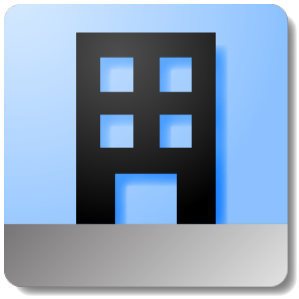
RCB
Wall Design & Schedule
Introduction



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  - info@inducta.com.au
  - Subject: ACSE – Wall Design Intro

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Goal of Today's Session

- Provide an overview of the functionality
  - Detailed explanations in manual.
  - Won't discuss wall design theory.
- Become familiar with:
  - Keys terms
  - Calculation procedure
  - Modelling and design concepts
- Give you confidence to start using this powerful new feature.

Goal of This new Feature

- Automate repetitive calculations and design all walls quickly.
- Eliminate the need to transfer information to paper or other software.
- Provide adequate transparency in the calculations to give the engineer confidence in the design.

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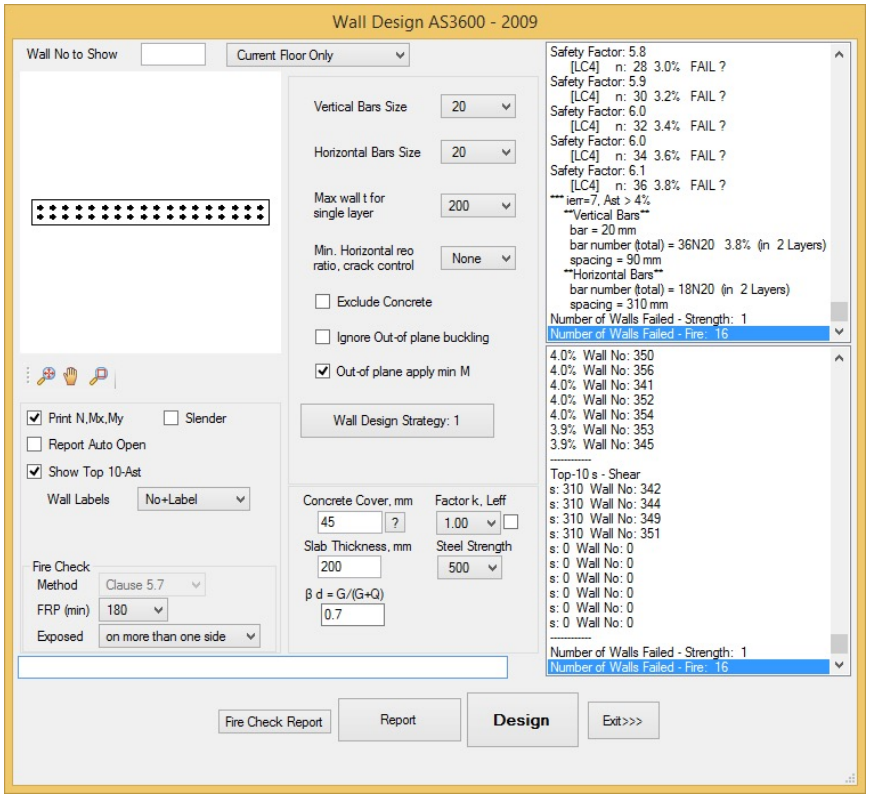
Goal of This new Feature

- Design walls quickly, in one place:
  - As a **column**
  - To the **simplified method**
  - Using **stress design**
- Provide tools to assist in deciding which design to use and to assist in group walls.
  - Do I need two layers of reinforcement, or can I use a single layer?
  - Can I use the simplified method, or do I need to design as column?
  - …and more
- Fully consider all requirements of AS 3600 – 2018 Incl. AMDTs No. 1 & 2.
  - Section 5, Section 8, Section 10, Section 11, Section 14.
  - Allow you to adjust what clauses are considered in the design via customisable **Design Settings**.
- Display results:
  - In 3D
  - In Elevation
  - In Section
  - As text reports
  - As a final schedule

Old Wall Design



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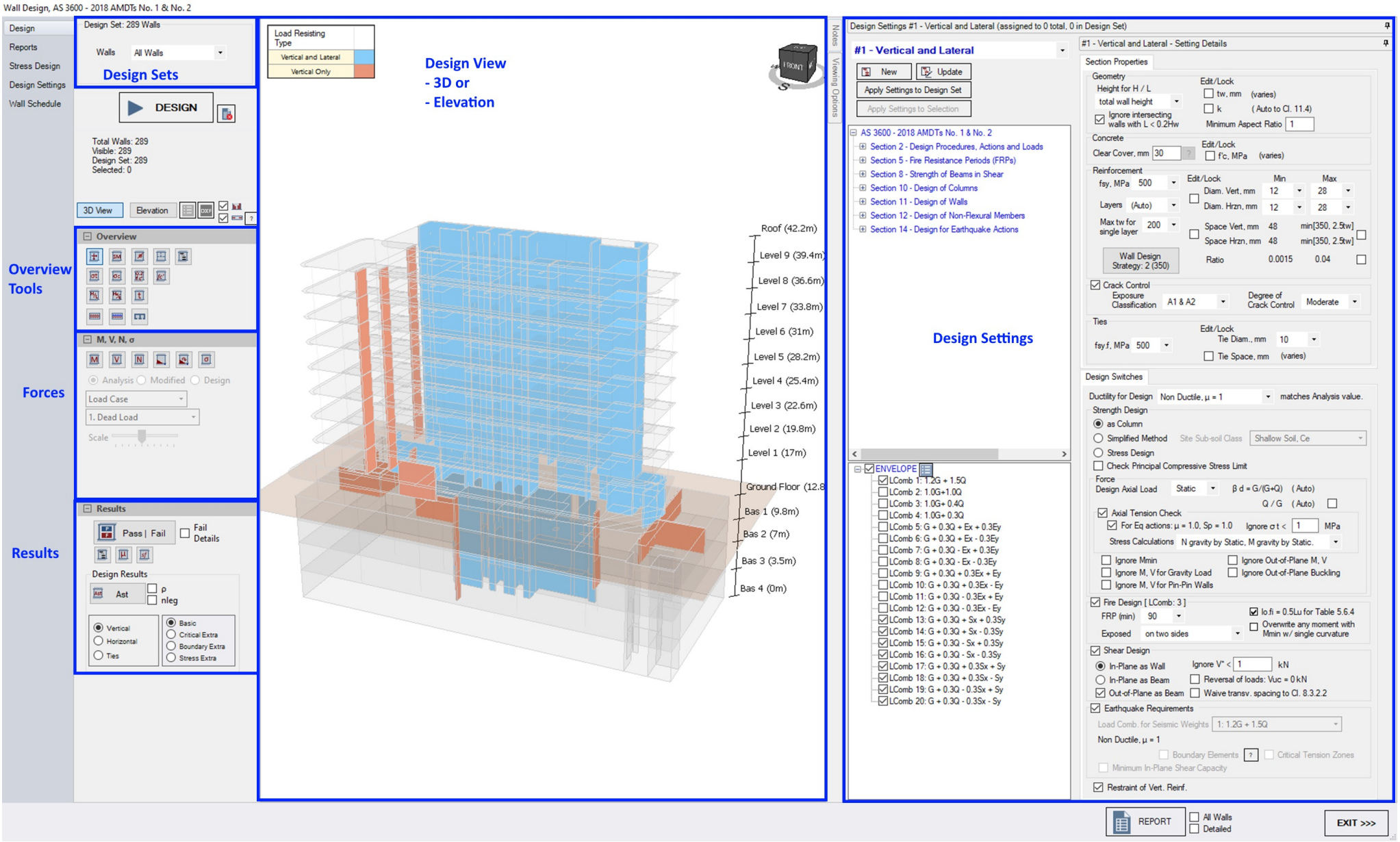
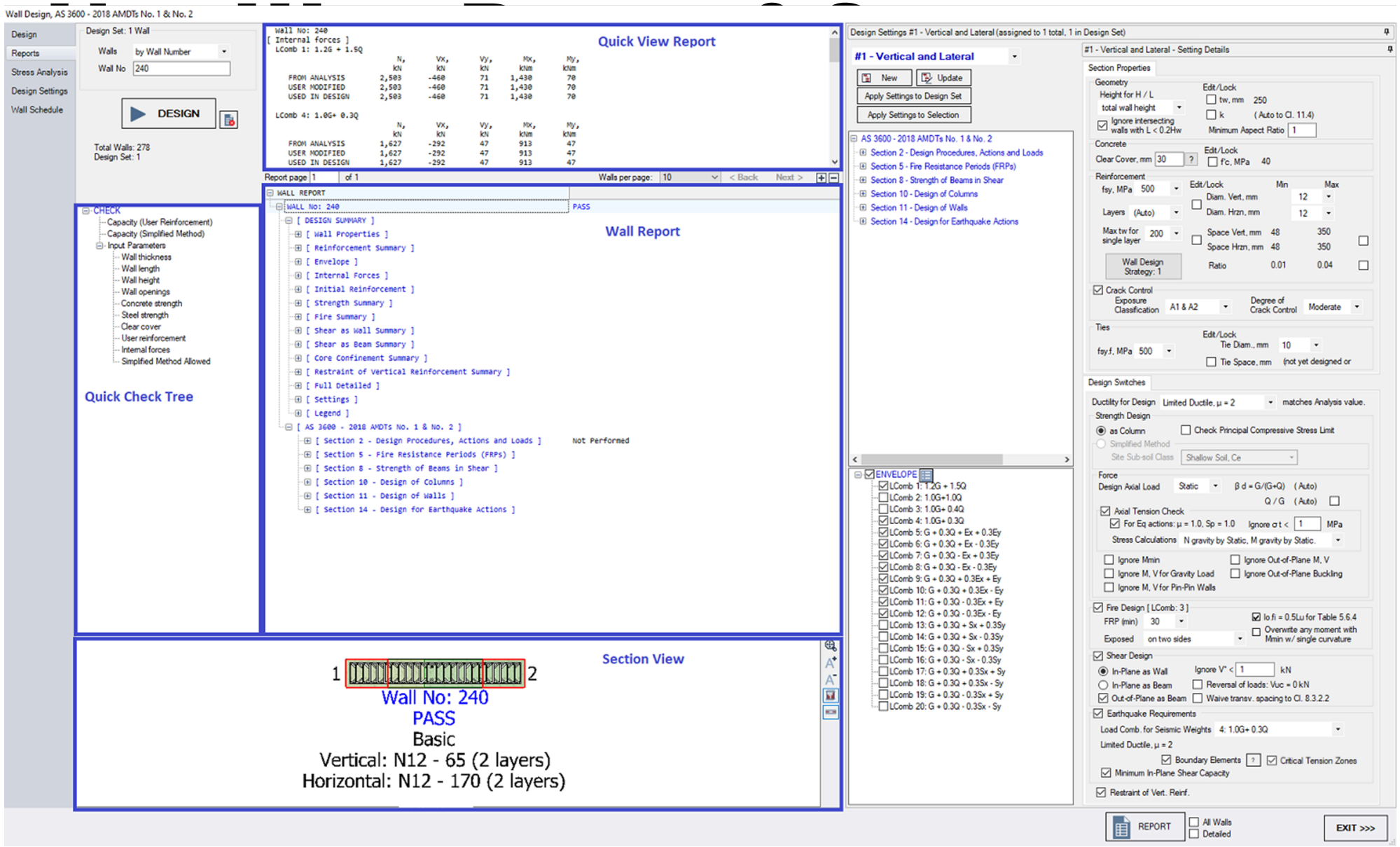
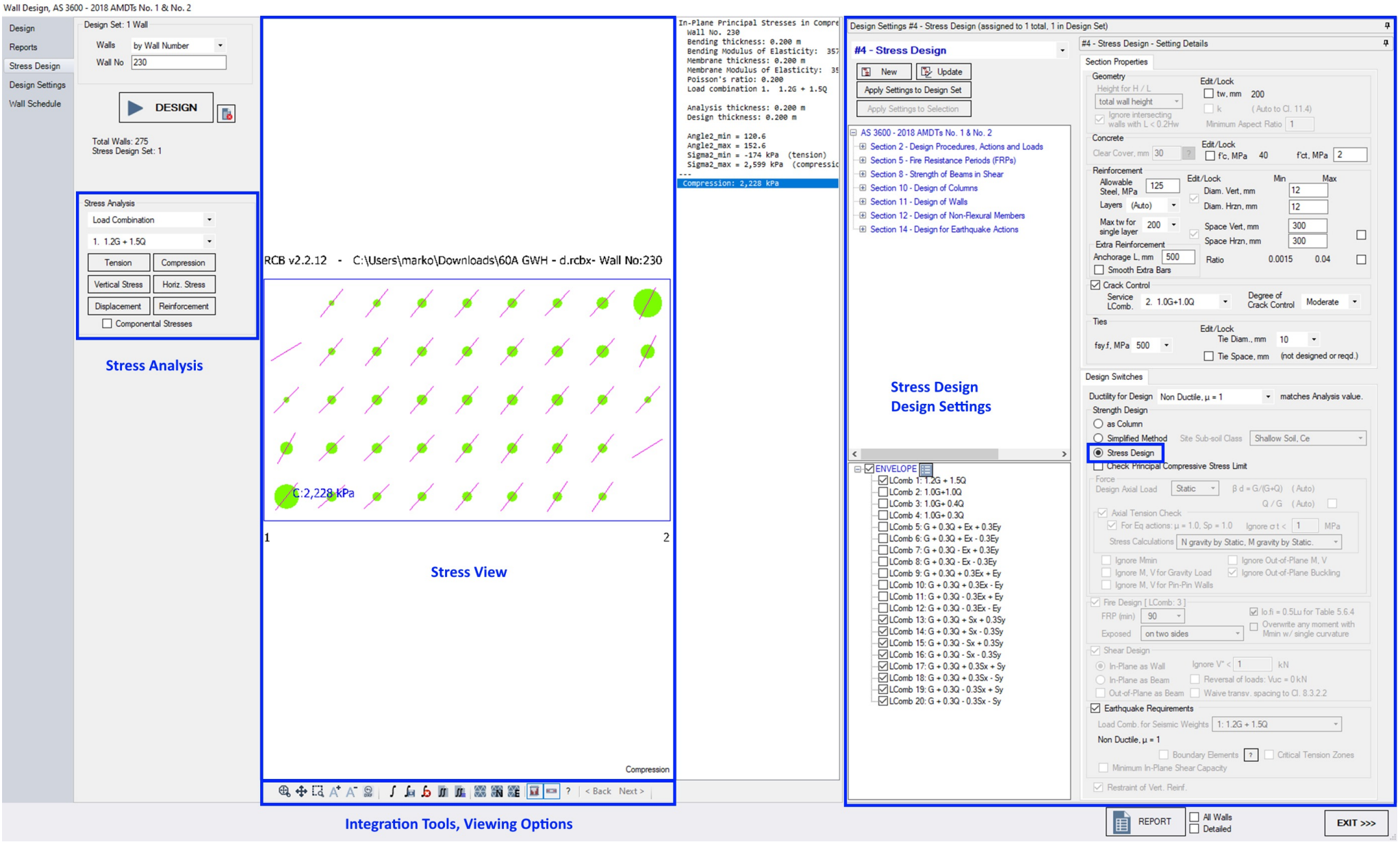

