THE DESIGN BASIS REPORT OF
OEUVRE ICONIC
BY MADHAV GROUP AT
T.P. NO.-1/B, F.P. NO.- SP NO. 13 OF 461 + F.P. 462-BODAKADEV
TA : GHATLODIYA, AHMEDABAD

REVISION	DATE OF REVISION
R0	MARCH 8, 2023

Submitted By

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APPENDIX - A

PROJECT PERSONNEL ON RECORD AND CONTACT INFORMATION		
1.	Project Reference No. (STC Folio No.)	
2.	Building Proposal Ref. No./File No.	
3.	Project Name	OEUVRE ICONIC GROUND FLOOR TO TERRACE – 108.63 m GROUND FLOOR TO O.H.W.T.- 114.925 m GROUND FLOOR TO LIGHTNING ARRESTOR: -117.925 m
4.	Project Address	F.P.NO.: - SP NO. 13 OF 461+FP 462 OF DRAFT T.P.S.NO.1/B (BODAKDEV)OF [REVENUE SURVEY NO. 319/1+323/P (O.P.NO. 18/1+20), MOJE :- BODAKDEV, TALUKA :-BODAKDEV, DISTRICT :-AHMEDABAD.
5.	Project Proponent/Developer	MADHAV OEUVRE ICONIC LLP
	Name & Signature	AMIT PATEL
	Address	A-1 MADHAV BUNGLOWS NR SURYADEEP BUNGLOWS, THALTEJ SHILAJ ROAD, THALTEJ AHMEDABAD-380059
	Telephone/Mobile/Email Address	9638544466 / info@madhavgroupindia.com
	Signature	
	Stamp	
6.	Architect	H M ARCHITECTS
	Name, Qualification & License No.	HARSHAD MISTRY
	Address	VITTDARSH, BESIDE KAVISHA CORPORATE CAMPUS OPP RAJ BANQUET, S.P RING ROAD, AMBALI, AHMEDABAD-380058
	Telephone / Mobile /Email Address	9925326816/contact@hmarchitects.in
	Signature	

	Stamp	
7.	Structural Engineer	NIYAT VATSAL PATEL (SETU INFRASTRUCTURE)
	Name, Qualification & License No	NIYAT VATSAL PATEL MS STRUCTURE SD0671080724 (GRADE-I)
	Address	D 701-704 THE FIRST, B/h KESHAVBAUG PARTY PLOT JUDGES BUNGLOW ROAD, OFF. 132 ft. RING ROAD, VASTRPUR, AHMEDABAD 380015
	Telephone / Mobile /Email Address	079-40037661, 26751800 Email:setuinf@gmail.com
	Signature	
	Stamp	
8.	Geotechnical Consultant	KBM Engineering Research Laboratory
	Name, Qualification & License No	Mr. Mihir Vora B.E. Civil, M. Tech Geotech
	Address	Bungalow No.h-79, Gota-Ognaj Road, Ta.:Daskroi, Ahmedabad-380060
	Telephone / Mobile /Email Address	PHONE: (office) 02717 242373, 02717 241538 e-mail: kbmerl@yahoo.co.in
	Signature	

	Stamp	
9.	MEP Consultant	AASHIR ENGINEERING PVT LTD
	Name, Qualification & License No.	HIREN PATEL
	Address	500-504,PARSHWANATH BUSINESS PARK,NR PRAHLADNAGAR AUDA GARDEN,SATELLITE AHMEDABAD-380015
	Telephone / Mobile / Email	9687659955/ aeplahd@gmail.com
	Signature	
	Stamp	
10.	Project Management Consultant	NOT APPLICABLE
	Name, Qualification & License No.	
	Address	
	Telephone / Mobile / Email	
11.	Environmental Consultant	MR HITENDRA KELA
	Name, Qualification & License No.	B.E.CIVIL M.E. ENVIRONMENT,QCI&NABET APPROVED
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		AHMEDABAD
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	Signature	
	Stamp	

APPENDIX - B

PLOT AND GEOTECHNICAL INFORMATION		
1.	Area of Plot in Sq.mt	8165.74 sq.m
2.	At which depth suitable Founding Strata is available (in Meter)	12.125 m depth below E.G.L.
3.	Nature of foundation recommended	Isolated column footings and raft foundation
4.	Ground Water table with respect to Existing Ground Level	41 m below E.G.L.
5.	Number of Basement Proposed with Justifications.	3 Basement for Parking
6.	Total Depth of Excavation (in Meter)	12.125 m from E.G.L.
7.	Arrangement For shoring	Tied back Diaphragm wall
8.	Details of the Structure along with height abutting the Boundaries of the plot.	
	North Side	30 m T.P. Road
	West side	7.5 m T.P. Road + ADJ.F.P. 461/P
	South side	ADJ.F.P. 461/P
	East side	7.5 m Wide Road

APPENDIX - C

DESIGN BASIS REPORT

1 BRIEF DESCRIPTION OF PROJECT (INTRODUCTION):

The project at T.P. NO.-1/B, F.P. NO.- SP NO. 13 OF 461 + F.P. 462-BODAKADEV TA: GHATLODIYA, AHMEDABAD consists of 3 Basement Floor + Ground Floor + 32 floors above + OHWT for Block-A & Block-B. For Block-A Ground floor & first floor used as Commercial floors, from 2nd to 32nd floors used as Residential, one Skip floor (Service floor) on 21st floor, Refuge platforms on 7th, 11th, 16th, 21st, 25th & 30th floor. For Block-B Ground Floor used as Amenities, 1st to 32nd floors used as Residential, one Skip floor (Service floor) on 21st floor, Refuge platforms on 6th, 11th, 15th, 20th, 25th & 30th. The building located in Ahmedabad, Gujarat which falls under the earthquake zone Ⅲ. The building will be RCC Shear walls and beams, slab. RCC Shear walls are provided, which will act as a lateral load resisting element. Structural form should contribute to the building character and identity, while being efficient, cost effective and simple to construct. Provisions are incorporated into the design in such a way that services can be laid without any major obstructions and maximum headroom is achieved along with the basic criterion of cost-effectiveness.

1.1 BUILDING DIMENSIONS

	BLOCK-A	***BLOCK- B***
X direction: (Building Dimension After Expansion	41.63 m	36.575 m
Y direction: (Building Dimension After Expansion	30.28 m	33.24 m
Total Height of building: (Ground level to Terrace Level)	108.63 m	108.63 m
Basement - 3:	3.65 m	3.65 m
Basement - 2:	3.65 m	3.65 m
Basement - 1:	3.95 m	3.95 m
Ground floor:	4.5 m	4.5 m
First floor:	4.0 m	4.0 m
Typical Floor:	3.23m	3.23m
OHWT Bottom Slab:	3.23m	3.23m
OHWT Top Slab:	3.23m	3.225m
Number of Stories	32	32
Total Height of Building from Ground Level to Top of Building (Including stair cabin & OWT-as per GDCR)	115.09 m	115.09 m
Plan aspect ratio Check Ratio<5	41.63/30.28=1.37	36.575/33.240=1.1
Slenderness Ratio Check Ratio< 8	119.88/30.28=3.95	119.88/33.24=3.60
As per Submission Building Dimension		
Ground Floor Level X-direction	44.93 m	43.61 m
Ground Floor Level Y-direction	32.86 m	37.82 m
First Floor Level X-direction	44.93 m	36.57 m
First Floor Level Y-direction	32.86 m	33.24 m
Typical Floor Level X-direction	43.97 m	36.57 m
Typical Floor Level Y-direction	31.48 m	33.24 m

2 LIST OF CODES:

Following Indian codes shall here to be used for detailed design.

2.1 INDIAN CODES

2.2 LOADS

- IS 875(Part 1):1987 - Dead Loads - Unit Weight of Building Material and Stored Material IS IS 875(Part 2):1987 - Imposed Loads
- IS 875(Part 3):2015 - Wind Loads
- IS 875(Part 5):1987 - Special loads and load combinations.
- IS 1893(Part 1):2016 - Criteria for earthquake resistance design of structure.

2.3 CONCRETE DESIGN

- IS 456: 2000 - Plain and Reinforced Concrete - Code of practice SP 34 - Handbook on Concrete Reinforcement & Detailing
- IS 1904 - Indian Standard Code of practice for design & construction of foundations in Soil: General Requirements
- IS 13920:2016- Ductile design and detailing of Reinforced Concrete Structures subjected to Seismic Forces
- IS 16700: 2017 - Criteria for Structural Safety of tall concrete Building.
- IS 3370: 2009 - Code of practice for concrete structure for storage of liquid.

3 LOADING PARAMETERS

3.1 SELF WEIGHTS

Self-weight of the structural members shall here to be considered based on the following properties.

- Density of Reinforced Cement Concrete: 25.0 kN/m3.
- Density of Plain Cement Concrete: 24.0 kN/m3.
- Density of Steel: 78.5 kN/m3.
- Density of Plasters: 20.0 kN/m3.
- Density of Soil (Unsaturated): 18.0 kN/m3.
- Density of Soil (Saturated): 21.0 kN/m3.
- Density of water: 10.0 kN/m3
- Density of Light Weight Cinder Filling Material: 7.0 kN/m3.
- Density of Brick Masonry: 20.0 kN/m3
- Density of Block Masonry: 8.00 kN/m3

3.2 IMPOSED GRAVITY LOADS

The following imposed gravity loads shall be adopted in addition to the self-weight of the structure. (Self-weight of slab / beam / columns and wall will be as per the dimensions adopted in the respective drawings.)

3.3 LIVE LOAD (As per IS:875-part II-1987) *

- Basement roof slab = 5.00 kN/m2
- Typical floor roof slab (Reducible Live) = 2.00 kN/m2
- Terrace (Reducible Live) = 2.00 kN/m2
- Storeroom, Lobby/Balcony, Passages = 3.00 kN/m2
- Staircase (Reducible Live) = 3.00 kN/m2
- Commercial/ Shop = 4.00 kN/m2
- Fire tender =15 kN/m2

○ Live load reduction:

As per IS 875 part-II-1987, clause 3.2 Reduction in imposed load on floors may be made in designing columns, walls, piers, their supports, and foundations.

3.4 SUPER IMPOSED DEAD LOAD

- Floor Finish on Basement roof slab = 2.5 kN/m2
- Floor Finish on Commercial roof slab = 2.5 kN/m2

- Floor Finish load on Typical floor roof Slab = 1.5 kN/m2
- Sunk (250 mm light weight + 50 mm sand filling + 50 mm floor finish) = [(0.250*7) +(0.05*20) +(0.05*24)] = 3.9 kN/m2
- Floor finish load on Terrace Slab (200mm screed x 18) = 3.6 kN/m2
- Lift Machine Room (LMR) =15.00 kN/m2
- Water (OHWT) = 20 kN/m2 (Considering 2.0 m height)
- Floor finish load on Stair (FF) = 3.0 kN/m2
- *Specific loads given by vendors will be adopted wherever applicable.

3.5 SELF - WEIGHT OF DIFFERENT WALLS

- At Typical Roof Slab For 75 mm RCC Wall (Height: 3.23 m) = [(3.23-0.6) x 0.075 x 25] = 4.93 kN/m
- At BS-1 Roof Slab For 75 mm RCC Wall (Height: 4.5 m) = [(4.5-0.6) x 0.075 x 25] = 7.31 kN/m
- At GF Roof Slab For 75 mm RCC Wall (Height: 4 m) = [(4-0.6) x 0.075 x 25] =6.38 kN/m
- At Typical Roof Slab For 230 mm RCC Wall (Height: 3.23 m) = [(3.23-0.6) x 0.230 x 25] = 15.12 kN/m
- At BS-1 Roof Slab For 230 mm RCC Wall (Height: 4.5 m) = [(4.5-0.6) x 0.23 x 25] = 22.42 kN/m
- At GF Roof Slab For 230 mm RCC Wall (Height: 4 m) = [(4-0.6) x 0.23 x 25] =19.55 kN/m
- At Typical Roof Slab For 300 mm RCC Wall (Height: 3.23 m) = [(3.23-0.6) x 0.3 x 25] = 19.72 kN/m
- At BS-1 Roof Slab For 300 mm RCC Wall (Height: 4.5 m) = [(4.5-0.6) x 0.3 x 25] = 29.25 kN/m
- At GF Roof Slab For 300 mm RCC Wall (Height: 4 m) = [(4-0.6) x 0.3 x 25] =25.5 kN/m
- *Wall loads are considered as per architectural plans at respective levels.

3.6 SEISMIC LOADS

The seismic load calculations will be carried out in accordance with IS 1893 (Part 1): 2016. As per the code, AHMEDABAD lies in Zone III, zone factor Z = 0.16, The Design Base Shear is given by Vb = (Z/2) x (I/R) x (Sa/g) x W where, Importance factor, I will be taken as **1.2 as it is residential building** with occupancy more than 200 person as per IS 1893 : 2016, response reduction factor **R will be taken as '4'**, the structure would be designed as a Building with ductile RC Structural Walls, and the **soil type will be taken as 1**. Sa/g is the normalized Response Spectrum value for the structure which is the function of the fundamental time period of vibration of the structure and the type of the founding soil. W is the Seismic Weight of the building, which will be calculated in accordance with the relevant clause in, IS 1893(Part 1):2016. Since the structure is a Reinforced Concrete structure, an approximate damping value of 5% will be considered.

For calculation of design seismic forces of building, the reduction of imposed loads mentioned in table below is considered.

Imposed uniformity distributed floor load (kN/m^2)	Percentage of Imposed load
Up to and including 3.0	25
Above 3.0	50

3.7 Time period calculation (As per IS:1893-part I-2016)

(Basement-3 Floor level to 32nd Floor Roof Slab level)	***BLOCK-A***		***BLOCK-B***	
	X direction	Y direction	X direction	Y direction
	41.63 m	30.28 m	36.575 m	33.24 m
Height of building:	119.88 m		119.88 m	
With Infill walls	1.670	1.958	1.7817	1.8689
Shear wall time period	1.5316	1.0714	1.4838	1.4760
Without Infill walls	2.7146	2.7146	2.7146	2.7146
Time period taken	1.670 sec	1.958 sec	1.781 sec	1.868 sec

3.8 WIND LOADS

IS 875-Part.III-2015 is used for application of wind force.
Basic wind speed (Vb) = 39m/s (Ahmedabad)
The Design Wind Speed is given by Vz = k1 x k2 x k3 x k4 x Vb
Where, k1 = Probability factor = 1.
k2 = Terrain, height, and structure size factor,
k3 = Topography factor,
k4 = Important factor for cyclonic region,
k1 = k3 = k4 = 1 for this case.
The structure falls under **Category -3** (Terrain with numerous closely space obstructions having size of buildings up to 10m in height with or without a few isolated tall structures.)

	BLOCK-A	***BLOCK- B***
Ht =	108.63 m	108.63 m
Dx =	41.63 m	36.575 m
Dy =	30.28 m	33.24 m
Cfx =	1.33	1.32
Cfy =	1.22	1.28

Dynamic effects (as per IS: 875-part-III, clause-9, pg. 45), In addition to this, in model analysis, 1st mode time period is more than 1, thus frequency become less than 1, hence dynamic effects of wind have been considered using Gust factor method along wind and across wind effects as per IS 875.

3.9 TEMPERATURE LOADS

Thermal variation due to seasonal change, the 20-degree temperature gradient have been considered at Terrace level only.

4 LOADING DIAGRAMS

All the loading assumptions shall be mentioned in attachments. Floor Load assigned in models are marked using Hatch with different colours. The drawings have been marked with thick lines for wall load assigned.

5 CLEAR COVER TO REINFORCEMENT

Clear cover for all RCC members shall be in accordance with IS: 456:2000 corresponding to moderate exposure conditions for the super-structure as well as the substructure and to satisfy a fire rating of 2 hrs & 4 hrs for Lift wall.
Minimum clear cover is to be provided to main steel,

- For footing: 75mm for Sides & Bottom
- For Column: 40mm
- For Beam (continuous): 30mm for Sides & Bottom
- For Beam (simply supported): 40mm for Bottom.
- For Slab: 30 mm
- For RCC shear wall: 40 mm

6 RCC WORKS / GRADE OF CONCRETE

The building will be primarily RCC shear wall structure with peripheral beams, lift walls and floor slabs being used as diaphragms in distribution of lateral forces.

- Density of Reinforced cement concrete shall be: 25 kN/m3.
- Grade of Concrete M 15 will be used in filling, plum concrete, levelling courses and other non-structural items.
- Minimum cement content, water cement ratio etc. will confirm to IS 456:2000 provisions for durability and strength criteria. (As per approved mix design from concrete supplier and contractor)
- Ordinary Portland cement of grade 43 or higher conforming to IS 8112 and IS 12269 are specified for concrete grades ranging up-to M 60.
- The sizes of aggregates conform to IS 383. The nominal maximum size of coarse aggregate is

20 mm, suitably graded as per the requirement of mix design.

- Mixing Water will conform to IS 456: 2000.
- High yield strength deformed bars conforming to IS 1786: 2008 with fe550D Fy = 550 N/mm2 TMT bars will be used as Reinforcing-bars in concrete elements.
- Elongation of reinforcement should not be less than 16% as per IS 1786: 2008
- All mix design of concrete should be approved prior to execution of work.
- Take out 9 cubes from every batch of concrete and report of the same of 7 days, 14 days and 28 days must be submitted to us.
- For reinforcement, report should be carried out at every 30 ton for each category and elongation test should be performed and should not be less than 16%.
- Grade to be used,

Columns / Shear Walls: M60 (3rd basement to 4th floor roof slab level)
M50 (5th floor level to 10th floor roof slab level)
M45 (11th floor level to 15th floor roof slab level)
M40 (16th floor level to 20th floor roof slab level)
M35 (21st floor level to Stair cabin slab level)
Beam & Slab: M45 (3rd basement to 4th floor roof slab level)
M35(5th floor level to Stair cabin slab level)
Footing: M35

7 EXPOSURE CONDITION

Environmental exposure condition is taken “Moderate” for superstructure and “Moderate” for sub structure as per available metrological conditions of the site. The requirements for such conditions are referred to IS 456: 2000 as per clause 8.2.2.

8 WIND TUNNEL TESTING

The wind Tunnel test was carried out using the High Frequency Force Balance technique by RWDI. Hence currently in the ETAB model, forces from the wind tunnel test have been applied in combination as suggested by RWDI consultant (Refer wind tunnel test report WIND-INDUCED STRUCTURAL RESPONSES RWDI # 2301201 dated MARCH 13, 2023).

9 CONSTRUCTION SEQUENCE

Not considered as per IS 16700:2017, as building height is below 150m.

10 PROPOSED APPROACH TO STRUCTURAL ANALYSIS

The structural form should contribute to the building character and identity while it is being efficient, cost effective and simple to construct. The structure is modelled for concrete shear walls and analyzed. Structure will be subjected for earthquake analysis by using minimum wall section at floors. Structure will be analyzed using ETABS 19. The analysis results generated by software will be cross verified by hand calculations for critical members.

Type of Analysis Performed

- Dynamic Analysis (Response Spectrum Analysis)
- Second Order P-Delta Analysis (1.2 Dead + 0.5 imposed $\pm$ 1.5 Earthquake / Wind Loads)

10.1 STIFFNESS MODIFIERS

According to IS 16700-2017, stiffness modifiers for flexural capacity only.

	Service Case	Design Case
Slab	35 percent of Igross	25 percent of Igross
Beam	70 percent of Igross	35 percent of Igross
Walls & Columns	90 percent of Igross	70 percent of Igross

10.2 DEFLECTION CRITERIA

- The final deflection due to all loads including the effects of temperature, creep and shrinkage and measured from the as-cast level of the supports of floors, roofs, and all other horizontal members, should not normally exceed span/250.
- The deflection including the effects of temperature, creep and shrinkage occurring after erection of partition and the application of finishes should not normally exceed span/350 or 20 mm whichever is less.
- The deflection due to lateral load i.e., should not exceed h/250 for earthquake and h/500 for wind load.

10.3 CRACKING CRITERIA

- In liquid retaining structure, the maximum calculated surface width of cracks for direct tension and flexure or restrained temperature and moisture effects shall not exceed 0.2 mm with specified cover.

11 LOAD COMBINATION

The results obtained from the computer analysis in the form of member forces and reactions will be used for designing the structural members. Following are the load combinations, and the member forces will be considered for arriving at the design forces.

• Concrete Design criteria Load combination	• Concrete Service Criteria Load combination
1. 1.5 (DL + LL)	14. DL + LL
2. 1.2 (DL + LL + SpecX ± 0.3 SpecZ)	15. DL + LL + SpecX
3. 1.2 (DL + LL + SpecY ± 0.3 SpecZ)	16. DL + LL + SpecY
4. 1.5 (DL + SpecX ± 0.3 SpecZ)	17. DL + SpecX
5. 1.5 (DL + SpecY ± 0.3 SpecZ)	18. DL + SpecY
6. 0.9 DL + 1.5 (SpecX ± 0.3 SpecZ)	19. DL + LL ± GWX ± AWY
7. 0.9 DL + 1.5 (SpecY ± 0.3 SpecZ)	20. DL + LL ± GWY ± AWX
8. 1.2 (DL +LL ± GWX± AWY)	21. DL ± GWX ± AWY
9. 1.2 (DL + LL ± GWY± AWX)	22. DL ± GWY ± AWX
10. 1.5 (DL ± GWX± AWY)	23. DL + TL
11. 1.5 (DL ± GWY± AWX)	24. DL + LL + TL
12. 0.9 DL ± 1.5 GWX ± 1.5AWY	25. DL + LL + SpecX + TL
13. 0.9 DL ± 1.5 GWY ± 1.5AWX	26. DL + LL + SpecY + TL
14. 1.4 DL + 1.4 TL	27. DL + LL ± GWX ± AWY + TL
15. 1.05 DL + 1.28 LL + 1.05 TL	28. DL + LL ± GWY ± AWX + TL
	29. DL + SpecX + TL
	30. DL + SpecY + TL
	31. DL ± GWX ± AWY + TL
	32. DL ± GWY ± AWX + TL

12 SOFTWARE USED

Structure will be analyzed using ETABS 19.

13 SOIL PROFILE IN BRIEF

The allowable net soil bearing capacity as 630 kN/m^2 for RAFT FOUNDATION with SETTLEMENT OF 125mm at 12.125 m depth below Existing Ground Level and Modulus of Subgrade Reaction is considered as 6000 kN/m^3 as per soil report of KBM ENGINEERING RESEARCH LABORATORY, AHMEDABAD. With reference to REPORT NO.: 3074/DR on October, 2022. And for Isolated footing (non-tower columns) SBC is considered as 350 kN/m^2. The water table was encountered at 41 m from existing ground level in the bore-log during investigation. (As per Soil Report). If the foundation pressure governs in earthquake combination, then SBC will enhance up to 50% as per IS 1893-2016, Table 1.

14 SOIL RETENTION SYSTEM

We have used diaphragm wall as the soil retention system.

15 KEY PLAN

The building is separated with seismic gap. Separation between Adjacent Units: As per clause,7.11.1 of IS:1893-2016 (part 1), (R1Δ1 + R2Δ2)/2 = (4*40 + 4*50)/2 = 180 mm
Provided expansion joint is 200 mm.

16 ADDED FEATURES

The structural system is with Well Distributed Structural Wall System. No dampers or base isolation are used.

17 FAÇADE, CROWN, AND OTHER ELEVATION FEATURES

The façade of Residential building consists of RCC projections and railings and glass windows elements as per architectural intent.

18 STRUCTURAL LAYOUT

All structural layouts are attached attachments.

APPENDIX - D

DESCRIPTION OF SUB STRUCTURE

Sr. No	Item	Description	References
1.	No. of basement		3
2.	Minimum clearance between outermost basement retaining wall and compound wall		3.0 m (APPROX)
3.	Has a Shoring system been installed? Submit sectional detail of the shoring system		NA
4.	Give details of methodology used to resist uplift pressure due to ground water for tower portion as well as the portion outside the tower.	Bottom level of Raft w.r.t ground level (mts) Total downward load of self-weight of raft + counter weight of Raft + Rock anchors if any (For raft spanning between columns) Whether pressure release pipes have been used? Water level assumed for uplift calculation.	NA
5.	Description of the foundation for the tower block		RAFT FOUNDATION
6.	Nature of Foundation	Piles, Spread Footing, Combined raft, Piled raft etc.	COMBINED RAFT
7.	SBC assumed T/sq.mt.		630 kN/m^2
8.	Sub-grade Elastic Modulus		6000 kN/m^3
9.	Flooring system of the basement		TRIMIX RCC FLOOR
10.	Retaining wall types and Sequence of backfilling	Whether propped cantilever, cantilever supported between buttresses / counter forts, etc.	DIAPHRAGM WALL IS PROVIDED FOR SOIL RETENTION
11.	Intended Use of basements		PARKING
12.	If rock anchors are used, are they grouted after installation and stressing?		NA

13.	Is structural steel used in the construction of the sub-structure?		NO
14.	If yes, what are the measures taken for its fire proofing and corrosion resistance?		NA
15.	Whether Expansion/ Separation joints provided? Whether expansion joint/ separation joint continues through basement? If yes, detail at Basement level & retaining wall junction Separation joints details at roof		EXPANSION JOINT IS PROVIDED.

ADDITIONAL INFORMATION

Sr. No	Item	References
1	Property Details	COMMERCIAL& RESIDENTIAL BUILDING
	Project Name	OEUVRE ICONIC
	Project Address	F.P. NO.:- SP 13 OF 461+F.P. 462 OF DRAFT T.P.S.NO.1/B (BODAKDEV)OF [REVENUE SURVEY NO. 319/1+323/P (O.P.NO. 18/1+20), MOJE: - BODAKDEV, TALUKA: - GHATLODIYA, DISTRICT: -AHMEDABAD
	Height of Structure	GROUND FLOOR TO TERRACE HT. – 108.63 MTR GROUND FLOOR TO O.H.W.T. HT.- 115.88 MTR GROUND FLOOR TO LIGHTNING ARRESTOR: - 118.09 MTR
2	Details of structure/s along with height abutting boundaries of the plot	
	North Side	Bodakdev road
	South Side	Residential bungalows
	East Side	Open land
	West Side	Residential Building
	No. of Basement	3 NUMBER
	Height of each basement	BASEMENT-3 = 3.65 m
		BASEMENT-2 = 3.65 m
		BASEMENT-1 = 3.95 m
3	Soil Investigation Details	REFER SOIL TEST REPORT
	Boring Methods	ROTARY DRILLING METHOD AS PER IS 1892
	No. of Bore holes (As per ISI 16700)	3 NOS. PER TOWER
	Spacing of Bore holes (As per ISI 16700)	18m to 26.5 m
	Terminated Depth of Boreholes (As per 16700)	45/60 m
	GWL(m)	GROUND WATER TABLE WAS SEEN AT 41M DEPTH BELOW EXISTING GROUND LEVEL.
	Testing Laboratory (soil & rock)	KBM Engineering Research Laboratory (ISO 9001:2015)
	Field permeability test	As per soil test report
4	Foundation	
	Type of Proposed foundation	RAFT FOUNDATION

	Depth of footing/raft, pile termination	12.125 M FROM GROUND LEVEL.
	Load calculations/Contact Pressure	REFER RAFT PRESSURE DIAGRAM ON ANNEXURE SUPPORTING DOCUMENTS
	SBC estimated	AS PER IS 6403: 1981
	Sub grade Elastic Modulus	BASED ON LAB/FIELD TEST
	Settlement estimated	REFER RAFT SETTLEMENT DIAGRAM ON ANNEXURE SUPPORTING DOCUMENTS
	Uniform/Differential settlement	REFER RAFT SETTLEMENT DIAGRAM ON ANNEXURE SUPPORTING DOCUMENTS
4.1	Raft foundation	YES
	Bottom level of raft	12.125 M FROM GROUND LVL.
	Minimum clearance between outmost basement retaining wall and compound wall	6.0M (APPROX)
	Size	Refer Attachment-19.
	Thickness	1.65 M AND 2.1 M
	Depth (indicated in c/drawing)	3.0M FROM 3RD BASEMENT FLOOR LEVEL.
	Modulus of sub gradation reaction	6000 kN/m3
	Modelling of soil for raft foundation	As per Clause 9.7.1 of IS 16700 (2017)
	Anchors details (if required)	NO
4.2	Pile raft	NA
	Sharing of load by raft and piles	NA
	Pile group test (Pile cap rest on strata) otherwise, Footing load test for confirmation of raft load sharing	NA
	Foundation settlement and pressure measurement	NA
4.3	Pile foundation (Design as per relevant BIS and other methods)	NA
	Type, diameter, spacing	NA
	Socket depth	NA
	Foundation settlement and pressure measurement	NA
4.4	Lateral load analysis	NA

	Pile load test	NA
	Initial	NA
	Routine	NA
	Any other field test conducted recommended	NA
4.5	Uplift capacity of foundation	REFER ATTACHMENT 7 PG. NO. 49
	Based on wind pressure	REFER ATTACHMENT 6 PG. NO. 46
	Based on GWL	REFER ATTACHMENT 6 PG. NO. 46
	Based on earthquake	REFER ATTACHMENT 6 PG. NO. 46
	If rock anchors are used, are they grouted after installation and stressing? Or passive anchor	NA
	Whether pressure release pipes have been used?	NA
4.6	Shoring Arrangement	NA
	Has shoring system been installed?	YES
	Type (touching piles c/c spacing, secant pile/ diaphragm wall)	DIAPHRAGM WALL
	Size and depth	600 MM THICK
	Anchors if required	Anchors as per diaphragm design
4.7	Retaining wall (if any)	NO
4.8	Submission of final report	In advance to authority. Should reach the members 5 days before the meeting.

DESCRIPTION OF SUPER STRUCTURE

1.	No. of Floors & height of building (in mts)	HOLLOW PLINTH + 32 FLOORS
2.	Shape of Building, Plan, Elevation, Whether Symmetric in Elevation	RECTANGLE IN PLAN & SYMMETRIC IN ELEVATION
3.	Maximum plan dimension in either direction (in mts).	REFER DBR CL.1.1 (PAGE NO. 11)
4.	Plan aspect Ratio	REFER DBR CL.1.1 (PAGE NO. 11)
5.	Typical Floor to floor height (in mts) Maximum floor to floor height in entire height of building (in mts).	TYPICAL FLOOR = 3.23 M MAXIMUM = 4.5 M (AT GROUND FLOOR)
6.	Slenderness Ratio (Height of Building till Terrace / Minimum Dimension of Building)	119.88/30.28=3.95 FOR BLOCK -A 119.88/33.240=3.60 FOR BLOCK- B
7.	Type of floor slab	SEMI RIGID FLOOR SLAB COSIDERED
8.	Average thickness of floor slab in mm.	MIN. 150 MM & HIGHER AS PER SPAN
9.	Whether column is RCC, Composite or in structural steel	RCC
10.	Lateral System Describe lateral load resisting system. Whether the geometry of the building is symmetric.	WELL DISTRIBUTED STRUCTURAL WALL SYSTEM
11.	Use of floor different levels (Residential/Commercial/ Recreational, mix)	BASEMENT FLOOR-PARKING FOR BLOCK A GROUND FLOOR & FIRST FLOOR – COMMERCIAL ALL OTHER FLOOR- RESIDENTIAL FOR BLOCK B GROUND FLOOR – AMMENITIES ALL OTHER FLOOR- RESIDENTIAL
12.	Is there any transfer level? Is transfer girder part of lateral load resisting system? If yes, depth of transfer girder	NO
13.	Whether expansion joint is provided?	YES

ANNEXURE – 1

SETU
INFRASTRUCTURE

Check List for the Main Structural Consultants.

The main structural consultant is required to submit following information.

1. Provide Design Basis Report as per the documents.
   Refer Appendix-C (pg. no 11)
2. Provide description of Sub-structure and Super-structure as per the format given in the Appendix D (I & II).
   Refer Appendix-D (pg. no 19)
3. Provide brief description of structural systems with sketches, images of drawing, etc. with specific focus on lateral load resisting system.
   Refer DBR (pg. no 14)
   a. Provide brief note on modelling, software used etc. Clearly mention whether infill / partition wall is idealized as part of lateral load system?
   Refer DBR
4. Detailing of non-structural element for lateral loads.
   Refer attachments.
5. Provide the height of building in meters.-
   Refer appendix C 1.2 (pg. no 11)

6A) Provide plan dimensions of the building (m x m) – (Typical Floor)
Refer DBR (pg. no 11)

6. Provide following EQ loading details.
   a) Zone Factor - III
   b) Importance factor - 1.2
   c) Response Reduction factor - 4
   d) Soil Type - I
   e) % LL considered in seismic - 25% for <3kN/sq.m and 50% for >3kN/sq.m
   f) Time Period in the horizontal X-direction(sec) - Refer DBR (pg. no 13)
   g) Time Period in the horizontal Y-direction (sec) - Refer DBR (pg. no 13)
   h) Total Seismic weight (Sw) of building(kN)

Building Block	Total Weight	Seismic Weight
Block A	716803 kN	615792 kN
Block B	537258 kN	493546 kN

   i) Static Base-shear in X-direction (as % of Sw)

   j) Static Base-shear in Y-direction (as % of Sw)

Building Block	Static Base-shear in X-direction	Static Base-shear in Y-direction
Block A	9418.02 kN (1.44%)	8031.90 kN (1.22%)
Block B	6614.60 kN (1.35%)	6522.94 kN (1.28%)

k) Table of distribution for static base shear

	Block A		Block B	
STOREY	X DIRECTION (Vx) (kN)	Y DIRECTION (Vy) (kN)	X DIRECTION (Vx) (kN)	Y DIRECTION (Vy) (kN)
38-LMR	200.36	176.47	214.63	229.46
37-ST CB	502.34	445.37	495.51	530.83
36-Story32	1401.54	1203.37	970.38	1060.87
35-Story-31	2176.82	1860.35	1441.72	1585.49
34-Story30	2729.59	2339.56	1790.90	1967.44
33-Story29	3090.48	2667.33	2044.78	2223.75
32-Story28	3339.18	2905.55	2260.31	2408.20
31-Story27	3558.40	3115.12	2476.90	2571.68
30-Story26	3808.42	3339.23	2706.50	2751.06
29-Story25	4112.40	3595.75	2942.64	2960.98
28-Story24	4438.23	3862.44	3160.03	3179.75
27-Story23	4752.25	4117.16	3355.95	3387.76
26-Story22	5026.13	4340.58	3513.40	3545.38
25-Story21	5257.83	4531.85	3687.90	3696.66
24-Story20	5459.39	4699.24	3861.76	3828.82
23-Story19	5659.68	4863.87	4034.60	3960.08
22-Story18	5875.75	5038.45	4199.31	4100.96
21-Story17	6110.23	5225.38	4352.52	4251.36
20-Story16	6351.10	5416.17	4497.63	4401.67
19-Story15	6571.48	5591.10	4644.16	4542.72
18-Story14	6759.84	5742.03	4789.50	4662.76
17-Story13	6919.25	5872.23	4931.96	4766.71
16-Story12	7063.65	5993.17	5064.28	4865.05
15-Story11	7215.34	6122.22	5185.14	4972.14
14-Story10	7381.42	6263.85	5293.84	5089.98
13-Story9	7559.71	6415.70	5401.49	5216.01
12-Story8	7734.28	6565.20	5514.96	5338.52
11-Story7	7888.14	6699.54	5632.20	5445.12
10-Story6	8006.49	6807.64	5744.74	5532.21
09-Story5	8096.87	6896.29	5836.90	5602.44
08-Story4	8181.56	6983.17	5908.86	5673.17
07-Story3	8288.60	7089.36	5973.02	5763.04
06-Story2	8437.28	7228.15	6049.37	5883.51
05-Story1	8683.66	7445.51	6156.27	6036.61
04-HP SL	9013.40	7722.34	6341.15	6255.05
03-BS 1 SL	9264.71	7921.65	6517.32	6431.26
02-BS 2 SL	9379.58	8006.38	6590.88	6500.61
01-BS 3 SL	9418.03	8031.90	6614.60	6522.94

l) Max. deflection at roof level (in mm): As mentioned below.

Load Case	Block A	Block B
UNSPEC X	50.56(Joint Label-29)	131 (Joint Label-272)
UNSPEC Y	74.87(Joint Label-168)	107(Joint Label-267)

m) Max. inter storey drift /Height: As mentioned below.

Load Combination	Block A	Block B
DL + LL + UNSPEC-X	0.0025	0.0003
DL + LL + UNSPEC-Y	0.0004	0.0006

n) Load combination

DL + LL + UNSPEC-X/UNSPEC-Y

o) Cumulative mass participation

>90% (refer Table in Question 9)

7. Provide following Wind loading details.

		Block A	Block B
a	Category of Building	Terrain Category 3	
b	Class of Building	1	
c	Basic wind speed in m/sec	39	
d	Maximum wind pressure (kN/m2)	Refer Wind Tunnel Report	
e	Force coefficient	REFER WIND TUNNEL REPORT	
f	Wind Base-shear in the horizontal X-direction(kN)	4220	4705
g	Wind Base-shear in the horizontal Y-direction(kN)	5986	4389
h	Gust factor calculations (if Gust-wind applied)	Refer Attachment No. 3	
i	Details of wind-tunnel force data (if applicable)	Refer Wind Tunnel Report	
j	Estimated magnitude of wind induced vibrations	Refer Wind Tunnel Report	
k	Max. deflection at roof level (in mm)	169.25	152
l	Max. Inter storey drift	0.001167	0.00108169

8. Provide following data from dynamic analysis.

	Block A					**Block B**				
Mode	**Frequency**	**Period**	**UX**	**UY**	**RZ**	**Frequency**	**Period**	**UX**	**UY**	**RZ**
	Hz	sec				Hz	sec			
1	0.143	6.99	0%	68%	0%	0.147	6.825	67%	0%	5%
2	0.156	6.407	71%	0%	0%	0.15	6.675	0%	70%	0%
3	0.17	5.883	0%	0%	70%	0.188	5.305	5%	0%	67%
4	0.515	1.94	0%	15%	0%	0.496	2.017	12%	0%	1%
5	0.531	1.882	12%	0%	0%	0.54	1.851	0%	15%	0%
6	0.589	1.698	0%	0%	14%	0.622	1.607	1%	0%	13%
7	1.038	0.963	0%	5%	0%	0.958	1.043	4%	0%	1%
8	1.039	0.962	5%	0%	0%	1.105	0.905	0%	5%	0%
9	1.151	0.869	0%	0%	6%	1.183	0.846	0%	0%	4%
10	1.646	0.607	0%	3%	0%	1.493	0.67	2%	0%	0%
11	1.666	0.6	3%	0%	0%	1.763	0.567	0%	1%	1%
12	1.795	0.557	0%	0%	3%	1.77	0.565	0%	2%	1%
13	2.374	0.421	0%	2%	0%	2.122	0.471	1%	0%	0%
14	2.415	0.414	2%	0%	0%	2.406	0.416	0%	0%	1%
15	2.519	0.397	0%	0%	0%	2.555	0.391	0%	2%	0%

16	2.552	0.392	0%	0%	2%	2.775	0.36	0%	0%	0%
17	2.622	0.381	0%	0%	0%	2.833	0.353	1%	0%	0%
18	2.65	0.377	0%	0%	0%	2.911	0.343	0%	0%	0%
19	2.718	0.368	0%	0%	0%	3.072	0.326	0%	0%	1%
20	3.142	0.318	0%	0%	0%	3.144	0.318	0%	0%	0%

Note: First two modes should not be torsional. Reference can be made to IS 1893 and IS 16700

9. Provide Table for lateral deflections (mm) at Terrace Level in the following format.

Block A								
Load Case	Dx-max	Joint Label	H/Dx	Drift- x	Dy-max	Joint Label	H/Dy	Drift-y
DL	1.027	467	116577.41	0.000073	6.245	182	19171.34	0.000067
DL + LL	2.567	182	46640.05	0.000106	7.517	182	15927.23	0.000075
EQx	324.98	467	368.41	0.001726	5.75	182	20821.74	0.000126
EQy	8.117	178	14749.91	0.000121	351.15	182	340.95	0.002718
WIND-X	118.76	182	1008.17	0.000515	106.12	178	1128.26	0.000822
WIND-Y	45.392	182	2637.58	0.000228	109.56	178	1092.82	0.000797
Block B								
Load Case	Dx-max	Joint Label	H/Dx	Drift- x	Dy-max	Joint Label	H/Dy	Drift-y
DL	4	61	29931.25	0.0001186	36	272	3325.69	0.0005110
DL + LL	4	61	29931.25	0.0001393	43	272	2784.30	0.0006066
EQx	404	272	296.35	0.0023757	35	266	3420.71	0.0001962
EQy	12	266	9977.08	0.0001656	352	266	340.13	0.0023211
WIND-X	164	61	730.03	0.0010517	113	272	1059.51	0.0006143
WIND-Y	87	61	1376.15	0.0006202	158	272	757.75	0.0011499

10. Provide Corner displacements (mm) for Torsional Irregularity (along x-direction) in the following format.

Block A						
LOAD CASE	CORNER-1 (LABEL 467)	CORNER-2 (LABEL 182)	CORNER-3 (LABEL 511)	CORNER-4 (LABEL 178)	AVG-X	%(MAX./AVG.)
EQx	324.98	324.93	323.53	323.5	324.235	1.00
WIND-X	115.74	118.755	118.66	115.602	117.189	1.01
Block B						
LOAD CASE	CORNER-1 (LABEL 272)	CORNER-2 (LABEL 61)	CORNER-3 (LABEL 60)	CORNER-4 (LABEL 266)	AVG-X	%(MAX./AVG.)
EQx	404	338	338	404	371	1.09
WIND-X	135	164	164	135	149.5	1.10

11. Provide Corner displacements (mm) for Torsional Irregularity (along z-direction) in the following format.

Block A						
LOAD CASE	CORNER-1 (LABEL 467)	CORNER-2 (LABEL 182)	CORNER-3 (LABEL 511)	CORNER-4 (LABEL 178)	AVG-X	%(MAX./AVG.)
EQy	339.18	351.11	339.13	351.15	345.143	1.02
WIND-Y	104.912	109.307	105.13	109.556	107.226	1.02
Block B						
LOAD CASE	CORNER-1 (LABEL 272)	CORNER-2 (LABEL 61)	CORNER-3 (LABEL 60)	CORNER-4 (LABEL 266)	AVG-Y	%(MAX./AVG.)
EQy	350	350	351	352	350.75	1.00
WIND-Y	158	154	144	141	149.25	1.06

12. Provide acceleration (mg) values in the following format.

Block	EQ-x	EQ-y	WL- x	WL-y
Block-A	0.61	0.50	0.39	0.43
Block-B	0.64	0.52	0.45	0.42

13. Provide following data regarding Vertical Elements.

		Block A	**Block B**
a)	Size of maximum loaded column	750 x 900	800 x 925
b)	Gravity load on max. loaded column	17805 kN	23557 kN
c)	Axial stress in max. loaded column (Gravity loads)	26.38 N/mm2	31.83 N/mm2
d)	Grade of max. loaded column	M60	M60
e)	Axial settlement in max. loaded column	75mm	98 mm
f)	Axial settlement in min. loaded column	60mm	85mm
g)	% Base shear resisted by all columns along X (static)	12%	10%
h)	% Base shear resisted by all columns along Y (static)	11%	12%

14. Provide, if applicable, following data regarding Floating Columns. **N/A**
    a) Total gravity load on floating column (provide table if there are multiple floating columns)
    b) Size and span of girders supporting floating columns
    c) Number of floors supported by floating columns
    d) Deflection of girder under column (from model)
    e) Deflection of girder under column (from s/s action)
    f) Specific details about floating columns on cantilever girders (Refer Table below)

Column	Supporting Girder		Deflection Values		Floors Above	Total Load in Column
	Size	Span	Model	S/S Action		
S/S denotes the simply supported						

15. Provide, if applicable, following data regarding soft story effect.

Not Applicable. (Refer attachments)

		Block A	Block B
a)	Stiffness of lower floor (in deflection/kN)		
b)	Stiffness of lower floor (in deflection/kN)		
c)	Relative stiffness ratio (upper/ lower)		
d)	Level of story		
e)	Number of floors above soft story		

16. Provide, if applicable, following data for maximum cantilever.

		Block A	Block B
a)	Cantilever span	2.15m	2.87m
b)	Structural system	RC Shear Wall	RC Shear Wall
c)	Nature of usage	Refuge	Refuge
d)	Maximum elastic deflection under gravity loads	15mm	18mm

17. Provide stability calculations for uplift and overturning (As per relevant IS code).

Refer attachment no 7 & 8. (Page no. 46)

18. Typical design calculations for footings.

Refer attachment No 13. (Page no. 58)

19. Typical design calculations for RCC columns Composite Columns.

Refer attachment No.15 (page no. 66)

20. Typical design calculations for RCC walls.

Refer attachment No.16 (page no. 75)

21. Typical design calculations for RC beams (Or Steel Beams).

Refer attachment No. 17 (page no. 77)

22. Typical design calculations for RCC Girders (Or Steel Girders/ Truss).

NA

23. Typical design calculations for Steel Bracings.

NA

24. It is compulsory to conduct Wind tunnel studies for any Tall Building as per IS: 16700.

REFER WIND TUNNEL REPORT

25. Provide a note on special provisions suggested for the building (like dampers etc.)

NA

26. Provide a design of external facade, special elevation features and connecting bridges etc. between building, if any.

