LPA

FACILITY NEEDS ASSESSMENTS

MUIR ELEMENTARY SCHOOL

2020 | FACILITIES MASTER PLAN

CUPERTINO UNION SCHOOL DISTRICT

SITE DATA

6560 Hanover Drive
San Jose, Ca

Site Size: 9.5 acres

Original Construction Date: 1959

Grades Served: Preschool, TK-5

Modernization History:
- Modernization: 2016
- Kinder Play Yard Improvements: 2015
- Roofing: 2012

Number of Portable Classrooms: 7

Principal Survey

Top Priorities:
1. Appropriate restrooms for TK
2. A securable campus
3. Staff restrooms in back of school for YCC and other staff to use
4. Parking

Input from Maintenance & Operations Trades

- Would like an IP-based bell/clock/intercom system
- Needs a central IDF room
- Needs upgrade to wireless internet capacity (switches and access points)
- Needs upgrade in site electrical capacity
- Switchgear may need to be replaced
- Air conditioning is needed within the server room
- Needs upgrade to fire alarm system
- Needs new equipment in kitchen

Site Use and Functionality

Campus Organization / Classrooms
principal rating: 3-4/5 stars
The campus has two (2) rooms appropriate for Kindergarten but only one (1) is being used. There are two (2) TK classes housed in standard classrooms without interior toilets. TK and Kindergarten classes have direct access to the Kindergarten play yard. YCC has its own play yard with shade structure over student dining tables.

Staff and Administrative Spaces
principal rating: 3/5 stars
Professional development occurs in the Tech Lab at the GLC. The principal would like more visibility of the secretaries in the front office as parents and students enter.

Student Services / Counseling
The site has numerous classrooms dedicated to Student Services and Counselors including CAP. The principal expressed the value in having restrooms interior to the CAP rooms as well as acoustical separation from CAP to other spaces.

Food Service
principal rating: 3/5 stars
The kitchen is located within the STAR building and includes an interior servery. Student dining areas are far from the servery.

Spaces for Assembly / Library
principal rating: 5/5 stars
Assemblies occur in the GLC.

Special Education
principal rating: 5/5 stars
YCC is a Special Education preschool that is housed in portable classrooms with interior restrooms. There are no other classrooms dedicated to Special Education classes.

Specialized Elective Spaces
The campus has many classrooms dedicated to dedicated rooms for Art and Music within the GLC building. At the time of assessment, the campus was beginning to create a Maker Space from an empty classroom.

Restrooms
principal rating: 2/5
The principal would like a staff restroom added for the portable classrooms and student restrooms for the CAP program.

Site
The site has a short frontage on Hanover Drive which results in limited space for staff parking. Parking within the neighborhood is also very limited. The programs housed in the portable classrooms are accessed by parents from the rear of the site, at Wisteria Way.

SITE PHOTOS


Shade Structure


Drop-Off Lane

Site Identification and Announcements


Kindergarten Play Yard


Hardcourts


Administration Office


Play Structure


School Grounds

SITE PHOTOS


Typical Classroom (STAR building)


Music Room


Kindergarten Classroom


Student Services / Counseling


Guided Learning Center / Assembly Space


Art Room


Library


Interior Hallway


Tech Lab

SITE USE AND FUNCTIONALITY ASSESSMENT
MUIR ELEMENTARY SCHOOL

CUPERTINO UNION SCHOOL DISTRICT
FACILITIES MASTER PLAN

LPA

EXISTING SITE PLAN

TK Transitional Kindergarten
K Kindergarten
CLIP Cupertino Language Immersion Program
SDC Special Education
M/M Mild/Moderate
M/S Moderate/Severe
TSDC Therapeutic SDC

Electives / Labs

ART Art Room
CL Computer Lab
DR Drama
MKR Maker / STEAM / Innovation Lab / Think Tank
MU Music

Student Services

CAP Comprehensive Autism Program
CO Counselor
LC Learning Center
RSP Resource Specialist
PSY Psychologist
WC Wellness Center
OT Occupational Therapy

Shared Spaces

ASB Student Leadership
FLEX Flex Lab
GLC Guided Learning Center
LIB Library
ST Stage

