

# FACILITY CONDITION ASSESSMENT

*prepared for*

DLR Group

1650 Spruce Street, Suite 300

Riverside, California 92507

Kevin Fleming



## FACILITY CONDITION ASSESSMENT

OF

PALOS VERDES PENINSULA UNIFIED SCHOOL DISTRICT

PALOS VERDES HIGH SCHOOL

600 CLOYDEN ROAD

PALOS VERDES ESTATES, CALIFORNIA 90274

### PREPARED BY:

EMG

10461 Mill Run Circle, Suite 1100

Owings Mills, Maryland 21117

800.733.0660

[WWW.EMGCORP.COM](http://WWW.EMGCORP.COM)

### EMG CONTACT:

Mark Surdam

Program Manager

800.733.0660 x6251

[msurdam@emgcorp.com](mailto:msurdam@emgcorp.com)

### EMG PROJECT #:

119663.16R000-015.017

### DATE OF REPORT:

December 28, 2016

### ONSITE DATE:

October 18-20, 2016



engineering | environmental | capital planning | project management

Immediate Repairs Report  
Palos Verdes High School

5/9/2017



Report Section	ID	Cost Description	Quantity	Unit	Unit Cost	Subtotal	Deficiency Repair Estimate *
1.3	498333	Roof Structure, Pitched, Heavy Timber Framing, Replace	300	SF	\$31.32	\$9,396	\$9,396
1.3	498930	Pest Control, Termite Infestation, Investigate and Eradicate	1	EA	\$3,162.50	\$3,163	\$3,163
1.3	498820	Engineer, Structural Design, Roof/Floor/Retaining Wall	1	EA	\$9,162.50	\$9,163	\$9,163
1.3	500694	Engineer, Mechanical, Design	1	EA	\$6,162.50	\$6,163	\$6,163
3.1	532156	ADA, Door, Lever Handle Hardware, Install	4	EA	\$202.40	\$810	\$810
3.1	532183	ADA, Miscellaneous, Pool Lift Transfer Device, Replace	1	EA	\$9,469.00	\$9,469	\$9,469
3.1	530918	ADA, Miscellaneous, Flooring, Loose Carpeting, Modify	3000	SF	\$3.16	\$9,488	\$9,488
3.1	530916	ADA, Parking, Designated Stall with Pavement Markings & Signage (Van), Install	1	EA	\$1,391.00	\$1,391	\$1,391
5.2	498488	Pedestrian Pavement, Sidewalk, Concrete, Replace	3000	SF	\$19.82	\$59,465	\$59,465
5.3	589848	Engineer, Civil, Site Drainage, Evaluate/Report	1	EA	\$6,325.00	\$6,325	\$6,325
8.1	500781	Interior Wall Finish, Gypsum Board/Plaster, Repair	750	SF	\$3.18	\$2,386	\$2,386
8.4	501261	Commercial Kitchen, Walk-In Freezer, Replace	1	EA	\$22,317.14	\$22,317	\$22,317
Immediate Repairs Total							\$139,534

\* Location Factor (1.0) included in totals.



5/9/2017

Report Section	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	Subtotal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	Deficiency Repair Estimate
1.3	498333	Roof Structure, Pitched, Heavy Timber Framing, Replace	50	50	0	300	SF	\$31.32	\$9,396	\$9,396																				\$9,396
1.3	498930	Pest Control, Termite Infestation, Investigate and Eradicate	0	2	0	1	EA	\$3,162.50	\$3,163	\$3,163																				\$3,163
1.3	498820	Engineer, Structural Design, Roof/Floor/Retaining Wall	0	55	* 0	1	EA	\$9,162.50	\$9,163	\$9,163																				\$9,163
1.3	500694	Engineer, Mechanical, Design	0	55	* 0	1	EA	\$6,162.50	\$6,163	\$6,163																				\$6,163
3.1	532156	ADA, Door, Lever Handle Hardware, Install	0	0	0	4	EA	\$202.40	\$810	\$810																				\$810
3.1	532183	ADA, Miscellaneous, Pool Lift Transfer Device, Replace	0	0	0	1	EA	\$9,469.00	\$9,469	\$9,469																				\$9,469
3.1	530918	ADA, Miscellaneous, Flooring, Loose Carpeting, Modify	0	0	0	3000	SF	\$3.16	\$9,488	\$9,488																				\$9,488
3.1	530916	ADA, Parking, Designated Stall with Pavement Markings & Signage (Van), Install	0	0	0	1	EA	\$1,391.00	\$1,391	\$1,391																				\$1,391
5.1	532129	Backflow Preventer, 2", Replace	15	11	4	1	EA	\$2,603.17	\$2,603					\$2,603															\$2,603	\$5,206
5.1	532130	Backflow Preventer, 6", Replace	15	10	5	1	EA	\$9,528.08	\$9,528						\$9,528															\$9,528
5.2	498491	Exterior Stairs, Concrete, Replace	50	43	7	380	SF	\$48.94	\$18,598								\$18,598													\$18,598
5.2	498483	Roadways, Asphalt Pavement, Mill & Overlay	25	23	2	48000	SF	\$3.28	\$157,224			\$157,224																		\$157,224
5.2	498476	Parking Lots, Asphalt Pavement, Mill & Overlay	25	23	2	73850	SF	\$3.28	\$242,258			\$242,258																		\$242,258
5.2	498484	Parking Lots, Asphalt Pavement, Seal & Stripe	5	3	2	48000	SF	\$0.38	\$18,216			\$18,216					\$18,216				\$18,216					\$18,216				\$72,864
5.2	498481	Parking Lots, Asphalt Pavement, Seal & Stripe	5	3	2	73850	SF	\$0.38	\$28,026			\$28,026					\$28,026				\$28,026					\$28,026				\$112,104
5.2	498488	Pedestrian Pavement, Sidewalk, Concrete, Replace	30	30	0	3000	SF	\$19.82	\$59,465	\$59,465																				\$59,465
5.2	498489	Pedestrian Pavement, Sidewalk, Concrete, Replace	30	28	2	9000	SF	\$19.82	\$178,396			\$178,396																		\$178,396
5.3	589848	Engineer, Civil, Site Drainage, Evaluate/Report	0	0	0	1	EA	\$6,325.00	\$6,325	\$6,325																				\$6,325
5.4	498926	Landscaping, Ground Cover, Regrade/Establish	25	22	3	2500	SF	\$3.71	\$9,273				\$9,273																	\$9,273
5.4	498927	Irrigation System, Controllers, Valves, Replace	25	16	9	450000	SF	\$0.15	\$67,500										\$67,500											\$67,500
5.5	498951	Swimming Pool Filtration System, Replace	15	7	8	1	EA	\$6,733.29	\$6,733									\$6,733												\$6,733
5.5	498954	Swimming Pool Heater, Gas-Fired, 300 MBH, Replace	15	1	14	1	EA	\$7,260.00	\$7,260																			\$7,260		\$7,260
5.5	498945	Fences & Gates, Chain Link, 6' High, Replace	30	16	14	3000	LF	\$37.54	\$112,614															\$112,614						\$112,614
5.5	498946	Fences & Gates, Chain Link, 8' High, Replace	30	16	14	700	LF	\$53.90	\$37,730															\$37,730						\$37,730
5.5	498937	Signage, Property, Monument/Pylon, Replace	20	16	4	1	EA	\$8,602.00	\$8,602					\$8,602																\$8,602
5.5	498940	Signage, Property, Billboard Type, Replace	20	5	15	1	EA	\$8,602.00	\$8,602																\$8,602					\$8,602
5.5	498948	Play Surfaces & Sports Courts, Asphalt, Seal	5	3	2	700	SF	\$0.38	\$266			\$266					\$266					\$266					\$266			\$1,065
5.5	532184	Sports Apparatus, Scoreboard, Replace	20	9	11	1	EA	\$21,106.53	\$21,107												\$21,107									\$21,107
5.5	498957	Sports Apparatus, Bleachers, Steel Frame w/ Aluminum Seats, Replace	25	7	18	1500	EA	\$197.00	\$295,500																		\$295,500			\$295,500
5.5	498944	Pole Light, Exterior, 80 to 100 W LED (Fixture & Bracket Arm Only), Replace	20	16	4	25	EA	\$2,721.00	\$68,025				\$68,025																	\$68,025
6.3	500499	Roof, Built-Up, Replace	20	16	4	17000	SF	\$12.96	\$220,344				\$220,344																	\$220,344
6.3	532133	Roof Coating, Single-Ply Elastomeric Membrane, Install/Replace	20	16	4	9440	SF	\$4.52	\$42,669				\$42,669																	\$42,669
6.4	500548	Exterior Wall, Painted Surface, 1-2 Stories, Prep & Paint	10	8	2	64400	SF	\$2.87	\$184,873			\$184,873									\$184,873									\$369,746
6.4	500550	Exterior Wall, Joint Caulking 1/2" to 1", 1-2 Stories, Replace	10	7	3	3000	LF	\$5.13	\$15,390			\$15,390										\$15,390								\$30,780
6.4	530921	Exterior Wall, Painted Surface, 1-2 Stories, Prep & Paint	10	6	4	140000	SF	\$1.87	\$261,898				\$261,898										\$261,898							\$523,796
6.4	500547	Exterior Wall, Painted Surface, 1-2 Stories, Prep & Paint	10	4	6	64400	SF	\$2.87	\$184,873						\$184,873										\$184,873					\$369,746
6.4	500549	Louver, Wood, 1-2 Stories, Replace	20	18	2	21	EA	\$520.14	\$10,923			\$10,923																		\$10,923
6.6	500551	Window, Aluminum Double-Glazed 12 SF, 1-2 Stories, Replace	30	11	19	350	EA	\$584.21	\$204,472																			\$204,472		\$204,472
6.6	500693	Exterior Door, Fully-Glazed Aluminum-Framed Sliding, Replace	25	21	4	8	EA	\$2,334.31	\$18,675				\$18,675																	\$18,675
6.6	500692	Exterior Door, Steel, Replace	25	22	3	30	EA	\$950.12	\$28,504				\$28,504																	\$28,504
6.6	500691	Exterior Door, Steel w/ Safety Glass, Replace	25	6	19	25	EA	\$1,352.72	\$33,818																			\$33,818		\$33,818
7.1	530895	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	12	3	8	EA	\$889.90	\$7,119				\$7,119														\$7,119			\$14,238
7.1	500695	HVAC System, School, Upgrade	20	18	2	157386	SF	\$43.22	\$6,802,522			\$6,802,522																		\$6,802,522
7.1	532185	Air Conditioner, Window/Thru-Wall, 2.5 to 4 Ton, Replace	10	7	3	5	EA	\$5,078.46	\$25,392				\$25,392										\$25,392							\$50,785