NA

27. Provide regular maintenance plan for entire life and dismantling plan at the end of life of structures.

Professional structural health monitoring agency will be appointed by the Developer for maintenance purpose. The said agency will be liable to conduct visual inspection and carry out NDT test for structural elements at specified interval and submit the report to the structural engineer for approval. If the need arises for the demolition of the said structure, a detailed demolition plan as per existing landscape in and around the said structure shall be furnished to the authority for approval. It also needs to note that the latest available technique will be applied for the demolition and execution will strictly be carried out by professional demolition agency.

28. Soft copy of model including Input and output.
    Yes/No
29. Soft copy of model including Input and output.
    Yes/No
30. Items 1 through 27 in soft copy.
    Yes/No

ATTACHMENTS

1. TIME PERIOD CALCULATION.

Tower : BLOCK A

HEIGHT 119.88 m Dx 41.63 m Dy 30.28 m

X DIRECTION				
NO.	LENGTH m	WIDTH m	AREA m2	Aw
4	0.575	0.6	0.345	0.2760
2	4.5	0.375	1.6875	0.6798
4	1.8	0.45	0.81	0.6487
4	1.005	0.6	0.603	0.4826
3	1.5	0.45	0.675	0.4053
2	1.65	0.45	0.7425	0.2973
2	1.95	0.45	0.8775	0.3515

Aw 3.1412
Tx 1.5331

0.09*h/d^0.5 1.6722
BARE 2.7172

FINAL 1.6722 s

X DIRECTION

Y DIRECTION				
NO.	LENGTH m	WIDTH m	AREA m2	Aw
4	1.515	0.45	0.68175	0.5458
12	2.225	0.45	1.00125	2.4071
4	0.75	0.6	0.45	0.3601
4	2.4	0.6	1.44	1.1543
4	3.32	0.375	1.245	0.9998
4	1.755	0.45	0.78975	0.6325
2	2.66	0.3	0.798	0.3200

Aw 6.4196
Ty 1.0724

0.09*h/d^0.5 1.9607
BARE 2.7172

FINAL 1.9607 s

Y DIRECTION

Tower : BLOCK-B

HEIGHT 119.88 m Dx 36.575 m Dy 33.24 m

X DIRECTION				
NO.	LENGTH m	WIDTH m	AREA m2	Aw
4	0.4	0.375	0.15	0.1200
2	1.5	0.35	0.525	0.2102
4	1	0.375	0.375	0.3001
2	0.5	0.375	0.1875	0.0750
4	2.05	0.3	0.615	0.4927
3	2.655	0.3	0.7965	0.4791
1	3.65	0.3	1.095	0.2200
4	2.425	0.3	0.7275	0.5832
4	1.8	0.375	0.675	0.5406
2	0.2	0.375	0.075	0.0300
2	0.925	0.8	0.74	0.2961

Aw 3.3470
Tx 1.4852

0.09*h/d^0.5 1.7840
BARE 2.7172

FINAL 1.7840 s

X DIRECTION

Y DIRECTION				
NO.	LENGTH m	WIDTH m	AREA m2	Aw
4	1.8	0.375	0.675	0.5406
4	0.625	0.375	0.23438	0.1875
2	0.925	0.8	0.74	0.2961
2	1.2	0.375	0.45	0.1801
2	3.034	0.3	0.9102	0.3652
2	2.659	0.3	0.7977	0.3199
2	0.448	0.3	0.1344	0.0538
2	3.589	0.3	1.0767	0.43261
4	0.35	0.375	0.13125	0.105
2	1.5	0.35	0.525	0.21016
4	2.3	0.375	0.8625	0.69127

Aw 3.3822
Ty 1.4775

0.09*h/d^0.5 1.8714
BARE 2.7172

FINAL 1.8714 s

Y DIRECTION

2. DESIGN ECCENTRICITY.

BLOCK A

x = 41.630 m y = 30.280 m

Story	Diaphragm	XCCM	YCCM	XCR	YCR	Static Eccentricity		Design Eccentricity		ETABS INPUT	
		m	m	m	m	esi(x)	esi(y)	edi(x)	edi(y)	SPECX	SPEC Y
36-Story32	D1	19.92	14.95	20.18	14.88	0.08	0.26	1.63	2.48	1.55	2.21
35-Story-31	D1	20.22	14.94	20.19	14.88	0.06	0.03	1.60	2.13	1.54	2.10
34-Story30	D1	20.34	14.93	20.21	14.88	0.05	0.13	1.59	2.28	1.54	2.15
33-Story29	D1	20.39	14.93	20.22	14.88	0.05	0.17	1.59	2.34	1.54	2.17
32-Story28	D1	20.43	14.93	20.23	14.88	0.05	0.19	1.58	2.37	1.54	2.18
31-Story27	D1	20.45	14.92	20.25	14.88	0.04	0.20	1.58	2.39	1.54	2.18
30-Story26	D1	20.47	14.92	20.27	14.88	0.04	0.20	1.58	2.39	1.54	2.18
29-Story25	D1	20.48	14.92	20.28	14.88	0.04	0.20	1.57	2.38	1.53	2.18
28-Story24	D1	20.49	14.92	20.30	14.88	0.04	0.19	1.57	2.37	1.53	2.18
27-Story23	D1	20.50	14.92	20.32	14.88	0.04	0.19	1.57	2.36	1.53	2.17
26-Story22	D1	20.51	14.92	20.33	14.89	0.04	0.18	1.57	2.35	1.53	2.17
25-Story21	D1	20.51	14.92	20.35	14.89	0.03	0.17	1.57	2.33	1.53	2.16
24-Story20	D1	20.52	14.92	20.36	14.89	0.03	0.15	1.56	2.31	1.53	2.16
23-Story19	D1	20.52	14.92	20.38	14.89	0.03	0.14	1.56	2.30	1.53	2.15
22-Story18	D1	20.53	14.92	20.39	14.89	0.03	0.13	1.56	2.28	1.53	2.15
21-Story17	D1	20.53	14.92	20.41	14.89	0.03	0.12	1.56	2.26	1.53	2.14
20-Story16	D1	20.53	14.92	20.42	14.89	0.03	0.11	1.55	2.24	1.53	2.14
19-Story15	D1	20.53	14.92	20.44	14.89	0.03	0.10	1.55	2.23	1.53	2.13
18-Story14	D1	20.54	14.92	20.45	14.90	0.02	0.09	1.55	2.21	1.53	2.12
17-Story13	D1	20.54	14.92	20.46	14.90	0.02	0.08	1.55	2.20	1.53	2.12
16-Story12	D1	20.54	14.92	20.47	14.90	0.02	0.07	1.55	2.18	1.52	2.11
15-Story11	D1	20.54	14.92	20.48	14.90	0.02	0.06	1.54	2.17	1.52	2.11
14-Story10	D1	20.54	14.92	20.49	14.90	0.02	0.05	1.54	2.16	1.52	2.11
11-Story7	D1	20.55	14.92	20.52	14.90	0.02	0.03	1.54	2.13	1.52	2.10
10-Story6	D1	20.55	14.92	20.52	14.90	0.02	0.02	1.54	2.12	1.52	2.09
09-Story5	D1	20.55	14.92	20.53	14.90	0.02	0.02	1.55	2.11	1.53	2.09
08-Story4	D1	20.55	14.92	20.53	14.89	0.03	0.02	1.56	2.11	1.53	2.09
07-Story3	D1	20.55	14.92	20.54	14.88	0.03	0.01	1.57	2.10	1.53	2.09
06-Story2	D1	20.55	14.92	20.54	14.87	0.05	0.01	1.59	2.09	1.54	2.08
05-Story1	D1	20.54	14.86	20.56	14.83	0.03	0.02	1.56	2.11	1.53	2.09
04-HP SL	D1	20.53	14.83	20.61	14.77	0.05	0.08	1.59	2.20	1.54	2.12
03-BS 1 SL	D1	20.57	14.80	20.71	14.79	0.01	0.13	1.52	2.28	1.52	2.15
02-BS 2 SL	D1	20.57	14.80	20.77	14.77	0.03	0.19	1.56	2.37	1.53	2.18
01-BS 3 SL	D1	20.58	14.80	20.77	14.74	0.06	0.19	1.61	2.37	1.55	2.18

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BLOCK B

x = 36.575 m y = 33.240 m

Story	Diaphragm	XCCM	YCCM	XCR	YCR	Static Eccentricity		Design Eccentricity		ETABS INPUT	
		m	m	m	m	esi(x)	esi(y)	edi(x)	edi(y)	SPECX	SPEC Y
36-Story32	D1	16.71	13.57	16.74	15.30	1.73	0.03	4.26	1.87	2.53	1.84
35-Story-31	D1	16.70	13.82	16.73	15.35	1.54	0.04	3.97	1.89	2.43	1.85
34-Story30	D1	16.70	13.92	16.73	15.41	1.49	0.03	3.90	1.88	2.41	1.85
33-Story29	D1	16.69	13.98	16.72	15.47	1.49	0.03	3.90	1.88	2.41	1.85
32-Story28	D1	16.69	14.02	16.72	15.54	1.52	0.03	3.95	1.87	2.42	1.84
31-Story27	D1	16.69	14.04	16.71	15.61	1.57	0.03	4.01	1.87	2.45	1.84
30-Story26	D1	16.69	14.06	16.71	15.68	1.62	0.02	4.09	1.86	2.47	1.84
29-Story25	D1	16.69	14.07	16.70	15.75	1.67	0.01	4.17	1.85	2.50	1.84
28-Story24	D1	16.69	14.09	16.69	15.81	1.73	0.01	4.25	1.84	2.53	1.83
27-Story23	D1	16.68	14.10	16.69	15.88	1.79	0.00	4.34	1.83	2.56	1.83
26-Story22	D1	16.68	14.10	16.68	15.95	1.84	0.01	4.43	1.84	2.58	1.83
25-Story21	D1	16.68	14.11	16.67	16.01	1.90	0.01	4.52	1.85	2.61	1.84
24-Story20	D1	16.68	14.11	16.66	16.07	1.96	0.02	4.60	1.86	2.64	1.84
23-Story19	D1	16.68	14.12	16.66	16.13	2.01	0.03	4.68	1.87	2.67	1.84
22-Story18	D1	16.68	14.12	16.65	16.18	2.06	0.04	4.75	1.88	2.69	1.85
21-Story17	D1	16.68	14.13	16.64	16.23	2.10	0.05	4.82	1.90	2.71	1.85
20-Story16	D1	16.68	14.13	16.63	16.27	2.14	0.06	4.88	1.91	2.73	1.86
19-Story15	D1	16.68	14.13	16.62	16.31	2.18	0.07	4.93	1.93	2.75	1.86
18-Story14	D1	16.68	14.14	16.60	16.34	2.20	0.08	4.97	1.95	2.76	1.87
17-Story13	D1	16.68	14.14	16.59	16.36	2.22	0.09	5.00	1.96	2.77	1.87
16-Story12	D1	16.68	14.14	16.58	16.37	2.23	0.10	5.01	1.98	2.78	1.88
15-Story11	D1	16.68	14.14	16.56	16.37	2.23	0.12	5.00	2.01	2.78	1.89
14-Story10	D1	16.68	14.14	16.55	16.35	2.21	0.14	4.97	2.03	2.77	1.90
11-Story7	D1	16.68	14.15	16.48	16.18	2.04	0.20	4.72	2.13	2.68	1.93
10-Story6	D1	16.68	14.15	16.46	16.08	1.93	0.23	4.56	2.17	2.63	1.94
09-Story5	D1	16.68	14.15	16.43	15.94	1.79	0.26	4.35	2.21	2.56	1.96
08-Story4	D1	16.68	14.15	16.39	15.76	1.61	0.29	4.08	2.26	2.47	1.97
07-Story3	D1	16.68	14.15	16.35	15.54	1.39	0.33	3.74	2.32	2.36	1.99
06-Story2	D1	16.68	14.15	16.31	15.27	1.11	0.37	3.33	2.38	2.22	2.01
05-Story1	D1	16.68	14.15	16.28	14.96	0.80	0.40	2.86	2.44	2.06	2.03
04-HP SL	D1	16.64	14.10	16.28	14.53	0.43	0.36	2.30	2.37	1.88	2.01
03-BS 1 SL	D1	16.60	14.00	16.36	14.08	0.07	0.24	1.77	2.19	1.70	1.95
02-BS 2 SL	D1	16.59	13.96	16.47	13.64	0.32	0.12	2.14	2.02	1.82	1.89
01-BS 3 SL	D1	16.58	13.92	16.57	13.27	0.65	0.00	2.64	1.84	1.99	1.83

3. GUST CALCULATION FOR WIND

Project:	HM-OEUVRE-ICONIC (Block A)				_Along							
CATEGORY	Terrain Category 3			a	41.63	m	b/a	0.727				
Vb	39			b	30.28	m	h/a	2.609				
k1	0.99	Typical Storey height			3.23	m	a/b	1.375	a			
k3	1.00	height of building			108.63	m	h/b	3.588				
k4	1.00			fa	0.599		gh	3.877				
β	0.020			gR	3.918		Lh	154.31				
Tx	1.670		ih at 2/3		0.17		Vh,d	30.938				
Ty	1.958			ih	0.154		Ph,d	574.28				
fc	0.511			gv	4.000							
Cfx	1.33	Vh,d/fc*b	1.455	for across X					ETABS			
Cfy	1.22	Vh,d/fa*a	1.706	for across Y					X-FX	Y-FY		

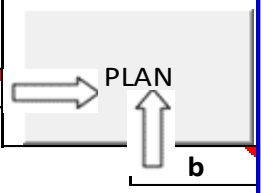
FLOOR	s	z	k2	Bsx	Øx	Øy	Gx	Gy	Fx (kN)	Fy (kN)	Ma,x	Ma,y
GF SLAB	0.00	4.50	0.40	0.71	0.261	0.264	2.348	2.392	81.94	55.75	250.896	368.72
1ST SLAB	4.50	8.50	0.48	0.72	0.262	0.265	2.36	2.40	105.96	72.09	612.743	900.65
2nd SLAB	8.50	11.73	0.52	0.73	0.263	0.266	2.36	2.41	101.18	68.81	807.152	1186.84
3rd SLAB	11.73	14.96	0.55	0.73	0.264	0.267	2.37	2.41	113.89	77.47	1158.99	1703.85
4th SLAB	14.96	18.19	0.57	0.74	0.265	0.268	2.37	2.42	124.74	84.87	1543.76	2269.03
5th SLAB	18.19	21.42	0.59	0.74	0.266	0.269	2.38	2.42	134.26	91.37	1957.14	2875.94
6th SLAB	21.42	24.65	0.61	0.75	0.267	0.270	2.38	2.43	142.80	97.20	2396.03	3519.94
7th SLAB	24.65	27.88	0.63	0.75	0.268	0.271	2.39	2.44	150.56	102.51	2858.11	4197.55
8th SLAB	27.88	31.11	0.64	0.76	0.268	0.272	2.40	2.44	157.70	107.41	3341.58	4906.05
9th SLAB	31.11	34.34	0.65	0.76	0.269	0.273	2.40	2.45	164.33	111.97	3845.01	5643.26
10th SLAB	34.34	37.57	0.67	0.77	0.270	0.274	2.41	2.46	170.54	116.24	4367.22	6407.36
11th SLAB	37.57	40.80	0.68	0.77	0.271	0.275	2.41	2.46	176.39	120.28	4907.24	7196.85
12th SLAB	40.80	44.03	0.69	0.78	0.272	0.276	2.42	2.47	181.93	124.10	5464.25	8010.41
13th SLAB	44.03	47.26	0.69	0.78	0.273	0.277	2.43	2.48	187.20	127.75	6037.53	8846.92
14th SLAB	47.26	50.49	0.70	0.79	0.274	0.278	2.43	2.49	192.22	131.24	6626.46	9705.37
15th SLAB	50.49	53.72	0.71	0.79	0.275	0.279	2.44	2.49	197.04	134.60	7230.47	10584.85
16th SLAB	53.72	56.95	0.72	0.80	0.275	0.280	2.44	2.50	201.66	137.82	7849.06	11484.52
17th SLAB	56.95	60.18	0.72	0.80	0.276	0.281	2.45	2.51	206.11	140.94	8481.73	12403.59
18th SLAB	60.18	63.41	0.73	0.80	0.277	0.282	2.46	2.52	210.40	143.95	9128.03	13341.33
19th SLAB	63.41	66.64	0.74	0.81	0.278	0.283	2.46	2.52	214.54	146.87	9787.5	14297.00
20th SLAB	66.64	69.87	0.74	0.81	0.278	0.284	2.47	2.53	218.55	149.70	10459.7	15269.88
21st SLAB	69.87	73.10	0.750	0.817	0.279	0.285	2.472	2.537	222.42	152.45	11144.07	16259.26
22ND SLAB	73.10	76.33	0.755	0.821	0.280	0.285	2.478	2.544	226.18	155.12	11840.19	17264.41
23rd SLAB	76.33	79.56	0.760	0.825	0.280	0.286	2.483	2.551	229.82	157.71	12547.47	18284.58
24th SLAB	79.56	82.79	0.765	0.829	0.281	0.287	2.488	2.557	233.35	160.23	13265.33	19319.00
25th SLAB	82.79	86.02	0.770	0.832	0.282	0.288	2.492	2.564	236.77	162.67	13993.11	20366.86
26th SLAB	86.02	89.25	0.775	0.835	0.282	0.288	2.497	2.570	240.08	165.04	14730.11	21427.35
27th SLAB	89.25	92.48	0.779	0.838	0.283	0.289	2.501	2.575	243.29	167.34	15475.57	22499.61
28th SLAB	92.48	95.71	0.784	0.840	0.283	0.289	2.505	2.581	246.40	169.56	16228.68	23582.75
29th SLAB	95.71	98.94	0.788	0.842	0.283	0.290	2.508	2.585	249.40	171.71	16988.62	24675.90
30th SLAB	98.94	102.17	0.792	0.843	0.284	0.290	2.511	2.590	252.31	173.77	17754.54	25778.16
31st SLAB	102.17	105.40	0.796	0.844	0.284	0.290	2.514	2.593	255.11	175.76	18525.62	26888.65
32nd SLAB	105.40	108.63	0.800	0.845	0.284	0.290	2.517	2.596	257.82	177.68	19301.12	28006.53

Project:	HM-OEUVRE-ICONIC (Block A)					_Across			
TERRAIN CATEGORY		Terrain Category 3					a	**41.63**	m
Cfx	1.33						b	**30.28**	m
Cfy	1.22					Typical Storey height		**3.23**	m
k	**1.5**	(across wind response)				height of building		**108.63**	m
Vb	39.000						Lh	154.31	
k1	0.992						gv	4.00	
k3	1.000						ih	0.154	
k4	1.000						fa	0.599	
β	0.020						gR	3.918	
Vh	30.94						fc	0.511	
Ph	574.28						gh	3.877	
Cfs,x	**0.0015**							ETABS	
Cfs,y	**0.0009**							X-FY	Y-FX

FLOOR	s	z	k2	Vhz	Pd	Mc,x	Mc,y	Fx ACROSS	Fy ACROSS
GF SLAB	0.00	4.50	0.395	15.30	140.38	257518.64	146616.85	12.20	6.95
1ST SLAB	4.50	8.50	0.476	18.42	203.59	257518.64	146616.85	20.49	11.67
2nd SLAB	8.50	11.73	0.517	20.00	240.07	257518.64	146616.85	22.83	13.00
3rd SLAB	11.73	14.96	0.548	21.20	269.61	257518.64	146616.85	29.12	16.58
4th SLAB	14.96	18.19	0.573	22.16	294.59	257518.64	146616.85	35.41	20.16
5th SLAB	18.19	21.42	0.594	22.96	316.33	257518.64	146616.85	41.70	23.74
6th SLAB	21.42	24.65	0.611	23.65	335.63	257518.64	146616.85	47.98	27.32
7th SLAB	24.65	27.88	0.627	24.26	353.02	257518.64	146616.85	54.27	30.90
8th SLAB	27.88	31.11	0.641	24.79	368.87	257518.64	146616.85	60.56	34.48
9th SLAB	31.11	34.34	0.654	25.28	383.45	257518.64	146616.85	66.85	38.06
10th SLAB	34.34	37.57	0.665	25.72	396.96	257518.64	146616.85	73.13	41.64
11th SLAB	37.57	40.80	0.675	26.13	409.57	257518.64	146616.85	79.42	45.22
12th SLAB	40.80	44.03	0.685	26.50	421.38	257518.64	146616.85	85.71	48.80
13th SLAB	44.03	47.26	0.694	26.85	432.52	257518.64	146616.85	92.00	52.38
14th SLAB	47.26	50.49	0.703	27.17	443.04	257518.64	146616.85	98.29	55.96
15th SLAB	50.49	53.72	0.710	27.48	453.03	257518.64	146616.85	104.57	59.54
16th SLAB	53.72	56.95	0.718	27.77	462.54	257518.64	146616.85	110.86	63.12
17th SLAB	56.95	60.18	0.725	28.04	471.62	257518.64	146616.85	117.15	66.70
18th SLAB	60.18	63.41	0.731	28.29	480.30	257518.64	146616.85	123.44	70.28
19th SLAB	63.41	66.64	0.738	28.54	488.62	257518.64	146616.85	129.72	73.86
20th SLAB	66.64	69.87	0.744	28.77	496.62	257518.64	146616.85	136.01	77.44
21st SLAB	69.87	73.10	0.750	28.99	504.31	257518.64	146616.85	142.30	81.02
22nd SLAB	73.10	76.33	0.755	29.20	511.73	257518.64	146616.85	148.59	84.60
23rd SLAB	76.33	79.56	0.760	29.41	518.89	257518.64	146616.85	154.87	88.18
24th SLAB	79.56	82.79	0.765	29.60	525.81	257518.64	146616.85	161.16	91.76
25th SLAB	82.79	86.02	0.770	29.79	532.51	257518.64	146616.85	167.45	95.34
26th SLAB	86.02	89.25	0.775	29.97	539.00	257518.64	146616.85	173.74	98.92
27th SLAB	89.25	92.48	0.779	30.15	545.30	257518.64	146616.85	180.02	102.50
28th SLAB	92.48	95.71	0.915	35.38	751.13	257518.64	146616.85	186.31	106.08
29th SLAB	95.71	98.94	0.788	30.48	557.37	257518.64	146616.85	192.60	109.66
30th SLAB	98.94	102.17	0.922	35.65	762.76	257518.64	146616.85	198.89	113.24
31st SLAB	102.17	105.40	0.796	30.79	568.79	257518.64	146616.85	205.17	116.82
32nd SLAB	105.40	108.63	0.928	35.91	773.75	257518.64	146616.85	211.46	120.39

SETU
INFRASTRUCTURE

Project:	HM-OUEVRE ICONIC (Block B) _Along										
CATEGORY	Terrain Category 3		a	36.575	m	b/a	0.909				
Vb	39		b	33.24	m	h/a	2.970				
k1	0.99	Typical Storey height		3.23	m	a/b	1.100	a			
k3	1.00	height of building		108.63	m	h/b	3.268				
k4	1.00		fa	0.561		gh	3.889				
β	0.020		gR	3.902		Lh	154.31				
Tx	**1.782**	ih at 2/3		0.17		Vh,d	30.938				
Ty	**1.869**		ih	0.154		Ph,d	574.28				
fc	0.535		gv	4.000							
Cfx	1.32	Vh,d/fc*b		1.581	for across X		ETABS				
Cfy	1.28	Vh,d/fa*a		1.658	for across Y		X-FX	Y-FY			



FLOOR	s	z	k2	Øx	Øy	Gx	Gy	Fx (kN)	Fy (kN)	Ma,x	Ma,y
GF SLAB	0.00	4.50	0.40	0.262	0.263	2.363	2.381	72.10	64.16	288.70	324.45
1ST SLAB	4.50	8.50	0.48	0.263	0.265	2.37	2.39	93.24	82.95	705.05	792.58
2nd SLAB	8.50	11.73	0.52	0.264	0.266	2.38	2.39	89.05	79.17	928.71	1044.52
3rd SLAB	11.73	14.96	0.55	0.265	0.267	2.38	2.40	100.24	89.14	1333.48	1499.66
4th SLAB	14.96	18.19	0.57	0.266	0.267	2.39	2.41	109.80	97.64	1776.09	1997.30
5th SLAB	18.19	21.42	0.59	0.267	0.268	2.39	2.41	118.20	105.11	2251.55	2531.79
6th SLAB	21.42	24.65	0.61	0.268	0.269	2.40	2.42	125.72	111.82	2756.26	3099.08
7th SLAB	24.65	27.88	0.63	0.269	0.270	2.41	2.42	132.57	117.92	3287.56	3696.14
8th SLAB	27.88	31.11	0.64	0.270	0.271	2.41	2.43	138.88	123.54	3843.34	4320.60
9th SLAB	31.11	34.34	0.65	0.271	0.272	2.42	2.44	144.75	128.77	4421.93	4970.56
10th SLAB	34.34	37.57	0.67	0.272	0.273	2.43	2.44	150.24	133.67	5021.98	5644.47
11th SLAB	37.57	40.80	0.68	0.272	0.274	2.43	2.45	155.42	138.29	5642.33	6341.03
12th SLAB	40.80	44.03	0.69	0.273	0.275	2.44	2.46	160.33	142.68	6282.00	7059.11
13th SLAB	44.03	47.26	0.69	0.274	0.276	2.44	2.46	165.00	146.85	6940.16	7797.77
14th SLAB	47.26	50.49	0.70	0.275	0.277	2.45	2.47	169.46	150.84	7616.06	8556.15
15th SLAB	50.49	53.72	0.71	0.276	0.278	2.46	2.48	173.74	154.67	8309.02	9333.47
16th SLAB	53.72	56.95	0.72	0.277	0.279	2.46	2.49	177.86	158.36	9018.43	10129.05
17th SLAB	56.95	60.18	0.72	0.278	0.280	2.47	2.49	181.82	161.91	9743.70	10942.22
18th SLAB	60.18	63.41	0.73	0.279	0.281	2.48	2.50	185.65	165.34	10484.28	11772.35
19th SLAB	63.41	66.64	0.74	0.280	0.282	2.48	2.51	189.36	168.66	11239.61	12618.84
20th SLAB	66.64	69.87	0.74	0.280	0.283	2.49	2.51	192.95	171.88	12009.13	13481.07
21st SLAB	69.87	73.10	0.750	0.281	0.283	2.496	2.519	196.42	175.00	12792.27	14358.43
22ND SLAB	73.10	76.33	0.755	0.282	0.284	2.502	2.525	199.79	178.02	13588.44	15250.28
23rd SLAB	76.33	79.56	0.760	0.283	0.285	2.508	2.531	203.07	180.96	14397.01	16155.97
24th SLAB	79.56	82.79	0.765	0.283	0.286	2.514	2.537	206.24	183.81	15217.28	17074.78
25th SLAB	82.79	86.02	0.770	0.284	0.286	2.519	2.543	209.32	186.57	16048.54	18006.00
26th SLAB	86.02	89.25	0.775	0.285	0.287	2.524	2.549	212.31	189.24	16890.02	18948.83
27th SLAB	89.25	92.48	0.779	0.285	0.287	2.529	2.554	215.21	191.83	17740.89	19902.47
28th SLAB	92.48	95.71	0.784	0.286	0.288	2.534	2.558	218.01	194.34	18600.32	20866.04
29th SLAB	95.71	98.94	0.788	0.286	0.288	2.538	2.562	220.73	196.76	19467.41	21838.68
30th SLAB	98.94	102.17	0.792	0.286	0.288	2.542	2.566	223.35	199.09	20341.31	22819.49
31st SLAB	102.17	105.40	0.796	0.286	0.288	2.545	2.569	225.88	201.34	21221.16	23807.59
32nd SLAB	105.40	108.63	0.800	0.287	0.288	2.548	2.572	228.32	203.50	22106.18	24802.11

Project: HM-OUEVRE ICONIC (Block B) _Across

TERRAIN CATEGORY	**Terrain Category 3**		a	**36.575**	m	
Cfx	1.32		b	**33.24**	m	
Cfy	1.28	Typical Storey height		**3.23**	m	
k	**1.5**	(across wind response)	height of building	**108.63**	m	
Vb	39.000		Lh	154.31		
k1	0.992		gv	4.00		
k3	1.000		ih	0.154		
k4	1.000		fa	0.561		
β	0.020		gR	3.902		
Vh	30.94		fc	0.535		
Ph	574.28		gh	3.889		
Cfs,x	**0.0015**			ETABS		
Cfs,y	**0.0009**			X-FY	Y-FX	

FLOOR	s	z	k2	Vhz	Pd	Mc,x	Mc,y	Fx ACROSS	Fy ACROSS
GF SLAB	0.00	4.50	0.395	15.30	140.38	226949.70	160269.22	10.76	7.60
1ST SLAB	4.50	8.50	0.476	18.42	203.59	226949.70	160269.22	18.06	12.75
2nd SLAB	8.50	11.73	0.517	20.00	240.07	226949.70	160269.22	20.12	14.21
3rd SLAB	11.73	14.96	0.548	21.20	269.61	226949.70	160269.22	25.66	18.12
4th SLAB	14.96	18.19	0.573	22.16	294.59	226949.70	160269.22	31.21	22.04
5th SLAB	18.19	21.42	0.594	22.96	316.33	226949.70	160269.22	36.75	25.95
6th SLAB	21.42	24.65	0.611	23.65	335.63	226949.70	160269.22	42.29	29.86
7th SLAB	24.65	27.88	0.627	24.26	353.02	226949.70	160269.22	47.83	33.78
8th SLAB	27.88	31.11	0.641	24.79	368.87	226949.70	160269.22	53.37	37.69
9th SLAB	31.11	34.34	0.654	25.28	383.45	226949.70	160269.22	58.91	41.60
10th SLAB	34.34	37.57	0.665	25.72	396.96	226949.70	160269.22	64.45	45.52
11th SLAB	37.57	40.80	0.675	26.13	409.57	226949.70	160269.22	69.99	49.43
12th SLAB	40.80	44.03	0.685	26.50	421.38	226949.70	160269.22	75.54	53.34
13th SLAB	44.03	47.26	0.694	26.85	432.52	226949.70	160269.22	81.08	57.26
14th SLAB	47.26	50.49	0.703	27.17	443.04	226949.70	160269.22	86.62	61.17
15th SLAB	50.49	53.72	0.710	27.48	453.03	226949.70	160269.22	92.16	65.08
16th SLAB	53.72	56.95	0.718	27.77	462.54	226949.70	160269.22	97.70	69.00
17th SLAB	56.95	60.18	0.725	28.04	471.62	226949.70	160269.22	103.24	72.91
18th SLAB	60.18	63.41	0.731	28.29	480.30	226949.70	160269.22	108.78	76.82
19th SLAB	63.41	66.64	0.738	28.54	488.62	226949.70	160269.22	114.32	80.73
20th SLAB	66.64	69.87	0.744	28.77	496.62	226949.70	160269.22	119.87	84.65
21st SLAB	69.87	73.10	0.750	28.99	504.31	226949.70	160269.22	125.41	88.56
22nd SLAB	73.10	76.33	0.755	29.20	511.73	226949.70	160269.22	130.95	92.47
23rd SLAB	76.33	79.56	0.760	29.41	518.89	226949.70	160269.22	136.49	96.39
24th SLAB	79.56	82.79	0.765	29.60	525.81	226949.70	160269.22	142.03	100.30
25th SLAB	82.79	86.02	0.770	29.79	532.51	226949.70	160269.22	147.57	104.21
26th SLAB	86.02	89.25	0.775	29.97	539.00	226949.70	160269.22	153.11	108.13
27th SLAB	89.25	92.48	0.779	30.15	545.30	226949.70	160269.22	158.65	112.04
28th SLAB	92.48	95.71	0.784	30.32	551.42	226949.70	160269.22	164.20	115.95
29th SLAB	95.71	98.94	0.788	30.48	557.37	226949.70	160269.22	169.74	119.87
30th SLAB	98.94	102.17	0.792	30.64	563.16	226949.70	160269.22	175.28	123.78
31st SLAB	102.17	105.40	0.796	30.79	568.79	226949.70	160269.22	180.82	127.69
32nd SLAB	105.40	108.63	0.800	30.94	574.28	226949.70	160269.22	186.36	131.61

4. MASS IRREGULARITY

BLOCK A

Story	Diaphargm	Mass X kg	Mass Y kg	X DIR	Y DIR	X DIR	Y DIR
36-Story32	D1	1346823.09	1346823.09	103.35%	103.35%	< 150%	< 150%
35-Story-31	D1	1303216.73	1303216.73	99.96%	99.96%	< 150%	< 150%
34-Story30	D1	1303699.86	1303699.86	100.04%	100.04%	< 150%	< 150%
33-Story29	D1	1303216.73	1303216.73	99.96%	99.96%	< 150%	< 150%
32-Story28	D1	1303699.86	1303699.86	100.04%	100.04%	< 150%	< 150%
31-Story27	D1	1303216.73	1303216.73	100.00%	100.00%	< 150%	< 150%
30-Story26	D1	1303216.73	1303216.73	99.96%	99.96%	< 150%	< 150%
29-Story25	D1	1303699.86	1303699.86	100.04%	100.04%	< 150%	< 150%
28-Story24	D1	1303216.73	1303216.73	99.96%	99.96%	< 150%	< 150%
27-Story23	D1	1303699.86	1303699.86	100.04%	100.04%	< 150%	< 150%
26-Story22	D1	1303216.73	1303216.73	100.00%	100.00%	< 150%	< 150%
25-Story21	D1	1303219.59	1303219.59	99.96%	99.96%	< 150%	< 150%
24-Story20	D1	1303702.71	1303702.71	100.04%	100.04%	< 150%	< 150%
23-Story19	D1	1303216.73	1303216.73	99.96%	99.96%	< 150%	< 150%
22-Story18	D1	1303699.86	1303699.86	100.04%	100.04%	< 150%	< 150%
21-Story17	D1	1303216.73	1303216.73	100.00%	100.00%	< 150%	< 150%
20-Story16	D1	1303219.59	1303219.59	99.96%	99.96%	< 150%	< 150%
19-Story15	D1	1303702.71	1303702.71	100.04%	100.04%	< 150%	< 150%
18-Story14	D1	1303216.73	1303216.73	99.96%	99.96%	< 150%	< 150%
17-Story13	D1	1303699.86	1303699.86	100.04%	100.04%	< 150%	< 150%
16-Story12	D1	1303216.73	1303216.73	100.00%	100.00%	< 150%	< 150%
15-Story11	D1	1303219.59	1303219.59	99.96%	99.96%	< 150%	< 150%
14-Story10	D1	1303702.71	1303702.71	100.04%	100.04%	< 150%	< 150%
13-Story9	D1	1303219.59	1303219.59	99.96%	99.96%	< 150%	< 150%
12-Story8	D1	1303702.71	1303702.71	100.04%	100.04%	< 150%	< 150%
11-Story7	D1	1303219.59	1303219.59	99.96%	99.96%	< 150%	< 150%
10-Story6	D1	1303702.71	1303702.71	100.04%	100.04%	< 150%	< 150%
09-Story5	D1	1303219.59	1303219.59	100.00%	100.00%	< 150%	< 150%
08-Story4	D1	1303219.59	1303219.59	99.96%	99.96%	< 150%	< 150%
07-Story3	D1	1303702.71	1303702.71	100.04%	100.04%	< 150%	< 150%
06-Story2	D1	1303219.59	1303219.59	81.58%	81.58%	< 150%	< 150%
05-Story1	D1	1597413.25	1597413.25	91.03%	91.03%	< 150%	< 150%
04-HP SL	D1	1754850.07	1754850.07	106.14%	106.14%	< 150%	< 150%
03-BS 1 SL	D1	1653384.39	1653384.39	111.55%	111.55%	< 150%	< 150%
02-BS 2 SL	D1	1482245.87	1482245.87	100.42%	100.42%	< 150%	< 150%
01-BS 3 SL	D1	1476094.48	1476094.48				

BLOCK B

Story	Diaphargm	Mass X kg	Mass Y kg	X DIR	Y DIR	X DIR	Y DIR
36-Story32	D1	1088796.01	1088796	100.17%	100.17%	< 150%	< 150%
35-Story-31	D1	1086991.13	1086991.1	99.85%	99.85%	< 150%	< 150%
34-Story30	D1	1088609.33	1088609.3	100.15%	100.15%	< 150%	< 150%
33-Story29	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
32-Story28	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
31-Story27	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
30-Story26	D1	1086991.13	1086991.1	99.85%	99.85%	< 150%	< 150%
29-Story25	D1	1088609.34	1088609.3	100.15%	100.15%	< 150%	< 150%
28-Story24	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
27-Story23	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
26-Story22	D1	1086991.13	1086991.1	99.85%	99.85%	< 150%	< 150%
25-Story21	D1	1088609.33	1088609.3	100.15%	100.15%	< 150%	< 150%
24-Story20	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
23-Story19	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
22-Story18	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
21-Story17	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
20-Story16	D1	1086991.13	1086991.1	99.85%	99.85%	< 150%	< 150%
19-Story15	D1	1088609.34	1088609.3	100.15%	100.15%	< 150%	< 150%
18-Story14	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
17-Story13	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
16-Story12	D1	1086991.13	1086991.1	99.85%	99.85%	< 150%	< 150%
15-Story11	D1	1088609.33	1088609.3	100.15%	100.15%	< 150%	< 150%
14-Story10	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
13-Story9	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
12-Story8	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
11-Story7	D1	1086991.13	1086991.1	99.85%	99.85%	< 150%	< 150%
10-Story6	D1	1088609.34	1088609.3	100.15%	100.15%	< 150%	< 150%
09-Story5	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
08-Story4	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
07-Story3	D1	1086991.13	1086991.1	100.00%	100.00%	< 150%	< 150%
06-Story2	D1	1086991.13	1086991.1	99.35%	99.35%	< 150%	< 150%
05-Story1	D1	1094098.73	1094098.7	79.97%	79.97%	< 150%	< 150%
04-HP SL	D1	1368074.84	1368074.8	96.86%	96.86%	< 150%	< 150%
03-BS 1 SL	D1	1412431.04	1412431	146.21%	146.21%	< 150%	< 150%
02-BS 2 SL	D1	966026.69	966026.69	100.14%	100.14%	< 150%	< 150%
01-BS 3 SL	D1	964656.82	964656.82				

5. SOFT STORY CHECK

BLOCK A		Without Wall			With NSW		
Story	Load Case	STIFFNESS X Kn/m	% stiffness	STATUS	STIFFNESS X Kn/m	% stiffness	STATUS
38-LMR	SPECX	41777.64	240%	OK	100183.80	246%	OK
37-ST CB	SPECX	100103.89	308%	OK	246775.37	325%	OK
36-Story-32	SPECX	308773.21	140%	OK	800800.70	146%	OK
35-Story-31	SPECX	433617.22	117%	OK	1166109.90	119%	OK
34-Story30	SPECX	506517.02	107%	OK	1391515.41	109%	OK
33-Story29	SPECX	542038.43	103%	OK	1519031.85	104%	OK
32-Story28	SPECX	555688.23	101%	OK	1584031.57	102%	OK
31-Story27	SPECX	563733.21	102%	OK	1613063.39	101%	OK
30-Story26	SPECX	575782.60	103%	OK	1629360.97	101%	OK
29-Story25	SPECX	593409.10	103%	OK	1647861.53	101%	OK
28-Story24	SPECX	612436.98	103%	OK	1670161.00	102%	OK
27-Story23	SPECX	627793.14	101%	OK	1697021.40	101%	OK
26-Story22	SPECX	636874.44	101%	OK	1711403.23	98%	OK
25-Story21	SPECX	640091.77	101%	OK	1675286.25	105%	OK
24-Story20	SPECX	644050.51	100%	OK	1751572.78	102%	OK
23-Story19	SPECX	646395.00	101%	OK	1778026.58	101%	OK
22-Story18	SPECX	651647.67	101%	OK	1796318.00	101%	OK
21-Story17	SPECX	659558.16	101%	OK	1818972.84	101%	OK
20-Story16	SPECX	668338.11	102%	OK	1840621.91	101%	OK
19-Story15	SPECX	679389.23	101%	OK	1866337.50	101%	OK
18-Story14	SPECX	686447.94	101%	OK	1887905.43	101%	OK
17-Story13	SPECX	692775.98	101%	OK	1908136.95	101%	OK
16-Story12	SPECX	700068.23	101%	OK	1931501.99	102%	OK
15-Story11	SPECX	710331.35	102%	OK	1961941.27	102%	OK
14-Story10	SPECX	727850.99	103%	OK	2002183.53	102%	OK
13-Story9	SPECX	747459.96	103%	OK	2041464.96	102%	OK
12-Story8	SPECX	771165.63	103%	OK	2088391.39	102%	OK
11-Story7	SPECX	798038.91	104%	OK	2135589.43	102%	OK
10-Story6	SPECX	828696.15	104%	OK	2184815.85	103%	OK
09-Story5	SPECX	865408.83	105%	OK	2241916.97	103%	OK
08-Story4	SPECX	911572.76	107%	OK	2315514.78	104%	OK
07-Story3	SPECX	976303.93	113%	OK	2416156.06	107%	OK
06-Story2	SPECX	1101175.19	94%	OK	2577720.84	88%	OK
05-Story1	SPECX	1038448.08	113%	OK	2266443.22	98%	OK
04-HP SL	SPECX	1176261.23	152%	OK	2228693.35	136%	OK
03-BS 1 SL	SPECX	1788864.80	157%	OK	3032927.37	147%	OK
02-BS 2 SL	SPECX	2807553.52	225%	OK	4460998.27	214%	OK
01-BS 3 SL	SPECX	6318855.76			9556684.67		

BLOCK A	Without Wall				With NSW		
Story	Load Case	STIFFNESS Y Kn/m	% stiffness	STATUS	STIFFNESS Y Kn/m	% stiffness	STATUS
38-LMR	SPEC Y	25914.19	329%	OK	14873.83	300%	OK
37-ST CB	SPEC Y	85265.86	482%	OK	44625.33	388%	OK
36-Story-32	SPEC Y	410641.39	154%	OK	173261.05	151%	OK
35-Story-31	SPEC Y	633568.81	124%	OK	260925.90	122%	OK
34-Story30	SPEC Y	787801.44	112%	OK	318877.92	111%	OK
33-Story29	SPEC Y	881599.06	106%	OK	353283.37	106%	OK
32-Story28	SPEC Y	935423.00	103%	OK	373325.30	104%	OK
31-Story27	SPEC Y	966136.25	102%	OK	387905.39	104%	OK
30-Story26	SPEC Y	987239.48	102%	OK	403159.13	104%	OK
29-Story25	SPEC Y	1008455.51	102%	OK	421061.19	105%	OK
28-Story24	SPEC Y	1032196.11	102%	OK	440182.12	104%	OK
27-Story23	SPEC Y	1057842.53	102%	OK	457915.46	103%	OK
26-Story22	SPEC Y	1082086.65	101%	OK	472513.82	102%	OK
25-Story21	SPEC Y	1096600.98	103%	OK	483930.34	102%	OK
24-Story20	SPEC Y	1132316.04	102%	OK	494255.40	102%	OK
23-Story19	SPEC Y	1159494.05	102%	OK	504739.69	102%	OK
22-Story18	SPEC Y	1185649.74	102%	OK	517016.52	103%	OK
21-Story17	SPEC Y	1212106.71	102%	OK	531263.59	103%	OK
20-Story16	SPEC Y	1239996.74	102%	OK	546534.65	103%	OK
19-Story15	SPEC Y	1270792.71	102%	OK	562087.80	103%	OK
18-Story14	SPEC Y	1300733.82	102%	OK	576287.21	102%	OK
17-Story13	SPEC Y	1333106.19	103%	OK	590048.47	102%	OK
16-Story12	SPEC Y	1370360.72	103%	OK	604785.60	103%	OK
15-Story11	SPEC Y	1414417.32	104%	OK	622303.98	104%	OK
14-Story10	SPEC Y	1467242.07	104%	OK	644336.05	104%	OK
13-Story9	SPEC Y	1525267.30	104%	OK	669889.44	104%	OK
12-Story8	SPEC Y	1587557.67	104%	OK	699125.03	105%	OK
11-Story7	SPEC Y	1651277.34	104%	OK	731446.40	105%	OK
10-Story6	SPEC Y	1720991.08	105%	OK	766989.05	105%	OK
09-Story5	SPEC Y	1798588.30	106%	OK	807836.35	106%	OK
08-Story4	SPEC Y	1899030.17	107%	OK	859531.64	109%	OK
07-Story3	SPEC Y	2026129.05	108%	OK	933660.06	113%	OK
06-Story2	SPEC Y	2180867.30	89%	OK	1052174.11	96%	OK
05-Story1	SPEC Y	1946609.28	102%	OK	1009692.39	111%	OK
04-HP SL	SPEC Y	1979252.73	139%	OK	1116956.09	148%	OK
03-BS 1 SL	SPEC Y	2749224.68	153%	OK	1658051.54	161%	OK
02-BS 2 SL	SPEC Y	4210409.94	233%	OK	2672686.48	247%	OK
01-BS 3 SL	SPEC Y	9792382.94			6598634.63		

BLOCK B	Without Wall				With NSW		
Story	Load	STIFFNESS X	%	STATUS	STIFFNESS X	%	STATU
		Kn/m			Kn/m		
38-LMR	SPECX	37829.48	219%	OK	65488.26	233%	OK
37-ST CB	SPECX	82695.12	219%	OK	152323.98	215%	OK
36-Story-32	SPECX	181416.58	136%	OK	327523.33	138%	OK
35-Story-31	SPECX	246749.24	116%	OK	451428.40	116%	OK
34-Story30	SPECX	285791.56	108%	OK	521919.91	108%	OK
33-Story29	SPECX	308644.61	106%	OK	563343.14	105%	OK
32-Story28	SPECX	326393.64	105%	OK	589089.41	103%	OK
31-Story27	SPECX	344027.06	105%	OK	607120.72	103%	OK
30-Story26	SPECX	361725.74	105%	OK	622549.83	102%	OK
29-Story25	SPECX	378153.45	103%	OK	637586.62	102%	OK
28-Story24	SPECX	390716.29	102%	OK	650612.15	102%	OK
27-Story23	SPECX	400269.35	102%	OK	660756.15	101%	OK
26-Story22	SPECX	408274.02	102%	OK	665218.17	99%	OK
25-Story21	SPECX	416608.90	102%	OK	660199.17	104%	OK
24-Story20	SPECX	426165.50	102%	OK	684697.82	103%	OK
23-Story19	SPECX	434985.75	102%	OK	702267.58	102%	OK
22-Story18	SPECX	443077.66	102%	OK	716290.51	102%	OK
21-Story17	SPECX	450446.38	102%	OK	729472.06	102%	OK
20-Story16	SPECX	457692.84	102%	OK	742777.58	102%	OK
19-Story15	SPECX	466985.81	102%	OK	757811.55	102%	OK
18-Story14	SPECX	475984.58	102%	OK	772015.53	102%	OK
17-Story13	SPECX	485475.19	102%	OK	786360.47	102%	OK
16-Story12	SPECX	494977.63	102%	OK	801092.13	102%	OK
15-Story11	SPECX	504634.63	102%	OK	817176.83	102%	OK
14-Story10	SPECX	515663.45	102%	OK	835734.18	102%	OK
13-Story9	SPECX	526952.27	103%	OK	855609.71	103%	OK
12-Story8	SPECX	540502.10	103%	OK	877810.00	103%	OK
11-Story7	SPECX	556642.56	103%	OK	902020.04	103%	OK
10-Story6	SPECX	575360.86	104%	OK	927644.57	103%	OK
09-Story5	SPECX	596148.58	104%	OK	953567.13	103%	OK
08-Story4	SPECX	620201.25	105%	OK	980086.36	103%	OK
07-Story3	SPECX	650071.29	106%	OK	1008518.99	103%	OK
06-Story2	SPECX	690002.32	88%	OK	1039040.86	83%	OK
05-Story1	SPECX	609611.50	106%	OK	864446.90	90%	OK
04-HP SL	SPECX	643143.34	145%	OK	781602.41	133%	OK
03-BS 1 SL	SPECX	934562.28	158%	OK	1039514.59	149%	OK
02-BS 2 SL	SPECX	1479103.95	234%	OK	1546558.23	231%	OK
01-BS 3 SL	SPECX	3456328.27			3564883.57		

BLOCK B	Without Wall				With NSW		
Story	Load	STIFFNESS Y	%	STATUS	STIFFNESS Y	%	STATU
		Kn/m			Kn/m		
38-LMR	SPEC Y	33473.59	219%	OK	50294.67	235%	OK
37-ST CB	SPEC Y	73153.84	236%	OK	118175.94	228%	OK
36-Story-32	SPEC Y	172820.70	139%	OK	269699.04	135%	OK
35-Story-31	SPEC Y	240239.22	118%	OK	365302.63	119%	OK
34-Story30	SPEC Y	283510.59	109%	OK	433595.70	109%	OK
33-Story29	SPEC Y	307958.31	105%	OK	472079.10	104%	OK
32-Story28	SPEC Y	323036.80	104%	OK	493223.31	103%	OK
31-Story27	SPEC Y	336039.39	104%	OK	506665.30	102%	OK
30-Story26	SPEC Y	351007.87	105%	OK	519187.21	103%	OK
29-Story25	SPEC Y	368734.48	105%	OK	534283.62	103%	OK
28-Story24	SPEC Y	385969.32	104%	OK	550608.01	103%	OK
27-Story23	SPEC Y	400801.20	103%	OK	566515.86	102%	OK
26-Story22	SPEC Y	412110.31	102%	OK	579568.78	100%	OK
25-Story21	SPEC Y	420706.58	102%	OK	577039.83	104%	OK
24-Story20	SPEC Y	428936.27	102%	OK	601433.25	102%	OK
23-Story19	SPEC Y	436889.85	102%	OK	614504.35	102%	OK
22-Story18	SPEC Y	446544.80	103%	OK	627862.47	102%	OK
21-Story17	SPEC Y	457790.79	103%	OK	642715.08	102%	OK
20-Story16	SPEC Y	469627.83	103%	OK	658649.92	103%	OK
19-Story15	SPEC Y	482641.68	102%	OK	676244.74	102%	OK
18-Story14	SPEC Y	493299.13	102%	OK	692240.54	102%	OK
17-Story13	SPEC Y	503598.21	102%	OK	708382.07	102%	OK
16-Story12	SPEC Y	514675.62	103%	OK	725814.85	103%	OK
15-Story11	SPEC Y	528059.52	103%	OK	746200.02	103%	OK
14-Story10	SPEC Y	545681.10	104%	OK	771003.17	103%	OK
13-Story9	SPEC Y	564853.11	104%	OK	797913.34	104%	OK
12-Story8	SPEC Y	586680.73	104%	OK	827593.34	104%	OK
11-Story7	SPEC Y	610528.50	104%	OK	859260.21	104%	OK
10-Story6	SPEC Y	636786.72	105%	OK	893265.46	104%	OK
09-Story5	SPEC Y	666677.40	106%	OK	930643.34	105%	OK
08-Story4	SPEC Y	703609.78	107%	OK	975003.23	106%	OK
07-Story3	SPEC Y	752512.39	109%	OK	1031673.33	107%	OK
06-Story2	SPEC Y	822469.48	91%	OK	1106734.77	90%	OK
05-Story1	SPEC Y	748531.56	113%	OK	999421.88	100%	OK
04-HP SL	SPEC Y	842458.77	148%	OK	997303.85	141%	OK
03-BS 1 SL	SPEC Y	1246257.89	158%	OK	1409024.01	153%	OK
02-BS 2 SL	SPEC Y	1973748.15	239%	OK	2156715.61	230%	OK
01-BS 3 SL	SPEC Y	4725977.53			4954896.28		

6. OVERTURNING CHECK

BLOCK- A	X-DIRECTION							
LEVEL	WEIGHT	CENTER OF MASS	RESTORING MOMENT	ELEVATION	STOREY SHEAR FOR SPECX	OVERTURNING MOMENT	STOREY SHEAR FOR WINDX	OVERTURNING MOMENT
	kN	m	kN.m	m	kN	kN.m	kN	kN.m
36-Story-32	15843.17	20.55	325602.42	119.88	906.93	108722.70	257.33	30848.72
35-Story-31	15533.85	20.57	319598.05	116.65	663.85	77438.01	254.63	29702.59
34-Story30	15533.85	20.58	319633.78	113.42	456.50	51776.42	251.83	28562.56
33-Story29	15533.85	20.57	319598.05	110.19	294.60	32462.04	248.93	27429.60
32-Story28	15533.85	20.58	319633.78	106.96	200.88	21485.86	245.93	26304.67
31-Story27	15533.85	20.57	319598.05	103.73	181.69	18846.25	242.83	25188.76
30-Story26	15533.85	20.57	319598.05	100.5	216.07	21714.84	239.63	24082.83
29-Story25	15533.85	20.58	319633.78	97.27	262.85	25567.82	236.32	22986.86
28-Story24	15533.85	20.57	319598.05	94.04	285.82	26878.73	232.91	21902.86
27-Story23	15533.85	20.58	319633.78	90.81	273.00	24791.54	229.39	20830.91
26-Story22	15533.85	20.57	319598.05	87.58	235.58	20632.40	225.76	19772.06
25-Story21	15533.88	20.57	319598.63	84.35	195.32	16475.14	222.01	18726.54
24-Story20	15533.88	20.58	319632.80	81.12	171.38	13902.38	218.14	17695.52
23-Story19	15533.85	20.57	319598.05	77.89	170.96	13316.28	214.14	16679.36
22-Story18	15533.85	20.58	319633.78	74.66	186.22	13903.51	210.01	15679.35
21-Story17	15533.85	20.57	319598.05	71.43	201.38	14384.82	205.72	14694.58
20-Story16	15533.88	20.57	319598.63	68.2	202.44	13806.18	201.28	13727.30
19-Story15	15533.88	20.58	319632.80	64.97	185.50	12052.20	196.67	12777.65
18-Story14	15533.85	20.57	319598.05	61.74	158.33	9775.06	191.87	11846.05
17-Story13	15533.85	20.58	319633.78	58.51	133.82	7829.86	186.85	10932.59
16-Story12	15533.85	20.57	319598.05	55.28	123.17	6808.99	181.60	10038.85
15-Story11	15533.88	20.57	319598.63	52.05	129.21	6725.54	176.07	9164.44
14-Story10	15533.88	20.58	319632.80	48.82	144.39	7049.11	170.23	8310.63
13-Story9	15533.88	20.57	319598.63	45.59	155.34	7081.83	164.03	7478.13
12-Story8	15533.88	20.58	319632.80	42.36	150.99	6395.92	157.41	6667.89
11-Story7	15533.88	20.57	319598.63	39.13	129.41	5063.83	150.29	5880.85
10-Story6	15533.88	20.58	319632.80	35.9	99.19	3560.75	142.54	5117.19
09-Story5	15533.88	20.57	319598.63	32.67	75.58	2469.33	134.03	4378.76
08-Story4	15533.88	20.57	319598.63	29.44	73.09	2151.91	124.53	3666.16
07-Story3	15533.88	20.58	319632.80	26.21	97.23	2548.53	113.70	2980.08
06-Story2	15533.88	20.57	319598.63	22.98	139.73	3210.99	101.02	2321.44
05-Story1	18773.91	20.27	380483.29	19.75	226.69	4477.09	105.98	2093.10
04-HP SL	21845.81	20.18	440946.74	15.75	287.25	4524.20	81.95	1290.71
03-BS 1 SL	20502.66	21.83	447591.53	11.25	218.06	2453.12	0.00	0.00
02-BS 2 SL	18086.12	20.61	372843.57	7.3	113.92	831.65	0.00	0.00
01-BS 3 SL	17996.25	20.61	370890.15	3.65	38.26	139.63	0.00	0.00
			11926726.75			**611254.46**		**479759.56**
SAFETY FACTOR						**19.51**		**24.86**

BLOCK- A	Y-DIRECTION							
LEVEL	WEIGHT	CENTER OF MASS	RESTORING MOMENT	ELEVATION	STOREY SHEAR FOR SPECY	OVERTURNING MOMENT	STOREY SHEAR FOR WINDY	OVERTURNING MOMENT
	kN	m	kN.m	m	kN	kN.m	kN	kN.m
36-Story-32	15843.17	14.92	236354.70	119.88	1060.76	127163.80	177.34	21259.47
35-Story-31	15533.85	14.92	231747.93	116.65	560.60	65394.26	175.43	20463.90
34-Story30	15533.85	14.92	231719.97	113.42	405.80	46025.54	173.45	19672.69
33-Story29	15533.85	14.92	231747.93	110.19	281.59	31028.42	171.38	18884.37
32-Story28	15533.85	14.92	231719.97	106.96	203.21	21735.34	169.24	18101.91
31-Story27	15533.85	14.92	231747.93	103.73	175.28	18181.32	167.02	17324.97
30-Story26	15533.85	14.92	231747.93	100.5	185.69	18662.03	164.73	16555.35
29-Story25	15533.85	14.92	231719.97	97.27	209.35	20363.51	162.37	15793.71
28-Story24	15533.85	14.92	231747.93	94.04	222.18	20893.82	159.93	15039.81
27-Story23	15533.85	14.92	231719.97	90.81	213.75	19410.94	157.41	14294.40
26-Story22	15533.85	14.92	231747.93	87.58	188.93	16546.56	154.83	13560.01
25-Story21	15533.88	14.92	231748.34	84.35	161.06	13584.99	152.16	12834.70
24-Story20	15533.88	14.92	231720.38	81.12	143.05	11604.05	149.42	12120.95
23-Story19	15533.85	14.92	231747.93	77.89	140.48	10942.10	146.60	11418.67
22-Story18	15533.85	14.92	231719.97	74.66	149.18	11137.41	143.68	10727.15
21-Story17	15533.85	14.92	231747.93	71.43	158.74	11338.56	140.68	10048.77
20-Story16	15533.88	14.92	231748.34	68.2	159.14	10853.60	137.57	9382.27
19-Story15	15533.88	14.92	231720.38	64.97	146.91	9545.01	134.34	8728.06
18-Story14	15533.85	14.92	231747.93	61.74	126.88	7833.81	131.00	8087.94
17-Story13	15533.85	14.92	231719.97	58.51	108.56	6352.10	127.51	7460.62
16-Story12	15533.85	14.92	231747.93	55.28	100.64	5563.61	123.87	6847.53
15-Story11	15533.88	14.92	231748.34	52.05	105.86	5509.86	120.05	6248.60
14-Story10	15533.88	14.92	231720.38	48.82	119.03	5810.89	116.03	5664.58
13-Story9	15533.88	14.92	231748.34	45.59	130.04	5928.63	111.76	5095.14
12-Story8	15533.88	14.92	231720.38	42.36	130.08	5510.22	107.22	4541.84
11-Story7	15533.88	14.92	231748.34	39.13	116.80	4570.27	102.33	4004.17
10-Story6	15533.88	14.92	231720.38	35.9	95.85	3441.12	97.03	3483.37
09-Story5	15533.88	14.92	231748.34	32.67	78.30	2558.15	91.21	2979.83
08-Story4	15533.88	14.92	231748.34	29.44	75.01	2208.40	84.72	2494.16
07-Story3	15533.88	14.92	231720.38	26.21	90.46	2370.93	77.34	2027.08
06-Story2	15533.88	14.92	231748.34	22.98	118.95	2733.56	68.70	1578.73
05-Story1	18773.91	13.35	250579.11	19.75	182.21	3598.64	72.10	1423.98
04-HP SL	21845.81	14.03	306457.38	15.75	222.71	3507.63	55.76	878.22
03-BS 1 SL	20502.66	13.99	286811.72	11.25	161.73	1819.44	0.00	0.00
02-BS 2 SL	18086.12	14.84	268313.03	7.3	79.16	577.84	0.00	0.00
01-BS 3 SL	17996.25	14.83	266920.41	3.65	24.19	88.31	0.00	0.00
			8567544.48			**554394.63**		**329026.96**
SAFETY FACTOR						**15.45**		**26.04**

BLOCK- B	X-DIRECTION							
LEVEL	WEIGHT	CENTER OF MASS	RESTORING MOMENT	ELEVATION	STOREY SHEAR FOR SPECX	OVERTURNING MOMENT	STOREY SHEAR FOR WINDX	OVERTURNING MOMENT
	kN	m	kN.m	m	kN	kN.m	kN	kN.m
36-Story-32	12948.31	16.68	215929.89	119.88	1034.46	124010.78	215.23	25801.77
35-Story-31	12957.37	16.68	216093.97	116.65	423.94	49452.52	213.10	24858.13
34-Story30	13196.66	16.69	220276.06	113.42	310.21	35184.25	210.89	23919.13
33-Story29	12957.37	16.68	216093.97	110.19	235.89	25992.58	208.61	22986.74
32-Story28	12957.37	16.68	216093.97	106.96	217.99	23315.99	206.25	22060.50
31-Story27	12957.37	16.68	216093.97	103.73	229.31	23786.09	203.83	21143.27
30-Story26	12957.37	16.68	216093.97	100.5	240.59	24179.15	201.33	20233.68
29-Story25	13196.66	16.69	220276.06	97.27	239.91	23335.80	198.76	19333.39
28-Story24	12957.37	16.68	216093.97	94.04	215.06	20223.83	196.12	18443.12
27-Story23	12957.37	16.68	216093.97	90.81	192.26	17459.11	193.41	17563.57
26-Story22	12957.37	16.68	216093.97	87.58	178.67	15647.90	190.63	16695.38
25-Story21	13196.66	16.69	220276.06	84.35	179.81	15166.94	187.78	15839.25
24-Story20	12957.37	16.68	216093.97	81.12	177.70	14414.94	184.86	14995.84
23-Story19	12957.37	16.68	216093.97	77.89	174.04	13556.34	181.87	14165.84
22-Story18	12957.37	16.68	216093.97	74.66	163.95	12240.79	178.79	13348.46
21-Story17	12957.37	16.68	216093.97	71.43	152.14	10867.32	175.63	12545.24
20-Story16	12957.37	16.68	216093.97	68.2	144.78	9874.12	172.38	11756.32
19-Story15	13196.66	16.69	220276.06	64.97	146.83	9539.64	169.03	10981.88
18-Story14	12957.37	16.68	216093.97	61.74	145.32	8971.88	165.58	10222.92
17-Story13	12957.37	16.68	216093.97	58.51	141.91	8303.22	162.01	9479.21
16-Story12	12957.37	16.68	216093.97	55.28	131.62	7276.01	158.31	8751.38
15-Story11	13196.66	16.69	220276.06	52.05	120.59	6276.50	154.47	8040.16
14-Story10	12957.37	16.68	216093.97	48.82	108.64	5303.84	150.47	7345.95
13-Story9	12957.37	16.68	216093.97	45.59	107.11	4883.34	146.29	6669.36
12-Story8	12957.37	16.68	216093.97	42.36	111.78	4735.15	141.91	6011.31
11-Story7	12957.37	16.68	216093.97	39.13	114.61	4484.88	137.29	5372.16
10-Story6	13196.66	16.69	220276.06	35.9	110.09	3952.31	132.40	4753.16
09-Story5	12957.37	16.68	216093.97	32.67	90.74	2964.53	127.19	4155.30
08-Story4	12957.37	16.68	216093.97	29.44	71.04	2091.38	121.59	3579.61
07-Story3	12957.37	16.68	216093.97	26.21	61.97	1624.11	115.53	3028.04
06-Story2	12957.37	16.68	216093.97	22.98	71.63	1646.14	108.88	2502.06
05-Story1	13460.06	16.68	224478.81	19.75	99.91	1973.17	101.51	2004.82
04-HP SL	16893.67	15.66	264634.33	15.75	156.70	2468.10	129.86	2045.30
03-BS 1 SL	16720.63	15.54	259905.50	11.25	145.99	1642.43	0.00	0.00
02-BS 2 SL	12083.57	16.09	194378.71	7.3	63.70	465.04	0.00	0.00
01-BS 3 SL	12060.03	16.09	194056.74	3.65	20.55	75.01	0.00	0.00
			7861295.60			**537385.12**		**410632.24**
SAFETY FACTOR						**14.63**		**19.14**

BLOCK- B	Y-DIRECTION							
LEVEL	WEIGHT	CENTER OF MASS	RESTORING MOMENT	ELEVATION	STOREY SHEAR FOR SPECY	OVERTURNING MOMENT	STOREY SHEAR FOR WINDY	OVERTURNING MOMENT
	kN	m	kN.m	m	kN	kN.m	kN	kN.m
36-Story-32	12948.31	14.08	182345.86	119.88	1078.11	129243.46	405.24	48580.16
35-Story-31	12957.37	14.18	183774.40	116.65	463.26	54038.82	199.70	23294.99
34-Story30	13196.66	14.18	187090.41	113.42	332.06	37662.53	197.66	22418.61
33-Story29	12957.37	14.18	183774.40	110.19	225.12	24806.08	195.53	21545.45
32-Story28	12957.37	14.18	183774.40	106.96	172.05	18402.20	193.34	20679.63
31-Story27	12957.37	14.18	183774.40	103.73	164.98	17113.55	191.07	19819.71
30-Story26	12957.37	14.18	183774.40	100.5	185.85	18677.62	188.73	18967.35
29-Story25	13196.66	14.18	187090.41	97.27	213.24	20741.65	186.33	18124.31
28-Story24	12957.37	14.18	183774.40	94.04	215.14	20231.68	183.85	17289.25
27-Story23	12957.37	14.18	183774.40	90.81	199.18	18087.22	181.31	16464.77
26-Story22	12957.37	14.18	183774.40	87.58	170.76	14955.42	178.70	15650.52
25-Story21	13196.66	14.18	187090.41	84.35	146.72	12375.52	176.03	14848.13
24-Story20	12957.37	14.18	183774.40	81.12	129.47	10503.00	173.28	14056.47
23-Story19	12957.37	14.18	183774.40	77.89	129.77	10107.57	170.46	13277.12
22-Story18	12957.37	14.18	183774.40	74.66	139.30	10400.26	167.57	12510.78
21-Story17	12957.37	14.18	183774.40	71.43	147.86	10561.53	164.60	11757.38
20-Story16	12957.37	14.18	183774.40	68.2	146.96	10022.97	161.54	11017.03
19-Story15	13196.66	14.18	187090.41	64.97	137.63	8941.57	158.40	10291.25
18-Story14	12957.37	14.18	183774.40	61.74	117.07	7227.87	155.15	9578.95
17-Story13	12957.37	14.18	183774.40	58.51	101.28	5925.70	151.80	8881.81
16-Story12	12957.37	14.18	183774.40	55.28	95.08	5256.23	148.32	8199.14
15-Story11	13196.66	14.18	187090.41	52.05	102.29	5324.18	144.72	7532.68
14-Story10	12957.37	14.18	183774.40	48.82	111.45	5441.11	140.96	6881.67
13-Story9	12957.37	14.18	183774.40	45.59	119.01	5425.62	137.04	6247.65
12-Story8	12957.37	14.18	183774.40	42.36	116.32	4927.24	132.93	5630.91
11-Story7	12957.37	14.18	183774.40	39.13	102.17	3998.09	128.60	5032.12
10-Story6	13196.66	14.18	187090.41	35.9	84.00	3015.58	124.01	4451.96
09-Story5	12957.37	14.18	183774.40	32.67	66.62	2176.56	119.12	3891.65
08-Story4	12957.37	14.18	183774.40	29.44	63.97	1883.31	113.87	3352.33
07-Story3	12957.37	14.18	183774.40	26.21	78.40	2054.83	108.19	2835.66
06-Story2	12957.37	14.18	183774.40	22.98	104.87	2409.91	101.97	2343.27
05-Story1	13460.06	14.20	191091.13	19.75	136.10	2687.98	95.05	1877.24
04-HP SL	16893.67	12.80	216193.41	15.75	180.47	2842.42	121.70	1916.77
03-BS 1 SL	16720.63	11.43	191160.30	11.25	144.36	1624.00	90.71	1020.49
02-BS 2 SL	12083.57	12.28	148406.77	7.3	59.63	435.31	66.61	486.25
01-BS 3 SL	12060.03	12.25	147743.81	3.65	19.16	69.92	0.00	0.00
			6610069.29			**509598.52**		**410753.47**
SAFETY FACTOR						**12.97**		**16.09**

7. UPLIFT CHECK

Depth of water table is at 41m from EGL and depth of Footing is at 12.125m from EGL, hence there will be no uplift due to water table.\

8. HORIZONTAL PROJECTION CALCULATION.

BLOCK A & B

Thickness of Perapet wall	=	230 mm
height of Perapet Wall	=	1150 mm
Density of Wall	=	25 kN/m3
Self-weight of wall, W	=	7 kN

Vb	=	5*Ah*W
Ah	=	(ZI/2R)*(Sa/g)
Z	=	0.16
R	=	4
I	=	1.2
Sa/g	=	2.5
Ah	=	{(0.16*1.2)/(2.4)}*2.5
Ah	=	0.06
Vb	=	1.98 kN
Moment	=	2.28 kNm (Working)
Limit Moment	=	3.42 kN.m
Area of Steel Required	=	267 mm2
Provide Vertical Steel (main Steel)	=	8T @ 150 c/c
Provide distribution Steel	=	8T @ 175 c/c

9. VERTICAL PROJECTION CALCULATION.

BLOCK A

Length of the beam	=	2200 mm
Width of Beam	=	300 mm
Depth of Beam	=	600 mm
Self-weight of beam, W	=	5 kN/m
Point Load on the free end support from simple supported beam	=	[{(0.15*25)+3+2.5}*1.6+(0.23*0.6*25)]*4.6/2
	=	42 kN
Vb	=	5*Av*W
Av	=	(2/3)Ah
Ah	=	(ZI/2R)*(Sa/g)
Z	=	0.16
R	=	4
I	=	1.2
Sa/g	=	2.5
Ah	=	{(0.16*1.2)/(2.4)}*2.5
Ah	=	0.06
Av	=	0.04
Vb	=	0.90 kN/M (UDL)
Vb	=	188.89 kN (Point Load)
Moment	=	415.55 kNm (Working)
Limit moment	=	623 kN.m
Area of Steel Required	=	3116 mm2
Longitudinal Steel Provided	=	5-25T+1-32T (3259 mm2)

BLOCK B

Length of the beam	=	2870 mm
Width of Beam	=	300 mm
Depth of Beam	=	600 mm
Self-weight of beam, W	=	5 kN/m
Point Load on the free end support from simple supported beam	=	[{(0.15*25)+3+2.5}*1.5+(0.23*0.6*25)]*4.6/2
	=	40 kN
Vb	=	5*Av*W
Av	=	(2/3)Ah
Ah	=	(ZI/2R)*(Sa/g)
Z	=	0.16
R	=	4
I	=	1.2
Sa/g	=	2.5
Ah	=	{(0.16*1.2)/(2.4)}*2.5
Ah	=	0.06
Av	=	0.04
Vb	=	0.90 kN/M (UDL)
Vb	=	179.31 kN (Point Load)
Moment	=	514.63 kNm (Working)
Limit moment	=	772 kN.m
Area of Steel Required	=	3116 mm2
Longitudinal Steel Provided	=	3-25T+3-32T (3739 mm2)

10. ACCELERATION- SENSITIVE NSE's AS PER IS -16700:2017.

The design lateral force Fp for the design of acceleration sensitive NSE's shall be calculated as:

$$F_p = Z\left(1+\frac{x}{h}\right)\frac{a_p}{R_p}l_p W_p$$

Widhth of NSE		= 0.075 m	
Length of NSE		= 1.000 m	
Height of NSE		= 2.625 m	
Density of AAC block		= 25 kN/m3	
Weight of NSE W		= 0.125 x 1 x 1.2 x 8	
		= 4.922 kN	
Seismic Zone Factor	Z	= 0.16	(Zone 3)
Importance Factor of NSE	Ip	= 2	(Table 10)
Considering Rigid Component with low deformability elements and attachments			
Component Response Modification F	Rp	= 2.5	(Table 11)
Component Amplification Factor	ap	= 1	(Table 11)
Height of Point of attachment of NSE above Top of Foundation of Building	X	= 163.60 m	
Overall Height of Building	H	= 169.85 m	
	Fp	= 0.16 x (1+(98/101.16)) x(1/2.5) x 2.5 x 1.2	
		= 1.237 kN	
Bending moment	M	= Fp x L	
		= 0.81 kN.m	
	z	= (b x d2)/6	
		= 0.0003 m3	
Grade of Concrete		= M30	
Compressive Strength of Concrete		= 30.000 N/mm2	
Tensile Strength of Concrete		= 3.834 N/mm2	
	Pmax	= Fp/A + M/z	
		= 2421.414 kN/m2	
		= 2.421 N/mm2 (C)	< 30 N/mm2. Hence O.K.
	Pmin	= Fp/A - M/z	
		= -2388.433 kN/m2	
		= -2.388 N/mm2 (T)	< 3.834 N/mm2. Hence O.K.

DISPLACEMENT- SENSITIVE NSE's AS PER IS -16700: 2017

Design horizontal and vertical relative displacements ΔX and ΔY, respectively, between two levels of the same building (Building A), one at height hz1 and other at height hz2 from base of the building at which the NSE is supported consecutively, shall be estimated as:

$$\Delta_X = 1.2\left(\delta_{z1}^{AX} - \delta_{z2}^{AX}\right)$$
$$\Delta_Y = 1.2\left(\delta_{z1}^{AY} - \delta_{z2}^{AY}\right)$$

Load Cases	δ_{z1} (Terrace)	(L.M.R. Bottom) δ_{z2}	ETABS JOINT LABEL
SPECX	276	282	490
SPECY	283	290	486
WIND-X	194	198	541
WIND-Y	166	169	490

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ΔX = 1.2 (282 - 276) =7.2 mm (Governing in SPECX)
ΔY = 1.2 (290 - 283) =8.4 mm (Governing in SPECY)
Hence, NSE shall be designed to accommodate relative displacement of 8.4mm as per the above calculation.

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11. 0.4Fck STRESS CHECK

Block-A

Story	Label	B	D	Grade	P	P Combo	Rebar	P/A	0.4Fck	as Ast provided	
		mm	mm		kN		%				
01-BS 3 SL	C1	750	750	M50	3601	UDConS29	0.80%	6.40	20	22.95	OK
02-BS 2 SL	C1	750	750	M50	3097	UDConS29	0.80%	5.51	20	22.95	OK
03-BS 1 SL	C1	750	750	M50	892	UDConS31	0.8 %	1.59	20	22.95	OK
04-HP SL	C1	750	750	M50	916	UDConS29	0.87%	1.63	20	23.21	OK
01-BS 3 SL	C10	750	900	M60	17759	UDConS29	0.90%	26.31	24	27.32	OK
02-BS 2 SL	C10	750	900	M60	17546	UDConS29	0.84%	25.99	24	27.10	OK
03-BS 1 SL	C10	750	900	M60	17325	UDConS29	0.80%	25.67	24	26.95	OK
04-HP SL	C10	750	900	M60	16844	UDConS30	0.80%	24.95	24	26.95	OK
05-Story1	C10	750	750	M60	16211	UDConS30	2.07%	28.82	24	31.63	OK
06-Story2	C10	750	750	M60	15737	UDConS30	2.08%	27.98	24	31.66	OK
07-Story3	C10	750	750	M60	15480	UDConS29	1.76%	27.52	24	30.49	OK
08-Story4	C10	750	750	M60	15005	UDConS29	1.58%	26.67	24	29.82	OK
09-Story5	C10	750	750	M50	14518	UDConS29	2.37%	25.81	20	28.73	OK
10-Story6	C10	750	750	M50	14030	UDConS29	2.04%	24.94	20	27.52	OK
11-Story7	C10	750	750	M50	13533	UDConS29	1.80%	24.06	20	26.63	OK
12-Story8	C10	750	750	M50	13028	UDConS29	1.60%	23.16	20	25.90	OK
13-Story9	C10	750	750	M50	12515	UDConS29	1.37%	22.25	20	25.05	OK
14-Story10	C10	750	750	M50	11996	UDConS29	1.13%	21.33	20	24.16	OK
15-Story11	C10	750	750	M45	11472	UDConS29	1.39%	20.39	18	23.12	OK
16-Story12	C10	750	750	M45	10944	UDConS29	1.13%	19.46	18	22.16	OK
17-Story13	C10	750	750	M45	10413	UDConS29	0.88%	18.51	18	21.24	OK
18-Story14	C10	750	750	M45	9880	UDConS29	0.80%	17.56	18	18.03	OK
19-Story15	C10	750	750	M45	9344	UDConS29	0.80%	16.61	18	18.03	OK
20-Story16	C10	750	750	M40	8811	UDConS29	0.80%	15.66	16	16.03	OK
21-Story17	C10	750	750	M40	8277	UDConS29	0.80%	14.71	16	16.03	OK
22-Story18	C10	750	750	M40	7759	UDConS29	0.80%	13.79	16	16.03	OK
23-Story19	C10	750	750	M40	7223	UDConS29	0.80%	12.84	16	16.03	OK
24-Story20	C10	750	750	M40	6687	UDConS29	0.80%	11.89	16	16.03	OK
25-Story21	C10	750	750	M35	6151	UDConS29	0.80%	10.94	14	14.03	OK
26-Story22	C10	750	750	M35	5616	UDConS29	0.80%	9.98	14	14.03	OK
27-Story23	C10	750	750	M35	5081	UDConS29	0.80%	9.03	14	14.03	OK
28-Story24	C10	750	750	M35	4546	UDConS29	0.80%	8.08	14	14.03	OK
29-Story25	C10	750	750	M35	4011	UDConS29	0.80%	7.13	14	14.03	OK
30-Story26	C10	750	750	M35	3477	UDConS29	0.80%	6.18	14	14.03	OK
31-Story27	C10	750	750	M35	2943	UDConS29	0.80%	5.23	14	14.03	OK
32-Story28	C10	750	750	M35	2409	UDConS29	0.80%	4.28	14	14.03	OK
33-Story29	C10	750	750	M35	1875	UDConS29	0.80%	3.33	14	14.03	OK
34-Story30	C10	750	750	M35	589	UDConS31	0.80%	1.05	14	14.03	OK
35-Story-31	C10	750	750	M35	354	UDConS32	0.80%	0.63	14	14.03	OK
36-Story32	C10	750	750	M35	110	UDConS32	0.80%	0.20	14	14.03	OK
05-Story1	C11	300	750	M60	314	UDConS2	0.80%	1.40	24	26.95	OK