Admin / Faculty

CO Conference
FL Faculty Lounge
FW Faculty Workroom
H Health Room
KIT Kitchen
M Main Office / Front Desk
O Office
FLEX Flex Lab / Professional Development
PTA Parent Volunteer Room
SSITS School Site IT Specialist Office

Other

AS After School Care

Support Services

K Kiln
X Storage
T Toilets
U Utility
J Janitor

Drop-Off
LS - Lunch Shelter
Main Entry
Portable Classrooms

Teaching Stations:	
PS (Preschool)	5
TK (Transitional Kinder)	2
Kindergarten	1
Grades 1-5	10
SDC mild/mod	0
SDC mod/sev	0
Sub-Total:	**18**
Additional Spaces:	
CAP	2
Electives (MU, SCI, ART)	2
Maker Space	1
Computer Lab	0
Total:	**23**

FACILITY CONDITION ASSESSMENT

LPA, Inc.
60 South Market Street, Suite 150
San Jose, California 95113
Walter Estay

MUIR ELEMENTARY SCHOOL
6560 Hanover Drive
San Jose, California 95129

PREPARED BY:
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EMG PROJECT #:
136859.19R000-013.017

DATE OF REPORT:
January 26, 2020

ON SITE DATE:
October 17, 2019

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1. Executive Summary

Campus Overview and Assessment Details

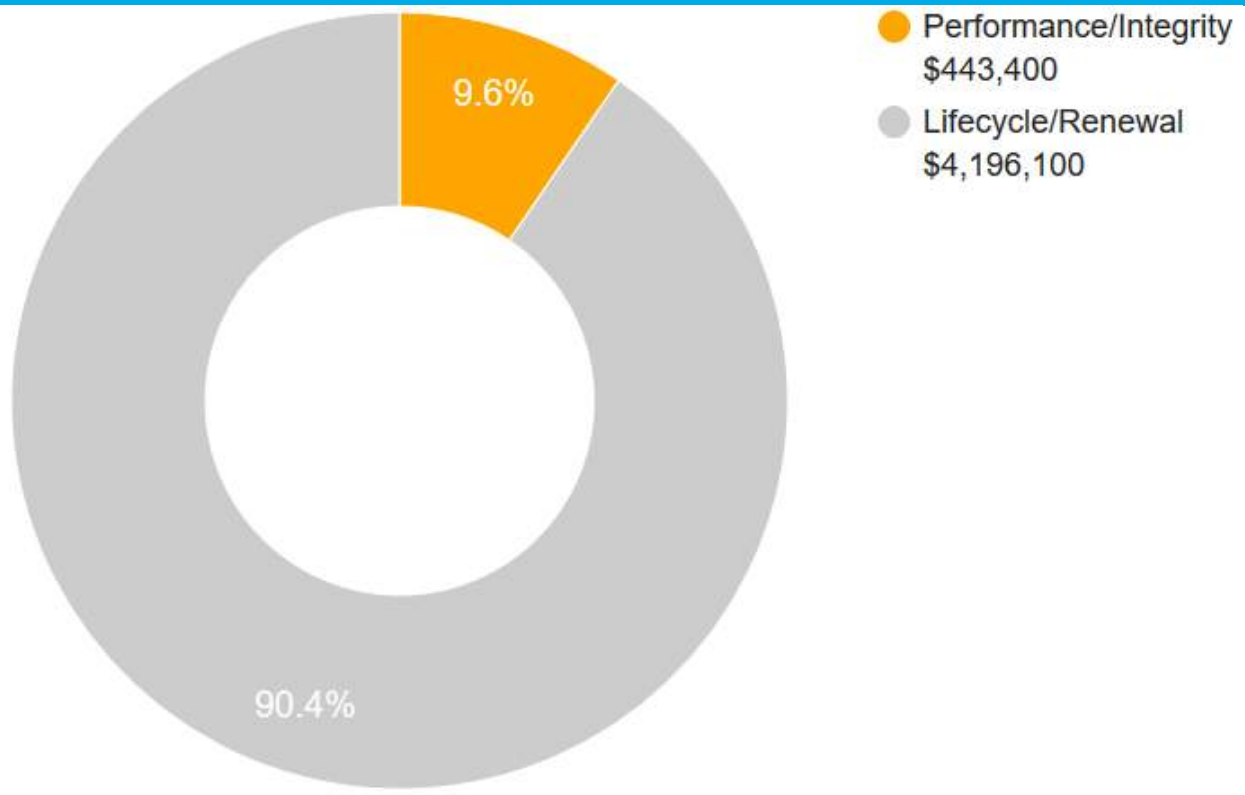
General Information	
Property Type	Elementary School Campus
Main Address	6560 Hanover Drive, San Jose, California 95129
Site Developed	1959 Renovated 2016
Number of Buildings	Five
Current Occupants	Cupertino Unified School District
Percent Utilization	100%
Date(s) of Visit	October 17, 2019
Management Point of Contact	Walter Estay 408.780.7225 phone westay@lpadesignstudios.com email
On-site Point of Contact (POC)	Eric Doller
Assessment and Report Prepared By	Logan Hoshiko
Reviewed By	Alex Israel, Technical Report Reviewer for Matt Anderson Program Manager manderson@emgcorp.com 800.733.0660 x7613