Report Section	ID	Cost Description	Lifespan (EUL)	EA	RUL	Quantity	Unit	Unit Cost	Subtotal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	Deficiency Repair Estimate
7.1	530876	Furnace, Gas, 51 to 100 MBH, Replace	20	16	4	25	EA	\$3,801.45	\$95,036					\$95,036																\$95,036
7.1	530883	Furnace, Gas, 41 to 50 MBH, Replace	20	15	5	24	EA	\$2,452.01	\$58,848						\$58,848															\$58,848
7.1	530881	Furnace, Gas, 51 to 100 MBH, Replace	20	14	6	25	EA	\$3,801.45	\$95,036							\$95,036														\$95,036
7.1	530893	Unit Heater, Natural Gas, 56 to 75 MBH, Replace	20	13	7	2	EA	\$4,467.67	\$8,935								\$8,935													\$8,935
7.1	530884	Furnace, Gas, 101 to 150 MBH, Replace	20	13	7	2	EA	\$5,644.27	\$11,289								\$11,289													\$11,289
7.1	530888	Heat Pump, 3.5 to 5 Ton, Replace	15	14	1	5	EA	\$8,928.22	\$44,641		\$44,641															\$44,641				\$89,282
7.2	500703	Toilet, Tankless (Water Closet), Replace	20	10	10	35	EA	\$842.97	\$29,504										\$29,504											\$29,504
7.2	500705	Urinal, Vitreous China, Replace	20	10	10	30	EA	\$1,193.44	\$35,803										\$35,803											\$35,803
7.2	500704	Lavatory, Porcelain Enamel, Cast Iron, Replace	20	10	10	35	EA	\$795.35	\$27,837										\$27,837											\$27,837
7.2	589868	Domestic Water Supply, Shutoff Valves, Replace	15	13	2	4	EA	\$1,912.84	\$7,651			\$7,651															\$7,651			\$15,303
7.2	500701	Plumbing System, Replace Galvanized Supply, Replace Galavanized	40	36	4	15000	SF	\$38.94	\$584,105					\$584,105																\$584,105
7.3	589865	Natural Gas System, Gas Line and Regulators, Main Service, Relocate	25	22	3	125	LF	\$36.96	\$4,620				\$4,620																	\$4,620
7.4	532193	Drinking Fountain, Stainless Steel, Accessible, Replace	10	5	5	4	EA	\$2,257.51	\$9,030						\$9,030									\$9,030						\$18,060
7.4	532191	Water Heater, Gas, 40 GAL, Replace	10	7	3	2	EA	\$1,849.48	\$3,699				\$3,699									\$3,699								\$7,398
7.4	532188	Water Heater, Electric, 30 GAL, Replace	15	12	3	2	EA	\$1,538.90	\$3,078				\$3,078															\$3,078		\$6,156
7.4	532189	Water Heater, Gas, 50 GAL, Replace	10	6	4	1	EA	\$2,349.48	\$2,349					\$2,349										\$2,349						\$4,699
7.4	532190	Water Heater, Gas,30 GAL, Replace	10	5	5	2	EA	\$1,549.48	\$3,099						\$3,099										\$3,099					\$6,198
7.4	532186	Water Heater, Electric, 30 GAL, Replace	15	7	8	2	EA	\$1,738.90	\$3,478								\$3,478													\$3,478
7.5	530908	ADA, Wheelchair Lift, Up to One Floor, Exterior, Replace	15	8	7	1	EA	\$26,665.00	\$26,665							\$26,665														\$26,665
7.6	532217	Fire Alarm Control Panel, Addressable, Replace	15	9	6	1	EA	\$20,297.59	\$20,298							\$20,298														\$20,298
8.1	500781	Interior Wall Finish, Gypsum Board/Plaster, Repair	0	55	0	750	SF	\$3.18	\$2,386	\$2,386																				\$2,386
8.1	500783	Interior Wall Finish, Gypsum Board/Plaster/Metal, Prep & Paint	8	7	1	150000	SF	\$1.42	\$213,480		\$213,480								\$213,480								\$213,480			\$640,440
8.1	500782	Interior Wall Finish, Gypsum Board/Plaster/Metal, Prep & Paint	8	3	5	50000	SF	\$1.42	\$71,160						\$71,160						\$71,160									\$142,320
8.1	500780	Interior Floor Finish, Rubber Tile, Replace	15	11	4	7000	SF	\$8.43	\$59,044					\$59,044														\$59,044		\$118,089
8.1	500778	Interior Floor Finish, Vinyl Tile (VCT), Replace	15	4	11	30000	SF	\$4.80	\$144,018											\$144,018										\$144,018
8.1	500777	Interior Floor Finish, Carpet Standard-Commercial Medium-Traffic, Replace	10	9	1	3000	SF	\$7.26	\$21,769		\$21,769									\$21,769										\$43,538
8.2	500779	Interior Floor Finish, Vinyl Tile (VCT), Replace	15	13	2	70000	SF	\$4.80	\$336,042			\$336,042															\$336,042			\$672,084
8.2	500788	Interior Ceiling Finish, Acoustical Tile (ACT), Replace Tiles	20	10	10	90000	SF	\$0.85	\$76,500										\$76,500											\$76,500
8.3	500789	Interior Door, Steel, Replace	25	16	9	55	EA	\$950.12	\$52,257									\$52,257												\$52,257
8.3	501271	Commercial Kitchen, Convection Oven, Double, Replace	10	9	1	1	EA	\$8,643.00	\$8,643		\$8,643									\$8,643										\$17,286
8.3	501289	Commercial Kitchen, Griddle, Replace	15	13	2	1	EA	\$6,344.00	\$6,344			\$6,344															\$6,344			\$12,688
8.3	501278	Commercial Kitchen, Icemaker, Freestanding, Replace	15	12	3	1	EA	\$6,118.55	\$6,119				\$6,119															\$6,119		\$12,237
8.3	501281	Commercial Kitchen, Steam Kettle, Replace	20	16	4	1	EA	\$26,840.00	\$26,840					\$26,840																\$26,840
8.3	501275	Commercial Kitchen, Walk-In Refrigerator, Replace	20	16	4	1	EA	\$12,255.00	\$12,255					\$12,255																\$12,255
8.4	501261	Commercial Kitchen, Walk-In Freezer, Replace	20	20	0	1	EA	\$22,317.14	\$22,317	\$22,317																				\$22,317
8.4	501263	Commercial Kitchen, Range/Oven, 4-Burner w/ Griddle, Replace	15	14	1	1	EA	\$6,127.50	\$6,128		\$6,128															\$6,128				\$12,255
Totals, Unescalated										\$139,534	\$294,661	\$7,972,742	\$103,193	\$1,402,445	\$151,665	\$300,207	\$111,996	\$10,211	\$333,237	\$169,644	\$195,536	\$231,382	\$115,641	\$421,851	\$20,731	\$235,642	\$610,026	\$311,816	\$299,938	\$13,432,096
Location Factor (1.00)										\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals, Escalated (3.0% inflation, compounded annually)										\$139,534	\$303,500	\$8,458,281	\$112,762	\$1,578,464	\$175,822	\$358,463	\$137,740	\$12,935	\$434,798	\$227,988	\$270,668	\$329,895	\$169,823	\$638,088	\$32,298	\$378,136	\$1,008,280	\$530,845	\$525,943	\$15,824,263

