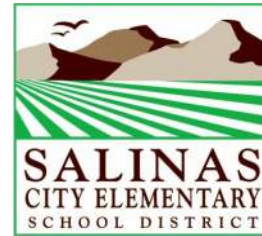


# FACILITIES NEEDS ASSESSMENT

LAUREL WOOD



PREPARED BY BELLI ARCHITECTURAL GROUP

2022

## 1. CAMPUS INFORMATION: Laurel Wood.

Address: 645 Larkin Drive, Salinas, CA 93907  
 Year Built: 1988  
 Current Principal: Kelly Hendrix  
 Current Enrollment: 484 students

## 2. ON-SITE OBSERVATIONS

### 2.1 SITE

The school site has areas in need of improvements. Items noted include:

- Rain water ponding between buildings and field.
- The existing track is in contact with a neighboring asphalt surface. Needs grass buffer for safety.
- Aging asphalt surfaces and fading paint on asphalt surfaces.
- Restrooms are too far from playground, and out of sight.
- Security cameras not adjusted properly to provide adequate visibility.
- Site is at maximum capacity. All classrooms are full.
- Old, non-accessible Kindergarten playground.



Image 2.1.1 Existing track. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.2 Existing alley behind classrooms. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.3 Kindergarten playground. Taken on 04/26/2022 by Belli Architectural Group.

### 2.2 EXTERIOR SHELL

The campus is mainly composed of permanent classroom buildings, and only a few relocatable buildings. Exterior conditions are poor. Items noted include:

- Broken and/or missing windows.
- Broken screens.
- Dry rot present at exterior wood doors.
- Dry rot present at exterior wood paneling.
- Non-compliant door thresholds.



Image 2.2.1 Exterior dry rot. Taken on 04/26/2022 by Belli Architectural Group.





Image 2.2.2 Missing window. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.4 Dry rot present at most exterior doors. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.5 Non-compliant door threshold. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.3 Broken screens. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.5 Dry rot present at exterior wood paneling. Taken on 04/26/2022 by Belli Architectural Group.



## 2.3 INTERIORS

Existing interior finishes are in fair condition. Items noted include:

- Damaged ceiling paneling.
- Worn wall finishes.
- Aged flooring.
- Non-accessible sinks in classrooms.
- 3-compartment sink in MPR Kitchen does not drain properly.
- Incorrectly placed privacy screens in Kindergarten restrooms.
- Plumbing fixtures not sized appropriately for user age group.
- Faucets are stiff and difficult to operate.
- Leaks in water closets and sinks.



Image 2.3.1 Damaged ceiling panels. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.2 Worn, dirty walls and floor finishes. Taken on 04/26/2022 by Belli Architectural Group.

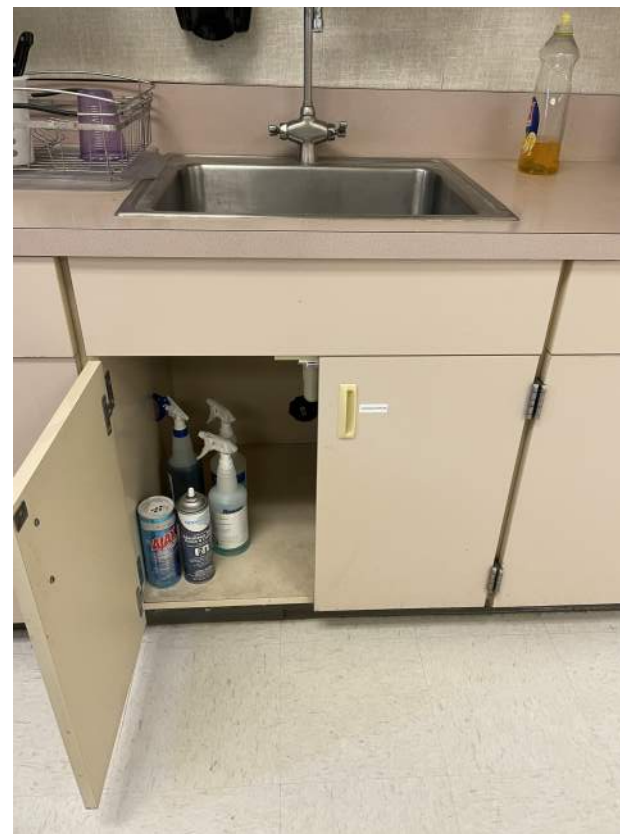


Image 2.3.3 Non-accessible sink. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.4 Kindergarten restrooms. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.5 Kindergarten sinks. Taken on 04/26/2022 by Belli Architectural Group.