Plan Types

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the "why" part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the "best" fit, typically the one with the greatest significance.

Plan Type Descriptions		
Safety		An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity		Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility		Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental		Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation		Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal		Any component or system that is not currently deficient or problematic but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost)



10-YEAR TOTAL: $4,639,500

Campus Findings and Deficiencies

Historical Summary

Muir Elementary School was originally constructed in 1959 and is currently occupied by the Cupertino Unified School District. The interior spaces of the property were renovated in 2016.

Architectural

Per client request, the interior spaces of the property were not assessed, and the associated costs are not included in the report. However, all interior spaces were observed to gain a good overall understanding of the condition of the spaces and to check for any major damage. In 2016, the property's interior spaces were renovated, and the front office portion of the Administration Building was rebuilt. The permanent buildings on campus have exterior stucco and painted CMU walls with flat single-ply TPO roofs. The recently rebuilt Administration Building has a modified bitumen roof. The portable classrooms all have painted wood siding and either metal or single-ply EPDM roofs. Lifecycle interior and exterior finish replacements are budgeted and anticipated.

Mechanical, Electrical, Plumbing and Fire (MEPF)

The furnaces located throughout the Main Classroom buildings are antiquated. The property maintenance staff has reported that the ductwork for the furnaces runs underneath buildings and is frequently flooded whenever a major rainstorm occurs. Upon replacement of the furnaces, consideration should be given to installing new ductwork inside the buildings. One condensing unit for the Administration Building is patched and requires frequent repairs to prevent refrigerant leaks. The BAS system for the school is aged and failing, causing system errors which require HVAC technicians to reset. The property maintenance staff indicated that they are satisfied with the electrical and plumbing services.

Site

The site consists of asphalt play surfaces, asphalt parking lots, brick and concrete pedestrian pavement, and landscaped play areas. Irrigation is present at the landscaped areas.

Recommended Additional Studies

No additional studies are recommended.

Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate each building's Facility Condition Index (FCI), which provides a theoretical objective indication of a building's overall condition. By definition, the FCI is defined as the ratio of the cost of current needs divided by current replacement value (CRV) of the facility. The chart below presents the industry standard ranges and cut-off points.

FCI Ranges and Description	
0 – 5%	In new or well-maintained condition, with little or no visual evidence of wear or deficiencies.
5 – 10%	Subjected to wear but is still in a serviceable and functioning condition.
10 – 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.

The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCIs have been developed to provide owners the intelligence needed to plan and budget for the "keep-up costs" for their facilities. As such the 3-year, 5-year, and 10-year FCIs are calculated by dividing the anticipated needs of those respective time periods by current replacement value. As a final point, the FCIs ultimately provide more value when used to relatively compare facilities across a portfolio instead of being over-analyzed and scrutinized as stand-alone values. The table below summarizes the individual findings for this FCA:

Facility (year built)	Cost/SF	Total SF	Replacement Value	Current	3-Year	5-Year	10-Year
Muir Elementary School / Administration	$740	3,650	$2,701,000	0.0%	6.9%	7.4%	10.9%
Muir Elementary School / GLC	$740	11,000	$8,140,000	0.0%	0.0%	1.7%	5.7%
Muir Elementary School / Main Classrooms	$740	24,100	$17,834,000	0.0%	1.5%	2.3%	8.2%
Muir Elementary School / Portables	$380	8,460	$3,214,800	0.0%	0.0%	0.0%	2.9%
Muir Elementary School / Star Building Classrooms	$740	12,000	$8,880,000	0.0%	0.0%	0.5%	5.6%

Immediate Needs

There are no immediate needs for this property.

