

STABILITY CERTIFICATE

(To be furnished while filing application for registration building)

The detailed engineering and structure design of the proposed building comprising of Plan showing the proposed construction of stilt floor + 5 floors (Height – 18.25m) Residential Building with 16 dwelling units Availing Premium FSI with TOD Benefit at Plot No.4 (Pt) & 5, New Door No.9, Old Door No.14, Anna Avenue, Bakthacatchalam Nagar Extension, Adyar, Chennai 600020, comprised in Old S.No.15/5 (pt), T.S.No.46/4 & 46/27, Block No.16 of Palli Pattu Village within the limit of Greater Chennai Corporation. Has been done by me/us based on the report of geotechnical investigation (soil test) done by **Geo Marine Consultants (P) Ltd. Report Number: GT-2516, Date: 28/02/2023** and considering the functional requirement of the building.

2. It is certified that among other factors, the proposed building has been designed to resist earthquakes. I/We have checked various parameters and found that the proposed building would be safe.

3. I/We further certify that:

(i) The minimum grade of concrete is **M25**

(ii) The design and analysis has been done using the code of practice for plain and reinforced concrete as Per IS 456, design loads as per IS Codes No IS-875 and design of earthquake resistant structure as per IS Code No **1893**

4. The building will be safe and sound when used for the purpose for which it is designed.

Stamp and Signature

C. KANNAN, B.E., M.E, (Structure)
Structural Engineer,
CMDA Reg. No: SE/I/2024/2/0047
Door No: 21, 4th Main Road,
Indira Nagar, Chennai-600 020.

Encl: Structural Design Calculation

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*****
*
*          STAAD.PRO 2025
*          Version 25.00.00.539
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=   JAN 27, 2026
*          Time=   12: 0:21
*
* Licensed to: C.Kannan
*****

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1. STAAD SPACE
INPUT FILE: D:\LOGESH\STABILITY CERTIFICATE\CHAITNAY - ANNA AVENUE\CHAITANYA - ANNA AVENUE_T[1]_27.01... .STD
2. START JOB INFORMATION
3. ENGINEER DATE 1/27/2026
4. ENGINEER NAME KANNAN
5. CHECKER NAME KANNAN
6. APPROVED NAME KANNAN
7. CHECKER DATE 1/27/2026
8. APPROVED DATE 1/27/2026
9. JOB NAME PROPOSED RESIDENTIAL BUILDING PLOT NO.4 (PT) & 5, NEW DOOR NO.9, -
10. OLD DOOR NO.14, ANNA AVENUE, BAKTHACATCHALAM NAGAR EXTENSION, ADYAR, -
11. CHENNAI 600020
12. END JOB INFORMATION
13. INPUT WIDTH 79
14. UNIT METER KN
15. JOINT COORDINATES
16. 1 0 0 0; 2 4.35 0 0; 3 6.8 0 0; 4 13 0 0; 5 17.45 0 0; 6 0 3 0; 7 4.35 3 0
17. 8 6.8 3 0; 9 13 3 0; 10 17.45 3 0; 11 0 6 0; 12 4.35 6 0; 13 6.8 6 0
18. 14 13 6 0; 15 17.45 6 0; 16 0 9 0; 17 4.35 9 0; 18 6.8 9 0; 19 13 9 0
19. 20 17.45 9 0; 21 0 12 0; 22 4.35 12 0; 23 6.8 12 0; 24 13 12 0; 25 17.45 12 0
20. 26 0 15 0; 27 4.35 15 0; 28 6.8 15 0; 29 13 15 0; 30 17.45 15 0; 31 0 18 0
21. 32 4.35 18 0; 33 6.8 18 0; 34 13 18 0; 35 17.45 18 0; 36 0 -3 0; 37 4.35 -3 0
22. 38 6.8 -3 0; 39 13 -3 0; 40 17.45 -3 0
23. MEMBER INCIDENCES
24. 1 1 2; 2 2 3; 3 3 4; 4 4 5; 5 1 6; 6 2 7; 7 3 8; 8 4 9; 9 5 10; 10 6 7; 11 7 8
25. 12 8 9; 13 9 10; 14 6 11; 15 7 12; 16 8 13; 17 9 14; 18 10 15; 19 11 12
26. 20 12 13; 21 13 14; 22 14 15; 23 11 16; 24 12 17; 25 13 18; 26 14 19; 27 15 20
27. 28 16 17; 29 17 18; 30 18 19; 31 19 20; 32 16 21; 33 17 22; 34 18 23; 35 19 24
28. 36 20 25; 37 21 22; 38 22 23; 39 23 24; 40 24 25; 41 21 26; 42 22 27; 43 23 28
29. 44 24 29; 45 25 30; 46 26 27; 47 27 28; 48 28 29; 49 29 30; 50 26 31; 51 27 32
30. 52 28 33; 53 29 34; 54 30 35; 55 31 32; 56 32 33; 57 33 34; 58 34 35; 59 36 1
31. 60 37 2; 61 38 3; 62 39 4; 63 40 5
32. DEFINE MATERIAL START
33. ISOTROPIC CONCRETE
34. E 2.17185E+07
35. POISSON 0.17
36. DENSITY 23.5616
37. ALPHA 1E-05
38. DAMP 0.05

