Tier 1 Seismic Evaluation Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. Building Identification

- Location: 16.481850, 121.148967
- Occupancy: Educational Building
- Risk Category: III
- Number of Stories: 4
- Structural System: Reinforced Concrete Special Moment Frame (SMF)
- Approximate Plan Dimensions: 36m (longitudinal) x 10.5m (transverse)
- Year Built: 1998
- Original Design Code: likely designed using 1992 NSCP
- Available Drawings: Architectural & Structural

2. Site Seismicity and Ground Motion Parameters (SAMPH & ASCE 7-05)

- Mapped Spectral Accelerations (2475-year), SAMPH:
  - Ss = 1.7 (short-period)
  - S1 = 0.65 (1.0-second period)
- Site Class: Assumed D (based on general Philippine soil profiles unless geotechnical data suggests otherwise)

Site Coefficients (ASCE 7-05, Table 11.4-1 & 11.4-2):
- Fa = 1.0 (for Ss = 1.7, Site Class D)
- Fv = 1.5 (for S1 = 0.65, Site Class D)

Design Spectral Response Acceleration Parameters:
- SDS = 1.13
- SD1 = 0.65

3. Description of Existing Conditions

- Structural System: Reinforced Concrete Special Moment Frame
- Gridlines: Longitudinal (1 to 10): 4m spacing; Transverse (A to D): A–B = 2.5m; B–D = 8m

- Column Sizes:
  - Gridline A: 40 cm x 40 cm (Captive Columns)
  - Gridlines B & D: 40 cm x 50 cm
- Stairwell: Located between gridlines 5 and 6, all floors
- Infill Walls:
  - Along gridlines B & D with large windows
  - Dividing infill walls at Gridlines 1, 3, 5, 6, 8, 10

Observed Conditions:
- Cracking at junctions with adjacent building, primarily around openings
- Captive columns on Gridline A on all floors (flagged)
- Primary components show no signs of structural distress
- Structural plans show proper hoop spacing and joint confinement

4. Seismic Evaluation Objective

This Tier 1 seismic evaluation was conducted to assess Life Safety (LS) performance under the Design Basis Earthquake (DBE) and Collapse Prevention (CP) under the Maximum Considered Earthquake (MCE), in accordance with ASCE 41-17 guidelines for Risk Category III buildings.

5. Tier 1 Checklist Summary – ASCE 41-17

A. Building Configuration Checklist

- Vertical Irregularity: Pass
- Plan Irregularity: Pass
- Weak Story: Pass
- Soft Story: Pass
- Torsion: Unknown (Stair located near the back side may cause torsional response)
- Diaphragm Discontinuity: Pass
- Out-of-Plane Offsets: Pass
- Non-Orthogonal Systems: Pass

B. Structural Component Checklist – Reinforced Concrete

- C1: Beam-Column Joint Details: Pass
- C2: Column Shear Strength: Pass
- C3: Column Axial Strength: Pass
- C4: Column Confinement: Pass
- C5: Beam Reinforcement Continuity: Pass
- C6: Shear Strength of Beams: Pass

- C7: Captive Columns: Does Not Comply – Fail
- C8: Wall Anchorage: Pass

C. Geologic Site and Foundation Checklist

- Liquefaction Potential: Pass (HazardHunterPH)
- Landslide Potential: Pass
- Surface Fault Rupture: Unknown (No known active fault trace within immediate site)
- Settlement and Soil Capacity: Pass

6. Summary of Findings

The building complies with most of the Tier 1 checklist requirements. However, the presence of captive columns introduces a short column effect that needs to be addressed. Another issue is the Other observed conditions are minor and do not impact structural performance.

7. Recommendations

1. Flagged Deficiency: Captive Columns – Retrofit or alter wall elements to prevent short column effects.
2. Optional Tier 2 Analysis to assess nonlinear behavior, especially for Collapse Prevention.
3. Monitor non-structural cracking for further deterioration.

Appendices

A. Photos of Captive Columns
B. Photos of Infill Wall Cracks

Prepared By:

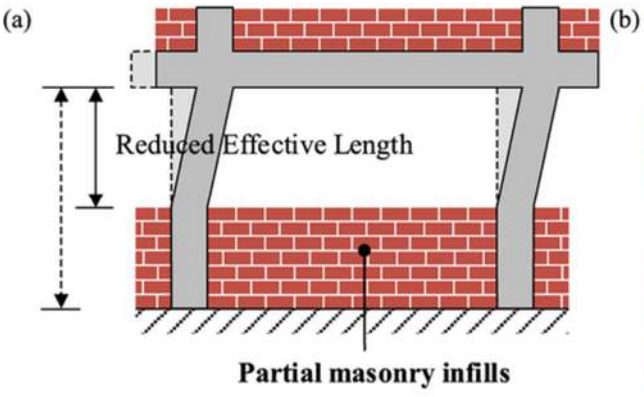
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Appendix A

Photos of Captive Columns (Short column effect)

The "short column effect" refers to a phenomenon where columns in a building, particularly those in reinforced concrete (RC) structures, experience increased stiffness and attraction of lateral forces due to being shorter than other columns in the same story. This shorter length, often caused by obstructions like infill walls, mezzanine floors, or sloping ground, leads to a concentrated load on the shorter column, potentially causing shear failure and brittle damage, especially during seismic events.



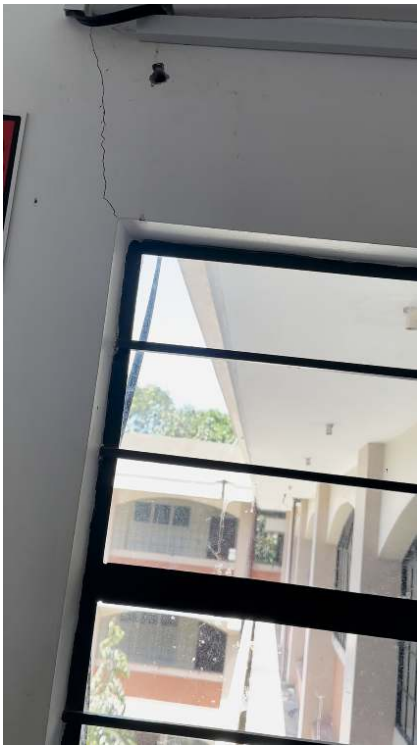




Appendix B

Photos of Infill Wall Cracks







Tier 1 Seismic Evaluation Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. Building Identification

- Location: 16.481657, 121.149194
- Occupancy: Educational Building (School Canteen, Library, Computer Room, Basketball Gym)
- Risk Category: III
- Number of Stories: 3
- Structural System: Reinforced Concrete Special Moment Frame (SMF)
- Approximate Plan Dimensions: 34m (longitudinal) x 23 (transverse)
- Year Built: 2015
- Original Design Code: likely designed using 2010 NSCP
- Available Drawings: Architectural, Structural, Plumbing & Electrical

2. Site Seismicity and Ground Motion Parameters (SAMPH & ASCE 7-05)

- Mapped Spectral Accelerations (2475-year), SAMPH:
  - Ss = 1.7 (short-period)
  - S1 = 0.65 (1.0-second period)
- Site Class: Assumed D (based on general Philippine soil profiles unless geotechnical data suggests otherwise)

Site Coefficients (ASCE 7-05, Table 11.4-1 & 11.4-2):
- Fa = 1.0 (for Ss = 1.7, Site Class D)
- Fv = 1.5 (for S1 = 0.65, Site Class D)

Design Spectral Response Acceleration Parameters:
- SDS = 1.13
- SD1 = 0.65

3. Description of Existing Conditions

The subject structure is a 3-story reinforced concrete moment frame building with perimeter and interior columns. It houses a school canteen with food stalls at the ground level, library and computer rooms at the second floor, and a basketball gym with bleachers at the third floor. The building was likely designed under the 2010 edition of the National Structural Code of the Philippines (NSCP), which generally aligns with seismic detailing requirements of ASCE 7-05 and ACI 318-08.