Key Findings

BAS/HVAC Controls in Poor condition.

Basic System
Administration Electrical room

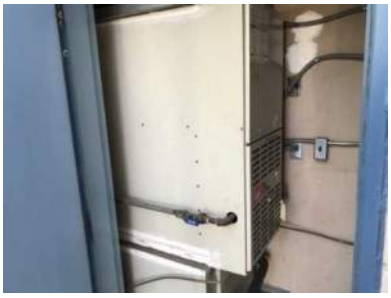
Uniformat Code: D3068
Recommendation: **Upgrade in 2021**

Plan Type: Performance/Integrity

Cost Estimate: $167,400

$$$$

BAS system is outdated and failing. - AssetCALC ID: 1490609



Furnace in Poor condition.

119 MBH
Main Classrooms Utility closet

Uniformat Code: D3051
Recommendation: **Replace in 2021**

Plan Type: Performance/Integrity

Cost Estimate: $137,700

$$$$

Furnaces are antiquated, condensate lines flood into closet, frequent repairs are required. - AssetCALC ID: 1488874

Condensing Unit/Heat Pump in Poor condition.

3 TON
Administration Building exterior

Uniformat Code: D3032
Recommendation: **Replace in 2021**

Plan Type: Performance/Integrity

Cost Estimate: $6,400

$$$$

Leaks refrigerant, taped with Teflon to stop leak. - AssetCALC ID: 1488922

HVAC System Ductwork in Poor condition.

Medium Density
Main Classrooms Throughout building

Uniformat Code: D3041
Recommendation: **Replace in 2021**

Plan Type: Performance/Integrity

Cost Estimate: $119,000

$$$$

Furnace ductwork runs underground and floods during rainstorms. - AssetCALC ID: 1488927

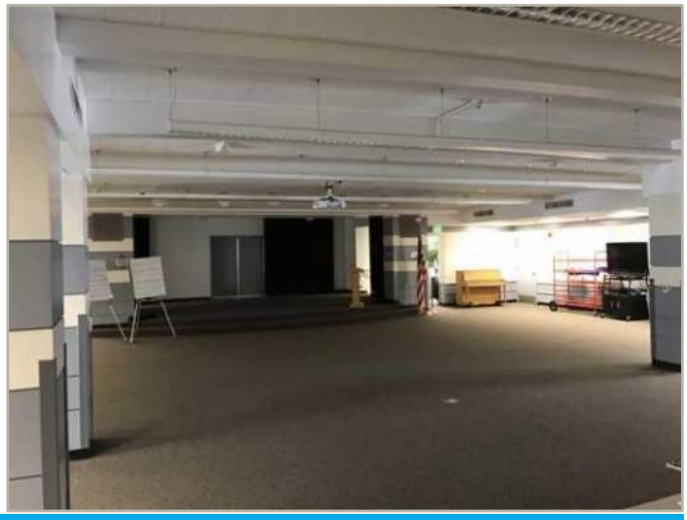
2. Administration

Administration: Systems Summary

Address	6560 Hanover Drive, San Jose, California 95129	
Constructed/Renovated	1959/2016	
Building Size	3,650 SF	
Number of Stories	One	
System	*Description*	*Condition*
Structure	Conventional wood-frame structures on concrete slabs	Good
Facade	Stucco and CMU with windows	Good
Roof	Primary: Flat construction with single-ply TPO/PVC membrane Secondary: Shed construction with modified bituminous finish	Fair
Interiors	Not assessed	--
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent Electric instant hot water heaters Toilets and sinks in all restrooms	Fair
HVAC	Individual split system furnace units Supplemental components: ductless split-systems	Fair
Fire Suppression	Fire extinguishers	Fair
Electrical	Source & Distribution: Fed from Guided Learning Center with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Smoke detectors, alarms, strobes, pull stations, and exit signs	Fair
Equipment/Special	None	--