Wall Design, AS 3600 - 2018 AMDTs No. 1 & No. 2
Design
Reports
Stress Design
Design Settings
Wall Schedule
Design Set: 289 Walls
Walls All Walls
Design Sets
DESIGN
Total Walls: 289
Visible: 289
Design Set: 289
Selected: 0
3D View
Elevation
Overview
Overview Tools
M, V, N, σ
Analysis Modified Design
Load Case
1. Dead Load
Scale
Forces
Results
Pass | Fail
Fail Details
Design Results
Ast
ρ
nleg
Vertical
Horizontal
Ties
Basic
Critical Extra
Boundary Extra
Stress Extra
Load Resisting Type
Vertical and Lateral
Vertical Only
Design View
- 3D or
- Elevation
FRONT
Roof (42.2m)
Level 9 (39.4m)
Level 8 (36.6m)
Level 7 (33.8m)
Level 6 (31m)
Level 5 (28.2m)
Level 4 (25.4m)
Level 3 (22.6m)
Level 2 (19.8m)
Level 1 (17m)
Ground Floor (12.8
Bas 1 (9.8m)
Bas 2 (7m)
Bas 3 (3.5m)
Bas 4 (0m)
Notes
Viewing Options
Design Settings #1 - Vertical and Lateral (assigned to 0 total, 0 in Design Set)
#1 - Vertical and Lateral
New
Update
Apply Settings to Design Set
Apply Settings to Selection
AS 3600 - 2018 AMDTs No. 1 & No. 2
Section 2 - Design Procedures, Actions and Loads
Section 5 - Fire Resistance Periods (FRPs)
Section 8 - Strength of Beams in Shear
Section 10 - Design of Columns
Section 11 - Design of Walls
Section 12 - Design of Non-Flexural Members
Section 14 - Design for Earthquake Actions
ENVELOPE
LComb 1: 1.2G + 1.5Q
LComb 2: 1.0G+1.0Q
LComb 3: 1.0G+ 0.4Q
LComb 4: 1.0G+ 0.3Q
LComb 5: G + 0.3Q + Ex + 0.3Ey
LComb 6: G + 0.3Q + Ex - 0.3Ey
LComb 7: G + 0.3Q - Ex + 0.3Ey
LComb 8: G + 0.3Q - Ex - 0.3Ey
LComb 9: G + 0.3Q + 0.3Ex + Ey
LComb 10: G + 0.3Q + 0.3Ex - Ey
LComb 11: G + 0.3Q - 0.3Ex + Ey
LComb 12: G + 0.3Q - 0.3Ex - Ey
LComb 13: G + 0.3Q + Sx + 0.3Sy
LComb 14: G + 0.3Q + Sx - 0.3Sy
LComb 15: G + 0.3Q - Sx + 0.3Sy
LComb 16: G + 0.3Q - Sx - 0.3Sy
LComb 17: G + 0.3Q + 0.3Sx + Sy
LComb 18: G + 0.3Q + 0.3Sx - Sy
LComb 19: G + 0.3Q - 0.3Sx + Sy
LComb 20: G + 0.3Q - 0.3Sx - Sy
Design Settings
#1 - Vertical and Lateral - Setting Details
Section Properties
Geometry
Height for H / L
total wall height
Ignore intersecting walls with L < 0.2Hw
Edit/Lock
tw, mm (varies)
k (Auto to Cl. 11.4)
Minimum Aspect Ratio 1
Concrete
Clear Cover, mm 30
Edit/Lock
f'c, MPa (varies)
Reinforcement
fsy, MPa 500
Layers (Auto)
Max tw for single layer 200
Wall Design Strategy: 2 (350)
Edit/Lock
Min
Max
Diam. Vert, mm 12 28
Diam. Hrzn, mm 12 28
Space Vert, mm 48 min[350, 2.5tw]
Space Hrzn, mm 48 min[350, 2.5tw]
Ratio 0.0015 0.04
Crack Control
Exposure Classification A1 & A2
Degree of Crack Control Moderate
Ties
fsy.f, MPa 500
Edit/Lock
Tie Diam., mm 10
Tie Space, mm (varies)
Design Switches
Ductility for Design Non Ductile, μ = 1 matches Analysis value.
Strength Design
as Column
Simplified Method Site Sub-soil Class Shallow Soil, Ce
Stress Design
Check Principal Compressive Stress Limit
Force
Design Axial Load Static
β d = G/(G+Q) (Auto)
Q / G (Auto)
Axial Tension Check
For Eq actions: μ = 1.0, Sp = 1.0 Ignore σt < 1 MPa
Stress Calculations N gravity by Static, M gravity by Static.
Ignore Mmin
Ignore M, V for Gravity Load
Ignore M, V for Pin-Pin Walls
Ignore Out-of-Plane M, V
Ignore Out-of-Plane Buckling
Fire Design [LComb: 3]
FRP (min) 90
Exposed on two sides
lo.fi = 0.5Lu for Table 5.6.4
Overwrite any moment with Mmin w/ single curvature
Shear Design
In-Plane as Wall
In-Plane as Beam
Out-of-Plane as Beam
Ignore V* < 1 kN
Reversal of loads: Vuc = 0 kN
Waive transv. spacing to Cl. 8.3.2.2
Earthquake Requirements
Load Comb. for Seismic Weights 1: 1.2G + 1.5Q
Non Ductile, μ = 1
Boundary Elements
Critical Tension Zones
Minimum In-Plane Shear Capacity
Restraint of Vert. Reinf.
REPORT
All Walls
Detailed
EXIT >>>


