



Evaluation of Elementary, Middle
and High School Buildings

AGENDA



1. Project Scope
2. Evaluation Background
3. Findings
 - Elementary School
 - Middle School
 - High School
4. Conclusions
5. Questions and Answers

1. PROJECT SCOPE



1. Perform Visual Assessment

2. Evaluate Deterioration

3. Evaluate Deficiencies In

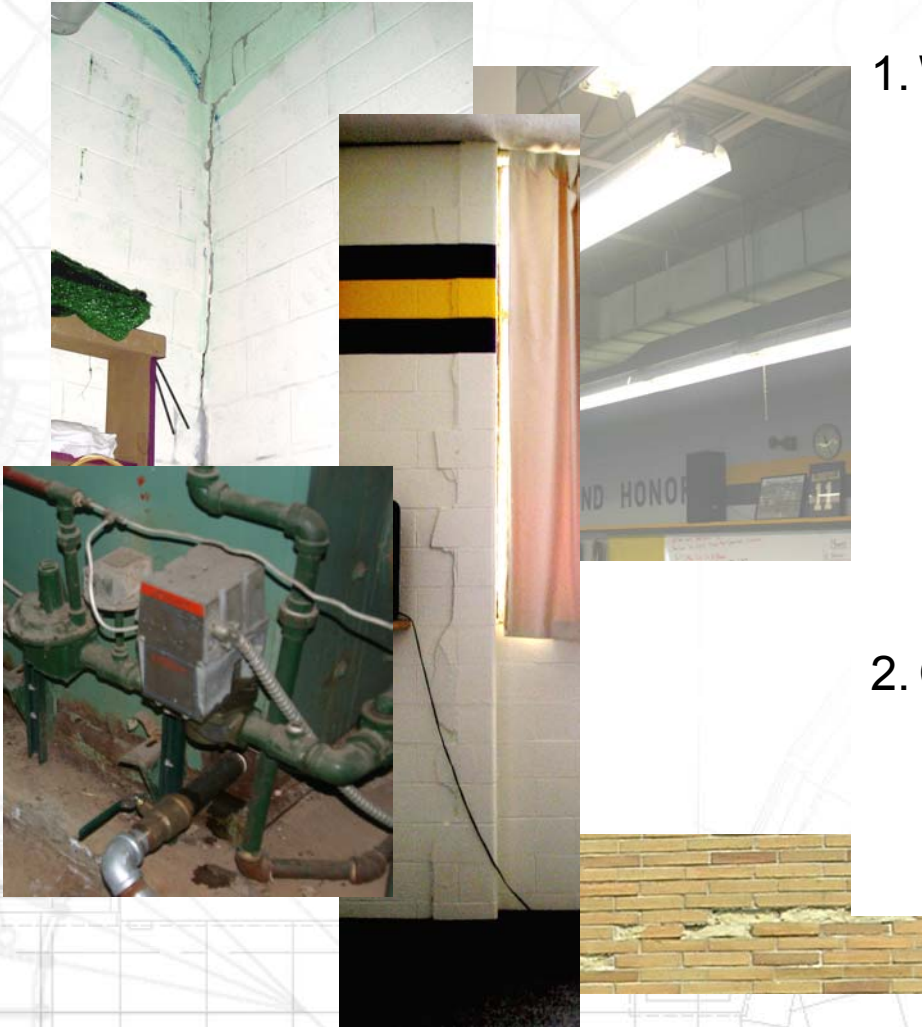
- Building Framework and Finishes
- Mechanical Systems
- Electrical Systems

4. Report Condition of Facilities

5. Excluded from Evaluation

- Specific testing of specialized building systems like fire alarm, mechanical controls, and playground equipment safety.