Administration: Systems Summary	
Accessibility	Presently it does not appear an accessibility study is needed for this property.
Key Issues and Findings	Antiquated condensing units, furnaces, and BAS

3. Guided Learning Center



Guided Learning Center: Systems Summary		
Address	6560 Hanover Drive, San Jose, California 95129	
Constructed/Renovated	1959/2016	
Building Size	11,000 SF	
Number of Stories	One	
System	*Description*	*Condition*
Structure	Conventional wood-framed structures on concrete slabs	Good
Facade	Stucco and CMU with steel-framed windows	Fair
Roof	Flat construction with single-ply TPO/PVC membrane	Fair
Interiors	Not assessed	--
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent No hot water Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Individual package units	Fair
Fire Suppression	Fire extinguishers	Fair
Electrical	Source and Distribution: Main switchboard with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	None	--
Accessibility	Presently it does not appear an accessibility study is needed for this property.	

Guided Learning Center: Systems Summary

Key Issues and Findings	None

4. Main Classrooms

Main Classrooms: Systems Summary		
Address	6560 Hanover Drive, San Jose, California 95129	
Constructed/Renovated	1959/2016	
Building Size	24,100 SF	
Number of Stories	One	
System	*Description*	*Condition*
Structure	Conventional wood-framed structures on concrete slabs	Good
Facade	Stucco and CMU with aluminum-framed windows	Fair
Roof	Flat construction with single-ply TPO/PVC membrane	Fair
Interiors	Not assessed	--
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent Electric water heaters Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Individual package units and split system furnaces	Poor
Fire Suppression	Fire extinguishers	Fair
Electrical	Source and Distribution: Fed from Guided Learning Center with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Smoke detectors, alarms, strobes, pull stations, and exit signs	Fair
Equipment/Special	None	--
Accessibility	Presently it does not appear an accessibility study is needed for this property.	

Main Classrooms: Systems Summary

Key Issues and Findings	Antiquated furnaces, flooded ductwork

5. Star Building Classrooms

Star Building Classrooms: Systems Summary		
Address	6560 Hanover Drive, San Jose, California 95129	
Constructed/Renovated	1959/2016	
Building Size	12,000 SF	
Number of Stories	One	
System	*Description*	*Condition*
Structure	Conventional wood-framed structures on concrete slabs	Good
Facade	Stucco with steel-framed windows	Fair
Roof	Gable construction with single-ply TPO/PVC membrane	Fair
Interiors	Not assessed	--
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent Gas-fired water heaters, electric instant hot water heaters Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Individual split systems	Fair
Fire Suppression	Fire extinguishers	Fair
Electrical	Source & Distribution: Main panel with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment	Fair
Accessibility	Presently it does not appear an accessibility study is needed for this property.	
Key Issues and Findings	None	

6. Portables

Portables: Systems Summary		
Address	6560 Hanover Drive, San Jose, California 95129	
Constructed/Renovated	~2000	
Building Size	8,460 SF	
Number of Stories	One	
System	*Description*	*Condition*
Structure	Conventional wood-framed structures on concrete slabs	Good
Facade	Painted wood with aluminum-framed windows	Fair
Roof	Primary: Flat construction with metal finish Secondary: Flat construction with single-ply EPDM membrane	Fair
Interiors	Not assessed	--
Elevators	None	--
Plumbing	Copper supply, cast iron waste and vent No hot water Toilets and sinks in all restrooms	Fair
HVAC	Individual wall-mounted heat pumps	Good
Fire Suppression	Fire extinguishers	Fair
Electrical	Source & Distribution: Fed from Guided Learning Center with copper wiring Interior Lighting: T-8	Fair
Fire Alarm	Smoke detectors, alarms, strobes, pull stations, and exit signs	Fair
Equipment/Special	None	--
Accessibility	Presently it does not appear an accessibility study is needed for this property.	

Portables: Systems Summary

Key Issues and Findings	None

7. Site Summary

Site Information		
Lot Size	10.0 acres (estimated)	
Parking Spaces	34 total spaces all in open lots; four of which are accessible	
System	*Description*	*Condition*
Pavement/Flatwork	Asphalt lots with areas of concrete and concrete sidewalks, curbs, ramps, and stairs	Fair
Site Development	Property entrance signage, chain link fencing Playgrounds and sports courts	Fair
Landscaping and Topography	Irrigation present Low to moderate site slopes throughout	Fair
Utilities	Municipal water and sewer Local utility-provided electricity and natural gas	Fair
Site Lighting	Pole-mounted: LED Building-mounted: LED	Good
Ancillary Structures	None	--
Accessibility	Presently it does not appear an accessibility study is needed for the exterior site areas. See Section 9.	
Key Issues and Findings	None	

8. Property Space Use and Observed Areas

Unit Allocation

All 59,210 square feet of the property are occupied by Cupertino Unified School District. The spaces are a combination of offices, classrooms, and multipurpose rooms with supporting restrooms, administrative offices, and mechanical and other utility spaces.

Areas Observed

Per client request, the interior spaces of this property were not assessed and costs for interior finishes are not included in this report. However, all interior spaces were observed in order to gain a clear understanding of the property's overall condition and to check for any major damage. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roofs.

Key Spaces Not Observed

All key areas of the property were accessible and observed.

9. ADA Accessibility

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “public facilities” on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

A public entity (i.e. city governments) shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.

However, this does not:

1. Necessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities;
2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property; or
3. Require a public entity to take any action that it can demonstrate would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens. In those circumstances where personnel of the public entity believe that the proposed action would fundamentally alter the service, program, or activity or would result in undue financial and administrative burdens, a public entity has the burden of proving that compliance with 35.150(a) of this part would result in such alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

During the FCA, EMG performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to those areas and categories set forth in the tables throughout this report. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG’s undertaking. Only a representative sample of areas was observed and actual measurements were not taken to verify compliance.

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “commercial facilities” on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to barrier removal must be made.

During the FCA, EMG performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to those areas and categories set forth in the tables throughout this report. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG’s undertaking. Only a representative sample of areas was observed and actual measurements were not taken to verify compliance.

The facility was originally constructed in 1959. The facility was significantly renovated in 2016. Complaints about accessibility issues have not been received by the property management. The property does not have associated prior or pending litigation related to existing barriers or previously removed barriers.

An accessibility study has not been performed at the site. Although no significant issues were identified, a comprehensive ADA Compliance Survey may reveal specific aspects of the property that are not in full compliance.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.

Administration: Accessibility Issues

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Exterior Path of Travel	☐	☐	☒
Interior Path of Travel	☐	☐	☒
Public Use Restrooms	☐	☐	☒
Elevators	NA	NA	NA
Kitchens/Kitchenettes	NA	NA	NA

Guided Learning Center: Accessibility Issues

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Exterior Path of Travel	☐	☐	☒
Interior Path of Travel	☐	☐	☒
Public Use Restrooms	☐	☐	☒
Elevators	NA	NA	NA
Kitchens/Kitchenettes	NA	NA	NA

Main Classrooms: Accessibility Issues

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Exterior Path of Travel	☐	☐	☒
Interior Path of Travel	☐	☐	☒
Public Use Restrooms	☐	☐	☒
Elevators	NA	NA	NA
Kitchens/Kitchenettes	NA	NA	NA

Star Building Classrooms: Accessibility Issues

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Exterior Path of Travel	☐	☐	☒
Interior Path of Travel	☐	☐	☒
Public Use Restrooms	☐	☐	☒
Elevators	NA	NA	NA
Kitchens/Kitchenettes	☐	☐	☒

Portables: Accessibility Issues

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Exterior Path of Travel	☐	☐	☒
Interior Path of Travel	☐	☐	☒
Public Use Restrooms	☐	☐	☒
Elevators	NA	NA	NA
Kitchens/Kitchenettes	NA	NA	NA

Site: Accessibility Issues

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Parking	☐	☐	☒
Exterior Path of Travel	☐	☐	☒

The table below is intended to be used as a general reference guide to help differentiate the orders of magnitude between some of the more commonly observed accessibility issues. The table is not intended to be all-inclusive, and boxes checked in the tables above do not necessarily mean those specific problems or shortcomings cited as examples below exist at the subject buildings and sites. Reference the photolog (in the appendix) and/or *Key Findings* section for visuals and/or more specifics about the subject site conditions.