01-BS 3 SL	C12	750	900	M60	17583	UDConS30	0.86%	26.05	24	27.17	OK
02-BS 2 SL	C12	750	900	M60	17358	UDConS30	0.80%	25.71	24	26.95	OK
03-BS 1 SL	C12	750	900	M60	17102	UDConS30	0.80%	25.34	24	26.95	OK
04-HP SL	C12	750	900	M60	16745	UDConS30	0.80%	24.81	24	26.95	OK
05-Story1	C12	750	750	M60	16258	UDConS30	1.91%	28.90	24	31.04	OK
06-Story2	C12	750	750	M60	15639	UDConS30	1.82%	27.80	24	30.71	OK
07-Story3	C12	750	750	M60	15126	UDConS30	1.71%	26.89	24	30.30	OK
08-Story4	C12	750	750	M60	14608	UDConS30	1.49%	25.97	24	29.49	OK
09-Story5	C12	750	750	M50	14315	UDConS29	2.26%	25.45	20	28.33	OK
10-Story6	C12	750	750	M50	13829	UDConS29	1.92%	24.58	20	27.08	OK
11-Story7	C12	750	750	M50	13337	UDConS29	1.71%	23.71	20	26.30	OK
12-Story8	C12	750	750	M50	12840	UDConS29	1.51%	22.83	20	25.56	OK
13-Story9	C12	750	750	M50	12235	UDConS29	1.56%	21.75	20	25.75	OK
14-Story10	C12	750	750	M50	11727	UDConS29	0.99%	20.85	20	23.65	OK
15-Story11	C12	750	750	M45	11231	UDConS29	1.27%	19.97	18	22.68	OK
16-Story12	C12	750	750	M45	10715	UDConS29	1.02%	19.05	18	21.76	OK
17-Story13	C12	750	750	M45	10196	UDConS29	0.80%	18.13	18	20.95	OK
18-Story14	C12	750	750	M45	9674	UDConS29	0.80%	17.20	18	18.03	OK
19-Story15	C12	750	750	M45	9149	UDConS29	0.80%	16.27	18	18.03	OK
20-Story16	C12	750	750	M40	8624	UDConS29	0.80%	15.33	16	16.03	OK
21-Story17	C12	750	750	M40	8099	UDConS29	0.80%	14.40	16	16.03	OK
22-Story18	C12	750	750	M40	7577	UDConS29	0.80%	13.47	16	16.03	OK
23-Story19	C12	750	750	M40	7053	UDConS29	0.80%	12.54	16	16.03	OK
24-Story20	C12	750	750	M40	6528	UDConS29	0.80%	11.61	16	16.03	OK
25-Story21	C12	750	750	M35	6004	UDConS29	0.80%	10.67	14	14.03	OK
26-Story22	C12	750	750	M35	5479	UDConS29	0.80%	9.74	14	14.03	OK
27-Story23	C12	750	750	M35	4954	UDConS29	0.80%	8.81	14	14.03	OK
28-Story24	C12	750	750	M35	4430	UDConS29	0.80%	7.87	14	14.03	OK
29-Story25	C12	750	750	M35	3911	UDConS29	0.80%	6.95	14	14.03	OK
30-Story26	C12	750	750	M35	3387	UDConS29	0.80%	6.02	14	14.03	OK
31-Story27	C12	750	750	M35	2862	UDConS29	0.80%	5.09	14	14.03	OK
32-Story28	C12	750	750	M35	2337	UDConS29	0.80%	4.15	14	14.03	OK
33-Story29	C12	750	750	M35	803	UDConS31	0.80%	1.43	14	14.03	OK
34-Story30	C12	750	750	M35	587	UDConS31	0.80%	1.04	14	14.03	OK
35-Story-31	C12	750	750	M35	353	UDConS32	0.80%	0.63	14	14.03	OK
36-Story32	C12	750	750	M35	112	UDConS32	0.80%	0.20	14	14.03	OK
01-BS 3 SL	C13	750	900	M60	17541	UDConS29	0.83%	25.99	24	27.06	OK
02-BS 2 SL	C13	750	900	M60	17324	UDConS29	0.80%	25.67	24	26.95	OK
03-BS 1 SL	C13	750	900	M60	17095	UDConS29	0.80%	25.33	24	26.95	OK
04-HP SL	C13	750	900	M60	16647	UDConS30	0.80%	24.66	24	26.95	OK
05-Story1	C13	750	750	M60	16107	UDConS30	1.81%	28.64	24	30.67	OK
06-Story2	C13	750	750	M60	15486	UDConS30	1.69%	27.53	24	30.23	OK
07-Story3	C13	750	750	M60	15010	UDConS30	1.56%	26.69	24	29.75	OK
08-Story4	C13	750	750	M60	14521	UDConS30	1.35%	25.82	24	28.97	OK
09-Story5	C13	750	750	M50	14232	UDConS29	2.12%	25.30	20	27.81	OK
10-Story6	C13	750	750	M50	13747	UDConS29	1.80%	24.44	20	26.63	OK
11-Story7	C13	750	750	M50	13254	UDConS29	1.61%	23.56	20	25.93	OK

12-Story8	C13	750	750	M50	12753	UDConS29	1.40%	22.67	20	25.16	OK
13-Story9	C13	750	750	M50	12245	UDConS29	1.17%	21.77	20	24.31	OK
14-Story10	C13	750	750	M50	11746	UDConS29	0.91%	20.88	20	23.35	OK
15-Story11	C13	750	750	M45	11229	UDConS29	1.20%	19.96	18	22.42	OK
16-Story12	C13	750	750	M45	10710	UDConS29	0.93%	19.04	18	21.43	OK
17-Story13	C13	750	750	M45	10188	UDConS29	0.80%	18.11	18	20.95	OK
18-Story14	C13	750	750	M45	9663	UDConS29	0.80%	17.18	18	18.03	OK
19-Story15	C13	750	750	M45	9141	UDConS29	0.80%	16.25	18	18.03	OK
20-Story16	C13	750	750	M40	8618	UDConS29	0.80%	15.32	16	16.03	OK
21-Story17	C13	750	750	M40	8095	UDConS29	0.80%	14.39	16	16.03	OK
22-Story18	C13	750	750	M40	7588	UDConS29	0.80%	13.49	16	16.03	OK
23-Story19	C13	750	750	M40	7065	UDConS29	0.80%	12.56	16	16.03	OK
24-Story20	C13	750	750	M40	6541	UDConS29	0.80%	11.63	16	16.03	OK
25-Story21	C13	750	750	M35	6017	UDConS29	0.80%	10.70	14	14.03	OK
26-Story22	C13	750	750	M35	5495	UDConS29	0.80%	9.77	14	14.03	OK
27-Story23	C13	750	750	M35	4972	UDConS29	0.80%	8.84	14	14.03	OK
28-Story24	C13	750	750	M35	4449	UDConS29	0.80%	7.91	14	14.03	OK
29-Story25	C13	750	750	M35	3927	UDConS29	0.80%	6.98	14	14.03	OK
30-Story26	C13	750	750	M35	3404	UDConS29	0.80%	6.05	14	14.03	OK
31-Story27	C13	750	750	M35	2884	UDConS29	0.80%	5.13	14	14.03	OK
32-Story28	C13	750	750	M35	2362	UDConS29	0.80%	4.20	14	14.03	OK
33-Story29	C13	750	750	M35	796	UDConS31	0.80%	1.42	14	14.03	OK
34-Story30	C13	750	750	M35	572	UDConS31	0.80%	1.02	14	14.03	OK
35-Story-31	C13	750	750	M35	345	UDConS32	0.80%	0.61	14	14.03	OK
36-Story32	C13	750	750	M35	108	UDConS32	0.80%	0.19	14	14.03	OK
05-Story1	C14	300	750	M60	226	UDConS29	0.80%	1.00	24	26.95	OK
01-BS 3 SL	C2	450	600	M50	2647	UDConS2	0.80%	9.80	20	22.95	OK
02-BS 2 SL	C2	450	600	M50	909	UDConS32	1.11%	3.37	20	24.09	OK
03-BS 1 SL	C2	450	600	M50	739	UDConS32	1.77%	2.74	20	26.52	OK
04-HP SL	C2	450	600	M50	553	UDConS29	2.72%	2.05	20	30.02	OK
01-BS 3 SL	C3	450	600	M50	4420	UDConS29	0.80%	16.37	20	22.95	OK
02-BS 2 SL	C3	450	600	M50	757	UDConS31	0.87%	2.80	20	23.21	OK
03-BS 1 SL	C3	450	600	M50	663	UDConS31	1.62%	2.46	20	25.97	OK
04-HP SL	C3	450	600	M50	836	UDConS30	2.34%	3.10	20	28.62	OK
01-BS 3 SL	C4	450	600	M50	2947	UDConS2	0.80%	10.92	20	22.95	OK
02-BS 2 SL	C4	450	600	M50	1012	UDConS31	0.89%	3.75	20	23.28	OK
03-BS 1 SL	C4	450	600	M50	783	UDConS32	1.79%	2.90	20	26.60	OK
04-HP SL	C4	450	600	M50	589	UDConS29	2.21%	2.18	20	28.14	OK
01-BS 3 SL	C5	450	750	M60	7956	1.5(DL-WT)	0.80%	23.57	24	26.95	OK
02-BS 2 SL	C5	450	750	M60	479	UDConS32	1.31%	1.42	24	28.83	OK
03-BS 1 SL	C5	450	750	M60	617	UDConS32	1.82%	1.83	24	30.71	OK
04-HP SL	C5	450	750	M60	715	UDConS32	2.72%	2.12	24	34.02	OK
01-BS 3 SL	C6	450	750	M60	8741	UDConS30	0.85%	25.90	24	27.13	OK
02-BS 2 SL	C6	450	750	M60	-43	UDConS32	1.43%	-0.13	24	29.27	OK
03-BS 1 SL	C6	450	750	M60	128	UDConS32	1.75%	0.38	24	30.45	OK
04-HP SL	C6	450	750	M60	273	UDConS32	2.10%	0.81	24	31.74	OK
05-Story1	C6	450	750	M60	84	UDConS32	4.16%	0.25	24	39.33	OK

01-BS 3 SL	C7	450	750	M60	-277	UDConS32	0.80%	-0.82	24	26.95	OK
02-BS 2 SL	C7	450	750	M60	-199	UDConS32	1.72%	-0.59	24	30.34	OK
03-BS 1 SL	C7	450	750	M60	-27	UDConS32	2.44%	-0.08	24	32.99	OK
04-HP SL	C7	450	750	M60	61	UDConS32	3.47%	0.18	24	36.79	OK
01-BS 3 SL	C8	450	750	M60	9159	UDConS30	1.26%	27.14	24	28.64	OK
02-BS 2 SL	C8	450	750	M60	-440	UDConS32	1.64%	-1.30	24	30.04	OK
03-BS 1 SL	C8	450	750	M60	-221	UDConS32	2.01%	-0.65	24	31.41	OK
04-HP SL	C8	450	750	M60	-197	UDConS32	2.91%	-0.58	24	34.72	OK
05-Story1	C8	450	750	M60	-80	UDConS32	4.12%	-0.24	24	39.18	OK
01-BS 3 SL	C9	750	900	M60	17805	UDConS29	0.93%	26.38	24	27.43	OK
02-BS 2 SL	C9	750	900	M60	17589	UDConS29	0.86%	26.06	24	27.17	OK
03-BS 1 SL	C9	750	900	M60	17372	UDConS29	0.86%	25.74	24	27.17	OK
04-HP SL	C9	750	900	M60	16976	UDConS30	0.83%	25.15	24	27.06	OK
05-Story1	C9	750	750	M60	16326	UDConS30	2.02%	29.02	24	31.44	OK
06-Story2	C9	750	750	M60	15852	UDConS30	1.99%	28.18	24	31.33	OK
07-Story3	C9	750	750	M60	15628	UDConS29	1.72%	27.78	24	30.34	OK
08-Story4	C9	750	750	M60	15152	UDConS29	1.53%	26.94	24	29.64	OK
09-Story5	C9	750	750	M50	14663	UDConS29	2.33%	26.07	20	28.59	OK
10-Story6	C9	750	750	M50	14173	UDConS29	2%	25.20	20	27.37	OK
11-Story7	C9	750	750	M50	13673	UDConS29	1.77%	24.31	20	26.52	OK
12-Story8	C9	750	750	M50	13164	UDConS29	1.57%	23.40	20	25.79	OK
13-Story9	C9	750	750	M50	12648	UDConS29	1.34%	22.48	20	24.94	OK
14-Story10	C9	750	750	M50	12124	UDConS29	1.08%	21.55	20	23.98	OK
15-Story11	C9	750	750	M45	11596	UDConS29	1.35%	20.61	18	22.97	OK
16-Story12	C9	750	750	M45	11063	UDConS29	1.07%	19.67	18	21.94	OK
17-Story13	C9	750	750	M45	10527	UDConS29	0.82%	18.71	18	21.02	OK
18-Story14	C9	750	750	M45	9988	UDConS29	0.80%	17.76	18	18.03	OK
19-Story15	C9	750	750	M45	9452	UDConS29	0.80%	16.80	18	18.03	OK
20-Story16	C9	750	750	M40	8913	UDConS29	0.80%	15.85	16	16.03	OK
21-Story17	C9	750	750	M40	8374	UDConS29	0.80%	14.89	16	16.03	OK
22-Story18	C9	750	750	M40	7833	UDConS29	0.80%	13.92	16	16.03	OK
23-Story19	C9	750	750	M40	7292	UDConS29	0.80%	12.96	16	16.03	OK
24-Story20	C9	750	750	M40	6766	UDConS29	0.80%	12.03	16	16.03	OK
25-Story21	C9	750	750	M35	6223	UDConS29	0.80%	11.06	14	14.03	OK
26-Story22	C9	750	750	M35	5681	UDConS29	0.80%	10.10	14	14.03	OK
27-Story23	C9	750	750	M35	5140	UDConS29	0.80%	9.14	14	14.03	OK
28-Story24	C9	750	750	M35	4598	UDConS29	0.80%	8.18	14	14.03	OK
29-Story25	C9	750	750	M35	4057	UDConS29	0.80%	7.21	14	14.03	OK
30-Story26	C9	750	750	M35	3516	UDConS29	0.80%	6.25	14	14.03	OK
31-Story27	C9	750	750	M35	2978	UDConS29	0.80%	5.29	14	14.03	OK
32-Story28	C9	750	750	M35	2448	UDConS29	0.80%	4.35	14	14.03	OK
33-Story29	C9	750	750	M35	1906	UDConS29	0.80%	3.39	14	14.03	OK
34-Story30	C9	750	750	M35	574	UDConS31	0.80%	1.02	14	14.03	OK
35-Story-31	C9	750	750	M35	344	UDConS31	0.80%	0.61	14	14.03	OK
36-Story32	C9	750	750	M35	110	UDConS32	0.80%	0.20	14	14.03	OK

Block-B

Story	Label	B	D	Grade	P	P Combo	Rebar	P/A	0.4Fck	as Ast provided	
		mm	mm		kN		%				
04-HP SL	C1	600	750	M60	107	UDConS31	1.83%	0.24	24	30.74	OK
03-BS 1 SL	C1	600	750	M60	101	UDConS31	1.30%	0.23	24	28.79	OK
02-BS 2 SL	C1	600	750	M60	-40	UDConS32	0.84%	-0.09	24	27.10	OK
01-BS 3 SL	C1	600	750	M60	117	UDConS31	0.80%	0.26	24	26.95	OK
36-Story-32	C10	800	925	M35	8	UDConS31	0.80%	0.01	14	16.95	OK
35-Story-31	C10	800	925	M35	199	UDConS31	0.80%	0.27	14	16.95	OK
34-Story30	C10	800	925	M35	413	UDConS31	0.80%	0.56	14	16.95	OK
33-Story29	C10	800	925	M35	634	UDConS31	0.80%	0.86	14	16.95	OK
32-Story28	C10	800	925	M35	867	UDConS31	0.80%	1.17	14	16.95	OK
31-Story27	C10	800	925	M35	4853	UDConS29	0.80%	6.56	14	16.95	OK
30-Story26	C10	800	925	M35	5550	UDConS29	0.80%	7.50	14	16.95	OK
29-Story25	C10	800	925	M35	6263	UDConS29	0.80%	8.46	14	16.95	OK
28-Story24	C10	800	925	M35	6939	UDConS29	0.80%	9.38	14	16.95	OK
27-Story23	C10	800	925	M35	7605	UDConS29	0.80%	10.28	14	16.95	OK
26-Story22	C10	800	925	M35	8158	UDConS29	0.80%	11.02	14	16.95	OK
25-Story21	C10	800	925	M35	8835	UDConS29	0.80%	11.94	14	16.95	OK
24-Story20	C10	800	925	M40	9472	UDConS29	0.80%	12.80	16	18.95	OK
23-Story19	C10	800	925	M40	10097	UDConS29	0.80%	13.64	16	18.95	OK
22-Story18	C10	800	925	M40	10713	UDConS29	0.80%	14.48	16	18.95	OK
21-Story17	C10	800	925	M40	11318	UDConS29	0.80%	15.29	16	18.95	OK
20-Story16	C10	800	925	M40	11912	UDConS29	0.80%	16.10	16	18.95	OK
19-Story15	C10	800	925	M45	12527	UDConS29	0.80%	16.93	18	20.95	OK
18-Story14	C10	800	925	M45	13096	UDConS29	0.80%	17.70	18	20.95	OK
17-Story13	C10	800	925	M45	13658	UDConS30	0.80%	18.46	18	20.95	OK
16-Story12	C10	800	925	M45	14333	UDConS30	0.87%	19.37	18	21.21	OK
15-Story11	C10	800	925	M45	15036	UDConS30	1.09%	20.32	18	22.02	OK
14-Story10	C10	800	925	M50	15703	UDConS30	0.80%	21.22	20	22.95	OK
13-Story9	C10	800	925	M50	16365	UDConS30	1.01%	22.12	20	23.72	OK
12-Story8	C10	800	925	M50	17021	UDConS30	1.24%	23.00	20	24.57	OK
11-Story7	C10	800	925	M50	17668	UDConS30	1.46%	23.88	20	25.38	OK
10-Story6	C10	800	925	M50	18332	UDConS30	1.63%	24.77	20	26.01	OK
09-Story5	C10	800	925	M50	18960	UDConS30	1.88%	25.62	20	26.93	OK
08-Story4	C10	800	925	M60	19582	UDConS30	1.07%	26.46	24	27.94	OK
07-Story3	C10	800	925	M60	20190	UDConS30	1.24%	27.28	24	28.57	OK
06-Story2	C10	800	925	M60	20782	UDConS30	1.48%	28.08	24	29.45	OK
05-Story1	C10	800	925	M60	21380	UDConS30	1.72%	28.89	24	30.34	OK
04-HP SL	C10	800	925	M60	22026	UDConS30	1.98%	29.76	24	31.30	OK
03-BS 1 SL	C10	800	925	M60	22589	UDConS30	2.25%	30.53	24	32.29	OK
02-BS 2 SL	C10	800	925	M60	22980	UDConS30	2.39%	31.05	24	32.81	OK
01-BS 3 SL	C10	800	925	M60	23359	UDConS30	2.57%	31.57	24	33.47	OK
36-Story-32	C12	800	925	M35	-245	UDConS31	0.80%	-0.33	14	16.95	OK
35-Story-31	C12	800	925	M35	136	UDConS31	0.80%	0.18	14	16.95	OK
34-Story30	C12	800	925	M35	476	UDConS32	0.80%	0.64	14	16.95	OK
33-Story29	C12	800	925	M35	2870	UDConS30	0.80%	3.88	14	16.95	OK

32-Story28	C12	800	925	M35	3549	UDConS30	0.80%	4.80	14	16.95	OK
31-Story27	C12	800	925	M35	4216	UDConS30	0.80%	5.70	14	16.95	OK
30-Story26	C12	800	925	M35	4886	UDConS30	0.80%	6.60	14	16.95	OK
29-Story25	C12	800	925	M35	5548	UDConS30	0.80%	7.50	14	16.95	OK
28-Story24	C12	800	925	M35	6199	UDConS30	0.80%	8.38	14	16.95	OK
27-Story23	C12	800	925	M35	6839	UDConS30	0.80%	9.24	14	16.95	OK
26-Story22	C12	800	925	M35	7356	UDConS30	0.80%	9.94	14	16.95	OK
25-Story21	C12	800	925	M35	7975	UDConS30	0.80%	10.78	14	16.95	OK
24-Story20	C12	800	925	M40	8582	UDConS30	0.80%	11.60	16	18.95	OK
23-Story19	C12	800	925	M40	9178	UDConS30	0.80%	12.40	16	18.95	OK
22-Story18	C12	800	925	M40	9763	UDConS30	0.80%	13.19	16	18.95	OK
21-Story17	C12	800	925	M40	10337	UDConS30	0.80%	13.97	16	18.95	OK
20-Story16	C12	800	925	M40	10944	UDConS29	0.80%	14.79	16	18.95	OK
19-Story15	C12	800	925	M45	11643	UDConS29	0.80%	15.73	18	20.95	OK
18-Story14	C12	800	925	M45	12343	UDConS29	0.80%	16.68	18	20.95	OK
17-Story13	C12	800	925	M45	13043	UDConS29	0.80%	17.63	18	20.95	OK
16-Story12	C12	800	925	M45	13741	UDConS29	0.80%	18.57	18	20.95	OK
15-Story11	C12	800	925	M45	14438	UDConS29	0.80%	19.51	18	20.95	OK
14-Story10	C12	800	925	M50	15132	UDConS29	0.80%	20.45	20	22.95	OK
13-Story9	C12	800	925	M50	15822	UDConS29	0.80%	21.38	20	22.95	OK
12-Story8	C12	800	925	M50	16508	UDConS29	0.87%	22.31	20	23.21	OK
11-Story7	C12	800	925	M50	17187	UDConS29	1.17%	23.23	20	24.31	OK
10-Story6	C12	800	925	M50	17859	UDConS29	1.45%	24.13	20	25.34	OK
09-Story5	C12	800	925	M50	18521	UDConS29	1.70%	25.03	20	26.26	OK
08-Story4	C12	800	925	M60	19181	UDConS29	0.82%	25.92	24	27.02	OK
07-Story3	C12	800	925	M60	19825	UDConS29	1.10%	26.79	24	28.05	OK
06-Story2	C12	800	925	M60	20448	UDConS29	1.36%	27.63	24	29.01	OK
05-Story1	C12	800	925	M60	21423	UDConS8	1.74%	28.95	24	30.41	OK
04-HP SL	C12	800	925	M60	21801	UDConS8	1.86%	29.46	24	30.85	OK
03-BS 1 SL	C12	800	925	M60	22022	UDConS30	1.94%	29.76	24	31.15	OK
02-BS 2 SL	C12	800	925	M60	22542	UDConS30	2.16%	30.46	24	31.96	OK
01-BS 3 SL	C12	800	925	M60	23043	UDConS30	2.40%	31.14	24	32.84	OK
36-Story-32	C14	800	925	M35	-219	UDConS31	0.80%	-0.30	14	16.95	OK
35-Story-31	C14	800	925	M35	157	UDConS31	0.80%	0.21	14	16.95	OK
34-Story30	C14	800	925	M35	492	UDConS32	0.80%	0.67	14	16.95	OK
33-Story29	C14	800	925	M35	2909	UDConS30	0.80%	3.93	14	16.95	OK
32-Story28	C14	800	925	M35	3582	UDConS30	1%	4.84	14	16.95	OK
31-Story27	C14	800	925	M35	4244	UDConS30	0.80%	5.74	14	16.95	OK
30-Story26	C14	800	925	M35	4906	UDConS30	0.80%	6.63	14	16.95	OK
29-Story25	C14	800	925	M35	5563	UDConS30	0.80%	7.52	14	16.95	OK
28-Story24	C14	800	925	M35	6208	UDConS30	0.80%	8.39	14	16.95	OK
27-Story23	C14	800	925	M35	6843	UDConS30	0.80%	9.25	14	16.95	OK
26-Story22	C14	800	925	M35	7356	UDConS30	0.80%	9.94	14	16.95	OK
25-Story21	C14	800	925	M35	7970	UDConS30	0.80%	10.77	14	16.95	OK
24-Story20	C14	800	925	M40	8572	UDConS30	0.80%	11.58	16	18.95	OK
23-Story19	C14	800	925	M40	9163	UDConS30	0.80%	12.38	16	18.95	OK
22-Story18	C14	800	925	M40	9743	UDConS30	0.80%	13.17	16	18.95	OK

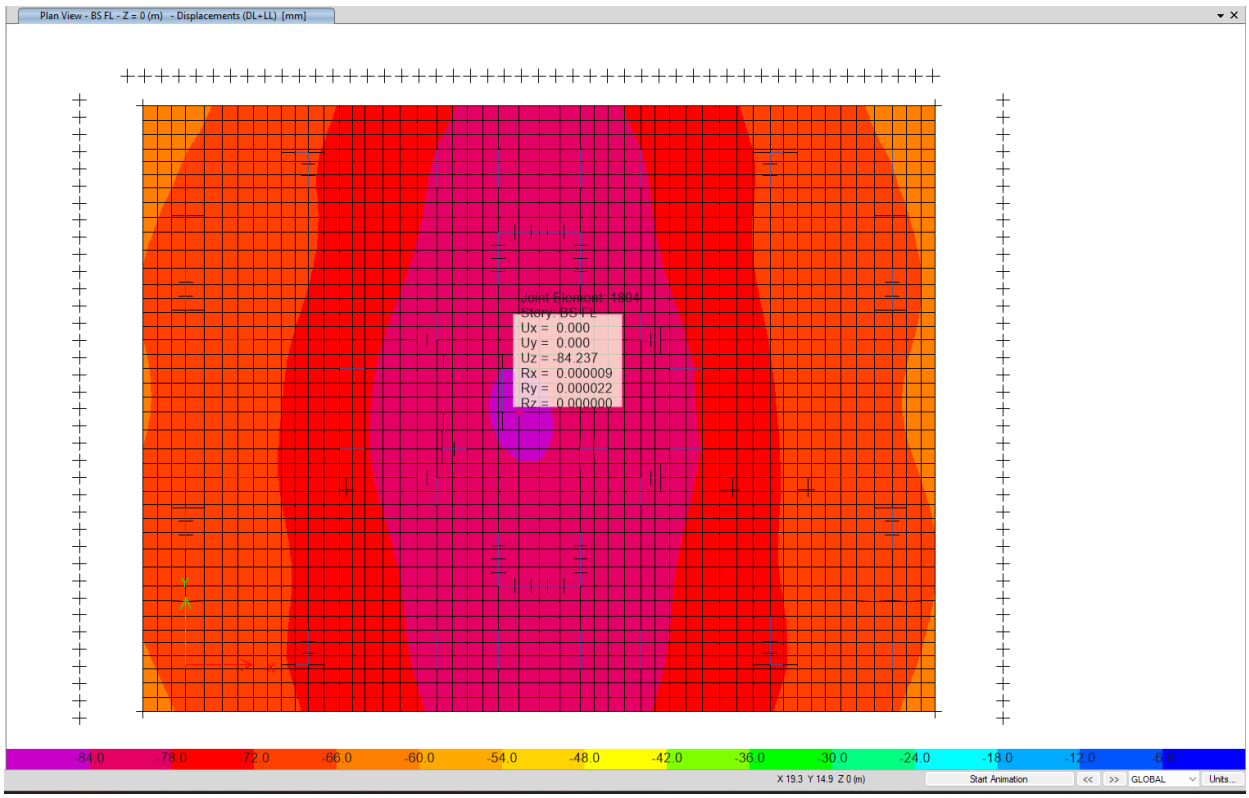
21-Story17	C14	800	925	M40	10313	UDConS30	0.80%	13.94	16	18.95	OK
20-Story16	C14	800	925	M40	10900	UDConS29	0.80%	14.73	16	18.95	OK
19-Story15	C14	800	925	M45	11594	UDConS29	0.80%	15.67	18	20.95	OK
18-Story14	C14	800	925	M45	12289	UDConS29	0.80%	16.61	18	20.95	OK
17-Story13	C14	800	925	M45	12984	UDConS29	0.80%	17.55	18	20.95	OK
16-Story12	C14	800	925	M45	13678	UDConS29	0.80%	18.48	18	20.95	OK
15-Story11	C14	800	925	M45	14370	UDConS29	0.80%	19.42	18	20.95	OK
14-Story10	C14	800	925	M50	15060	UDConS29	0.80%	20.35	20	22.95	OK
13-Story9	C14	800	925	M50	15745	UDConS29	0.80%	21.28	20	22.95	OK
12-Story8	C14	800	925	M50	16426	UDConS29	0.84%	22.20	20	23.10	OK
11-Story7	C14	800	925	M50	17102	UDConS29	1.13%	23.11	20	24.16	OK
10-Story6	C14	800	925	M50	17769	UDConS29	1.41%	24.01	20	25.20	OK
09-Story5	C14	800	925	M50	18428	UDConS29	1.67%	24.90	20	26.15	OK
08-Story4	C14	800	925	M60	19084	UDConS29	0.80%	25.79	24	26.95	OK
07-Story3	C14	800	925	M60	19726	UDConS29	1.06%	26.66	24	27.91	OK
06-Story2	C14	800	925	M60	20345	UDConS29	1.32%	27.49	24	28.86	OK
05-Story1	C14	800	925	M60	20969	UDConS29	1.58%	28.34	24	29.82	OK
04-HP SL	C14	800	925	M60	21285	UDConS29	1.69%	28.76	24	30.23	OK
03-BS 1 SL	C14	800	925	M60	21943	UDConS30	1.91%	29.65	24	31.04	OK
02-BS 2 SL	C14	800	925	M60	22437	UDConS30	2.12%	30.32	24	31.81	OK
01-BS 3 SL	C14	800	925	M60	22920	UDConS30	2.34%	30.97	24	32.62	OK
04-HP SL	C2	600	750	M60	287	UDConS29	2.25%	0.64	24	32.29	OK
03-BS 1 SL	C2	600	750	M60	715	UDConS29	1.03%	1.59	24	27.80	OK
02-BS 2 SL	C2	600	750	M60	229	UDConS31	0.83%	0.51	24	27.06	OK
01-BS 3 SL	C2	600	750	M60	287	UDConS31	0.80%	0.64	24	26.95	OK
04-HP SL	C3	600	750	M60	280	UDConS30	2.88%	0.62	24	34.61	OK
03-BS 1 SL	C3	600	750	M60	-227	UDConS32	1.96%	-0.50	24	31.22	OK
02-BS 2 SL	C3	600	750	M60	-409	UDConS32	1.35%	-0.91	24	28.97	OK
01-BS 3 SL	C3	600	750	M60	-475	UDConS32	0.84%	-1.06	24	27.10	OK
04-HP SL	C4	600	750	M60	533	UDConS30	3.40%	1.18	24	36.53	OK
03-BS 1 SL	C4	600	750	M60	-690	UDConS32	2.20%	-1.53	24	32.11	OK
02-BS 2 SL	C4	600	750	M60	-1089	UDConS32	1.71%	-2.42	24	30.30	OK
01-BS 3 SL	C4	600	750	M60	-1333	UDConS32	1.26%	-2.96	24	28.64	OK
36-Story-32	C6	800	925	M35	0	UDConS31	0.80%	0.00	14	16.95	OK
35-Story-31	C6	800	925	M35	193	UDConS31	0.80%	0.26	14	16.95	OK
34-Story30	C6	800	925	M35	402	UDConS31	0.80%	0.54	14	16.95	OK
33-Story29	C6	800	925	M35	625	UDConS31	0.80%	0.84	14	16.95	OK
32-Story28	C6	800	925	M35	858	UDConS31	0.80%	1.16	14	16.95	OK
31-Story27	C6	800	925	M35	4784	UDConS29	0.80%	6.46	14	16.95	OK
30-Story26	C6	800	925	M35	5478	UDConS29	0.80%	7.40	14	16.95	OK
29-Story25	C6	800	925	M35	6162	UDConS29	0.80%	8.33	14	16.95	OK
28-Story24	C6	800	925	M35	6835	UDConS29	0.80%	9.24	14	16.95	OK
27-Story23	C6	800	925	M35	7499	UDConS29	0.80%	10.13	14	16.95	OK
26-Story22	C6	800	925	M35	8050	UDConS29	0.80%	10.88	14	16.95	OK
25-Story21	C6	800	925	M35	8696	UDConS29	0.80%	11.75	14	16.95	OK
24-Story20	C6	800	925	M40	9331	UDConS29	0.80%	12.61	16	18.95	OK
23-Story19	C6	800	925	M40	9956	UDConS29	0.80%	13.45	16	18.95	OK

22-Story18	C6	800	925	M40	10570	UDConS29	0.80%	14.28	16	18.95	OK
21-Story17	C6	800	925	M40	11175	UDConS29	0.80%	15.10	16	18.95	OK
20-Story16	C6	800	925	M40	11770	UDConS29	0.80%	15.90	16	18.95	OK
19-Story15	C6	800	925	M45	12352	UDConS29	0.80%	16.69	18	20.95	OK
18-Story14	C6	800	925	M45	12923	UDConS29	0.80%	17.46	18	20.95	OK
17-Story13	C6	800	925	M45	13563	UDConS30	0.80%	18.33	18	20.95	OK
16-Story12	C6	800	925	M45	14243	UDConS30	0.84%	19.25	18	21.10	OK
15-Story11	C6	800	925	M45	14919	UDConS30	1.07%	20.16	18	21.94	OK
14-Story10	C6	800	925	M50	15591	UDConS30	0.80%	21.07	20	22.95	OK
13-Story9	C6	800	925	M50	16257	UDConS30	1.00%	21.97	20	23.69	OK
12-Story8	C6	800	925	M50	16916	UDConS30	1.22%	22.86	20	24.50	OK
11-Story7	C6	800	925	M50	17569	UDConS30	1.43%	23.74	20	25.27	OK
10-Story6	C6	800	925	M50	18213	UDConS30	1.61%	24.61	20	25.93	OK
09-Story5	C6	800	925	M50	18847	UDConS30	1.86%	25.47	20	26.85	OK
08-Story4	C6	800	925	M60	19474	UDConS30	1.06%	26.32	24	27.91	OK
07-Story3	C6	800	925	M60	20088	UDConS30	1.21%	27.15	24	28.46	OK
06-Story2	C6	800	925	M60	20687	UDConS30	1.44%	27.96	24	29.31	OK
05-Story1	C6	800	925	M60	21292	UDConS30	1.70%	28.77	24	30.26	OK
04-HP SL	C6	800	925	M60	21942	UDConS30	1.92%	29.65	24	31.08	OK
03-BS 1 SL	C6	800	925	M60	22784	UDConS30	2.30%	30.79	24	32.48	OK
02-BS 2 SL	C6	800	925	M60	23175	UDConS30	2.48%	31.32	24	33.14	OK
01-BS 3 SL	C6	800	925	M60	23557	UDConS30	2.65%	31.83	24	33.77	OK

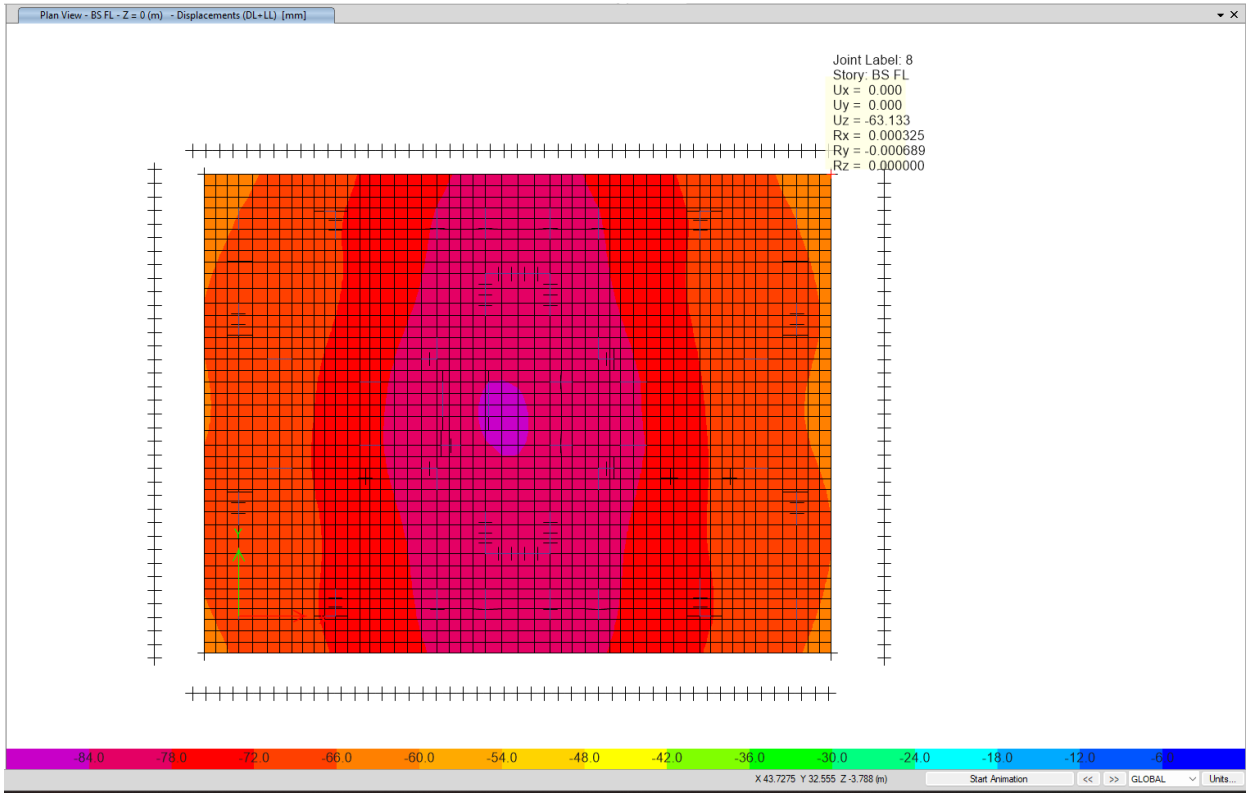
12. DIFFERENTIAL SETTLEMENT

LOAD CASE: DL+LL

BLOCK A



MAXIMUM SETTLEMENT: 84.237 mm AT X = 19.3 m AND Y = 14.9 m



MINIMUM SETTLEMENT: 63.13 mm AT X = 43.72 AND Y = -3.788

TABLE 1 PERMISSIBLE DIFFERENTIAL SETTLEMENTS AND TILT (ANGULAR DISTORTION) FOR SHALLOW FOUNDATION IN SOILS

(Clause 16.3.4)

Sl No.	Type of Structure	Isolated Foundations						Raft Foundations					
		Sand and Hard Clay			Plastic Clay			Sand and Hard Clay			Plastic Clay		
		Maximum settlement	Differential settlement	Angular distortion	Maximum settlement	Differential settlement	Angular distortion	Maximum settlement	Differential settlement	Angular distortion	Maximum settlement	Differential settlement	Angular distortion
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	For steel structure	50	·003 3L	1/300	50	·003 3L	1/300	75	·003 3L	1/300	100	·003 3L	1/300
ii)	For reinforced concrete structures	50	·001 5L	1/666	75	·001 5L	1/666	75	·002 1L	1/500	100	·002L	1/500
iii)	For multistoreyed buildings												
	a) RC or steel framed buildings with panel walls	60	·002L	1/500	75	·002L	1/500	75	0·002 5L	1/400	125	0·003 3L	1/300

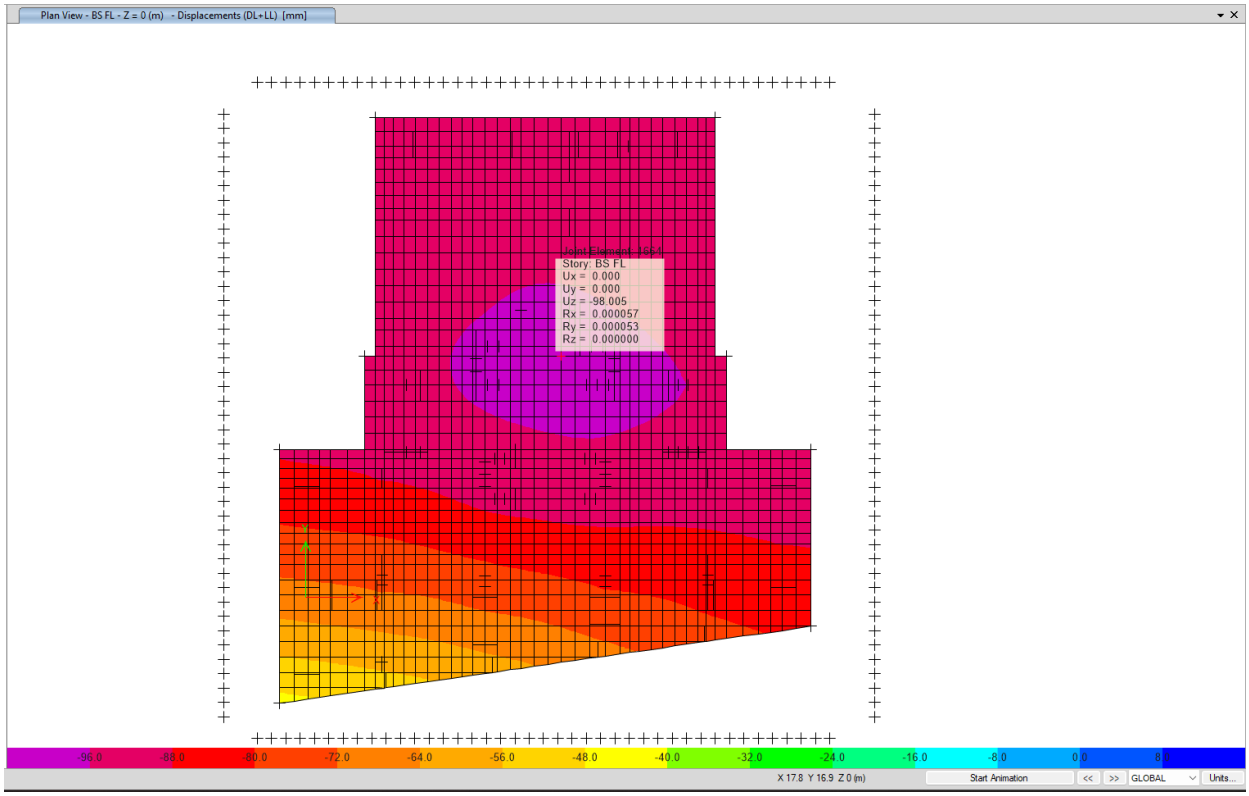
19

Total Differential Settlement is checked with reference to IS: 1904-1986 Table 1.
Permissible = 0.0025L
= 0.0025 x 35.28 m (Approx.) = 88.2 mm

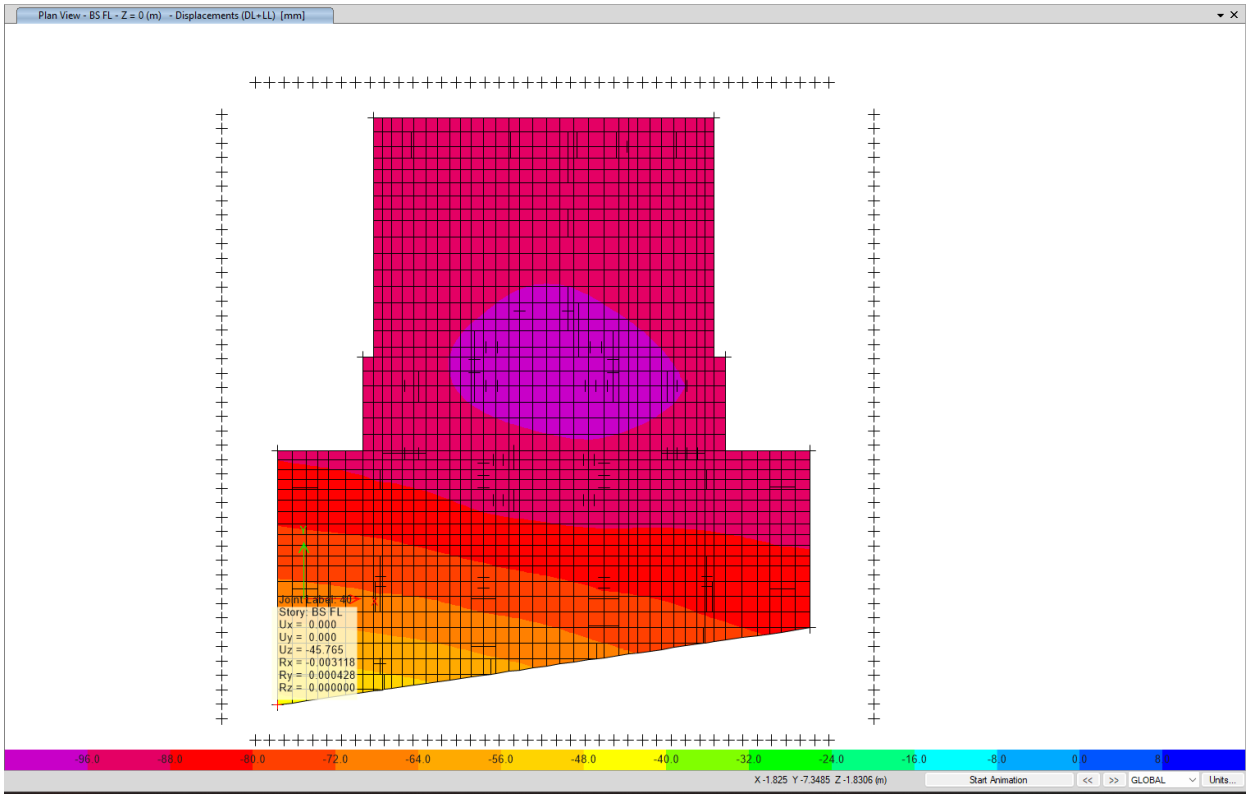
Total Differential Settlement
= 84.237 – 63.13 = 21.10 mm < 88.2 mm (Permissible)
Hence, OK.