Plan Dimensions:

- Approx. 28m (gridlines B–I at 3.914m spacing) x approx. 22m (gridlines 2–7 at 4.45m spacing)
- Grid irregularity introduced by stair core (Grid I–J/2–3) and front ramp (Grid A–D)

Structural System:

- Reinforced Concrete Special Moment Frame (per plans)
- Foundation: Isolated footings of various sizes and reinforcement layouts

Column Details:

- Perimeter: 40cm x 60cm (1st floor to roof)
- interior columns: 40cm x 60cm (1st floor to 3rd Flr)
- Interior column layout present at gridlines 4 & 5, parallel to gridlines C–H

Beam/Girder Details (per plans):

- Typical beam size: beam sizes vary from 300mm x 650mm to 250mm x 500mm
- Typical Stirrup spacing:
    - 1 @ 50mm
    - 6 @ 100mm
    - 6 @ 150mm
    - Remaining @ 175mm toward midspan

This stirrup detailing appears consistent with ***ACI 318-08 Section 21.5.3***, which mandates close stirrup spacing within a distance of 2h from column face. The provided detailing meets minimum code requirements for seismic confinement zones assuming beam shear demand is not excessive.

Observed Conditions and Concerns

- **Soft Story Potential:** Ground floor has minimal infill walls (primarily located on gridline 7 and segments of gridlines I and B), while upper floors have perimeter infill. This indicates increased stiffness at upper levels, contributing to a soft/weak story at the ground level.

- **Cracking Observed:** Cracks were evident at the stair and ramp areas (gridlines I–J/2–3 and D–A), suggesting torsional demand or in-plane bracing action from non-structural elements. Additional cracks noted near connections with the adjacent *Jurgens Building*, where no seismic separation joint appears to exist.
- **Differential Movement:** Cracks along infill wall plaster at the interface with the Jurgens Building suggest thermal or differential seismic movement. Possible pounding effect should be investigated.
- **Seismic Detailing:** Based on structural drawings, though no detail of joint reinforcements was evident on plan, stirrup spacing and hoop configurations appear compliant with minimum code requirements for seismic design per ACI 318-08.

4. Seismic Evaluation Objective

This Tier 1 seismic evaluation was conducted to assess Life Safety (LS) performance under the Design Basis Earthquake (DBE) and Collapse Prevention (CP) under the Maximum Considered Earthquake (MCE), in accordance with ASCE 41-17 guidelines for Risk Category III buildings.

5. Tier 1 Checklist Summary – ASCE 41-17

5.1 Basic Structural Checklist

Item	Description	Status
S1	Vertical Irregularities	**No significant setback; however, vertical stiffness irregularity suspected (soft story)**
S2	Plan Irregularities	**Yes** – Not rectangular due to stairs (I–J/2–3) and ramp (D–A); may induce torsion
S3	Weak Story	**Potential Concern** – Minimal wall presence at ground floor
S4	Pounding	**Possible** – Adjacent to Jurgens Building with no seismic gap
S5	Diaphragm Discontinuity	**None observed**
S6	Irregularities	**Horizontal & vertical irregularities suspected** due to stair core and ramp asymmetry

5.2 Basic Configuration Checklist

Item	Description	Status
C1	Torsion Irregularity	**Likely** due to stair/ramp asymmetry

Item	Description	Status
C2	Re-entrant Corners	**Yes** – Along the transverse location due to the stairs
C3	Diaphragm Openings	**None observed**
C4	Out-of-Plane Offsets	**None observed**

5.3 Geologic Site and Foundation Checklist

Item	Description	Status
G1	Slope Instability	**None** – Site is flat
G2	Liquefaction Potential	**Pass** – Based on hazardhunter.georisk.gov.ph
G3	Surface Fault Rupture	**Not within fault zone** – No trace within vicinity

6. Conclusions and Recommendations

- The building appears to be generally compliant with seismic detailing provisions of the 2010 NSCP (ACI 318-08), based on provided plans.
- Ground-level infill wall configuration combined with upper-level perimeter wall presence raises concern for ***soft story behavior***.
- Stair and ramp layout introduces potential for torsion; further modeling recommended to verify.
- Cracks at interfaces and lack of seismic separation from the adjacent Jurgens Building should be further evaluated.
- A **Tier 2 or nonlinear analysis** is recommended to quantify stiffness irregularities and validate collapse prevention and life safety objectives.

Appendices

A. Photos of Cracks within Stairwell & Ramp
B. Photos of Infill Wall Cracks, Due to Nonexistent Seismic Gap

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Appendix A

Photos of Cracks within Stairwell & Ramp

SECOND FLOOR, Showing a Long horizontal crack, evident of stress concentration within the stair well





Photos of mid 1st level height and 2nd floor (Ramp)





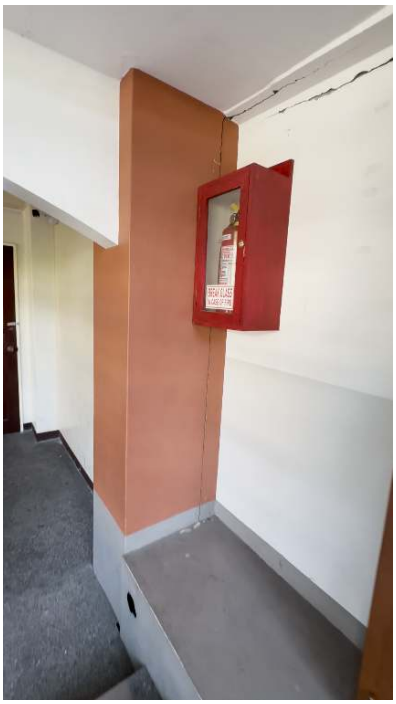
Photos of mid 2nd level height and 3rd floor (Ramp)





Appendix B

Photos of Infill Wall Cracks, Due to Nonexistent Seismic Gap









Tier 1 Seismic Assessment Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. General Building Data

Location: 16.484502, 121.150859
Structural System: Concrete Moment Frame
Year of Construction: 2016
Code of Record: NSCP 2015
Risk Category: III
Occupancy Type: Educational – multi-use (canteen, classrooms, gym)
Seismic Design Category (SDC): D
Seismic Hazard Data:
- MCEr: Ss = 1.7, S1 = 0.65 (from SAMPH)
- Site Class: D (assumed due to unknown soil data)
- Design Spectral Acceleration: SDS = 1.13, SD1 = 0.65

2. Structural Configuration and Geometry

Number of Stories: 4
Plan Dimensions: 14m × 29m
Grid Layout:
- Horizontal (A–H): Spacing ranges from 3.89m to 5.05m
- Vertical (1–7): Spacing ranges from 2.4m to 5.752m

Column & Beam Sizes: Concrete; sizes vary and plans are unavailable
Floor Heights:
- 1st–2nd: 5.0m
- 2nd–3rd: 3.2m
- 3rd–4th: 3.2m
- 4th–Roof: 5.4m

Roof Type: Arc-type

Irregularities:

- Soft Story: Likely at ground floor (open, taller story)
- Torsional Irregularity: Possible, due to ramp between gridlines 1–4 & E–G
- Vertical Irregularity: Yes, per ASCE 7-05 Table 12.3-2, a story height >130% of adjacent story qualifies – here, 1st story (5.0m) vs 2nd (3.2m) exceeds this threshold

3. Foundation Configuration

Foundation System: Unknown

Soil Type: Assumed Class D

Reinforcement/Detailing: Unknown

4. Structural Elements

Moment-Resisting Frames

- Column/Beam Detailing: Unknown
- Connection Strength:
  - Critical connections transfer full moment demands;
  - Non-critical transfer limited loads.
  - In absence of plans, assume non-critical unless field evidence suggests otherwise
- Beam-Column Joints: No visible joint damage; larger columns than beams suggest column-strong hierarchy
- Infill Walls:
  - Present on 2nd & 3rd floors, partial on 1st and 4th
  - Likely stiffening effect and potential for soft story mechanism

Other Observations:

- Downspouts observed embedded in three columns along gridline G between gridlines 1–3, which may affect the effective cross-sectional area and performance of these structural members.