Reference Guide

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Parking	- Needs full reconstruction - Excessive slopes over 3% require major re-grading - No level locations to add required spaces	- No or non-compliant curb cuts - Moderate difficulty to add required accessible spaces - Slopes close to compliant	- Painting of markings needed - Signage height non-compliant - Signage missing
Exterior Path of Travel	- Large areas of sidewalks with excessive slopes - No ramp when needed - Ramps with excessive slopes	- Ramps need rails - Ramps need rail extensions - Need significant # of lever handles - All or most entrance door exterior maneuvering clearance areas with excessive slopes	- One entrance door exterior maneuvering clearance area with excessive slope - A few door knobs instead of lever handles - Non-compliant signage

Reference Guide

	Major Issues *(ADA study recommended)*	Moderate Issues *(ADA study recommended)*	Minor/No Issues
Interior Path of Travel	- All or most interior doors appear less than 32” wide - Corridors less than 36” wide - No ramp when needed - Ramps with excessive slopes - Non-compliant treads/risers at means of egress stairways	- Single height drinking fountains - Drinking fountain too high or protrudes into accessible route - Ramps need rails - Ramps need rail extensions - Need significant # of lever handles - Non-compliant rail extensions at egress stairways - All/most door thresholds high	- One door threshold too high - A few door knobs instead of lever handles - Non-compliant door pressures - Non-compliant signage - Switches not within reach range
Public Use Restrooms	- No ADA RR on each accessible floor - Restroom(s) too small - Entire restroom(s) requires renovation - Water closet clearance requires moving walls	- Interior doors appear less than 32” wide - Missing or non-compliant grab bars - Easily fixable clearance issues	- Minor height adjustments required - Non-compliant door pressures - Missing a visual strobe (only required if audible fire alarm already present) - Missing lavatory pipe wraps - Signage not compliant
Elevators	- No elevator present when required - Elevator cab too small	- Panel control buttons not at compliant height - No hands-free emergency communication system - Elevator only has mechanical stops	- Audible/visual signals at every floor may be lacking - Minor signage / Braille issues
Kitchens/Kitchenettes	- Clear space for each appliance not present - Clearance between opposing counters too narrow	- Sink and counter too high - Sink knee and toe clearance not provided where required (built-in) - Less than 50% of cabinetry within reach range	- Dispensers not within reach range - Switches not within reach range - Missing sink pipe wraps if knee and toe clearance required

10. Purpose and Scope

Purpose

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of building systems and related components are typically defined as being in one of five condition ratings. For the purposes of this report, the following definitions are used:

Condition Ratings	
Excellent	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

11. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means, CBRE Whitestone,* and *Marshall & Swift,* EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based primarily on age and condition with the presumption of continued use and maintenance of the Property similar to the observed and reported past use and maintenance practices, in conjunction with the professional judgment of EMG's assessors. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Definitions

Immediate Needs

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

Replacement Reserves

Cost line items traditionally called Replacement Reserves (equivalently referred to as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

For the purposes of 'bucketizing' the System Expenditure Forecasts in this report, the Replacement Reserves have been subdivided and grouped as follows: Short Term (years 1-3), Near Term (years 4-5), Medium Term (years 6-10), and Long Term (years 11-20).

Key Findings

In an effort to highlight the most significant cost items and not be overwhelmed by the Replacement Reserves report in its totality, a subsection of Key Findings is included within the Executive Summary section of this report. Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

Exceedingly Aged

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing "very old" systems or components that are still functioning adequately and do not appear nor were reported to be in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as Exceedingly Aged. This designation will be reserved for mechanical or electrical systems or components that have aged well beyond their industry standard lifecycles, typically at least 15 years beyond and/or twice their Estimated Useful Life (EUL). In tandem with this designation, these items will be assigned a Remaining Useful Life (RUL) not less than two years but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical Short Term window but will not be pushed 'irresponsibly' (too far) into the future.

12. Certification

The Cupertino Unified School District (the Client) retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Muir Elementary School, 6560 Hanover Drive, San Jose, California 95129, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the Client for the purpose stated within the *Purpose and Scope* section of this report. The report, or any excerpt thereof, shall not be used by any party other than the Client or for any other purpose than that specifically stated in our agreement or within the *Purpose and Scope* section of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at the Client and the recipient's sole risk, without liability to EMG.

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