Total Differential Settlement is checked with reference to IS:1904-1986 Table 1.
Angular Distortion:
21.10 mm / 35280 mm = 1/1672
Permissible = 1/400 > 1/1672
Hence, OK.

BLOCK B



MAXIMUM SETTLEMENT: 98 mm AT X = 17.8 m AND Y = 16.9 m



MINIMUM SETTLEMENT: 45.765 mm AT X = -1.825 AND Y = -7.34

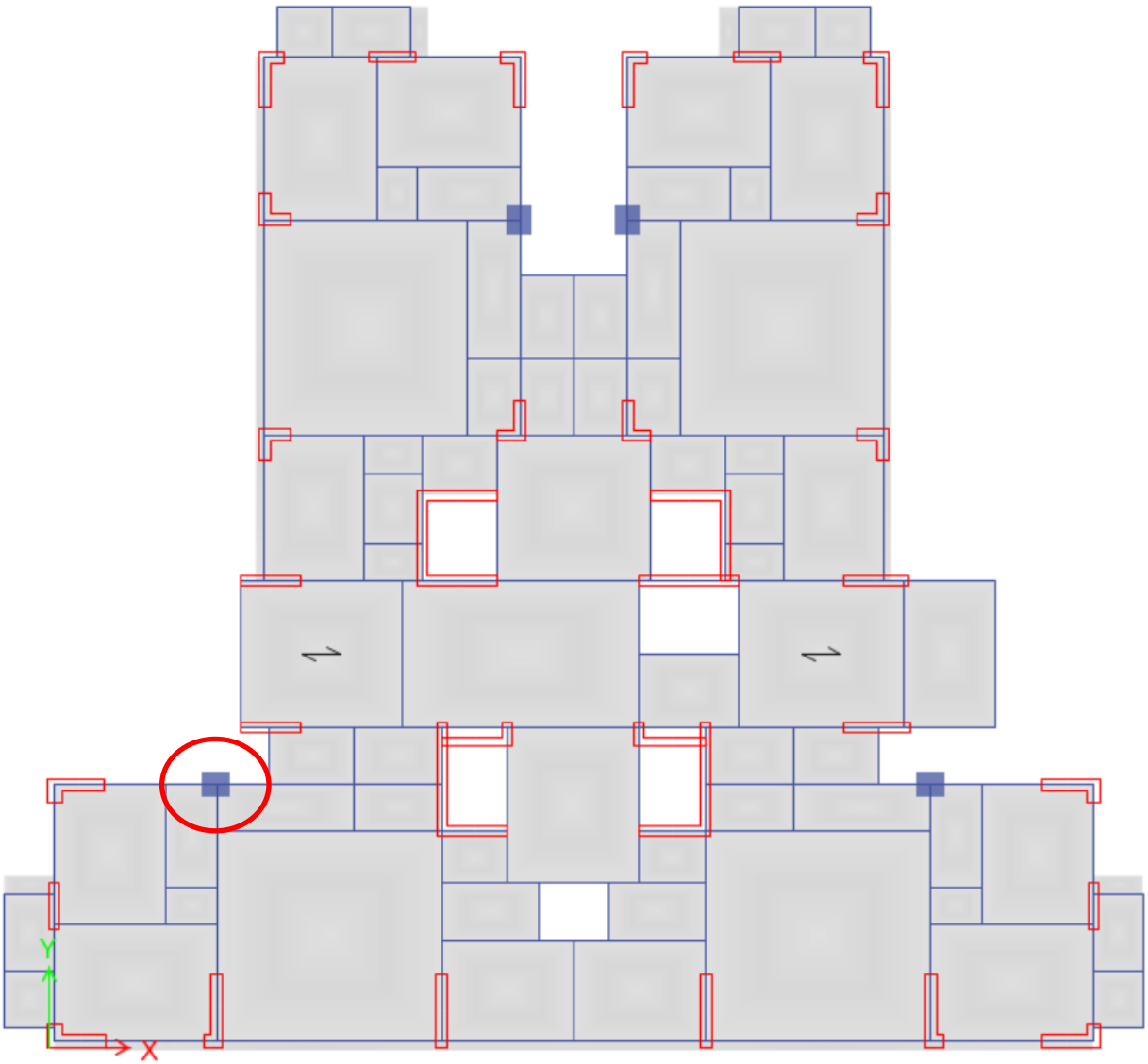
Total Differential Settlement is checked with reference to IS: 1904-1986 Table 1.
Permissible = 0.0025L
= 0.0025 x 37.075 m (Approx.) = 92.68 mm

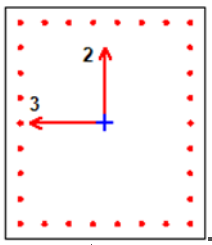
Total Differential Settlement
= 98 – 45.76 = 52.24 mm < 92.68 mm (Permissible)
Hence, OK.

Total Differential Settlement is checked with reference to IS: 1904-1986 Table 1.
Angular Distortion:
52.24 mm / 37075 mm = 1/709
Permissible = 1/400 > 1/709
Hence, OK.

13. RCC COLUMN DESIGN

BLOCK – B
Column considered for design.





ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Column Section Design

Column Element Details Type: Ductile Frame (Summary)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	C6	5810	C-800X925-M60-H	UDConS30	0	3650	0.6

Section Properties

b (mm)	h (mm)	dc (mm)	Cover (Torsion) (mm)
800	925	60	30

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
38729.83	60	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Axial Force and Biaxial Moment Design For P_u , M_{u2} , M_{u3}

Design P_u kN	Design M_{u2} kN-m	Design M_{u3} kN-m	Minimum M_2 kN-m	Minimum M_3 kN-m	Rebar Area mm²	Rebar % %
22977.9349	746.017	3.6109	746.017	841.7583	17891	2.42

Axial Force and Biaxial Moment Factors

	K Factor Unitless	Length mm	Initial Moment kN-m	Additional Moment kN-m	Minimum Moment kN-m
Major Bend(M3)	0.695225	2900	9.1037	0	841.7583
Minor Bend(M2)	0.691183	2900	168.1041	0	746.017

Shear Design for V_{u2} , V_{u3}

	Shear V_u kN	Shear V_c kN	Shear V_s kN	Shear V_p kN	Rebar A_{sv} /s mm²/m
Major, V_{u2}	153.3845	776.9916	276.8006	153.3845	886.75
Minor, V_{u3}	83.6511	771.4792	273.8007	66.9278	1025.3

Joint Shear Check/Design

	Joint Shear Force kN	Shear V_{Top} kN	Shear $V_{u,Tot}$ kN	Shear V_c kN	Joint Area cm²	Shear Ratio Unitless
Major Shear, V_{u2}	N/A	N/A	N/A	N/A	N/A	N/A
Minor Shear, V_{u3}	N/A	N/A	N/A	N/A	N/A	N/A

(1.4) Beam/Column Capacity Ratio

Major Ratio	Minor Ratio
N/A	N/A

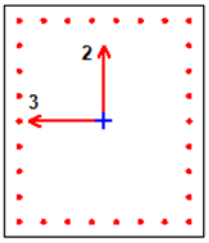
Additional Moment Reduction Factor k (IS 39.7.1.1)

A_g cm²	A_{sc} cm²	P_{uz} kN	P_b kN	P_u kN	k Unitless
7400	177.4	27296.3035	9244.9352	22977.9349	0.239227

Additional Moment (IS 39.7.1)

	Consider M_a	Length Factor	Section Depth (mm)	KL/Depth Ratio	KL/Depth Limit	KL/Depth Exceeded	M_a Moment (kN-m)
Major Bending (M_3)	Yes	0.795	925	2.18	12	No	0
Minor Bending (M_2)	Yes	0.795	800	2.506	12	No	0

Notes:
N/A: Not Applicable
N/C: Not Calculated
N/N: Not Needed



ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Column Section Design

Column Element Details Type: Ductile Frame (Flexural Details)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	C6	5810	C-800X925-M60-H	UDConS30	0	3650	0.6

Section Properties

b (mm)	h (mm)	dc (mm)	Cover (Torsion) (mm)
800	925	60	30

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
38729.83	60	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Axial Force and Biaxial Moment Design For P_u , M_{u2} , M_{u3}

Design P_u kN	Design M_{u2} kN-m	Design M_{u3} kN-m	Minimum M_2 kN-m	Minimum M_3 kN-m	Rebar Area mm²	Rebar % %
22977.9349	746.017	3.6109	746.017	841.7583	17891	2.42

Factored & Minimum Biaxial Moments

	NonSway M_{ns} kN-m	Sway M_s kN-m	Factored M_u kN-m
Major Bending(M_{u3})	-46.1473	49.7582	3.6109
Minor Bending(M_{u2})	45.0575	375.2029	420.2603

Slenderness Effects (IS 39.7.1) and Minimum Biaxial Moments (IS 39.2, 25.4)

	End Moment M_{u1} (kN-m)	End Moment M_{u2} (kN-m)	Initial Moment (kN-m)	k*M_a Moment (kN-m)	Minimum Moment (kN-m)	Minimum Eccentricity (mm)
Major Bending (M_3)	3.6109	12.7656	9.1037	0	841.7583	36.6
Minor Bending (M_2)	420.2603	-230.3876	168.1041	0	746.017	32.5

Effective Length Factors (IS 25.2, Annex E)

	K Sway	K Non-Sway	Framing Type	P-Delta Done?	Q Factor	K Used
Major Bend(M_3)	2.000225	0.695225	Ductile Frame	Yes	0.039823	0.695225
Minor Bend(M_2)	1.942279	0.691183	Ductile Frame	Yes	0.029485	0.691183

Additional Moment Reduction Factor k (IS 39.7.1.1)

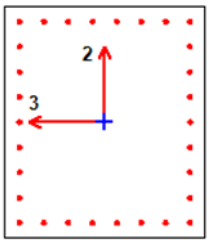
A_g cm²	A_{sc} cm²	P_{uz} kN	P_b kN	P_u kN	k Unitless
7400	177.4	27296.3035	9244.9352	22977.9349	0.239227

Additional Moment (IS 39.7.1)

	Consider M_a	Length Factor	Section Depth (mm)	KL/Depth Ratio	KL/Depth Limit	KL/Depth Exceeded	M_a Moment (kN-m)
Major Bending (M_3)	Yes	0.795	925	2.18	12	No	0
Minor Bending (M_2)	Yes	0.795	800	2.506	12	No	0

ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Column Section Design



Column Element Details Type: Ductile Frame (Shear Details)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	C6	5810	C-800X925-M60-H	UDConS30	0	3650	0.6

Section Properties

b (mm)	h (mm)	dc (mm)	Cover (Torsion) (mm)
800	925	60	30

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
38729.83	60	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Additional Moment Reduction Factor k (IS 39.7.1.1)

A_g cm²	A_{sc} cm²	P_{uz} kN	P_b kN	P_u kN	k Unitless
7400	177.4	27296.3035	9244.9352	22977.9349	0.239227

Additional Moment (IS 39.7.1)

	Consider M_a	Length Factor	Section Depth (mm)	KL/Depth Ratio	KL/Depth Limit	KL/Depth Exceeded	M_a Moment (kN-m)
Major Bending (M_3)	Yes	0.795	925	2.18	12	No	0
Minor Bending (M_2)	Yes	0.795	800	2.506	12	No	0

Shear Design for V_{u2}, V_{u3}

	Rebar A_v /s mm²/m	Design V_u kN	Design P_u kN	Design M_u kN-m	V_c kN	V_s kN	V_n kN
Major Shear(V_2)	886.75	153.3845	17030.1569	3.6109	776.9916	276.8006	1053.7922
Minor Shear(V_3)	1025.3	83.6511	17030.1569	420.2603	771.4792	273.8007	1045.2799

Design Forces

	Factored V_u kN	Factored P_u kN	Factored M_u kN-m	Capacity V_p kN
Major Shear(V_2)	43.7415	17030.1569	3.6109	153.3845
Minor Shear(V_3)	83.6511	17030.1569	420.2603	66.9278

Capacity Shear

	Shear V_p kN	Long.Rebar $A_{s(Bot)}$ %	Long.Rebar $A_{s(Top)}$ %	Cap.Moment M_{posBot} kN-m	Cap.Moment M_{negTop} kN-m	Cap.Moment M_{negBot} kN-m	Cap.Moment M_{posTop} kN-m
Major Shear(V_2)	153.3845	0	0	0	0	0	0
Minor Shear(V_3)	66.9278	0	0	0	0	0	0

Design Basis

Shr Reduc Factor Unitless	Strength f_{ys} MPa	Strength f_{ck} MPa	Area A_g cm²
1	415	40	7400

Concrete Shear Capacity

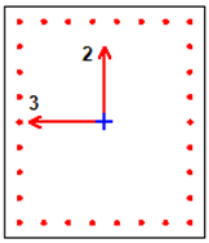
Major Shear(V_2)	Conc.Area A_c cm²	A_{st} %	Basic τ_c MPa	CompFactor δ Unitless	DepthFactr k Unitless	Strengh Factor Unitless
Major Shear(V_2)	6920	1.293	748.545	1.5	1	1
Minor Shear(V3)	6845	1.307	751.378	1.5	1	1

Shear Rebar Design

	Design V_u kN	Stress τ MPa	Concrete τ_{cd} MPa	Limit $\tau_{c,max}$ MPa	Rebar Area A_{sv} /s mm²/m
Major Shear(V_2)	153.3845	0.22	1.12	4	886.75
Minor Shear(V_3)	83.6511	0.12	1.13	4	1025.3

ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Column Section Design



Column Element Details Type: Ductile Frame (Joint Shear Details)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	C6	5810	C-800X925-M60-H	UDConS30	0	3650	0.6

Section Properties

b (mm)	h (mm)	dc (mm)	Cover (Torsion) (mm)
800	925	60	30

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
38729.83	60	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Additional Moment Reduction Factor k (IS 39.7.1.1)

A_g cm²	A_{sc} cm²	P_{uz} kN	P_b kN	P_u kN	k Unitless
7400	177.4	27296.3035	9244.9352	22977.9349	0.239227

Additional Moment (IS 39.7.1)

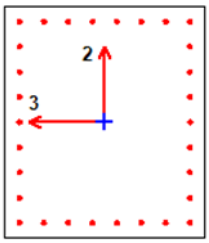
	Consider M_a	Length Factor	Section Depth (mm)	KL/Depth Ratio	KL/Depth Limit	KL/Depth Exceeded	M_a Moment (kN-m)
Major Bending (M_3)	Yes	0.795	925	2.18	12	No	0
Minor Bending (M_2)	Yes	0.795	800	2.506	12	No	0

Rules: Joint shear stress ratio is only determined for a station
a) if the station has a beam-column joint (top of the column),
b) if the frame is a ductile or intermediate moment resisting frame,
c) if the column above is a concrete column when it exists,
d) if all the beams framing into the column are concrete beams
e) if the connecting member design results are available, and
f) if the load combo involves seismic load.

SETU INFRASTRUCTURE

ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Column Section Design



Column Element Details Type: Ductile Frame (Beam/Column Capacity Ratio)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	C6	5810	C-800X925-M60-H	UDConS30	0	3650	0.6

Section Properties

b (mm)	h (mm)	dc (mm)	Cover (Torsion) (mm)
800	925	60	30

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
38729.83	60	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Additional Moment Reduction Factor k (IS 39.7.1.1)

A_g cm²	A_{sc} cm²	P_{uz} kN	P_b kN	P_u kN	k Unitless
7400	177.4	27296.3035	9244.9352	22977.9349	0.239227

Additional Moment (IS 39.7.1)

	Consider M_a	Length Factor	Section Depth (mm)	KL/Depth Ratio	KL/Depth Limit	KL/Depth Exceeded	M_a Moment (kN-m)
Major Bending (M_3)	Yes	0.795	925	2.18	12	No	0
Minor Bending (M_2)	Yes	0.795	800	2.506	12	No	0

Rules: Joint shear stress ratio is only determined for a station
a) if the station has a beam-column joint (top of the column),
b) if the frame is a ductile or intermediate moment resisting frame,
c) if the column above is a concrete column when it exists,
d) if all the beams framing into the column are concrete beams
e) if the connecting member design results are available, and
f) if the load combo involves seismic load.

Dimensions of the Beams At the Joint

	Beam Section	Concrete f_{ck} MPa	Rebar f_y MPa	Width b mm	Depth h mm	Rebar A_s (Top) cm²	Rebar A_s (Bot) cm²
Beam 1	B-300X600-M45	45	550	300	600	5.6	4.9
Beam 2	B-375X750-M45	45	550	375	750	7.7	7.7
Beam 3	B-375X600-M45	45	550	375	600	6.8	3.4

Beam Capacities and Angles Dimensions of the Beams At the Joint

	Capacity +veM kN-m	Capacity -veM kN-m	Cos(Angle) Ratio	Sin(Angle) Ratio
Beam 1	126.2377	145.2761	1	0
Beam 2	254.6193	254.6193	-1	0
Beam 3	88.4478	174.4904	0	-1

Column Moment Capacities About the Axes of the Column Below Beam Capacities and Angles Dimensions of the Beams At the Joint

	AxialForce (Major)Pu kN	Capacity +veMmajor kN-m	Capacity -veMmajor kN-m	AxialForce (Minor)Pu kN	Capacity +veMminor kN-m	Capacity -veMminor kN-m
Column Above	0	0	0	0	0	0
Column Below	0	0	0	0	0	0

Sum of Beam and Column Capacities About the Axes of the Column Below

	SumBeamCap Major kN-m	SumColCap Major kN-m	SumBeamCap Minor kN-m	SumColCap Minor kN-m
Clockwise	0	0	0	0
CounterClockwise	0	0	0	0

Beam-Column Flexural Capacity Ratios

	(1.4)B/C Major	(1.4)B/C Minor	Col/Beam Major	Col/Beam Minor
Clockwise	0.000	0.000	N/N	N/N
CounterClockwise	0	0	N/N	N/N

Notes:
N/A: Not Applicable
N/C: Not Calculated
N/N: Not Needed

ETABS Concrete Frame Design

IS 456:2000 + IS

Column Element Details

Level	Element	Unique Name	Section ID	Length (mm)	LLRF
01-BS 3 SL	C6	5810	C-800X925-M60-H	3650	0.6

Section Properties

b (mm)	h (mm)	dc (mm)	Cover (Torsion) (mm)
800	925	60	30

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
38729.83	60	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Longitudinal Reinforcement Design for P_u - M_{u2} - M_{u3} Interaction

Column End	Rebar Area mm²	Rebar %
Top	17583	2.38
Bottom	17891	2.42

Design Axial Force & Biaxial Moment for P_u - M_{u2} - M_{u3} Interaction

Column End	Design P_u kN	Design M_{u2} kN-m	Design M_{u3} kN-m	Station Loc mm	Controlling Combo
	kN	kN-m	kN-m	mm	
Top	22897.4836	743.405	12.7656	2900	UDConS30
Bottom	22977.9349	746.017	3.6109	0	UDConS30

Shear Reinforcement for Major Shear, V_{u2}

Column End	Rebar A_{sv} /s mm²/m	Design V_{u2} kN	Station Loc mm	Controlling Combo
Top	886.75	68.3115	2900	DL-WT+TL
Bottom	886.75	68.3115	0	DL-WT+TL

Shear Reinforcement for Minor Shear, V_{u3}

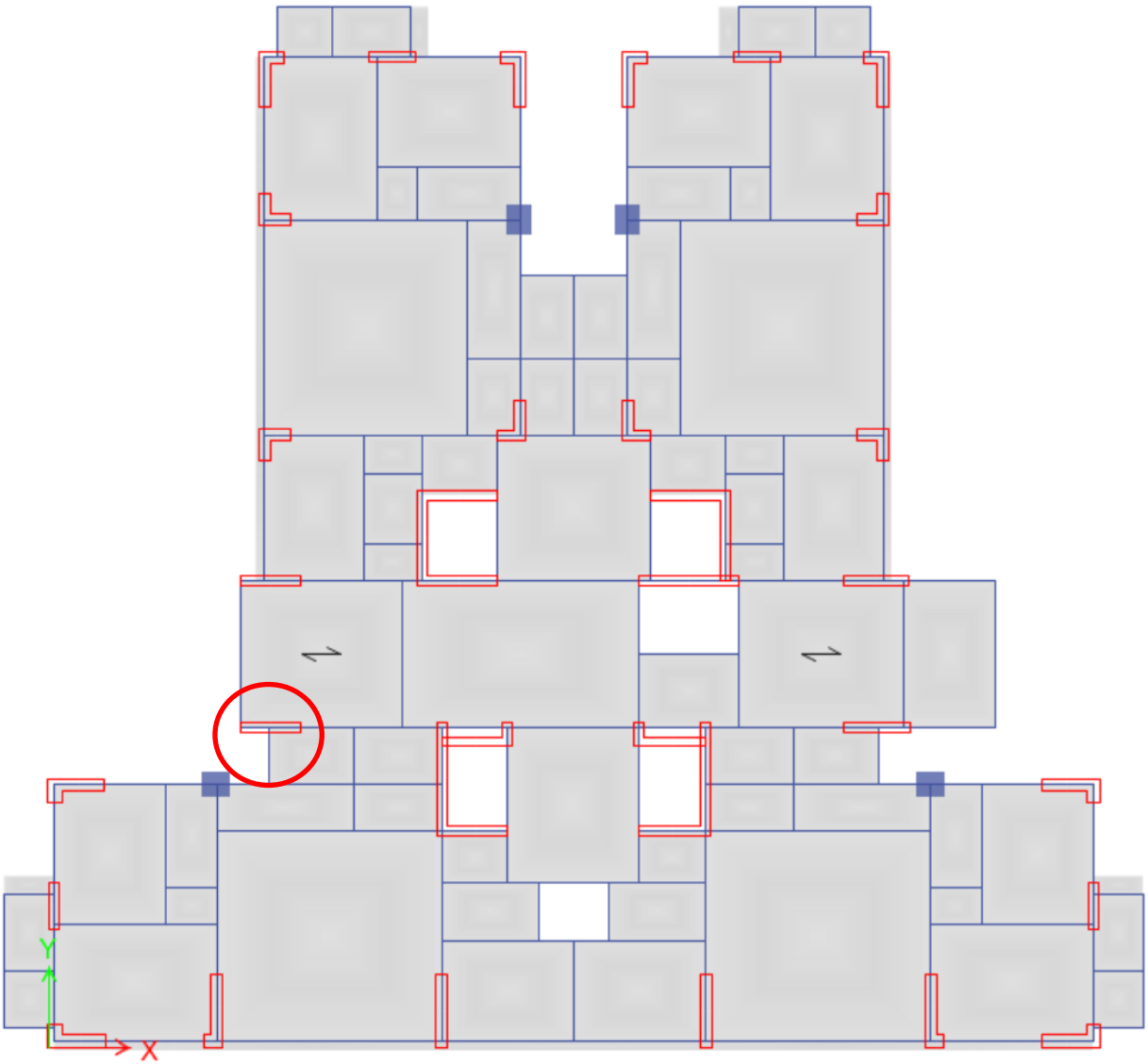
Column End	Rebar A_{sv} /s mm²/m	Design V_{u3} kN	Station Loc mm	Controlling Combo
Top	1025.3	46.2523	2900	DL-WT+TL
Bottom	1025.3	46.2523	0	DL-WT+TL

Joint Shear Check/Design

	Joint Shear Ratio	Shear $V_{u,Tot}$ kN	Shear V_c kN	Joint Area mm²	Controlling Combo
Major(V_{u2})	0.097	529.8439	5463.3271	705313	UDConS27
Minor(V_{u3})	0.097	275.259	4802.4993	620000	UDConS27

14. RCC WALLS DESIGN

BLOCK – B
Wall considered for design



SETU
INFRASTRUCTURE

ETABS Shear Wall Design

IS 456:2000 Pier Design

IS 456:2000 Pier Design

Pier Details

Story ID	Pier ID	Centroid X (mm)	Centroid Y (mm)	Length (mm)	Thickness (mm)	LLRF
01-BS 3 SL	P15	7043.7	10159.9	1917.5	375	0.6

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
38729.83	60	1	550	500

Design Code Parameters

Γ_S	Γ_C	IP_{MAX}	IP_{MIN}	P_{MAX}	MinEcc Major	MinEcc Minor
1.15	1.5	0.04	0.0025	0.8	Yes	Yes

Pier Leg Location, Length and Thickness

Station Location	ID	Left X_1 mm	Left Y_1 mm	Right X_2 mm	Right Y_2 mm	Length mm	Thickness mm
Top	Leg 1	6085	10159.9	8002.5	10160	1917.5	375
Bottom	Leg 1	6085	10159.9	8002.5	10160	1917.5	375

Flexural Design for P_u, M_{u2} and M_{u3}

Station Location	Required Rebar Area (mm²)	Required Reinf Ratio	Current Reinf Ratio	Flexural Combo	P_u kN	M_{u2} kN-m	M_{u3} kN-m	Pier A_g mm²
Top	2538	0.0035	0.0074	UDWalS30	16328.2012	326.564	160.4417	719062
Bottom	4730	0.0066	0.0074	UDWalS29	15223.0638	-304.4613	-2656.2625	719062

Shear Design

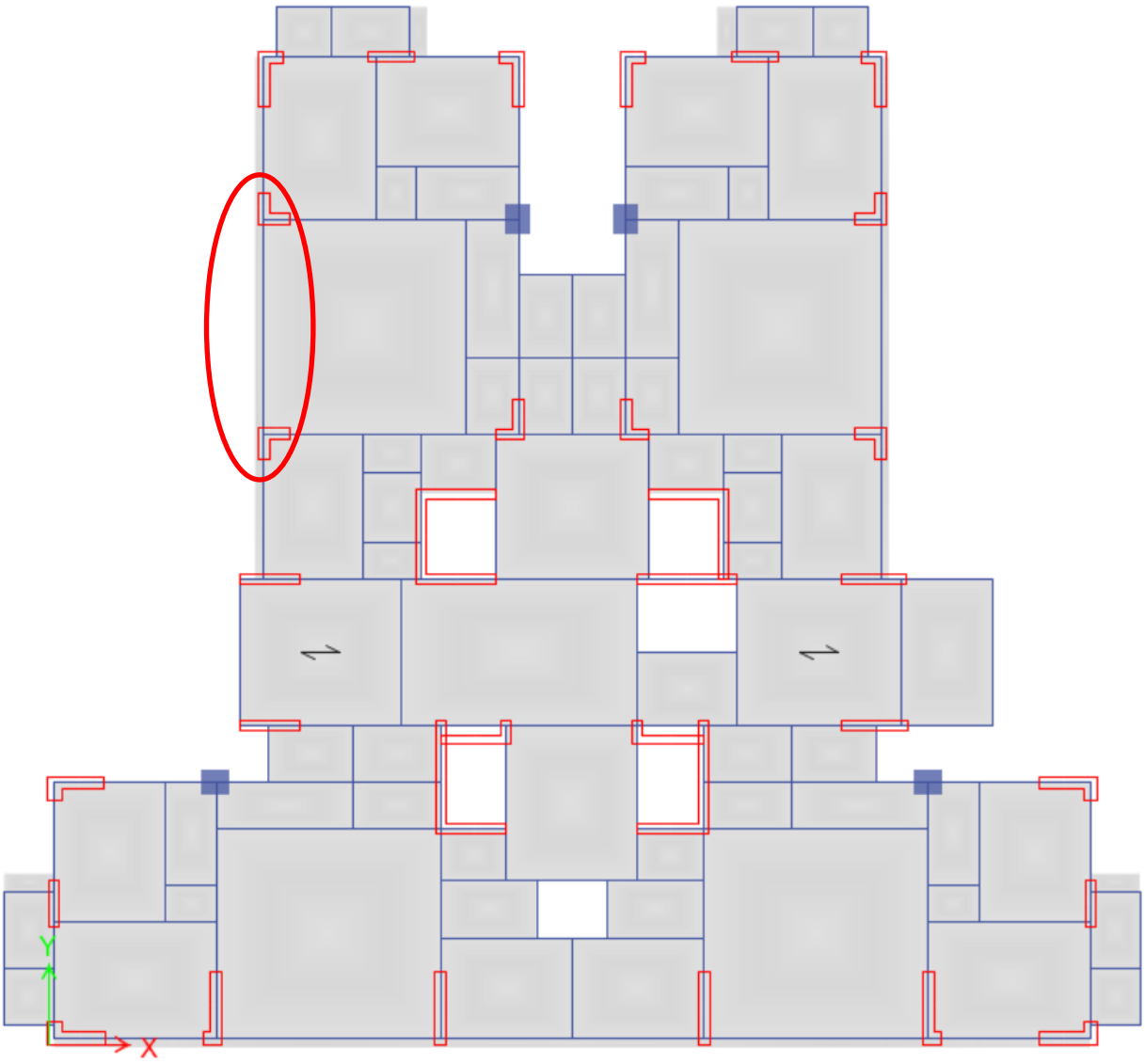
Station Location	ID	Rebar mm²/m	Shear Combo	P_u kN	M_u kN-m	V_u kN	V_c kN	$V_c + V_s$ kN
Top	Leg 1	937.5	UDWalS29	11082.504	1482.5166	-366.2972	277.1283	796.1039
Bottom	Leg 1	937.5	UDWalS29	11180.8477	2352.036	-366.3522	363.2872	882.2628

Boundary Element Check

Station Location	ID	Edge Length (mm)	Governing Combo	P_u kN	M_u kN-m	Stress Comp MPa	Stress Limit MPa
Top–Left	Leg 1	750	UDConS29	15124.6223	-1305.4828	26.71	12
Top–Right	Leg 1	750	UDConS29	16328.2012	160.4417	23.41	12
Bottom–Left	Leg 1	750	UDConS30	16426.6426	-46.6351	23.05	12
Botttom–Right	Leg 1	750	UDConS30	15223.0638	2352.036	31.41	12

15. RC BEAM DESIGN

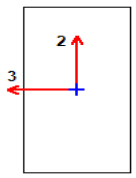
BLOCK – B
Beam considered for design.



SETU INFRASTRUCTURE

ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Beam Section Design



Beam Element Details Type: Ductile Frame (Summary)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	B97	5824	B-375X750-M45	UDConS30	7243.8	7668.8	1

Section Properties

b (mm)	h (mm)	b_f (mm)	d_s (mm)	d_{ct} (mm)	d_{cb} (mm)
375	750	375	0	45	45

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
33541.02	45	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Factored Forces and Moments

Factored M_{u3} kN-m	Factored T_u kN-m	Factored V_{u2} kN	Factored P_u kN
-27.0806	27.2465	134.8476	49.0744

Design Moments, M_{u3} & M_t

Factored Moment kN-m	Factored M_t kN-m	Positive Moment kN-m	Negative Moment kN-m
-27.0806	48.0821	21.0015	-313.3282

Design Moment and Flexural Reinforcement for Moment, M_{u3} & T_u

	Design -Moment kN-m	Design +Moment kN-m	-Moment Rebar mm²	+Moment Rebar mm²	Minimum Rebar mm²	Required Rebar mm²
Top (+2 Axis)	-313.3282		974	0	974	774
Bottom (-2 Axis)		21.0015	774	62	0	774

Shear Force and Reinforcement for Shear, V_{u2} & T_u

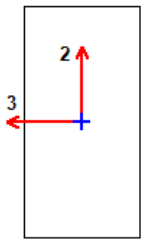
Shear V_e kN	Shear V_c kN	Shear V_s kN	Shear V_p kN	Rebar A_{sv} /s mm²/m
199.033	0	315.2849	98.829	1239.26

Torsion Force and Torsion Reinforcement for Torsion, T_u & V_{U2}

T_u kN-m	V_u kN	Core b_1 mm	Core d_1 mm	Rebar A_{svt} /s mm²/m
27.2465	134.8476	305	680	583.85

ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Beam Section Design



Beam Element Details Type: Ductile Frame (Flexural Details)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	B97	5824	B-375X750-M45	UDConS30	7243.8	7668.8	1

Section Properties

b (mm)	h (mm)	b_f (mm)	d_s (mm)	d_{ct} (mm)	d_{cb} (mm)
375	750	375	0	45	45

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
33541.02	45	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

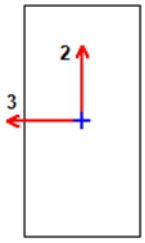
Flexural Reinforcement for Moment, M_{u3} & T_u

	Required Rebar mm²	+Moment Rebar mm²	-Moment Rebar mm²	Regular Minimum Rebar mm²	Seismic Minimum Rebar mm²
Top (+2 Axis)	974	0	974	774	774
Bottom (-2 Axis)	774	62	0	774	774

Design Moments, M_{u3} & T_u

Design +Moment kN-m	Design -Moment kN-m	Factored M_{u3} kN-m	Torsion T_u kN-m	Special M_t kN-m
21.0015	-313.3282	-27.0806	27.2465	48.0821

SETU INFRASTRUCTURE



IS

ETABS Concrete Frame Design

456:2000 + IS 13920:2016 Beam Section Design

Beam Element Details Type: Ductile Frame (Shear Details)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
01-BS 3 SL	B97	5824	B-375X750-M45	UDConS30	7243.8	7668.8	1

Section Properties

b (mm)	h (mm)	b_f (mm)	d_s (mm)	d_{ct} (mm)	d_{cb} (mm)
375	750	375	0	45	45

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
33541.02	45	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Shear/Torsion Design for V_{u2} & T_u

Rbar A_{sv} /s mm²/m	Rbar A_{svt} /s mm²/m	Design V_{u2} kN	Design T_u kN-m	Design P_u kN
1239.26	583.85	199.033	27.2465	0

Design Forces

Factored V_{u2} kN	Factored T_u kN-m	Equivalent V_e kN	Capacity V_p kN	Gravity V_g kN
134.8476	21.4201	315.2849	98.829	100.204

Capacity Moment

	Long.Rebar A_s (Bottom) mm²	Long.Rebar A_s (Top) mm²	Capacity Moment M_{pos} kN-m	Capacity Moment M_{neg} kN-m
Left	774	874	254.6193	286.7349
Right	774	774	254.6193	254.6193

Design Basis

Design V_{u2} kN	Conc.Area A_c cm²	Area A_g cm²	Tensn.Reinf A_{st} mm²	Strength f_{ys} MPa	Strength f_{ck} MPa	LtWt.Reduc Factor Unitless
199.033	2643.8	2812.5	974	415	40	1

Concrete Capacity

Conc.Area A_c cm²	Tensn.Rein A_{st} mm²	A_{st} %	Basic τ_c MPa	Strength f_{ys} MPa	CompFactor δ Unitless	DepthFactr k Unitless	Strengh Factor Unitless
2643.8	974	0.368	0.44	415	1.019	1	1

Shear Rebar Design

Design V_e kN	Stress τ MPa	Concrete τ_{cd} MPa	Limit $\tau_{c.max}$ MPa	Rebar Area A_{sv} /s mm²/m	Shear V_c kN	Shear V_s kN	Shear V_n kN
315.2849	1.19	0	4	1239.26	0	315.2849	315.2849

Torsion Capacity

Rebar A_{svt} /s mm²/m	Torsion T_u kN-m	Shear V_u kN	Core b_1 mm	Core d_1 mm
583.85	27.2465	134.8476	305	680

ETABS Concrete Frame Design

IS 456:2000 + IS 13920:2016 Beam Section Design (Envelope)

Beam Element Details

Level	Element	Unique Name	Section ID	Length (mm)	LLRF
01-BS 3 SL	B97	5824	B-375X750-M45	7668.8	1

Section Properties

b (mm)	h (mm)	b_f (mm)	d_s (mm)	d_{ct} (mm)	d_{cb} (mm)
375	750	375	0	45	45

Material Properties

E_c (MPa)	f_{ck} (MPa)	Lt.Wt Factor (Unitless)	f_y (MPa)	f_{ys} (MPa)
33541.02	45	1	550	415

Design Code Parameters

γ_c	γ_s
1.5	1.15

Flexural Reinforcement for Major Axis Moment, M_{u3}

	End-I Rebar Area mm²	End-I Rebar %	Middle Rebar Area mm²	Middle Rebar %	End-J Rebar Area mm²	End-J Rebar %
Top (+2 Axis)	905	0.32	774	0.28	974	0.35
Bot (-2 Axis)	774	0.28	774	0.28	774	0.28

Flexural Design Moment, M_{u3}

	End-I Design M_u kN-m	End-I Station Loc mm	Middle Design M_u kN-m	Middle Station Loc mm	End-J Design M_u kN-m	End-J Station Loc mm
Top (+2 Axis)	-46.4267	406.2	-49.8564	5534.4	-313.3282	7243.8
Combo	UDConS29		DL-WT+TL		UDConS30	
Bot (-2 Axis)	0	1688.3	58.5266	5534.4	0	7668.8
Combo	DL-WT+TL		DL-WT+TL		DL-WT+TL	

Shear Reinforcement for Major Shear, V_{u2}

End-I Rebar A_{sv} /s mm²/m	Middle Rebar A_{sv} /s mm²/m	End-J Rebar A_{sv} /s mm²/m
1292.71	1186.47	1309.56

Design Shear Force for Major Shear, V_{u2}

End-I Design V_u kN	End-I Station Loc mm	Middle Design V_u kN	Middle Station Loc mm	End-J Design V_u kN	End-J Station Loc mm
194.3182	406.2	183.1376	5534.4	199.5523	7243.8
UDConS27		UDConS27		UDConS27	

Torsion Reinforcement

Shear Rebar A_{svt} /s mm²/m
661.79

Design Torsion Force

Design T_u kN-m	Station Loc mm	Design T_u kN-m	Station Loc mm
34.171	7243.8	34.3366	1260.9
UDConS2		UDConS2	

16. PUNCHING CHECK

BLOCK A

D	2000	mm		FCK	M35	N/mm2	Ast Pro.	4900	sq.mm/mt
Tc	0.37	N/mm2	Tcmax		3.70	N/mm2	PERMI. TAU	1.48	N/mm2