Wall Design, AS 3600 - 2018 AMDTs No. 1 & No. 2
Design
Reports
Stress Analysis
Design Settings
Wall Schedule
Design Set: 1 Wall
Walls by Wall Number
Wall No 240
DESIGN
Total Walls: 278
Design Set: 1
Quick View Report
Wall No: 240
[Internal forces]
LComb 1: 1.2G + 1.5Q
N, kN Vx, kN Vy, kN Mx, kNm My, kNm
FROM ANALYSIS 2,503 -460 71 1,430 70
USER MODIFIED 2,503 -460 71 1,430 70
USED IN DESIGN 2,503 -460 71 1,430 70
LComb 4: 1.0G+ 0.3Q
N, kN Vx, kN Vy, kN Mx, kNm My, kNm
FROM ANALYSIS 1,627 -292 47 913 47
USER MODIFIED 1,627 -292 47 913 47
USED IN DESIGN 1,627 -292 47 913 47
Report page 1 of 1 Walls per page: 10 < Back Next >
CHECK
Capacity (User Reinforcement)
Capacity (Simplified Method)
Input Parameters
Wall thickness
Wall length
Wall height
Wall openings
Concrete strength
Steel strength
Clear cover
User reinforcement
Internal forces
Simplified Method Allowed
Quick Check Tree
WALL REPORT
WALL No: 240 PASS
[DESIGN SUMMARY]
[Wall Properties]
[Reinforcement Summary]
[Envelope]
[Internal Forces]
[Initial Reinforcement]
[Strength Summary]
[Fire Summary]
[Shear as Wall Summary]
[Shear as Beam Summary]
[Core Confinement Summary]
[Restraint of Vertical Reinforcement Summary]
[Full Detailed]
[Settings]
[Legend]
[AS 3600 - 2018 AMDTs No. 1 & No. 2] Not Performed
[Section 2 - Design Procedures, Actions and Loads]
[Section 5 - Fire Resistance Periods (FRPs)]
[Section 8 - Strength of Beams in Shear]
[Section 10 - Design of Columns]
[Section 11 - Design of Walls]
[Section 14 - Design for Earthquake Actions]
Wall Report
Section View
1
2
Wall No: 240
PASS
Basic
Vertical: N12 - 65 (2 layers)
Horizontal: N12 - 170 (2 layers)
Design Settings #1 - Vertical and Lateral (assigned to 1 total, 1 in Design Set)
#1 - Vertical and Lateral
New
Update
Apply Settings to Design Set
Apply Settings to Selection
AS 3600 - 2018 AMDTs No. 1 & No. 2
Section 2 - Design Procedures, Actions and Loads
Section 5 - Fire Resistance Periods (FRPs)
Section 8 - Strength of Beams in Shear
Section 10 - Design of Columns
Section 11 - Design of Walls
Section 14 - Design for Earthquake Actions
ENVELOPE
LComb 1: 1.2G + 1.5Q
LComb 2: 1.0G+1.0Q
LComb 3: 1.0G+ 0.4Q
LComb 4: 1.0G+ 0.3Q
LComb 5: G + 0.3Q + Ex + 0.3Ey
LComb 6: G + 0.3Q + Ex - 0.3Ey
LComb 7: G + 0.3Q - Ex + 0.3Ey
LComb 8: G + 0.3Q - Ex - 0.3Ey
LComb 9: G + 0.3Q + 0.3Ex + Ey
LComb 10: G + 0.3Q + 0.3Ex - Ey
LComb 11: G + 0.3Q - 0.3Ex + Ey
LComb 12: G + 0.3Q - 0.3Ex - Ey
LComb 13: G + 0.3Q + Sx + 0.3Sy
LComb 14: G + 0.3Q + Sx - 0.3Sy
LComb 15: G + 0.3Q - Sx + 0.3Sy
LComb 16: G + 0.3Q - Sx - 0.3Sy
LComb 17: G + 0.3Q + 0.3Sx + Sy
LComb 18: G + 0.3Q + 0.3Sx - Sy
LComb 19: G + 0.3Q - 0.3Sx + Sy
LComb 20: G + 0.3Q - 0.3Sx - Sy
#1 - Vertical and Lateral - Setting Details
Section Properties
Geometry
Height for H / L
total wall height
Ignore intersecting walls with L < 0.2Hw
Edit/Lock
tw, mm 250
k (Auto to Cl. 11.4)
Minimum Aspect Ratio 1
Concrete
Clear Cover, mm 30
Edit/Lock
f'c, MPa 40
Reinforcement
fsy, MPa 500
Layers (Auto)
Max tw for single layer 200
Wall Design Strategy: 1
Edit/Lock
Min
Max
Diam. Vert, mm 12
Diam. Hrzn, mm 12
Space Vert, mm 48 350
Space Hrzn, mm 48 350
Ratio 0.01 0.04
Crack Control
Exposure Classification A1 & A2
Degree of Crack Control Moderate
Ties
fsy.f, MPa 500
Edit/Lock
Tie Diam., mm 10
Tie Space, mm (not yet designed or
Design Switches
Ductility for Design Limited Ductile, μ = 2 matches Analysis value.
Strength Design
as Column
Check Principal Compressive Stress Limit
Simplified Method
Site Sub-soil Class Shallow Soil, Ce
Force
Design Axial Load Static
β d = G/(G+Q) (Auto)
Q / G (Auto)
Axial Tension Check
For Eq actions: μ = 1.0, Sp = 1.0
Ignore σt < 1 MPa
Stress Calculations N gravity by Static, M gravity by Static.
Ignore Mmin
Ignore M, V for Gravity Load
Ignore M, V for Pin-Pin Walls
Ignore Out-of-Plane M, V
Ignore Out-of-Plane Buckling
Fire Design [LComb: 3]
FRP (min) 30
Exposed on two sides
lo fi = 0.5Lu for Table 5.6.4
Overwrite any moment with Mmin w/ single curvature
Shear Design
In-Plane as Wall
In-Plane as Beam
Out-of-Plane as Beam
Ignore V* < 1 kN
Reversal of loads: Vuc = 0 kN
Waive transv. spacing to Cl. 8.3.2.2
Earthquake Requirements
Load Comb. for Seismic Weights 4: 1.0G+ 0.3Q
Limited Ductile, μ = 2
Boundary Elements
Critical Tension Zones
Minimum In-Plane Shear Capacity
Restraint of Vert. Reinf.
REPORT
All Walls
Detailed
EXIT >>>


