

Higley Unified School District
Mr. Ben Bucholz
2935 South Recker Road
Gilbert, AZ 85295

July 15, 2018

1. Assessment Summary

- 1.1. On May 1, 2018 an Infrastructure Property Condition Assessment of the Cooley Middle School located at 1100 South Recker Road in Gilbert Arizona was conducted by Mr. Ben Bucholz with the Higley Unified School District, Mr. Randolph Marwig with Western Technologies, Mr. Denis Martin with Martin Engineering & Surveying, Inc and David Stover with Orcutt Winslow.
- 1.2. The approximate 139,053 square foot middle school sits on an approximate 22-acre site (952,520 square feet), zoned SF-6 and was designed in 2013 and constructed in 2014.
- 1.3. The site was originally used for agricultural purposes thus the soil composition was originally silty clay.
- 1.4. The assessment consisted of an on-site survey of the campus and buildings, for the purposes of identifying current physical deficiencies, code compliance deficiencies, life safety, design and construction issues for its intended use.
- 1.5. A summary by area and building is provided below with additional detail as well as recommendations.

2. Site/campus

- 2.1. The Cooley Middle School site soil content is made up of silty clay with expansive properties which causes heaving of walkways and driveways.

2.2. Areas observed;

- Preschool and visitor parking lot
- North visitor parking areas
- Staff parking lot

2.3. Physical Deficiencies

- 2.3.1. Physical heaving and depression of the existing asphalt paving in areas causing ponding of rain water. Additionally, standing water causes undo decomposition of the asphalt paving.

2.4. Code Compliance Deficiencies

- 2.4.1. None

2.5. Life Safety issues

2.5.1. None

2.6. Design and Construction issues

2.6.1. Evaluate original soils report used as the basis of sign and soils testing reports generated during construction for conformance.

2.7. Recommendations

2.7.1. Our recommendation is to engage a civil engineer to evaluate existing storm drainage patterns and recommend proposed solutions to provide drainage to appropriate drainage devices as needed.

2.7.2. This evaluation can be done in conjunction with other concrete/paving repairs on site as there are numerous tripping hazards due to concrete heaving and settling.

