

Lampiran 1 Foto Objek Penelitian



Gambar 5.1 Tampak atas dari bangunan



Gambar 5.2 Tampak bangunan dari arah barat daya



Gambar 5.3 Tampak bangunan dari arah barat laut



Gambar 5.4 Tampak bangunan dari arah barat



Gambar 5.5 Tampak bangunan dari arah selatan



Gambar 5.6 Tampak bangunan dari arah timur



Gambar 5.7 Tampak bangunan dari arah tenggara



Gambar 5.8 Tampak bangunan dari arah timur laut



Gambar 5.9 Tampak bangunan dari arah utara

Lampiran 2 Form Rapid Visual Screening Tower 1

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
MODERATELY HIGH Seismicity

Address: Jl. Sultan Agung No.10 Kec. Setia Budi Jakarta Selatan Zip: 12970

Other Identifiers:
Building Name: Rusunawa Pasar Pumput Tower 1
Use: Hunian, pasar dan sekolah
Latitude: -6.207348 Longitude: 106.840590
Ss: 0.686 S₁: 0.300
Screener(s): Andre Putra Ratno Date/Time: 15 Maret 2019

No. Stories: Above Grade: 25 Below Grade: 2 Year Built: 2016 EST
Total Floor Area (sq. ft.): _____ Code Year: _____
Additions: None Yes, Year(s) Built: _____

Occupancy: Assembly Commercial Emer. Services Historic Shelter
Industrial Office School Government
Utility Warehouse Residential, # Units: 661 Unit

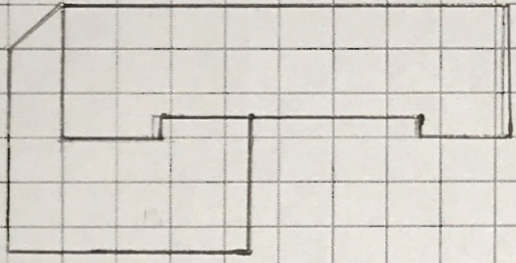
Soil Type: A B C D E F DNK
Hard Avg Dense Stiff Soft Poor
Rock Rock Soil Soil Soil Soil
If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
Adjacency: Pounding Falling Hazards from Taller Adjacent Building
Irregularities: Vertical (type/severity) _____
 Plan (type) _____
Exterior Falling Hazards: Unbraced Chimneys Heavy Cladding or Heavy Veneer
 Parapets Appendages
 Other: _____

COMMENTS:
Bangunan tinggi (High Rise) terdiri dari 25 lantai dengan rangka beton dan dinding geser (shear wall)

Additional sketches or comments on separate page

PHOTOGRAPH



SKETCH

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	1.8	1.8	1.2	2.2
Severe Vertical Irregularity, V _{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V _{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P _{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S _{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, S_{L1} ≥ S_{MIN}:

2.2 > 0.3

<p>EXTENT OF REVIEW</p> <p>Exterior: <input type="checkbox"/> Partial <input type="checkbox"/> All Sides <input type="checkbox"/> Aerial Interior: <input type="checkbox"/> None <input type="checkbox"/> Visible <input type="checkbox"/> Entered Drawings Reviewed: <input type="checkbox"/> Yes <input type="checkbox"/> No Soil Type Source: _____ Geologic Hazards Source: _____ Contact Person: _____</p> <p>LEVEL 2 SCREENING PERFORMED?</p> <p><input type="checkbox"/> Yes, Final Level 2 Score, S_{L2} _____ <input checked="" type="checkbox"/> No Nonstructural hazards? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>OTHER HAZARDS</p> <p>Are There Hazards That Trigger A Detailed Structural Evaluation?</p> <p><input type="checkbox"/> Pounding potential (unless S_{L2} > cut-off, if known) <input type="checkbox"/> Falling hazards from taller adjacent building <input type="checkbox"/> Geologic hazards or Soil Type F <input type="checkbox"/> Significant damage/deterioration to the structural system</p>	<p>ACTION REQUIRED</p> <p>Detailed Structural Evaluation Required?</p> <p><input type="checkbox"/> Yes, unknown FEMA building type or other building <input type="checkbox"/> Yes, score less than cut-off <input type="checkbox"/> Yes, other hazards present <input type="checkbox"/> No</p> <p>Detailed Nonstructural Evaluation Recommended? (check one)</p> <p><input type="checkbox"/> Yes, nonstructural hazards identified that should be evaluated <input type="checkbox"/> No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary <input type="checkbox"/> No, no nonstructural hazards identified <input type="checkbox"/> DNK</p>
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Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Lampiran 3 Form Rapid Visual Screening Tower 2

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
MODERATELY HIGH Seismicity

PHOTOGRAPH

SKETCH

Address: Jl. Sultan Agung no. 10 Kec. Setia Budi Jakarta Selatan Zip: 12970

Other Identifiers:
Building Name: Rusunawa Pasar Pumpit Tower 2
Use: Hunian, Pasar dan Sekolah
Latitude: -6.207348 Longitude: 106.840390
Ss: 0,686 S₁: 0,300
Screener(s): Andre Putra Partno Date/Time: 15 Maret 2019

No. Stories: Above Grade: 25 Below Grade: 2 Year Built: 2016 EST
Total Floor Area (sq. ft.): _____ Code Year: _____
Additions: None Yes, Year(s) Built: _____

Occupancy: Assembly Commercial Emer. Services Historic Shelter
Industrial Office School Government
Utility Warehouse Residential. # Units: 661 Unit