5. Lateral Load Resisting System

System Type: Moment Resisting Frame

Load Path: Load distribution present

Torsional Effects: Possible due to ramp

Performance: Needs further study due to irregularities and lack of details

6. Seismic Detailing and Reinforcement

Detailing: Unknown

Ductility: Cannot be confirmed

Splice and Anchorage: Unknown

7. Deficiencies and Vulnerabilities

Potential Failure Modes: Unverified due to lack of data

Soft Story: Possible at 1st floor

Torsional Effects: Ramp and irregular plan

Foundation: Unknown

Inadequate Reinforcement: Cannot confirm

Other:

- Vertical irregularity, unknown confinement
- Embedded downspouts in critical columns (Gridline G, 1–3) may pose a local weakness

8. Seismic Risk Assessment

Site-Specific Hazard: SDS = 1.13, SD1 = 0.65 (ASCE 7-05; Site Class D)

Risk Assessment:

- Potential collapse mechanisms due to soft and torsional irregularities
- Ground floor more vulnerable during seismic excitation
- No observed structural cracks, only infill wall damage during recent earthquakes suggests resilient structural frame

Occupancy Risk:

- High due to educational use and occupancy
- Life Safety: Potential risk due to irregularities
- Collapse Prevention: Requires further assessment

9. Recommended Actions

Conduct Tier 2 or Tier 3 evaluation for detailed seismic analysis

Perform material testing or structural probing to confirm reinforcement and concrete strength

Consider retrofitting for soft story or torsion issues

Install non-structural mitigation measures

10. Conclusion

Seismic Safety: Marginally acceptable for Life Safety, but not confirmed for Collapse Prevention due to unknowns

Code Compliance: Not verifiable due to lack of plans

Recommendation: Proceed with Tier 2 Investigation

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Date of Evaluation: March 03, 2025
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Tier 1 Seismic Assessment Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. General Building Data

Location: 16.484335, 121.151174
Structural System: Concrete Moment Frame
Year of Construction: 2005–2007
Code of Record: NSCP 2001
Risk Category: III
Occupancy Type: Educational building
Seismic Design Category (SDC): D (based on Seismic Zone 4 under NSCP 2001)
Seismic Hazard Data:
- MCEr: Ss = 1.7, S1 = 0.65 (from SAMPH)
- Site Class: D (assumed due to unknown soil data)
- Design Spectral Acceleration: SDS = 1.13, SD1 = 0.65

2. Structural Configuration and Geometry

Number of Stories: 3 Story with Covered and Usable Roof Deck
Plan Dimensions: 42m (L) × 11m (W)
Grid Layout:
- Horizontal A–K (A-B = 5m; B–J = 4m each; J–K = 5m)
- Vertical 1–3 (1–2 = 3m; 2–3 = 8m)

Column Sizes and Layout:

- 400mm × 500mm concrete columns at grid intersections

Beam Sizes and Layout:

- Typical: 300mm × 500mm

- Long spans (8m): 300mm × 600mm

Floor-to-Floor Heights:

- Ground to 2F: 3.2m

- 2F to 3F: 3.1m

- 3F to Roof Deck: 3.1m

- Roof Deck to Roof Beam: 3.1m

Roof Type: Hipped Roof

Irregularities Identified:

- Plan Irregularity: None

- Vertical Irregularity: None

- Torsional Irregularity: None

- Soft Story: None

3. Foundation Configuration

System: Isolated Footings

Details:

- 14 @ 3.6m x 3.6m x 0.4m thick, 20 pcs of 2 bundled 16mm rebars each way

- 8 @ 3.6m x 3.6m x 0.4m thick, 17 pcs of 2 bundled 16mm rebars each way

- 7 @ 3.3m x 2.75m x 0.4m thick, 14 pcs avg. of 2 bundled 16mm rebars

- 6 @ 2.75m x 2.75m x 0.4m thick, 13 pcs of 2 bundled 16mm rebars

- 2 @ 2m x 2m x 0.4m thick, 10 pcs of 2 bundled 16mm rebars

Concrete Quality: Unknown

Reinforcement Detailing: Typical bundled bar reinforcement in both directions.

Soil Conditions: Unknown — assumed Site Class D

4. Structural Elements

Moment-Resisting Frames

- Column Detailing: Hoop spacing, the provided hoop spacing—2 sets of 12mm diameter ties at 2@50mm, 5@75mm, 5@100mm, and the remainder at 175mm centers towards mid-height—suggests adequate confinement in the plastic hinge regions, aligning with seismic detailing requirements. meets confinement requirements if near joints

- Beam Detailing: Regular, no torsion expected, strength connections non-critical

- Reinforcement Ratios: Columns and beams appear to meet code minimums

Beam-Column Joints

- Confinement ties are present; generally acceptable

Infill Walls

Present Along Gridlines:

- 2, 3, A, B, D, F, H, J, K

- Captive columns identified along gridline 1

Type: Reinforced Masonry

5. Lateral Load Resisting System

Lateral Load Path: Complete and direct via moment-resisting frames
Redundancy: Sufficient in both directions
Diaphragm: Rigid, continuous concrete slab
No soft stories or torsional irregularities

6. Seismic Detailing and Reinforcement

Columns and Beams: Consistent with NSCP 2001 and ACI 318-99

Ductility: Adequate

Splice Locations: Mid-height of columns, beam data unavailable

Anchorage: Satisfactory per plans

7. Deficiencies and Vulnerabilities

Column/Beam Failure Modes:

- Captive column risk along gridline 1

8. Seismic Risk Assessment

Site-Specific Hazard: SDS = 1.13, SD1 = 0.65 (ASCE 7-05; Site Class D)

Seismic Risk: Acceptable overall, captive columns a concern

Occupancy Risk: Risk Category III – Life Safety expected

9. Recommended Actions

Mitigation of Captive Column Effect: Cut infill walls adjacent to columns and provide separation using backer rods or foam

No structural cracks or damage noted during my ocular inspection even after the Abra earthquake (Magnitude 7.0, July 27, 2022, approx. 140km away)

10. Conclusion

Overall Seismic Safety Assessment:

- Meets Life Safety and Collapse Prevention under ASCE 41-17

Compliance: Generally compliant with NSCP 2001, ACI 318-99, ASCE 41-17

Tier 2 Investigation Recommendation:

- Tier 2 Evaluation not necessary unless usage or layout is changed

- No visible damage post-July 27, 2022 M7.0 Abra Earthquake

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Date of Evaluation: Feb 28, 2025, 2:00PM
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Tier 1 Seismic Evaluation Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. Building Identification

