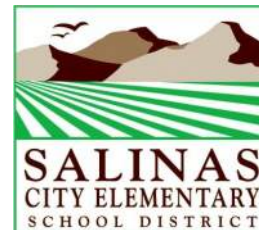


FACILITIES NEEDS ASSESSMENT

BORONDA MEADOWS



PREPARED BY BELLI ARCHITECTURAL GROUP

2022

1. CAMPUS INFORMATION: Boronda Meadows

Address: 915 Larking Drive, Salinas, CA 93907
Year Built: 2005
Current Principal: Susana Mancera
Current Enrollment: 756 students

2. ON-SITE OBSERVATIONS

2.1 SITE

The school site is currently in fair condition. Items noted include:

- Faded paint on asphalt and concrete surfaces.
- Ingrown vegetation in concrete control joints.
- Small cracks present in concrete surfaces.
- Non-accessible play structures.



Image 2.1.1 Cracks in concrete walkways. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.2 Ingrown vegetation in asphalt. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.3 Fading striping at asphalt. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.1.4 Non-accessible play structure. Taken on 04/26/2022 by Belli Architectural Group.

2.2 EXTERIOR SHELL

The campus is composed of both permanent and relocatable buildings. Exterior items noted include:

- Roofs in need of replacement at permanent classroom buildings.
- Paint in need of refreshment.
- Rusted and failing gutters at portable classrooms.
- Rust and rot present at portable classrooms roofs.



Image 2.2.1 Existing roof at permanent classroom building. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.2.2 Rust and rot at relocatable classroom. Taken on 04/26/2022 by Belli Architectural Group.

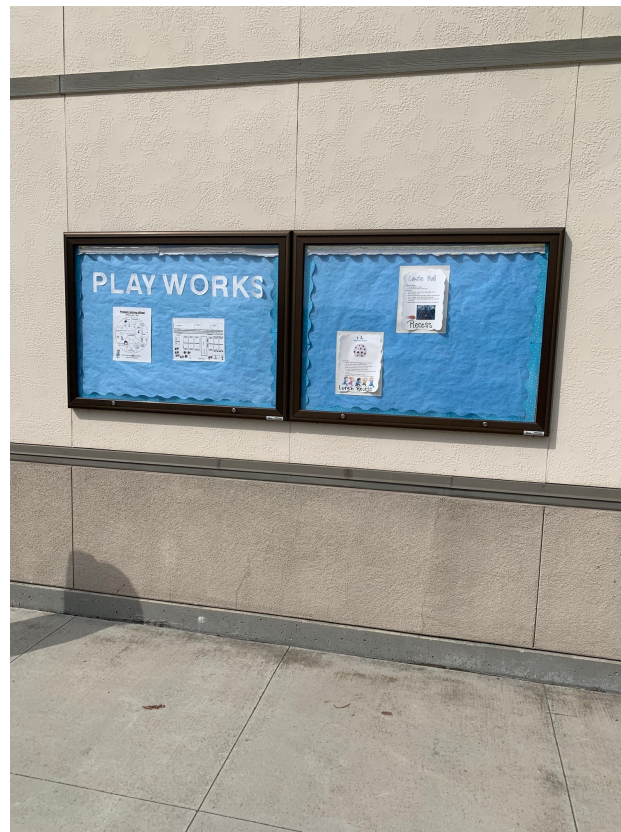


Image 2.2.3 Exterior paint conditions. Taken on 04/26/2022 by Belli Architectural Group.

2.3 INTERIORS

Existing interiors are in fair condition. Items noted include:

- Damaged ceiling tiles in Office, classrooms and one MPR.
- Aging flooring in relocatable classrooms.
- Damaged countertops in restrooms.
- Damaged floors in some restrooms due to cleaning chemicals and water accumulation.
- Dirty restroom ceilings.
- Unbolted light fixtures.
- Dirty light fixtures in library.
- Cover plates missing at electrical outlets in library.
- Rusted hardware and fixtures in restrooms.
- Janitorial space in each permanent building.
- Second MPR and Kitchen in are currently used as storage, not Food Services.



Image 2.3.1 Damaged countertop surfaces in restrooms. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.2 Cover plates missing at electrical outlet. Taken on 04/26/2022 by Belli Architectural Group.

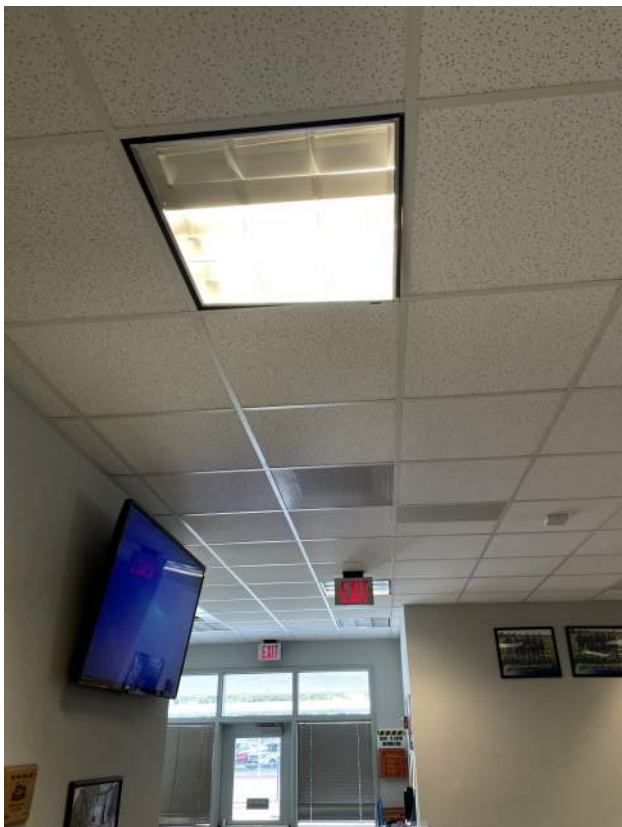


Image 2.3.4 Unbolted light fixture. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.6 Aging relocatable classroom floor. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.3 Damaged ceiling tiles. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.5 Dirty light fixture. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.3.6 Existing classroom furniture. Taken on 04/26/2022 by Belli Architectural Group.

2.4 ACCESSIBILITY

The campus accessibility is adequate. Accessible drinking fountains, toilets, handrails, chair lifts, ramps and path of travel are provided. Non-accessible items noted include:

- Hand-washing sinks at kindergarten/preschool restrooms are not mounted at compliant heights for user age group.



Image 2.4.1 Kindergarten/preschool sinks at non-accessible height for students. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.2 Kindergarten restroom doors. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.3 Accessible urinals. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.4 Accessible toilets. Taken on 04/26/2022 by Belli Architectural Group.



Image 2.4.5 Accessible sinks. Taken on 04/26/2022 by Belli Architectural Group.

2.5 SERVICES

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

2.6 STAKEHOLDER REMARKS

- Bigger space for Preschool Office needed (accessible at the front of campus).
- Plumbing fixtures need repairs and adjustments.
- Restrooms need to be attached and accessible at Preschool, TK, Kindergarten and SPED.
- HVAC system needs improvements.
- Playground improvements needed.

3. MECHANICAL REPORT

AXIOM ENGINEERSSM
CONSULTING MECHANICAL ENGINEERS
22 Lower Ragsdale Dr., Suite A Monterey, CA 93940
Phone 831.649.8000 Fax 831.649.8038



School Name: **Boronda Meadows**

Address: 915 Larkin Street

Findings from a site visit conducted on April 26, 2022. This school is the newest school in the district and was built in 2005. The HVAC and plumbing systems appear to be in very good condition. No modernizations have been done to this site. It is desired to install a Pelican Wireless Control System to allow the district maintenance staff to control all HVAC equipment.

3.1 HVAC

Administration Building:

The heating system for the administration building consist of five (5) Armstrong up-flow gas-fired furnaces. These furnaces are original and appear to be in good condition and operating satisfactory. These units have cooling (air conditioning).



Multi-Purpose/Cafeteria Building A and B:

The heating system for this building consist of four (4) Trane rooftop gas-fired heating only units. These are original and appear to be in good condition and operating satisfactory. A horizontal gas-fired furnace located above the ceiling of the stage provides heating for this area. The food service area has CaptiveAire Type 1 hoods that are in very good condition. The food service equipment in Building A is presently not in use



Kindergarten Building:

The heating system for this building consist of three (3) Trane rooftop gas-fired heating only units. These are original and appear to be in good condition and operating satisfactory.



Library Building:

The heating system for this building consist of six (6) Armstrong up-flow gas-fired furnaces located in the attic. These furnaces are original and appear to be in good condition and operating satisfactory. Only one of these units has cooling (air conditioning). In 2010, a small Fujitsu split system cooling only unit was added to cool the IT Data/Server Room that was created. The ductwork from the furnace that is serving this space was not disconnected. It may be, that on a call for heat from the thermostat in the adjacent room, this room would be receiving heat. This duct should be capped.



Classroom (Classrooms 5 thru 28) Building:

These buildings (there are four of them) are heated and cooled with six (6) Trane rooftop mounted packaged gas heat/electric cooling units. Each classroom (there are six classrooms in each building) has its own HVAC unit. These are original and appear to be in good condition and operating satisfactory. Each Teachers Resource Room have a wall mounted EMI heating/cooling unit.





Classroom 29 thru 42:

These are portable classrooms consisting of the exterior wall mounted “Bard” type heat pump units. All portables utilize this type of equipment. These units appear to be original and are operating. Older (20 years) units become a continual maintenance problem and should be replaced with new units.



3.2 PLUMBING

Administration Building:

A gas-fired tank type water heater located in the attic serves this building. This water heater was recently replaced. The DSA approved seismic bracing was not reinstalled.



Multi-Purpose/Cafeteria Building A and B:

A gas-fired tank type water heater serves the food service kitchen. The required DSA approved seismic bracing is present.



Classroom (Classrooms 5 thru 28) Buildings

These buildings (there are four of them) have small electric tank type water heaters located in a janitor's closet. A small hot water recirculating pump that was installed when the school was built were never connected to a power source. These pumps require power to operate as designed.



3.3 FIRE SPRINKLERS

No fire sprinklers are present in any of the buildings on the site.

This concludes my report.

AXIOM ENGINEERSSM 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

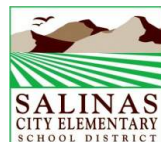
ELECTRICAL DUE DILIGENCE REPORT

For
Boronda Meadow 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
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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 and 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:

There is (1) existing main “metered” electrical service switchboard (MSB). MSB is a 2500 amp, 480/277 volt, 3 phase, NEMA 3R, Square D, service located on the northeast side of the exterior office building. MSB has a connection for the existing Solar PV system. The Solar PV is connected ahead of the main breaker at MSB. MSB serves the entire school campus including modular buildings. Each building has a 480V-208V/120V, 3 phase, step-down transformer located outside the buildings. The transformers are old and rusty. Expected life; 8 to 13 yrs. Moreover, each building has a 480V/277V panel for the lighting and mechanical loads and a 208V/120V panel for plug loads and small appliances. MSB expected life; 20 to 25 yrs. All of the electrical distribution system panels that are located around the site and are original to the main campus buildings when the school was built, seemed to be in good condition and most, if not all, electrical distribution panels and transformers are from Square D. Where the District plans to add HVAC to the site, the electrical switchboard MSB has the load capacity for the additional loads. The maximum additional load to be added is unknown so it is recommended to have an Electrical Engineer to conduct a load study prior to connection of new loads to MSB. See attached photo MSB and XFMR1.

Interior Lighting is primarily fluorescent with T8 or T12 lamps at interior spaces that were observed. Most, if not all the lighting throughout the school campus is old and although there was no mention of complete failure, some light fixtures seemed original to the spaces, so they are likely near their “end of life”, especially with regards to efficiency. A few light fixtures were found to have missing lenses/diffusers and lamps, see attached photo LTG1. Most of the rooms have energy code compliant controls such as occupancy sensors. Emergency lighting with integrated battery back-up were found in common areas, offices and in the library building. In the multi-purpose building, classrooms and hallways, bug-eye type stand-alone emergency light fixtures were installed. However, no emergency lighting was found at the exterior landings. Multi-level switching/dimming necessary for energy conservation is almost non-existent. Expected life; Unknown. It is recommended to retrofit or replace campus wide lighting system with new LED technology in the near future. This would be a good opportunity for reduction in energy use from more efficient lighting fixtures, improved classroom lighting, smart lighting controls, daylight harvesting and would also reduce maintenance costs. See photo attached LTG2.

Exterior Lighting at the front parking lot is relative newer LED pole and canopy lighting. Similarly, new LED pole lighting fixtures were found around the walkways throughout the main campus buildings. Exterior lighting is controlled via photocell and time clock for auto shut-off. Where new lighting is to be installed, it will need to be controlled via an astronomic time clock or photocell. Motion sensor may be required per T24. Expected life of existing exterior lighting; 7 to 10 yrs. minimum for newer LED fixtures.

Classrooms have typically one outlet per wall with modifications in some areas to accommodate current computer loads (where surface raceways were added). Expected life; Unknown. It is recommended to retrofit classrooms, in the near future, with additional circuits and outlets to accommodate a minimum district standard quantity of devices in general classroom/space for equipment connections including multi-media equipment. This will in turn require an upgrade to existing electrical panelboards (as most panels don't have the space capacity to accommodate additional loads) which will need to be connected to the existing main electrical switchboard or nearby distribution panels. There are some classrooms with receptacles within 6 feet of sink that are not GFCI (Ground-Fault Circuit Interrupt) type. This is a safety hazard and should be replaced.

Most of the classrooms have ceiling mounted projectors with associated AV controls located near the teacher's station. There are no ongoing problems. However, where projectors were installed on an accessible ceilings (T-BAR), the associated receptacles were installed above the ceiling with the cord passing through the T-BAR up to the receptacle. Current code does not allow this installation. Where classroom renovations occur, it is required to mount the receptacles exposed on the ceiling. See attached photo PROJECTOR1.

Telephone System:

The existing telephone system appears to be in fair condition and functional. It is hybrid system, analog and Voice Over IP (VoIP) for the campus. There was no input provided for major problems. 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. There are no ongoing issues with the system itself. However, several outdoor speaker enclosures seem to be in bad condition as they are old and rusty. Expected life; 3-5 yrs. See photo attached SPEAKER1.

Clock System:

The existing PRIMEX Clock system is a wireless battery operated system. It seems to be in good condition and functional. The school staff reported no ongoing problems with the existing system other than replacing the clock batteries every one or two years. It is recommended to install new and reliable batteries to reduce the maintenance cost. 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. Moreover, per District Staff, it was brought to our attention that there is an MDF in the library building and



it seems that the MDF not only serves the Boronda Meadows school, but at least (3) other school campuses as well. Being that this MDF serves different school campuses, it is imperative to provide emergency power to the MDF, not only batteries, but also a stand-by diesel generator to maintain the data system running during power outages/interruptions. See attached photo MDF1.

Fire Alarm System:

1.The existing Fire Alarm System seems to have been replaced with a newer Notifier NFS-320 or 640 panel, where the older AFP-200 model (FACP) was likely failing in the last few years...this is an unknown fact, but seems obvious as the AFP-200 was the panel at this site in 2018 and is now replaced. The FACP is located in the Administration building. The site does not have current code compliant coverage as required by California Fire Code (except for remodeled classrooms and some utility rooms). The school site has pull stations and horns/horns-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 Notifier NFS panel will need to be verified for capacity to accommodate any future remodel work or Emergency Voice Evacuation System addition. The raceways associated with fire alarm/low voltage systems around the central/main interconnected building of the campus are cabled through in concealed locations and where add-ons or systems are extended, surface raceways (Panduit) are routed within the room/spaces. Where fire alarm/low voltage raceways extend between buildings, it seems to be mainly an underground connection with pull cans on exterior of buildings. Expected life of existing system; 3 to 10 yrs., if no new major building renovations or additions occur.

Security:

1.The existing campus security system is comprised of a stand-alone security panel (DSC) located in the Administration building. The system seems to be in good condition and the school staff reported no ongoing problems. The system is interconnected to remote building booster panels and the campus has wired motion detectors throughout the site connected to the security panel. Expected life; 4 to 5 yrs. There is also a CCTV Security Camera system with 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 good condition, except several outdoor transformers and electrical boxes that are old and rusty. There are no issues with the main electrical switchboard MSB and the electrical service seems to have the load capacity to accommodate future loads. The school interior lighting system and controls need to be upgraded in the near future where energy may be conserved with lower maintenance cost and higher lamp life LED technology with dimming capabilities. Only the parking lot and building lights seem to have LED drivers. An increase in the classroom receptacle quantity and associated electrical loads will require the downstream electrical distribution to upgrade, from the main service switchboard to the classroom building in order to support future additional computer/technology loads as well as possible mechanical HVAC connections. 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 to determine whether an Electrical (PG&E) service upgrade to accommodate any new proposed building is necessary and or feasible to add new building connections to the existing electrical service.

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.



MSB.



XFM1.



LTG1.



LTG2.



SPEAKER1.



MDF1.

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PROJECTOR1.