fireshield</b> Cavity 1: <b>92mm Framing Cavity</b> Framing : <b>Single Acoustic Studs at maximum 600mm centres</b> Insulation : <b>75mm Pink Partition 11 kg/m<sup>3</sup> R1.8</b> Side 2: <b>13mm Fireshield</b>

### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Test Report TL609-02 (Based on Siniat System SSW386.L1C2)
3. Acoustic ratings valid for studs at 600mm centres
4. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

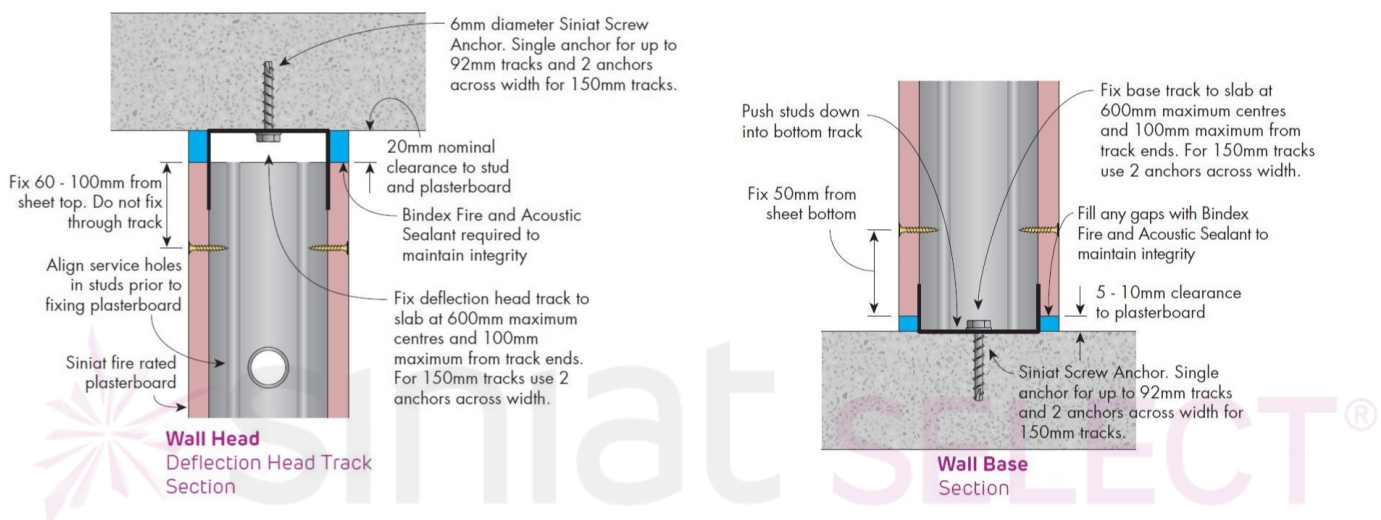
Refer to next page for framing details.

<b>System No.</b>	17
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S1-1
<b>Framing System Code</b>	SSW-FL2-AAS92-13RE (SSW-FL2-AAS92-13RE.1-600S41D11-3A250390)

**Framing Details**

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>A</b> Ultimate Wind Pressure, Wu (kPa): <b>0.39</b> Serviceability Wind Pressure, Ws (kPa): <b>0.25</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3760</b> Stud: <b>Single 92mm x 0.55mm Siniat Acoustic Stud</b> Stud - Spacing (mm): <b>600</b> Head Track: <b>92mm x 0.55mm Siniat Track DH</b> Base Track: <b>92mm x 0.5mm Siniat Track</b> Anchor: <b>SA6x45</b>

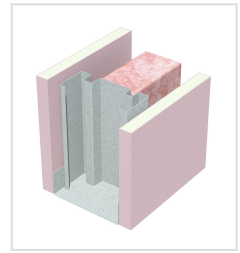


**Framing Notes**

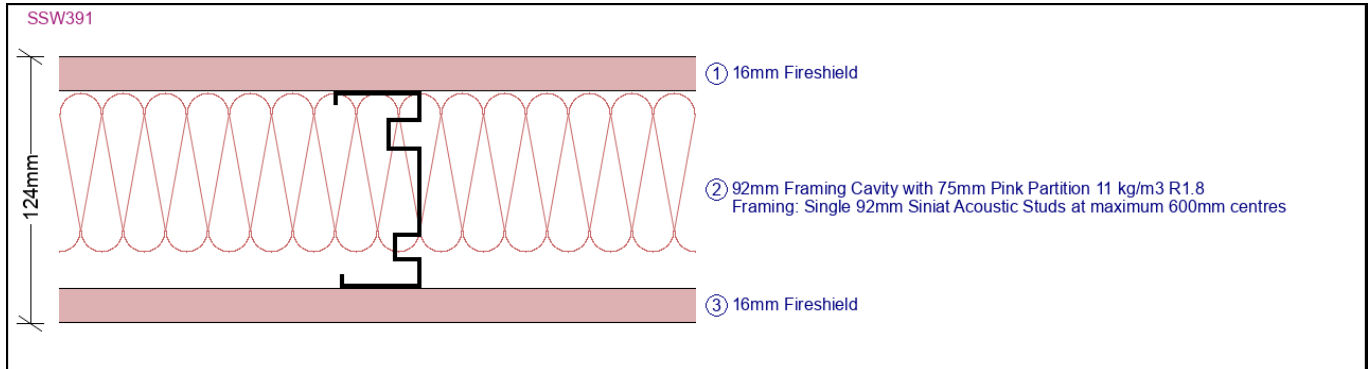
1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection).
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 65% of ultimate.
7. Noggings in Acoustic Stud Walls may reduce sound insulation performance.
8. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.



<b>System No.</b>	18
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S1-2
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.39 kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/90/90</b> FRL2: <b>60/60/60</b> Airborne Rw: <b>51</b> Airborne Rw + Ctr: <b>43</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>124.00</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.150</b> Estimated Total Weight (kg/m2): <b>28.91</b>	Side 1 Lining: <b>16mm Fireshield</b> Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single Acoustic Studs at maximum 600mm centres</b> Insulation : <b>75mm Pink Partition 11 kg/m3 R1.8</b> Side 2 Lining: <b>16mm Fireshield</b>

### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Test Report TL609-01 (Based on Siniat System SSW391.L1C2)
3. Acoustic ratings valid for studs at 600mm centres
4. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
5. Boards, while installed horizontally, staggering of recessed joints on each side of the wall not required to achieve an FRL of -/60/60
6. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
7. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
8. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

Refer to next page for framing details.

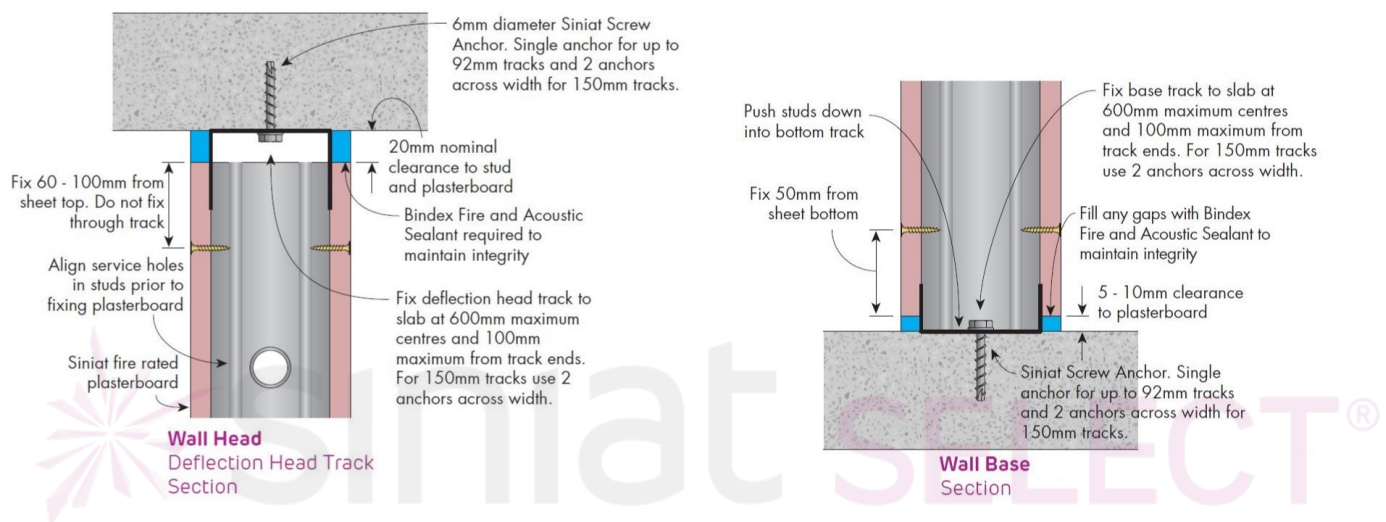


<b>System No.</b>	18
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S1-2
<b>Framing System Code</b>	SSW-FL2-AAS92-16FR (SSW-FL2-AAS92-16FR.1-600S41D11-3A250390)

### Framing Details

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

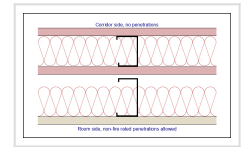
Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>A</b> Ultimate Wind Pressure, $W_u$ (kPa): <b>0.39</b> Serviceability Wind Pressure, $W_s$ (kPa): <b>0.25</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3760</b> Stud: <b>Single 92mm x 0.55mm Siniat Acoustic Stud</b> Stud - Spacing (mm): <b>600</b> Head Track: <b>92mm x 0.55mm Siniat Track DH</b> Base Track: <b>92mm x 0.5mm Siniat Track</b> Anchor: <b>SA6x45</b>



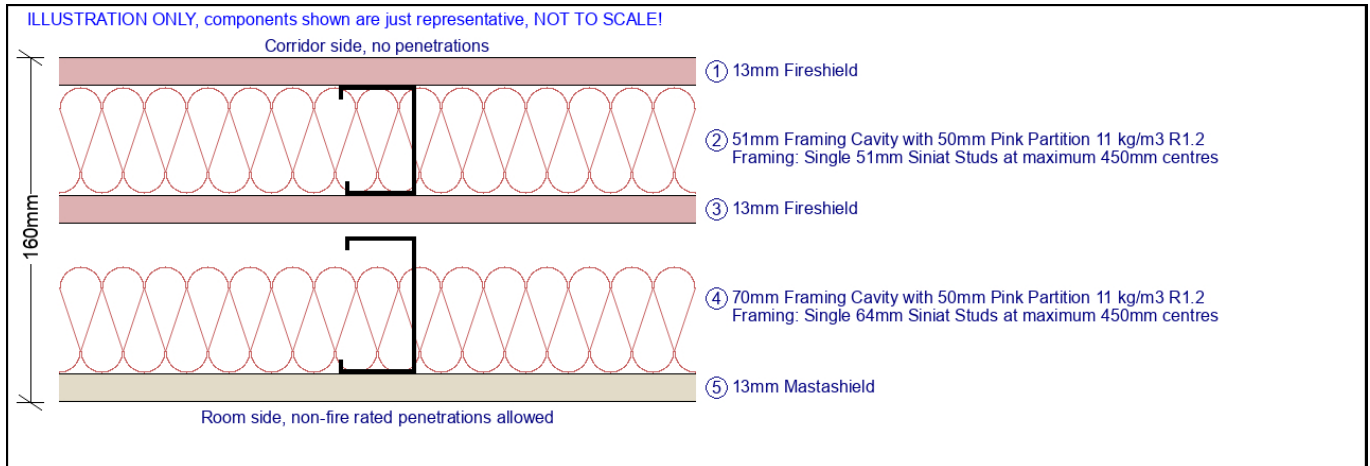
### Framing Notes

1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection).
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 65% of ultimate.
7. Noggings in Acoustic Stud Walls may reduce sound insulation performance.
8. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.

<b>System No.</b>	19
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S1-3
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on one side with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.39kPa.



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/60/60</b> FRL2: <b>30/30/30</b> Airborne Rw: <b>51</b> Airborne Rw + Ctr: <b>37</b> Total Thickness (mm): <b>160.00</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.790</b> Estimated Total Weight (kg/m2): <b>33.03</b>	Side 1: <b>13mm Fireshield</b> Cavity 1: <b>51mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Centre 1: <b>13mm Fireshield</b> Cavity 2: <b>70mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Side 2: <b>13mm Mastashield</b>

**System Notes**

1. Fire Report: FC13921 (Based on Siniat System SSW310)
2. Acoustic Report: Insul v9 prediction
3. 13mm Mastashield can be replaced with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

**Framing Details**

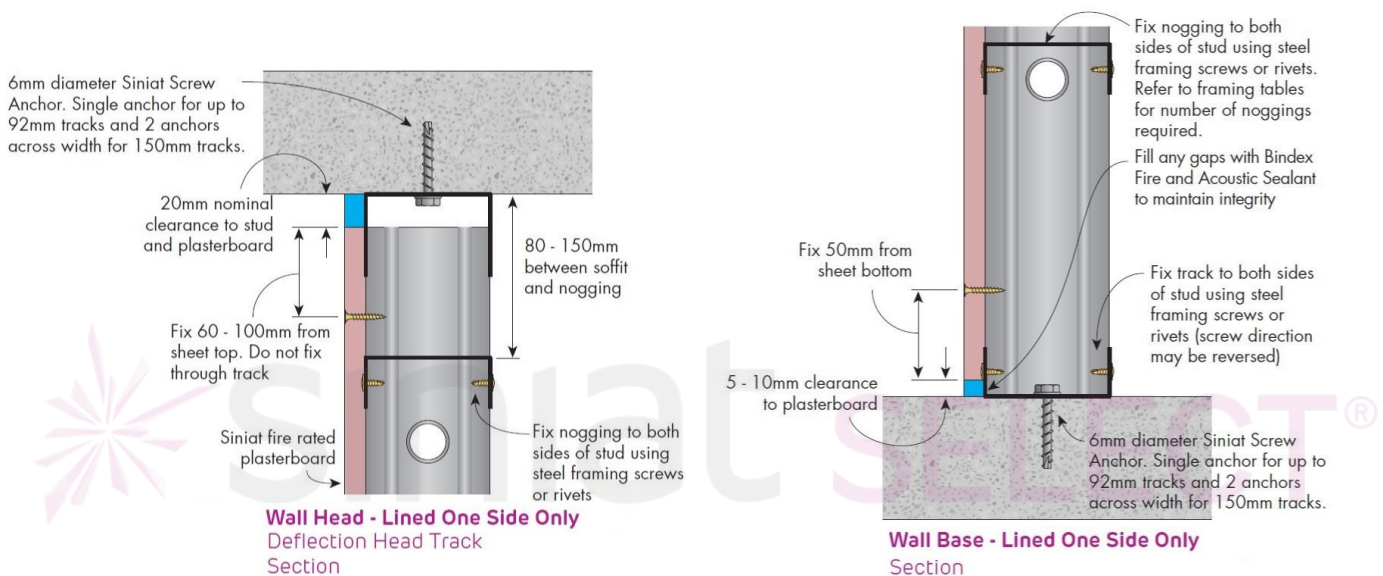
Refer to next page for framing details.

<b>System No.</b>	19
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S1-3
<b>Framing System Code</b>	SSW-FL1-AS64-13RE (SSW-FL1-AS64-13RE.1-450S21D113N-3A250390)

**Framing Details**

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

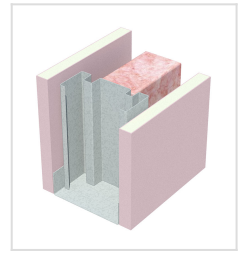
Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>A</b> Ultimate Wind Pressure, Wu (kPa): <b>0.39</b> Serviceability Wind Pressure, Ws (kPa): <b>0.25</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3330</b> Stud: <b>Single 64mm x 0.5mm Siniat Stud</b> Stud - Spacing (mm): <b>450</b> Head Track: <b>64mm x 0.55mm Siniat Track DH</b> Base Track: <b>64mm x 0.5mm Siniat Track</b> Nogging Track: <b>3 x 64mm x 0.7mm Siniat Track Nogging</b> Anchor: <b>SA6x45</b>



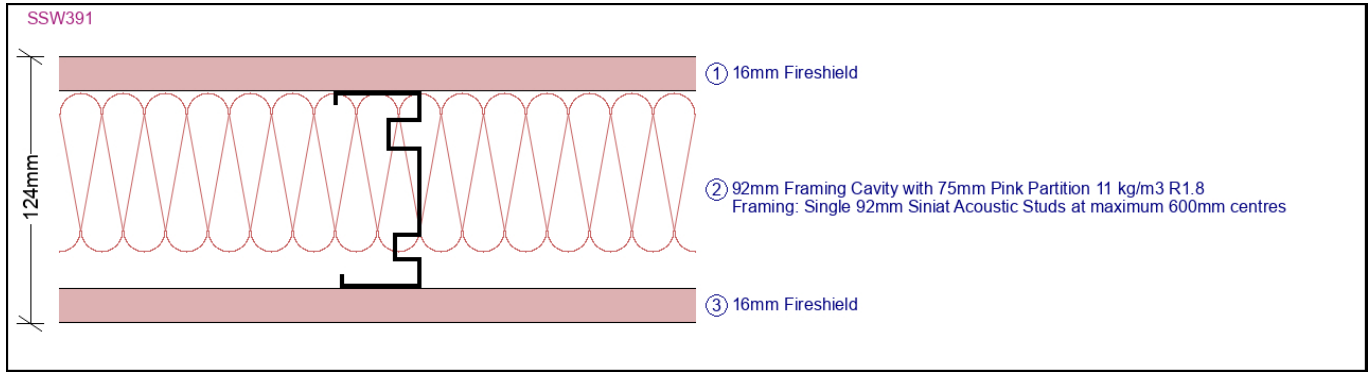
**Framing Notes**

1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection). Screw fix base track to both sides of stud.
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 65% of ultimate.
7. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.

<b>System No.</b>	20
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S2-1
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.54 kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/90/90</b> FRL2: <b>60/60/60</b> Airborne Rw: <b>51</b> Airborne Rw + Ctr: <b>43</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>124.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.150</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>28.91</b>	Side 1 Lining: <b>16mm Fireshield</b> Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single Acoustic Studs at maximum 600mm centres</b> Insulation : <b>75mm Pink Partition 11 kg/m<sup>3</sup> R1.8</b> Side 2 Lining: <b>16mm Fireshield</b>

### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Test Report TL609-01 (Based on Siniat System SSW391.L1C2)
3. Acoustic ratings valid for studs at 600mm centres
4. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
5. Boards, while installed horizontally, staggering of recessed joints on each side of the wall not required to achieve an FRL of -/60/60
6. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
7. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
8. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

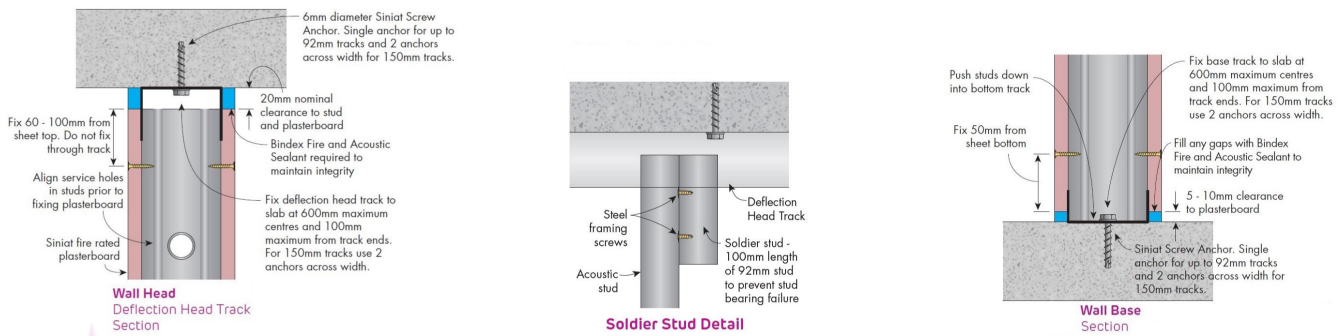
Refer to next page for framing details.