- Location: 16.483879, 121.151063
- Occupancy: Educational Building
- Risk Category: III
- Number of Stories: 3
- Structural System: Reinforced Concrete Special Moment Frame (SMF)
- Approximate Plan Dimensions: 28m (longitudinal) x 10m (transverse)
- Year Built: 1986
- Original Design Code: Presumably NSCP 1981
- Available Drawings: None

2. Site Seismicity and Ground Motion Parameters (SAMPH & ASCE 7-05)

- Mapped Spectral Accelerations (2475-year), SAMPH:
  - Ss = 1.7 (short-period)
  - S1 = 0.65 (1.0-second period)
- Site Class: Assumed D (based on general Philippine soil profiles unless geotechnical data suggests otherwise)

Site Coefficients (ASCE 7-05, Table 11.4-1 & 11.4-2):
- Fa = 1.0 (for Ss = 1.7, Site Class D)
- Fv = 1.5 (for S1 = 0.65, Site Class D)

Design Spectral Response Acceleration Parameters:
- SDS = 1.13
- SD1 = 0.65

3. Description of Existing Conditions

- Concrete Frame: Lateral system appears to be special moment frame, typical for

educational buildings.
- Observed Deterioration: Slab reinforcement near roof slab is rusted and spalling, possibly due to internal gutter detailing.
- Column Sizes: 35cm x 35cm at base.
- Architectural Irregularities: Presence of stairwell offset may introduce torsional effects.
- Construction Deficiencies: Given construction year (1986) and NSCP 1981, building likely lacks adequate seismic confinement detailing required by modern codes.

Observation: Embedded Downspout Pipes in Concrete Columns

During the site walkthrough, it was observed that vertical downspout drainage pipes are embedded within several reinforced concrete columns throughout the building. These embedded elements reduce the effective gross concrete area (Ag) of the columns and may interfere with proper reinforcement placement and confinement, particularly in smaller column cross sections (e.g., 350 mm x 350 mm at the ground level).

The presence of such pipes introduces potential structural concerns due to the reduction in axial and flexural capacity. In addition, long-term durability is a concern, as any cracking or failure of the pipe may lead to water seepage into the concrete, increasing the risk of reinforcement corrosion and concrete degradation.

This condition was probably not explicitly accounted for in the original design and is not compliant with current good practice. While detailed calculations were not performed as part of this Tier 1 evaluation, the embedded downspouts may contribute to reduced vertical and lateral load-carrying capacity. The affected columns are therefore flagged as **potentially deficient**, warranting further evaluation under a Tier 2 analysis or detailed structural investigation.

4. Seismic Evaluation Objective

Life Safety (LS) and Collapse Prevention (CP) performance levels are targeted for Tier 1 screening in accordance with ASCE 41-17 for Risk Category III buildings.

5. Tier 1 Checklists

5.1 Basic Structural Checklist

Item	Description	Pass / Fail	Comments
S1	Load Path	Pass	Vertical and horizontal load

			paths appear continuous
S2	Redundancy	Unknown	No as-built plans available
S3	Capacity/Det.	Fail	Building was designed pre-modern ductility requirements (likely poor confinement)
S4	Weak Story	Unknown	Needs further investigation
S5	Soft Story	Unknown	Potential depending on partition wall stiffness
S6	Diaphragm Continuity	Pass	Diaphragms assumed rigid and continuous
S7	Collector Elements	Unknown	Unable to verify due to lack of drawings
S8	Irregularities	Fail	Presence of stair core may induce torsional irregularities

5.2 Basic Configuration Checklist

Item	Description	Pass / Fail	Comments
C1	Torsion	Fail	Stair located near the back and side may cause torsional response
C2	Columns	Fail	Column contains embedded downspout pipe reducing effective Ag and potentially interfering with

			reinforcement layout.
C3	Re-entrant Corners	Pass	No apparent re-entrant corners observed
C4	Diaphragm Discontinuity	Unknown	Not observable, assumed continuous unless proven otherwise
C5	Out-of-Plane Offsets	Pass	None observed
C6	Non-orthogonal System	Pass	Structural elements assumed orthogonal

5.3 Geologic Site and Foundation Checklist

Item	Description	Pass / Fail	Comments
G1	Slope Instability	Pass	Flat site assumed
G2	Liquefaction	Pass	Per HazardHunterPH, liquefaction potential is low
G3	Surface Fault Rupture	Unknown	No known active fault trace within immediate site

6. Summary of Findings

Structural Deficiencies:

- Lack of structural plans limits definitive assessments.
- Downspout pipes seem to be imbedded in columns (Reduced Effective concrete Ag & potential for water seepage if pipe cracks)
- Likely inadequate confinement in columns based on pre-1992 design codes (NSCP 1981).
- pre-modern detailing (lack of confinement, anchorage, and ductility)
- Potential torsional irregularities due to stair core location
- Signs of durability degradation (corrosion, spalling) in topmost slab near internal gutter
- Existing deterioration at roof slab could reduce structural integrity.

Non-Compliance Items:
- S3 (Detailing), S8 (Irregularities), C1 (Torsion), C2 (Column)

7. Recommendations

- Conduct a Tier 2 evaluation focusing on:
  - Column detailing and confinement checks
  - 3D modeling to evaluate torsional response
  - Verification of slab and diaphragm integrity
- Perform limited destructive testing (e.g., concrete core testing, rebar exposure) to validate material properties and reinforcement detailing
- Conduct non-destructive scanning of slab and beams, especially near corroded areas
- Retrofit options may include column jacketing, addition of shear walls or steel braces to counter torsion, and roof slab repair.

Appendices

A. Photos of spalled slabs and corroded rebar
B. Photos of Downspout within columns

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Appendix A

Photos of spalled slabs and corroded rebar



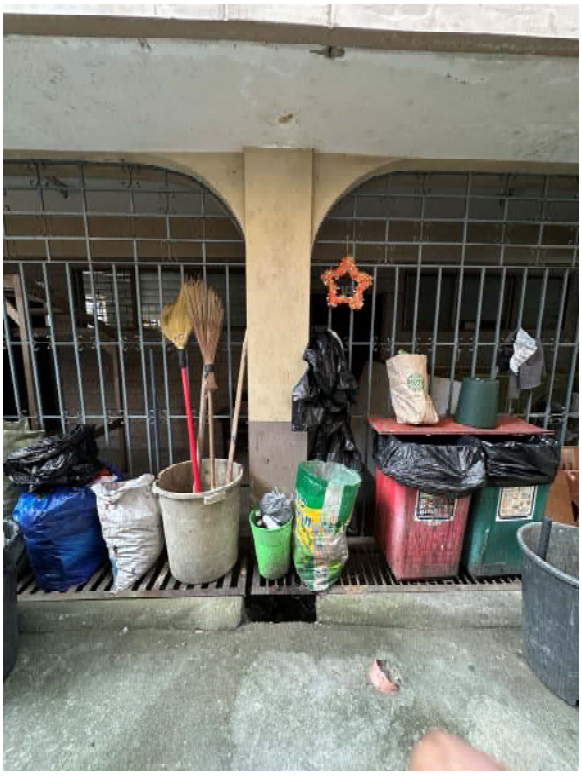






Appendix B

Photos of Downspout within columns







Possible crack due to corroded rebars, due to pipe embedment/waterproofing



Hole for downspout seen penetrating

Tier 1 Seismic Evaluation Report

ASCE 41-17 Life Safety Performance Level

Project: Seismic Evaluation of a 4-Story Educational Building

Location: 16.4823233342161, 121.15577533024661

Inspection Date: March 4, 2025, 12:10 PM

1. General Building Information

- Occupancy Type: Educational
- Structural System: Concrete Special Moment Resisting Frame (SMRF)
- Risk Category: III
- Seismic Design Category (SDC): D
- Year of Construction: 2007–2008
- Code of Record: NSCP 2001
- Available Plans: Mechanical plans only; no structural or architectural plans provided