## TABLE OF CONTENTS

<b>1. Executive Summary .....</b>	<b>1</b>
1.1. Property Information and General Physical Condition .....	1
1.2. Facility Condition Index (FCI) .....	2
1.3. Special Issues and Follow-Up Recommendations .....	3
1.4. Opinions of Probable Cost .....	4
1.4.1. Methodology .....	4
1.4.2. Immediate Repairs .....	4
1.4.3. Replacement Reserves .....	4
<b>2. Purpose and Scope .....</b>	<b>6</b>
2.1. Purpose .....	6
2.2. Scope .....	7
2.3. Personnel Interviewed .....	8
2.4. Documentation Reviewed .....	8
2.5. Pre-Survey Questionnaire .....	8
2.6. Weather Conditions .....	8
<b>3. Accessibility &amp; Property Research .....</b>	<b>9</b>
3.1. ADA Accessibility .....	9
3.2. Flood Zone and Seismic Zone .....	9
<b>4. Existing Building Assessment .....</b>	<b>10</b>
4.1. Space Types .....	10
4.2. Inaccessible Areas or Key Spaces Not Observed .....	10
<b>5. Site Improvements .....</b>	<b>11</b>
5.1. Utilities .....	11
5.2. Parking, Paving, and Sidewalks .....	11
5.3. Drainage Systems and Erosion Control .....	12
5.4. Topography and Landscaping .....	13
5.5. General Site Improvements .....	14
<b>6. Building Architectural and Structural Systems .....</b>	<b>16</b>
6.1. Foundations .....	16
6.2. Superstructure .....	16
6.3. Roofing .....	17
6.4. Exterior Walls .....	19
6.5. Exterior and Interior Stairs and Ramps .....	19
6.6. Exterior Windows and Doors .....	20
6.7. Patio, Terrace, and Balcony .....	20
<b>7. Building Mechanical and Plumbing Systems .....</b>	<b>22</b>
7.1. Building Heating, Ventilating, and Air Conditioning (HVAC) .....	22
7.2. Building Plumbing and Domestic Hot Water .....	23
7.3. Building Gas Distribution .....	24
7.4. Building Electrical .....	24
7.5. Building Elevators and Conveying Systems .....	25
7.6. Fire Protection and Security Systems .....	26
<b>8. Interior Spaces .....</b>	<b>28</b>
8.1. Interior Finishes .....	28
8.2. Furniture, Fixtures and Equipment (FF&E) .....	29
8.3. Commercial Kitchen & Laundry Equipment .....	29
<b>9. Other Structures .....</b>	<b>31</b>
<b>10. Certification .....</b>	<b>32</b>
<b>11. Appendices .....</b>	<b>33</b>

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

# 1. EXECUTIVE SUMMARY

## 1.1. PROPERTY INFORMATION AND GENERAL PHYSICAL CONDITION

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

PROPERTY INFORMATION	
Address:	600 Cloyden Road, Palos Verdes Estates, Los Angeles County, California 90274
Year Constructed/Renovated:	1962 Renovated 2001
Management Point of Contact:	Palos Verdes Peninsula Unified School District Terry Kamibayashi, Maintenance and Operations Director 310.544.0045 phone 424.903.5241 cell kamibayashi@pvpusd.net
Property Type:	High School
Site Area:	35 acres
Building Area:	157,386 SF
Number of Buildings:	21
Number of Stories:	One
Parking Type and Number of Spaces:	265 spaces in open lots.
Building Construction:	Classroom buildings are conventional wood frame structure on concrete slab. The gym, cafeteria and theatre are concrete tilt-up bearing walls and wood panel roof.
Roof Construction:	The buildings have gabled roofs with clay or lightweight concrete tiles. The covered walkways have flat roofs with built-up membrane.
Exterior Finishes:	Stucco
Heating, Ventilation and Air Conditioning:	Individual classroom gas fired forced air furnaces.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel and exit signs.
Dates of Visit:	October 18-20, 2016.
On-Site Point of Contact (POC):	Tony Pring
Assessment and Report Prepared by:	Kay van der Have
Reviewed by:	Mark Surdam Program Manager <a href="mailto:msurdam@emgcorp.com">msurdam@emgcorp.com</a> 800.733.0660 x6251

SYSTEMIC CONDITION SUMMARY			
Site	Fair	HVAC	Poor
Structure	Fair	Plumbing	Fair
Roof	Fair	Electrical	Fair
Vertical Envelope	Good	Elevators	Good

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### SYSTEMIC CONDITION SUMMARY

Interiors	Fair	Fire	Fair
-----------	------	------	------

The following bullet points highlight the most significant short term and modernization recommendations:

- Complete re-design and replacement of HVAC system, budgetary cost \$6,800,000
- Upgrade/retrofit fire sprinkler system, budgetary cost \$984,000
- Replace single glazed exterior windows, budgetary cost \$204,500
- Upgrade fire alarm system, budgetary cost \$493,000
- Replace/repair concrete walkways
- Full replacement of asphalt parking areas
- Replace galvanized iron supply plumbing infrastructure
- Relocation of the main natural gas line regulators
- Replace domestic water shut off valves
- HVAC system renovation

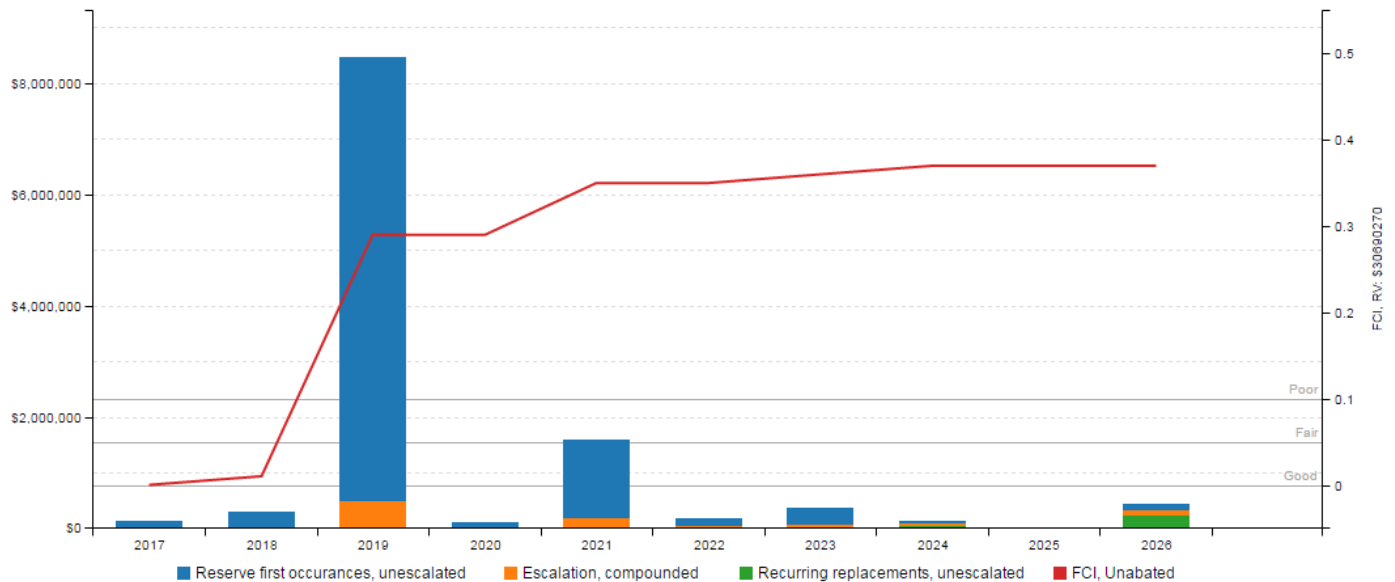
Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been fairly well maintained in recent years and is in fair overall condition.

According to property management personnel, the property has had no capital improvement expenditure program over the past three years.