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 Door No: 21, 4th Main Road,
 Indira Nagar, Chennai-600 020.

STAAD SPACE

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39. G 9.28139E+06
40. TYPE CONCRETE
41. STRENGTH FCU 27579
42. END DEFINE MATERIAL
43. MEMBER PROPERTY
44. 1 TO 4 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 PRIS YD 0.5 ZD 0.2
45. 5 TO 9 14 TO 18 23 TO 27 32 TO 36 41 TO 45 50 TO 54 59 TO 63 PRIS YD 0.5 ZD 0.2
46. CONSTANTS
47. MATERIAL CONCRETE ALL
48. SUPPORTS
49. 36 TO 40 FIXED
50. DEFINE IS1893 2016 LOAD
51. ZONE 0.16 RF 5 I 1.2 SS 1 ST 1 DM 0.05 DT 3
52. SELFWEIGHT 1
53. MEMBER WEIGHT
54. 1 TO 4 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI 12 0 0
55. 1 TO 4 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI 30 0 0
56. DEFINE WIND LOAD

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*** NOTE: If any floor diaphragm is present in the model Wind Load definition should be defined after Floor Diaphragm definition. Otherwise wind load generation may be unsuccessful during analysis.

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57. TYPE 1 WIND 1
58. <! STAAD PRO GENERATED DATA DO NOT MODIFY !!!
59. CUSTOM:PARAMS
60. !> END GENERATED DATA BLOCK
61. INT 1.35 1.58 1.69 HEIG 10 15 18
62. LOAD 1 LOADTYPE NONE TITLE EQ +X
63. 1893 LOAD X 1
64. LOAD 2 LOADTYPE NONE TITLE EQ -X
65. 1893 LOAD X -1.
66. LOAD 3 LOADTYPE NONE TITLE EQ +Z
67. 1893 LOAD Z 1
68. LOAD 4 LOADTYPE NONE TITLE EQ -Z
69. 1893 LOAD X -1.
70. LOAD 5 LOADTYPE NONE TITLE WIND +X
71. WIND LOAD X 1 TYPE 1
*WARNING- NO MEMBERS LOADED FOR A WIND LOAD GENERATION.
72. LOAD 6 LOADTYPE NONE TITLE WIND -X
73. WIND LOAD -X 1 TYPE 1

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STAAD SPACE

-- PAGE NO. 3

*WARNING- NO MEMBERS LOADED FOR A WIND LOAD GENERATION.

74. LOAD 7 LOADTYPE NONE TITLE WIND +Z
75. WIND LOAD Z 1 TYPE 1
76. LOAD 8 LOADTYPE NONE TITLE WIND +Z
77. WIND LOAD -Z 1 TYPE 1
78. LOAD 9 LOADTYPE NONE TITLE LL
79. MEMBER LOAD
80. 1 TO 4 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI GY -12
81. LOAD 10 LOADTYPE NONE TITLE DL
82. SELFWEIGHT Y -1
83. MEMBER LOAD
84. 1 TO 4 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI GY -30
85. LOAD COMB 11 1.5(DL+IL)
86. 9 1.5 10 1.5
87. LOAD COMB 12 1.2(DL+IL+ELX)
88. 9 1.5 10 1.2 1 1.2
89. LOAD COMB 13 1.2(DL+IL-ELX)
90. 9 1.2 10 1.2 2 1.2
91. LOAD COMB 14 1.2(DL+IL+ELZ)
92. 9 1.2 10 1.2 3 1.2
93. LOAD COMB 15 1.2(DL+IL-ELZ)
94. 9 1.2 10 1.2 4 1.2
95. LOAD COMB 16 1.2(DL+IL+WLX)
96. 9 1.2 10 1.2 5 1.2
97. LOAD COMB 17 1.2(DL+IL-WLX)
98. 10 1.2 6 1.2
99. LOAD COMB 18 1.2(DL+IL+WLZ)
100. 9 1.2 10 1.2 7 1.2
101. LOAD COMB 19 1.2(DL+IL-WLZ)
102. 9 1.2 10 1.2 8 1.2
103. LOAD COMB 20 1.5(DL+ELX)
104. 9 1.5 10 1.5 1 1.5
105. LOAD COMB 21 1.5(DL-ELX)
106. 9 1.5 10 1.5 2 1.5
107. LOAD COMB 22 1.5(DL+ELZ)
108. 9 1.5 10 1.5 3 1.5
109. LOAD COMB 23 1.5(DL-ELZ)
110. 10 1.5 4 1.5
111. LOAD COMB 24 1.5(DL+WLX)
112. 10 1.5 5 1.5
113. LOAD COMB 25 1.5(DL-WLX)
114. 10 1.5 6 1.5
115. LOAD COMB 26 1.5(DL+WLZ)
116. 10 1.5 7 1.5
117. LOAD COMB 27 1.5(DL-WLZ)
118. 10 1.5 8 1.5
119. LOAD COMB 28 0.9 DL+ELX

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120. 10 0.9 1 1.5
 121. LOAD COMB 29 0.9 DL-ELX
 122. 10 0.9 2 1.5
 123. LOAD COMB 30 0.9 DL+ELZ
 124. 10 0.9 3 1.5
 125. LOAD COMB 31 0.9 DL-ELZ
 126. 10 0.9 4 1.5
 127. LOAD COMB 32 0.9 DL+WLX
 128. 10 0.9 5 1.5
 129. LOAD COMB 33 0.9 DL-WLX
 130. 10 0.9 6 1.5
 131. LOAD COMB 34 0.9 DL+WLZ
 132. 10 0.9 7 1.5
 133. LOAD COMB 35 0.9 DL-WLZ
 134. 10 0.9 8 1.5
 135. PERFORM ANALYSIS PRINT ALL

PROBLEM STATISTICS

NUMBER OF JOINTS	40	NUMBER OF MEMBERS	63
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	5

Using 64-bit analysis engine.

SOLVER USED IS THE IN-CORE ADVANCED MATH SOLVER

TOTAL PRIMARY LOAD CASES = 10, TOTAL DEGREES OF FREEDOM = 210
 TOTAL LOAD COMBINATION CASES = 25 SO FAR.



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Bentley

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CONNECTED User: Kannan Chinnasamy

Job No

Sheet No

1

Rev

Part

Job Title **Proposed Residential Building Plot No.4 (Pt) & 5, New Door No.9, Old Door No.14, Anna Avenue, Bakthacatchalam Nagar Extension, Adyar, Chennai**