Wall Design, AS 3600 - 2018 AMDTs No. 1 & No. 2
Design
Reports
Stress Design
Design Settings
Wall Schedule
Design Set: 1 Wall
Walls
by Wall Number
Wall No
230
DESIGN
Total Walls: 275
Stress Design Set: 1
Stress Analysis
Load Combination
1. 1.2G + 1.5Q
Tension
Compression
Vertical Stress
Horiz. Stress
Displacement
Reinforcement
Componental Stresses
Stress Analysis
RCB v2.2.12 - C:\Users\marko\Downloads\60A GWH - d.rcbx- Wall No:230
C:2,228 kPa
1
2
Compression
Stress View
In-Plane Principal Stresses in Compre
Wall No. 230
Bending thickness: 0.200 m
Bending Modulus of Elasticity: 357
Membrane thickness: 0.200 m
Membrane Modulus of Elasticity: 35
Poisson's ratio: 0.200
Load combination 1. 1.2G + 1.5Q
Analysis thickness: 0.200 m
Design thickness: 0.200 m
Angle2_min = 120.6
Angle2_max = 152.6
Sigma2_min = -174 kPa (tension)
Sigma2_max = 2,599 kPa (compressic
Compression: 2,228 kPa
< Back
Next >
Integration Tools, Viewing Options
Design Settings #4 - Stress Design (assigned to 1 total, 1 in Design Set)
#4 - Stress Design
New
Update
Apply Settings to Design Set
Apply Settings to Selection
AS 3600 - 2018 AMDTs No. 1 & No. 2
Section 2 - Design Procedures, Actions and Loads
Section 5 - Fire Resistance Periods (FRPs)
Section 8 - Strength of Beams in Shear
Section 10 - Design of Columns
Section 11 - Design of Walls
Section 12 - Design of Non-Flexural Members
Section 14 - Design for Earthquake Actions
ENVELOPE
LComb 1: 1.2G + 1.5Q
LComb 2: 1.0G+1.0Q
LComb 3: 1.0G+ 0.4Q
LComb 4: 1.0G+ 0.3Q
LComb 5: G + 0.3Q + Ex + 0.3Ey
LComb 6: G + 0.3Q + Ex - 0.3Ey
LComb 7: G + 0.3Q - Ex + 0.3Ey
LComb 8: G + 0.3Q - Ex - 0.3Ey
LComb 9: G + 0.3Q + 0.3Ex + Ey
LComb 10: G + 0.3Q + 0.3Ex - Ey
LComb 11: G + 0.3Q - 0.3Ex + Ey
LComb 12: G + 0.3Q - 0.3Ex - Ey
LComb 13: G + 0.3Q + Sx + 0.3Sy
LComb 14: G + 0.3Q + Sx - 0.3Sy
LComb 15: G + 0.3Q - Sx + 0.3Sy
LComb 16: G + 0.3Q - Sx - 0.3Sy
LComb 17: G + 0.3Q + 0.3Sx + Sy
LComb 18: G + 0.3Q + 0.3Sx - Sy
LComb 19: G + 0.3Q - 0.3Sx + Sy
LComb 20: G + 0.3Q - 0.3Sx - Sy
Stress Design
Design Settings
#4 - Stress Design - Setting Details
Section Properties
Geometry
Height for H / L
total wall height
Ignore intersecting walls with L < 0.2Hw
Edit/Lock
tw, mm 200
k (Auto to Cl. 11.4)
Minimum Aspect Ratio 1
Concrete
Clear Cover, mm 30
Edit/Lock
f'c, MPa 40
f'ct, MPa 2
Reinforcement
Allowable Steel, MPa 125
Layers (Auto)
Max tw for single layer 200
Extra Reinforcement
Anchorage L, mm 500
Smooth Extra Bars
Edit/Lock
Diam. Vert, mm
Diam. Hrzn, mm
Space Vert, mm
Space Hrzn, mm
Min
Max
12
12
300
300
Ratio 0.0015 0.04
Crack Control
Service LComb. 2. 1.0G+1.0Q
Degree of Crack Control Moderate
Ties
fsy.f, MPa 500
Edit/Lock
Tie Diam., mm 10
Tie Space, mm (not designed or reqd.)
Design Switches
Ductility for Design Non Ductile, μ = 1
matches Analysis value.
Strength Design
as Column
Simplified Method
Site Sub-soil Class Shallow Soil, Ce
Stress Design
Check Principal Compressive Stress Limit
Force
Design Axial Load Static
β d = G/(G+Q) (Auto)
Q / G (Auto)
Axial Tension Check
For Eq actions: μ = 1.0, Sp = 1.0
Ignore σt < 1 MPa
Stress Calculations N gravity by Static, M gravity by Static.
Ignore Mmin
Ignore M, V for Gravity Load
Ignore M, V for Pin-Pin Walls
Ignore Out-of-Plane M, V
Ignore Out-of-Plane Buckling
Fire Design [LComb: 3]
FRP (min) 90
Exposed on two sides
lo.fi = 0.5Lu for Table 5.6.4
Overwrite any moment with Mmin w/ single curvature
Shear Design
In-Plane as Wall
In-Plane as Beam
Out-of-Plane as Beam
Ignore V* < 1 kN
Reversal of loads: Vuc = 0 kN
Waive transv. spacing to Cl. 8.3.2.2
Earthquake Requirements
Load Comb. for Seismic Weights 1: 1.2G + 1.5Q
Non Ductile, μ = 1
Boundary Elements
Critical Tension Zones
Minimum In-Plane Shear Capacity
Restraint of Vert. Reinf.
REPORT
All Walls
Detailed
EXIT >>>

Wall Design, AS 3600 - 2018 AMDTs No. 1 & No. 2

Design
Reports
Stress Design
Design Settings
Wall Schedule

Export Excel DXF

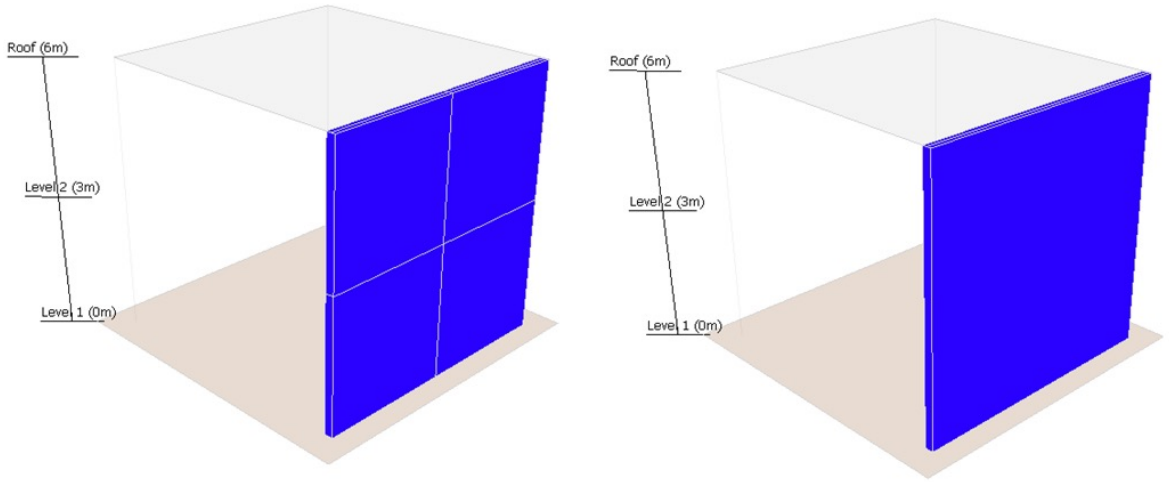
Wall Schedule

Level	f'c (MPa)	FRP (min)		W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	
Level 6 (31m)	40	90			Pass: VARIES 7 walls tw: 200 V: VARIES H: VARIES	Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		Pass: [DC] - PASS 2 walls tw: 200 V: N12-155 (2 layers) H: N12-350 (2 layers)	Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)					
Level 5 (28.2m)	40	90			DS: #1 - Vertical and Lateral Pass: VARIES 7 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		DS: #1 - Vertical and Lateral Pass: [DC] - PASS 2 walls tw: 200 V: N12-155 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)					
Level 4 (25.4m)	40	90			DS: #1 - Vertical and Lateral Pass: VARIES 7 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		DS: #1 - Vertical and Lateral Pass: [DC] - PASS 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)					
Level 3 (22.6m)	40	90			DS: VARIES Pass: VARIES 7 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		DS: #1 - Vertical and Lateral Pass: [DC] - PASS 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)					
Level 2 (19.8m)	40	90			DS: #1 - Vertical and Lateral Pass: VARIES 7 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [SL] 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)					
Level 1 (17m)	40	90			DS: #1 - Vertical and Lateral Pass: VARIES 8 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [SL] 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)					
Ground Floor (12.8m)	40	90			DS: #1 - Vertical and Lateral Pass: VARIES 5 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [SL] [FR] 2 walls tw: 200 V: N12-155 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [EH] 1 walls tw: 200 V: - H: -					
Bas 1 (9.8m)	40	90	d Lateral SL] s) s)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [FR] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 6 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)		DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [SL] 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [EH] 2 walls tw: 200 V: - H: -	DS: #2 - Vertical Only Pass: [DC] - PASS 1 walls tw: 200 V: N12-305 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [DU] 1 walls tw: 200 V: - H: -	DS: #2 - Vertical Only Pass: [DC] - PASS 1 walls tw: 200 V: N12-315 (2 layers) H: N12-350 (2 layers)	DS: #2 - Vertical Only Pass: [DC] - PASS 1 walls tw: 200 V: N12-335 (2 layers) H: N12-350 (2 layers)	DS Pa 2 v tw: V: H:
Bas 2 (7m)	40	90	d Lateral s) s)	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 8 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 2 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 2 walls tw: 200 V: VARIES H: VARIES	DS: #2 - Vertical Only Pass: [DC] - PASS 1 walls tw: 200 V: N12-305 (2 layers) H: N12-350 (2 layers)				
Bas 3 (3.5m)	40	90	d Lateral s) s)	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 8 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 1 walls tw: 200 V: N12-190 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 2 walls tw: 200 V: VARIES H: VARIES	DS: #2 - Vertical Only Pass: [DC] - PASS 1 walls tw: 200 V: N12-350 (2 layers) H: N12-350 (2 layers)				
Bas 4 (0m)	40	90	d Lateral s) s)	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 7 walls tw: 200 V: VARIES H: VARIES	DS: #1 - Vertical and Lateral Pass: [DC] - FAIL [BM] [ST] [HT] 1 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 1 walls tw: 200 V: N12-190 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: [DC] - PASS 2 walls tw: 200 V: N12-200 (2 layers) H: N12-350 (2 layers)	DS: #1 - Vertical and Lateral Pass: VARIES 2 walls tw: 200 V: VARIES H: VARIES					

Design Settings #1 - Vertical and Lateral (assigned to 231 total, 231 in Design Set)

REPORT
All Walls
Detailed
EXIT >>>

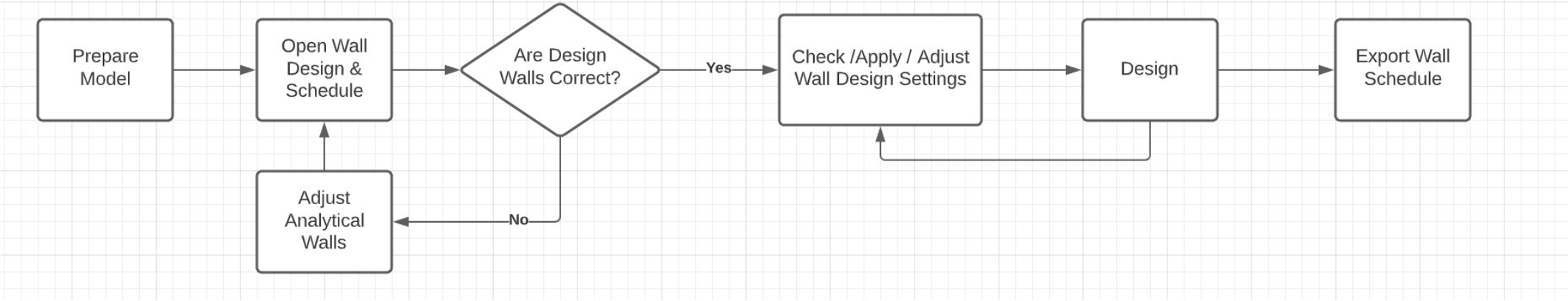
Analytical vs Design Walls



- **Analytical Wall:** the line element that was modelling in the RCB model. Spans floor to floor from start point to end point.
- **Design Wall:** Analytical walls that are imported into the wall design. Several analytical walls may be merged into a single design wall based on Merging Rules.