<b>System No.</b>	20
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S2-1
<b>Framing System Code</b>	SSW-FL2-AAS92-16FR (SSW-FL2-AAS92-16FR.1-600S41D21-3A350540)

### Framing Details

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>A</b> Ultimate Wind Pressure, $W_u$ (kPa): <b>0.54</b> Serviceability Wind Pressure, $W_s$ (kPa): <b>0.35</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>4440</b> Stud: <b>Single 92mm x 0.55mm Siniat Acoustic Stud</b> Stud - Spacing (mm): <b>600</b> Head Track: <b>92mm x 0.7mm Siniat Track DH</b> (Additional 100mm long Soldier Stud screw fixed to each stud at top) Base Track: <b>92mm x 0.5mm Siniat Track</b> (Screw fix track to studs) Anchor: <b>SA6x45</b>

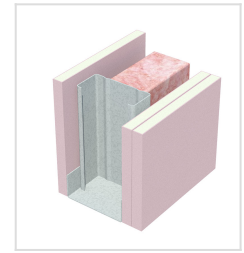


### Framing Notes

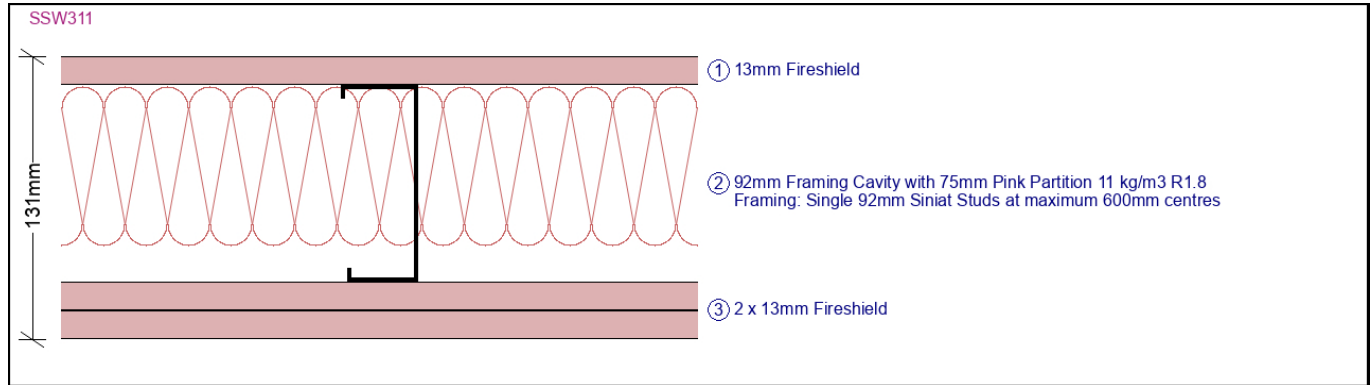
1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection).
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 65% of ultimate.
7. Noggings in Acoustic Stud Walls may reduce sound insulation performance.
8. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.



<b>System No.</b>	21
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S2-2
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 0.54 kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/90/90</b> FRL2: <b>30/30/30</b> Airborne $R_w$ : <b>50</b> Airborne $R_w + C_{tr}$ : <b>43</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>131.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.190</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>33.83</b>	Side 1 Lining: <b>13mm Fireshield</b> Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 600mm centres</b> Insulation : <b>75mm Pink Partition 11 kg/m<sup>3</sup> R1.8</b> Side 2 Lining: <b>2 x 13mm Fireshield</b>

### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Test Report TL561-05 (Based on Siniat System SSW311.L1C9)
3. Acoustic ratings valid for minimum BMT studs at 600mm centres
4. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

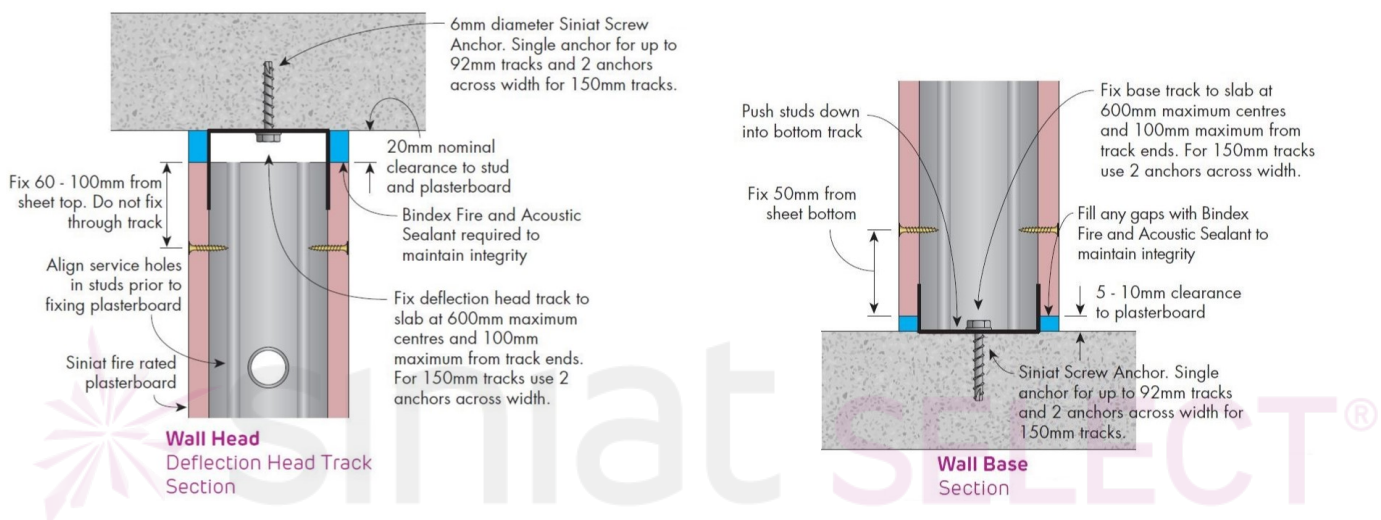
Refer to next page for framing details.

<b>System No.</b>	21
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S2-2
<b>Framing System Code</b>	SSW-FL2-AS92-13RE (SSW-FL2-AS92-13RE.1-600S41D11-3A350540)

**Framing Details**

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

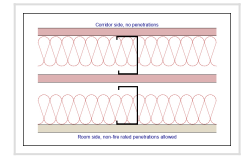
Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>A</b> Ultimate Wind Pressure, Wu (kPa): <b>0.54</b> Serviceability Wind Pressure, Ws (kPa): <b>0.35</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3580</b> Stud: <b>Single 92mm x 0.55mm Siniat Stud</b> Stud - Spacing (mm): <b>600</b> Head Track: <b>92mm x 0.55mm Siniat Track DH</b> Base Track: <b>92mm x 0.5mm Siniat Track</b> Anchor: <b>SA6x45</b>



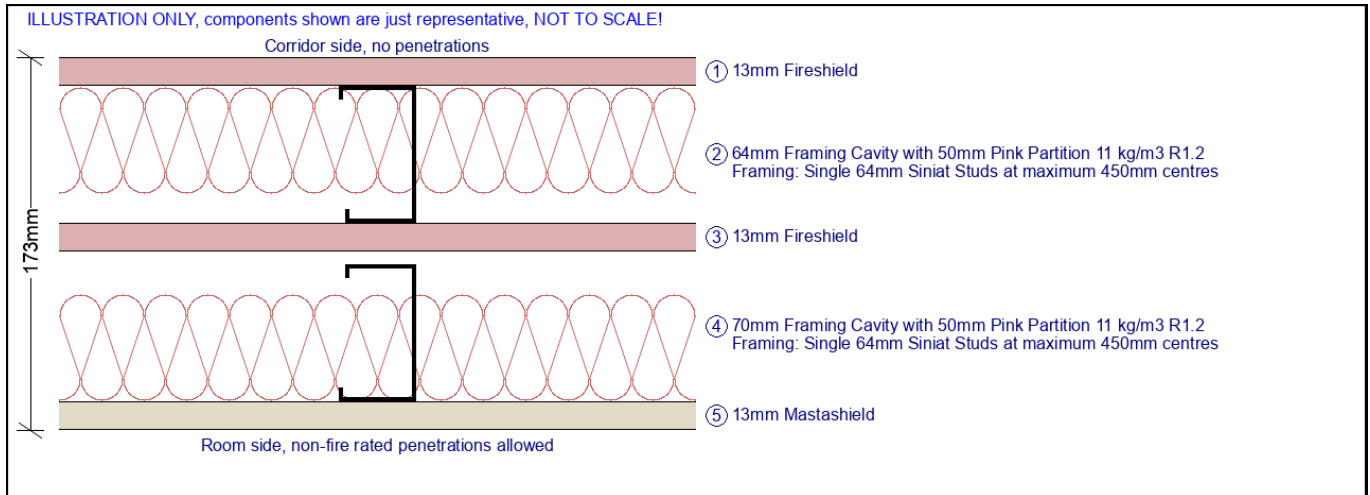
**Framing Notes**

1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection).
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 65% of ultimate.
7. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.

<b>System No.</b>	22
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S2-3
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on one side with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.54kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: -/60/60 FRL2: 30/30/30 Airborne $R_w$ : 52 Airborne $R_w + C_{tr}$ : 38 Total Thickness (mm): <b>173.00</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.790</b> Estimated Total Weight (kg/m2): <b>33.16</b>	Side 1: <b>13mm Fireshield</b> Cavity 1: <b>64mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Centre 1: <b>13mm Fireshield</b> Cavity 2: <b>70mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres (BMT not less than 0.75mm)</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Side 2: <b>13mm Mastashield</b>

### System Notes

1. Fire Report: FC13921 (Based on Siniat System SSW310)
2. Acoustic Report: Insul v9 prediction
3. 13mm Mastashield can be replaced with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

Refer to next page for framing details.

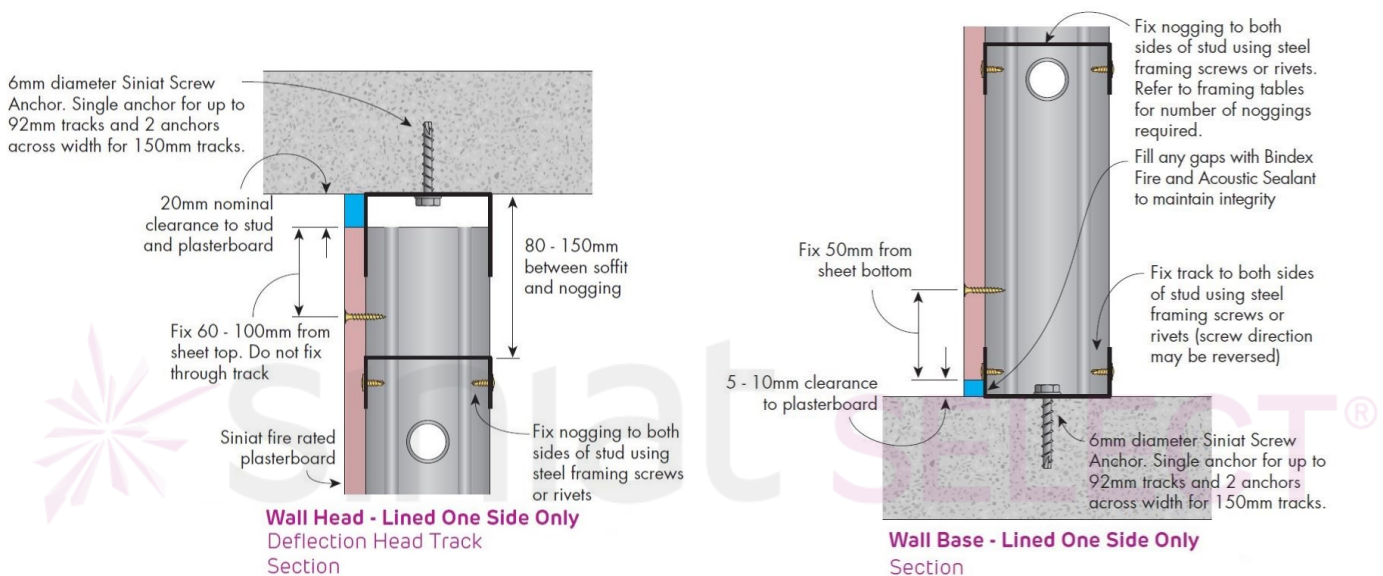


<b>System No.</b>	22
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S2-3
<b>Framing System Code</b>	SSW-FL1-AS64-13RE (SSW-FL1-AS64-13RE.1-450S22D223N-3A350540)

**Framing Details**

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

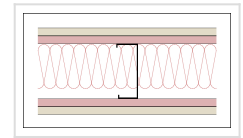
Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>A</b> Ultimate Wind Pressure, Wu (kPa): <b>0.54</b> Serviceability Wind Pressure, Ws (kPa): <b>0.35</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3300</b> Stud: <b>Single 64mm x 0.75mm Siniat Stud</b> Stud - Spacing (mm): <b>450</b> Head Track: <b>64mm x 0.7mm Siniat Track DH</b> Base Track: <b>64mm x 0.7mm Siniat Track</b> Nogging Track: <b>3 x 64mm x 0.7mm Siniat Track Nogging</b> Anchor: <b>SA6x45</b>



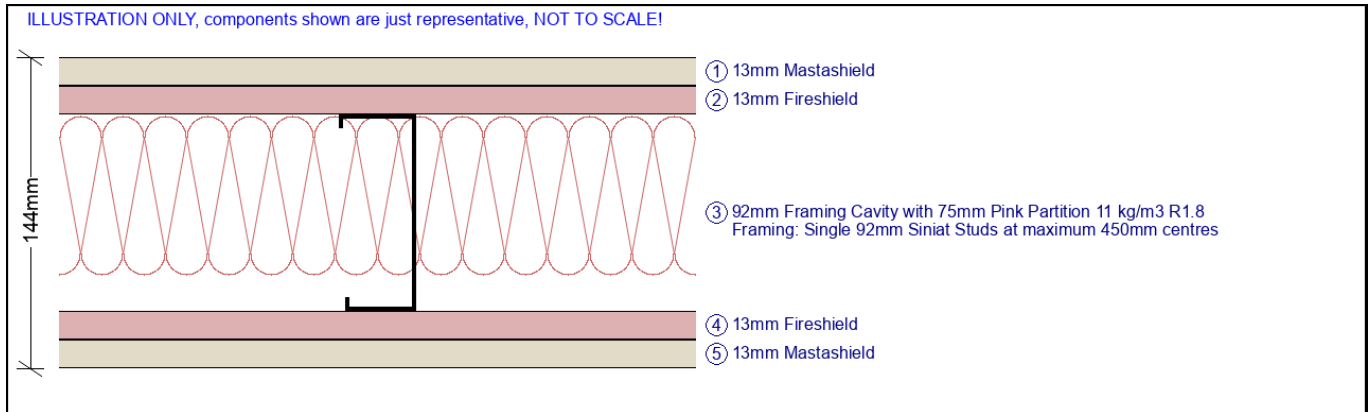
**Framing Notes**

1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection). Screw fix base track to both sides of stud.
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 65% of ultimate.
7. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.

<b>System No.</b>	23
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S3-1
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, applicable internal ultimate limit state wind load not more than 1.0 kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/60/60</b> FRL2: <b>30/30/30</b> Airborne Rw: <b>51</b> Airborne Rw + Ctr: <b>43</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>144.00</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.270</b> Estimated Total Weight (kg/m2): <b>39.98</b>	Side 1: <b>13mm Fireshield plus 13mm Mastashield</b> Cavity 1: <b>92mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres</b> Insulation : <b>75mm Pink Partition 11 kg/m3 R1.8</b> Side 2: <b>13mm Fireshield plus 13mm Mastashield</b>

### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

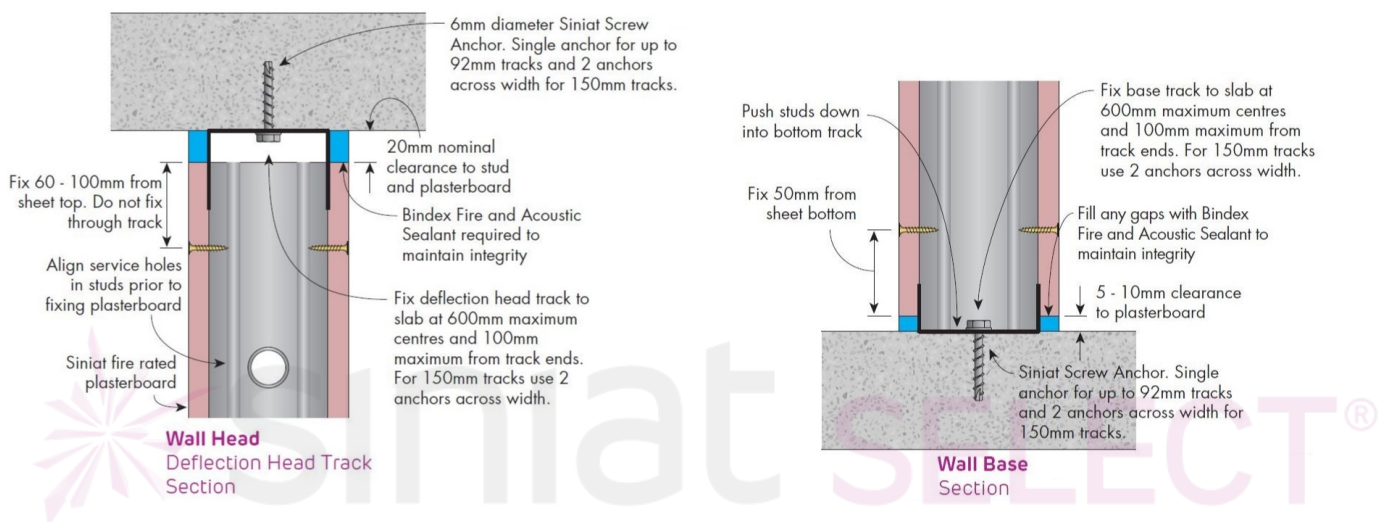
Refer to next page for framing details.

<b>System No.</b>	23
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S3-1
<b>Framing System Code</b>	SSW-FL2-AS92-13RE (SSW-FL2-AS92-13RE.1-450S42D32-3A6501000)

**Framing Details**

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

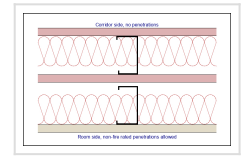
Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>A</b> Ultimate Wind Pressure, Wu (kPa): <b>1.00</b> Serviceability Wind Pressure, Ws (kPa): <b>0.65</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3870</b> Stud: <b>Single 92mm x 0.75mm Siniat Stud</b> Stud - Spacing (mm): <b>450</b> Head Track: <b>92mm x 1.15mm Siniat Track DH</b> Base Track: <b>92mm x 0.7mm Siniat Track</b> Anchor: <b>SA6x45</b>



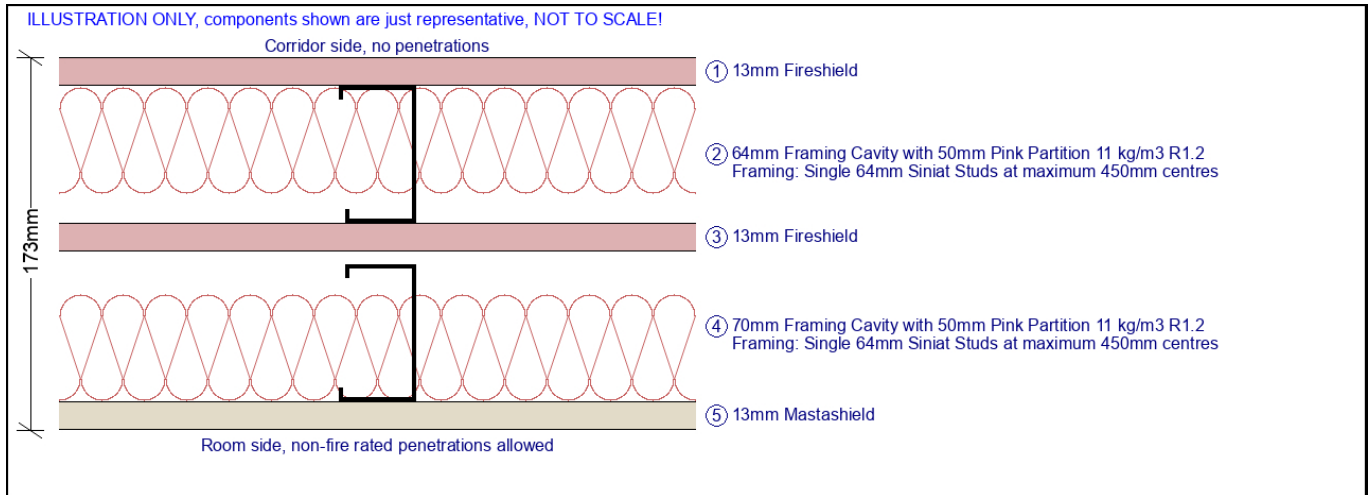
**Framing Notes**

1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection).
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 65% of ultimate.
7. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.

<b>System No.</b>	24
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S3-2
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on one side with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.95 kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/60/60</b> FRL2: <b>30/30/30</b> Airborne $R_w$ : <b>52</b> Airborne $R_w + C_{tr}$ : <b>38</b> Total Thickness (mm): <b>173.00</b> Insulation Pathway Total R-Value ( $m^2.K/W$ ): <b>2.790</b> Estimated Total Weight ( $kg/m^2$ ): <b>33.16</b>	Side 1: <b>13mm Fireshield</b> Cavity 1: <b>64mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres (BMT not less than 1.15mm)</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Centre 1: <b>13mm Fireshield</b> Cavity 2: <b>70mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres (BMT not less than 1.15mm)</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Side 2: <b>13mm Mastashield</b>

### System Notes

1. Fire Report: FC13921 (Based on Siniat System SSW310)
2. Acoustic Report: Insul v9 prediction
3. 13mm Mastashield can be replaced with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

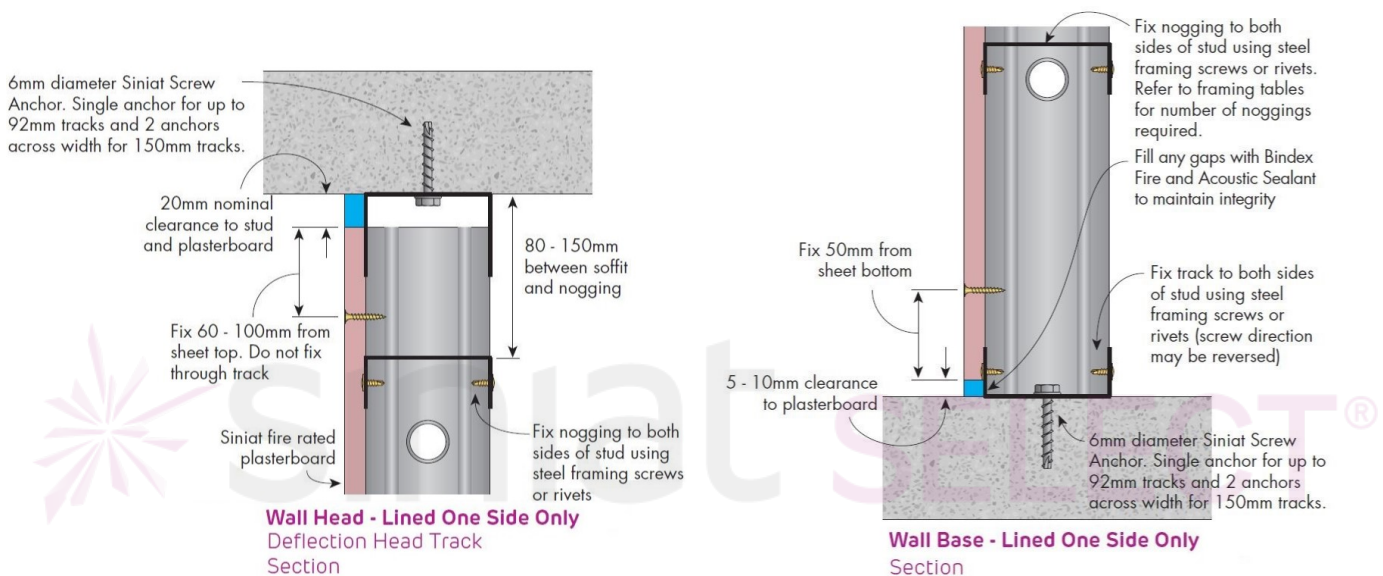
Refer to next page for framing details.

<b>System No.</b>	24
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S3-2
<b>Framing System Code</b>	SSW-FL1-AS64-13RE (SSW-FL1-AS64-13RE.1-450S23D333N-3B400950)

**Framing Details**

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>B</b> Ultimate Wind Pressure, Wu (kPa): <b>0.95</b> Serviceability Wind Pressure, Ws (kPa): <b>0.40</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3570</b> Stud: <b>Single 64mm x 1.15mm Siniat Stud</b> Stud - Spacing (mm): <b>450</b> Head Track: <b>64mm x 1.15mm Siniat Track DH</b> Base Track: <b>64mm x 1.15mm Siniat Track</b> Nogging Track: <b>3 x 64mm x 0.7mm Siniat Track Nogging</b> Anchor: <b>SA6x45</b>

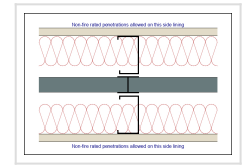


**Framing Notes**

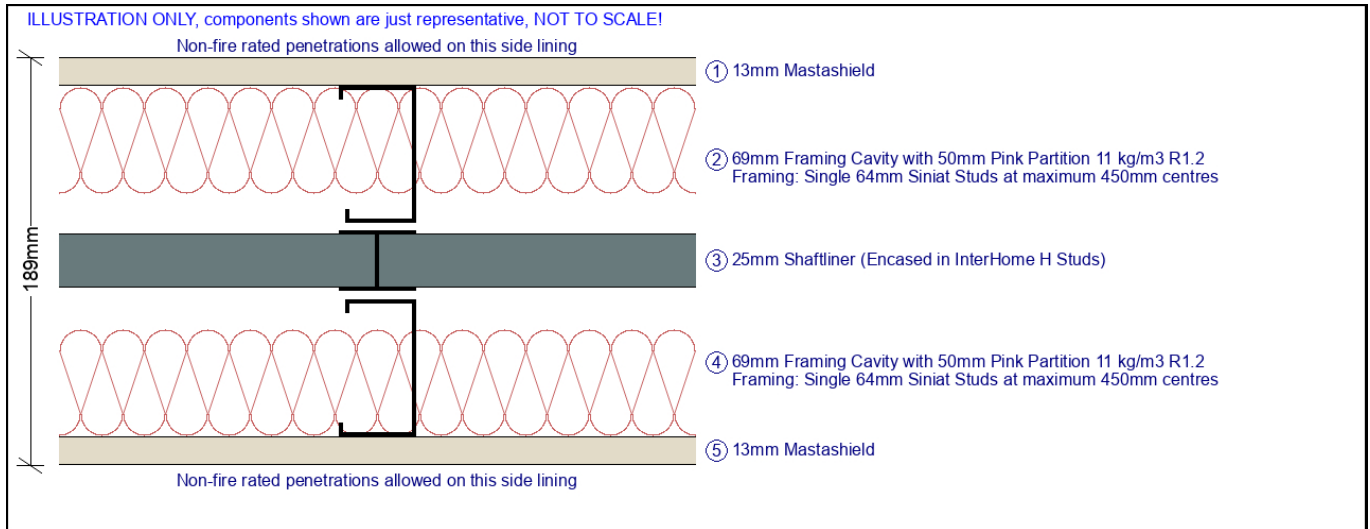
1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection). Screw fix base track to both sides of stud.
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 42% of ultimate.
7. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.



<b>System No.</b>	25
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S3-3
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from public corridor, additional cavity for services on both sides with non-fire rated penetrations, applicable internal ultimate limit state wind load not more than 0.95 kPa



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: -/60/60 Airborne $R_w$ : <b>55</b> Airborne $R_w + C_{tr}$ : <b>38</b> Total Thickness (mm): <b>189.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.860</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>40.26</b>	Side 1: <b>13mm Mastashield</b> Cavity 1: <b>69mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Centre 1: <b>25mm Shaftliner (Encased in InterHome H Studs)</b> Cavity 2: <b>69mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 450mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Side 2: <b>13mm Mastashield</b>

### System Notes

1. Fire Report: FAR4815 (Based on Siniat System IHS115)
2. Acoustic Report: Insul v9 prediction
3. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

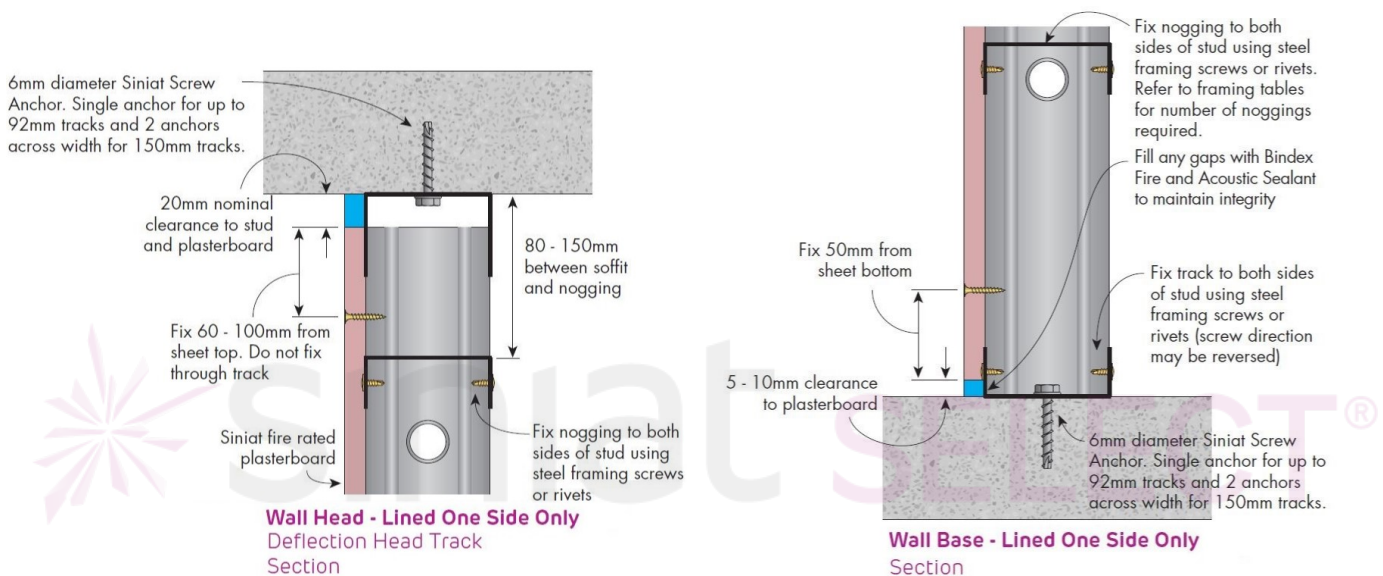
Refer to next page for framing details.

<b>System No.</b>	25
<b>System Reference</b>	Corridor Wall NCC-C3-NLB-S3-3
<b>Framing System Code</b>	SSW-FL1-AS64-13RE (SSW-FL1-AS64-13RE.1-450S23D333N-3B400950)

**Framing Details**

It is the responsibility of the builder to determine if below specified framing design criteria is suitable for the intended application.

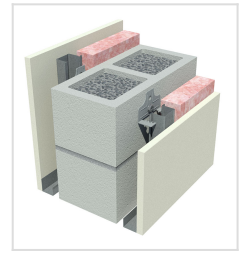
Framing Design Criteria	Framing System Description
Building Importance Level: <b>up to 3</b> Wind Region: <b>B</b> Ultimate Wind Pressure, Wu (kPa): <b>0.95</b> Serviceability Wind Pressure, Ws (kPa): <b>0.40</b> Deflection Class: <b>Maximum H/240 or 30 mm</b> Design Standard: <b>AS/NZS 4600:2005 'Cold Formed Steel Structures'</b>	Maximum Wall Height (mm): <b>3570</b> Stud: <b>Single 64mm x 1.15mm Siniat Stud</b> Stud - Spacing (mm): <b>450</b> Head Track: <b>64mm x 1.15mm Siniat Track DH</b> Base Track: <b>64mm x 1.15mm Siniat Track</b> Nogging Track: <b>3 x 64mm x 0.7mm Siniat Track Nogging</b> Anchor: <b>SA6x45</b>



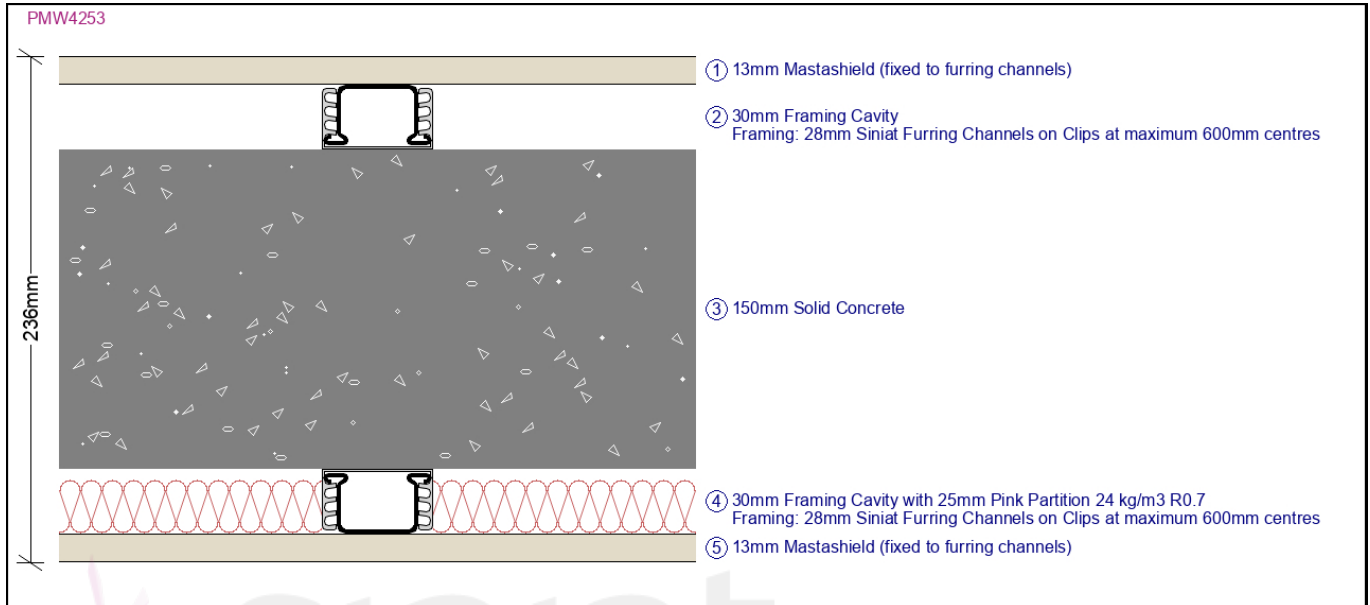
**Framing Notes**

1. Design suitable for untiled internal plasterboard walls and not suitable for external walls.
2. Design includes self weight but is not applicable to axially loaded (load bearing) studs. Point loads and other loads such as shelf loads or live loads are not considered.
3. Contact Siniat or a structural engineer to check walls for earthquake actions or any imposed ceiling loads during an earthquake. Specific project information is required.
4. The nominated lateral pressure and deflection limit must be checked for suitability for a specific project.
5. Connections to base track and head track checked. Head track checked with a maximum 20mm overlap length of the stud to DH-Track (max 20mm downward and 10mm upwards overhead soffit deflection). Screw fix base track to both sides of stud.
6. Wind pressures determined in accordance with AS/NZS 1170.2 Wind Actions. Serviceability wind pressure taken as 42% of ultimate.
7. Calculation based upon a single span and designed in accordance with AS/NZS 4600:2018 Cold Formed Steel Structures.