## 1.2. FACILITY CONDITION INDEX (FCI)

### FCI Analysis: Palos Verdes High School

Replacement Value: \$ 30,690,270; Inflation rate: 3.0%





## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building's overall condition. Two FCI ratios are calculated and presented, the Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building's Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

FCI CONDITION RATING	DEFINITION	PERCENTAGE VALUE
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	> than 5% to 10%
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	> than 10% to 60%
Very Poor	Has reached the end of its useful or serviceable life. Renewal is now necessary.	> than 60%

The graphs above and tables below represent summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

KEY FINDING	METRIC	
Current Year Facility Condition Index (FCI) $FCI = (IR)/(CRV)$	0.4%	Good
10-Year Facility Condition Index (FCI) $FCI = (RR)/(CRV)$	38%	Poor
Current Replacement Value (CRV)	157,386 SF *\$195 / SF = \$30,690,270	
Year 0 (Current Year) - Immediate Repairs (IR)	\$139,534	
Years 1-10 – Replacement Reserves (RR)	\$11,801,258	
<b>TOTAL Capital Needs</b>	<b>\$11,940,792</b>	

The major issues contributing to the Immediate Repair Costs and the Current Year FCI ratio are summarized below:

- Concrete and asphalt pavement repairs
- Accessibility (ADA) upgrades
- Engineering studies to evaluate HVAC and structural issues
- Engineering study to evaluate storm water drainage issues

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables in the appendices.

### 1.3. SPECIAL ISSUES AND FOLLOW-UP RECOMMENDATIONS

As part of the FCA, a limited assessment of accessible areas of the building(s) was performed to determine the presence of suspected fungal growth, conditions conducive to such growth, and/or evidence of moisture. Property personnel were interviewed concerning any known or suspected fungal growth, elevated relative humidity, water intrusion, or mildew-like odors. Sampling is not a part of this assessment.

There are no visual indications of the presence of suspected fungal growth, conditions conducive to such growth, or evidence of moisture or moisture affected material in representative readily accessible areas of the property.

The following studies are recommended:

- There is evidence of termite damage. The exterior courtyard of the cafeteria shows significant areas of wood beam deterioration due to insect infestation. A local, licensed exterminator must be retained to inspect and treat the property as required to eliminate the pest and associated threat. The cost of this study is included in the cost tables. A cost allowance to treat the wood is also included in the cost tables.



- Because of the extent of the damage, a review of the structural integrity of the damaged beams is required. In addition, several sections of the precast concrete panel retaining wall are showing movement, as is the floor in the 407-415 classrooms. A professional engineer, familiar with school structures and the geologic composition of the area must be retained to analyze the existing conditions, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. For further information see Sections 5.4 6.1 and 6.2.
- HVAC systems are generally limited to heating. Due to the lack of openable windows, the classrooms appeared to be stuffy. Staff expressed concern about air circulation. A mechanical engineer must be retained to analyze the existing conditions, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. For further information see Section 7.1.
- The POC reported ongoing issues related to erosion and storm water drainage in isolated areas of the site. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. Due to the ambiguity of the required repair scope at the time of this assessment, the cost for any possible subsequent repairs is not included. For further information see Section 5.3.

### 1.4. OPINIONS OF PROBABLE COST

Cost estimates are attached at the front of this report (following the cover page).

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* 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 of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-15 recognizes that 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.

---

#### 1.4.1. 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. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be derived from an actual take-off, lump sum costs or allowances 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.

---

#### 1.4.2. IMMEDIATE REPAIRS

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) material building or fire code violations, 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.

---

#### 1.4.3. REPLACEMENT RESERVES

Replacement Reserves are for recurring probable 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.

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

Replacement Reserves 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 in the Immediate Repair Cost Estimate.

## 2. PURPOSE AND SCOPE

### 2.1. 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 and existing deficiencies 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.

#### FORMAT OF THE BODY OF THE REPORT:

Throughout sections 5 through 9 of this report, each report section will typically contain three subsections organized in the following sequence:

- A descriptive table (and/or narrative), which identifies the components assessed, their condition, and other key data points.
- A simple bulleted list of Anticipated Lifecycle Replacements, which lists components and assets typically in Excellent, Good, or Fair condition at the time of the assessment but that will require replacement or some other attention once aged past their estimated useful life. These listed components are typically included in the associated inventory database with costs identified and budgeted beyond the first several years.
- A bulleted cluster of Actions/Comments, which include more detailed narratives describing deficiencies, recommended repairs, and short term replacements. The assets and components associated with these bullets are/were typically problematic and in Poor or Failed condition at the time of the assessment, with corresponding costs included within the first few years.

#### CONDITIONS:

The physical condition of building systems and related components are typically defined as being in one of five conditions: Excellent, Good, Fair, Poor, Failed or a combination thereof. For the purposes of this report, the following definitions are used:

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.

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### 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. The following Plan Types are listed in general weighted order of importance:

Safety	=	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity	=	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility	=	Does not meet ADA, CBC and/or other handicap accessibility requirements.
Environmental	=	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Modernization/Adaptation	=	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	=	Any component or system in which future repair or replacement is anticipated beyond the next several years and/or is of minimal substantial early-term consequence.

### PRIORITIZATION SCHEME:

One of EMG's data-sorting exercises and deliverables of fundamental value is to evaluate and rank the recommendations and needs of the facility via a logical and well-developed prioritization scheme. The factors under consideration and built into the evaluation criteria include Plan Type (the “why”), Uniformat/building component type or system (the “what”), and condition/RUL (the “when”). The facility type or importance is also factored into the overall portfolio if relevant information is provided and applicable. EMG utilizes the following prioritization scheme:

Priority 1	=	<b>Immediate/Critical Items:</b> Require immediate action to either (a) correct a safety hazard or (b) address the most important building performance or integrity issues or failures.
Priority 2	=	<b>Potentially Critical Items:</b> Include (a) those safety/liability, component performance or building integrity issues of slightly less importance not captured in Priority 1 and/or (b) issues that if left unchecked could escalate into Immediate/Critical items. Accessibility and 'stabilized' environmental issues are also typically included in this subset.
Priority 3	=	<b>Necessary/Recommended Items:</b> Items of concern that generally either require attention or are suggested as improvements within the near term to: (a) improve usability, marketability, or efficiency; (b) reduce operational costs; (c) prevent or mitigate disruptions to normal operations; (d) modernize the facility; (e) adapt the facility to better meet occupant needs; and/or (f) should be addressed when the facility undergoes a significant renovation.
Priority 4	=	<b>Anticipated Lifecycle Replacements:</b> Renewal items which are generally associated with building components performing acceptably at the present time but will likely require replacement or other future attention within the timeframe under consideration.

## 2.2. 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.

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

- Provide a general statement of the Subject property's compliance with the Americans with Disability Act (ADA). Compliance with Title 24 California Building Code, Chapter 11B and other California Building Code chapters referenced in Chapter 11B, was not surveyed. This report does not constitute a full accessibility survey, but identifies exposure to selected ADA accessibility issues and the need for further accessibility review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of fungal growth, conditions conducive to fungal growth, and/or evidence of moisture. EMG will also interview Project personnel regarding the presence of any known or suspected fungus, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, in order 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.

### 2.3. PERSONNEL INTERVIEWED

The management and maintenance staff were interviewed for specific information relating to the physical property, available maintenance procedures, historical performance of key building systems and components, available drawings and other documentation. The following personnel from the facility were interviewed in the process of conducting the FCA:

NAME AND TITLE	ORGANIZATION	PHONE NUMBER
Tony Pring District Electrician	Palos Verdes Peninsula Unified School District	310.753.7079

The FCA was performed with the assistance of Tony Pring, District Electrician, Palos Verdes Peninsula Unified School District, the onsite Point of Contact (POC), who was cooperative and provided information that appeared to be accurate based upon subsequent site observations. The onsite contact is highly knowledgeable about the subject property and answered most questions posed during the interview process. The POC's management involvement at the property has been for the past 20 years.

### 2.4. DOCUMENTATION REVIEWED

Prior to the FCA, relevant documentation was requested that could aid in the knowledge of the subject property's physical improvements, extent and type of use, and/or assist in identifying material discrepancies between reported information and observed conditions. The review of submitted documents does not include comment on the accuracy of such documents or their preparation, methodology, or protocol. The Documentation Request Form is provided in Appendix E.

Although Appendix E provides a summary of the documents requested or obtained, the following list provides more specific details about some of the documents that were reviewed or obtained during the site visit.

- A partial set of the renovation drawings by HMC Group Architects dated 02/2001.

### 2.5. PRE-SURVEY QUESTIONNAIRE

A Pre-Survey Questionnaire was sent to the POC prior to the site visit. The questionnaire is included in Appendix E. Information obtained from the questionnaire has been used in preparation of this report.

### 2.6. WEATHER CONDITIONS

October 18: Overcast, then clear, with temperatures in the high 60s (°F) and light winds.

October 19: Clear, with temperatures in the 70s (°F) and light winds.

October 20: Clear, with temperatures in the 80s (°F) and light winds.

### 3. ACCESSIBILITY & PROPERTY RESEARCH

#### 3.1. ADA ACCESSIBILITY

Generally, Title II of the Americans with Disabilities Act (ADA) applies to State and local government entities. Title II Subtitle A protects qualified individuals with disabilities from discrimination on the basis of disability in services, programs, and activities provided by state and local government entities. Title II extends the prohibition on discrimination established by section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794, to all activities of state and local governments, regardless of Federal financial assistance. All state and local government facilities must be maintained and operated in compliance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). In addition, in the state of California, compliance with the California Building Code (CBC) Chapter 11 *Accessibility to Public Buildings, Public Accommodations, Commercial Buildings, and Publicly Funded Housing* is required.