INDUCTA

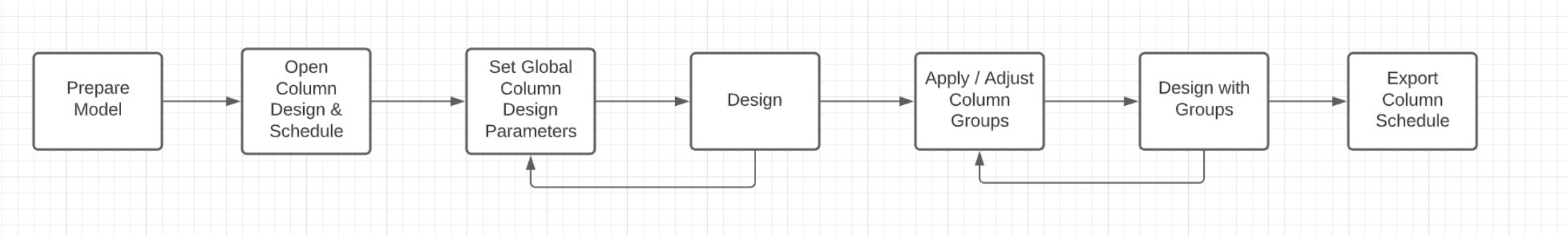
Process – Wall Design & Schedule



Key Concepts / Definitions

- **Prepare Model:** elevations and walls that are imported into the Wall Design & Schedule are correct.
- **Analytical Wall:** the line element that was modelling in the RCB model. Spans floor to floor from start point to end point.
- **Design Wall:** Analytical walls that are imported into the wall design tool. Several analytical walls may be merged into a single design wall based on Merging Rules.
- **Design Setting:** A collection of wall design parameters that is applied to the design wall.
- **Design Set:** A collection of walls that are designed when “Design” button is pressed.

Process – Column Design & Schedule

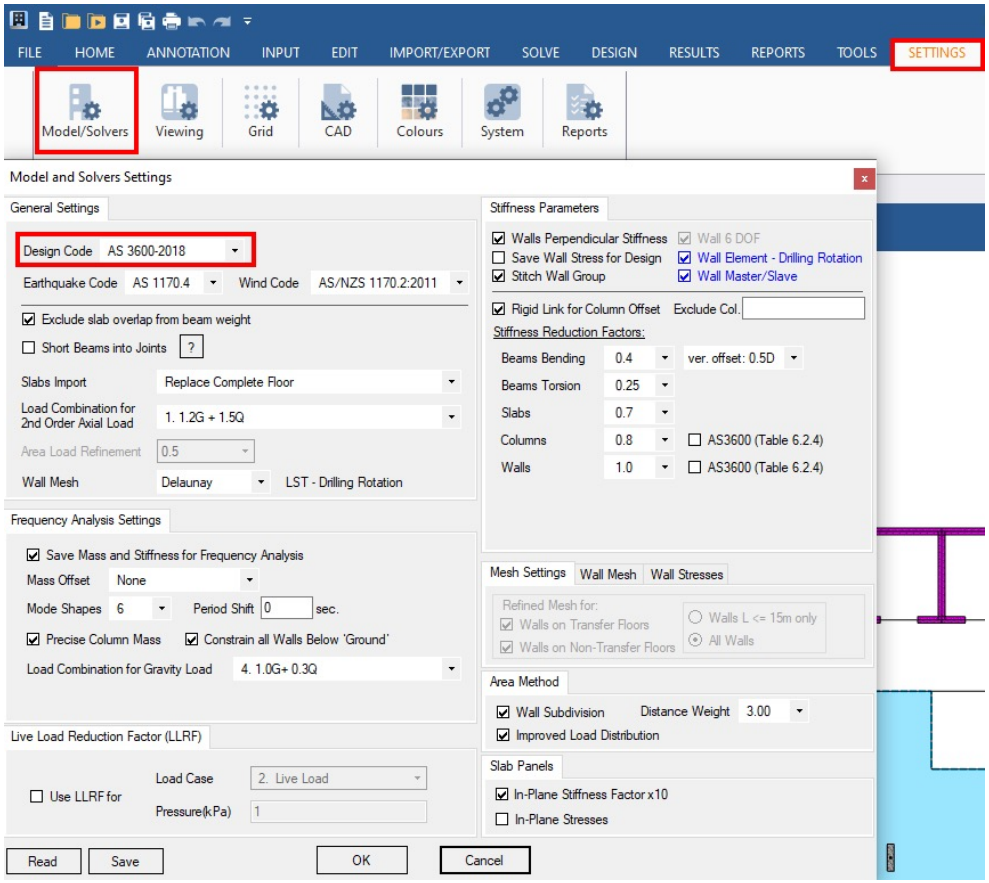


- **Global Column Design Parameters:** a single set of design parameters applied to ALL columns
- **Column Group:** a collection of columns that will have a single set of design parameters applied to the columns (worst case or user defined) within the group.

INDUCTA

Prepare the Model

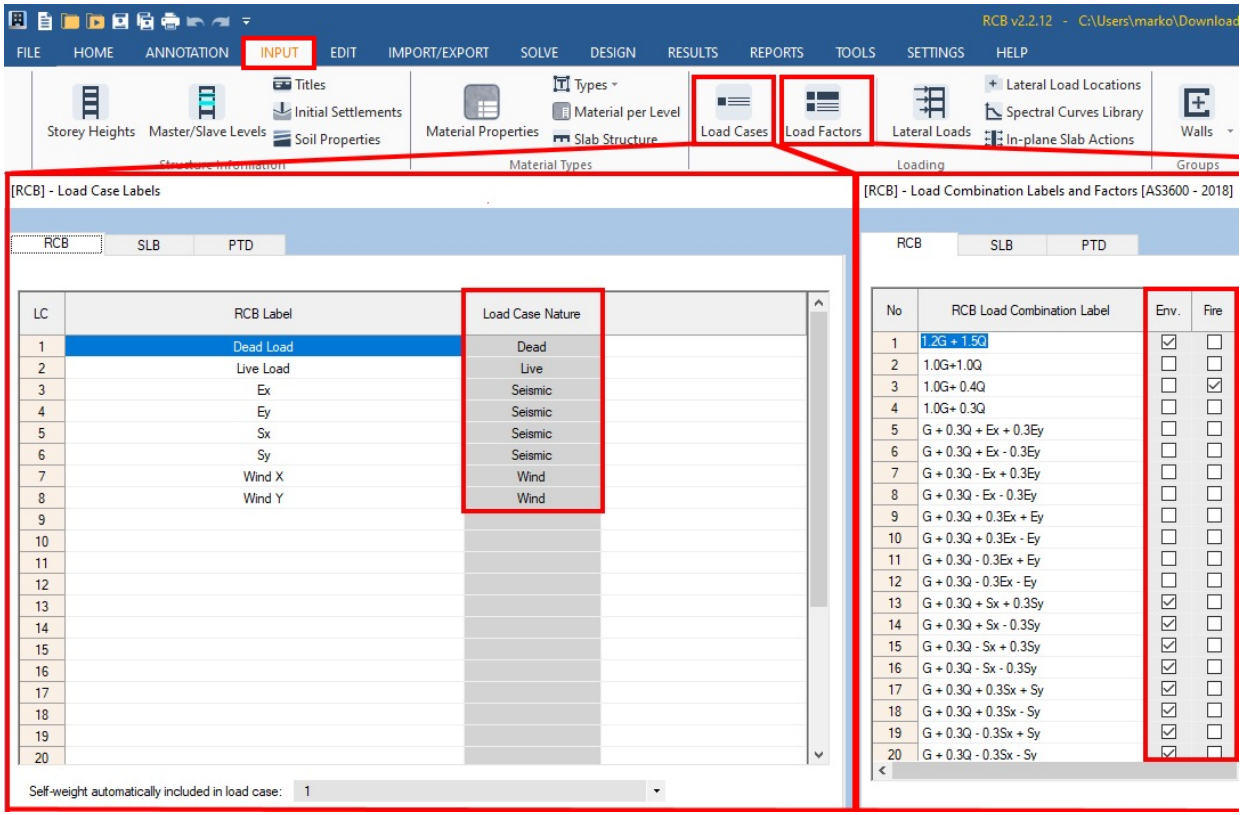
- **AS 3600 – 2018 set:** wall design & schedule only for 2018 version of the code.