<b>System No.</b>	26
<b>System Reference</b>	Corridor Wall NCC-C3-LB-M-1
<b>System Code</b>	<b>PMW4253</b>
<b>Comments</b>	Masonry loadbearing wall separating SOU from public corridor, NCC Deemed-to-Satisfy construction



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL from Both Sides: <b>Masonry FRL</b> Airborne Rw: <b>57</b> Airborne Rw + Ctr: <b>47</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>236</b> Insulation Pathway Total R-Value (m2.K/W): <b>1.28</b> Estimated Total Weight (kg/m2): <b>378.44</b>	Side 1 Lining: <b>13mm Mastashield</b> (fixed to furring channels) Side 1 Cavity: <b>30mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Clips at maximum 600mm centres</b> Masonry: <b>150mm Solid Concrete</b> Side 2 Cavity: <b>30mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Clips at maximum 600mm centres</b> Insulation : <b>25mm Pink Partition 24 kg/m3 R0.7</b> Side 2 Lining: <b>13mm Mastashield</b> (fixed to furring channels)

### System Notes

1. Fire Report: Refer to masonry manufacturer
2. Acoustic Report: Acoustic opinion 1021067 (Based on Siniat System PMW4253.L1C1)
3. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

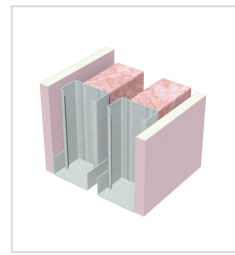


## Framing Details

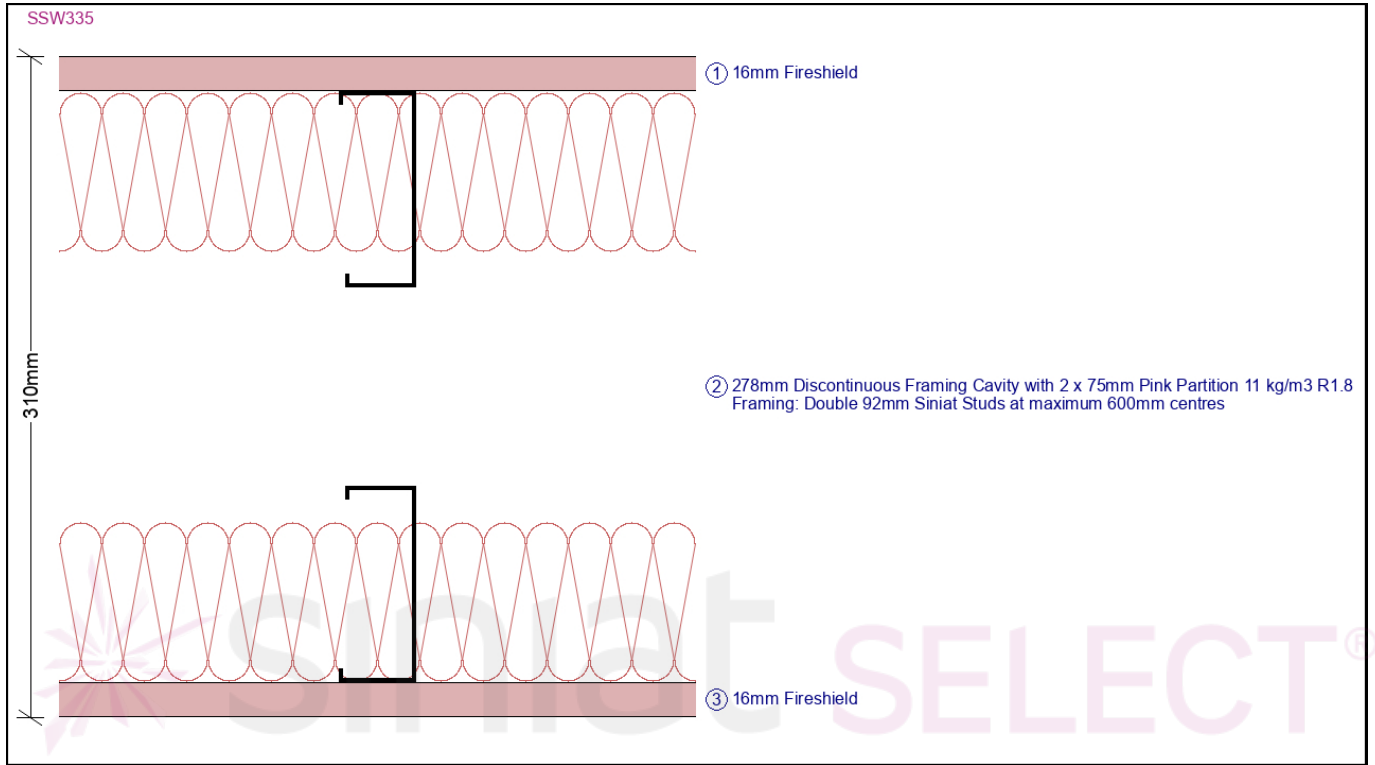
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	27
<b>System Reference</b>	Separating Wall NCC-C3-NLB-BW
<b>System Code</b>	<b>SSW335</b>
<b>Comments</b>	Lightweight non-load bearing wall separating adjoining SOUs, encasing concrete blade wall.



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/90/90</b> Load Bearing FRL: <b>60/60/60</b> Airborne R <sub>w</sub> : <b>61</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>51</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>310</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>3.95</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>30.65</b>	Side 1 Lining: <b>16mm Fireshield</b> Cavity: <b>278mm Discontinuous Framing Cavity</b> Framing : <b>Double 92mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>2 x 75mm Pink Partition 11 kg/m<sup>3</sup> R1.8</b> Side 2 Lining: <b>16mm Fireshield</b>

## System Notes

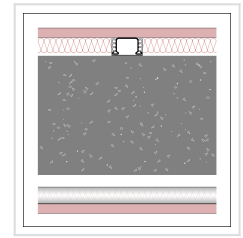
1. Fire Report: FC13921
2. Acoustic Report: CSIRO Test TL525-3 (Based on Siniat System SSW335.L1C15)
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. Boards, while installed horizontally, staggering of recessed joints on each side of the wall not required to achieve an FRL of -/60/60
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

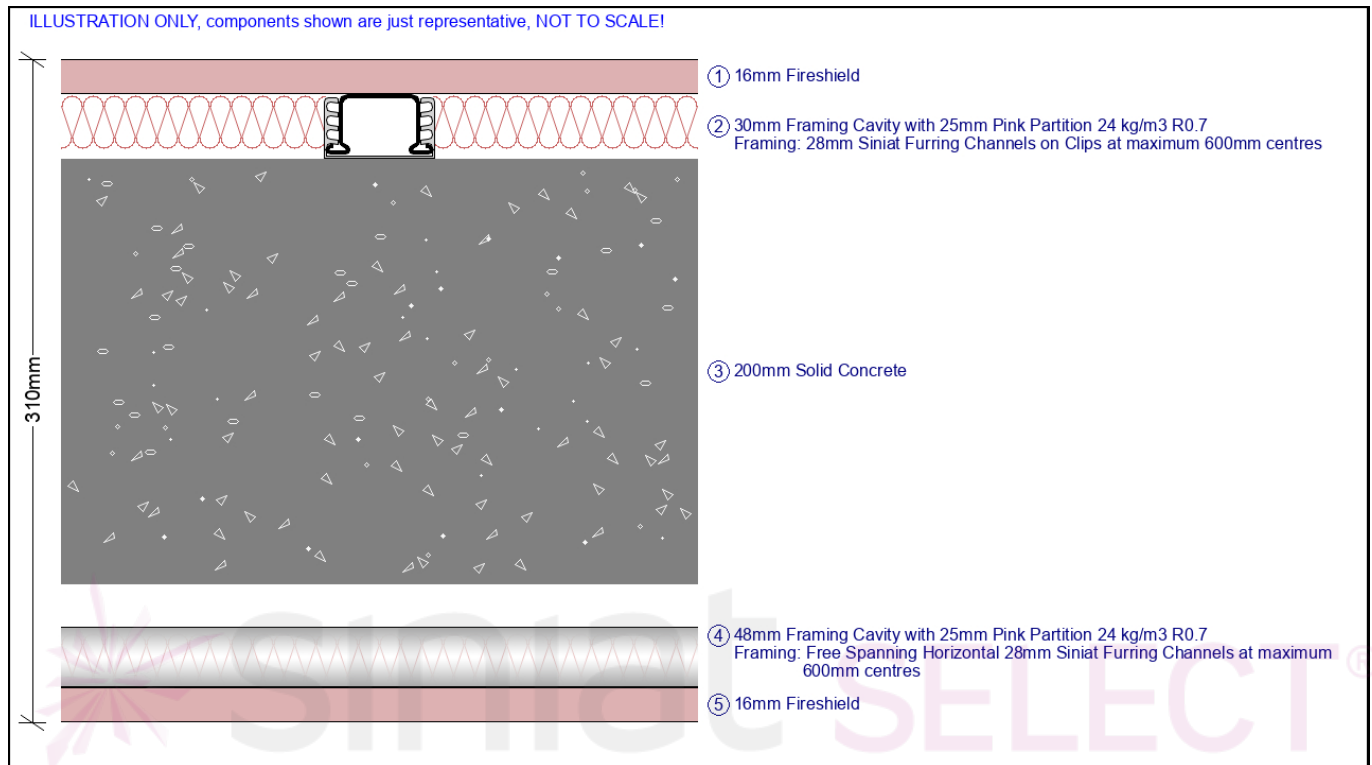
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	28
<b>System Reference</b>	Separating Wall NCC-C3-LB-BW
<b>Comments</b>	Loadbearing concrete blade wall inside separating wall



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne R <sub>w</sub> : <b>60</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>52</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>310.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>1.890</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>508.84</b>	Side 1: <b>16mm Fireshield</b> Cavity 1: <b>30mm Framing Cavity</b> Framing : <b>Furring Channels on Clips at maximum 600mm centres</b> Insulation : <b>25mm Pink Partition 24 kg/m<sup>3</sup> R0.7</b> Centre 1: <b>200mm Solid Concrete</b> Cavity 2: <b>48mm Framing Cavity</b> Framing : <b>Free Spanning Horizontal Furring Channels at maximum 600mm centres</b> Insulation : <b>25mm Pink Partition 24 kg/m<sup>3</sup> R0.7</b> Side 2: <b>16mm Fireshield</b>

### System Notes

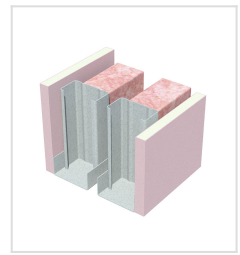
1. Acoustic Report: 1021067-L01 (Based on Siniat System PMW102)
2. 16mm Fireshield can be replaced with 16mm Multishield or 16mm Trurock in wet areas
3. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
4. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
5. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

**Framing Details**

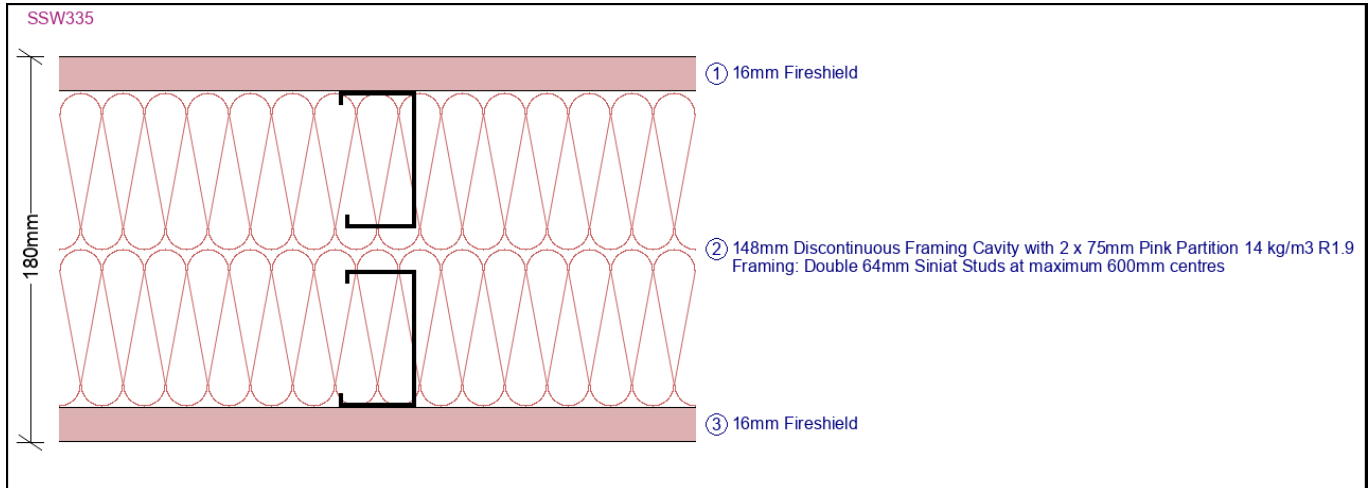
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	29
<b>System Reference</b>	Separating Wall NCC-C3-NLB-1
<b>System Code</b>	<b>SSW335</b>
<b>Comments</b>	Lightweight non-load bearing wall separating adjoining SOUs



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/90/90</b> Load Bearing FRL: <b>60/60/60</b> Airborne $R_w$ : <b>60</b> Airborne $R_w + C_{tr}$ : <b>50</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>180</b> Insulation Pathway Total R-Value (m2.K/W): <b>4.13</b> Estimated Total Weight (kg/m2): <b>30.38</b>	Side 1 Lining: <b>16mm Fireshield</b> Cavity: <b>148mm Discontinuous Framing Cavity</b> Framing : <b>Double 64mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>2 x 75mm Pink Partition 14 kg/m3 R1.9</b> Side 2 Lining: <b>16mm Fireshield</b>

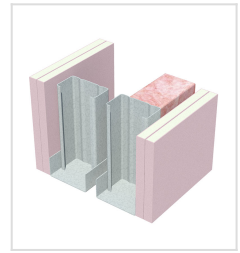
### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Day Design 5008-41 (Based on Siniat System SSW335.L1C3)
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. Boards, while installed horizontally, staggering of recessed joints on each side of the wall not required to achieve an FRL of -/60/60
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

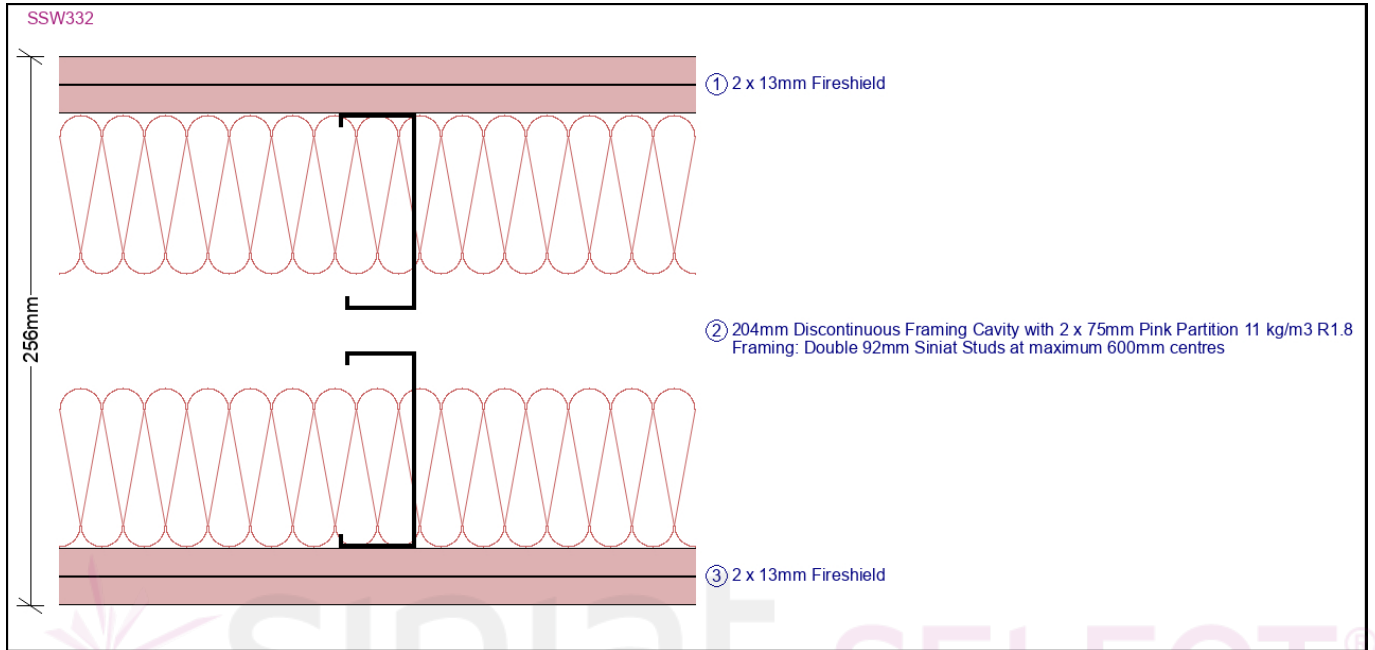
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	30
<b>System Reference</b>	Separating Wall NCC-C3-NLB-2
<b>System Code</b>	<b>SSW332</b>
<b>Comments</b>	Lightweight non-load bearing wall separating adjoining SOUs and encasing non-fire protected loadbearing component



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/120/120</b> Load Bearing FRL: <b>90/90/90</b> Airborne Rw: <b>64</b> Airborne Rw + Ctr: <b>55</b> Impact Sound Resistant: <b>Yes -</b> Discontinuous Construction Total Thickness (mm): <b>256</b> Insulation Pathway Total R-Value (m2.K/W): <b>4.07</b> Estimated Total Weight (kg/m2): <b>46.65</b>	Side 1 Lining: <b>2 x 13mm Fireshield</b> Cavity: <b>204mm Discontinuous Framing Cavity</b> Framing : <b>Double 92mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>2 x 75mm Pink Partition 11 kg/m3 R1.8</b> Side 2 Lining: <b>2 x 13mm Fireshield</b>

**System Notes**

1. Fire Report: FC13921
2. Acoustic Report: Day Design 4738-L12 (Based on Siniat System SSW332.L1C6)
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

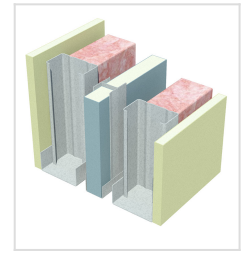
## Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

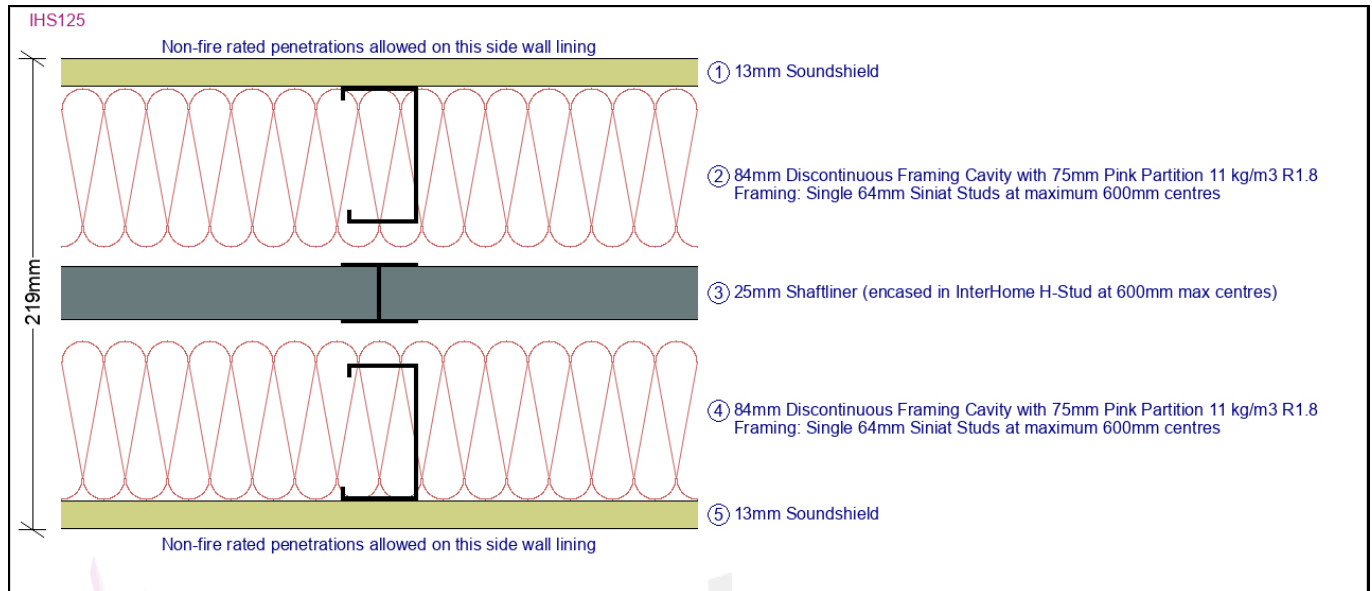




<b>System No.</b>	31
<b>System Reference</b>	Separating Wall NCC-C3-NLB-3
<b>System Code</b>	<b>IHS125</b>
<b>Comments</b>	Lightweight non-load bearing wall separating adjoining SOUs, non-fire rated penetrations permitted on wall linings



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/60/60</b> Airborne $R_w$ : <b>66</b> Airborne $R_w + C_{tr}$ : <b>53</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>219</b> Insulation Pathway Total R-Value ( $m^2.K/W$ ): <b>4.06</b> Estimated Total Weight ( $kg/m^2$ ): <b>48.73</b>	Side 1 Lining: <b>13mm Soundshield</b> Side 1 Cavity: <b>84mm Discontinuous Framing Cavity</b> Framing : <b>Single 64mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>75mm Pink Partition 11 kg/m3 R1.8</b> Central Barrier: <b>25mm Shaftliner (encased in InterHome H-Stud at 600mm max centres)</b> Side 2 Cavity: <b>84mm Discontinuous Framing Cavity</b> Framing : <b>Single 64mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>75mm Pink Partition 11 kg/m3 R1.8</b> Side 2 Lining: <b>13mm Soundshield</b>

### System Notes

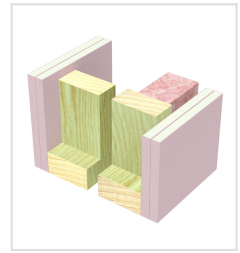
1. Fire Report: FAR4815
2. Acoustic Report: Day Design 5008-18 (Based on Siniat System IHS125.L1C2)
3. 13mm Soundshield can be substituted with 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

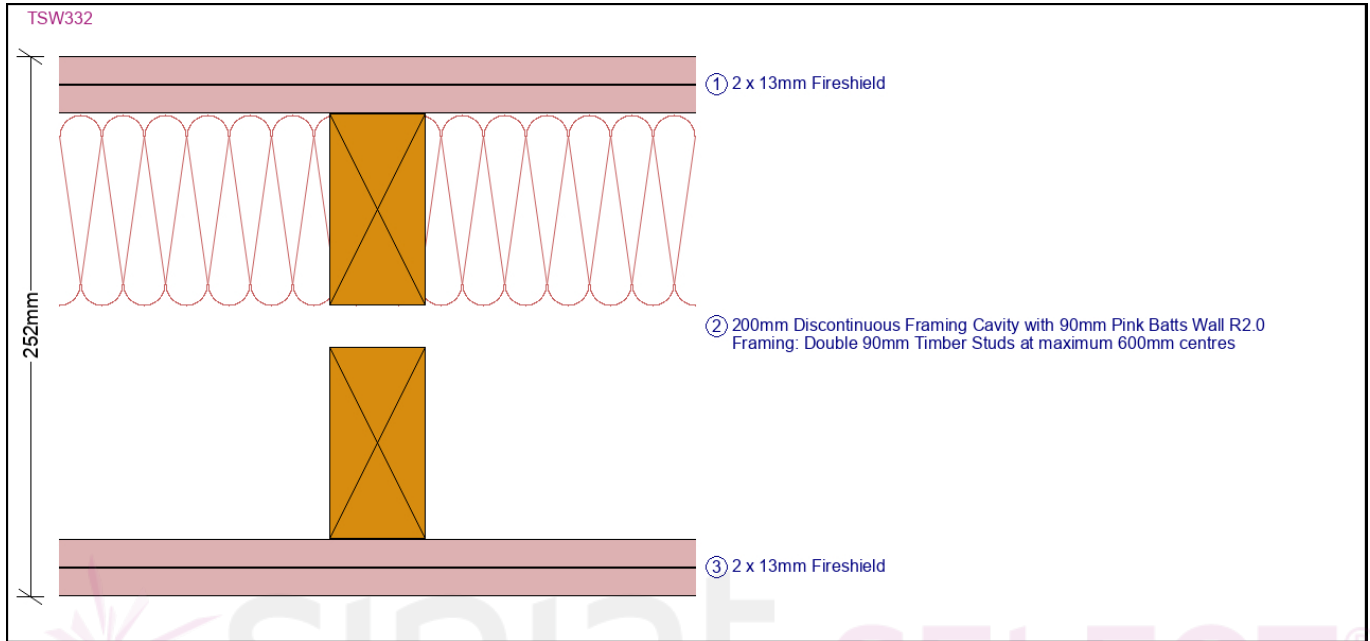
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	32
<b>System Reference</b>	Separating Wall NCC-C3-LB-T
<b>System Code</b>	<b>TSW332</b>
<b>Comments</b>	Timber studs loadbearing wall separating adjoining SOUs in the top floor



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/120/120</b> Load Bearing FRL: <b>90/90/90</b> Airborne $R_w$ : <b>64</b> Airborne $R_w + C_{tr}$ : <b>56</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>252</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>2.47</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>51.7</b>	Side 1 Lining: <b>2 x 13mm Fireshield</b> Cavity: <b>200mm Discontinuous Framing Cavity</b> Framing : <b>Double 90mm Timber Studs at maximum 600mm centres</b> Insulation : <b>90mm Pink Batts Wall R2.0</b> Side 2 Lining: <b>2 x 13mm Fireshield</b>

### System Notes

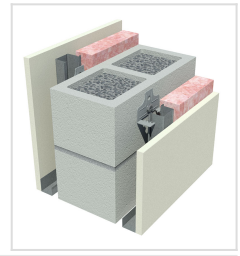
1. Fire Report: FAR3348
2. Acoustic Report: Day Design 3094-45 (Based on Siniat System TSW332.L1C7)
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

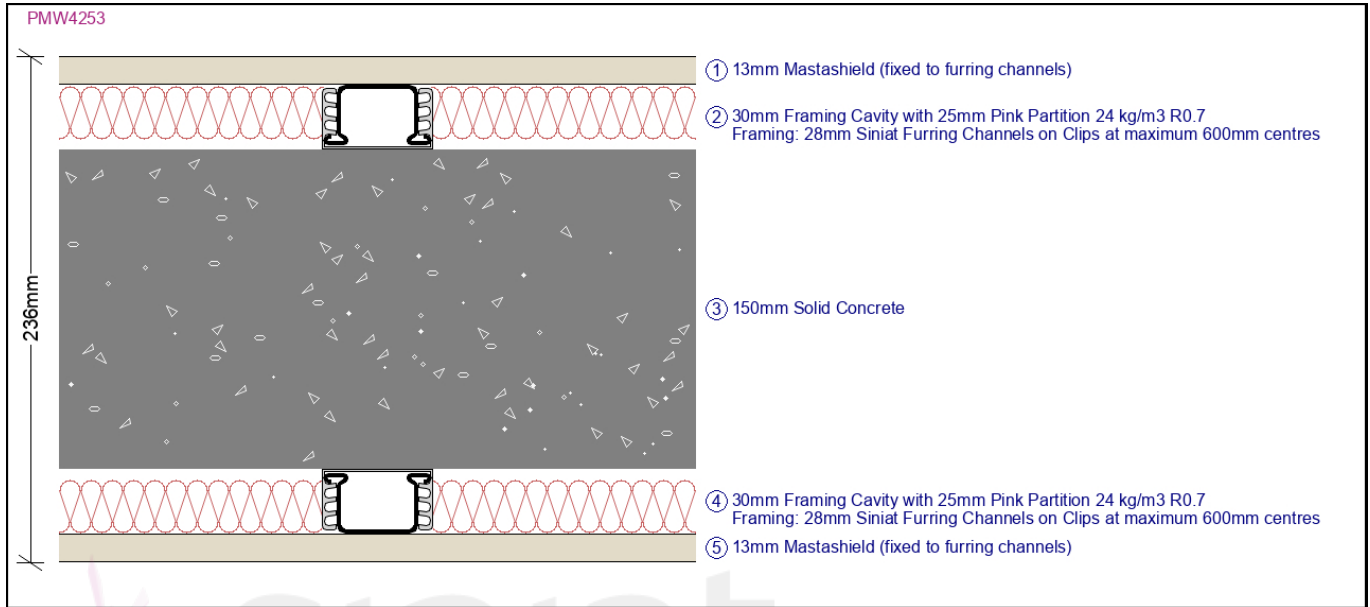
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	33
<b>System Reference</b>	Separating Wall NCC-C3-LB-M
<b>System Code</b>	<b>PMW4253</b>
<b>Comments</b>	Masonry loadbearing wall separating adjoining SOUs, similar type of rooms on each side



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL from Both Sides: <b>Masonry FRL</b> Airborne Rw: <b>61</b> Airborne Rw + Ctr: <b>50</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>236</b> Insulation Pathway Total R-Value (m2.K/W): <b>1.82</b> Estimated Total Weight (kg/m2): <b>379.04</b>	Side 1 Lining: <b>13mm Mastashield</b> (fixed to furring channels) Side 1 Cavity: <b>30mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Clips at maximum 600mm centres</b> Insulation : <b>25mm Pink Partition 24 kg/m3 R0.7</b> Masonry: <b>150mm Solid Concrete</b> Side 2 Cavity: <b>30mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Clips at maximum 600mm centres</b> Insulation : <b>25mm Pink Partition 24 kg/m3 R0.7</b> Side 2 Lining: <b>13mm Mastashield</b> (fixed to furring channels)

**System Notes**

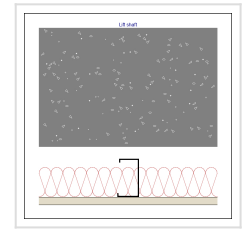
1. Fire Report: Refer to masonry manufacturer
2. Acoustic Report: Acoustic opinion 1021067 (Based on Siniat System PMW4253.L1C2)
3. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

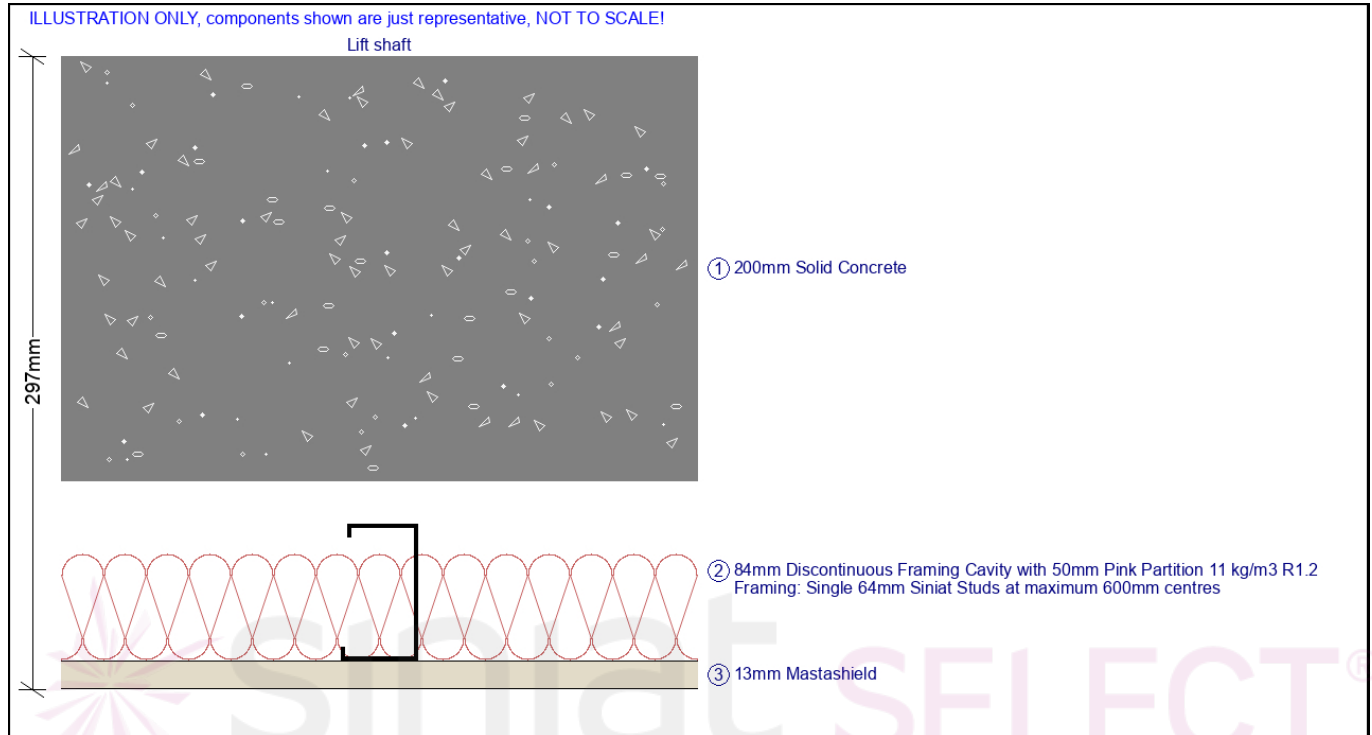
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	34
<b>System Reference</b>	Lift Shaft Wall NCC-C3-LB-1
<b>Comments</b>	Masonry loadbearing wall separating SOU from a lift shaft



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL from Both Sides: <b>Masonry FRL</b> Airborne R <sub>w</sub> : <b>59</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>52</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>297</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>1.57</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>489.79</b>	Side 1: <b>200mm Solid Concrete</b> Cavity 1: <b>84mm Discontinuous Framing Cavity</b> Framing : <b>Single 64mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Side 2: <b>13mm Mastashield</b>

**System Notes**

1. Fire Report: Refer to masonry manufacturer
2. Acoustic Report: ESTIMATE ONLY, based on Siniat System PMW5251.L1C2
3. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.



**Framing Details**

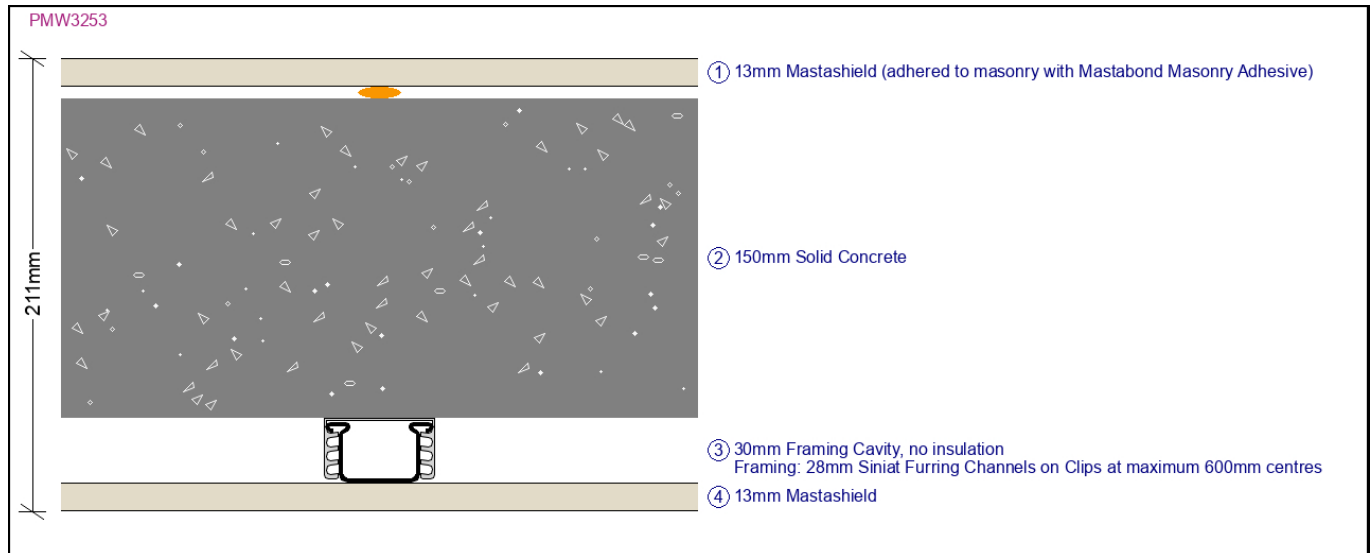
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	35
<b>System Reference</b>	Stair Shaft Wall NCC-C3-LB-1
<b>System Code</b>	<b>PMW3253</b>
<b>Comments</b>	Masonry loadbearing wall separating SOU from a stair shaft, cavity on SOU side only



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL from Both Sides: <b>Masonry FRL</b> Airborne $R_w$ : <b>50</b> Airborne $R_w + C_{tr}$ : <b>44</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>211</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>0.42</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>377.02</b>	Side 1 Lining: <b>13mm Mastashield</b> (adhered to masonry with Mastabond Masonry Adhesive) Side 1 Cavity: <b>5mm Cavity with Adhesive Daubs</b> Masonry: <b>150mm Solid Concrete</b> Side 2 Cavity: <b>30mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Clips at maximum 600mm centres</b> Insulation : <b>No insulation</b> Side 2 Lining: <b>13mm Mastashield</b>

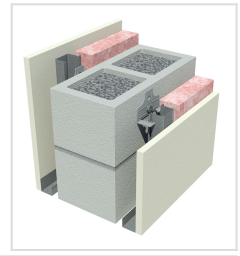
### System Notes

1. Fire Report: Refer to masonry manufacturer
2. Acoustic Report: Acoustic opinion 1021067 (Based on Siniat System PMW3253.L1C1)
3. 13mm Mastashield on furring channels can be substituted with 13mm Watershield in wet areas
4. 13mm Mastashield adhered with Mastabond Masonry Adhesive can be substituted with 13mm render
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