During the FCA, a limited visual observation for accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in EMG's Abbreviated ADA Checklist, provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full Accessibility Compliance Survey, and that such a survey is beyond the scope of EMG's undertaking for this report. The Abbreviated ADA Checklist targets key areas for compliance with 2010 ADA Standards for Accessible Design, and does not include California Building Code accessibility requirements. A full Accessibility Compliance Survey conducted by EMG would include both ADA and State of California accessibility requirements. For the FCA, only a representative sample of areas was observed and, other than those shown on the Abbreviated ADA Checklist, actual measurements were not taken to verify compliance.

The facility does not appear to be accessible with respect to with Title II of the Americans with Disabilities Act (ADA). Elements as defined by the ADAAG that are not accessible, as stated within the priorities of Title II, are as follows:

The facility does not appear to be accessible with Title II of the Americans with Disabilities Act. Elements as defined by the ADAAG that are not accessible as stated within the priorities of Title II, are as follows:

##### **Parking**

- Adequate number of designated parking stalls and signage for vans are not provided.

##### **Entrances/Exits**

- Lever action hardware is not provided at all accessible locations, garden maintenance area

##### **Paths of Travel**

- Existing carpeting is not securely attached (OAR) or has a pile thickness exceeding 1/2".

##### **Swimming Pool**

- Add fixed lift at swimming pool.

A full Accessibility Compliance Survey may reveal additional aspects of the property that are not in compliance.

Corrections of these conditions should be addressed from a liability standpoint, but are not necessarily code violations. The Americans with Disabilities Act Accessibility Guidelines concern civil rights issues as they pertain to the disabled and are not a construction code, although many local jurisdictions have adopted the Guidelines as such. The costs to address the achievable items noted above are included in the Immediate Repairs Report.

#### 3.2. FLOOD ZONE AND SEISMIC ZONE

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated 1/6/2016, most of the property is located in Zone X, defined as an area outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent. The northerly 20% of the property includes a regulatory floodway, as well as areas that are defined as Zone X (see above) and Zone AE, defined as an area subject to 100-year flood with base flood elevation determined.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 4, defined as an area of high probability of damaging ground motion.

## 4. EXISTING BUILDING ASSESSMENT

### 4.1. SPACE TYPES

All 157,386 square feet of the building are owned by the Palos Verdes Peninsula Unified School District, and occupied by Palos Verdes High School. The spaces are mostly classrooms. The teaching mission is supported by offices, library, multi-purpose rooms, cafeteria, gymnasium, pool, sport fields and supporting restrooms, mechanical and other utility spaces.

The following table identifies the reported unit types and mix at the subject property.

SPACE TYPES AND MIX		
QUANTITY	TYPE	VACANT/DOWN
10	Office	0
86	Classroom	0
1	Multi-Purpose	0
1	Library	0
1	Kitchen	0
1	Gymnasium	0
5	Mechanical	0
33	Restrooms	0
<b>138</b>	<b>TOTAL</b>	<b>0</b>

### 4.2. INACCESSIBLE AREAS OR KEY SPACES NOT OBSERVED

The entire school was observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, exterior of the property and the roof. All areas of the property were available for observation during the site visit.

A "down unit" or area is a term used to describe a unit or space that cannot be occupied due to poor conditions such as fire damage, water damage, missing equipment, damaged floor, wall or ceiling surfaces, or other significant deficiencies. There are no down units or areas.



## 5. SITE IMPROVEMENTS

### 5.1. UTILITIES

The following table identifies the utility suppliers and the condition and adequacy of the services.

SITE UTILITIES		
UTILITY	SUPPLIER	CONDITION AND ADEQUACY
Sanitary sewer	City of Palos Verdes Estates	Good
Storm sewer	City of Palos Verdes Estates	Good
Domestic water	City of Palos Verdes Estates	Good
Electric service	Southern California Edison	Good
Natural gas service	Southern California Edison	Good

**Actions/Comments:**

- According to the POC, the utilities provided are adequate for the property. There are no unique, onsite utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.

### 5.2. PARKING, PAVING, AND SIDEWALKS

ITEM	DESCRIPTION
Main Ingress and Egress	Cloyden Road
Access from	North
Additional Entrances	N/A
Additional Access from	Epping Road

PAVING AND FLATWORK			
ITEM	MATERIAL	LAST WORK DONE	CONDITION
Entrance Driveway Apron	Concrete	15+	Fair
Parking Lot	Asphalt	2015	Fair
Drive Aisles	Asphalt	15+	Fair
Service Aisles	Asphalt	15+	Fair
Sidewalks	Concrete	10+	Fair
Curbs	Concrete	15+	Fair
Site Stairs	Cast-in-place concrete	15+	Fair
Pedestrian Ramps	Cast-in-place concrete	2011	Good

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

PARKING COUNT				
OPEN LOT	CARPORT	PRIVATE GARAGE	SUBTERRANEAN GARAGE	FREESTANDING PARKING STRUCTURE
211	0	0	0	0
Total Number of ADA Compliant Spaces			11	
Number of ADA Compliant Spaces for Vans			2	
Total Parking Spaces			211	
Parking Ratio (Spaces/Building Area)			1/750 sf	
Method of Obtaining Parking Count			Drawings	

EXTERIOR STAIRS			
LOCATION	MATERIAL	HANDRAILS	CONDITION
Along the east side of the property	Concrete stairs	Metal	Fair
In the center of the property, from classroom level to sport fields	Concrete stairs	Metal	Good
Specify Locations on Property	None	None	--

### Anticipated Lifecycle Replacements:

- Asphalt seal coating
- Site stairs

### Actions/Comments:

- The asphalt pavement parking lots and service roads exhibits significant areas of failure and deterioration, such as alligator cracking, transverse cracking, extensive raveling, heavy overall surface wear, and localized depressions throughout the site. All of the paving must be overlaid with new asphalt paving in order to maintain the integrity of the overall pavement system. Milling is recommended as part of the overall repair work.
- The concrete sidewalks have significant areas of cracking. These areas occur throughout the site. The damaged areas of concrete sidewalks require replacement.

## 5.3. DRAINAGE SYSTEMS AND EROSION CONTROL

DRAINAGE SYSTEM AND EROSION CONTROL		
SYSTEM	EXISTS AT SITE	CONDITION
Surface Flow	<input checked="" type="checkbox"/>	Fair
Inlets	<input checked="" type="checkbox"/>	Good
Swales	<input type="checkbox"/>	--
Detention pond	<input type="checkbox"/>	--

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

DRAINAGE SYSTEM AND EROSION CONTROL		
Lagoons	<input type="checkbox"/>	--
Ponds	<input type="checkbox"/>	--
Underground Piping	<input checked="" type="checkbox"/>	Good
Pits	<input type="checkbox"/>	--
Municipal System	<input checked="" type="checkbox"/>	Good
Dry Well	<input type="checkbox"/>	--

### Anticipated Lifecycle Replacements:

- No components of significance

### Actions/Comments:

- The POC reported ongoing issues related to erosion and storm water drainage in isolated areas of the site. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. Due to the ambiguity of the required repair scope at the time of this assessment, the cost for any possible subsequent repairs is not included. For further information see Section 1.3.

## 5.4. TOPOGRAPHY AND LANDSCAPING

ITEM	DESCRIPTION						
Site Topography	Slopes down from the north side of the property to the south property line and from the east to the west.						
Landscaping	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Landscaping Condition	Fair						
Irrigation	Automatic Underground		Drip		Hand Watering		None
	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Irrigation Condition	Good						

RETAINING WALLS		
TYPE	LOCATION	CONDITION
Concrete	East side of property	Fair
Precast Concrete Panels	Between classroom level and playing field level	Fair
CMU	Volleyball court	Fair

### Anticipated Lifecycle Replacements:

- Irrigation system components
- Landscaping materials

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### Actions/Comments:

- The precast concrete panel retaining walls have stress cracks and show movement at isolated locations. A Professional Engineer must be retained to observe the conditions, make recommendations, and, if required, determine estimated costs to resolve the observed problems.
- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are no significant areas of erosion. Periodic and routine maintenance is recommended.