## 2.4 ACCESSIBILITY

Accessibility compliance issues are noted as follows:

- Non-compliant door clearances in office.
- Non-compliant door thresholds.
- Accessible restroom grab bars at different heights.
- Non-accessible drinking fountains.



Image 2.3.6 Plumbing leak. Taken on 04/26/2022 by Belli Architectural Group.

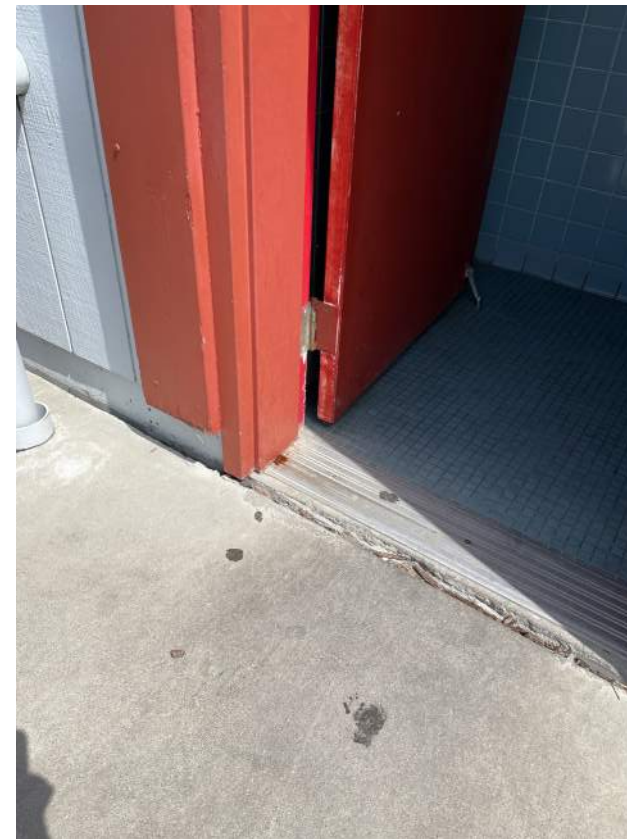


Image 2.4.1 Non-compliant threshold. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.2 Grab bars at different heights. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.7 Sink at MPR does not drain properly. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.3 Non-accessible drinking fountain. Taken on 04/26/2022 by Belli Architectural Group.



*Image 2.4.4 Accessible chair lift to stage. Taken on 04/26/2022 by Belli Architectural Group.*

## 2.6 SERVICES

For MEP findings, please refer to subsequent reports provided by Aurum Consulting and Axiom Engineers.

## 2.6 STAKEHOLDER REMARKS

- Student restrooms needed close to playground.
- Additional classrooms needed on site.
- Student access to Front Office is not adequate. Students must walk through Library to access Office.
- Additional storage space needed.
- Student drop off issues at parking lot.
- TK and K restroom issues. Toilet partitions do not have doors to separate water closets.
- Speaker system not working properly.



### 3. MECHANICAL REPORT.

**AXIOM ENGINEERS<sup>SM</sup>**  
**CONSULTING MECHANICAL ENGINEERS**  
 22 Lower Ragsdale Dr., Suite A Monterey, CA 93940  
 Phone 831.649.8000 Fax 831.649.8038



School Name: **Laurel Wood ES**

Address: 645 Larkin Street

Findings from a site visit conducted on March 26, 2022. This school was built in 1986 and is unlike any of the other schools in the district. Buildings are insulated, and overall are in fair condition. It does need a modernization. It is desired to install a Pelican Wireless Control System to allow the district maintenance staff to control all HVAC equipment.

#### 3.1 HVAC

Administrative/Staff Lounge and Library Building:

This area was heated with two (2) Lennox G16 gas-fired furnaces located in the attic. These furnaces are original and appear to be operating. They are more than 35 years old and should be replaced with new furnaces. The furnaces serving the teacher’s break room is on a timeclock and bypass timer.



Multi-Purpose/Cafeteria Building:

This building is heated with two (2) Reznor horizontal gas-fired heating units with blower fans located in the attic. These are original units from 1986 and should be replaced. These units have outside air inlets for ventilation.



The photo below is inside the cafeteria.



Classroom 1 thru 8, 13 thru 18:

These classrooms are served by Lennox G16 gas-fired up-flow furnaces located in exterior mechanical rooms. These are original units from 1986 and should be replaced. It is noted that the mechanical room doors are rotting out at the floor and need replacing.