2. Site Conditions and Seismic Hazard

- Site Soil Conditions: Unknown; client stated structure was constructed on landfill, suggesting potentially soft or compressible soils. No geotechnical report available.
- Distance to Active Fault: Approximately 2.3 km from the Maddiangat Fault
- Seismic Hazard Parameters (2475-year return period):
  - Ss = 1.7
  - S1 = 0.65

Based on ASCE 7-05 site coefficient values (assuming Site Class D):
- Fa = 1.0, Fv = 1.5
- SDS = (2/3) x Fa x Ss = (2/3) x 1.0 x 1.7 = 1.13
- SD1 = (2/3) x Fv x S1 = (2/3) x 1.5 x 0.65 = 0.65

3. Structural Configuration and Geometry

- Number of Stories: 4

- Plan Dimensions: 23.5m (L) × 20m (W)
- Grid Layout:
  - Longitudinal: 1–2 (5m), 2–3 (2.5m), 3–7 (4m spacing)
  - Transverse: A–B (4m), B–C (3.5m), C–D (5m), D–E (3.5m), E–F (4m)
- Typical Floor Height: Approx. 3.1m at Ground, 3.0m for upper floors
- Column Sizes: ~500mm x 500mm (estimated)
- Beam Sizes: ~300mm x 500mm (estimated)
- Roof Type: Inaccessible; unknown configuration
- Observed Irregularities: None (no plan, soft story, or torsional irregularities observed)

4. Lateral Load Resisting System

- System Type: Concrete Moment Resisting Frame
- Lateral Load Path: Appears continuous from roof to foundation
- Torsional Effects: No excessive torsional behavior observed or expected
- MRF Performance: The moment frame likely provides sufficient lateral strength and stiffness given the building's performance during past seismic events; however, detailed evaluation is limited due to lack of structural drawings.

5. Observed Conditions and Damage (Based on Ocular Inspection)

- Date of Inspection: March 4, 2025
- Recent Earthquake Exposure:
  - Event: July 27, 2022, Mw 7.0 Abra Earthquake
  - Epicenter Distance: Approx. 100–120 km from site
  - Observed Damage:
    - Cracks in perimeter walkway possibly due to settlement
    - Vertical cracks between infill walls and columns on the 1st floor
    - Minor cracking on infill walls near window and door corners
    - One beam on gridline J between A–C had a horizontal crack at the bottom—potential structural concern; recommended for further investigation
    - Spalling of concrete plaster observed on one column at grid intersection 7-A
    - Roof canopy slabs show signs of concrete spalling and corrosion

6. Structural Elements Summary

- Column/Beam Detailing: Not visible; assumed adequate given construction period and similarity to nearby Florentina building (in terms of designer)
- Infill Walls: Reinforced masonry; full perimeter and room dividers; contributing significantly to lateral stiffness
- Beam-Column Joints: Visual evidence suggests larger columns relative to beams, indicating possible intent for seismic-resilient detailing
- Canopy Slabs: Localized corrosion and spalling observed—recommend repair

7. Deficiencies and Vulnerabilities

- Infill-Coupled Cracks: Typical behavior due to drift demand; not structural
- Beam Crack: Possible structural concern—warrants closer review or non-destructive testing
- Column Spalling: Minor; likely superficial but should be patched and monitored
- Settlement Cracks: Perimeter walkway cracks suggest potential settlement; soil conditions must be investigated further
- Canopy Deterioration: Spalling and corrosion at roof-level canopy require repair to avoid falling debris hazards

8. Seismic Risk Assessment

- Site-Specific Hazard Level:
  - High seismicity zone (SDS = 1.13, SD1 = 0.65)
  - Built on landfill—possible amplification effects

- Structural Seismic Performance (Life Safety):
  - Performance during the 2022 Abra earthquake was acceptable; damage limited to non-structural elements (infill)
  - No major damage observed to primary structural elements except one beam—warrants further investigation
  - Columns appear oversized, suggesting intentional design for ductility and confinement

- Occupancy Risk:
  - Educational use (Risk Category III) requires Life Safety minimum performance
  - Building appears to meet Life Safety requirements under current Tier 1 evaluation
  - No signs of collapse potential observed

9. Conclusion and Recommendations

- Seismic Safety Rating: Building is likely to meet Life Safety and Collapse Prevention performance levels
- Code Compliance: Built under NSCP 2001; assessed using ASCE 41-17
- Recommendation for Tier 2 Evaluation:
  - Not required at this time, except:
    - Further investigation recommended for beam crack (Grid J, A–C)
    - Optional geotechnical review for foundation settlement risk (due to landfill)
    - Monitor and repair roof canopy and spalled concrete

Prepared By:

Evaluator : ENGR. SHERWIN M. SARMIENTO, M.PICE, M.ASEP
PRC# 0128257
CP# 09173008809

Note: This report is based on a limited visual inspection and available data as of March 4, 2025. No structural or geotechnical documents were provided by the client at the time of assessment.

Tier 1 Seismic Evaluation Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. General Building Information

Building Name/Location: Educational Building, 16.483688°N, 121.154616°E
Structural System: Reinforced Concrete Moment Frame
Year of Construction: 2018
Code of Record: NSCP 2015
Occupancy Type: Educational Facility
Risk Category: III
Seismic Design Category (SDC): D

Seismic Hazard Parameters (2475-year return period):
- Ss = 1.7
- S1 = 0.65

Site Coefficients (ASCE 7-05, assumed Site Class D):
- Fa = 1.0
- Fv = 1.5

Design Spectral Response Acceleration Parameters (ASCE 7-05):
- Sds = 1.13
- Sd1 = 0.65

2. Structural Configuration and Geometry

Number of Stories: 4
Plan Dimensions: ~40.00 m x 21.00 m (from Google maps)
Floor-to-Floor Heights: GF–2F: ~3.5 m; 2F–Roof: ~3.0 m (assumed)
Roof Configuration: Trussed hip roof with perimeter concrete canopy/gutter

Irregularities:
- Torsional Irregularity: Severe
- Re-entrant Corners: Present
- Soft Story/Vertical Irregularities: None observed

3. Foundation System

Type and Details: Unknown
Soil Conditions: No geotechnical report; assumed average (Site Class D)
Proximity to Fault Line: ~2.3 km from the Maddiangat Fault

4. Structural Elements

Moment-Resisting Frame:
- Columns and Beams: Sizes and reinforcement unknown (no plans provided)
- Observed Behavior: Columns appear larger than beams, suggesting strong column–weak beam concept
- Joint Detailing/Confined Concrete: Unknown

Infill Walls:
- Type: Reinforced Masonry
- Seismic Effect: Contributing to stiffness; evidence of damage and torsional behavior
- Observed Damage: Horizontal cracks near stairwells and ramp; bracing effect seen at ramp

5. Lateral Load Resisting System

Primary System: Concrete Moment Frame
Load Transfer: Appears continuous from roof to foundation
Torsional Effects: Significant due to irregular geometry; cracks concentrated at stress points
Observed Behavior: Stairwell and ramp areas show signs of high stress; possible rigid diaphragm behavior

6. Seismic Detailing and Reinforcement

Column/Beam Seismic Detailing: Unknown, no structural plans
Ductility/Energy Dissipation: Possibly adequate, but not confirmed
Anchorage/Splice Details: Unknown