## 5.5. GENERAL SITE IMPROVEMENTS

PROPERTY SIGNAGE	
Property Signage	Monument
Street Address Displayed?	Yes

SITE AND BUILDING LIGHTING					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Overall Site Lighting Condition			Fair	
Building Lighting	None		Wall Mounted	Recessed Soffit	
	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Overall Building Lighting Condition			Fair	

SITE FENCING		
TYPE	LOCATION	CONDITION
Chain link with metal posts	At sport fields and perimeter of property	Fair

REFUSE DISPOSAL				
Refuse Disposal			Common area dumpsters	
Dumpster Locations	Mounting	Enclosure	Contracted?	Condition
Rear of cafeteria	Concrete pad	None	Yes	Fair
Adjacent to garden maintenance	Asphalt paving	None	Yes	Fair

OTHER SITE AMENITIES			
	DESCRIPTION	LOCATION	CONDITION
Playground Equipment	None	N/A	--
Tennis Courts	Asphalt	Playing fields	Fair
Basketball Court	None	N/A	--

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

OTHER SITE AMENITIES			
Swimming Pool	Yes	Playing fields	Good

The tennis courts are surrounded by a chain link fence. High-intensity light fixtures, mounted on metal poles, are provided for night-time court use.

### ***Anticipated Lifecycle Replacements:***

- Signage
- Exterior lighting
- Site fencing
- Tennis court seal coating
- Pool equipment
- Bleachers
- Scoreboard

### ***Actions/Comments:***

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

## 6. BUILDING ARCHITECTURAL AND STRUCTURAL SYSTEMS

### 6.1. FOUNDATIONS

BUILDING FOUNDATION		
ITEM	DESCRIPTION	CONDITION
PERMANENT STRUCTURES		
Foundation	Slab on grade with integral footings	Fair
Basement and Crawl Space	None	--
PORTABLE STRUCTURES		
Foundation	Concrete spread footings	Fair
Basement and Crawl Space	Crawl space, dirt floor	Fair

#### **Anticipated Lifecycle Replacements:**

- No components of significance

#### **Actions/Comments:**

- The foundations and footings cannot be directly observed. However, in classrooms 408 - 415 there are isolated signs of, movement, the space between the VCT tiles is growing. This condition typically indicates excessive settlement or other potential problems with the foundation system. A Professional Engineer with specific expertise in structural design and construction in this geographical area must be retained to evaluate the structure and to provide remedial recommendations consistent with local regulatory and code requirements.

### 6.2. SUPERSTRUCTURE

BUILDING SUPERSTRUCTURE		
ITEM	DESCRIPTION	CONDITION
PERMANENT STRUCTURES-Classrooms		
Framing / Load-Bearing Walls	Conventional wood/metal studs	Fair
Ground Floor	Concrete slab	Fair
Upper Floor Framing	N/A	--
Upper Floor Decking	N/A	--
Roof Framing	Wood joists, purlins, rafters	Fair
Roof Decking	Plywood or OSB	Fair
PERMANENT STRUCTURES-O.A.R., Cafeteria, Gymnasium		
Framing / Load-Bearing Walls	Tilt-up concrete walls	Fair
Ground Floor	Concrete slab	Fair
Upper Floor Framing	N/A	--
Upper Floor Decking	N/A	--
Roof Framing	Wood framing, Concrete beams	Fair

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

BUILDING SUPERSTRUCTURE		
ITEM	DESCRIPTION	CONDITION
PERMANENT STRUCTURES-O.A.R., Cafeteria, Gymnasium		
Roof Decking	Plywood or OSB	Fair
PORTABLE STRUCTURES		
Framing / Load-Bearing Walls	Light-gauge steel	Fair
Ground Floor	Raised wood	Fair
Roof Framing	Wood joists, purlins, rafters	Fair
Roof Decking	Metal decking	Fair

### Anticipated Lifecycle Replacements:

- No components of significance

### Actions/Comments:

- The superstructure is exposed in some locations, which allows for limited observation. As noted in section 1.3, the wood beams around the courtyard by the cafeteria show significant termite damage. In order to determine if there is more damage than has been noted further investigation is required. A local, licensed exterminator must be retained to treat the property as required to eliminate the pests and associated threat. In addition to this work, an annual termite and insect inspection program must be instituted.

## 6.3. ROOFING

PRIMARY ROOFS			
Type / Geometry	Gabled	Finish	Concrete/clay tiles
Maintenance	Outside contractor	Roof Age	Varied number of years
Flashing	Sheet metal	Warranties	Unknown
Parapet Copings	NA; no parapet walls	Roof Drains	Gutters and downspouts
Fascia	Wood	Insulation	None
Soffits	Concealed	Skylights	No
Attics	Yes	Ponding	No
Ventilation Source-1	Gable end vents	Leaks Observed	No
Ventilation Source-2	Soffit vents	Roof Condition	Good

The primary roofs are located at the buildings

SECONDARY ROOFS			
Type / Geometry	Flat or low-sloping	Finish	Built-up membrane
Maintenance	Outside contractor	Roof Age	Varied number of years
Flashing	Sheet metal	Warranties	Unknown



## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

SECONDARY ROOFS			
Parapet Copings	NA; no parapet walls	Roof Drains	Gutters and downspouts
Fascia	Wood	Insulation	None
Soffits	Concealed	Skylights	No
Attics	No	Ponding	No
Ventilation Source-1	None	Leaks Observed	No
Ventilation Source-2	--	Roof Condition	Fair

The secondary roof is located at the covered walkways.

TERTIARY ROOFS			
Type / Geometry	Flat or low-sloping	Finish	Metal
Maintenance	Outside contractor	Roof Age	Varied number of years
Flashing	Sheet metal	Warranties	Unknown
Parapet Copings	NA; no parapet walls	Roof Drains	Edge drainage to ground
Fascia	Wood	Insulation	None
Soffits	Exposed	Skylights	No
Attics	No	Ponding	No
Ventilation Source-1	None	Leaks Observed	No
Ventilation Source-2	--	Roof Condition	Fair

The tertiary roof is located at the portable classroom structures.

### **Anticipated Lifecycle Replacements:**

- Built-up roof membrane
- Metal roof coating
- Roof flashings (included as part of overall membrane replacement)

### **Actions/Comments:**

- The roof finishes vary in age. Information regarding roof warranties or bonds was not available. The roofs are maintained by an outside contractor.
- The POC reported that roof leaks have occurred in the past. According to the POC, there are no active roof leaks. There is no evidence of active roof leaks.
- There is no evidence of roof deck deterioration. The roof substrate should be inspected during any future roof repair or replacement work.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance and operations program.
- There is no evidence of moisture, water intrusion, or excessive daylight in the attics.
- The attics are not insulated. In order to provide a more energy efficient and comfortable space for the occupants, new insulation must be installed.

## 6.4. EXTERIOR WALLS

BUILDING EXTERIOR WALLS		
TYPE	LOCATION	CONDITION
PERMANENT STRUCTURES		
Primary Finish	Stucco	Fair
Secondary Finish	N/A	--
Accented with	Wood trim	Fair
Soffits	Concealed	Fair
PORTABLE STRUCTURES		
Primary Finish	Wood siding	Fair
Secondary Finish	Wood trim	Fair
Accented with	Wood trim	Fair
Soffits	Concealed	Fair

Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.

**Anticipated Lifecycle Replacements:**

- Exterior paint
- Wood accents (included in ext. paint)
- Caulking

**Actions/Comments:**

- The exterior walls are not insulated. In order to provide a more energy efficient and comfortable space for the occupants, new insulation must be installed.
- The POC reported that water infiltration at the exterior walls has occurred in the past. No evidence of active water infiltration was observed at the time of the assessment.
- On-going periodic maintenance, including patching repairs, graffiti removal, and re-caulking, is highly recommended. Future lifecycle replacements of the components listed above will be required.

## 6.5. EXTERIOR AND INTERIOR STAIRS AND RAMPS

BUILDING EXTERIOR AND INTERIOR STAIRS					
TYPE	DESCRIPTION	RISER	HANDRAIL	BALUSTERS	CONDITION
Building Exterior Stairs	None	--	--	--	--
Building Exterior Ramps	Cast-in-place concrete	--	Metal	None	Fair
Building Interior Stairs	Wood framed	Closed	Wood	None	Fair

**Anticipated Lifecycle Replacements:**

- No components of significance

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.

## 6.6. EXTERIOR WINDOWS AND DOORS

BUILDING WINDOWS				
WINDOW FRAMING	GLAZING	LOCATION	WINDOW SCREEN	CONDITION
Aluminum framed, fixed	Single pane	Classrooms	<input type="checkbox"/>	Fair
Aluminum framed, operable	Single pane	Classrooms	<input type="checkbox"/>	Fair
Jalousie	Single pane	Classrooms	<input type="checkbox"/>	Fair
Aluminum framed, fixed	Double pane	Newer classrooms	<input type="checkbox"/>	Good

BUILDING DOORS		
CATEGORY	DOOR TYPE	CONDITION
Classroom Entrance Doors	Metal, insulated with vision panel	Fair
Secondary Entrance Doors	Metal, hollow	Fair
Service Doors	Metal, hollow	Fair
Overhead Doors	Steel	Fair

### Anticipated Lifecycle Replacements:

- Service doors
- Sliding patio doors
- Window sealants

### Actions/Comments:

- The windows are antiquated, energy-inefficient units with single-pane glazing. Window replacement is recommended. Costs are not included in the reserve tables.
- The POC reported that water infiltration at the exterior windows has occurred in the past. No evidence of active water infiltration was observed at the time of the assessment.