Classroom 9 thru 12, 16A, 19 thru 21:

These are portable classroom consisting of the exterior wall mounted “Bard” type heat pump units. All portables utilize this type of equipment. These units throughout the campus appear to be original and are operating satisfactory. Older (20 years) units should be replaced with new units.



### 3.2 PLUMBING

Administrative/Staff Lounge and Library Building:

A gas-fired tank type water heater located in the attic does not have DSA approved seismic bracing. This seismic bracing is required.



Multi-Purpose/Cafeteria:

A gas-fired water heater located in the attic does not have DSA approved seismic bracing. This seismic bracing is required.



### 3.3 FIRE SPRINKLERS

Some areas of the schools (storage rooms and attics over the office/staff lounge and multi-purpose room) have fire sprinklers that are connected to the domestic water system. The photo below is of the fire service that serves the attic over the Multi-Purpose/Cafeteria. It was noted that the tamper switch on the shut-off valve is not wired to a fire alarm system.



This concludes this assessment.

**AXIOM ENGINEERS<sup>SM</sup>** CONSULTING MECHANICAL ENGINEERS  
 22 Lower Ragsdale Dr., Suite A • Monterey, CA 93940 • Phone 831.649.8000 • Fax 831.649.8038



## 4. ELECTRICAL REPORT



ELECTRICAL ENGINEERING · LIGHTING DESIGN · SYSTEMS DESIGN

### ELECTRICAL DUE DILIGENCE REPORT

For  
**Laurel Wood Elementary School**  
Salinas, CA

For  
**Belli Architectural Group**  
235 Monterey Street, Suite B  
Salinas, California 93901  
May 6, 2022

Prepared by: Najib Anwary, P.E.

Aurum Consulting Engineers Monterey Bay  
404 W. Franklin Street, Suite 100  
Monterey, California 93940  
Telephone : (831) 646-3330  
Fax: (831) 646-3336  
ACEMB Project #: 21-393.00

### 4.1 INTRODUCTION

The following is based on a walk-through visual inspection of the school. No electrical equipment was opened for inspection, no load studies done, no testing was performed. The intent was to evaluate the electrical systems and identify any obvious problems that may be present.

### 4.2 FIELD FINDINGS

#### Electrical System:

The existing main “metered” electrical service switchboard MSB1 is an 800 amp, 120/208 volt, 3 phase, NEMA 1 service located inside a custodian storage room near the library, front of the campus. MSB1 has a connection for the existing Solar PV systems on the site and this Solar PV System is connected to MSB1 through a step-down voltage transformer (steps down 480V Solar PV system to 208V electrical distribution system) located just outside the building from MSB1 location. The Solar PV is then connected ahead of the main breaker at MSB1. The electrical switchboards and campus wide electrical distribution system appears to be in good condition. MSB1 expected life; 10 to 15 years. The electrical service is primarily serving lighting and heating equipment, with minimal plug loads. Where the District plans to add HVAC to the site, the switchboard that is serving the site will “likely” require an upgrade based on what type of system is recommended for HVAC upgrades. See attached photos MSB1.

Interior Lighting is primarily fluorescent with T8 lamps at interior spaces. Most if not all the lighting throughout the school campus is older fluorescent technology which is still operating well except energy saving controls such as occupancy sensors or dimming switches are not provided (multi-purpose/cafeteria space has LED pendant light fixtures, but no dimming switches to control output). Emergency lighting was not apparent at any classrooms (except the few remodeled spaces), restrooms, or exterior landings. However, in multi-use spaces, bug-eye type stand-alone emergency light fixtures were installed. Expected life; 1-3 years. It is recommended to upgrade lighting as part of any remodel to more energy efficient light fixtures and just as important to provide dimming, automatic shut-off/occupancy sensor controls and possibly daylight controls to help realize energy savings for the school site and reduce maintenance. See attached photo LTG1.

Exterior Lighting at the front entry parking lot is relative newer LED pole lighting and there seems to be a decent quantity of pole lights for good coverage/illumination of the area. Between buildings there are some pole lights that help to illuminate certain sectors of the site and the buildings have exit/entry canopy locations with fluorescent lighting under the canopy. Exterior lighting is controlled by both time clock and photocell for auto shut-off. There seems to be a lack of building perimeter lighting with respect to light/illumination out 10-15 feet away from buildings where pathways to and from buildings occur, around the site. Where new lighting is to be installed, it will need to be controlled via an astronomic time clock or photocell. Expected life of existing exterior lighting; 7 to 10 yrs. minimum for newer LED fixtures and unknown for older fluorescent/HID fixtures located under canopies or wall mounted in a few locations.