INDUCTA

Prepare the Model

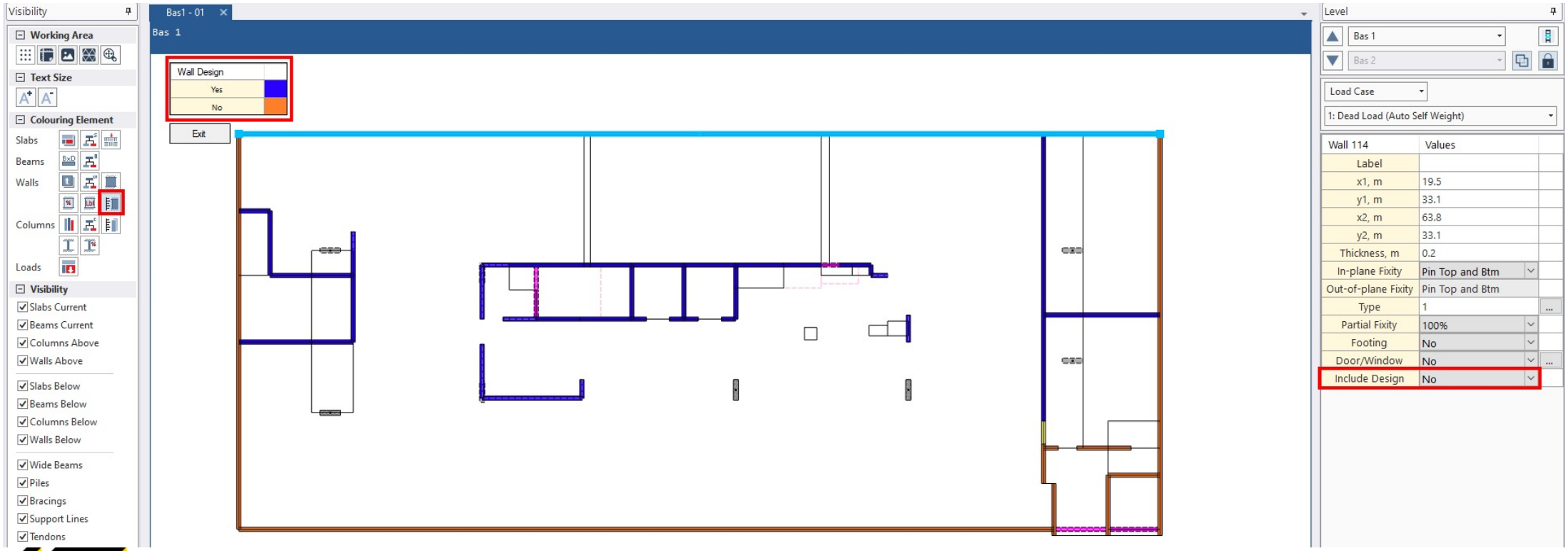
- **Set Load Case Nature:** needed for β_D, Q/G and seismic load checks, forces modified by ductility.
- Envelope Load Cases can be adjusted within wall design per design setting if desired.



INDUCTA

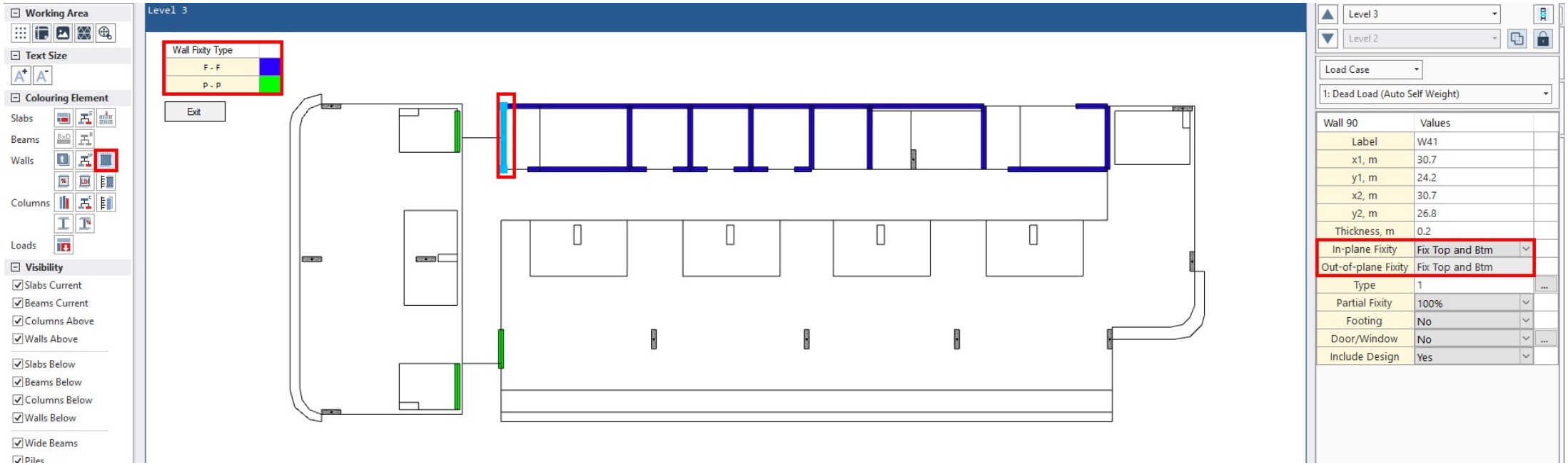
Prepare the Model

- **Exclude walls that will not be in schedule:** set “Include Design” property to “No”



Prepare the Model

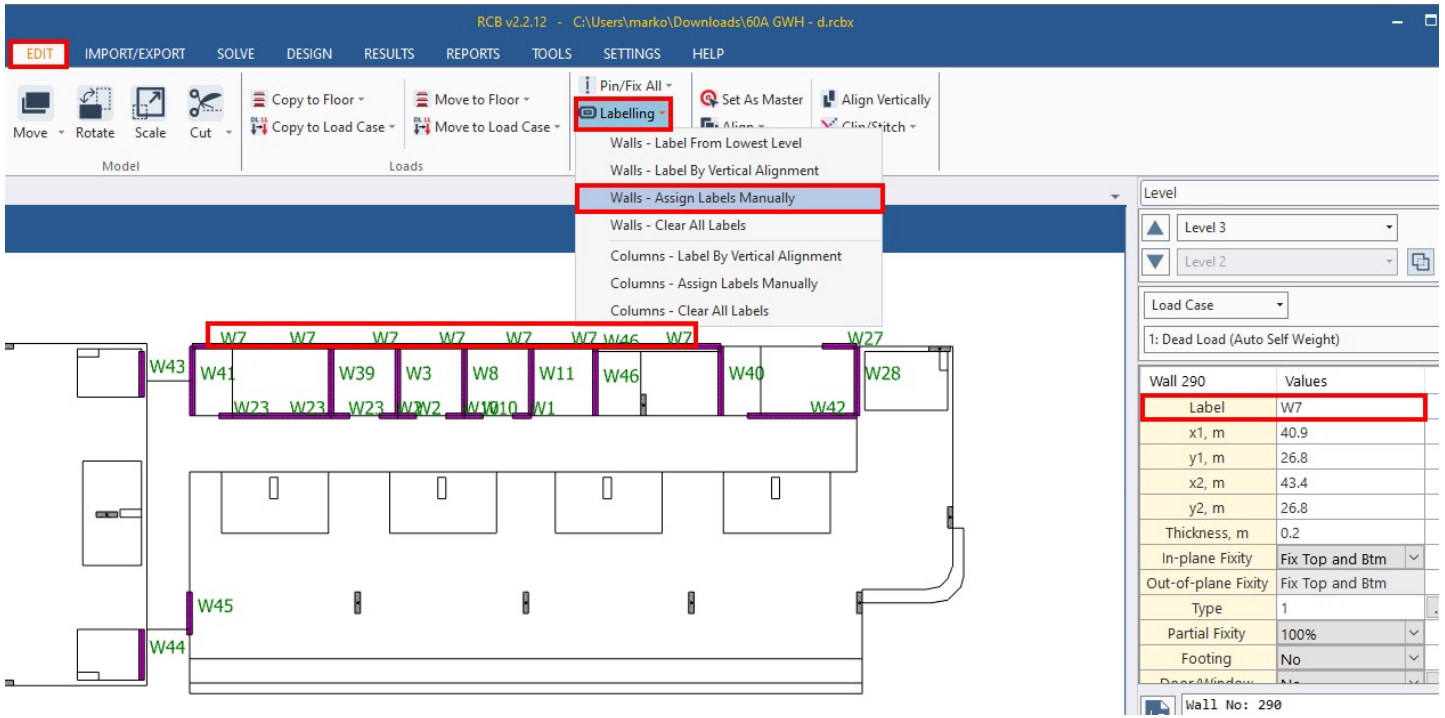
- **Set Wall Fixity:** default Design Settings will be applied to walls based on the fixity that is modelled.

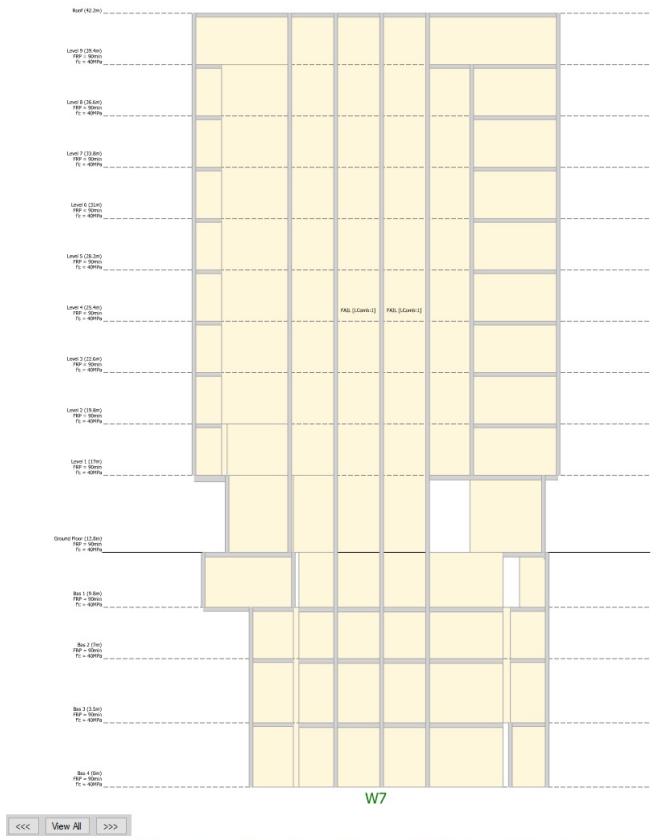


INDUCTA

Prepare the Model

- **Labels Walls:** Labels are used to create wall elevations. Edit > Labelling > Walls – Assign Labels Manually or Walls – Label by Vertical Alignment



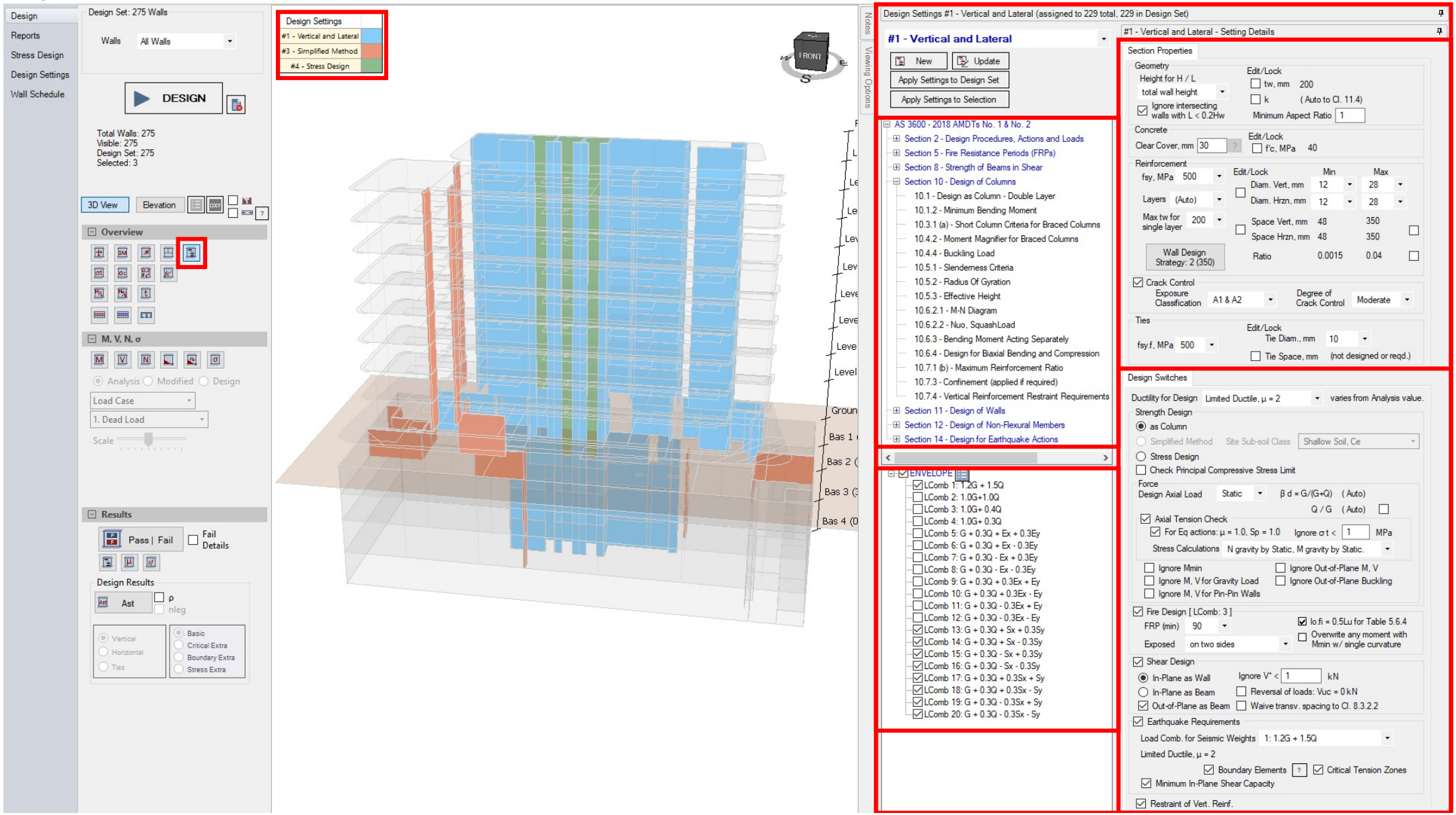


INDUCTA

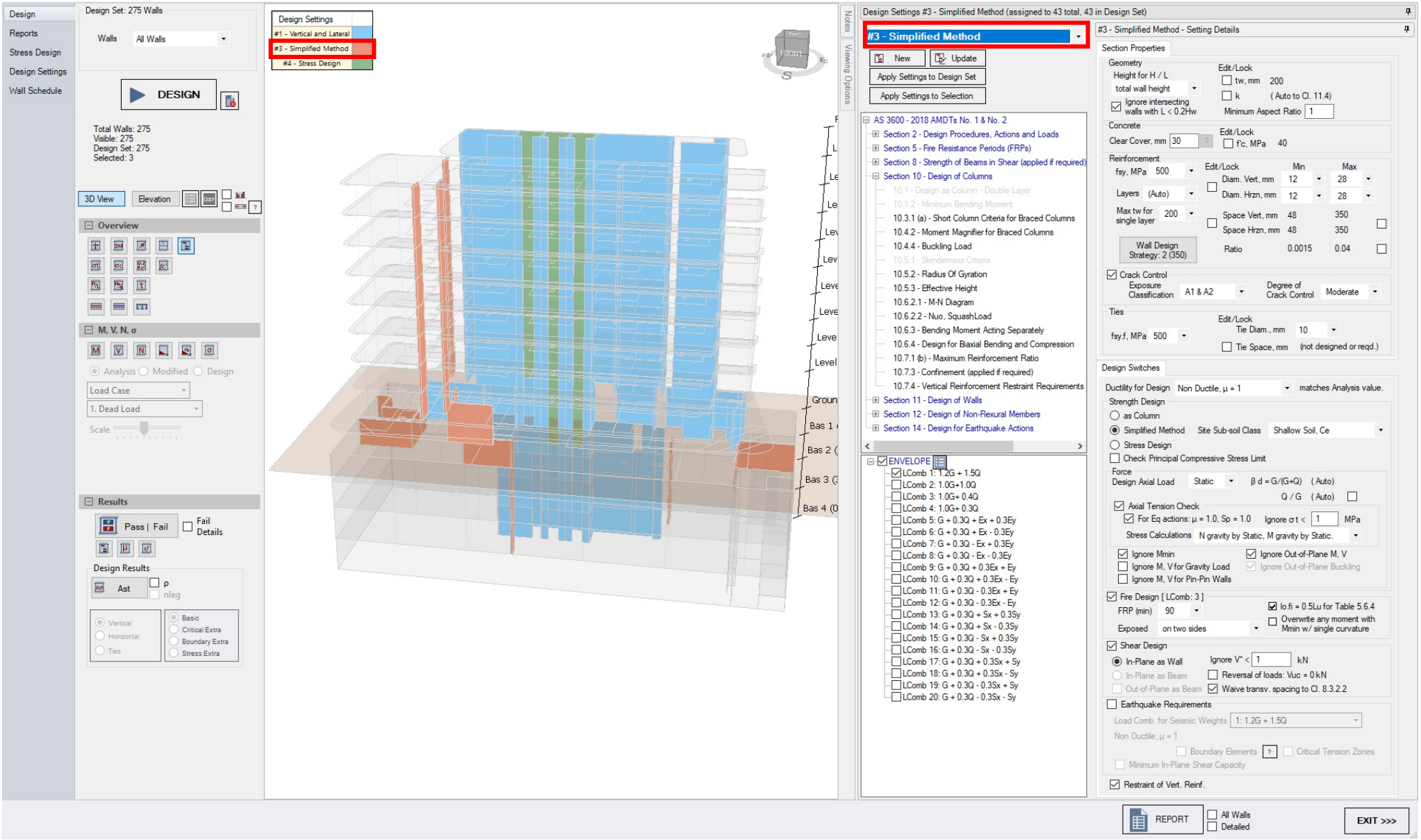
Prepare the Model

- **Modelling of walls:** wall restraints
- Refer to following chapter in the user manual:
  - [RCB > Design > Walls > Design and Schedule: AS 3600 - 2018 > Model Preparation > Modelling Considerations > End Restraints]
  - [RCB > Design > Walls > Design and Schedule: AS 3600 - 2018 > Model Preparation > Modelling Considerations > Shear Cores]

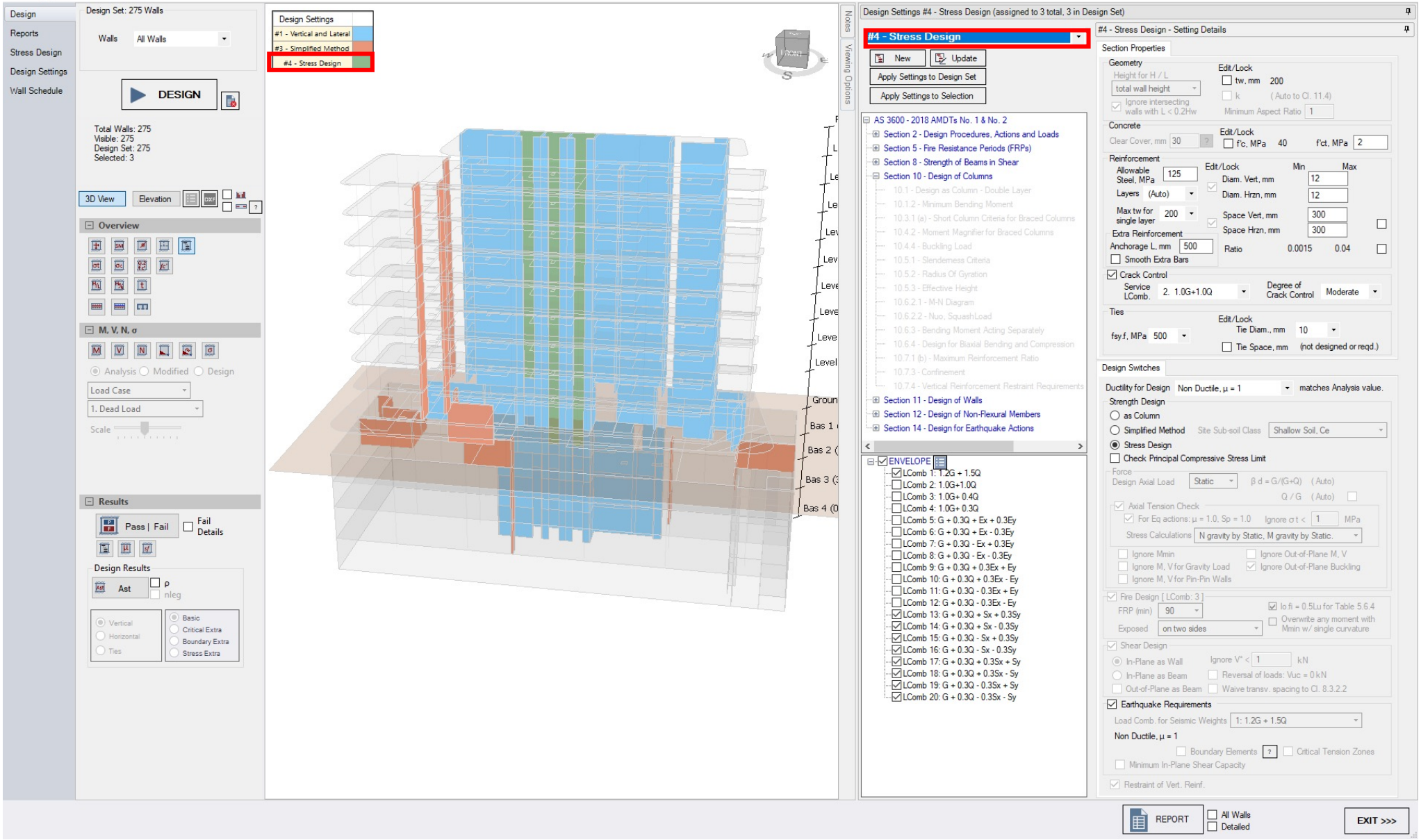
Wall Design, AS 3600 - 2018 AMDTs No. 1 & No. 2



Wall Design, AS 3600 - 2018 AMDTs No. 1 & No. 2

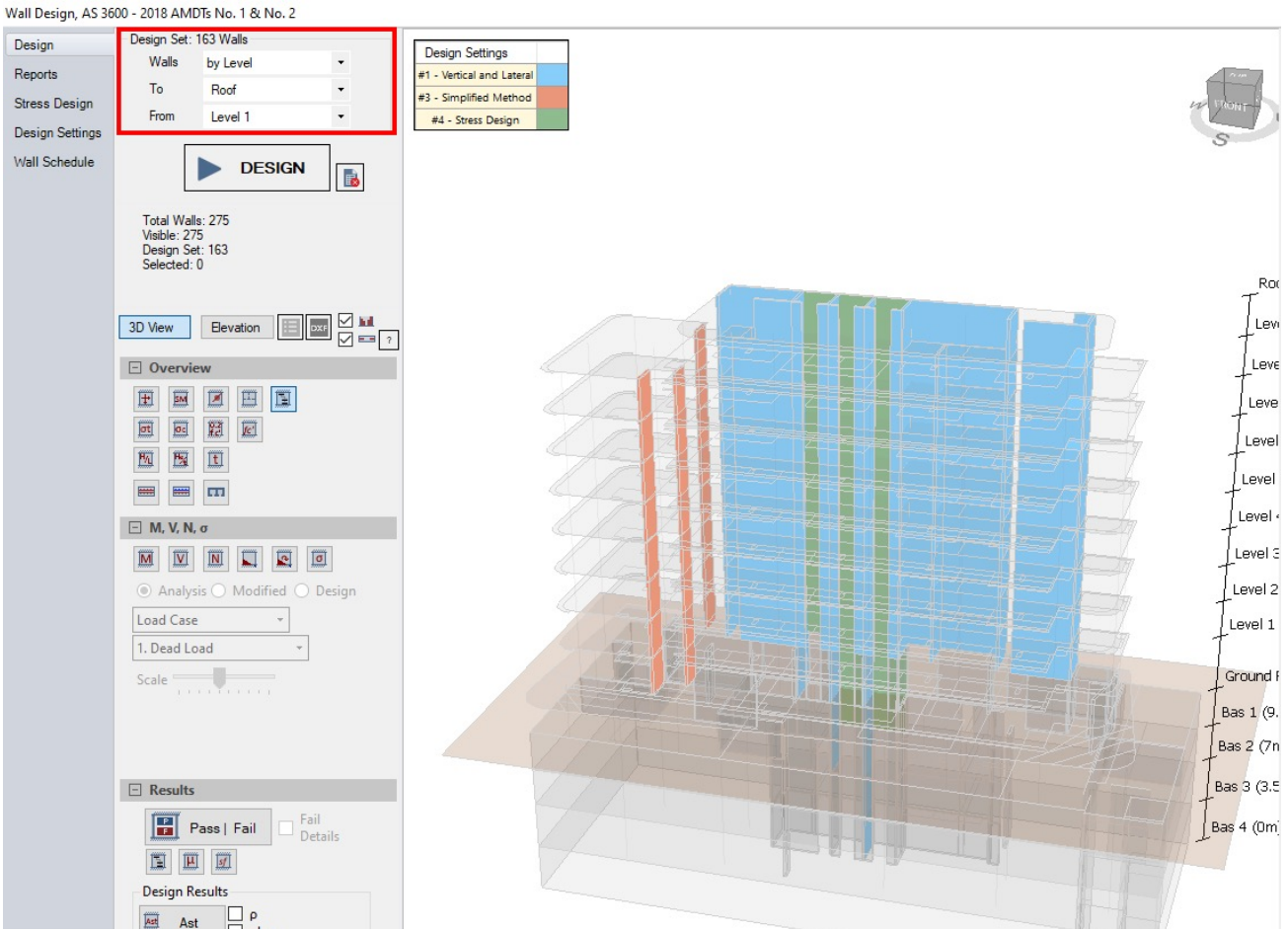


Wall Design, AS 3600 - 2018 AMDTs No. 1 & No. 2



Design Sets

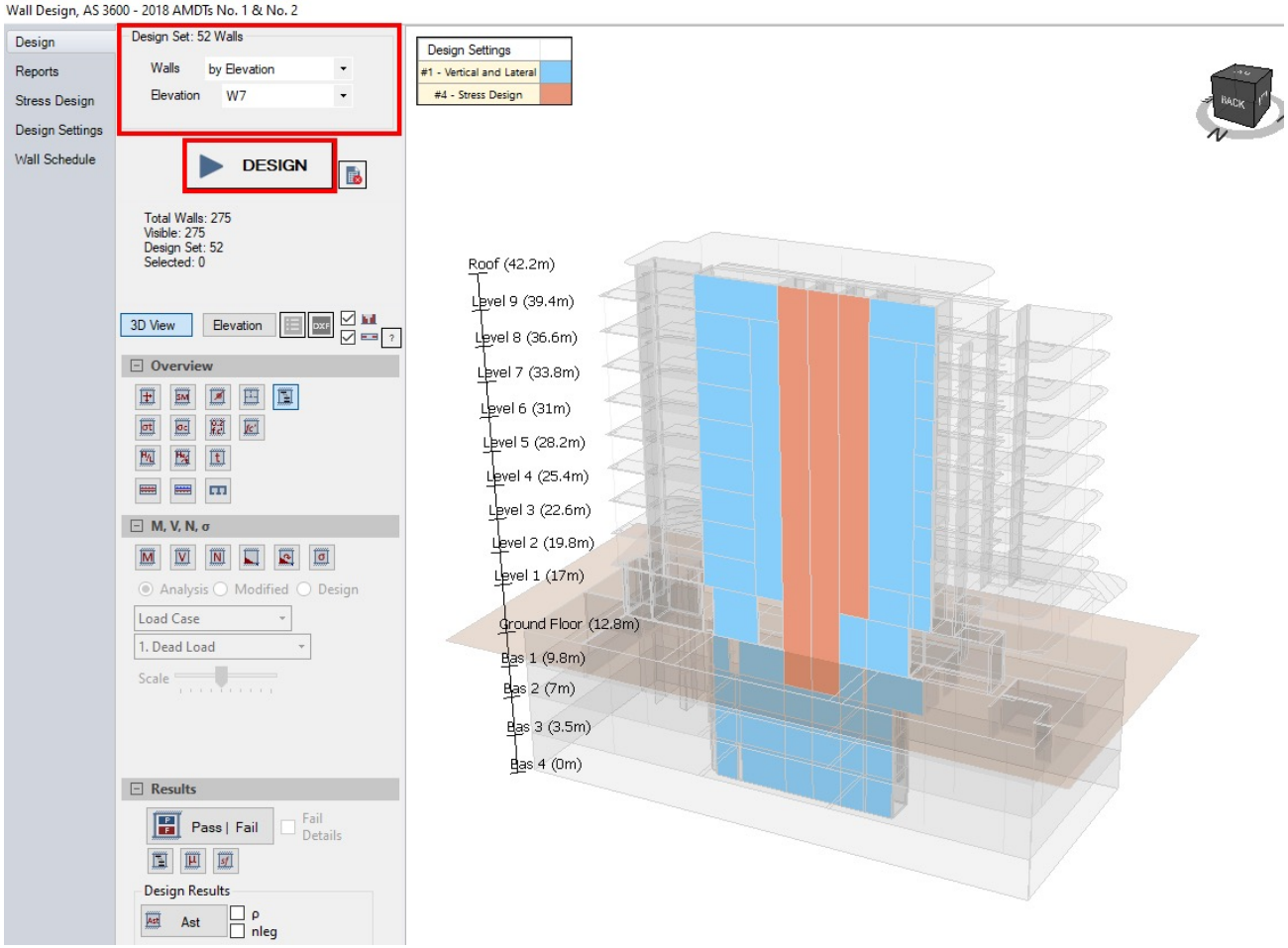
- Subset of walls to show in the design view
- The walls that will be deigned when “Design” is pressed.
- These walls will be designed wit the Design Settings that have been applied to them.
- More than one Design setting can be present in a design set.



INDUCTA

Designing The Walls

- When “Design” is pressed the design parameters from each Design Walls Design Settings are applied to it.
- It is then Designed.
- Only Walls in the active Design Set are designed.
- If other Design Walls have results and are not in this design set, their results will stay.



INDUCTA