## 6.7. PATIO, TERRACE, AND BALCONY

BUILDING PATIO, TERRACE AND BALCONY			
TYPE	DESCRIPTION	LOCATION	CONDITION
Ground Floor Patio	Concrete	Areas between classrooms	Fair
Upper Balcony Structure	None	N/A	--
Balcony Decks	None	N/A	--
Balcony Deck Toppings	None	N/A	--
Balcony Guardrails	None	N/A	--

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### ***Anticipated Lifecycle Replacements:***

- A significant amount of the metal guards at the tops of the retaining walls are missing. Replacement is recommended.

### ***Actions/Comments:***

- On-going periodic maintenance is highly recommended.
- Replacement of the patio concrete is included in Section 5.2.

## 7. BUILDING MECHANICAL AND PLUMBING SYSTEMS

### 7.1. BUILDING HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

INDIVIDUAL UNITS	
Primary Components	Furnaces
Cooling (if separate from above)	None; no cooling
Quantity and Capacity Ranges	75 units ranging from 30,000 BTUH to 72,000 BTUH
Total Heating or Cooling Capacity	NA
Heating Fuel	Natural gas
Location of Equipment	In the attics above the classrooms
Space Served by System	Each classroom has its own furnace
Age Ranges	Majority dated 2001 with some units dated earlier
Primary Component Condition	Fair

SUPPLEMENTAL COMPONENTS	
Supplemental Component #1	Dedicated computer room air conditioners
Location	Computer room
Condenser Condition	Good
Supplemental Component #2	Window air conditioners
Classrooms 407B - 415	Classrooms
Air conditioner Condition	Fair
Supplemental Component #3	Split system heat pumps
Modular classrooms	Modular classrooms
Split system Condition	Fair
Supplemental Component #4	Boiler
Utility room adjacent to cafeteria	Cafeteria
Boiler Condition	Fair

CONTROLS AND VENTILATION	
HVAC Control System	Individual non-programmable thermostats/controls
HVAC Control System Condition	Fair
Building Ventilation	Natural ventilation only
Ventilation System Condition	--

#### Anticipated Lifecycle Replacements:

- Furnaces
- Window Air Conditioning Units
- Split System Heat Pumps
- Boiler

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

- Exhaust fans
- Building automation system

### **Actions/Comments:**

- The HVAC systems are maintained by an outside contractor.
- The HVAC equipment appears mainly to have been installed in 2001. HVAC equipment is replaced on an "as needed" basis.
- The HVAC is generally limited to heating. No mechanical ventilation or air conditioning is provided to the vast majority of the spaces. The classrooms are stuffy, many are without operable windows. The controls for the HVAC system do not allow adequate climate control within the individual classrooms and other interior spaces. and An overall sense of dissatisfaction with the existing system was conveyed. As noted in Section 1.3, an engineering study to determine the optimum HVAC system is recommended. The study should be followed up by implementation. A budgetary cost is included for the HVAC system engineering and upgrades.

## 7.2. BUILDING PLUMBING AND DOMESTIC HOT WATER

BUILDING PLUMBING SYSTEM		
TYPE	DESCRIPTION	CONDITION
Water Supply Piping	Copper and Galvanized	Fair
Waste/Sewer Piping	Cast iron	Fair
Vent Piping	PVC	Fair
Water Meter Location	Near the street	

DOMESTIC WATER HEATERS OR BOILERS	
Components	Boilers and Water Heaters
Fuel	Natural gas and electricity
Quantity and Input Capacity	2 boilers units at 212 BTUH 4 gas fired water heaters at 40,000 BTU 3 electric water heaters at varied kW each
Storage Capacity	30 – 50 gallon
Boiler or Water Heater Condition	Fair
Supplementary Storage Tanks?	Yes
Storage Tank Quantity and Volume	2 units at 200 gallons each
Storage Tank Condition	Fair
Domestic Hot Water Circulation Pumps (3 HP and over)	10 at 3 HP each
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

PLUMBING FIXTURES	
Water Closets	Commercial
Toilet (Water Closet) Flush Rating	2.0 GPF
Common Area Faucet Nominal Flow Rate	1.5 GPM
Condition	Fair

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### **Anticipated Lifecycle Replacements:**

- Galvanized supply lines
- Sanitary sewer lines
- Water heaters
- Toilets
- Urinals
- Sinks
- Drinking fountains

### **Actions/Comments:**

- Although it appears most of the piping within the main utility rooms has been replaced with copper, it is probable that the concealed, hard-to-access domestic water lines are galvanized iron original to the 1962 construction. To date there has been no history of chronic leaks or water pressure problems. However, it is quite common for galvanized iron piping to develop problems due to long-term corrosion with thinning walls and/or interior mineral deposit accumulation, especially once it has aged 40 or 50 years. As such, EMG recommends replacing all the plumbing supply lines with copper. A budgetary cost allowance is included.
- It is reported that the sanitary sewer lines frequently back up due to roots in the lines. The item above also includes a cost for replacing the sanitary sewer lines.
- The common area restroom accessories and fixtures exhibit minor evidence of heavy wear. The restroom accessories and fixtures are recommended for replacement.
- The POC reported that the domestic water shutoff valves are problematic and antiquated. Replacement of the shutoff valves is required. A budgetary cost is included.

## 7.3. BUILDING GAS DISTRIBUTION

Gas service is supplied from the gas main on the adjacent public street. The gas meters and regulators in underground vaults at the site. The gas distribution piping within each building is malleable steel (black iron).

### **Anticipated Lifecycle Replacements:**

- No components of significance

### **Actions/Comments:**

- The pressure and quantity of gas appear to be adequate.
- The gas meters and regulators appear to be functioning adequately.
- Only limited observation of the gas distribution piping can be made due to hidden conditions.
- The POC reported that the main natural gas line regulators are difficult to located and access, as they are in underground vaults. Relocation of the natural gas regulators is required. A budgetary cost for relocation is included.

## 7.4. BUILDING ELECTRICAL

BUILDING ELECTRICAL SYSTEMS			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	4,000 Amps	Volts	277/480 Volt, three-phase
Meter and Panel Location	Near the Gym	Branch Wiring	Copper
Conduit	Non-metalic sheathed cable	Step-Down Transformers?	Yes
Security / Surveillance System?	Yes	Building Intercom System?	Yes
Lighting Fixtures	T-8, HID in gym		



## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

BUILDING ELECTRICAL SYSTEMS	
Main Distribution Condition	Fair
Secondary Panel and Transformer Condition	Fair
Lighting Condition	Fair

BUILDING EMERGENCY SYSTEM			
Size	None	Fuel	None
Generator / UPS Serves	N/A	Tank Location	N/A
Testing Frequency	N/A	Tank Type	None
Generator / UPS Condition	--		

### **Anticipated Lifecycle Replacements:**

- No components of significance

### **Actions/Comments:**

- The onsite electrical systems up to the meters are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- The panels, switchboards, and step-down transformers are mostly 2001 components. The electrical service is reportedly adequate for the facility's needs.

## 7.5. BUILDING ELEVATORS AND CONVEYING SYSTEMS

BUILDING ELEVATORS			
Manufacturer	Dover	Machinery Location	Ground floor or basement adjacent to shaft
Safety Stops	Electronic	Emergency Equipment	Yes
Cab Floor Finish	Vinyl-tiled	Cab Wall Finish	Plastic-laminate and stainless steel
Hydraulic Elevators	1 cars at 2000 LB each		
Overhead Traction Elevators	None		
Freight Elevators	None		
Machinery Condition	Good		
Controls Condition	Good		
Cab Finish Condition	Good		
Other Conveyances	Wheelchair Lifts – Stadium/MPR		
Other Conveyance Condition	Good		

### **Anticipated Lifecycle Replacements:**

- Wheelchair lift/exterior

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### Actions/Comments:

- The elevator is serviced by TyssenKrupp on a routine basis. The elevator machinery and controls are the originally installed system.
- The elevators are inspected on an annual basis by the municipality, and a certificate of inspection is displayed in the elevator cab.
- The emergency communication equipment in the elevator cabs appears to be functional. Equipment testing is not within the scope of the work.
- The finishes in the elevator cabs will require replacement. The cost to replace the finishes is relatively insignificant and the work can be performed as part of the property management's operations program.