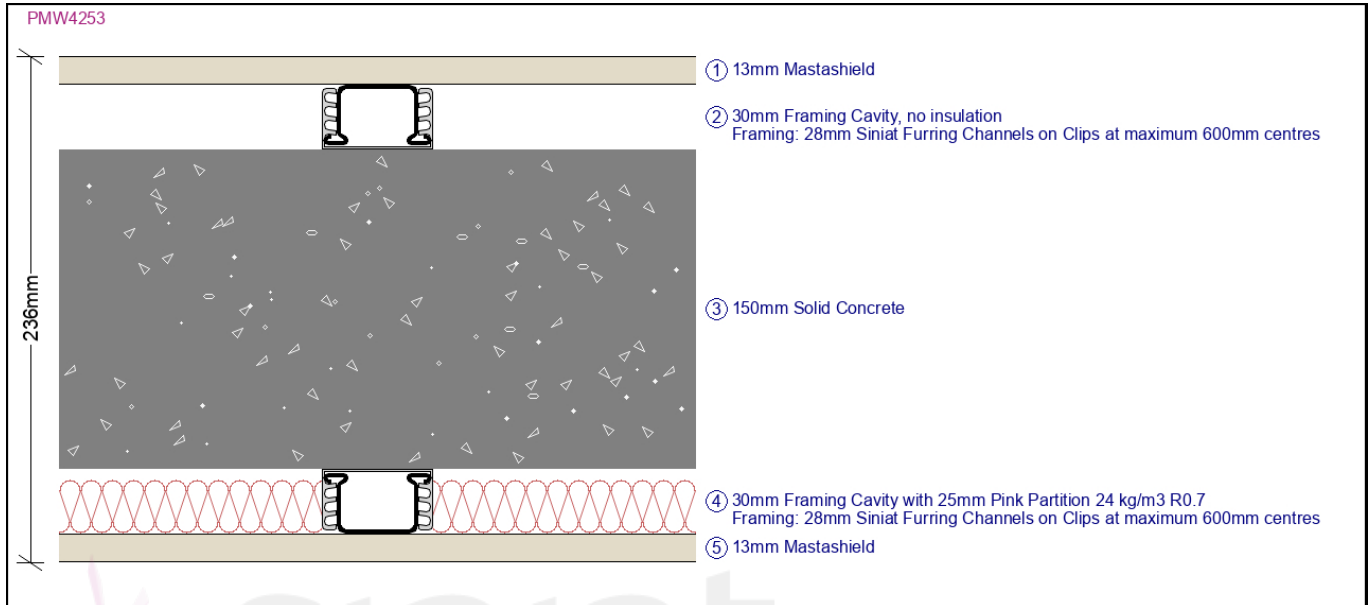
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	36
<b>System Reference</b>	Stair Shaft Wall NCC-C3-LB-2
<b>System Code</b>	<b>PMW4253</b>
<b>Comments</b>	Masonry loadbearing wall separating SOU from a stair shaft, cavities on both sides



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL from Both Sides: <b>Masonry FRL</b> Airborne R <sub>w</sub> : <b>57</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>47</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>236</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>1.12</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>378.44</b>	Side 1 Lining: <b>13mm Mastashield</b> Side 1 Cavity: <b>30mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Clips at maximum 600mm centres</b> Insulation : <b>No insulation</b> Masonry: <b>150mm Solid Concrete</b> Side 2 Cavity: <b>30mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Clips at maximum 600mm centres</b> Insulation : <b>25mm Pink Partition 24 kg/m<sup>3</sup> R0.7</b> Side 2 Lining: <b>13mm Mastashield</b>

### System Notes

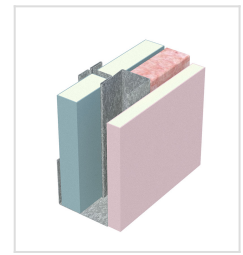
1. Fire Report: Refer to masonry manufacturer
2. Acoustic Report: Acoustic opinion 1021067 (Based on Siniat System PMW4253.L1C1)
3. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

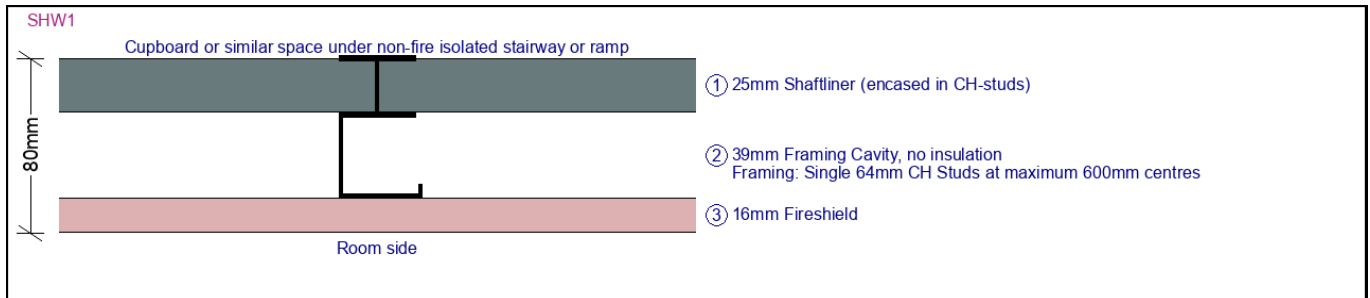
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	37
<b>System Reference</b>	Cupboard Shaft Wall NCC-C3-NLB-1
<b>System Code</b>	<b>SHW1</b>
<b>Comments</b>	Lightweight non-load bearing wall enclosing cupboard or like space below non fire-isolated stairway and ramp



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/60/60</b> Airborne R <sub>w</sub> : <b>39</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>32</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>80</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>0.4</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>34.88</b>	Cupboard Side Lining: <b>25mm Shaftliner</b> (encased in CH-studs) Cavity: <b>39mm Framing Cavity</b> Framing : <b>Single 64mm CH Studs at maximum 600mm centres</b> Insulation : <b>No insulation</b> Room Side Lining: <b>16mm Fireshield</b>

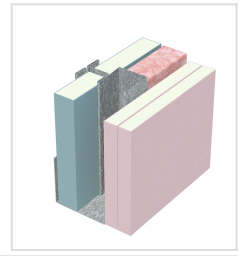
### System Notes

1. Fire Report: FAR2863
2. Acoustic Report: Day Design 3094-18 (Based on Siniat System SHW1.L1C1)
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

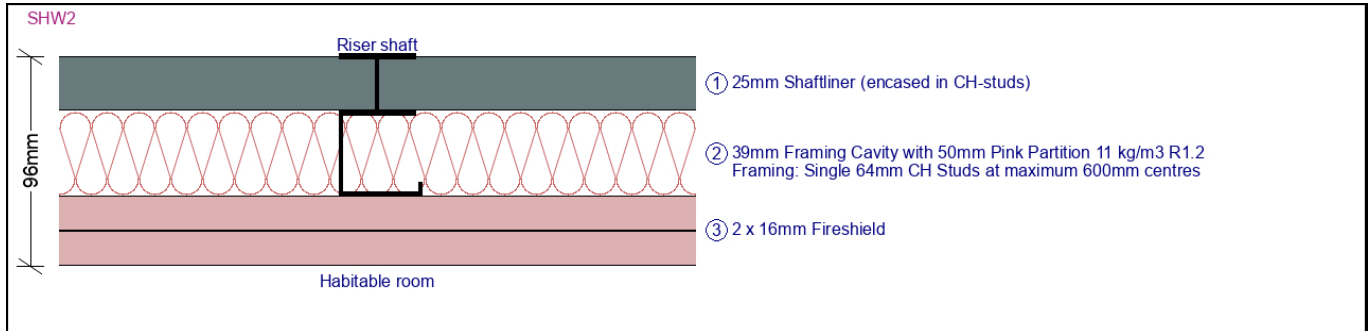
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	38
<b>System Reference</b>	Riser Shaft Wall NCC-C3-NLB-A1-1
<b>System Code</b>	<b>SHW2</b>
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from services riser shaft in a habitable room other than kitchen



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/120/120</b> Airborne Rw: <b>50</b> Airborne Rw + Ctr: <b>42</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>96</b> Insulation Pathway Total R-Value (m2.K/W): <b>1.57</b> Estimated Total Weight (kg/m2): <b>48.43</b>	Shaft Side Lining: <b>25mm Shaftliner (encased in CH-studs)</b> Cavity: <b>39mm Framing Cavity</b> Framing : <b>Single 64mm CH Studs at maximum 600mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Room Side Lining: <b>2 x 16mm Fireshield</b>

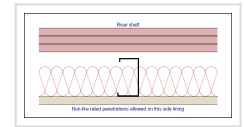
### System Notes

1. Fire Report: FAR2863
2. Acoustic Report: Day Design 3094-18 (Based on Siniat System SHW2.L1C2)
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

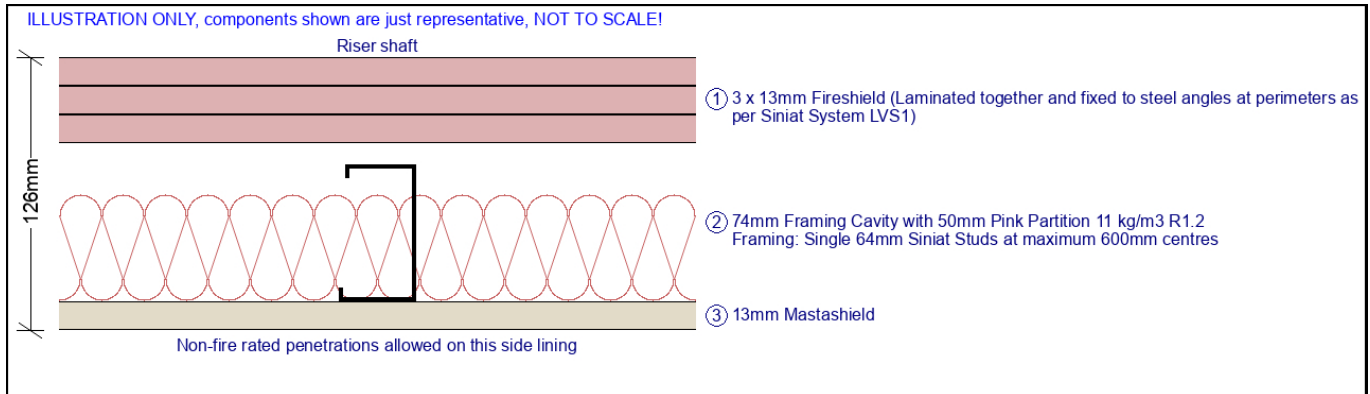
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	39
<b>System Reference</b>	Riser Shaft Wall NCC-C3-NLB-A1-2
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from services riser shaft in a habitable room other than kitchen, non-fire rated penetrations allowed on room side



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL1: <b>-/90/90</b> Airborne R <sub>w</sub> : <b>53</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>41</b> Total Thickness (mm): <b>126.00</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>1.670</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>41.29</b>	Side 1: <b>3 x 13mm Fireshield</b> (Laminated together and fixed to steel angles at perimeters as per Siniat System LVS1) Cavity 1: <b>74mm Framing Cavity</b> Framing : <b>Single Steel Studs at maximum 600mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Side 2: <b>13mm Mastashield</b>

### System Notes

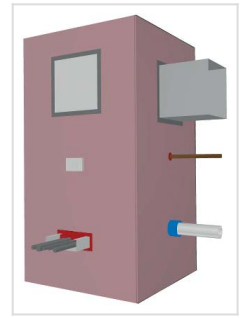
1. Fire Report: FAR1660 (Based on Siniat System LVS1)
2. Acoustic Report: Insul v9 prediction
3. 13mm Fireshield can be substituted with 13mm Multishield or 13mm Trurock in wet areas
4. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

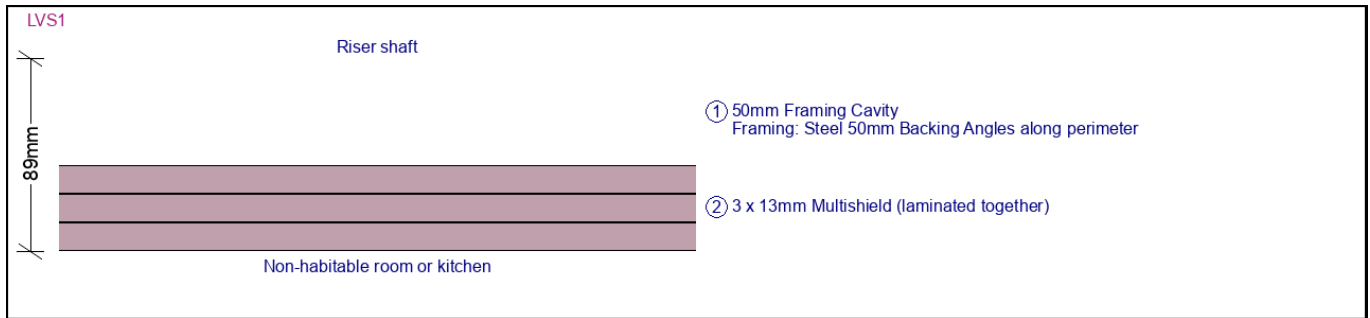
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	40
<b>System Reference</b>	Riser Shaft Wall NCC-C3-NLB-A2-1
<b>System Code</b>	<b>LVS1</b>
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from services riser shaft in a kitchen or non-habitable room



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL: <b>-/90/90</b> Airborne Rw: <b>37</b> Airborne Rw + Ctr: <b>34</b> Total Thickness (mm): <b>89</b> Insulation Pathway Total R-Value (m2.K/W): <b>0.39</b> Estimated Total Weight (kg/m2): <b>33.32</b>	Cavity 1: <b>50mm Framing Cavity</b> Framing : <b>Steel 50mm Backing Angles along perimeter</b> Duct Lining: <b>3 x 13mm Multishield (laminated together)</b>

### System Notes

1. Fire Report: FAR3361, FAR1660
2. Acoustic Report: Day Design 3094-33 (Based on Siniat System LVS1.L2C1)
3. Laminated Vertical Duct can be 1, 2, 3 or 4 sided
4. Minimum 50mm x 50mm x 0.7mm BMT Steel angles must be provided at perimeter as per Blueprint technical manual
5. Maximum height and maximum width restrictions apply, refer to Blueprint technical manual
6. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
7. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
8. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

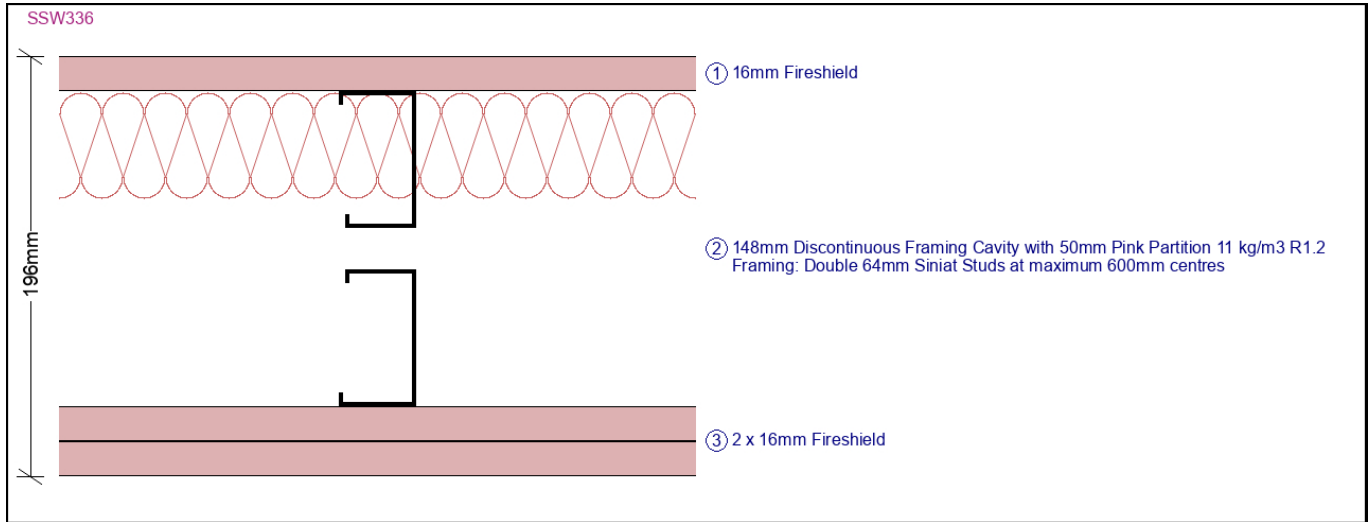
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	41
<b>System Reference</b>	Plant Room Wall NCC-C3-NLB-1
<b>System Code</b>	<b>SSW336</b>
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from plant room



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> Non-Load Bearing FRL: <b>-/120/120</b> Load Bearing FRL: <b>60/60/60</b> Airborne R <sub>w</sub> : <b>59</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>48</b> Impact Sound Resistant: <b>Yes -</b> Discontinuous Construction Total Thickness (mm): <b>196</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>1.64</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>41.83</b>	Side 1 Lining: <b>16mm Fireshield</b> Cavity: <b>148mm Discontinuous Framing Cavity</b> Framing : <b>Double 64mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Side 2 Lining: <b>2 x 16mm Fireshield</b>

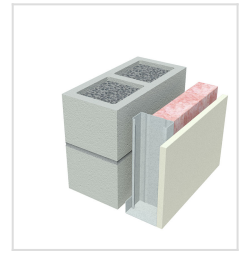
### System Notes

1. Fire Report: FC13921
2. Acoustic Report: Day Design 3094-33 (Based on Siniat System SSW336.L1C2)
3. 16mm Fireshield can be substituted with 16mm Multishield or 16mm Trurock in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

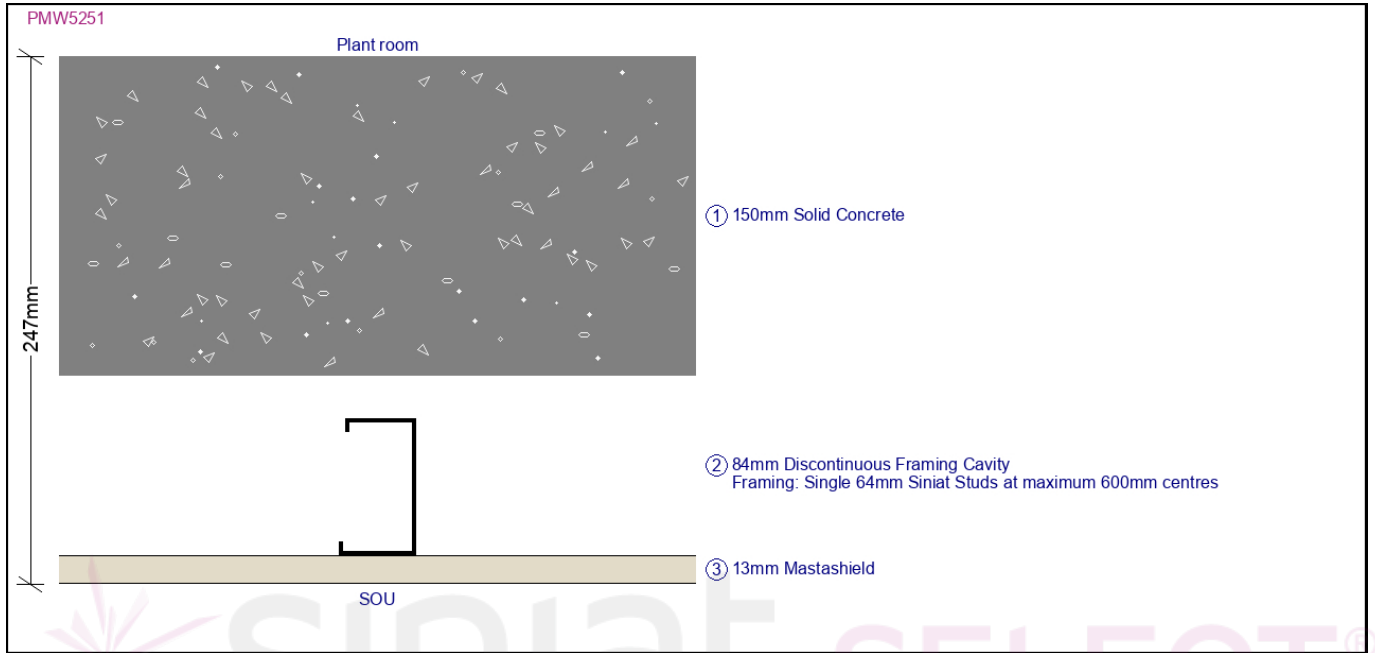
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	42
<b>System Reference</b>	Plant Room Wall NCC-C3-LB-1
<b>System Code</b>	<b>PMW5251</b>
<b>Comments</b>	Masonry loadbearing wall separating SOU from plant room