						PUNCHING CHECK			ONE WAY SHEAR		
Story	Pier	Case	P	B	L	AREA	TAU	CHECK	Tv	req	Check
			kN				N/mm2		N/mm2		
01-BS 3 SL	P01	S1	17130	450	1600	23595000	0.73	OK	1.60	YES	OK
01-BS 3 SL	P01	S2	18966	450	1600	23595000	0.80	OK	1.77	YES	OK
01-BS 3 SL	P01	S3	12485	450	1600	23595000	0.53	OK	1.16	YES	OK
01-BS 3 SL	P01	S4	17861	450	1600	23595000	0.76	OK	1.67	YES	OK
01-BS 3 SL	P01	S5	16466	450	1600	23595000	0.70	OK	1.54	YES	OK
01-BS 3 SL	P01	S6	13879	450	1600	23595000	0.59	OK	1.29	YES	OK
01-BS 3 SL	P01	S7	13770	450	1600	23595000	0.58	OK	1.28	YES	OK
01-BS 3 SL	P01	S8	20490	450	1600	23595000	0.87	OK	1.91	YES	OK
01-BS 3 SL	P01	S9	18747	450	1600	23595000	0.79	OK	1.75	YES	OK
01-BS 3 SL	P01	S10	15513	450	1600	23595000	0.66	OK	1.45	YES	OK
01-BS 3 SL	P01	S11	6918	450	1600	23595000	0.29	OK	0.65	YES	OK
01-BS 3 SL	P01	S12	13638	450	1600	23595000	0.58	OK	1.27	YES	OK
01-BS 3 SL	P01	S13	11895	450	1600	23595000	0.50	OK	1.11	YES	OK
01-BS 3 SL	P01	S14	8661	450	1600	23595000	0.37	OK	0.81	YES	OK
01-BS 3 SL	P01	S27	21286	450	1600	23595000	0.90	OK	1.98	YES	OK
01-BS 3 SL	P01	S28	20223	450	1600	23595000	0.86	OK	1.89	YES	OK
01-BS 3 SL	P01	S29	24772	450	1600	23595000	1.05	OK	2.31	YES	OK
01-BS 3 SL	P01	S30	23442	450	1600	23595000	0.99	OK	2.19	YES	OK
01-BS 3 SL	P01	S31	17920	450	1600	23595000	0.76	OK	1.67	YES	OK
01-BS 3 SL	P01	S32	16590	450	1600	23595000	0.70	OK	1.55	YES	OK
01-BS 3 SL	P02	S1	10733	450	1500	23205000	0.46	OK	1.02	YES	OK
01-BS 3 SL	P02	S2	11902	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P02	S3	10963	450	1500	23205000	0.47	OK	1.04	YES	OK
01-BS 3 SL	P02	S4	8081	450	1500	23205000	0.35	OK	0.77	YES	OK
01-BS 3 SL	P02	S5	11854	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P02	S6	7189	450	1500	23205000	0.31	OK	0.68	YES	OK
01-BS 3 SL	P02	S7	12535	450	1500	23205000	0.54	OK	1.19	YES	OK
01-BS 3 SL	P02	S8	8932	450	1500	23205000	0.38	OK	0.85	YES	OK
01-BS 3 SL	P02	S9	13649	450	1500	23205000	0.59	OK	1.30	YES	OK
01-BS 3 SL	P02	S10	7818	450	1500	23205000	0.34	OK	0.74	YES	OK
01-BS 3 SL	P02	S11	8241	450	1500	23205000	0.36	OK	0.78	YES	OK
01-BS 3 SL	P02	S12	4638	450	1500	23205000	0.20	OK	0.44	YES	OK
01-BS 3 SL	P02	S13	9356	450	1500	23205000	0.40	OK	0.89	YES	OK
01-BS 3 SL	P02	S14	3524	450	1500	23205000	0.15	OK	0.33	YES	OK
01-BS 3 SL	P02	S27	10384	450	1500	23205000	0.45	OK	0.99	YES	OK
01-BS 3 SL	P02	S28	12525	450	1500	23205000	0.54	OK	1.19	YES	OK
01-BS 3 SL	P02	S29	11811	450	1500	23205000	0.51	OK	1.12	YES	OK
01-BS 3 SL	P02	S30	14487	450	1500	23205000	0.62	OK	1.38	YES	OK
01-BS 3 SL	P02	S31	7518	450	1500	23205000	0.32	OK	0.71	YES	OK
01-BS 3 SL	P02	S32	10194	450	1500	23205000	0.44	OK	0.97	YES	OK
01-BS 3 SL	P03	S1	15913	450	625	19792500	0.80	OK	1.80	YES	OK

01-BS 3 SL	P03	S2	17597	450	625	19792500	0.89	OK	1.99	YES	OK
01-BS 3 SL	P03	S3	19119	450	625	19792500	0.97	OK	2.17	YES	OK
01-BS 3 SL	P03	S4	9036	450	625	19792500	0.46	OK	1.02	YES	OK
01-BS 3 SL	P03	S5	18907	450	625	19792500	0.96	OK	2.14	YES	OK
01-BS 3 SL	P03	S6	9248	450	625	19792500	0.47	OK	1.05	YES	OK
01-BS 3 SL	P03	S7	22215	450	625	19792500	1.12	OK	2.52	YES	OK
01-BS 3 SL	P03	S8	9612	450	625	19792500	0.49	OK	1.09	YES	OK
01-BS 3 SL	P03	S9	21950	450	625	19792500	1.11	OK	2.49	YES	OK
01-BS 3 SL	P03	S10	9876	450	625	19792500	0.50	OK	1.12	YES	OK
01-BS 3 SL	P03	S11	15850	450	625	19792500	0.80	OK	1.80	YES	OK
01-BS 3 SL	P03	S12	3246	450	625	19792500	0.16	OK	0.37	YES	OK
01-BS 3 SL	P03	S13	15585	450	625	19792500	0.79	OK	1.77	YES	OK
01-BS 3 SL	P03	S14	3511	450	625	19792500	0.18	OK	0.40	YES	OK
01-BS 3 SL	P03	S27	17300	450	625	19792500	0.87	OK	1.96	YES	OK
01-BS 3 SL	P03	S28	18522	450	625	19792500	0.94	OK	2.10	YES	OK
01-BS 3 SL	P03	S29	19942	450	625	19792500	1.01	OK	2.26	YES	OK
01-BS 3 SL	P03	S30	21469	450	625	19792500	1.08	OK	2.43	YES	OK
01-BS 3 SL	P03	S31	13576	450	625	19792500	0.69	OK	1.54	YES	OK
01-BS 3 SL	P03	S32	15104	450	625	19792500	0.76	OK	1.71	YES	OK
01-BS 3 SL	P04	S1	16000	450	1600	23595000	0.68	OK	1.49	YES	OK
01-BS 3 SL	P04	S2	17702	450	1600	23595000	0.75	OK	1.65	YES	OK
01-BS 3 SL	P04	S3	13501	450	1600	23595000	0.57	OK	1.26	YES	OK
01-BS 3 SL	P04	S4	14822	450	1600	23595000	0.63	OK	1.38	YES	OK
01-BS 3 SL	P04	S5	16107	450	1600	23595000	0.68	OK	1.50	YES	OK
01-BS 3 SL	P04	S6	12216	450	1600	23595000	0.52	OK	1.14	YES	OK
01-BS 3 SL	P04	S7	15174	450	1600	23595000	0.64	OK	1.41	YES	OK
01-BS 3 SL	P04	S8	16826	450	1600	23595000	0.71	OK	1.57	YES	OK
01-BS 3 SL	P04	S9	18432	450	1600	23595000	0.78	OK	1.72	YES	OK
01-BS 3 SL	P04	S10	13569	450	1600	23595000	0.58	OK	1.27	YES	OK
01-BS 3 SL	P04	S11	8774	450	1600	23595000	0.37	OK	0.82	YES	OK
01-BS 3 SL	P04	S12	10426	450	1600	23595000	0.44	OK	0.97	YES	OK
01-BS 3 SL	P04	S13	12032	450	1600	23595000	0.51	OK	1.12	YES	OK
01-BS 3 SL	P04	S14	7168	450	1600	23595000	0.30	OK	0.67	YES	OK
01-BS 3 SL	P04	S27	17393	450	1600	23595000	0.74	OK	1.62	YES	OK
01-BS 3 SL	P04	S28	18748	450	1600	23595000	0.79	OK	1.75	YES	OK
01-BS 3 SL	P04	S29	20040	450	1600	23595000	0.85	OK	1.87	YES	OK
01-BS 3 SL	P04	S30	21734	450	1600	23595000	0.92	OK	2.03	YES	OK
01-BS 3 SL	P04	S31	13640	450	1600	23595000	0.58	OK	1.27	YES	OK
01-BS 3 SL	P04	S32	15333	450	1600	23595000	0.65	OK	1.43	YES	OK
01-BS 3 SL	P05	S1	10732	450	1500	23205000	0.46	OK	1.02	YES	OK
01-BS 3 SL	P05	S2	11900	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P05	S3	11151	450	1500	23205000	0.48	OK	1.06	YES	OK
01-BS 3 SL	P05	S4	7889	450	1500	23205000	0.34	OK	0.75	YES	OK
01-BS 3 SL	P05	S5	11982	450	1500	23205000	0.52	OK	1.14	YES	OK
01-BS 3 SL	P05	S6	7059	450	1500	23205000	0.30	OK	0.67	YES	OK
01-BS 3 SL	P05	S7	12771	450	1500	23205000	0.55	OK	1.21	YES	OK
01-BS 3 SL	P05	S8	8693	450	1500	23205000	0.37	OK	0.83	YES	OK
01-BS 3 SL	P05	S9	13809	450	1500	23205000	0.60	OK	1.31	YES	OK
01-BS 3 SL	P05	S10	7655	450	1500	23205000	0.33	OK	0.73	YES	OK

01-BS 3 SL	P05	S11	8478	450	1500	23205000	0.37	OK	0.81	YES	OK
01-BS 3 SL	P05	S12	4400	450	1500	23205000	0.19	OK	0.42	YES	OK
01-BS 3 SL	P05	S13	9516	450	1500	23205000	0.41	OK	0.90	YES	OK
01-BS 3 SL	P05	S14	3362	450	1500	23205000	0.14	OK	0.32	YES	OK
01-BS 3 SL	P05	S27	10360	450	1500	23205000	0.45	OK	0.98	YES	OK
01-BS 3 SL	P05	S28	12572	450	1500	23205000	0.54	OK	1.19	YES	OK
01-BS 3 SL	P05	S29	11781	450	1500	23205000	0.51	OK	1.12	YES	OK
01-BS 3 SL	P05	S30	14546	450	1500	23205000	0.63	OK	1.38	YES	OK
01-BS 3 SL	P05	S31	7489	450	1500	23205000	0.32	OK	0.71	YES	OK
01-BS 3 SL	P05	S32	10254	450	1500	23205000	0.44	OK	0.97	YES	OK
01-BS 3 SL	P06	S1	17071	450	625	19792500	0.86	OK	1.93	YES	OK
01-BS 3 SL	P06	S2	18890	450	625	19792500	0.95	OK	2.14	YES	OK
01-BS 3 SL	P06	S3	22739	450	625	19792500	1.15	OK	2.58	YES	OK
01-BS 3 SL	P06	S4	7485	450	625	19792500	0.38	OK	0.85	YES	OK
01-BS 3 SL	P06	S5	21525	450	625	19792500	1.09	OK	2.44	YES	OK
01-BS 3 SL	P06	S6	8699	450	625	19792500	0.44	OK	0.99	YES	OK
01-BS 3 SL	P06	S7	26605	450	625	19792500	1.34	OK	3.02	YES	OK
01-BS 3 SL	P06	S8	7537	450	625	19792500	0.38	OK	0.85	YES	OK
01-BS 3 SL	P06	S9	25087	450	625	19792500	1.27	OK	2.84	YES	OK
01-BS 3 SL	P06	S10	9055	450	625	19792500	0.46	OK	1.03	YES	OK
01-BS 3 SL	P06	S11	19776	450	625	19792500	1.00	OK	2.24	YES	OK
01-BS 3 SL	P06	S12	709	450	625	19792500	0.04	OK	0.08	YES	OK
01-BS 3 SL	P06	S13	18259	450	625	19792500	0.92	OK	2.07	YES	OK
01-BS 3 SL	P06	S14	2226	450	625	19792500	0.11	OK	0.25	YES	OK
01-BS 3 SL	P06	S27	21204	450	625	19792500	1.07	OK	2.40	YES	OK
01-BS 3 SL	P06	S28	19962	450	625	19792500	1.01	OK	2.26	YES	OK
01-BS 3 SL	P06	S29	24686	450	625	19792500	1.25	OK	2.80	YES	OK
01-BS 3 SL	P06	S30	23132	450	625	19792500	1.17	OK	2.62	YES	OK
01-BS 3 SL	P06	S31	17858	450	625	19792500	0.90	OK	2.02	YES	OK
01-BS 3 SL	P06	S32	16304	450	625	19792500	0.82	OK	1.85	YES	OK
01-BS 3 SL	P07	S1	15317	450	850	20670000	0.74	OK	1.65	YES	OK
01-BS 3 SL	P07	S2	17260	450	850	20670000	0.84	OK	1.86	YES	OK
01-BS 3 SL	P07	S3	10154	450	850	20670000	0.49	OK	1.10	YES	OK
01-BS 3 SL	P07	S4	17462	450	850	20670000	0.84	OK	1.89	YES	OK
01-BS 3 SL	P07	S5	10674	450	850	20670000	0.52	OK	1.15	YES	OK
01-BS 3 SL	P07	S6	16943	450	850	20670000	0.82	OK	1.83	YES	OK
01-BS 3 SL	P07	S7	10749	450	850	20670000	0.52	OK	1.16	YES	OK
01-BS 3 SL	P07	S8	19884	450	850	20670000	0.96	OK	2.15	YES	OK
01-BS 3 SL	P07	S9	11399	450	850	20670000	0.55	OK	1.23	YES	OK
01-BS 3 SL	P07	S10	19235	450	850	20670000	0.93	OK	2.08	YES	OK
01-BS 3 SL	P07	S11	4623	450	850	20670000	0.22	OK	0.50	YES	OK
01-BS 3 SL	P07	S12	13758	450	850	20670000	0.67	OK	1.49	YES	OK
01-BS 3 SL	P07	S13	5272	450	850	20670000	0.26	OK	0.57	YES	OK
01-BS 3 SL	P07	S14	13108	450	850	20670000	0.63	OK	1.42	YES	OK
01-BS 3 SL	P07	S27	16639	450	850	20670000	0.80	OK	1.80	YES	OK
01-BS 3 SL	P07	S28	16449	450	850	20670000	0.80	OK	1.78	YES	OK
01-BS 3 SL	P07	S29	18855	450	850	20670000	0.91	OK	2.04	YES	OK
01-BS 3 SL	P07	S30	18618	450	850	20670000	0.90	OK	2.01	YES	OK
01-BS 3 SL	P07	S31	12728	450	850	20670000	0.62	OK	1.37	YES	OK

01-BS 3 SL	P07	S32	12491	450	850	20670000	0.60	OK	1.35	YES	OK
01-BS 3 SL	P08	S1	15276	450	812.5	20523750	0.74	OK	1.66	YES	OK
01-BS 3 SL	P08	S2	17198	450	812.5	20523750	0.84	OK	1.87	YES	OK
01-BS 3 SL	P08	S3	15117	450	812.5	20523750	0.74	OK	1.65	YES	OK
01-BS 3 SL	P08	S4	12401	450	812.5	20523750	0.60	OK	1.35	YES	OK
01-BS 3 SL	P08	S5	13169	450	812.5	20523750	0.64	OK	1.43	YES	OK
01-BS 3 SL	P08	S6	14348	450	812.5	20523750	0.70	OK	1.56	YES	OK
01-BS 3 SL	P08	S7	16974	450	812.5	20523750	0.83	OK	1.85	YES	OK
01-BS 3 SL	P08	S8	13579	450	812.5	20523750	0.66	OK	1.48	YES	OK
01-BS 3 SL	P08	S9	14540	450	812.5	20523750	0.71	OK	1.58	YES	OK
01-BS 3 SL	P08	S10	16013	450	812.5	20523750	0.78	OK	1.74	YES	OK
01-BS 3 SL	P08	S11	10863	450	812.5	20523750	0.53	OK	1.18	YES	OK
01-BS 3 SL	P08	S12	7469	450	812.5	20523750	0.36	OK	0.81	YES	OK
01-BS 3 SL	P08	S13	8429	450	812.5	20523750	0.41	OK	0.92	YES	OK
01-BS 3 SL	P08	S14	9903	450	812.5	20523750	0.48	OK	1.08	YES	OK
01-BS 3 SL	P08	S27	16618	450	812.5	20523750	0.81	OK	1.81	YES	OK
01-BS 3 SL	P08	S28	16587	450	812.5	20523750	0.81	OK	1.81	YES	OK
01-BS 3 SL	P08	S29	18850	450	812.5	20523750	0.92	OK	2.05	YES	OK
01-BS 3 SL	P08	S30	18812	450	812.5	20523750	0.92	OK	2.05	YES	OK
01-BS 3 SL	P08	S31	12740	450	812.5	20523750	0.62	OK	1.39	YES	OK
01-BS 3 SL	P08	S32	12702	450	812.5	20523750	0.62	OK	1.38	YES	OK
01-BS 3 SL	P09	S1	16314	450	812.5	20523750	0.79	OK	1.78	YES	OK
01-BS 3 SL	P09	S2	18486	450	812.5	20523750	0.90	OK	2.01	YES	OK
01-BS 3 SL	P09	S3	12259	450	812.5	20523750	0.60	OK	1.33	YES	OK
01-BS 3 SL	P09	S4	17319	450	812.5	20523750	0.84	OK	1.88	YES	OK
01-BS 3 SL	P09	S5	13379	450	812.5	20523750	0.65	OK	1.46	YES	OK
01-BS 3 SL	P09	S6	16199	450	812.5	20523750	0.79	OK	1.76	YES	OK
01-BS 3 SL	P09	S7	13151	450	812.5	20523750	0.64	OK	1.43	YES	OK
01-BS 3 SL	P09	S8	19476	450	812.5	20523750	0.95	OK	2.12	YES	OK
01-BS 3 SL	P09	S9	14550	450	812.5	20523750	0.71	OK	1.58	YES	OK
01-BS 3 SL	P09	S10	18077	450	812.5	20523750	0.88	OK	1.97	YES	OK
01-BS 3 SL	P09	S11	6626	450	812.5	20523750	0.32	OK	0.72	YES	OK
01-BS 3 SL	P09	S12	12951	450	812.5	20523750	0.63	OK	1.41	YES	OK
01-BS 3 SL	P09	S13	8025	450	812.5	20523750	0.39	OK	0.87	YES	OK
01-BS 3 SL	P09	S14	11551	450	812.5	20523750	0.56	OK	1.26	YES	OK
01-BS 3 SL	P09	S27	18050	450	812.5	20523750	0.88	OK	1.96	YES	OK
01-BS 3 SL	P09	S28	15453	450	812.5	20523750	0.75	OK	1.68	YES	OK
01-BS 3 SL	P09	S29	20390	450	812.5	20523750	0.99	OK	2.22	YES	OK
01-BS 3 SL	P09	S30	17143	450	812.5	20523750	0.84	OK	1.87	YES	OK
01-BS 3 SL	P09	S31	13864	450	812.5	20523750	0.68	OK	1.51	YES	OK
01-BS 3 SL	P09	S32	10618	450	812.5	20523750	0.52	OK	1.16	YES	OK
01-BS 3 SL	P10	S1	17133	450	1125	21742500	0.79	OK	1.75	YES	OK
01-BS 3 SL	P10	S2	19463	450	1125	21742500	0.90	OK	1.99	YES	OK
01-BS 3 SL	P10	S3	16501	450	1125	21742500	0.76	OK	1.68	YES	OK
01-BS 3 SL	P10	S4	14640	450	1125	21742500	0.67	OK	1.49	YES	OK
01-BS 3 SL	P10	S5	17284	450	1125	21742500	0.79	OK	1.76	YES	OK
01-BS 3 SL	P10	S6	13856	450	1125	21742500	0.64	OK	1.41	YES	OK
01-BS 3 SL	P10	S7	18296	450	1125	21742500	0.84	OK	1.87	YES	OK
01-BS 3 SL	P10	S8	15970	450	1125	21742500	0.73	OK	1.63	YES	OK

01-BS 3 SL	P10	S9	19275	450	1125	21742500	0.89	OK	1.97	YES	OK
01-BS 3 SL	P10	S10	14991	450	1125	21742500	0.69	OK	1.53	YES	OK
01-BS 3 SL	P10	S11	11443	450	1125	21742500	0.53	OK	1.17	YES	OK
01-BS 3 SL	P10	S12	9117	450	1125	21742500	0.42	OK	0.93	YES	OK
01-BS 3 SL	P10	S13	12422	450	1125	21742500	0.57	OK	1.27	YES	OK
01-BS 3 SL	P10	S14	8138	450	1125	21742500	0.37	OK	0.83	YES	OK
01-BS 3 SL	P10	S27	16470	450	1125	21742500	0.76	OK	1.68	YES	OK
01-BS 3 SL	P10	S28	18042	450	1125	21742500	0.83	OK	1.84	YES	OK
01-BS 3 SL	P10	S29	18258	450	1125	21742500	0.84	OK	1.86	YES	OK
01-BS 3 SL	P10	S30	20222	450	1125	21742500	0.93	OK	2.06	YES	OK
01-BS 3 SL	P10	S31	11405	450	1125	21742500	0.52	OK	1.16	YES	OK
01-BS 3 SL	P10	S32	13369	450	1125	21742500	0.61	OK	1.36	YES	OK
01-BS 3 SL	P11	S1	17072	450	812.5	20523750	0.83	OK	1.86	YES	OK
01-BS 3 SL	P11	S2	19337	450	812.5	20523750	0.94	OK	2.10	YES	OK
01-BS 3 SL	P11	S3	16878	450	812.5	20523750	0.82	OK	1.84	YES	OK
01-BS 3 SL	P11	S4	14060	450	812.5	20523750	0.69	OK	1.53	YES	OK
01-BS 3 SL	P11	S5	17534	450	812.5	20523750	0.85	OK	1.91	YES	OK
01-BS 3 SL	P11	S6	13405	450	812.5	20523750	0.65	OK	1.46	YES	OK
01-BS 3 SL	P11	S7	18833	450	812.5	20523750	0.92	OK	2.05	YES	OK
01-BS 3 SL	P11	S8	15310	450	812.5	20523750	0.75	OK	1.67	YES	OK
01-BS 3 SL	P11	S9	19652	450	812.5	20523750	0.96	OK	2.14	YES	OK
01-BS 3 SL	P11	S10	14491	450	812.5	20523750	0.71	OK	1.58	YES	OK
01-BS 3 SL	P11	S11	12004	450	812.5	20523750	0.58	OK	1.31	YES	OK
01-BS 3 SL	P11	S12	8482	450	812.5	20523750	0.41	OK	0.92	YES	OK
01-BS 3 SL	P11	S13	12823	450	812.5	20523750	0.62	OK	1.40	YES	OK
01-BS 3 SL	P11	S14	7662	450	812.5	20523750	0.37	OK	0.83	YES	OK
01-BS 3 SL	P11	S27	16277	450	812.5	20523750	0.79	OK	1.77	YES	OK
01-BS 3 SL	P11	S28	18101	450	812.5	20523750	0.88	OK	1.97	YES	OK
01-BS 3 SL	P11	S29	18081	450	812.5	20523750	0.88	OK	1.97	YES	OK
01-BS 3 SL	P11	S30	20361	450	812.5	20523750	0.99	OK	2.22	YES	OK
01-BS 3 SL	P11	S31	11252	450	812.5	20523750	0.55	OK	1.22	YES	OK
01-BS 3 SL	P11	S32	13532	450	812.5	20523750	0.66	OK	1.47	YES	OK
01-BS 3 SL	P12	S1	16186	375	1935	24609000	0.66	OK	1.42	YES	OK
01-BS 3 SL	P12	S2	18308	375	1935	24609000	0.74	OK	1.61	YES	OK
01-BS 3 SL	P12	S3	17094	375	1935	24609000	0.69	OK	1.50	YES	OK
01-BS 3 SL	P12	S4	12198	375	1935	24609000	0.50	OK	1.07	YES	OK
01-BS 3 SL	P12	S5	15904	375	1935	24609000	0.65	OK	1.40	YES	OK
01-BS 3 SL	P12	S6	13388	375	1935	24609000	0.54	OK	1.18	YES	OK
01-BS 3 SL	P12	S7	19245	375	1935	24609000	0.78	OK	1.69	YES	OK
01-BS 3 SL	P12	S8	13126	375	1935	24609000	0.53	OK	1.15	YES	OK
01-BS 3 SL	P12	S9	17759	375	1935	24609000	0.72	OK	1.56	YES	OK
01-BS 3 SL	P12	S10	14613	375	1935	24609000	0.59	OK	1.28	YES	OK
01-BS 3 SL	P12	S11	12771	375	1935	24609000	0.52	OK	1.12	YES	OK
01-BS 3 SL	P12	S12	6652	375	1935	24609000	0.27	OK	0.58	YES	OK
01-BS 3 SL	P12	S13	11284	375	1935	24609000	0.46	OK	0.99	YES	OK
01-BS 3 SL	P12	S14	8139	375	1935	24609000	0.33	OK	0.72	YES	OK
01-BS 3 SL	P12	S27	17985	375	1935	24609000	0.73	OK	1.58	YES	OK
01-BS 3 SL	P12	S28	15240	375	1935	24609000	0.62	OK	1.34	YES	OK
01-BS 3 SL	P12	S29	20359	375	1935	24609000	0.83	OK	1.79	YES	OK

01-BS 3 SL	P12	S30	16928	375	1935	24609000	0.69	OK	1.49	YES	OK
01-BS 3 SL	P12	S31	13885	375	1935	24609000	0.56	OK	1.22	YES	OK
01-BS 3 SL	P12	S32	10454	375	1935	24609000	0.42	OK	0.92	YES	OK
01-BS 3 SL	P13	S1	14038	375	2050	25057500	0.56	OK	1.21	YES	OK
01-BS 3 SL	P13	S2	15890	375	2050	25057500	0.63	OK	1.37	YES	OK
01-BS 3 SL	P13	S3	8140	375	2050	25057500	0.32	OK	0.70	YES	OK
01-BS 3 SL	P13	S4	17283	375	2050	25057500	0.69	OK	1.49	YES	OK
01-BS 3 SL	P13	S5	8958	375	2050	25057500	0.36	OK	0.77	YES	OK
01-BS 3 SL	P13	S6	16466	375	2050	25057500	0.66	OK	1.42	YES	OK
01-BS 3 SL	P13	S7	8324	375	2050	25057500	0.33	OK	0.72	YES	OK
01-BS 3 SL	P13	S8	19753	375	2050	25057500	0.79	OK	1.70	YES	OK
01-BS 3 SL	P13	S9	9345	375	2050	25057500	0.37	OK	0.81	YES	OK
01-BS 3 SL	P13	S10	18731	375	2050	25057500	0.75	OK	1.61	YES	OK
01-BS 3 SL	P13	S11	2708	375	2050	25057500	0.11	OK	0.23	YES	OK
01-BS 3 SL	P13	S12	14137	375	2050	25057500	0.56	OK	1.22	YES	OK
01-BS 3 SL	P13	S13	3730	375	2050	25057500	0.15	OK	0.32	YES	OK
01-BS 3 SL	P13	S14	13116	375	2050	25057500	0.52	OK	1.13	YES	OK
01-BS 3 SL	P13	S27	16764	375	2050	25057500	0.67	OK	1.44	YES	OK
01-BS 3 SL	P13	S28	15520	375	2050	25057500	0.62	OK	1.34	YES	OK
01-BS 3 SL	P13	S29	19103	375	2050	25057500	0.76	OK	1.65	YES	OK
01-BS 3 SL	P13	S30	17549	375	2050	25057500	0.70	OK	1.51	YES	OK
01-BS 3 SL	P13	S31	13488	375	2050	25057500	0.54	OK	1.16	YES	OK
01-BS 3 SL	P13	S32	11933	375	2050	25057500	0.48	OK	1.03	YES	OK
01-BS 3 SL	P14	S1	14573	375	1917.5	24540750	0.59	OK	1.28	YES	OK
01-BS 3 SL	P14	S2	16466	375	1917.5	24540750	0.67	OK	1.45	YES	OK
01-BS 3 SL	P14	S3	15630	375	1917.5	24540750	0.64	OK	1.38	YES	OK
01-BS 3 SL	P14	S4	10716	375	1917.5	24540750	0.44	OK	0.94	YES	OK
01-BS 3 SL	P14	S5	13033	375	1917.5	24540750	0.53	OK	1.15	YES	OK
01-BS 3 SL	P14	S6	13313	375	1917.5	24540750	0.54	OK	1.17	YES	OK
01-BS 3 SL	P14	S7	17645	375	1917.5	24540750	0.72	OK	1.56	YES	OK
01-BS 3 SL	P14	S8	11502	375	1917.5	24540750	0.47	OK	1.01	YES	OK
01-BS 3 SL	P14	S9	14399	375	1917.5	24540750	0.59	OK	1.27	YES	OK
01-BS 3 SL	P14	S10	14748	375	1917.5	24540750	0.60	OK	1.30	YES	OK
01-BS 3 SL	P14	S11	11815	375	1917.5	24540750	0.48	OK	1.04	YES	OK
01-BS 3 SL	P14	S12	5672	375	1917.5	24540750	0.23	OK	0.50	YES	OK
01-BS 3 SL	P14	S13	8569	375	1917.5	24540750	0.35	OK	0.76	YES	OK
01-BS 3 SL	P14	S14	8918	375	1917.5	24540750	0.36	OK	0.79	YES	OK
01-BS 3 SL	P14	S27	17982	375	1917.5	24540750	0.73	OK	1.59	YES	OK
01-BS 3 SL	P14	S28	16054	375	1917.5	24540750	0.65	OK	1.42	YES	OK
01-BS 3 SL	P14	S29	20584	375	1917.5	24540750	0.84	OK	1.81	YES	OK
01-BS 3 SL	P14	S30	18175	375	1917.5	24540750	0.74	OK	1.60	YES	OK
01-BS 3 SL	P14	S31	14755	375	1917.5	24540750	0.60	OK	1.30	YES	OK
01-BS 3 SL	P14	S32	12346	375	1917.5	24540750	0.50	OK	1.09	YES	OK
01-BS 3 SL	P15	S1	12967	375	2110	25291500	0.51	OK	1.11	YES	OK
01-BS 3 SL	P15	S2	14574	375	2110	25291500	0.58	OK	1.24	YES	OK
01-BS 3 SL	P15	S3	10608	375	2110	25291500	0.42	OK	0.91	YES	OK
01-BS 3 SL	P15	S4	12710	375	2110	25291500	0.50	OK	1.08	YES	OK
01-BS 3 SL	P15	S5	11906	375	2110	25291500	0.47	OK	1.02	YES	OK
01-BS 3 SL	P15	S6	11412	375	2110	25291500	0.45	OK	0.97	YES	OK

01-BS 3 SL	P15	S7	11654	375	2110	25291500	0.46	OK	0.99	YES	OK
01-BS 3 SL	P15	S8	14280	375	2110	25291500	0.56	OK	1.22	YES	OK
01-BS 3 SL	P15	S9	13276	375	2110	25291500	0.52	OK	1.13	YES	OK
01-BS 3 SL	P15	S10	12658	375	2110	25291500	0.50	OK	1.08	YES	OK
01-BS 3 SL	P15	S11	6467	375	2110	25291500	0.26	OK	0.55	YES	OK
01-BS 3 SL	P15	S12	9094	375	2110	25291500	0.36	OK	0.78	YES	OK
01-BS 3 SL	P15	S13	8089	375	2110	25291500	0.32	OK	0.69	YES	OK
01-BS 3 SL	P15	S14	7471	375	2110	25291500	0.30	OK	0.64	YES	OK
01-BS 3 SL	P15	S27	14827	375	2110	25291500	0.59	OK	1.27	YES	OK
01-BS 3 SL	P15	S28	13413	375	2110	25291500	0.53	OK	1.14	YES	OK
01-BS 3 SL	P15	S29	16926	375	2110	25291500	0.67	OK	1.44	YES	OK
01-BS 3 SL	P15	S30	15159	375	2110	25291500	0.60	OK	1.29	YES	OK
01-BS 3 SL	P15	S31	11740	375	2110	25291500	0.46	OK	1.00	YES	OK
01-BS 3 SL	P15	S32	9972	375	2110	25291500	0.39	OK	0.85	YES	OK
01-BS 3 SL	P16	S1	14395	450	575	19597500	0.73	OK	1.65	YES	OK
01-BS 3 SL	P16	S2	16205	450	575	19597500	0.83	OK	1.86	YES	OK
01-BS 3 SL	P16	S3	15843	450	575	19597500	0.81	OK	1.82	YES	OK
01-BS 3 SL	P16	S4	10084	450	575	19597500	0.51	OK	1.16	YES	OK
01-BS 3 SL	P16	S5	15236	450	575	19597500	0.78	OK	1.75	YES	OK
01-BS 3 SL	P16	S6	10691	450	575	19597500	0.55	OK	1.23	YES	OK
01-BS 3 SL	P16	S7	17995	450	575	19597500	0.92	OK	2.06	YES	OK
01-BS 3 SL	P16	S8	10796	450	575	19597500	0.55	OK	1.24	YES	OK
01-BS 3 SL	P16	S9	17236	450	575	19597500	0.88	OK	1.98	YES	OK
01-BS 3 SL	P16	S10	11555	450	575	19597500	0.59	OK	1.32	YES	OK
01-BS 3 SL	P16	S11	12236	450	575	19597500	0.62	OK	1.40	YES	OK
01-BS 3 SL	P16	S12	5038	450	575	19597500	0.26	OK	0.58	YES	OK
01-BS 3 SL	P16	S13	11478	450	575	19597500	0.59	OK	1.32	YES	OK
01-BS 3 SL	P16	S14	5796	450	575	19597500	0.30	OK	0.66	YES	OK
01-BS 3 SL	P16	S27	16557	450	575	19597500	0.84	OK	1.90	YES	OK
01-BS 3 SL	P16	S28	14802	450	575	19597500	0.76	OK	1.70	YES	OK
01-BS 3 SL	P16	S29	18887	450	575	19597500	0.96	OK	2.16	YES	OK
01-BS 3 SL	P16	S30	16694	450	575	19597500	0.85	OK	1.91	YES	OK
01-BS 3 SL	P16	S31	13128	450	575	19597500	0.67	OK	1.50	YES	OK
01-BS 3 SL	P16	S32	10936	450	575	19597500	0.56	OK	1.25	YES	OK
01-BS 3 SL	P17	S1	15091	450	1625	23692500	0.64	OK	1.40	YES	OK
01-BS 3 SL	P17	S2	16600	450	1625	23692500	0.70	OK	1.54	YES	OK
01-BS 3 SL	P17	S3	13183	450	1625	23692500	0.56	OK	1.22	YES	OK
01-BS 3 SL	P17	S4	13377	450	1625	23692500	0.56	OK	1.24	YES	OK
01-BS 3 SL	P17	S5	16152	450	1625	23692500	0.68	OK	1.50	YES	OK
01-BS 3 SL	P17	S6	10408	450	1625	23692500	0.44	OK	0.97	YES	OK
01-BS 3 SL	P17	S7	14970	450	1625	23692500	0.63	OK	1.39	YES	OK
01-BS 3 SL	P17	S8	15212	450	1625	23692500	0.64	OK	1.41	YES	OK
01-BS 3 SL	P17	S9	18681	450	1625	23692500	0.79	OK	1.73	YES	OK
01-BS 3 SL	P17	S10	11500	450	1625	23692500	0.49	OK	1.07	YES	OK
01-BS 3 SL	P17	S11	8933	450	1625	23692500	0.38	OK	0.83	YES	OK
01-BS 3 SL	P17	S12	9175	450	1625	23692500	0.39	OK	0.85	YES	OK
01-BS 3 SL	P17	S13	12645	450	1625	23692500	0.53	OK	1.17	YES	OK
01-BS 3 SL	P17	S14	5464	450	1625	23692500	0.23	OK	0.51	YES	OK
01-BS 3 SL	P17	S27	20744	450	1625	23692500	0.88	OK	1.93	YES	OK

01-BS 3 SL	P17	S28	18994	450	1625	23692500	0.80	OK	1.76	YES	OK
01-BS 3 SL	P17	S29	24421	450	1625	23692500	1.03	OK	2.27	YES	OK
01-BS 3 SL	P17	S30	22233	450	1625	23692500	0.94	OK	2.06	YES	OK
01-BS 3 SL	P17	S31	18385	450	1625	23692500	0.78	OK	1.71	YES	OK
01-BS 3 SL	P17	S32	16197	450	1625	23692500	0.68	OK	1.50	YES	OK
01-BS 3 SL	P18	S1	15035	450	1500	23205000	0.65	OK	1.43	YES	OK
01-BS 3 SL	P18	S2	16577	450	1500	23205000	0.71	OK	1.57	YES	OK
01-BS 3 SL	P18	S3	18836	450	1500	23205000	0.81	OK	1.79	YES	OK
01-BS 3 SL	P18	S4	7688	450	1500	23205000	0.33	OK	0.73	YES	OK
01-BS 3 SL	P18	S5	18869	450	1500	23205000	0.81	OK	1.79	YES	OK
01-BS 3 SL	P18	S6	7655	450	1500	23205000	0.33	OK	0.73	YES	OK
01-BS 3 SL	P18	S7	22003	450	1500	23205000	0.95	OK	2.09	YES	OK
01-BS 3 SL	P18	S8	8068	450	1500	23205000	0.35	OK	0.77	YES	OK
01-BS 3 SL	P18	S9	22044	450	1500	23205000	0.95	OK	2.09	YES	OK
01-BS 3 SL	P18	S10	8026	450	1500	23205000	0.35	OK	0.76	YES	OK
01-BS 3 SL	P18	S11	15989	450	1500	23205000	0.69	OK	1.52	YES	OK
01-BS 3 SL	P18	S12	2054	450	1500	23205000	0.09	OK	0.20	YES	OK
01-BS 3 SL	P18	S13	16030	450	1500	23205000	0.69	OK	1.52	YES	OK
01-BS 3 SL	P18	S14	2012	450	1500	23205000	0.09	OK	0.19	YES	OK
01-BS 3 SL	P18	S27	20563	450	1500	23205000	0.89	OK	1.95	YES	OK
01-BS 3 SL	P18	S28	18787	450	1500	23205000	0.81	OK	1.78	YES	OK
01-BS 3 SL	P18	S29	24162	450	1500	23205000	1.04	OK	2.29	YES	OK
01-BS 3 SL	P18	S30	21941	450	1500	23205000	0.95	OK	2.08	YES	OK
01-BS 3 SL	P18	S31	18148	450	1500	23205000	0.78	OK	1.72	YES	OK
01-BS 3 SL	P18	S32	15927	450	1500	23205000	0.69	OK	1.51	YES	OK
01-BS 3 SL	P19	S1	10523	450	1500	23205000	0.45	OK	1.00	YES	OK
01-BS 3 SL	P19	S2	11663	450	1500	23205000	0.50	OK	1.11	YES	OK
01-BS 3 SL	P19	S3	6395	450	1500	23205000	0.28	OK	0.61	YES	OK
01-BS 3 SL	P19	S4	12265	450	1500	23205000	0.53	OK	1.16	YES	OK
01-BS 3 SL	P19	S5	7298	450	1500	23205000	0.31	OK	0.69	YES	OK
01-BS 3 SL	P19	S6	11363	450	1500	23205000	0.49	OK	1.08	YES	OK
01-BS 3 SL	P19	S7	6854	450	1500	23205000	0.30	OK	0.65	YES	OK
01-BS 3 SL	P19	S8	14191	450	1500	23205000	0.61	OK	1.35	YES	OK
01-BS 3 SL	P19	S9	7982	450	1500	23205000	0.34	OK	0.76	YES	OK
01-BS 3 SL	P19	S10	13063	450	1500	23205000	0.56	OK	1.24	YES	OK
01-BS 3 SL	P19	S11	2645	450	1500	23205000	0.11	OK	0.25	YES	OK
01-BS 3 SL	P19	S12	9982	450	1500	23205000	0.43	OK	0.95	YES	OK
01-BS 3 SL	P19	S13	3773	450	1500	23205000	0.16	OK	0.36	YES	OK
01-BS 3 SL	P19	S14	8854	450	1500	23205000	0.38	OK	0.84	YES	OK
01-BS 3 SL	P19	S27	12821	450	1500	23205000	0.55	OK	1.22	YES	OK
01-BS 3 SL	P19	S28	10433	450	1500	23205000	0.45	OK	0.99	YES	OK
01-BS 3 SL	P19	S29	14886	450	1500	23205000	0.64	OK	1.41	YES	OK
01-BS 3 SL	P19	S30	11901	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P19	S31	10677	450	1500	23205000	0.46	OK	1.01	YES	OK
01-BS 3 SL	P19	S32	7692	450	1500	23205000	0.33	OK	0.73	YES	OK
01-BS 3 SL	P20	S1	10572	450	537.5	19451250	0.54	OK	1.22	YES	OK
01-BS 3 SL	P20	S2	11725	450	537.5	19451250	0.60	OK	1.35	YES	OK
01-BS 3 SL	P20	S3	11461	450	537.5	19451250	0.59	OK	1.32	YES	OK
01-BS 3 SL	P20	S4	7299	450	537.5	19451250	0.38	OK	0.84	YES	OK

01-BS 3 SL	P20	S5	10165	450	537.5	19451250	0.52	OK	1.17	YES	OK
01-BS 3 SL	P20	S6	8595	450	537.5	19451250	0.44	OK	0.99	YES	OK
01-BS 3 SL	P20	S7	13173	450	537.5	19451250	0.68	OK	1.52	YES	OK
01-BS 3 SL	P20	S8	7970	450	537.5	19451250	0.41	OK	0.92	YES	OK
01-BS 3 SL	P20	S9	11553	450	537.5	19451250	0.59	OK	1.34	YES	OK
01-BS 3 SL	P20	S10	9591	450	537.5	19451250	0.49	OK	1.11	YES	OK
01-BS 3 SL	P20	S11	8945	450	537.5	19451250	0.46	OK	1.03	YES	OK
01-BS 3 SL	P20	S12	3742	450	537.5	19451250	0.19	OK	0.43	YES	OK
01-BS 3 SL	P20	S13	7324	450	537.5	19451250	0.38	OK	0.85	YES	OK
01-BS 3 SL	P20	S14	5362	450	537.5	19451250	0.28	OK	0.62	YES	OK
01-BS 3 SL	P20	S27	13027	450	537.5	19451250	0.67	OK	1.51	YES	OK
01-BS 3 SL	P20	S28	10115	450	537.5	19451250	0.52	OK	1.17	YES	OK
01-BS 3 SL	P20	S29	15131	450	537.5	19451250	0.78	OK	1.75	YES	OK
01-BS 3 SL	P20	S30	11491	450	537.5	19451250	0.59	OK	1.33	YES	OK
01-BS 3 SL	P20	S31	10902	450	537.5	19451250	0.56	OK	1.26	YES	OK
01-BS 3 SL	P20	S32	7263	450	537.5	19451250	0.37	OK	0.84	YES	OK
01-BS 3 SL	P21	S1	17056	450	2112.5	25593750	0.67	OK	1.45	YES	OK
01-BS 3 SL	P21	S2	18977	450	2112.5	25593750	0.74	OK	1.62	YES	OK
01-BS 3 SL	P21	S3	9065	450	2112.5	25593750	0.35	OK	0.77	YES	OK
01-BS 3 SL	P21	S4	21299	450	2112.5	25593750	0.83	OK	1.82	YES	OK
01-BS 3 SL	P21	S5	9261	450	2112.5	25593750	0.36	OK	0.79	YES	OK
01-BS 3 SL	P21	S6	21102	450	2112.5	25593750	0.82	OK	1.80	YES	OK
01-BS 3 SL	P21	S7	9410	450	2112.5	25593750	0.37	OK	0.80	YES	OK
01-BS 3 SL	P21	S8	24702	450	2112.5	25593750	0.97	OK	2.11	YES	OK
01-BS 3 SL	P21	S9	9655	450	2112.5	25593750	0.38	OK	0.82	YES	OK
01-BS 3 SL	P21	S10	24457	450	2112.5	25593750	0.96	OK	2.09	YES	OK
01-BS 3 SL	P21	S11	2587	450	2112.5	25593750	0.10	OK	0.22	YES	OK
01-BS 3 SL	P21	S12	17880	450	2112.5	25593750	0.70	OK	1.53	YES	OK
01-BS 3 SL	P21	S13	2833	450	2112.5	25593750	0.11	OK	0.24	YES	OK
01-BS 3 SL	P21	S14	17634	450	2112.5	25593750	0.69	OK	1.50	YES	OK
01-BS 3 SL	P21	S27	19312	450	2112.5	25593750	0.75	OK	1.65	YES	OK
01-BS 3 SL	P21	S28	20278	450	2112.5	25593750	0.79	OK	1.73	YES	OK
01-BS 3 SL	P21	S29	22219	450	2112.5	25593750	0.87	OK	1.90	YES	OK
01-BS 3 SL	P21	S30	23427	450	2112.5	25593750	0.92	OK	2.00	YES	OK
01-BS 3 SL	P21	S31	15396	450	2112.5	25593750	0.60	OK	1.31	YES	OK
01-BS 3 SL	P21	S32	16605	450	2112.5	25593750	0.65	OK	1.42	YES	OK
01-BS 3 SL	P22	S1	22730	450	2300	26325000	0.86	OK	1.88	YES	OK
01-BS 3 SL	P22	S2	25590	450	2300	26325000	0.97	OK	2.12	YES	OK
01-BS 3 SL	P22	S3	21078	450	2300	26325000	0.80	OK	1.74	YES	OK
01-BS 3 SL	P22	S4	19867	450	2300	26325000	0.75	OK	1.64	YES	OK
01-BS 3 SL	P22	S5	19400	450	2300	26325000	0.74	OK	1.60	YES	OK
01-BS 3 SL	P22	S6	21544	450	2300	26325000	0.82	OK	1.78	YES	OK
01-BS 3 SL	P22	S7	23486	450	2300	26325000	0.89	OK	1.94	YES	OK
01-BS 3 SL	P22	S8	21973	450	2300	26325000	0.83	OK	1.82	YES	OK
01-BS 3 SL	P22	S9	21390	450	2300	26325000	0.81	OK	1.77	YES	OK
01-BS 3 SL	P22	S10	24070	450	2300	26325000	0.91	OK	1.99	YES	OK
01-BS 3 SL	P22	S11	14395	450	2300	26325000	0.55	OK	1.19	YES	OK
01-BS 3 SL	P22	S12	12881	450	2300	26325000	0.49	OK	1.07	YES	OK
01-BS 3 SL	P22	S13	12298	450	2300	26325000	0.47	OK	1.02	YES	OK

01-BS 3 SL	P22	S14	14978	450	2300	26325000	0.57	OK	1.24	YES	OK
01-BS 3 SL	P22	S27	25252	450	2300	26325000	0.96	OK	2.09	YES	OK
01-BS 3 SL	P22	S28	23643	450	2300	26325000	0.90	OK	1.96	YES	OK
01-BS 3 SL	P22	S29	28705	450	2300	26325000	1.09	OK	2.37	YES	OK
01-BS 3 SL	P22	S30	26693	450	2300	26325000	1.01	OK	2.21	YES	OK
01-BS 3 SL	P22	S31	19613	450	2300	26325000	0.75	OK	1.62	YES	OK
01-BS 3 SL	P22	S32	17602	450	2300	26325000	0.67	OK	1.46	YES	OK
01-BS 3 SL	P23	S1	24161	450	2300	26325000	0.92	OK	2.00	YES	OK
01-BS 3 SL	P23	S2	27413	450	2300	26325000	1.04	OK	2.27	YES	OK
01-BS 3 SL	P23	S3	19910	450	2300	26325000	0.76	OK	1.65	YES	OK
01-BS 3 SL	P23	S4	23951	450	2300	26325000	0.91	OK	1.98	YES	OK
01-BS 3 SL	P23	S5	18940	450	2300	26325000	0.72	OK	1.57	YES	OK
01-BS 3 SL	P23	S6	24921	450	2300	26325000	0.95	OK	2.06	YES	OK
01-BS 3 SL	P23	S7	21635	450	2300	26325000	0.82	OK	1.79	YES	OK
01-BS 3 SL	P23	S8	26686	450	2300	26325000	1.01	OK	2.21	YES	OK
01-BS 3 SL	P23	S9	20422	450	2300	26325000	0.78	OK	1.69	YES	OK
01-BS 3 SL	P23	S10	27899	450	2300	26325000	1.06	OK	2.31	YES	OK
01-BS 3 SL	P23	S11	11971	450	2300	26325000	0.45	OK	0.99	YES	OK
01-BS 3 SL	P23	S12	17022	450	2300	26325000	0.65	OK	1.41	YES	OK
01-BS 3 SL	P23	S13	10758	450	2300	26325000	0.41	OK	0.89	YES	OK
01-BS 3 SL	P23	S14	18235	450	2300	26325000	0.69	OK	1.51	YES	OK
01-BS 3 SL	P23	S27	23033	450	2300	26325000	0.87	OK	1.91	YES	OK
01-BS 3 SL	P23	S28	26106	450	2300	26325000	0.99	OK	2.16	YES	OK
01-BS 3 SL	P23	S29	25538	450	2300	26325000	0.97	OK	2.11	YES	OK
01-BS 3 SL	P23	S30	29380	450	2300	26325000	1.12	OK	2.43	YES	OK
01-BS 3 SL	P23	S31	15874	450	2300	26325000	0.60	OK	1.31	YES	OK
01-BS 3 SL	P23	S32	19716	450	2300	26325000	0.75	OK	1.63	YES	OK
01-BS 3 SL	P24	S1	21408	450	2112.5	25593750	0.84	OK	1.83	YES	OK
01-BS 3 SL	P24	S2	24364	450	2112.5	25593750	0.95	OK	2.08	YES	OK
01-BS 3 SL	P24	S3	18230	450	2112.5	25593750	0.71	OK	1.55	YES	OK
01-BS 3 SL	P24	S4	20752	450	2112.5	25593750	0.81	OK	1.77	YES	OK
01-BS 3 SL	P24	S5	17724	450	2112.5	25593750	0.69	OK	1.51	YES	OK
01-BS 3 SL	P24	S6	21257	450	2112.5	25593750	0.83	OK	1.81	YES	OK
01-BS 3 SL	P24	S7	19832	450	2112.5	25593750	0.77	OK	1.69	YES	OK
01-BS 3 SL	P24	S8	22984	450	2112.5	25593750	0.90	OK	1.96	YES	OK
01-BS 3 SL	P24	S9	19200	450	2112.5	25593750	0.75	OK	1.64	YES	OK
01-BS 3 SL	P24	S10	23616	450	2112.5	25593750	0.92	OK	2.01	YES	OK
01-BS 3 SL	P24	S11	11269	450	2112.5	25593750	0.44	OK	0.96	YES	OK
01-BS 3 SL	P24	S12	14421	450	2112.5	25593750	0.56	OK	1.23	YES	OK
01-BS 3 SL	P24	S13	10637	450	2112.5	25593750	0.42	OK	0.91	YES	OK
01-BS 3 SL	P24	S14	15053	450	2112.5	25593750	0.59	OK	1.28	YES	OK
01-BS 3 SL	P24	S27	20384	450	2112.5	25593750	0.80	OK	1.74	YES	OK
01-BS 3 SL	P24	S28	22406	450	2112.5	25593750	0.88	OK	1.91	YES	OK
01-BS 3 SL	P24	S29	22524	450	2112.5	25593750	0.88	OK	1.92	YES	OK
01-BS 3 SL	P24	S30	25052	450	2112.5	25593750	0.98	OK	2.14	YES	OK
01-BS 3 SL	P24	S31	13961	450	2112.5	25593750	0.55	OK	1.19	YES	OK
01-BS 3 SL	P24	S32	16489	450	2112.5	25593750	0.64	OK	1.41	YES	OK
01-BS 3 SL	P25	S1	22310	450	745	20260500	1.10	OK	2.46	YES	OK
01-BS 3 SL	P25	S2	25147	450	745	20260500	1.24	OK	2.78	YES	OK

01-BS 3 SL	P25	S3	16457	450	745	20260500	0.81	OK	1.82	YES	OK
01-BS 3 SL	P25	S4	23779	450	745	20260500	1.17	OK	2.63	YES	OK
01-BS 3 SL	P25	S5	16633	450	745	20260500	0.82	OK	1.84	YES	OK
01-BS 3 SL	P25	S6	23603	450	745	20260500	1.16	OK	2.61	YES	OK
01-BS 3 SL	P25	S7	17734	450	745	20260500	0.88	OK	1.96	YES	OK
01-BS 3 SL	P25	S8	26885	450	745	20260500	1.33	OK	2.97	YES	OK
01-BS 3 SL	P25	S9	17953	450	745	20260500	0.89	OK	1.98	YES	OK
01-BS 3 SL	P25	S10	26666	450	745	20260500	1.32	OK	2.94	YES	OK
01-BS 3 SL	P25	S11	8810	450	745	20260500	0.43	OK	0.97	YES	OK
01-BS 3 SL	P25	S12	17962	450	745	20260500	0.89	OK	1.98	YES	OK
01-BS 3 SL	P25	S13	9029	450	745	20260500	0.45	OK	1.00	YES	OK
01-BS 3 SL	P25	S14	17742	450	745	20260500	0.88	OK	1.96	YES	OK
01-BS 3 SL	P25	S27	25213	450	745	20260500	1.24	OK	2.78	YES	OK
01-BS 3 SL	P25	S28	23949	450	745	20260500	1.18	OK	2.64	YES	OK
01-BS 3 SL	P25	S29	28678	450	745	20260500	1.42	OK	3.17	YES	OK
01-BS 3 SL	P25	S30	27099	450	745	20260500	1.34	OK	2.99	YES	OK
01-BS 3 SL	P25	S31	19754	450	745	20260500	0.98	OK	2.18	YES	OK
01-BS 3 SL	P25	S32	18175	450	745	20260500	0.90	OK	2.01	YES	OK
01-BS 3 SL	P26	S1	17040	450	537.5	19451250	0.88	OK	1.97	YES	OK
01-BS 3 SL	P26	S2	18886	450	537.5	19451250	0.97	OK	2.18	YES	OK
01-BS 3 SL	P26	S3	15761	450	537.5	19451250	0.81	OK	1.82	YES	OK
01-BS 3 SL	P26	S4	14457	450	537.5	19451250	0.74	OK	1.67	YES	OK
01-BS 3 SL	P26	S5	12224	450	537.5	19451250	0.63	OK	1.41	YES	OK
01-BS 3 SL	P26	S6	17994	450	537.5	19451250	0.93	OK	2.08	YES	OK
01-BS 3 SL	P26	S7	17855	450	537.5	19451250	0.92	OK	2.06	YES	OK
01-BS 3 SL	P26	S8	16225	450	537.5	19451250	0.83	OK	1.88	YES	OK
01-BS 3 SL	P26	S9	13433	450	537.5	19451250	0.69	OK	1.55	YES	OK
01-BS 3 SL	P26	S10	20646	450	537.5	19451250	1.06	OK	2.39	YES	OK
01-BS 3 SL	P26	S11	11039	450	537.5	19451250	0.57	OK	1.28	YES	OK
01-BS 3 SL	P26	S12	9409	450	537.5	19451250	0.48	OK	1.09	YES	OK
01-BS 3 SL	P26	S13	6617	450	537.5	19451250	0.34	OK	0.76	YES	OK
01-BS 3 SL	P26	S14	13831	450	537.5	19451250	0.71	OK	1.60	YES	OK
01-BS 3 SL	P26	S27	19530	450	537.5	19451250	1.00	OK	2.26	YES	OK
01-BS 3 SL	P26	S28	20940	450	537.5	19451250	1.08	OK	2.42	YES	OK
01-BS 3 SL	P26	S29	22566	450	537.5	19451250	1.16	OK	2.61	YES	OK
01-BS 3 SL	P26	S30	24329	450	537.5	19451250	1.25	OK	2.81	YES	OK
01-BS 3 SL	P26	S31	15751	450	537.5	19451250	0.81	OK	1.82	YES	OK
01-BS 3 SL	P26	S32	17513	450	537.5	19451250	0.90	OK	2.02	YES	OK

SETU
INFRASTRUCTURE

BLOCK B

D	2000	mm		FCK	M35	N/mm2		Ast Pro.	4900	sq.mm/mt	
Tc	0.37	N/mm2		Tcmax	3.70	N/mm2		PERMI. TAU	1.48	N/mm2	
						PUNCHING CHECK			ONE WAY SHEAR CHECK		
Story	Pier	Case	P	B	L	AREA	TAU	CHECK	Tv	r/f	Check
			kN				N/MM2		N/MM2		
01-BS 3 SL	P01	S1	17130	450	1600	23595000	0.73	OK	1.60	YES	OK
01-BS 3 SL	P01	S2	18966	450	1600	23595000	0.80	OK	1.77	YES	OK
01-BS 3 SL	P01	S3	12485	450	1600	23595000	0.53	OK	1.16	YES	OK
01-BS 3 SL	P01	S4	17861	450	1600	23595000	0.76	OK	1.67	YES	OK
01-BS 3 SL	P01	S5	16466	450	1600	23595000	0.70	OK	1.54	YES	OK
01-BS 3 SL	P01	S6	13879	450	1600	23595000	0.59	OK	1.29	YES	OK
01-BS 3 SL	P01	S7	13770	450	1600	23595000	0.58	OK	1.28	YES	OK
01-BS 3 SL	P01	S8	20490	450	1600	23595000	0.87	OK	1.91	YES	OK
01-BS 3 SL	P01	S9	18747	450	1600	23595000	0.79	OK	1.75	YES	OK
01-BS 3 SL	P01	S10	15513	450	1600	23595000	0.66	OK	1.45	YES	OK
01-BS 3 SL	P01	S11	6918	450	1600	23595000	0.29	OK	0.65	YES	OK
01-BS 3 SL	P01	S12	13638	450	1600	23595000	0.58	OK	1.27	YES	OK
01-BS 3 SL	P01	S13	11895	450	1600	23595000	0.50	OK	1.11	YES	OK
01-BS 3 SL	P01	S14	8661	450	1600	23595000	0.37	OK	0.81	YES	OK
01-BS 3 SL	P01	S27	21286	450	1600	23595000	0.90	OK	1.98	YES	OK
01-BS 3 SL	P01	S28	20223	450	1600	23595000	0.86	OK	1.89	YES	OK
01-BS 3 SL	P01	S29	24772	450	1600	23595000	1.05	OK	2.31	YES	OK
01-BS 3 SL	P01	S30	23442	450	1600	23595000	0.99	OK	2.19	YES	OK
01-BS 3 SL	P01	S31	17920	450	1600	23595000	0.76	OK	1.67	YES	OK
01-BS 3 SL	P01	S32	16590	450	1600	23595000	0.70	OK	1.55	YES	OK
01-BS 3 SL	P02	S1	10733	450	1500	23205000	0.46	OK	1.02	YES	OK
01-BS 3 SL	P02	S2	11902	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P02	S3	10963	450	1500	23205000	0.47	OK	1.04	YES	OK
01-BS 3 SL	P02	S4	8081	450	1500	23205000	0.35	OK	0.77	YES	OK
01-BS 3 SL	P02	S5	11854	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P02	S6	7189	450	1500	23205000	0.31	OK	0.68	YES	OK
01-BS 3 SL	P02	S7	12535	450	1500	23205000	0.54	OK	1.19	YES	OK
01-BS 3 SL	P02	S8	8932	450	1500	23205000	0.38	OK	0.85	YES	OK
01-BS 3 SL	P02	S9	13649	450	1500	23205000	0.59	OK	1.30	YES	OK
01-BS 3 SL	P02	S10	7818	450	1500	23205000	0.34	OK	0.74	YES	OK
01-BS 3 SL	P02	S11	8241	450	1500	23205000	0.36	OK	0.78	YES	OK
01-BS 3 SL	P02	S12	4638	450	1500	23205000	0.20	OK	0.44	YES	OK
01-BS 3 SL	P02	S13	9356	450	1500	23205000	0.40	OK	0.89	YES	OK
01-BS 3 SL	P02	S14	3524	450	1500	23205000	0.15	OK	0.33	YES	OK
01-BS 3 SL	P02	S27	10384	450	1500	23205000	0.45	OK	0.99	YES	OK
01-BS 3 SL	P02	S28	12525	450	1500	23205000	0.54	OK	1.19	YES	OK
01-BS 3 SL	P02	S29	11811	450	1500	23205000	0.51	OK	1.12	YES	OK
01-BS 3 SL	P02	S30	14487	450	1500	23205000	0.62	OK	1.38	YES	OK
01-BS 3 SL	P02	S31	7518	450	1500	23205000	0.32	OK	0.71	YES	OK
01-BS 3 SL	P02	S32	10194	450	1500	23205000	0.44	OK	0.97	YES	OK
01-BS 3 SL	P03	S1	15913	450	625	19792500	0.80	OK	1.80	YES	OK
01-BS 3 SL	P03	S2	17597	450	625	19792500	0.89	OK	1.99	YES	OK
01-BS 3 SL	P03	S3	19119	450	625	19792500	0.97	OK	2.17	YES	OK

01-BS 3 SL	P03	S4	9036	450	625	19792500	0.46	OK	1.02	YES	OK
01-BS 3 SL	P03	S5	18907	450	625	19792500	0.96	OK	2.14	YES	OK
01-BS 3 SL	P03	S6	9248	450	625	19792500	0.47	OK	1.05	YES	OK
01-BS 3 SL	P03	S7	22215	450	625	19792500	1.12	OK	2.52	YES	OK
01-BS 3 SL	P03	S8	9612	450	625	19792500	0.49	OK	1.09	YES	OK
01-BS 3 SL	P03	S9	21950	450	625	19792500	1.11	OK	2.49	YES	OK
01-BS 3 SL	P03	S10	9876	450	625	19792500	0.50	OK	1.12	YES	OK
01-BS 3 SL	P03	S11	15850	450	625	19792500	0.80	OK	1.80	YES	OK
01-BS 3 SL	P03	S12	3246	450	625	19792500	0.16	OK	0.37	YES	OK
01-BS 3 SL	P03	S13	15585	450	625	19792500	0.79	OK	1.77	YES	OK
01-BS 3 SL	P03	S14	3511	450	625	19792500	0.18	OK	0.40	YES	OK
01-BS 3 SL	P03	S27	17300	450	625	19792500	0.87	OK	1.96	YES	OK
01-BS 3 SL	P03	S28	18522	450	625	19792500	0.94	OK	2.10	YES	OK
01-BS 3 SL	P03	S29	19942	450	625	19792500	1.01	OK	2.26	YES	OK
01-BS 3 SL	P03	S30	21469	450	625	19792500	1.08	OK	2.43	YES	OK
01-BS 3 SL	P03	S31	13576	450	625	19792500	0.69	OK	1.54	YES	OK
01-BS 3 SL	P03	S32	15104	450	625	19792500	0.76	OK	1.71	YES	OK
01-BS 3 SL	P04	S1	16000	450	1600	23595000	0.68	OK	1.49	YES	OK
01-BS 3 SL	P04	S2	17702	450	1600	23595000	0.75	OK	1.65	YES	OK
01-BS 3 SL	P04	S3	13501	450	1600	23595000	0.57	OK	1.26	YES	OK
01-BS 3 SL	P04	S4	14822	450	1600	23595000	0.63	OK	1.38	YES	OK
01-BS 3 SL	P04	S5	16107	450	1600	23595000	0.68	OK	1.50	YES	OK
01-BS 3 SL	P04	S6	12216	450	1600	23595000	0.52	OK	1.14	YES	OK
01-BS 3 SL	P04	S7	15174	450	1600	23595000	0.64	OK	1.41	YES	OK
01-BS 3 SL	P04	S8	16826	450	1600	23595000	0.71	OK	1.57	YES	OK
01-BS 3 SL	P04	S9	18432	450	1600	23595000	0.78	OK	1.72	YES	OK
01-BS 3 SL	P04	S10	13569	450	1600	23595000	0.58	OK	1.27	YES	OK
01-BS 3 SL	P04	S11	8774	450	1600	23595000	0.37	OK	0.82	YES	OK
01-BS 3 SL	P04	S12	10426	450	1600	23595000	0.44	OK	0.97	YES	OK
01-BS 3 SL	P04	S13	12032	450	1600	23595000	0.51	OK	1.12	YES	OK
01-BS 3 SL	P04	S14	7168	450	1600	23595000	0.30	OK	0.67	YES	OK
01-BS 3 SL	P04	S27	17393	450	1600	23595000	0.74	OK	1.62	YES	OK
01-BS 3 SL	P04	S28	18748	450	1600	23595000	0.79	OK	1.75	YES	OK
01-BS 3 SL	P04	S29	20040	450	1600	23595000	0.85	OK	1.87	YES	OK
01-BS 3 SL	P04	S30	21734	450	1600	23595000	0.92	OK	2.03	YES	OK
01-BS 3 SL	P04	S31	13640	450	1600	23595000	0.58	OK	1.27	YES	OK
01-BS 3 SL	P04	S32	15333	450	1600	23595000	0.65	OK	1.43	YES	OK
01-BS 3 SL	P05	S1	10732	450	1500	23205000	0.46	OK	1.02	YES	OK
01-BS 3 SL	P05	S2	11900	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P05	S3	11151	450	1500	23205000	0.48	OK	1.06	YES	OK
01-BS 3 SL	P05	S4	7889	450	1500	23205000	0.34	OK	0.75	YES	OK
01-BS 3 SL	P05	S5	11982	450	1500	23205000	0.52	OK	1.14	YES	OK
01-BS 3 SL	P05	S6	7059	450	1500	23205000	0.30	OK	0.67	YES	OK
01-BS 3 SL	P05	S7	12771	450	1500	23205000	0.55	OK	1.21	YES	OK
01-BS 3 SL	P05	S8	8693	450	1500	23205000	0.37	OK	0.83	YES	OK
01-BS 3 SL	P05	S9	13809	450	1500	23205000	0.60	OK	1.31	YES	OK
01-BS 3 SL	P05	S10	7655	450	1500	23205000	0.33	OK	0.73	YES	OK
01-BS 3 SL	P05	S11	8478	450	1500	23205000	0.37	OK	0.81	YES	OK
01-BS 3 SL	P05	S12	4400	450	1500	23205000	0.19	OK	0.42	YES	OK

01-BS 3 SL	P05	S13	9516	450	1500	23205000	0.41	OK	0.90	YES	OK
01-BS 3 SL	P05	S14	3362	450	1500	23205000	0.14	OK	0.32	YES	OK
01-BS 3 SL	P05	S27	10360	450	1500	23205000	0.45	OK	0.98	YES	OK
01-BS 3 SL	P05	S28	12572	450	1500	23205000	0.54	OK	1.19	YES	OK
01-BS 3 SL	P05	S29	11781	450	1500	23205000	0.51	OK	1.12	YES	OK
01-BS 3 SL	P05	S30	14546	450	1500	23205000	0.63	OK	1.38	YES	OK
01-BS 3 SL	P05	S31	7489	450	1500	23205000	0.32	OK	0.71	YES	OK
01-BS 3 SL	P05	S32	10254	450	1500	23205000	0.44	OK	0.97	YES	OK
01-BS 3 SL	P06	S1	17071	450	625	19792500	0.86	OK	1.93	YES	OK
01-BS 3 SL	P06	S2	18890	450	625	19792500	0.95	OK	2.14	YES	OK
01-BS 3 SL	P06	S3	22739	450	625	19792500	1.15	OK	2.58	YES	OK
01-BS 3 SL	P06	S4	7485	450	625	19792500	0.38	OK	0.85	YES	OK
01-BS 3 SL	P06	S5	21525	450	625	19792500	1.09	OK	2.44	YES	OK
01-BS 3 SL	P06	S6	8699	450	625	19792500	0.44	OK	0.99	YES	OK
01-BS 3 SL	P06	S7	26605	450	625	19792500	1.34	OK	3.02	YES	OK
01-BS 3 SL	P06	S8	7537	450	625	19792500	0.38	OK	0.85	YES	OK
01-BS 3 SL	P06	S9	25087	450	625	19792500	1.27	OK	2.84	YES	OK
01-BS 3 SL	P06	S10	9055	450	625	19792500	0.46	OK	1.03	YES	OK
01-BS 3 SL	P06	S11	19776	450	625	19792500	1.00	OK	2.24	YES	OK
01-BS 3 SL	P06	S12	709	450	625	19792500	0.04	OK	0.08	YES	OK
01-BS 3 SL	P06	S13	18259	450	625	19792500	0.92	OK	2.07	YES	OK
01-BS 3 SL	P06	S14	2226	450	625	19792500	0.11	OK	0.25	YES	OK
01-BS 3 SL	P06	S27	21204	450	625	19792500	1.07	OK	2.40	YES	OK
01-BS 3 SL	P06	S28	19962	450	625	19792500	1.01	OK	2.26	YES	OK
01-BS 3 SL	P06	S29	24686	450	625	19792500	1.25	OK	2.80	YES	OK
01-BS 3 SL	P06	S30	23132	450	625	19792500	1.17	OK	2.62	YES	OK
01-BS 3 SL	P06	S31	17858	450	625	19792500	0.90	OK	2.02	YES	OK
01-BS 3 SL	P06	S32	16304	450	625	19792500	0.82	OK	1.85	YES	OK
01-BS 3 SL	P07	S1	15317	450	850	20670000	0.74	OK	1.65	YES	OK
01-BS 3 SL	P07	S2	17260	450	850	20670000	0.84	OK	1.86	YES	OK
01-BS 3 SL	P07	S3	10154	450	850	20670000	0.49	OK	1.10	YES	OK
01-BS 3 SL	P07	S4	17462	450	850	20670000	0.84	OK	1.89	YES	OK
01-BS 3 SL	P07	S5	10674	450	850	20670000	0.52	OK	1.15	YES	OK
01-BS 3 SL	P07	S6	16943	450	850	20670000	0.82	OK	1.83	YES	OK
01-BS 3 SL	P07	S7	10749	450	850	20670000	0.52	OK	1.16	YES	OK
01-BS 3 SL	P07	S8	19884	450	850	20670000	0.96	OK	2.15	YES	OK
01-BS 3 SL	P07	S9	11399	450	850	20670000	0.55	OK	1.23	YES	OK
01-BS 3 SL	P07	S10	19235	450	850	20670000	0.93	OK	2.08	YES	OK
01-BS 3 SL	P07	S11	4623	450	850	20670000	0.22	OK	0.50	YES	OK
01-BS 3 SL	P07	S12	13758	450	850	20670000	0.67	OK	1.49	YES	OK
01-BS 3 SL	P07	S13	5272	450	850	20670000	0.26	OK	0.57	YES	OK
01-BS 3 SL	P07	S14	13108	450	850	20670000	0.63	OK	1.42	YES	OK
01-BS 3 SL	P07	S27	16639	450	850	20670000	0.80	OK	1.80	YES	OK
01-BS 3 SL	P07	S28	16449	450	850	20670000	0.80	OK	1.78	YES	OK
01-BS 3 SL	P07	S29	18855	450	850	20670000	0.91	OK	2.04	YES	OK
01-BS 3 SL	P07	S30	18618	450	850	20670000	0.90	OK	2.01	YES	OK
01-BS 3 SL	P07	S31	12728	450	850	20670000	0.62	OK	1.37	YES	OK
01-BS 3 SL	P07	S32	12491	450	850	20670000	0.60	OK	1.35	YES	OK
01-BS 3 SL	P08	S1	15276	450	812.5	20523750	0.74	OK	1.66	YES	OK

01-BS 3 SL	P08	S2	17198	450	812.5	20523750	0.84	OK	1.87	YES	OK
01-BS 3 SL	P08	S3	15117	450	812.5	20523750	0.74	OK	1.65	YES	OK
01-BS 3 SL	P08	S4	12401	450	812.5	20523750	0.60	OK	1.35	YES	OK
01-BS 3 SL	P08	S5	13169	450	812.5	20523750	0.64	OK	1.43	YES	OK
01-BS 3 SL	P08	S6	14348	450	812.5	20523750	0.70	OK	1.56	YES	OK
01-BS 3 SL	P08	S7	16974	450	812.5	20523750	0.83	OK	1.85	YES	OK
01-BS 3 SL	P08	S8	13579	450	812.5	20523750	0.66	OK	1.48	YES	OK
01-BS 3 SL	P08	S9	14540	450	812.5	20523750	0.71	OK	1.58	YES	OK
01-BS 3 SL	P08	S10	16013	450	812.5	20523750	0.78	OK	1.74	YES	OK
01-BS 3 SL	P08	S11	10863	450	812.5	20523750	0.53	OK	1.18	YES	OK
01-BS 3 SL	P08	S12	7469	450	812.5	20523750	0.36	OK	0.81	YES	OK
01-BS 3 SL	P08	S13	8429	450	812.5	20523750	0.41	OK	0.92	YES	OK
01-BS 3 SL	P08	S14	9903	450	812.5	20523750	0.48	OK	1.08	YES	OK
01-BS 3 SL	P08	S27	16618	450	812.5	20523750	0.81	OK	1.81	YES	OK
01-BS 3 SL	P08	S28	16587	450	812.5	20523750	0.81	OK	1.81	YES	OK
01-BS 3 SL	P08	S29	18850	450	812.5	20523750	0.92	OK	2.05	YES	OK
01-BS 3 SL	P08	S30	18812	450	812.5	20523750	0.92	OK	2.05	YES	OK
01-BS 3 SL	P08	S31	12740	450	812.5	20523750	0.62	OK	1.39	YES	OK
01-BS 3 SL	P08	S32	12702	450	812.5	20523750	0.62	OK	1.38	YES	OK
01-BS 3 SL	P09	S1	16314	450	812.5	20523750	0.79	OK	1.78	YES	OK
01-BS 3 SL	P09	S2	18486	450	812.5	20523750	0.90	OK	2.01	YES	OK
01-BS 3 SL	P09	S3	12259	450	812.5	20523750	0.60	OK	1.33	YES	OK
01-BS 3 SL	P09	S4	17319	450	812.5	20523750	0.84	OK	1.88	YES	OK
01-BS 3 SL	P09	S5	13379	450	812.5	20523750	0.65	OK	1.46	YES	OK
01-BS 3 SL	P09	S6	16199	450	812.5	20523750	0.79	OK	1.76	YES	OK
01-BS 3 SL	P09	S7	13151	450	812.5	20523750	0.64	OK	1.43	YES	OK
01-BS 3 SL	P09	S8	19476	450	812.5	20523750	0.95	OK	2.12	YES	OK
01-BS 3 SL	P09	S9	14550	450	812.5	20523750	0.71	OK	1.58	YES	OK
01-BS 3 SL	P09	S10	18077	450	812.5	20523750	0.88	OK	1.97	YES	OK
01-BS 3 SL	P09	S11	6626	450	812.5	20523750	0.32	OK	0.72	YES	OK
01-BS 3 SL	P09	S12	12951	450	812.5	20523750	0.63	OK	1.41	YES	OK
01-BS 3 SL	P09	S13	8025	450	812.5	20523750	0.39	OK	0.87	YES	OK
01-BS 3 SL	P09	S14	11551	450	812.5	20523750	0.56	OK	1.26	YES	OK
01-BS 3 SL	P09	S27	18050	450	812.5	20523750	0.88	OK	1.96	YES	OK
01-BS 3 SL	P09	S28	15453	450	812.5	20523750	0.75	OK	1.68	YES	OK
01-BS 3 SL	P09	S29	20390	450	812.5	20523750	0.99	OK	2.22	YES	OK
01-BS 3 SL	P09	S30	17143	450	812.5	20523750	0.84	OK	1.87	YES	OK
01-BS 3 SL	P09	S31	13864	450	812.5	20523750	0.68	OK	1.51	YES	OK
01-BS 3 SL	P09	S32	10618	450	812.5	20523750	0.52	OK	1.16	YES	OK
01-BS 3 SL	P10	S1	17133	450	1125	21742500	0.79	OK	1.75	YES	OK
01-BS 3 SL	P10	S2	19463	450	1125	21742500	0.90	OK	1.99	YES	OK
01-BS 3 SL	P10	S3	16501	450	1125	21742500	0.76	OK	1.68	YES	OK
01-BS 3 SL	P10	S4	14640	450	1125	21742500	0.67	OK	1.49	YES	OK
01-BS 3 SL	P10	S5	17284	450	1125	21742500	0.79	OK	1.76	YES	OK
01-BS 3 SL	P10	S6	13856	450	1125	21742500	0.64	OK	1.41	YES	OK
01-BS 3 SL	P10	S7	18296	450	1125	21742500	0.84	OK	1.87	YES	OK
01-BS 3 SL	P10	S8	15970	450	1125	21742500	0.73	OK	1.63	YES	OK
01-BS 3 SL	P10	S9	19275	450	1125	21742500	0.89	OK	1.97	YES	OK
01-BS 3 SL	P10	S10	14991	450	1125	21742500	0.69	OK	1.53	YES	OK

01-BS 3 SL	P10	S11	11443	450	1125	21742500	0.53	OK	1.17	YES	OK
01-BS 3 SL	P10	S12	9117	450	1125	21742500	0.42	OK	0.93	YES	OK
01-BS 3 SL	P10	S13	12422	450	1125	21742500	0.57	OK	1.27	YES	OK
01-BS 3 SL	P10	S14	8138	450	1125	21742500	0.37	OK	0.83	YES	OK
01-BS 3 SL	P10	S27	16470	450	1125	21742500	0.76	OK	1.68	YES	OK
01-BS 3 SL	P10	S28	18042	450	1125	21742500	0.83	OK	1.84	YES	OK
01-BS 3 SL	P10	S29	18258	450	1125	21742500	0.84	OK	1.86	YES	OK
01-BS 3 SL	P10	S30	20222	450	1125	21742500	0.93	OK	2.06	YES	OK
01-BS 3 SL	P10	S31	11405	450	1125	21742500	0.52	OK	1.16	YES	OK
01-BS 3 SL	P10	S32	13369	450	1125	21742500	0.61	OK	1.36	YES	OK
01-BS 3 SL	P11	S1	17072	450	812.5	20523750	0.83	OK	1.86	YES	OK
01-BS 3 SL	P11	S2	19337	450	812.5	20523750	0.94	OK	2.10	YES	OK
01-BS 3 SL	P11	S3	16878	450	812.5	20523750	0.82	OK	1.84	YES	OK
01-BS 3 SL	P11	S4	14060	450	812.5	20523750	0.69	OK	1.53	YES	OK
01-BS 3 SL	P11	S5	17534	450	812.5	20523750	0.85	OK	1.91	YES	OK
01-BS 3 SL	P11	S6	13405	450	812.5	20523750	0.65	OK	1.46	YES	OK
01-BS 3 SL	P11	S7	18833	450	812.5	20523750	0.92	OK	2.05	YES	OK
01-BS 3 SL	P11	S8	15310	450	812.5	20523750	0.75	OK	1.67	YES	OK
01-BS 3 SL	P11	S9	19652	450	812.5	20523750	0.96	OK	2.14	YES	OK
01-BS 3 SL	P11	S10	14491	450	812.5	20523750	0.71	OK	1.58	YES	OK
01-BS 3 SL	P11	S11	12004	450	812.5	20523750	0.58	OK	1.31	YES	OK
01-BS 3 SL	P11	S12	8482	450	812.5	20523750	0.41	OK	0.92	YES	OK
01-BS 3 SL	P11	S13	12823	450	812.5	20523750	0.62	OK	1.40	YES	OK
01-BS 3 SL	P11	S14	7662	450	812.5	20523750	0.37	OK	0.83	YES	OK
01-BS 3 SL	P11	S27	16277	450	812.5	20523750	0.79	OK	1.77	YES	OK
01-BS 3 SL	P11	S28	18101	450	812.5	20523750	0.88	OK	1.97	YES	OK
01-BS 3 SL	P11	S29	18081	450	812.5	20523750	0.88	OK	1.97	YES	OK
01-BS 3 SL	P11	S30	20361	450	812.5	20523750	0.99	OK	2.22	YES	OK
01-BS 3 SL	P11	S31	11252	450	812.5	20523750	0.55	OK	1.22	YES	OK
01-BS 3 SL	P11	S32	13532	450	812.5	20523750	0.66	OK	1.47	YES	OK
01-BS 3 SL	P12	S1	16186	375	1935	24609000	0.66	OK	1.42	YES	OK
01-BS 3 SL	P12	S2	18308	375	1935	24609000	0.74	OK	1.61	YES	OK
01-BS 3 SL	P12	S3	17094	375	1935	24609000	0.69	OK	1.50	YES	OK
01-BS 3 SL	P12	S4	12198	375	1935	24609000	0.50	OK	1.07	YES	OK
01-BS 3 SL	P12	S5	15904	375	1935	24609000	0.65	OK	1.40	YES	OK
01-BS 3 SL	P12	S6	13388	375	1935	24609000	0.54	OK	1.18	YES	OK
01-BS 3 SL	P12	S7	19245	375	1935	24609000	0.78	OK	1.69	YES	OK
01-BS 3 SL	P12	S8	13126	375	1935	24609000	0.53	OK	1.15	YES	OK
01-BS 3 SL	P12	S9	17759	375	1935	24609000	0.72	OK	1.56	YES	OK
01-BS 3 SL	P12	S10	14613	375	1935	24609000	0.59	OK	1.28	YES	OK
01-BS 3 SL	P12	S11	12771	375	1935	24609000	0.52	OK	1.12	YES	OK
01-BS 3 SL	P12	S12	6652	375	1935	24609000	0.27	OK	0.58	YES	OK
01-BS 3 SL	P12	S13	11284	375	1935	24609000	0.46	OK	0.99	YES	OK
01-BS 3 SL	P12	S14	8139	375	1935	24609000	0.33	OK	0.72	YES	OK
01-BS 3 SL	P12	S27	17985	375	1935	24609000	0.73	OK	1.58	YES	OK
01-BS 3 SL	P12	S28	15240	375	1935	24609000	0.62	OK	1.34	YES	OK
01-BS 3 SL	P12	S29	20359	375	1935	24609000	0.83	OK	1.79	YES	OK
01-BS 3 SL	P12	S30	16928	375	1935	24609000	0.69	OK	1.49	YES	OK
01-BS 3 SL	P12	S31	13885	375	1935	24609000	0.56	OK	1.22	YES	OK

01-BS 3 SL	P12	S32	10454	375	1935	24609000	0.42	OK	0.92	YES	OK
01-BS 3 SL	P13	S1	14038	375	2050	25057500	0.56	OK	1.21	YES	OK
01-BS 3 SL	P13	S2	15890	375	2050	25057500	0.63	OK	1.37	YES	OK
01-BS 3 SL	P13	S3	8140	375	2050	25057500	0.32	OK	0.70	YES	OK
01-BS 3 SL	P13	S4	17283	375	2050	25057500	0.69	OK	1.49	YES	OK
01-BS 3 SL	P13	S5	8958	375	2050	25057500	0.36	OK	0.77	YES	OK
01-BS 3 SL	P13	S6	16466	375	2050	25057500	0.66	OK	1.42	YES	OK
01-BS 3 SL	P13	S7	8324	375	2050	25057500	0.33	OK	0.72	YES	OK
01-BS 3 SL	P13	S8	19753	375	2050	25057500	0.79	OK	1.70	YES	OK
01-BS 3 SL	P13	S9	9345	375	2050	25057500	0.37	OK	0.81	YES	OK
01-BS 3 SL	P13	S10	18731	375	2050	25057500	0.75	OK	1.61	YES	OK
01-BS 3 SL	P13	S11	2708	375	2050	25057500	0.11	OK	0.23	YES	OK
01-BS 3 SL	P13	S12	14137	375	2050	25057500	0.56	OK	1.22	YES	OK
01-BS 3 SL	P13	S13	3730	375	2050	25057500	0.15	OK	0.32	YES	OK
01-BS 3 SL	P13	S14	13116	375	2050	25057500	0.52	OK	1.13	YES	OK
01-BS 3 SL	P13	S27	16764	375	2050	25057500	0.67	OK	1.44	YES	OK
01-BS 3 SL	P13	S28	15520	375	2050	25057500	0.62	OK	1.34	YES	OK
01-BS 3 SL	P13	S29	19103	375	2050	25057500	0.76	OK	1.65	YES	OK
01-BS 3 SL	P13	S30	17549	375	2050	25057500	0.70	OK	1.51	YES	OK
01-BS 3 SL	P13	S31	13488	375	2050	25057500	0.54	OK	1.16	YES	OK
01-BS 3 SL	P13	S32	11933	375	2050	25057500	0.48	OK	1.03	YES	OK
01-BS 3 SL	P14	S1	14573	375	1917.5	24540750	0.59	OK	1.28	YES	OK
01-BS 3 SL	P14	S2	16466	375	1917.5	24540750	0.67	OK	1.45	YES	OK
01-BS 3 SL	P14	S3	15630	375	1917.5	24540750	0.64	OK	1.38	YES	OK
01-BS 3 SL	P14	S4	10716	375	1917.5	24540750	0.44	OK	0.94	YES	OK
01-BS 3 SL	P14	S5	13033	375	1917.5	24540750	0.53	OK	1.15	YES	OK
01-BS 3 SL	P14	S6	13313	375	1917.5	24540750	0.54	OK	1.17	YES	OK
01-BS 3 SL	P14	S7	17645	375	1917.5	24540750	0.72	OK	1.56	YES	OK
01-BS 3 SL	P14	S8	11502	375	1917.5	24540750	0.47	OK	1.01	YES	OK
01-BS 3 SL	P14	S9	14399	375	1917.5	24540750	0.59	OK	1.27	YES	OK
01-BS 3 SL	P14	S10	14748	375	1917.5	24540750	0.60	OK	1.30	YES	OK
01-BS 3 SL	P14	S11	11815	375	1917.5	24540750	0.48	OK	1.04	YES	OK
01-BS 3 SL	P14	S12	5672	375	1917.5	24540750	0.23	OK	0.50	YES	OK
01-BS 3 SL	P14	S13	8569	375	1917.5	24540750	0.35	OK	0.76	YES	OK
01-BS 3 SL	P14	S14	8918	375	1917.5	24540750	0.36	OK	0.79	YES	OK
01-BS 3 SL	P14	S27	17982	375	1917.5	24540750	0.73	OK	1.59	YES	OK
01-BS 3 SL	P14	S28	16054	375	1917.5	24540750	0.65	OK	1.42	YES	OK
01-BS 3 SL	P14	S29	20584	375	1917.5	24540750	0.84	OK	1.81	YES	OK
01-BS 3 SL	P14	S30	18175	375	1917.5	24540750	0.74	OK	1.60	YES	OK
01-BS 3 SL	P14	S31	14755	375	1917.5	24540750	0.60	OK	1.30	YES	OK
01-BS 3 SL	P14	S32	12346	375	1917.5	24540750	0.50	OK	1.09	YES	OK
01-BS 3 SL	P15	S1	12967	375	2110	25291500	0.51	OK	1.11	YES	OK
01-BS 3 SL	P15	S2	14574	375	2110	25291500	0.58	OK	1.24	YES	OK
01-BS 3 SL	P15	S3	10608	375	2110	25291500	0.42	OK	0.91	YES	OK
01-BS 3 SL	P15	S4	12710	375	2110	25291500	0.50	OK	1.08	YES	OK
01-BS 3 SL	P15	S5	11906	375	2110	25291500	0.47	OK	1.02	YES	OK
01-BS 3 SL	P15	S6	11412	375	2110	25291500	0.45	OK	0.97	YES	OK
01-BS 3 SL	P15	S7	11654	375	2110	25291500	0.46	OK	0.99	YES	OK
01-BS 3 SL	P15	S8	14280	375	2110	25291500	0.56	OK	1.22	YES	OK