2. EVALUATION BACKGROUND



1. What do we Evaluate?

- Structure
- Shell – (Façade, Windows, Roof)
- Condition of Interior Elements
- Condition of Plumbing Fixtures
- Condition of Mechanical System
- Condition of Electrical System
- Code Compliance of Elements with Current Building Codes
- How Much Life is Left in Various Pieces

2. Construction Type and Building Life

- Masonry Veneer with Block Back Up - Average Life of About 50 Years
- Precast Concrete Panel - Average Live of About 50 Years

3. FINDINGS - GENERAL



1. All Facilities Are Very Well Maintained

2. Signs of Age Were Noted

- Weathering of Brick Veneer
- Structural Settlement
- Leaking of Window Systems
- Presence of Hazardous Materials
- Building Elements Constructed Under Old Code Requirements
- Outdated Mechanical Controls
- Boilers not High Efficiency
- Plumbing Systems Slow Drainage
- Emergency Exit Lighting not Meeting Current Code Standards
- Power and Communication Systems Undersized for Latest Technology

3. FINDINGS – ELEMENTARY SCHOOL

1. Building Age – About 41 Years

2. Shell / Structure Issues

- Masonry Veneer Deterioration
- Window System Leakage
- Roof Leaks
- Deteriorating Flashing Cap
- Glazing Not Insulated Glazing
- Some Floor Slab Settlement

3. Mechanical Systems

- Control System Old and Inefficient
- Boilers Well Maintained But Old and Inefficient

4. Electrical Systems

- Wiring Infrastructure Outdated
- Emergency Lighting Level Low

3. FINDINGS – MIDDLE SCHOOL

1. Building Age – About 26 Years
2. Shell / Structure Issues
 - Minor Deterioration in Precast Panels
 - Some Water is Ponding on Roof
 - Isolated Flashing Leaks
 - Some Slab on Grade Settlement
3. Mechanical Systems
 - Expansion of DDC Control System Recommended
 - Air Distribution System Based Upon AC, Which Was Not Installed Due to Construction Cost Engineering
4. Electrical Systems
 - Wiring Infrastructure Outdated
 - Emergency Lighting Level Low

3. FINDINGS – HIGH SCHOOL

1. Building Age – About 47 Years
2. Shell / Structure Issues
 - Masonry Veneer Deterioration
 - Window System Deteriorated
 - Roof Leaks
 - Deteriorating Flashing Cap
 - Glazing Not Insulated Glazing
 - Bearing Wall Structural Settlement
 - Asbestos Plaster Ceiling
 - Corridors not Smoke Tight
3. Mechanical Systems
 - Control System Old and Inefficient
 - Boilers Well Maintained But Old and Inefficient
 - Asbestos Insulation
4. Electrical Systems
 - Wiring Infrastructure Outdated
 - Emergency Lighting Level Low

4. CONCLUSIONS – ELEMENTARY SCHOOL

1. Shell / Structure

- Remedial Brick Work Needed
- Replace Joint Sealants
- Replace Roof
- Replace Roof Flashing
- Replace Windows and Storefront with Insulated Systems and Glazing

2. Mechanical Systems

- Expand the DDC Controls System
- Replace Boilers with High Efficiency Units
- Roof AC – Replace Window AC

3. Electrical Systems

- Upgrade Electrical / Communications Infrastructure
- Upgrade Emergency Lighting
- Check Transformers for PCB's

7. CONCLUSIONS – MIDDLE SCHOOL

1. Shell / Structure

- Clean and Replace All Joint Sealant
- Engage Special Study and Remediate Flashing at Gym
- Replace Roofing with Positive Sloped System and Insulation
- Engage Special Study of Typical Roof Flashing
- Patch Popping Precast and Re-Flash

2. Mechanical Systems

- Engage Special VAV Study and Provide AC Units at Roof
- Expand DDC Control System

3. Electrical Systems

- Upgrade Electrical / Communications Infrastructure
- Upgrade Emergency Lighting

7. CONCLUSIONS – HIGH SCHOOL

1. Shell / Structure

- **Replacing Building**
IF NOT
- Remedial Brick Work Needed
- Replace Joint Sealants
- Replace Roof and Flashing with Sloped Insulation System
- Replace Windows and Storefront with Insulated Systems and Glazing
- Install Corridor / Classroom Separation

2. Mechanical Systems

- Expand the DDC Controls System
- Replace Boilers with High Efficiency Units and Plumbing Lines
- Roof AC – Replace Window AC

3. Electrical Systems

- Upgrade Electrical / Communications Infrastructure
- Upgrade Emergency Lighting