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from both sides</b> FRL from Both Sides: <b>Masonry FRL</b> Airborne R <sub>w</sub> : <b>52</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>46</b> Impact Sound Resistant: <b>Yes - Discontinuous Construction</b> Total Thickness (mm): <b>247</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>0.5</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>369.24</b>	Side 1: <b>150mm Solid Concrete</b> Cavity 1: <b>84mm Discontinuous Framing Cavity</b> Framing : <b>Single 64mm Siniat Studs at maximum 600mm centres</b> Side 2: <b>13mm Mastashield</b>

### System Notes

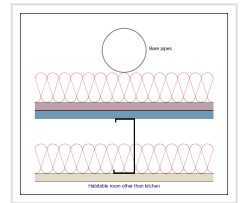
1. Fire Report: Refer to masonry manufacturer
2. Acoustic Report: Acoustic opinion 1021067 (Based on Siniat System PMW5251.L1C1)
3. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
4. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
5. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

## Framing Details

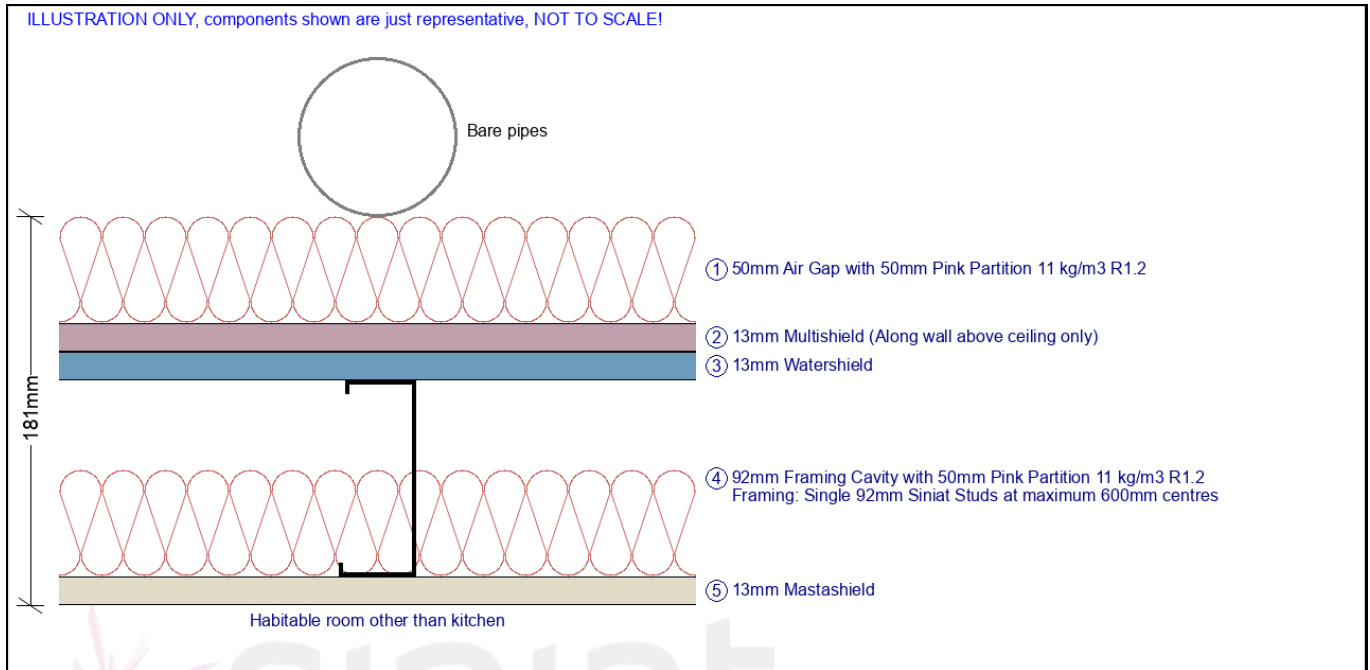
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	43
<b>System Reference</b>	Waste Pipe Wall NCC-C3-NLB-A1
<b>Comments</b>	Lightweight non-load bearing wall separating SOU from soil and waste pipes without acoustic lagging in a habitable room other than kitchen



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>48</b> Airborne Rw + Ctr: <b>40</b> Total Thickness (mm): <b>181</b> Insulation Pathway Total R-Value (m2.K/W): <b>2.79</b> Estimated Total Weight (kg/m2): <b>30.8</b>	Pipes: <b>Bare pipes</b> Pipe Side Cavity: <b>50mm Air Gap</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Additional Lining in Ceiling Plenum: <b>13mm Multishield (Along wall above ceiling only)</b> Bathroom Side Lining: <b>13mm Watershield</b> Wall Cavity: <b>92mm Framing Cavity</b> Framing : <b>Single 92mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Habitable Room Side Lining: <b>13mm Mastashield</b>

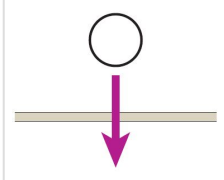
### System Notes

1. Acoustic Report: ESTIMATE ONLY, based on Siniat System SWP114.L1C2
2. Pipes must not be in contact with framing member, insulation or plasterboard
3. Wall insulation must extend to minimum 500mm below ceiling
4. Ceiling insulation can be placed along wall or above ceiling
5. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
6. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
7. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

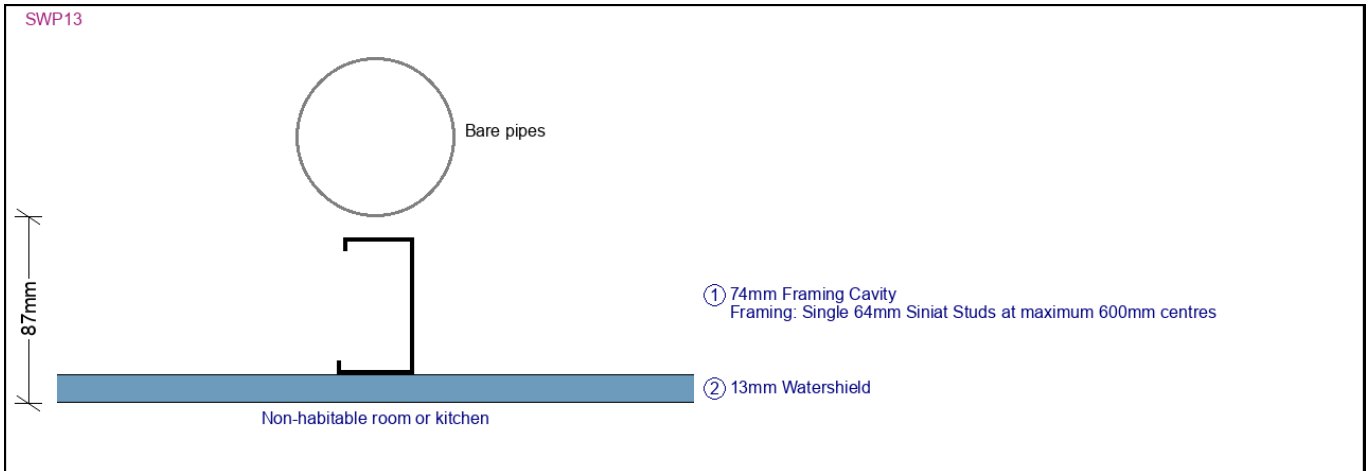
## Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	44	
<b>System Reference</b>	Waste Pipe Wall NCC-C3-NLB-A2	
<b>System Code</b>	<b>SWP13</b>	
<b>Comments</b>	Lightweight non-load bearing wall or ceiling separating SOU from soil and waste pipes without acoustic lagging in a kitchen or non-habitable room	

### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>29</b> Airborne Rw + Ctr: <b>26</b> Total Thickness (mm): <b>87</b> Insulation Pathway Total R-Value (m2.K/W): <b>0.24</b> Estimated Total Weight (kg/m2): <b>10.54</b>	Pipes: <b>Bare pipes</b> Cavity 1: <b>74mm Framing Cavity</b> Framing : <b>Single 64mm Siniat Studs at maximum 600mm centres</b> Wall Lining: <b>13mm Watershield</b>

### System Notes

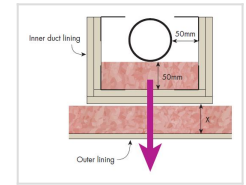
1. Acoustic Report: Day Design 3094-35 (Based on Siniat System SWP13.L1C1)
2. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
3. Pipes must not be in contact with framing member, insulation or plasterboard
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

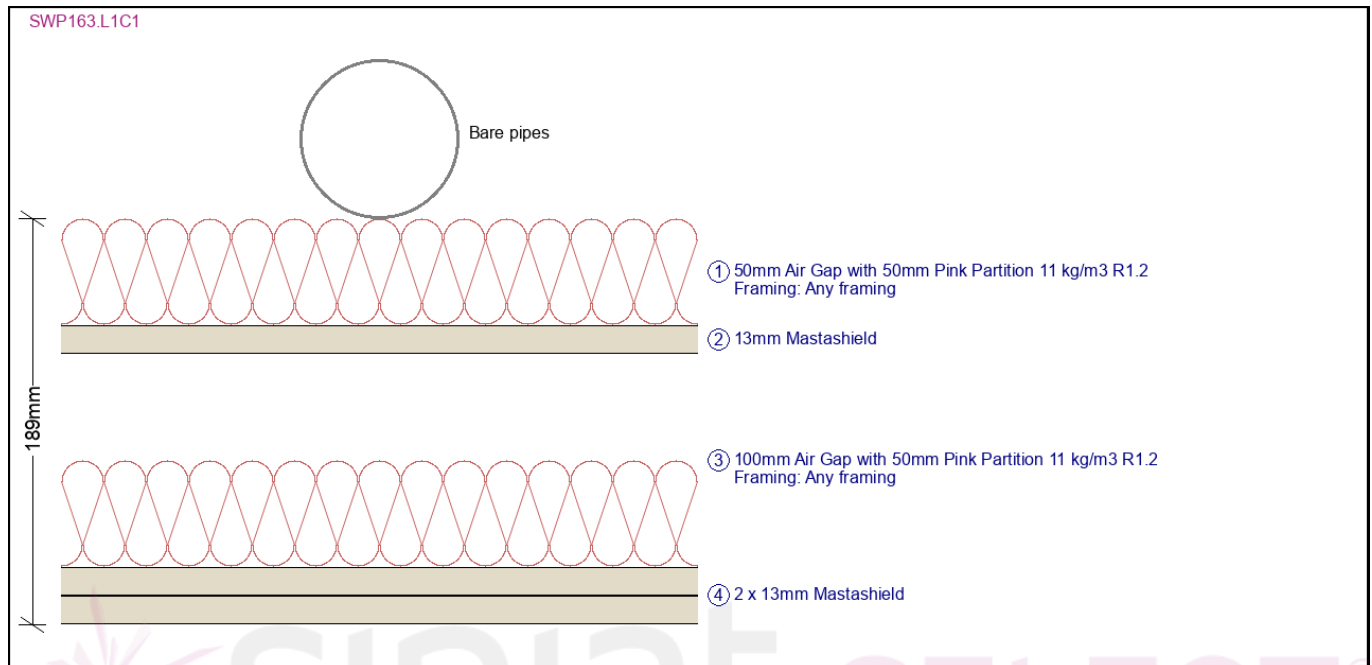
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	45
<b>System Reference</b>	Waste Pipe Ceiling NCC-C3-A1-1
<b>System Code</b>	<b>SWP163</b>
<b>Comments</b>	Ceiling separating SOU from soil and waste pipes without acoustic lagging in a habitable room other than kitchen



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Total Thickness (mm): <b>189</b> Rw: <b>54</b> Rw + Ctr: <b>41</b> Estimated Total Weight (kg/m2): <b>25.4</b>	Encasing Box Lining: <b>13mm Mastashield</b> Wall or Ceiling Lining: <b>2 x 13mm Mastashield</b> Pipe Side Cavity - Description: <b>Air Gap</b> Encasing Box Framing : <b>Any framing</b> Pipe Side Cavity - Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Pipe Side Cavity - Size: <b>50</b> Wall or Ceiling Cavity - Description: <b>Air Gap</b> Outer Framing : <b>Any framing</b> Wall or Ceiling Cavity - Stud Size : <b>NA</b> Wall or Ceiling Cavity - Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Wall or Ceiling Cavity - Size: <b>100</b> Downlights - Counts: <b>4</b>

### System Notes

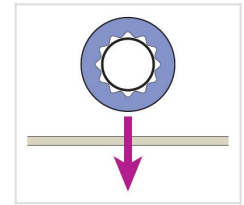
1. Acoustic Report: Day Design 5008-1
2. Number of downlights per 5 m2 area, downlights should be evenly distributed and no closer than 900mm apart
3. Pipes must not be in contact with framing member, insulation or plasterboard
4. No connection between inner and outer plasterboard layers
5. Soil and waste pipe systems can be a ceiling, wall, bulkhead or duct
6. Insulation to 1200mm minimum on both sides of pipe
7. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
8. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

**Framing Details**

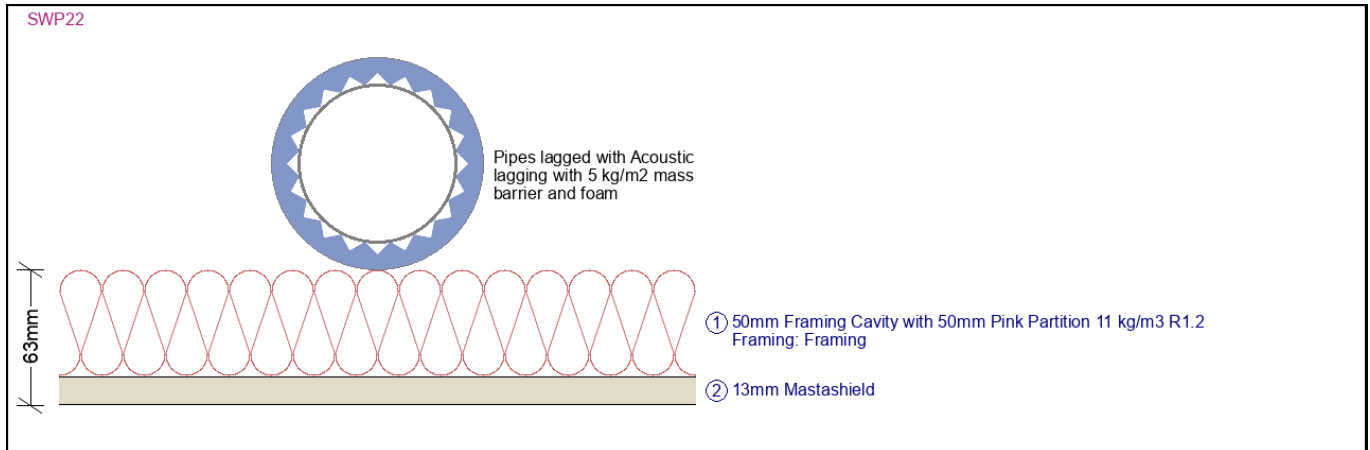
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	46
<b>System Reference</b>	Waste Pipe Ceiling NCC-C3-A1-2
<b>System Code</b>	<b>SWP22</b>
<b>Comments</b>	Lightweight non-load bearing wall or ceiling separating SOU from soil and waste pipes with acoustic lagging in a habitable room other than kitchen



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne R <sub>w</sub> : <b>48</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>40</b> Total Thickness (mm): <b>63</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>8.65</b>	Pipes: <b>Pipes lagged with Acoustic lagging with 5 kg/m<sup>2</sup> mass barrier and foam</b> Wall or Ceiling Cavity: <b>50mm Framing Cavity</b> Framing: <b>Framing</b> Insulation: <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Wall or Ceiling Lining: <b>13mm Mastashield</b>

### System Notes

1. Acoustic Report: Day Design 3094-35 (Based on Siniat System SWP22.L1C2)
2. Pipes must not be in contact with framing member, insulation or plasterboard
3. Soil and waste pipe systems can be a ceiling, wall, bulkhead or duct
4. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
5. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

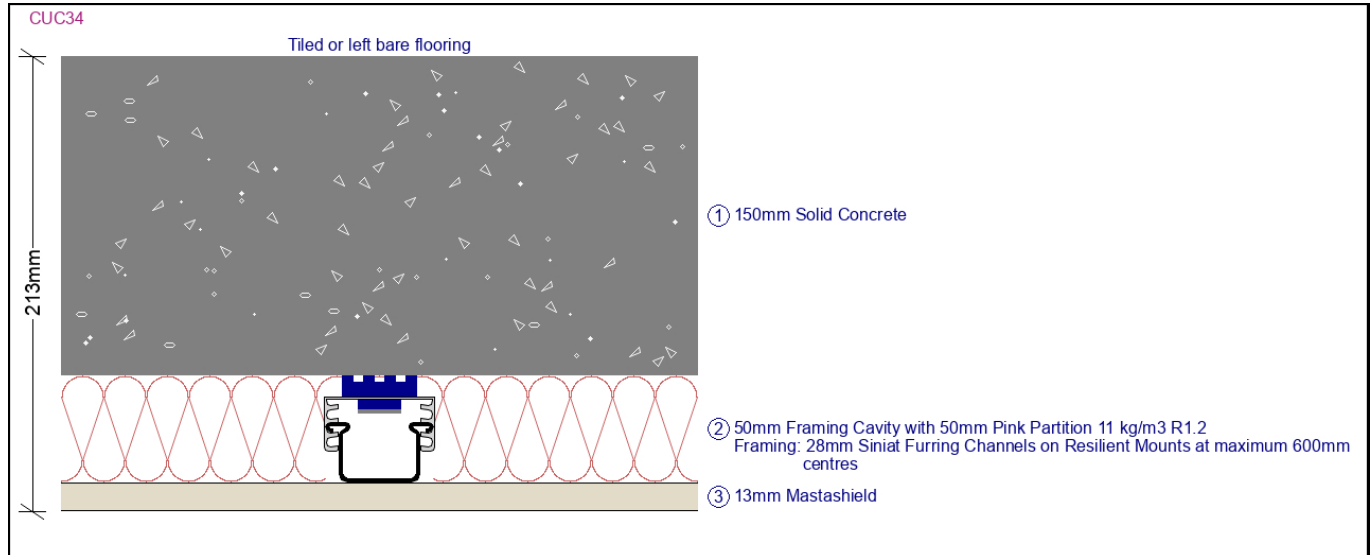
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	47
<b>System Reference</b>	Separating Floor NCC-C3-LB-1
<b>System Code</b>	<b>CUC34</b>
<b>Comments</b>	Floors separating adjoining SOUs