Classrooms have typically one outlet per wall and there doesn't seem to be much modifications where typically surface raceways would be present. Where additional receptacles are necessary, it may require additional circuits and to accommodate a minimum district standard quantity of devices in general classroom/space for equipment connections

including multi-media equipment (although it seems most if not all classrooms were provided with ceiling mounted projectors, district would have to confirm if there are additional necessary power and or audio-visual control requirements for each classroom). This will in turn require an upgrade to existing electrical panel boards which will need to be connected to the existing main electrical switchboard or nearby distribution panels.

#### Telephone System:

The existing telephone system appears to be in fair condition and functional. It is an analog system for the campus. There was no input provided for major problems except that the desire is to bring the entire site to District standard of a Voice Over IP (VoIP) system. Expected life of existing system; unknown.

#### PA Speaker System:

The existing PA System is an older Dukane model and is connected to speakers around the campus, some exterior speakers with separate amplifiers are located strategically to cover large open field areas. Expected life; 2-3 yrs., the system is older and requires regular maintenance, per district staff.

#### Clock System:

The existing Program Clock system is a wireless battery operated system, PRIMEX is manufacturer. It seems to be in good condition and functional. The school staff reported no ongoing problems with the existing system. Expected life; approximately 5 yrs. Where PA Speaker system is upgraded, it is recommended to upgrade the clock system if desired to have both under one “umbrella”/manufacturer.

#### Data System:

There are IDF's (Intermediate Distribution Frame) throughout the school campus with wireless routers in most of the buildings/classroom spaces. Since most classrooms have only a couple computers at most (except for computer labs), the existing campus wide data system seems to be working fine. Expected life; unknown. It is recommended to retrofit classrooms, in the near future, with additional outlets to accommodate a district standard quantity of devices in general classroom/space for computers, printers and multi-media equipment. This will require District IT input on available bandwidth and patch panels at existing distribution frames to accommodate an increase in connections.

#### Fire Alarm System:

1. The existing Fire Alarm System (Gamewell/FCI) is an obsolete FCI zone conventional panel that is discontinued. The site does not have current code compliant coverage as required by California Fire Code. The school site has pull stations and horns/horn-strobes for majority of the spaces which met code standards at the time of install, however, where spaces are remodeled and required to conform to current code requirements, the existing FCI panel will not accommodate such upgrades and increase in quantity of devices (smoke detectors and heat detectors). The existing system is old and will need to be replaced to accommodate any future remodel work or the required Emergency Voice Evacuation System addition. Where fire alarm/low voltage raceways are extended between buildings, it seems to be mainly an underground connection with pull cans on exterior of buildings. Expected life of existing system; 1-2 years if no renovations or additions occur.

Security:

1. The existing campus security system is a newer BOSCH wireless security panel that serves the campus. The systems seem to be in good condition and the school staff reported no ongoing problems except software access vs. proprietary nature of the BOSCH system in which case the security monitoring agency has more control and provides minimum access to staff for control of system. The system provides wireless communication to wireless motion sensors throughout the campus. Expected life; 10-15 years. There is also a CCTV Security Camera system which Power over Ethernet (POE) cameras located strategically by the district throughout the site. Each camera is connected to a local IDF/MDF via data cable. Expected life; unknown, seems to be in working condition with no reported problems.

4.3 SUMMARY

The school electrical infrastructure is in fair condition. The school interior lighting system and controls need to be upgraded where energy may be conserved with lower maintenance cost and higher lamp life LED technology. An increase in the classroom receptacle quantity and associated electrical loads will require electrical distribution upgrades from the main service switchboard to the classroom building in order to support future additional computer/technology loads. Any HVAC additions to the campus “may” require an electrical service upgrade. The raceways associated with low voltage systems around the campus may need to be verified/inspected for re-use where additional fiber optic cables/network cabling for any low voltage system upgrades is deemed necessary in order to verify cost impact of new trench vs. existing underground conduit re-use. Where a new building may be proposed at this site, an electrical survey will need to be completed and it is likely that the new building will require an Electrical (PG&E) service upgrade to accommodate any new proposed building (should an equivalent number of buildings/rooms not be slated to be removed due to new building added). In addition, Site Telecom, Fire Alarm, and Low Voltage Systems will need upgrades to accommodate new connections with newer technology and EM Voice Evacuation Fire Alarm System.



MSB1.



MSB1.



MSB1.



LTG1.

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