7. Deficiencies and Vulnerabilities

Visible Distress:
- Cracks at stairwells and ramp areas
- Concrete spalling and rebar corrosion at perimeter canopy/gutter

Plan Irregularities:
- High stress concentrations due to re-entrant corners and asymmetrical appendages
- Severe Torsional Irregularity

Foundation: Unknown condition

8. Seismic Risk Assessment

Seismic Hazard Evaluation:
- High seismic hazard zone (Ss = 1.7, S1 = 0.65)
- Building located 2.3 km from the Maddiangat Fault

Seismic Risk Assessment:
- Likely Failure Modes: Infill wall detachment, torsional failure at re-entrant corners, concentrated stress at irregular interfaces
- Occupancy Risk Classification: Risk Category III (essential facility)
- Performance Expectation:
  - Life Safety: May be compromised due to irregularity and observed damage
  - Collapse Prevention: Achievable but contingent on detailed analysis and retrofitting

9. Conclusion and Recommendations

Seismic Safety Rating:
- ASCE 41-17 Performance Level: Life Safety to Collapse Prevention
- Current Code Compliance: Built to NSCP 2015, but observed damage and severe irregularities indicate potential performance issues

Recommended Actions:
- Proceed with Tier 2 Evaluation (focusing on torsion, diaphragm behavior, infill interaction)
- Conduct Nonlinear Static (Pushover) Analysis
- Retrofit/waterproof canopy/gutter and cracked infill areas
- Assess ramp & stairwell interface for seismic movement accommodation

Recent Seismic Event:
- Abra Earthquake (Magnitude 7.0)
- Date: July 27, 2022
- Epicenter Distance: ~100–120 km from site
- May have contributed to observed cracking in ramp and stairwell areas

Prepared By:

Evaluator : ENGR. SHERWIN M. SARMIENTO, M.PICE, M.ASEP
PRC# 0128257
CP# 09173008809

Note: This report is based on a limited visual inspection and available data as of March 4, 2025. No structural or geotechnical documents were provided by the client at the time of assessment.

Tier 1 Seismic Evaluation Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. General Building Information

Building Name/Location: Chapel Building, 16.483712°N, 121.156035°E
Structural System: Reinforced Concrete Moment Frame
Year of Construction: 2012
Code of Record: NSCP 2010
Occupancy Type: Assembly
Risk Category: III
Seismic Design Category (SDC): D

Seismic Hazard Parameters (2475-year return period):
- Ss = 1.7
- S1 = 0.65

Site Coefficients (ASCE 7-05, assumed Site Class D):
- Fa = 1.0
- Fv = 1.5

Design Spectral Response Acceleration Parameters (ASCE 7-05):
- Sds = 1.13
- Sd1 = 0.65

2. Structural Configuration and Geometry

Number of Stories: 3
Plan Dimensions: 26m x 26m
Grid Layout: Varying, GL A–F: 4m, 5m, 8m, 5m, 4m; GL 1–8: 3.4m to 2.85m
Column Sizes: C-1 & C-2: 500x300mm; C-3 & C-4: 300x300mm; C-5: 400x400mm
Beam Sizes: 250x350mm, 250x600mm, 300x600mm, 200x400mm, 200x500mm
Floor-to-Floor Heights: Basement–Ground: 2.4m; Ground–Mezzanine: 3.0m; Mezzanine–Roof: 7.26m

Irregularities:
- Soft Story: None
- Torsional Irregularity: Possible due to stiffer front (denser column placement)
- Height Irregularity: No
- Vertical Irregularity: None

3. Foundation System

Foundation System: Isolated Footings
Footing Sizes: F-1: 2.5x2.5x0.31m; F-2: 2.0x2.0x0.30m; F-3: 1.75x1.75x0.3m; F-4: 2.25x2.25x0.3m

Soil Type: Unknown (no geotechnical report)
Proximity to Fault Line: ~2.3 km from the Maddiangat Fault

4. Structural Elements

Columns:
- Hoop spacing: 10mm hoops at 1@50mm, 6@100mm, 6@150mm, then 200mm spacing
- Confined concrete: Yes

Beams:
- Reinforcement for bending: Yes
- Beam-column connection: Appears adequate per plans
- Connection strength: Critical (SMRF)

Beam-Column Joints:
- Confined concrete: Possibly
- Strong column–weak beam mechanism may not be satisfied in some areas with deep beams

Infill Walls:
- Type: Reinforced Masonry
- Contribution to stiffness: Yes, potential torsional effects

5. Lateral Load Resisting System

Primary System: Concrete Moment Frames
Load Transfer: Appears continuous from top to bottom
Torsional Effects: *Possible* – front of structure has higher stiffness due to more columns
Moment Frame Behavior: Likely adequate, though torsion and column-beam strength (strong column-weak Beam) need further investigation

6. Seismic Detailing and Reinforcement

Seismic Reinforcement: Possibly present based on plan
Ductility and Energy Dissipation: Possibly provided
Splice Locations: Unknown (no detail)
Anchorage of Reinforcement: Possibly adequate

7. Deficiencies and Vulnerabilities

Observed Damage:
- Water penetration from roof deck over mezzanine
- Beam cracking along gridline B (GL1-2) where another beam intersects
- Shear cracking in infill wall (GL B, GL7-8)
- Suspected rebar corrosion due to water ingress

Failure Modes:
- Strong beam–weak column mechanism suspected in some locations; needs further detailed analysis (beyond Tier 1)

Foundation: No current issues observed

8. Seismic Risk Assessment

Seismic Hazard Level: High (Ss = 1.7, S1 = 0.65)
Failure Modes: Infill cracking, beam distress, potential column underperformance
Occupancy Risk: Life Safety concern due to irregularities and observed damage
Performance Expectation: Life Safety to Collapse Prevention based on observed damage and structural behavior

9. Recommended Actions

- Address roof deck waterproofing immediately to prevent structural deterioration
- Repair affected beams and cracked infill walls
- Monitor for corrosion-related spalling
- Conduct Tier 2 evaluation focusing on torsion, beam-column interaction, and detailing verification

10. Conclusion

Overall Seismic Safety Assessment: Life Safety to Collapse Prevention
Code Compliance: Built to NSCP 2010; further verification required for full ASCE 41-17 compliance
Tier 2 Evaluation: Recommended to confirm performance, investigate potential strong beam-weak column issues, and assess torsional behavior

Appendices

A. Photos of Cracks in beam
B. Photos of Infill Wall Cracks
C. Photos of water penetration

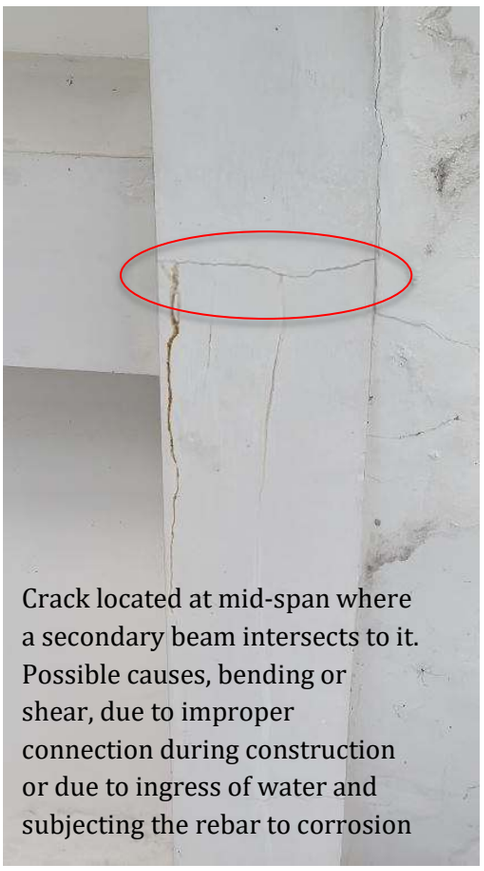
Prepared By:



Evaluator : ENGR. SHERWIN M. SARMIENTO, M.PICE, M.ASEP
PRC# 0128257
CP# 09173008809

Appendix A

Photos of Cracks in Beam



Crack located at mid-span where a secondary beam intersects to it. Possible causes, bending or shear, due to improper connection during construction or due to ingress of water and subjecting the rebar to corrosion





Signs, water has penetrated from top fiber to bottom fiber, slab rebars in the future will corrode and cause spalling



Appendix B

Photos of Infill wall cracks



Appendix C

Photos of Water penetration









Tier 1 Seismic Evaluation Report

Based on ASCE/SEI 41-17 – Seismic Evaluation and Retrofit of Existing Buildings

Evaluation Objective: Life Safety (LS) and Collapse Prevention (CP)

1. General Building Information

Building Name/Location: 16.484359, 121.155960
Structural System: Reinforced Concrete Moment Frame
Year of Construction: 2010
Code of Record: Presumed NSCP 2010
Occupancy Type: Educational Facility
Risk Category: III
Seismic Design Category (SDC): D

Seismic Hazard Parameters (2475-year return period):
- Ss = 1.7
- S1 = 0.65

Site Coefficients (ASCE 7-05, assumed Site Class D):
- Fa = 1.0
- Fv = 1.5

Design Spectral Response Acceleration Parameters (ASCE 7-05):
- Sds = 1.13
- Sd1 = 0.65

2. Structural Configuration and Geometry

Number of Stories: 4
Plan Dimensions: 29m (Width) × 20.1m (Length)
Column Sizes: C1–C4: 600mm × 400mm, C5–C8: 400mm × 500mm
Beam Sizes: Unknown (No structural plans available)
Floor-to-Floor Heights: Typical 3.2m
Irregularities:
- Soft Story: None
- Torsional Irregularity: Possible
- Height Irregularity: None
- Vertical Irregularity: None

3. Foundation System

Foundation System: Isolated Footings
Footing Sizes: F1: 3.0m × 3.0m × 0.65m, F2: 2.75m × 2.75m × 0.45m, F3: 1.75m × 1.75m × 0.35m
Soil Type: Unknown (no geotechnical report)
Proximity to Fault Line: ~2.3 km from the Maddiangat Fault

4. Structural Elements

Columns:
- Hoop spacing: 10mm diameter spaced 1@50, 6@100, 6@150, rest @175mm
- Confined concrete: Yes

Beams:
- Reinforcement for bending: Yes
- Connection strength: Critical (SMRF)

Beam-Column Joints:
- Joint Confinement: Likely provided
- Column-to-Beam Size Ratio: Larger column sizes suggest ductility and strength
- Connection Detailing: Not verifiable without structural drawings

Infill Walls:
- Type: Reinforced Masonry
- Contribution to stiffness: Yes, potential torsional effects
- Crack Observations:
    - Infill wall cracks at stairwell (2nd & 3rd floors)
    - Severe cracking at 4th floor infill walls on grid intersections 1-6, 2-6, 1-8, and 2-8
- Effect on Seismic Response: Significant; likely contributing to torsional stiffness and uneven load path

5. Lateral Load Resisting System

Primary System: Concrete Moment Frames
Load Transfer: Appears continuous and effective, top-to-bottom transfer is visually intact
Torsional Effects: Likely significant due to plan irregularities and eccentric stairwell placement
Moment Frame Behavior: Possibly adequate, though no signs of beam or column failure observed. However, irregular geometry and infill wall cracking raise concerns for stress concentrations in seismic events.

6. Seismic Detailing and Reinforcement

Seismic Reinforcement: Presumed present based on frame classification and column size
Ductility and Energy Dissipation: Likely adequate
Splice Locations: Unknown (no detail)
Anchorage of Reinforcement: Unknown – plans not available

7. Deficiencies and Vulnerabilities

Observed Issues:
- Torsional Irregularity: Cracks and damage at re-entrant stairwell corners suggest torsion
- Water Intrusion: Roof runoff appears to flow into the concrete canopy, acting like a gutter, leading to spalling and potential rebar corrosion
- Embedded PVC Downspouts in Columns: If confirmed, this would reduce effective concrete area and compromise axial or flexural strength. This configuration is non-compliant with ACI 318 provisions, which disallow any significant voids or embeds in critical load-bearing elements unless designed for it.

- Suspected rebar corrosion due to water ingress

Likely Failure Mode in Seismic Events:
- Localized shear failure at re-entrant corners and perimeter infill wall regions
- Possible vertical capacity degradation due to corrosion at canopy soffit

Foundation: No current issues observed

8. Seismic Risk Assessment

Seismic Hazard Level: High (Ss = 1.7, S1 = 0.65)
Performance Assessment:

- In the event of a design-level earthquake, torsional behavior, localized infill wall cracking, and weakened canopy elements could contribute to partial non-structural failure or localized shear failure.
- However, absence of visible damage to primary moment frame columns or beams suggests that the structure likely satisfies Life Safety and Collapse Prevention objectives.

9. Recommended Actions

- Short-Term Repair Measures:
  - Address waterproofing defects and inspect canopy rebar for corrosion. Patch and repair spalled concrete.
- Further Investigation Needed:
  - Confirm presence of embedded PVC in structural columns and its extent. Conduct capacity reduction analysis.
  - Torsional behavior should be investigated using a Tier 2 nonlinear static analysis or 3D modeling to verify that first mode behavior does not exceed ASCE 41-17 drift limits.

10. Conclusion

- Overall Seismic Performance Level:
  - Meets Life Safety and Collapse Prevention targets under ASCE 41-17, considering existing configuration and observed damage
- Code Compliance:
  - Building was likely designed under NSCP 2010, with detailing practices similar to ACI 318-08 and ASCE 7-05
- Recommendation:
  - Proceed to Tier 2 analysis to better quantify torsional effects and verify member capacities
  - Address roof water drainage and check canopy corrosion extent
  - Evaluate structural implications of embedded PVC in columns

Appendix A: Photo Documentation

- Figure A.1: Infill wall crack at 4th floor, Gridline 1–6
- Figure A.2: Infill wall crack at 4th floor, Gridline 2–6
- Figure A.3: Infill wall crack at 4th floor, Gridline 1–8

- Figure A.4: Infill wall crack at 4th floor, Gridline 2–8
- Figure A.5: Infill wall crack at stairwells
- Figure A.6: Spalling and rebar corrosion at roof canopy soffit

Prepared By:

Evaluator : ENGR. SHERWIN M. SARMIENTO, M.PICE, M.ASEP
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CP# 09173008809

Note: This report is based on a limited visual inspection and available data as of March 3, 2025. No structural or geotechnical documents were provided by the client at the time of assessment.

