| **Event:**  **Latitude**:  **Longitude**:  **Address**:  **Type of structural collapse**:  **Building footprint area:**  **Max. collapse distance:**  **Max. Debris distance:**  **Building Material:**  **Structural system:**  **# of stories:**  **Approximate total height:**  **Apparent irregularities:**  **Approximate construction date:** | 2010 Maule, Chile Earthquake  -36.829  -73.055  Torre O’Higgins 241, Libertador Gral. Bernardo O'Higgins 241, Concepción, Bío Bío, Chile  Story mechanism (?) at three levels  ? m2 (rectangular)  N/A?  ? m  Reinforced concrete  Concrete shear walls  21  53 m  Vertical geometric irregularities  2009 |
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| **BEFORE**    From Dragovich & Harris NEHRP PPT | |  | |  |
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| **AFTER**    From Dragovich & Harris NEHRP PPT | Photo credit: ASCE/SEI Assessment Team via [ENR](https://www.enr.com/articles/3323-engineers-ponder-chile-8217-s-quake-lessons) | | From Wallace & Hooper PPT | |

| **Event:**  **Latitude**:  **Longitude**:  **Address**:  **Type of structural collapse**:  **Building footprint area:**  **Max. collapse distance:**  **Max. Debris distance:**  **Building Material:**  **Structural system:**  **# of stories:**  **Approximate total height:**  **Apparent irregularities:**  **Approximate construction date:** | 2010 Maule, Chile Earthquake  -36.8279  -73.0619  Alto Rio building, Av. Padre Alberto Hurtado 776, Concepción, Bío Bío, Chile  Story mechanism + monolithic collapse  900 m2 (rectangular)  45 m  ? m  Reinforced concrete  Concrete shear walls  15  45 m  Soft story (per building plans [EERI Special Report]); possible torsional irregularity (per [this student video](https://www.youtube.com/watch?v=Nc_YVmdtheU))  2009 (1996 Chilean building code, similar to ACI 318-95) |
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| **BEFORE**    From Deger & Wallace | | From [Cheng Song](https://www.researchgate.net/figure/The-Alto-Rio-Building-before-collapse-view-from-northwest-Taken-from-http-www_fig1_260871293)? | |  |
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| **AFTER**    From Deger & Wallace  [Video of collapsed building](https://www.youtube.com/watch?app=desktop&v=VzCCwYJf1Jo) | From SK Ghosh & Associates [Twitter](https://twitter.com/SKGAssociates/status/1280509565310849026/photo/1) | | From EERI Special Earthquake Report June 2010 | |

[Animation of collapse by CNN Chile](https://www.youtube.com/watch?v=ndADOxF1yyY)

[Animation of collapse by Universidad UNIACC student](https://www.youtube.com/watch?v=Nc_YVmdtheU)

| **Event:**  **Latitude**:  **Longitude**:  **Address**:  **Type of structural collapse**:  **Building footprint area:**  **Max. collapse distance:**  **Max. Debris distance:**  **Building Material:**  **Structural system:**  **# of stories:**  **Approximate total height:**  **Apparent irregularities:**  **Approximate construction date:** | 2010 Maule, Chile Earthquake  -36.8204,  -73.0617  Plaza Del Rio, Obispo Hipólito Salas 1343, 4030296 Concepción, Bío Bío, Chile  N/A  870 m2 (L-shaped)  N/A  N/A  Reinforced concrete  Concrete shear walls?  13 + 1 basement  32 m  ?  2006 |
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| **BEFORE**    From SGH PPT | | From SGH PPT | | From SGH PPT |
| --- | --- | --- | --- | --- |
| **AFTER**    From SGH PPT    From NEHRP PPT | From SGH PPT    From NEHRP PPT | | From NEHRP PPT | |