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne $R_w$ : <b>62</b> Airborne $R_w + C_{tr}$ : <b>52</b> Impact $L_{n,w}$ : <b>62</b> Total Thickness (mm): <b>213</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>369.47</b>	Floor Covering: <b>Tiled or left bare flooring</b> Flooring: <b>150mm Solid Concrete</b> Ceiling Cavity: <b>50mm Framing Cavity</b> Framing : <b>28mm Siniat Furring Channels on Resilient Mounts at maximum 600mm centres</b> (Maximum furring channel spacing 600mm) Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Ceiling Lining: <b>13mm Mastashield</b>

### System Notes

1. Acoustic Report: Day Design 5008-25 (Based on Siniat System CUC34.L1C2)
2. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
3. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
4. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

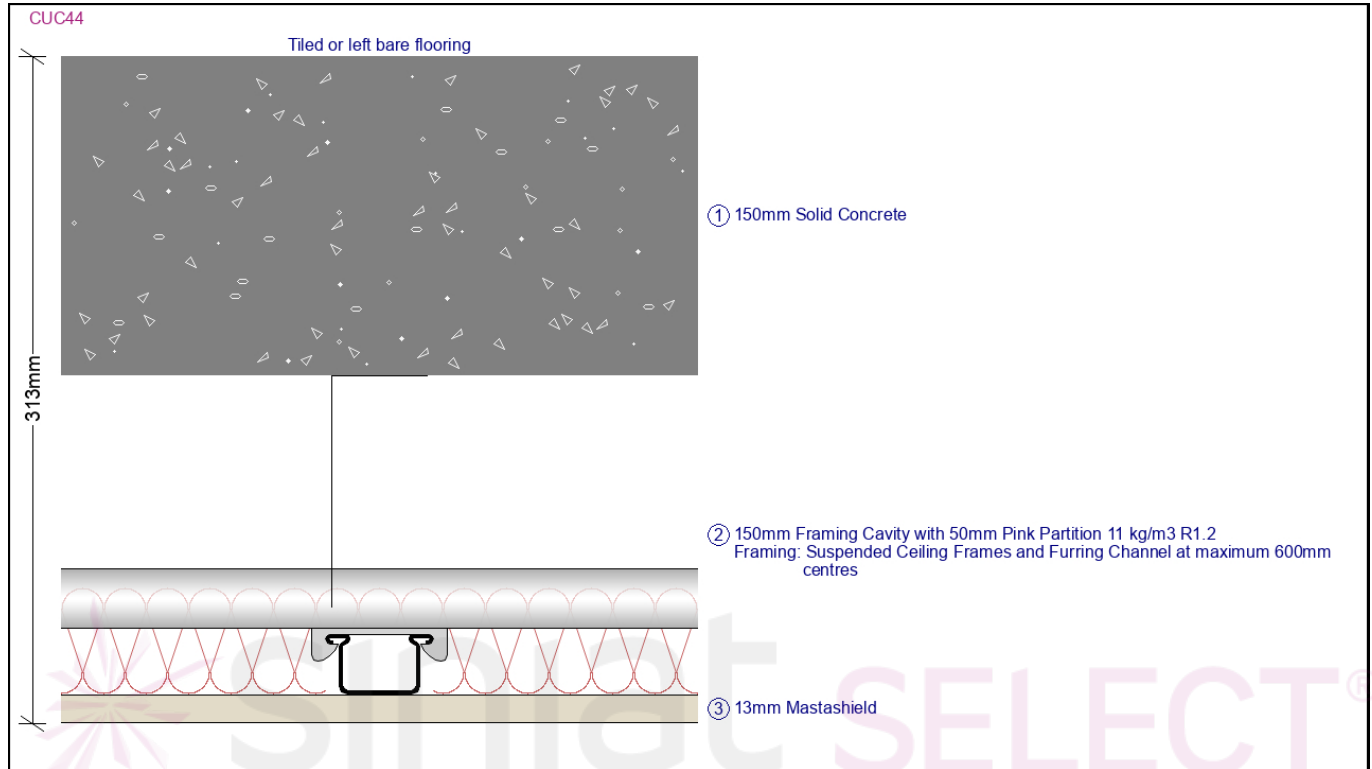
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	48
<b>System Reference</b>	Separating Floor NCC-C3-LB-2
<b>System Code</b>	<b>CUC44</b>
<b>Comments</b>	Floors separating adjoining SOUs



**System Illustration**



**System Details**

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>63</b> Airborne Rw + Ctr: <b>52</b> Impact Ln,w: <b>61</b> Total Thickness (mm): <b>313</b> Estimated Total Weight (kg/m2): <b>369.27</b>	Floor Covering: <b>Tiled or left bare flooring</b> Flooring: <b>150mm Solid Concrete</b> Ceiling Cavity: <b>150mm Framing Cavity</b> Framing : <b>Suspended Ceiling Frames and Furring Channel at maximum 600mm centres</b> (Maximum furring channel spacing 600mm) Insulation : <b>50mm Pink Partition 11 kg/m3 R1.2</b> Ceiling Lining: <b>13mm Mastashield</b>

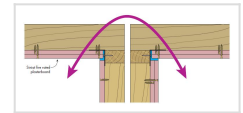
**System Notes**

1. Acoustic Report: Day Design 5008-25 (Based on Siniat System CUC44.L1C4)
2. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
3. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
4. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

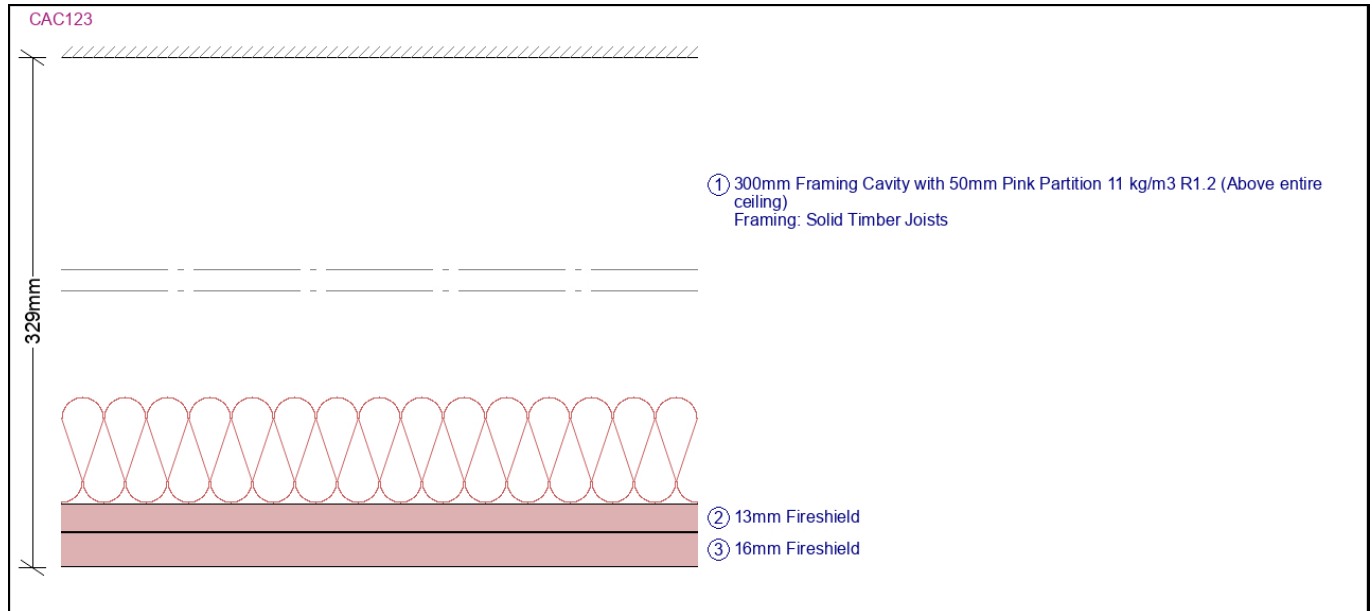
**Framing Details**

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	49
<b>System Reference</b>	Ceiling Under Roof NCC-C3-LB-1
<b>Comments</b>	Ceilings under roofs, separating wall only extends to the ceiling level



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, R<sub>w</sub>, R<sub>w</sub> + C<sub>tr</sub>, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from below only</b> RISF: <b>60</b> Airborne R <sub>w</sub> : <b>59</b> Airborne R <sub>w</sub> + C <sub>tr</sub> : <b>50</b> Total Thickness (mm): <b>329.00</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>24.05</b>	Acoustic Barrier: <b>No acoustic barrier</b> Ceiling Cavity: <b>300mm Framing Cavity</b> Framing : <b>Solid Timber Joists</b> (Joists must be discontinuous over wall) Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> (Above entire ceiling) Ceiling Lining: <b>13mm Fireshield plus 16mm Fireshield</b>

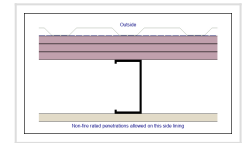
### System Notes

1. Fire Report: FAR2879 (Based on Siniat System CUR213)
2. Acoustic Report: Day Design 4738-5 (Based on Siniat System CAC123.L1C3)
3. Ceiling can be under a floor or roof with discontinuous timber or steel framing
4. Not acoustically treated penetrations in ceiling lining, other than 1 downlight per 5m<sup>2</sup> of ceiling, may degrade sound insulation performance.
5. Wall must be double stud timber or steel frame wall with minimum 20mm air-gap
6. Wall to have equal or higher sound insulation rating than CAC ceiling
7. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
8. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

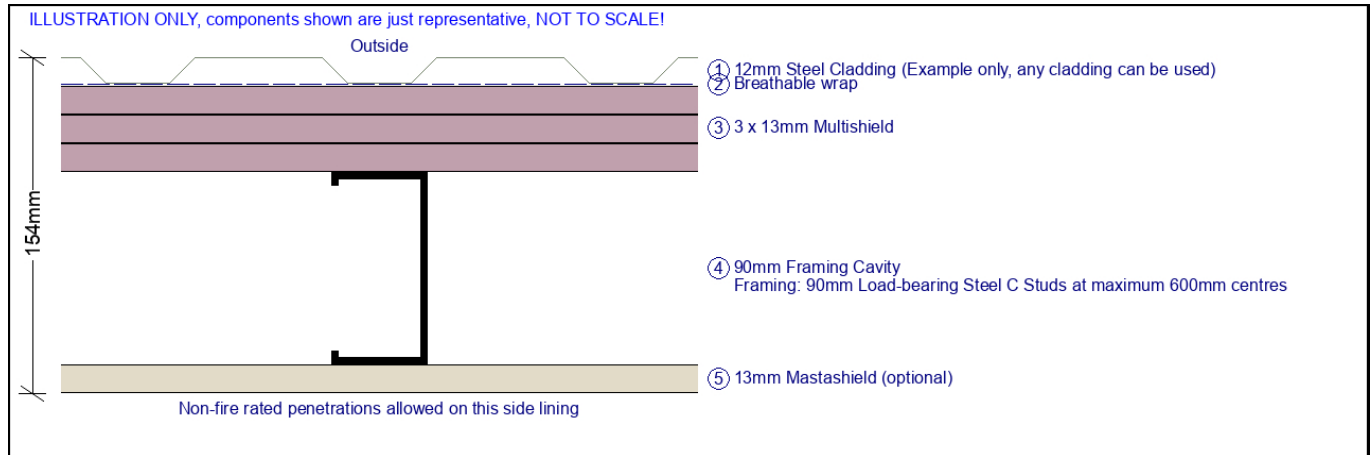
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	50
<b>System Reference</b>	Fire Escape Wall NCC-C3-LB-1
<b>Comments</b>	Loadbearing wall of fire-isolated passageway



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from outside only</b> FRL From Outside Only: <b>90/90/90</b> Total Thickness (mm): <b>154</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>0.63</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>48.6</b>	External cladding: <b>12mm Steel Cladding</b> (Example only, any cladding can be used) Sarking: <b>Any Breathable wrap</b> External Lining: <b>3 x 13mm Multishield</b> Wall Cavity: <b>90mm Framing Cavity</b> Framing : <b>90mm Load-bearing Steel C Studs at maximum 600mm centres</b> (Example only, loadbearing framing as per structural design) Internal Lining: <b>13mm Mastashield</b> (optional)

### System Notes

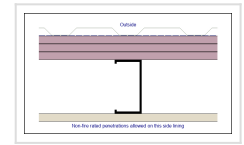
1. Fire Report: FC13921
2. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
3. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
4. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

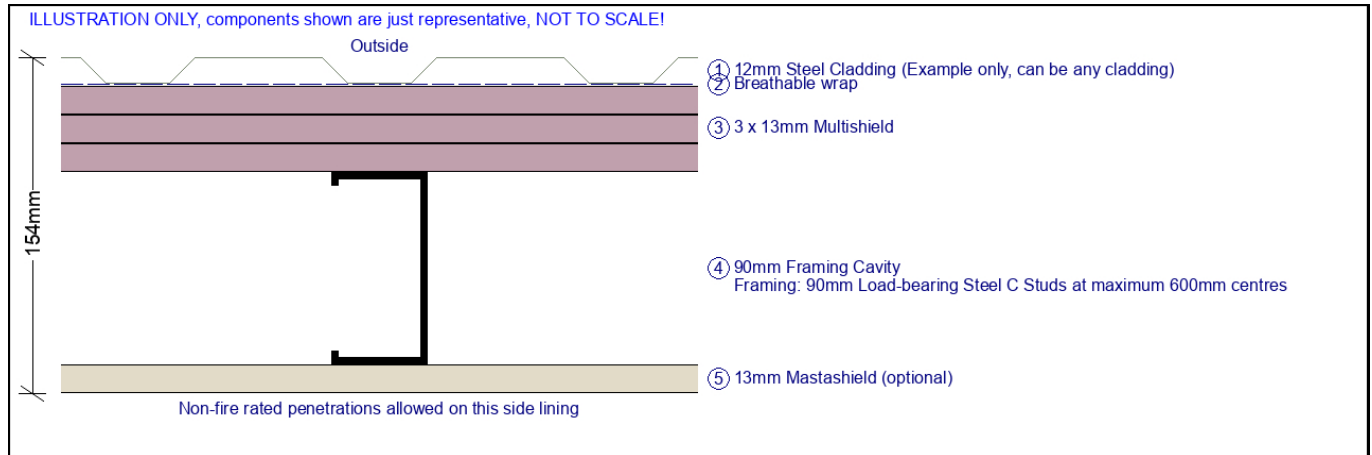
For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.



<b>System No.</b>	51
<b>System Reference</b>	Fire Escape Roof NCC-C3-LB-1
<b>Comments</b>	Roof of a fire-isolated passageway, fire-resisting lift or stair shaft



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL,  $R_w$ ,  $R_w + C_{tr}$ , etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Fire Protection: <b>Rated from outside only</b> FRL: <b>90/90/90</b> Total Thickness (mm): <b>154</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>48.6</b>	Roof: <b>12mm Steel Cladding</b> (Example only, can be any cladding) Sarking: <b>Any Breathable wrap</b> External Lining: <b>3 x 13mm Multishield</b> Roof Cavity: <b>90mm Framing Cavity</b> Framing : <b>90mm Load-bearing Steel C Studs at maximum 600mm centres</b> (Example only, loadbearing framing as per structural design) Internal Lining: <b>13mm Mastashield</b> (optional)

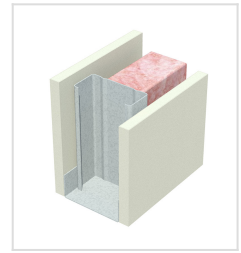
### System Notes

1. Fire Report: FAR4456 (Based on Siniat System SSC7)
2. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
3. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

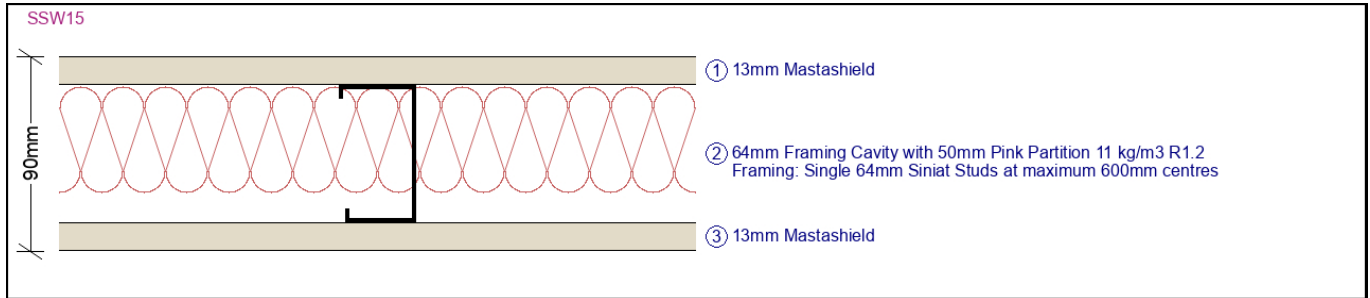
### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

<b>System No.</b>	52
<b>System Reference</b>	Partition Wall NCC-C3-NLB-1
<b>System Code</b>	<b>SSW15</b>
<b>Comments</b>	Typical internal partition wall



### System Illustration



### System Details

It is the responsibility of project certifier to determine if below specified products and performances are suitable for the intended application. System properties like FRL, Rw, Rw + Ctr, etc. printed anywhere other than inside the 'Properties' column are not verified by Siniat.

Properties	Composition
Airborne Rw: <b>42</b> Airborne Rw + Ctr: <b>33</b> Impact Sound Resistant: <b>No</b> Total Thickness (mm): <b>90</b> Insulation Pathway Total R-Value (m <sup>2</sup> .K/W): <b>1.51</b> Estimated Total Weight (kg/m <sup>2</sup> ): <b>17.89</b>	Side 1 Lining: <b>13mm Mastashield</b> Cavity: <b>64mm Framing Cavity</b> Framing : <b>Single 64mm Siniat Studs at maximum 600mm centres</b> Insulation : <b>50mm Pink Partition 11 kg/m<sup>3</sup> R1.2</b> Side 2 Lining: <b>13mm Mastashield</b>

### System Notes

1. Acoustic Report: Day Design 3094-33 (Based on Siniat System SSW15.L1C4)
2. Acoustic ratings valid for minimum BMT studs at 600mm centres
3. 13mm Mastashield can be substituted with 13mm Watershield in wet areas
4. The Insulation Pathway Total R-Value is an estimate only, valid for summer heat flow (mean temperature of 23°C), and calculated without taking into account the thermal bridging effects of framing components.
5. The total weight is an estimate only, valid for the components drawn in the illustration, and does not take into account the weight of the structural (load-bearing) framing components.
6. Refer to latest published Siniat Technical Manual for installation instructions and construction details.

### Framing Details

For internal steel walls and ceilings, refer to the framing tables in the Blueprint. For external steel walls and ceilings, please contact Siniat Engineering Services.

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End of Proposal