Ref

By **Kannan**

Date **1/27/2026**

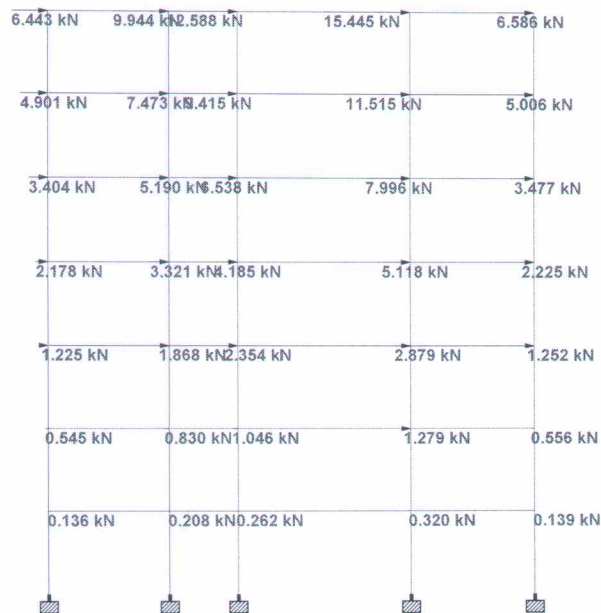
Chd **Kannan**

Client

File **CHAITANYA - ANNA AVE**

Date/Time **27-Jan-2026 12:00**

Y
Z X



Load 1

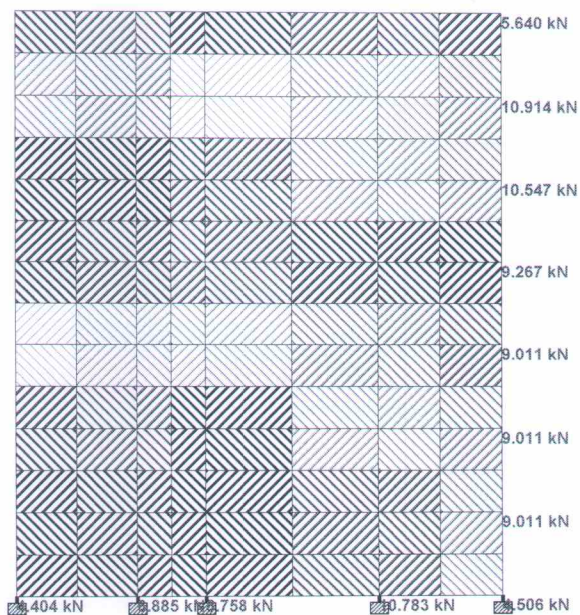

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Job No	Sheet No 1	Rev
Part		
Ref		
By Kannan	Date 1/27/2026	Chd Kannan
File CHAITANYA - ANNA AVE	Date/Time 27-Jan-2026 12:00	

Job Title **Proposed Residential Building Plot No.4 (Pt) & 5, New Door No.9, Old Door No.14, Anna Avenue, Bakthacatchalam Nagar Extension, Adyar, Chennai**

Client

Y
Z X



Load 7

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Job No

Sheet No

1

Rev

Part

Job Title **Proposed Residential Building Plot No.4 (Pt) & 5, New Door No.9, Old Door No.14, Anna Avenue, Bakthacatchalam Nagar Extension, Adyar, Chennai**

Ref

By Kannan

Date 1/27/2026

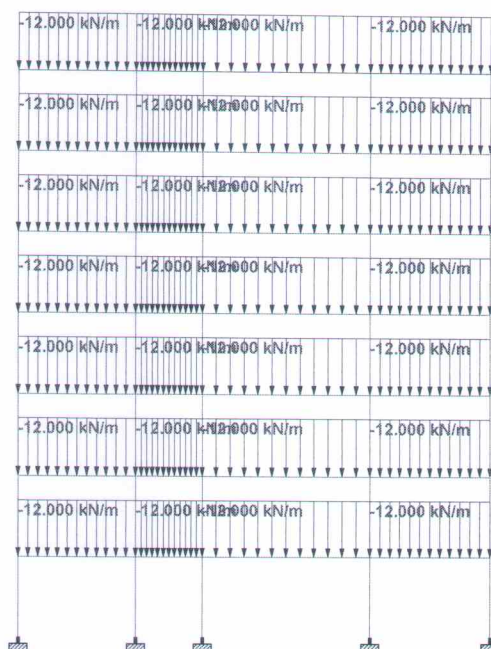
Chd Kannan

Client

File CHAITANYA - ANNA AVE

Date/Time 27-Jan-2026 12:00

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Z X



Load 9

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Job No

Sheet No

1

Rev

Part

Job Title **Proposed Residential Building Plot No.4 (Pt) & 5, New Door No.9, Old Door No.14, Anna Avenue, Bakthacatchalam Nagar Extension, Adyar, Chennai**

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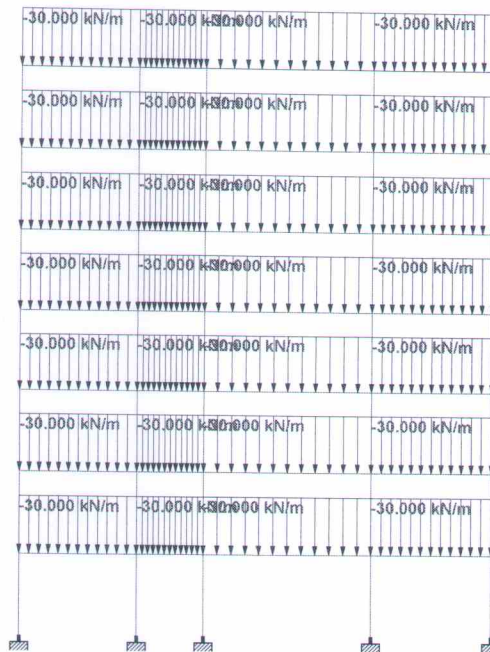
Date **1/27/2026**

Chd **Kannan**

Client

File **CHAITANYA - ANNA AVE** Date/Time **27-Jan-2026 12:00**

Y
Z X



Load 10

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