3. Building "A" West Wing

3.1. Concrete slabs separation at each classroom.

3.2. Physical Deficiencies

3.2.1. Concrete slabs continue to separate. Potential tripping hazard.

3.3. Code Compliance Deficiencies

3.3.1. None

3.4. Life Safety issues

3.4.1. See physical deficiencies above.

3.5. Design and Construction issues

3.5.1. None

3.6. Recommendations

3.6.1. Concrete slabs should be sealed where sealants are failing.

4. Building "A" East Wing

4.1. Concrete slabs separation at each classroom.

4.2. Physical Deficiencies

4.2.1. Concrete slabs continue to separate. Potential tripping hazard.

4.3. Code Compliance Deficiencies

4.3.1. None

4.4. Life Safety issues

4.4.1. See physical deficiencies above.

4.5. Design and Construction issues

4.5.1. None

4.6. Recommendations

4.6.1. Concrete slabs should be sealed where sealants are failing.

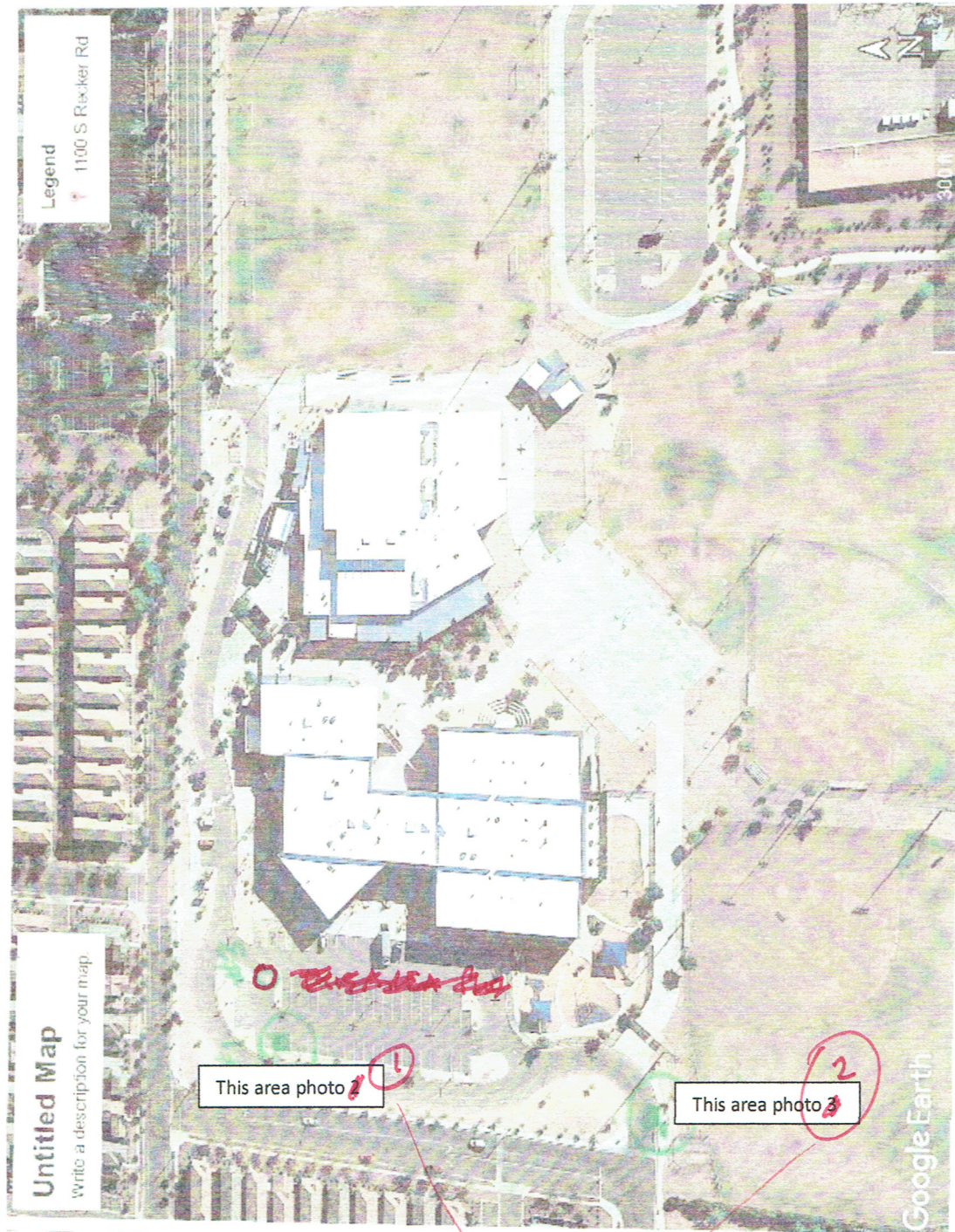
5. Martin Engineering Consultant assessment states:

- 5.1. "Concrete Hardware Condition: Minor heaving along curbs and walkways was visible and should be observed over time for evidence of more deterioration. Worse "tripping hazard" areas may be replaced with reinforced concrete slab. However, one area (Area #2 on the campus photograph) needs improvement. The heaving of the curb at the catch basin has triggered depression and cracking of the adjacent pavement, causing ponding of water in front of the curb opening inlet. We recommend replacing some heaved curbing, sidewalk and pavement to re-direct drainage to the catch basin. New concrete will be reinforced and the sub-base under the asphalt will be lime treated."
- 5.2. "Asphaltic Concrete (A.C.) Pavement Parking Lots: We recommend filling cracks with asphaltic emulsion slurry followed by slurry seal over the entire surface. The pavement shown in Area #3 on the photograph has deteriorated to the point of replacement with lime treated sub-base under the new A.C. In Area #1, the A.C. will also be replaced as is necessary to redirect drainage to the catch basin."

6. Western Technologies Consultant assessment states:

- 6.1. "The existing Middle School was constructed in 2013/2014. Since completion, the school has experienced some distress. During a site walk, the undersigned engineer observed settlement of pavement areas, especially adjacent to storm drain inlets and at utility trench locations. We also observed minor heave along curbs and some walkways that were not underlain by either non-expansive soil or lime-treated soil. The interior of the building also demonstrated some distress, especially along the west side of the classroom building. In several of the classrooms, the exposed control joints had widened substantially, but were not exhibiting vertical offsets. There were some areas of distress in the drywall of the primary classrooms, and some classroom bathroom doors were out-of-square."

7. Graphics / Photos



1. Campus Site Plan

OK



2. Catch basin at northwest portion of parking area



3. Catch basin at southwest portion of parking area