Soil Type: A B C D E F DNK
Hard Rock Avg. Rock Dense Soil Stiff Soil Soft Soil Poor Soil
If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
Adjacency: Pounding Falling Hazards from Taller Adjacent Building
Irregularities: Vertical (type/severity) _____
 Plan (type) _____
Exterior Falling Hazards: Unbraced Chimneys Heavy Cladding or Heavy Veneer
 Parapets Appendages
 Other: _____

COMMENTS:
Bangunan tingkat tinggi (High Rise) terdiri dari 25 lantai dengan rangka beton dan dinding geser (shear wall)

Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	1.8	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:

2.2 > 0.3

<p>EXTENT OF REVIEW</p> <p>Exterior: <input type="checkbox"/> Partial <input type="checkbox"/> All Sides <input type="checkbox"/> Aerial Interior: <input type="checkbox"/> None <input type="checkbox"/> Visible <input type="checkbox"/> Entered Drawings Reviewed: <input type="checkbox"/> Yes <input type="checkbox"/> No Soil Type Source: _____ Geologic Hazards Source: _____ Contact Person: _____</p> <p>LEVEL 2 SCREENING PERFORMED?</p> <p><input type="checkbox"/> Yes, Final Level 2 Score, S_{L2} _____ <input checked="" type="checkbox"/> No Nonstructural hazards? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>OTHER HAZARDS</p> <p>Are There Hazards That Trigger A Detailed Structural Evaluation?</p> <p><input type="checkbox"/> Pounding potential (unless $S_{L2} >$ cut-off, if known) <input type="checkbox"/> Falling hazards from taller adjacent building <input type="checkbox"/> Geologic hazards or Soil Type F <input type="checkbox"/> Significant damage/deterioration to the structural system</p>	<p>ACTION REQUIRED</p> <p>Detailed Structural Evaluation Required?</p> <p><input type="checkbox"/> Yes, unknown FEMA building type or other building <input type="checkbox"/> Yes, score less than cut-off <input type="checkbox"/> Yes, other hazards present <input type="checkbox"/> No</p> <p>Detailed Nonstructural Evaluation Recommended? (check one)</p> <p><input type="checkbox"/> Yes, nonstructural hazards identified that should be evaluated <input type="checkbox"/> No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary <input type="checkbox"/> No, no nonstructural hazards identified <input type="checkbox"/> DNK</p>
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Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Lampiran 4 Form Rapid Visual Screening Tower 3

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
MODERATELY HIGH Seismicity

PHOTOGRAPH

SKETCH

Address: Jl. Sultan Agung no. 10 Kec. Setia Budi Jakarta Selatan Zip: 12970

Other Identifiers: _____

Building Name: Pusurawa Pasar Rumpit Tower 3

Use: Huniar, Pasar dan Sekolah

Latitude: -6.207348 Longitude: 106.84059

Ss: 01686 Si: 01300

Screener(s): Andre Putra Ratno Date/Time: 15 Maret 2019

No. Stories: Above Grade: 25 Below Grade: 2 Year Built: 2016 EST

Total Floor Area (sq. ft.): _____ Code Year: _____

Additions: None Yes, Year(s) Built: _____

Occupancy: Assembly Commercial Emer. Services Historic Shelter
Industrial Office School Government
Utility Warehouse Residential, # Units: 661 Unit

Soil Type: A B C D E F DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: Pounding Falling Hazards from Taller Adjacent Building

Irregularities: Vertical (type/severity) _____
 Plan (type) _____

Exterior Falling Hazards: Unbraced Chimneys Heavy Cladding or Heavy Veneer
 Parapets Appendages
 Other: _____

COMMENTS:

Bangunan Tingkat Tinggi (High Rise) terdiri dari 25 lantai dengan rangka beton dan dinding geser (shear wall)

Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	1.8	1.8	1.2	2.2
Severe Vertical Irregularity, V _{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V _{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P _{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S _{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, S_{L1} ≥ S_{MIN}:

2.2 > 0.3

<p>EXTENT OF REVIEW</p> <p>Exterior: <input type="checkbox"/> Partial <input type="checkbox"/> All Sides <input type="checkbox"/> Aerial Interior: <input type="checkbox"/> None <input type="checkbox"/> Visible <input type="checkbox"/> Entered Drawings Reviewed: <input type="checkbox"/> Yes <input type="checkbox"/> No Soil Type Source: _____ Geologic Hazards Source: _____ Contact Person: _____</p> <p>LEVEL 2 SCREENING PERFORMED?</p> <p><input type="checkbox"/> Yes, Final Level 2 Score, S_{L2} _____ <input type="checkbox"/> No Nonstructural hazards? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>OTHER HAZARDS</p> <p>Are There Hazards That Trigger A Detailed Structural Evaluation?</p> <p><input type="checkbox"/> Pounding potential (unless S_{L2} > cut-off, if known) <input type="checkbox"/> Falling hazards from taller adjacent building <input type="checkbox"/> Geologic hazards or Soil Type F <input type="checkbox"/> Significant damage/deterioration to the structural system</p>	<p>ACTION REQUIRED</p> <p>Detailed Structural Evaluation Required?</p> <p><input type="checkbox"/> Yes, unknown FEMA building type or other building <input type="checkbox"/> Yes, score less than cut-off <input type="checkbox"/> Yes, other hazards present <input type="checkbox"/> No</p> <p>Detailed Nonstructural Evaluation Recommended? (check one)</p> <p><input type="checkbox"/> Yes, nonstructural hazards identified that should be evaluated <input type="checkbox"/> No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary <input type="checkbox"/> No, no nonstructural hazards identified <input type="checkbox"/> DNK</p>
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BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm