

Attachment A includes pictures and diagrams. Due to the size, they are not included.

October 17, 2002
Preliminary Needs Assessment Report

Measure "D" Bond Program Master Planning
West Contra Costa Unified School District
Project No. 0215100.06

Individual Campus Architectural Evaluations

Campus Name: Portola Middle School
1021 Navellier St.
EI Cerrito, CA 94530

Evaluation Date: August 9, 2002 and October 18,2002
Evaluation Time: 8:00 AM; 8:00 AM

| Structural | | | | | | | | |
|--------------------|--------------------|--|--|-------|------|------------|-------|----------|
| Bldg. Name/ No. | Room Name / No. | Description of Problem | Mediation/Solution Recommendation | Qty. | Unit | * Category | Phase | Comments |
| Campus | | There is some apparent localized settlement or sliding of the slope on which the school is built. This is made evident by the significant cracking of site paving. | Consult with a geotechnical engineer to determine if there is a slope stability problem that would affect the building structures. | | | LIS | IA | |
| Main Building | | At the main building, there are short columns between the partial height wall and slab at 1 st and 2 nd stories that create | Infill some of the high windows with new concrete wall panels. Provide new 7" thick concrete wall, 64 ft at the | 64 cy | | LIS | IA | |

Notes:

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2. Deficiencies noted in Evaluation Matrix are based on site visit observation and limited review of available existing drawings of the school.

*Category Legend:

1. LIS = Life safety and Code Issues.
2. F = Functional Issues.
3. P = Programmatic Issues.
4. A = Aesthetic Issues

| I Structural | | | | | | | | |
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| | | high windows along the corridor. These elements are flexible relative to the walls and do not have sufficient capacity to resist the seismic loads. Furthermore, the columns are shear-critical, and therefore will have non-ductile behavior. | 2 ¹¹⁰ floor, 96 ft. at the IS floor at interior corridor walls in each wing | | | | | |
| Main Building | | At the north wing of the main building, the west basement wall is partial height and therefore is not connected to the first floor slab. The center of rigidity of the building at the basement level is dominated by the walls on the east side of the building, inducing a lot of torsion into the building at this level | Infill 80 ft length of the western partial-height 8" thick shear wall to make it a full-height wall. Dowel into existing wall. | 20 cy | | LIS | IA | |
| Main Building | | At the main building re-entrant corners, the manner in which the concrete reinforcement is detailed may lead to spalling of concrete. | Provide a new steel plate at the exterior of the building bolted back into the existing walls to restrain the concrete from spalling off. 4 locations x 6 ft of 24" x 1" plate and two rows of expansion anchors at each location. | 24' | | LIS | IA | |
| Main Building | Bsmt | There are cracks in the concrete walls in the north wing basement storage area of the main building. There are also exposed reinforcing bars at the doors that have been cut into the basement walls. The exposed reinforcing bars may corrode if exposed to | Pressure inject epoxy grout to seal the cracks. At the doorway cuts, burn back the exposed rebar 1" from the surface and patch. | | | LIS | IA | |

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| | | moisture. | | | | | | |
| Gymnasium Building | | The diagonal bracing used in the 1990 retrofit of the Gymnasium uses WT-sections. The bolted top connections of these braces, which provide lateral resistance at the east and west walls, are overstressed | Provide new welding of the brace to the gusset plate, total of 16 locations | 16 conn. | | LIS | IA | |
| Gymnasium Building | | There is a lack of collectors at the roof of the Gymnasium building where the east and west walls of the stage area provide additional lateral support for the main gym area roof and where the north wall of the stage area provides additional lateral support for the music room roof. | Provide new concrete collector elements aligned with the stage area walls that tie into the existing concrete roof slab. | 40' | | LIS | IA | |
| Gymnasium Building | | The north and south walls of the gymnasium may have inadequate capacity to span vertically between the first floor and roof under seismic loading | Provide new bracing of the walls back to the roof diaphragm to cut down the wall span. | 180' | | LIS | IA | |
| Gymnasium Building | | There are some minor cracks in the concrete walls of the gymnasium. | Pressure inject epoxy grout to seal the cracks. | | | LIS | IA | |
| Gymnasium Building | | There is a covered walkway between the gymnasium and the attached classroom. | Provide new columns for secondary gravity support of the covered | 4 cols. | | LIS | IA | |

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| | | This walkway is supported by two structurally separate buildings. As they move independently, the covered walkway may lose gravity support and collapse. | walkway. | | | | | |
| Laboratory and Shops Buildings | Roof | At the laboratory and shops buildings, the diagonal roof bracing is inadequate to transfer the seismic forces to the transverse wall lines. | Provide additional diagonal bracing similar to existing bracing OR replace existing bays of angle braces with new double angle braces. 14 braces at lab building, 28 (estimated) at shops building. | 42 braces | | LIS | IA | |
| Covered Walkways | | The covered walkway between the Gymnasium and Laboratory Building are connected at each end to buildings. As the buildings move independently, the walkway may tear away and collapse. | Provide supplemental support adjacent to each building so that damage will not lead to the collapse of the walkway. Reroute conduits and piping so that it is not supported by covered walkways or has adequate flexible connections | 4 cols. | | LIS | IA | |
| Covered Walkways | | Long sections of covered walkways are connected to the adjacent buildings. Because the buildings are much stiffer than the canopy supports, the load will be carried by the building, increasing both the building base shear and the collector demands on the connecting beams. | Provide seismic joints in the existing covered walkway. Some additional columns will be required for gravity support. | 4 cols. | | LIS | IA | |
| Portable Classrooms | | At the portable classrooms, there is conduit running between the portable classrooms at | Provide flexible connections for conduit running between portables. | 2 joints | | LIS | IA | |

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| | | the roof level. | | | | | | |

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