01-BS 3 SL	P15	S9	13276	375	2110	25291500	0.52	OK	1.13	YES	OK
01-BS 3 SL	P15	S10	12658	375	2110	25291500	0.50	OK	1.08	YES	OK
01-BS 3 SL	P15	S11	6467	375	2110	25291500	0.26	OK	0.55	YES	OK
01-BS 3 SL	P15	S12	9094	375	2110	25291500	0.36	OK	0.78	YES	OK
01-BS 3 SL	P15	S13	8089	375	2110	25291500	0.32	OK	0.69	YES	OK
01-BS 3 SL	P15	S14	7471	375	2110	25291500	0.30	OK	0.64	YES	OK
01-BS 3 SL	P15	S27	14827	375	2110	25291500	0.59	OK	1.27	YES	OK
01-BS 3 SL	P15	S28	13413	375	2110	25291500	0.53	OK	1.14	YES	OK
01-BS 3 SL	P15	S29	16926	375	2110	25291500	0.67	OK	1.44	YES	OK
01-BS 3 SL	P15	S30	15159	375	2110	25291500	0.60	OK	1.29	YES	OK
01-BS 3 SL	P15	S31	11740	375	2110	25291500	0.46	OK	1.00	YES	OK
01-BS 3 SL	P15	S32	9972	375	2110	25291500	0.39	OK	0.85	YES	OK
01-BS 3 SL	P16	S1	14395	450	575	19597500	0.73	OK	1.65	YES	OK
01-BS 3 SL	P16	S2	16205	450	575	19597500	0.83	OK	1.86	YES	OK
01-BS 3 SL	P16	S3	15843	450	575	19597500	0.81	OK	1.82	YES	OK
01-BS 3 SL	P16	S4	10084	450	575	19597500	0.51	OK	1.16	YES	OK
01-BS 3 SL	P16	S5	15236	450	575	19597500	0.78	OK	1.75	YES	OK
01-BS 3 SL	P16	S6	10691	450	575	19597500	0.55	OK	1.23	YES	OK
01-BS 3 SL	P16	S7	17995	450	575	19597500	0.92	OK	2.06	YES	OK
01-BS 3 SL	P16	S8	10796	450	575	19597500	0.55	OK	1.24	YES	OK
01-BS 3 SL	P16	S9	17236	450	575	19597500	0.88	OK	1.98	YES	OK
01-BS 3 SL	P16	S10	11555	450	575	19597500	0.59	OK	1.32	YES	OK
01-BS 3 SL	P16	S11	12236	450	575	19597500	0.62	OK	1.40	YES	OK
01-BS 3 SL	P16	S12	5038	450	575	19597500	0.26	OK	0.58	YES	OK
01-BS 3 SL	P16	S13	11478	450	575	19597500	0.59	OK	1.32	YES	OK
01-BS 3 SL	P16	S14	5796	450	575	19597500	0.30	OK	0.66	YES	OK
01-BS 3 SL	P16	S27	16557	450	575	19597500	0.84	OK	1.90	YES	OK
01-BS 3 SL	P16	S28	14802	450	575	19597500	0.76	OK	1.70	YES	OK
01-BS 3 SL	P16	S29	18887	450	575	19597500	0.96	OK	2.16	YES	OK
01-BS 3 SL	P16	S30	16694	450	575	19597500	0.85	OK	1.91	YES	OK
01-BS 3 SL	P16	S31	13128	450	575	19597500	0.67	OK	1.50	YES	OK
01-BS 3 SL	P16	S32	10936	450	575	19597500	0.56	OK	1.25	YES	OK
01-BS 3 SL	P17	S1	15091	450	1625	23692500	0.64	OK	1.40	YES	OK
01-BS 3 SL	P17	S2	16600	450	1625	23692500	0.70	OK	1.54	YES	OK
01-BS 3 SL	P17	S3	13183	450	1625	23692500	0.56	OK	1.22	YES	OK
01-BS 3 SL	P17	S4	13377	450	1625	23692500	0.56	OK	1.24	YES	OK
01-BS 3 SL	P17	S5	16152	450	1625	23692500	0.68	OK	1.50	YES	OK
01-BS 3 SL	P17	S6	10408	450	1625	23692500	0.44	OK	0.97	YES	OK
01-BS 3 SL	P17	S7	14970	450	1625	23692500	0.63	OK	1.39	YES	OK
01-BS 3 SL	P17	S8	15212	450	1625	23692500	0.64	OK	1.41	YES	OK
01-BS 3 SL	P17	S9	18681	450	1625	23692500	0.79	OK	1.73	YES	OK
01-BS 3 SL	P17	S10	11500	450	1625	23692500	0.49	OK	1.07	YES	OK
01-BS 3 SL	P17	S11	8933	450	1625	23692500	0.38	OK	0.83	YES	OK
01-BS 3 SL	P17	S12	9175	450	1625	23692500	0.39	OK	0.85	YES	OK
01-BS 3 SL	P17	S13	12645	450	1625	23692500	0.53	OK	1.17	YES	OK
01-BS 3 SL	P17	S14	5464	450	1625	23692500	0.23	OK	0.51	YES	OK
01-BS 3 SL	P17	S27	20744	450	1625	23692500	0.88	OK	1.93	YES	OK
01-BS 3 SL	P17	S28	18994	450	1625	23692500	0.80	OK	1.76	YES	OK
01-BS 3 SL	P17	S29	24421	450	1625	23692500	1.03	OK	2.27	YES	OK

01-BS 3 SL	P17	S30	22233	450	1625	23692500	0.94	OK	2.06	YES	OK
01-BS 3 SL	P17	S31	18385	450	1625	23692500	0.78	OK	1.71	YES	OK
01-BS 3 SL	P17	S32	16197	450	1625	23692500	0.68	OK	1.50	YES	OK
01-BS 3 SL	P18	S1	15035	450	1500	23205000	0.65	OK	1.43	YES	OK
01-BS 3 SL	P18	S2	16577	450	1500	23205000	0.71	OK	1.57	YES	OK
01-BS 3 SL	P18	S3	18836	450	1500	23205000	0.81	OK	1.79	YES	OK
01-BS 3 SL	P18	S4	7688	450	1500	23205000	0.33	OK	0.73	YES	OK
01-BS 3 SL	P18	S5	18869	450	1500	23205000	0.81	OK	1.79	YES	OK
01-BS 3 SL	P18	S6	7655	450	1500	23205000	0.33	OK	0.73	YES	OK
01-BS 3 SL	P18	S7	22003	450	1500	23205000	0.95	OK	2.09	YES	OK
01-BS 3 SL	P18	S8	8068	450	1500	23205000	0.35	OK	0.77	YES	OK
01-BS 3 SL	P18	S9	22044	450	1500	23205000	0.95	OK	2.09	YES	OK
01-BS 3 SL	P18	S10	8026	450	1500	23205000	0.35	OK	0.76	YES	OK
01-BS 3 SL	P18	S11	15989	450	1500	23205000	0.69	OK	1.52	YES	OK
01-BS 3 SL	P18	S12	2054	450	1500	23205000	0.09	OK	0.20	YES	OK
01-BS 3 SL	P18	S13	16030	450	1500	23205000	0.69	OK	1.52	YES	OK
01-BS 3 SL	P18	S14	2012	450	1500	23205000	0.09	OK	0.19	YES	OK
01-BS 3 SL	P18	S27	20563	450	1500	23205000	0.89	OK	1.95	YES	OK
01-BS 3 SL	P18	S28	18787	450	1500	23205000	0.81	OK	1.78	YES	OK
01-BS 3 SL	P18	S29	24162	450	1500	23205000	1.04	OK	2.29	YES	OK
01-BS 3 SL	P18	S30	21941	450	1500	23205000	0.95	OK	2.08	YES	OK
01-BS 3 SL	P18	S31	18148	450	1500	23205000	0.78	OK	1.72	YES	OK
01-BS 3 SL	P18	S32	15927	450	1500	23205000	0.69	OK	1.51	YES	OK
01-BS 3 SL	P19	S1	10523	450	1500	23205000	0.45	OK	1.00	YES	OK
01-BS 3 SL	P19	S2	11663	450	1500	23205000	0.50	OK	1.11	YES	OK
01-BS 3 SL	P19	S3	6395	450	1500	23205000	0.28	OK	0.61	YES	OK
01-BS 3 SL	P19	S4	12265	450	1500	23205000	0.53	OK	1.16	YES	OK
01-BS 3 SL	P19	S5	7298	450	1500	23205000	0.31	OK	0.69	YES	OK
01-BS 3 SL	P19	S6	11363	450	1500	23205000	0.49	OK	1.08	YES	OK
01-BS 3 SL	P19	S7	6854	450	1500	23205000	0.30	OK	0.65	YES	OK
01-BS 3 SL	P19	S8	14191	450	1500	23205000	0.61	OK	1.35	YES	OK
01-BS 3 SL	P19	S9	7982	450	1500	23205000	0.34	OK	0.76	YES	OK
01-BS 3 SL	P19	S10	13063	450	1500	23205000	0.56	OK	1.24	YES	OK
01-BS 3 SL	P19	S11	2645	450	1500	23205000	0.11	OK	0.25	YES	OK
01-BS 3 SL	P19	S12	9982	450	1500	23205000	0.43	OK	0.95	YES	OK
01-BS 3 SL	P19	S13	3773	450	1500	23205000	0.16	OK	0.36	YES	OK
01-BS 3 SL	P19	S14	8854	450	1500	23205000	0.38	OK	0.84	YES	OK
01-BS 3 SL	P19	S27	12821	450	1500	23205000	0.55	OK	1.22	YES	OK
01-BS 3 SL	P19	S28	10433	450	1500	23205000	0.45	OK	0.99	YES	OK
01-BS 3 SL	P19	S29	14886	450	1500	23205000	0.64	OK	1.41	YES	OK
01-BS 3 SL	P19	S30	11901	450	1500	23205000	0.51	OK	1.13	YES	OK
01-BS 3 SL	P19	S31	10677	450	1500	23205000	0.46	OK	1.01	YES	OK
01-BS 3 SL	P19	S32	7692	450	1500	23205000	0.33	OK	0.73	YES	OK
01-BS 3 SL	P20	S1	10572	450	537.5	19451250	0.54	OK	1.22	YES	OK
01-BS 3 SL	P20	S2	11725	450	537.5	19451250	0.60	OK	1.35	YES	OK
01-BS 3 SL	P20	S3	11461	450	537.5	19451250	0.59	OK	1.32	YES	OK
01-BS 3 SL	P20	S4	7299	450	537.5	19451250	0.38	OK	0.84	YES	OK
01-BS 3 SL	P20	S5	10165	450	537.5	19451250	0.52	OK	1.17	YES	OK
01-BS 3 SL	P20	S6	8595	450	537.5	19451250	0.44	OK	0.99	YES	OK

01-BS 3 SL	P20	S7	13173	450	537.5	19451250	0.68	OK	1.52	YES	OK
01-BS 3 SL	P20	S8	7970	450	537.5	19451250	0.41	OK	0.92	YES	OK
01-BS 3 SL	P20	S9	11553	450	537.5	19451250	0.59	OK	1.34	YES	OK
01-BS 3 SL	P20	S10	9591	450	537.5	19451250	0.49	OK	1.11	YES	OK
01-BS 3 SL	P20	S11	8945	450	537.5	19451250	0.46	OK	1.03	YES	OK
01-BS 3 SL	P20	S12	3742	450	537.5	19451250	0.19	OK	0.43	YES	OK
01-BS 3 SL	P20	S13	7324	450	537.5	19451250	0.38	OK	0.85	YES	OK
01-BS 3 SL	P20	S14	5362	450	537.5	19451250	0.28	OK	0.62	YES	OK
01-BS 3 SL	P20	S27	13027	450	537.5	19451250	0.67	OK	1.51	YES	OK
01-BS 3 SL	P20	S28	10115	450	537.5	19451250	0.52	OK	1.17	YES	OK
01-BS 3 SL	P20	S29	15131	450	537.5	19451250	0.78	OK	1.75	YES	OK
01-BS 3 SL	P20	S30	11491	450	537.5	19451250	0.59	OK	1.33	YES	OK
01-BS 3 SL	P20	S31	10902	450	537.5	19451250	0.56	OK	1.26	YES	OK
01-BS 3 SL	P20	S32	7263	450	537.5	19451250	0.37	OK	0.84	YES	OK
01-BS 3 SL	P21	S1	17056	450	2112.5	25593750	0.67	OK	1.45	YES	OK
01-BS 3 SL	P21	S2	18977	450	2112.5	25593750	0.74	OK	1.62	YES	OK
01-BS 3 SL	P21	S3	9065	450	2112.5	25593750	0.35	OK	0.77	YES	OK
01-BS 3 SL	P21	S4	21299	450	2112.5	25593750	0.83	OK	1.82	YES	OK
01-BS 3 SL	P21	S5	9261	450	2112.5	25593750	0.36	OK	0.79	YES	OK
01-BS 3 SL	P21	S6	21102	450	2112.5	25593750	0.82	OK	1.80	YES	OK
01-BS 3 SL	P21	S7	9410	450	2112.5	25593750	0.37	OK	0.80	YES	OK
01-BS 3 SL	P21	S8	24702	450	2112.5	25593750	0.97	OK	2.11	YES	OK
01-BS 3 SL	P21	S9	9655	450	2112.5	25593750	0.38	OK	0.82	YES	OK
01-BS 3 SL	P21	S10	24457	450	2112.5	25593750	0.96	OK	2.09	YES	OK
01-BS 3 SL	P21	S11	2587	450	2112.5	25593750	0.10	OK	0.22	YES	OK
01-BS 3 SL	P21	S12	17880	450	2112.5	25593750	0.70	OK	1.53	YES	OK
01-BS 3 SL	P21	S13	2833	450	2112.5	25593750	0.11	OK	0.24	YES	OK
01-BS 3 SL	P21	S14	17634	450	2112.5	25593750	0.69	OK	1.50	YES	OK
01-BS 3 SL	P21	S27	19312	450	2112.5	25593750	0.75	OK	1.65	YES	OK
01-BS 3 SL	P21	S28	20278	450	2112.5	25593750	0.79	OK	1.73	YES	OK
01-BS 3 SL	P21	S29	22219	450	2112.5	25593750	0.87	OK	1.90	YES	OK
01-BS 3 SL	P21	S30	23427	450	2112.5	25593750	0.92	OK	2.00	YES	OK
01-BS 3 SL	P21	S31	15396	450	2112.5	25593750	0.60	OK	1.31	YES	OK
01-BS 3 SL	P21	S32	16605	450	2112.5	25593750	0.65	OK	1.42	YES	OK
01-BS 3 SL	P22	S1	22730	450	2300	26325000	0.86	OK	1.88	YES	OK
01-BS 3 SL	P22	S2	25590	450	2300	26325000	0.97	OK	2.12	YES	OK
01-BS 3 SL	P22	S3	21078	450	2300	26325000	0.80	OK	1.74	YES	OK
01-BS 3 SL	P22	S4	19867	450	2300	26325000	0.75	OK	1.64	YES	OK
01-BS 3 SL	P22	S5	19400	450	2300	26325000	0.74	OK	1.60	YES	OK
01-BS 3 SL	P22	S6	21544	450	2300	26325000	0.82	OK	1.78	YES	OK
01-BS 3 SL	P22	S7	23486	450	2300	26325000	0.89	OK	1.94	YES	OK
01-BS 3 SL	P22	S8	21973	450	2300	26325000	0.83	OK	1.82	YES	OK
01-BS 3 SL	P22	S9	21390	450	2300	26325000	0.81	OK	1.77	YES	OK
01-BS 3 SL	P22	S10	24070	450	2300	26325000	0.91	OK	1.99	YES	OK
01-BS 3 SL	P22	S11	14395	450	2300	26325000	0.55	OK	1.19	YES	OK
01-BS 3 SL	P22	S12	12881	450	2300	26325000	0.49	OK	1.07	YES	OK
01-BS 3 SL	P22	S13	12298	450	2300	26325000	0.47	OK	1.02	YES	OK
01-BS 3 SL	P22	S14	14978	450	2300	26325000	0.57	OK	1.24	YES	OK
01-BS 3 SL	P22	S27	25252	450	2300	26325000	0.96	OK	2.09	YES	OK

01-BS 3 SL	P22	S28	23643	450	2300	26325000	0.90	OK	1.96	YES	OK
01-BS 3 SL	P22	S29	28705	450	2300	26325000	1.09	OK	2.37	YES	OK
01-BS 3 SL	P22	S30	26693	450	2300	26325000	1.01	OK	2.21	YES	OK
01-BS 3 SL	P22	S31	19613	450	2300	26325000	0.75	OK	1.62	YES	OK
01-BS 3 SL	P22	S32	17602	450	2300	26325000	0.67	OK	1.46	YES	OK
01-BS 3 SL	P23	S1	24161	450	2300	26325000	0.92	OK	2.00	YES	OK
01-BS 3 SL	P23	S2	27413	450	2300	26325000	1.04	OK	2.27	YES	OK
01-BS 3 SL	P23	S3	19910	450	2300	26325000	0.76	OK	1.65	YES	OK
01-BS 3 SL	P23	S4	23951	450	2300	26325000	0.91	OK	1.98	YES	OK
01-BS 3 SL	P23	S5	18940	450	2300	26325000	0.72	OK	1.57	YES	OK
01-BS 3 SL	P23	S6	24921	450	2300	26325000	0.95	OK	2.06	YES	OK
01-BS 3 SL	P23	S7	21635	450	2300	26325000	0.82	OK	1.79	YES	OK
01-BS 3 SL	P23	S8	26686	450	2300	26325000	1.01	OK	2.21	YES	OK
01-BS 3 SL	P23	S9	20422	450	2300	26325000	0.78	OK	1.69	YES	OK
01-BS 3 SL	P23	S10	27899	450	2300	26325000	1.06	OK	2.31	YES	OK
01-BS 3 SL	P23	S11	11971	450	2300	26325000	0.45	OK	0.99	YES	OK
01-BS 3 SL	P23	S12	17022	450	2300	26325000	0.65	OK	1.41	YES	OK
01-BS 3 SL	P23	S13	10758	450	2300	26325000	0.41	OK	0.89	YES	OK
01-BS 3 SL	P23	S14	18235	450	2300	26325000	0.69	OK	1.51	YES	OK
01-BS 3 SL	P23	S27	23033	450	2300	26325000	0.87	OK	1.91	YES	OK
01-BS 3 SL	P23	S28	26106	450	2300	26325000	0.99	OK	2.16	YES	OK
01-BS 3 SL	P23	S29	25538	450	2300	26325000	0.97	OK	2.11	YES	OK
01-BS 3 SL	P23	S30	29380	450	2300	26325000	1.12	OK	2.43	YES	OK
01-BS 3 SL	P23	S31	15874	450	2300	26325000	0.60	OK	1.31	YES	OK
01-BS 3 SL	P23	S32	19716	450	2300	26325000	0.75	OK	1.63	YES	OK
01-BS 3 SL	P24	S1	21408	450	2112.5	25593750	0.84	OK	1.83	YES	OK
01-BS 3 SL	P24	S2	24364	450	2112.5	25593750	0.95	OK	2.08	YES	OK
01-BS 3 SL	P24	S3	18230	450	2112.5	25593750	0.71	OK	1.55	YES	OK
01-BS 3 SL	P24	S4	20752	450	2112.5	25593750	0.81	OK	1.77	YES	OK
01-BS 3 SL	P24	S5	17724	450	2112.5	25593750	0.69	OK	1.51	YES	OK
01-BS 3 SL	P24	S6	21257	450	2112.5	25593750	0.83	OK	1.81	YES	OK
01-BS 3 SL	P24	S7	19832	450	2112.5	25593750	0.77	OK	1.69	YES	OK
01-BS 3 SL	P24	S8	22984	450	2112.5	25593750	0.90	OK	1.96	YES	OK
01-BS 3 SL	P24	S9	19200	450	2112.5	25593750	0.75	OK	1.64	YES	OK
01-BS 3 SL	P24	S10	23616	450	2112.5	25593750	0.92	OK	2.01	YES	OK
01-BS 3 SL	P24	S11	11269	450	2112.5	25593750	0.44	OK	0.96	YES	OK
01-BS 3 SL	P24	S12	14421	450	2112.5	25593750	0.56	OK	1.23	YES	OK
01-BS 3 SL	P24	S13	10637	450	2112.5	25593750	0.42	OK	0.91	YES	OK
01-BS 3 SL	P24	S14	15053	450	2112.5	25593750	0.59	OK	1.28	YES	OK
01-BS 3 SL	P24	S27	20384	450	2112.5	25593750	0.80	OK	1.74	YES	OK
01-BS 3 SL	P24	S28	22406	450	2112.5	25593750	0.88	OK	1.91	YES	OK
01-BS 3 SL	P24	S29	22524	450	2112.5	25593750	0.88	OK	1.92	YES	OK
01-BS 3 SL	P24	S30	25052	450	2112.5	25593750	0.98	OK	2.14	YES	OK
01-BS 3 SL	P24	S31	13961	450	2112.5	25593750	0.55	OK	1.19	YES	OK
01-BS 3 SL	P24	S32	16489	450	2112.5	25593750	0.64	OK	1.41	YES	OK
01-BS 3 SL	P25	S1	22310	450	745	20260500	1.10	OK	2.46	YES	OK
01-BS 3 SL	P25	S2	25147	450	745	20260500	1.24	OK	2.78	YES	OK
01-BS 3 SL	P25	S3	16457	450	745	20260500	0.81	OK	1.82	YES	OK
01-BS 3 SL	P25	S4	23779	450	745	20260500	1.17	OK	2.63	YES	OK

01-BS 3 SL	P25	S5	16633	450	745	20260500	0.82	OK	1.84	YES	OK
01-BS 3 SL	P25	S6	23603	450	745	20260500	1.16	OK	2.61	YES	OK
01-BS 3 SL	P25	S7	17734	450	745	20260500	0.88	OK	1.96	YES	OK
01-BS 3 SL	P25	S8	26885	450	745	20260500	1.33	OK	2.97	YES	OK
01-BS 3 SL	P25	S9	17953	450	745	20260500	0.89	OK	1.98	YES	OK
01-BS 3 SL	P25	S10	26666	450	745	20260500	1.32	OK	2.94	YES	OK
01-BS 3 SL	P25	S11	8810	450	745	20260500	0.43	OK	0.97	YES	OK
01-BS 3 SL	P25	S12	17962	450	745	20260500	0.89	OK	1.98	YES	OK
01-BS 3 SL	P25	S13	9029	450	745	20260500	0.45	OK	1.00	YES	OK
01-BS 3 SL	P25	S14	17742	450	745	20260500	0.88	OK	1.96	YES	OK
01-BS 3 SL	P25	S27	25213	450	745	20260500	1.24	OK	2.78	YES	OK
01-BS 3 SL	P25	S28	23949	450	745	20260500	1.18	OK	2.64	YES	OK
01-BS 3 SL	P25	S29	28678	450	745	20260500	1.42	OK	3.17	YES	OK
01-BS 3 SL	P25	S30	27099	450	745	20260500	1.34	OK	2.99	YES	OK
01-BS 3 SL	P25	S31	19754	450	745	20260500	0.98	OK	2.18	YES	OK
01-BS 3 SL	P25	S32	18175	450	745	20260500	0.90	OK	2.01	YES	OK
01-BS 3 SL	P26	S1	17040	450	537.5	19451250	0.88	OK	1.97	YES	OK
01-BS 3 SL	P26	S2	18886	450	537.5	19451250	0.97	OK	2.18	YES	OK
01-BS 3 SL	P26	S3	15761	450	537.5	19451250	0.81	OK	1.82	YES	OK
01-BS 3 SL	P26	S4	14457	450	537.5	19451250	0.74	OK	1.67	YES	OK
01-BS 3 SL	P26	S5	12224	450	537.5	19451250	0.63	OK	1.41	YES	OK
01-BS 3 SL	P26	S6	17994	450	537.5	19451250	0.93	OK	2.08	YES	OK
01-BS 3 SL	P26	S7	17855	450	537.5	19451250	0.92	OK	2.06	YES	OK
01-BS 3 SL	P26	S8	16225	450	537.5	19451250	0.83	OK	1.88	YES	OK
01-BS 3 SL	P26	S9	13433	450	537.5	19451250	0.69	OK	1.55	YES	OK
01-BS 3 SL	P26	S10	20646	450	537.5	19451250	1.06	OK	2.39	YES	OK
01-BS 3 SL	P26	S11	11039	450	537.5	19451250	0.57	OK	1.28	YES	OK
01-BS 3 SL	P26	S12	9409	450	537.5	19451250	0.48	OK	1.09	YES	OK
01-BS 3 SL	P26	S13	6617	450	537.5	19451250	0.34	OK	0.76	YES	OK
01-BS 3 SL	P26	S14	13831	450	537.5	19451250	0.71	OK	1.60	YES	OK
01-BS 3 SL	P26	S27	19530	450	537.5	19451250	1.00	OK	2.26	YES	OK
01-BS 3 SL	P26	S28	20940	450	537.5	19451250	1.08	OK	2.42	YES	OK
01-BS 3 SL	P26	S29	22566	450	537.5	19451250	1.16	OK	2.61	YES	OK
01-BS 3 SL	P26	S30	24329	450	537.5	19451250	1.25	OK	2.81	YES	OK
01-BS 3 SL	P26	S31	15751	450	537.5	19451250	0.81	OK	1.82	YES	OK
01-BS 3 SL	P26	S32	17513	450	537.5	19451250	0.90	OK	2.02	YES	OK

17. DIAPHRAGM CHECK

BLOCK-A (Diaphragm Displacement)						
	SPEC-X			SPEC-Y		
	Maximum	Average	Ratio	Maximum	Average	Ratio
Story	mm	mm		mm	mm	
38-LMR	266.382	258.354	1.031	293.483	285.211	1.029
37-ST CB	262.104	254.773	1.029	289.258	280.509	1.031
36-Story32	264.027	254.145	1.039	314.429	290.411	1.083
35-Story-31	260.061	250.335	1.039	307.06	283.774	1.082
34-Story30	255.72	246.212	1.039	299.618	276.988	1.082
33-Story29	251.146	241.861	1.038	292.004	270.027	1.081
32-Story28	246.326	237.267	1.038	284.17	262.853	1.081
31-Story27	241.235	232.414	1.038	276.09	255.445	1.081
30-Story26	235.847	227.275	1.038	267.754	247.797	1.081
29-Story25	230.138	221.818	1.038	259.154	239.9	1.08
28-Story24	224.089	216.034	1.037	250.29	231.754	1.08
27-Story23	217.697	209.915	1.037	241.17	223.368	1.08
26-Story22	210.963	203.465	1.037	231.806	214.754	1.079
25-Story21	203.893	196.684	1.037	222.211	205.922	1.079
24-Story20	196.49	189.588	1.036	212.397	196.881	1.079
23-Story19	188.794	182.201	1.036	202.407	187.67	1.079
22-Story18	180.787	174.501	1.036	192.248	178.299	1.078
21-Story17	172.49	166.52	1.036	181.941	168.79	1.078
20-Story16	163.925	158.287	1.036	171.515	159.169	1.078
19-Story15	155.092	149.795	1.035	160.994	149.451	1.077
18-Story14	146.049	141.082	1.035	150.419	139.674	1.077
17-Story13	136.801	132.17	1.035	139.806	129.859	1.077
16-Story12	127.351	123.062	1.035	129.194	120.042	1.076
15-Story11	117.734	113.79	1.035	118.625	110.254	1.076
14-Story10	108.013	104.428	1.034	108.127	100.52	1.076
13-Story9	98.269	95.033	1.034	97.753	90.891	1.075
12-Story8	88.514	85.613	1.034	87.53	81.398	1.075
11-Story7	78.824	76.258	1.034	77.588	72.128	1.076
10-Story6	69.269	67.026	1.033	67.789	63.043	1.075
09-Story5	59.926	58.006	1.033	58.356	54.289	1.075
08-Story4	50.935	49.321	1.033	49.402	45.962	1.075
07-Story3	42.439	41.077	1.033	40.973	38.116	1.075
06-Story2	34.379	33.27	1.033	33.043	30.748	1.075
05-Story1	26.903	26.023	1.034	25.703	23.936	1.074
04-HP SL	18.524	17.933	1.033	17.723	16.458	1.077
03-BS 1 SL	10.64	10.318	1.031	10.106	9.342	1.082
02-BS 2 SL	5.138	4.981	1.032	4.772	4.385	1.088
01-BS 3 SL	1.581	1.511	1.046	1.393	1.259	1.106
Δmax/ Δavg < 1.2. Hence,Rigid Diaphragm .						

BLOCK-B (Diaphragm Displacement)						
	SPEC-X			SPEC-Y		
	Maximum	Average	Ratio	Maximum	Average	Ratio
Story	mm	mm		mm	mm	
38-LMR	311	279	1.12	267	261	1.022
37-ST CB	308	276	1.12	261	256	1.022
36-Story32	352	283	1.24	269	257	1.047
35-Story-31	347	279	1.24	264	252	1.047
34-Story30	342	275	1.25	258	247	1.047
33-Story29	336	270	1.25	252	241	1.048
32-Story28	330	264	1.25	246	235	1.048
31-Story27	323	258	1.25	240	229	1.048
30-Story26	316	252	1.25	233	222	1.048
29-Story25	309	246	1.26	226	216	1.049
28-Story24	300	239	1.26	219	209	1.049
27-Story23	292	232	1.26	211	202	1.049
26-Story22	283	224	1.26	204	194	1.05
25-Story21	273	216	1.26	196	186	1.05
24-Story20	263	208	1.26	188	179	1.05
23-Story19	253	200	1.27	179	171	1.051
22-Story18	242	191	1.27	171	162	1.051
21-Story17	231	182	1.27	162	154	1.052
20-Story16	220	173	1.27	153	146	1.052
19-Story15	209	164	1.27	144	137	1.053
18-Story14	197	155	1.27	135	128	1.053
17-Story13	185	145	1.27	126	120	1.054
16-Story12	172	135	1.28	117	111	1.055
15-Story11	160	125	1.28	108	102	1.056
14-Story10	147	116	1.28	99	93	1.057
13-Story9	135	106	1.28	90	85	1.058
12-Story8	122	96	1.28	81	76	1.06
11-Story7	110	86	1.28	72	68	1.061
10-Story6	97	76	1.28	63	60	1.063
09-Story5	85	66	1.28	55	52	1.066
08-Story4	73	57	1.27	47	44	1.068
07-Story3	61	48	1.27	39	37	1.072
06-Story2	50	39	1.27	32	30	1.077
05-Story1	39	31	1.26	25	23	1.083
04-HP SL	30	23	1.3	18	16	1.089
03-BS 1 SL	17	13	1.29	10	9.21	1.094
02-BS 2 SL	8	6	1.28	4.83	4.4	1.099
01-BS 3 SL	2	2	1.27	1.45	1.31	1.109

Δmax/ Δavg >1.2. Hence, Semi-Rigid Diaphragm.

18. LATERAL STRENGTH CHECK

Story	Label	Tc	Tc max	Tcd	Vc(KN)
04-HP SL	C9	46.14	2.5	285.61	893
04-HP SL	C10	44.56	2.5	273.64	856
04-HP SL	C12	40.76	2.5	242.99	760
04-HP SL	C13	40.13	2.5	239.73	750
04-HP SL	C1	13.75	2.5	20.62	64
04-HP SL	C2	43.29	2.5	64.94	106
04-HP SL	C3	39.50	2.5	60.48	99
04-HP SL	C4	35.08	2.5	52.61	86
04-HP SL	C5	43.13	2.5	64.70	148
04-HP SL	C6	31.60	2.5	47.40	109
04-HP SL	C7	54.98	2.5	82.48	189
04-HP SL	C8	45.82	2.5	187.96	431
04-HP SL	P01	5.00	2.5	21.55	143
04-HP SL	P02	5.00	2.5	78.90	186
04-HP SL	P03	5.00	2.5	22.96	302
04-HP SL	P04	5.00	2.5	19.40	256
04-HP SL	P05	5.21	2.5	20.16	265
04-HP SL	P06	5.21	2.5	23.88	315
04-HP SL	P07	19.75	2.5	310.93	731
04-HP SL	P08	43.29	2.5	186.61	1234
04-HP SL	P09	31.28	2.5	133.54	2067
04-HP SL	P11	47.24	2.5	253.54	2256
04-HP SL	P12	47.24	2.5	515.92	3383
04-HP SL	P13	20.54	2.5	221.42	1452
04-HP SL	P14	12.48	2.5	67.43	600
04-HP SL	P15	11.53	2.5	72.13	438
04-HP SL	P16	20.54	2.5	120.03	862
04-HP SL	P17	45.50	2.5	260.66	2519
04-HP SL	P18	45.50	2.5	294.56	1788
04-HP SL	P19	34.76	2.5	204.06	1238
04-HP SL	P20	17.54	2.5	103.82	745
04-HP SL	P21	48.03	2.5	276.15	2669
04-HP SL	P22	44.56	2.5	228.64	2035
04-HP SL	P23	43.29	2.5	469.17	3076
04-HP SL	P24	74.42	2.5	803.00	5265
04-HP SL	P25	66.68	2.5	352.07	3133
04-HP SL	LIFT 1	5.00	2.5	59.24	1331
04-HP SL	LIFT 2	5.00	2.5	59.20	1330
04-HP SL	LIFT 3	5.00	2.5	25.00	382
04-HP SL	P10	69.36	2.5	293.75	4546
04-HP SL	P26	70.94	2.5	286.77	4438
04-HP SL	P27	33.81	2.5	138.27	2140

04-HP SL	P28	41.24	2.5	177.74	1176
04-HP SL	P29	34.44	2.5	558.63	1314
04-HP SL	P30	34.44	2.5	158.96	2093
04-HP SL	P31	34.76	2.5	137.33	1809
04-HP SL	P32	5.00	2.5	19.68	259
04-HP SL	P33	5.00	2.5	23.03	303
04-HP SL	P34	5.00	2.5	81.61	192
04-HP SL	P35	5.00	2.5	21.66	143
04-HP SL	LIFT 4	5.00	2.5	25.59	391
					63296
Story	**Label**	**Tc**	**Tc max**	**Tcd**	**Vc(KN)**
05-Story1	C9	43.61	2.5	260.51	815
05-Story1	C10	44.40	2.5	263.75	825
05-Story1	C12	40.76	2.5	239.60	749
05-Story1	C13	38.87	2.5	226.62	709
05-Story1	C6	65.10	2.5	97.64	224
05-Story1	C8	65.10	2.5	65.10	149
05-Story1	C11	12.64	2.5	18.96	36
05-Story1	C14	12.64	2.5	18.96	36
05-Story1	P01	5.00	2.5	21.55	143
05-Story1	P02	5.00	2.5	78.90	186
05-Story1	P03	5.00	2.5	22.96	302
05-Story1	P04	5.00	2.5	19.40	256
05-Story1	P05	5.21	2.5	20.16	265
05-Story1	P06	5.21	2.5	23.88	315
05-Story1	P07	19.75	2.5	310.93	731
05-Story1	P08	43.29	2.5	186.61	1234
05-Story1	P09	31.28	2.5	133.54	2067
05-Story1	P11	47.24	2.5	253.54	2256
05-Story1	P12	47.24	2.5	515.92	3383
05-Story1	P13	20.54	2.5	221.42	1452
05-Story1	P14	12.48	2.5	67.43	600
05-Story1	P15	11.53	2.5	72.13	438
05-Story1	P16	20.54	2.5	120.03	862
05-Story1	P17	45.50	2.5	260.66	2519
05-Story1	P18	45.50	2.5	294.56	1788
05-Story1	P19	34.76	2.5	204.06	1238
05-Story1	P20	17.54	2.5	103.82	745
05-Story1	P21	48.03	2.5	276.15	2669
05-Story1	P22	44.56	2.5	228.64	2035
05-Story1	P23	43.29	2.5	469.17	3076
05-Story1	P24	74.42	2.5	803.00	5265
05-Story1	P25	66.68	2.5	352.07	3133
05-Story1	LIFT 1	5.00	2.5	59.24	1331
05-Story1	LIFT 2	5.00	2.5	59.20	1330

05-Story1	LIFT 3	5.00	2.5	25.00	382
05-Story1	P10	69.36	2.5	293.75	4546
05-Story1	P26	70.94	2.5	286.77	4438
05-Story1	P27	33.81	2.5	138.27	2140
05-Story1	P28	41.24	2.5	177.74	1176
05-Story1	P29	34.44	2.5	558.63	1314
05-Story1	P30	34.44	2.5	158.96	2093
05-Story1	P31	34.76	2.5	137.33	1809
05-Story1	P32	5.00	2.5	19.68	259
05-Story1	P33	5.00	2.5	23.03	303
05-Story1	P34	5.00	2.5	81.61	192
05-Story1	P35	5.00	2.5	21.66	143
05-Story1	LIFT 4	5.00	2.5	25.59	391
					62347
Story	**Label**	**Tc**	**Tc max**	**Tcd**	**Vc(KN)**
06-Story2	C9	42.34	2.5	248.46	777
06-Story2	C10	43.45	2.5	253.48	793
06-Story2	C12	38.39	2.5	219.93	688
06-Story2	C13	36.18	2.5	205.49	643
06-Story2	P01	5.00	2.5	21.07	139
06-Story2	P02	28.76	2.5	438.64	1032
06-Story2	P03	22.28	2.5	99.49	1310
06-Story2	P04	8.53	2.5	32.33	426
06-Story2	P05	14.54	2.5	54.89	723
06-Story2	P06	31.28	2.5	139.37	1836
06-Story2	P07	54.83	2.5	834.62	1963
06-Story2	P08	54.83	2.5	231.09	1528
06-Story2	P09	21.65	2.5	90.09	1394
06-Story2	P11	14.06	2.5	73.58	655
06-Story2	P12	14.06	2.5	148.68	975
06-Story2	P13	20.86	2.5	217.68	1427
06-Story2	P14	57.35	2.5	301.41	2682
06-Story2	P15	57.35	2.5	344.01	2088
06-Story2	P16	36.66	2.5	207.48	1489
06-Story2	P17	33.02	2.5	184.62	1784
06-Story2	P18	21.96	2.5	135.89	825
06-Story2	P19	7.27	2.5	41.09	249
06-Story2	P20	6.64	2.5	38.06	273
06-Story2	P21	22.44	2.5	125.66	1214
06-Story2	P22	40.76	2.5	209.63	1866
06-Story2	P23	40.76	2.5	428.51	2810
06-Story2	P24	28.44	2.5	297.14	1948
06-Story2	P25	7.11	2.5	37.68	335
06-Story2	LIFT 1	33.02	2.5	379.83	8533
06-Story2	LIFT 2	33.97	2.5	391.23	8789

06-Story2	LIFT 3	33.97	2.5	167.05	2551
06-Story2	P10	21.96	2.5	90.68	1403
06-Story2	P26	7.27	2.5	29.13	451
06-Story2	P27	6.64	2.5	26.99	418
06-Story2	P28	22.44	2.5	93.02	615
06-Story2	P29	40.76	2.5	634.46	1493
06-Story2	P30	40.76	2.5	181.45	2390
06-Story2	P31	28.44	2.5	108.00	1422
06-Story2	P32	7.11	2.5	26.90	354
06-Story2	P33	33.02	2.5	146.46	1929
06-Story2	P34	33.97	2.5	530.23	1247
06-Story2	P35	33.97	2.5	139.99	926
06-Story2	LIFT 4	36.97	2.5	184.98	2825
					69219

19. STRUCTURAL LAYOUT

20. WIND TUNNEL REPORT

21. SOIL TEST REPORT