Appendix A

Figure A.1: Infill wall crack at 4th floor, Gridline 1–6



Figure A.2: Infill wall crack at 4th floor, Gridline 2–6



Figure A.3: Infill wall crack at 4th floor, Gridline 1–8



Figure A.4: Infill wall crack at 4th floor, Gridline 2–8



Figure A.5: Infill wall crack at stairwells



Figure A.6: Spalling and rebar corrosion at roof canopy soffit



Republic of the Philippines
Department of the Interior and Local Government
BUREAU OF FIRE PROTECTION
Region II (CAGAYAN VALLEY)

BAYOMBONG FIRE STATION - NUEVA VIZCAYA
Sgt. L.B. Perez St., Don Mariano Marcos
Bayombong , Nueva Vizcaya
Hotline: 0915-172-1574 / 0919-678-5482
Email Address: bayombongfs@yahoo.com.ph

FSIC NO. R 2-RW156490

February 7, 2024
Date

FIRE SAFETY INSPECTION CERTIFICATE

☑ **FOR CERTIFICATE OF OCCUPANCY**
☐ **FOR BUSINESS PERMIT (NEW/RENEWAL)**
☐ **OTHERS** _____

TO WHOM IT MAY CONCERN:

By virtue of the provisions of RA 9514 otherwise known as the Fire Code of the Philippines of 2008, the application for **FIRE SAFETY INSPECTION CERTIFICATE** of ***SAINT MARY'S UNIVERSITY COLLEGE(OLD LIBRARY, JURGENE HALL UB BUILDING, AND PUBLISHING HOUSE ONLY)***
(Name of Establishment)
owned and managed by ***SAINT MARY'S UNIVERSIRY*** with postal address at
(Name of Owner/Representative)
DON MARIANO MARCOS, BAYOMBONG, NUEVA VIZCAYA
(Address)
is hereby **GRANTED** after said building structure or facility has been duly inspected with the finding that it has fully complied with the fire safety and protection requirements of the Fire Code of the Philippines of 2008 and its Revised Implementing Rules and Regulations.

This certification is valid for **BUSINESS PERMIT (NEW/RENEWAL)**
(Description)
valid until February 7, 2025.

Violation of Fire Code provisions shall cause this certificate *null and void* after appropriate proceeding and shall hold the owner liable to the penalties provided for by the said Fire Code.

Fire Code Fees:
Amount Paid: ₱5,527.00
O.R. Number: 02-24056597
Date: January 25, 2024

RECOMMEND APPROVAL:

SFO2 Nestor A Teneza
CHIEF, Fire Safety Enforcement Section

APPROVED:

INSP ARNOLD G GUNTALILIB, BFP
CITY/MUNICIPAL FIRE MARSHAL

NOTE: "This Certificate does not take the place of any license required by law and is not transferable. Any change in the use of occupancy of the premises shall require a new certificate."

THIS CERTIFICATE SHALL BE POSTED CONSPICUOUSLY

PAALALA: "MAHIGPIT NA IPINAGBABAWAL NG PAMUNUAN NG BUREAU OF FIRE PROTECTION SA MGA KAWANI NITO ANG MAGBENTA O MAGREKOMENDA NG ANUMANG BRAND NG FIRE EXTINGUISHER"

"FIRE SAFETY IS OUR MAIN CONCERN"

Applicant/Owner's COPY

Republic of the Philippines
Department of the Interior and Local Government
BUREAU OF FIRE PROTECTION
Region II (CAGAYAN VALLEY)

BAYOMBONG FIRE STATION - NUEVA VIZCAYA
Sgt. L.B. Perez St., Don Mariano Marcos
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Hotline: 0915-172-1574 / 0919-678-5482
Email Address: bayombongfs@yahoo.com.ph

FSIC NO. R 2-RW156490

February 7, 2024
Date

FIRE SAFETY INSPECTION CERTIFICATE

- ☑ **FOR CERTIFICATE OF OCCUPANCY**
- ☐ **FOR BUSINESS PERMIT (NEW/RENEWAL)**
- ☐ **OTHERS** _____

TO WHOM IT MAY CONCERN:

By virtue of the provisions of RA 9514 otherwise known as the Fire Code of the Philippines of 2008, the application for **FIRE SAFETY INSPECTION CERTIFICATE** of *SAINT MARY'S UNIVERSITY COLLEGE(OLD LIBRARY, JURGENE HALL UB BUILDING, AND PUBLISHING HOUSE ONLY)*
(Name of Establishment)
owned and managed by *SAINT MARY'S UNIVERSIRY* with postal address at
(Name of Owner/Representative)
DON MARIANO MARCOS, BAYOMBONG, NUEVA VIZCAYA
(Address)
is hereby **GRANTED** after said building structure or facility has been duly inspected with the finding that it has fully complied with the fire safety and protection requirements of the Fire Code of the Philippines of 2008 and its Revised Implementing Rules and Regulations.

This certification is valid for **BUSINESS PERMIT (NEW/RENEWAL)**
(Description)
valid until February 7, 2025.

Violation of Fire Code provisions shall cause this certificate *null and void* after appropriate proceeding and shall hold the owner liable to the penalties provided for by the said Fire Code.

Fire Code Fees:
Amount Paid: ₱5,527.00
O.R. Number: 02-24056597
Date: January 25, 2024

RECOMMEND APPROVAL:

SFO2 Nestor A Teneza
CHIEF, Fire Safety Enforcement Section

APPROVED:

INSP ARNOLD G GUNTALILIB, BFP
CITY/MUNICIPAL FIRE MARSHAL

NOTE: "This Certificate does not take the place of any license required by law and is not transferable. Any change in the use of occupancy of the premises shall require a new certificate."

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PAALALA: "MAHIGPIT NA IPINAGBABAWAL NG PAMUNUAN NG BUREAU OF FIRE PROTECTION SA MGA KAWANI NITO ANG MAGBENTA O MAGREKOMENDA NG ANUMANG BRAND NG FIRE EXTINGUISHER"

"FIRE SAFETY IS OUR MAIN CONCERN"

OBO/BPLO's COPY

Republic of the Philippines
Department of the Interior and Local Government
Bureau of Fire Protection

Regional Office Nr 2
BAYOMBONG FIRE STATION – NUEVA VIZCAYA
Sgt. L.B. Perez St., Don Mariano Marcos
Bayombong, Nueva Vizcaya
Hotline: **0915-172-1574**
Email: **bayombongfs@yahoo.com.ph**

INSPECTION ORDER
NUMBER: R2-RW-156490
(Pre-numbered)

01/09/2024
DATE

TO	:	FOI Dolorfino RB / FOI Viernes RLB
PROCEED	:	SMU COLLEGE DON MARIANO MARCOS, BAY. N.V.
PURPOSE	:	To conduct fire safety inspection to determine compliance with the Revised Implementing Rules and Regulations of RA 9514 otherwise known as the Fire Code of the Philippines of 2008.
DURATION	:	
REMARKS OR ADDITIONAL INSTRUCTION/S	:	Be in proper GOA uniform; coordinate with administrator/representative and accomplish prescribed After Inspection Report indicating therein the specific violation/deficiencies which shall be corrected by the owner/s prior renewal of Business Permit.

RECOMMEND APPROVAL:

SFO2 Nestor A Teneza, BFP
Chief, Fire Prevention Section

APPROVED:

INSP ARNOLD G GUNTALILIB, BFP
ACTING MUNICIPAL FIRE MARSHAL

ACKNOWLEDGEMENT

This is to acknowledge that permission was granted to the above-named Fire Safety Inspector/s accompanied by authorized representative to conduct Fire Safety Inspection within the premises in accordance with law.

RAYMOND VILLANUEVA
Signature over Printed Name/Authorized Representative

JAN. 7, 2024
Date/Time

PAALALA: "MAHIGPIT NA IPINAGBABAWAL NG PAMUNUAN NG BUREAU OF FIRE PROTECTION SA MGA KAWANI NITO ANG MAGBENTA O MAGREKOMENDA NG ANUMANG BRAND NG FIRE EXTINGUISHER"

"FIRE SAFETY IS OUR MAIN CONCERN"

DISTRIBUTION:
Original (Applicant/Owner's Copy)
Duplicate (BFP Copy)