## 7.6. FIRE PROTECTION AND SECURITY SYSTEMS

ITEM	DESCRIPTION					
Type	Wet pipe					
Fire Alarm System	Central Alarm Panel	<input checked="" type="checkbox"/>	Battery-Operated Smoke Detectors	<input type="checkbox"/>	Alarm Horns	<input checked="" type="checkbox"/>
	Annunciator Panels	<input checked="" type="checkbox"/>	Hard-Wired Smoke Detectors	<input checked="" type="checkbox"/>	Strobe Light Alarms	<input checked="" type="checkbox"/>
	Pull Stations	<input type="checkbox"/>	Emergency Battery-Pack Lighting	<input checked="" type="checkbox"/>	Illuminated EXIT Signs	<input checked="" type="checkbox"/>
Alarm System Condition	Good					
Sprinkler System	None	<input checked="" type="checkbox"/>	Standpipes	<input checked="" type="checkbox"/>	Backflow Preventer	<input checked="" type="checkbox"/>
	Hose Cabinets	<input type="checkbox"/>	Fire Pumps	<input type="checkbox"/>	Siamese Connections	<input checked="" type="checkbox"/>
Suppression Condition	--					
Central Alarm Panel System	Location of Alarm Panel			Installation Date of Alarm Panel		
	Central office			2001		
Fire Extinguishers	Last Service Date			Servicing Current?		
	August 17, 2016			Yes		
Hydrant Location	Parking lot					
Siamese Location	Side of building					
Special Systems	Kitchen Suppression System		<input checked="" type="checkbox"/>	Computer Room Suppression System		<input type="checkbox"/>

### Anticipated Lifecycle Replacements:

- Central alarm panel
- Alarm devices and system
- Sprinkler heads

### Actions/Comments:

- The central alarm panel appears to be in good condition and is serviced regularly by a qualified fire equipment contractor. Equipment testing is not within the scope of a Facility Condition Assessment. Based on inspection documents displayed by the panel, the central alarm panel has been inspected within the last year. Fire alarm panels contain sophisticated electronic circuits that are constantly energized. Over time, circuit components deteriorate or become obsolete. Even though an alarm panel may continue to function well past its estimated design life, replacement parts may become difficult to obtain and in many cases the alarm panel will not communicate with new devices it is supposed to monitor. Replacement is recommended during the reserve time. Note that replacement of a fire alarm panel or other components may trigger a requirement to update to a fully automatic system to comply with current codes.

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

- The vast majority of the buildings are not protected by fire suppression; sprinkler heads are currently limited to the 500 series classrooms, the library, rooms 206 and 207 and the kitchen. Due to its construction date, the facility is most likely “grandfathered” by code and the installation of fire sprinklers not required until major renovations are performed. Regardless of when or if installation of facility-wide fire suppression is required by the governing municipality, EMG recommends a retrofit be performed.

## 8. INTERIOR SPACES

### 8.1. INTERIOR FINISHES

The facility is used as a high school for the community of Palos Verdes Estates

The most significant interior spaces include classrooms, a gymnasium, an auditorium, cafeteria and library. Supporting areas include administrative offices, restrooms, mechanical rooms and utility closets.

The following table generally describes the locations and typical conditions of the interior finishes within the facility:

TYPICAL FLOOR FINISHES		
FLOOR FINISH	LOCATIONS	GENERAL CONDITION
Carpet	Offices	Fair
Vinyl tile	Offices and classrooms	Fair
Ceramic tile	Restrooms	Fair
Rubber mats	Workout areas	Fair
Maple	Gymnasium	Good
TYPICAL WALL FINISHES		
W ALL FINISH	LOCATIONS	GENERAL CONDITION
Painted plaster	Offices, classrooms	Fair
Painted drywall	Classrooms	Good
Ceramic tile	Restrooms	Good
TYPICAL CEILING FINISHES		
CEILING FINISH	LOCATIONS	GENERAL CONDITION
Suspended T-Bar (acoustic tile)	Offices, classrooms, restrooms	Fair
Hard (glued) tiles	Classrooms	Fair
Exposed structure	Gymnasium, cafeteria	Fair

INTERIOR DOORS		
ITEM	TYPE	CONDITION
Interior Doors	Solid core metal clad	Fair
Door Framing	Metal	Fair
Fire Doors	Yes	Fair

#### **Anticipated Lifecycle Replacements:**

- Carpet
- Vinyl tile
- Interior paint
- Suspended acoustic ceiling tile
- Interior doors

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

### **Actions/Comments:**

- With the exception of the new and the modular classrooms the interior areas were last renovated in 2001.
- There are damaged wall finishes in the classrooms. The damaged finishes must be repaired.
- The ceiling tiles have isolated areas of water-damaged ceiling tiles in the classrooms. The damaged ceiling tiles need to be replaced; this work is considered routine maintenance and is part of the school's operational expense.

## 8.2. FURNITURE, FIXTURES AND EQUIPMENT (FF&E)

The school's furniture, fixtures and equipment (FF&E) consist of casework, marker and tack boards, screens and projectors, shelving, desks, tables and chairs, computers, task lights and bleachers. Other than casework, assessment of FF&E is not included in the scope of work.

### **Anticipated Lifecycle Replacements:**

- No components of significance

### **Actions/Comments:**

- The school's FF&E vary in age and are in fair condition. Based on the estimated Remaining Useful Life (RUL), the FF&E will require replacement over the assessment period. This work is considered routine maintenance and is part of the school's operational expense.

## 8.3. COMMERCIAL KITCHEN & LAUNDRY EQUIPMENT

The cafeteria kitchen includes the following major appliances, fixtures, and equipment:

COMMERCIAL KITCHEN		
APPLIANCE	COMMENT AND CONDITION	
Refrigerators	Walk-in and Up-right	Fair
Freezers	Up-right	Fair
Ranges	Gas	Fair
Ovens	Electric	Fair
Griddles / Grills	Gas	Fair
Fryers	NA	--
Hood	Exhaust ducted to exterior	Fair
Dishwasher	NA	--
Microwave	☒	--
Ice Machines	☒	--
Steam Tables	☒	Fair
Work Tables	☒	Fair
Shelving	☒	Fair

There is no commercial laundry equipment at the site.

### **Anticipated Lifecycle Replacements:**

- Cooking Range
- Convection oven
- Walk-in cooler

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

- Ice maker
- Steam kettle

### ***Actions/Comments:***

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The walk-in freezer compressor no longer works, in addition, it's construction, poured concrete walls, is not up to current health codes. A new walk-in freezer is required.

## 9. OTHER STRUCTURES

---

Not applicable. There are no major accessory structures.



## 10. CERTIFICATION

DLR Group retained EMG to perform this Facility Condition Assessment in connection with its Facilities Master Planning Project for the Palos Verdes Peninsula Unified School District at Palos Verdes High School, 600 Cloyden Road, Palos Verdes Estates, California, the "Property". It is our understanding that the primary interest of DLR Group 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 Section 2 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 were observed (See Section 4.2 for areas observed). 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 DLR Group for the purpose stated within Section 2 of this report. The report, or any excerpt thereof, shall not be used by any party other than DLR Group or for any other purpose than that specifically stated in our agreement or within Section 2 of this report without the express written consent of EMG.

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

**Prepared by:** Kay van der Have,  
Project Manager

**Reviewed by:**   
Mark Surdam, RA  
Program Manager  
[msurdam@emgcorp.com](mailto:msurdam@emgcorp.com) 800.733.0660 x6251

## 11. APPENDICES

---

APPENDIX A: PHOTOGRAPHIC RECORD

APPENDIX B: SITE PLANS

APPENDIX C: SUPPORTING DOCUMENTATION

APPENDIX D: EMG ABBREVIATED ADA CHECKLIST

APPENDIX E: PRE-SURVEY QUESTIONNAIRE

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

---

# APPENDIX A: PHOTOGRAPHIC RECORD

---

FACILITIES CONDITION ASSESSMENT

PHOTOGRAPHIC RECORD

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



Photo #1: *PALOS VERDES HIGH SCHOOL*



Photo #2: *SCHOOL WALKWAY*



Photo #3: *SCHOOL EXTERIOR*



Photo #4: *SCHOOL EXTERIOR*



Photo #5: *ELEVATOR*

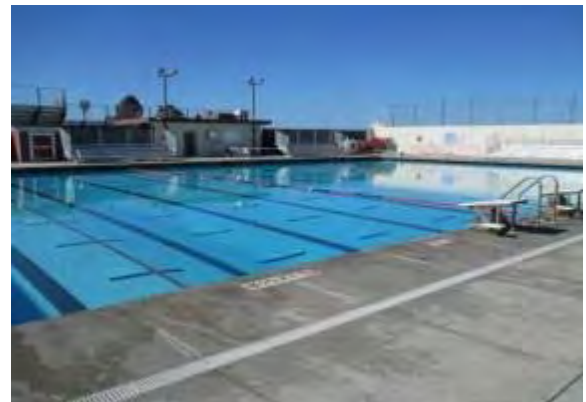


Photo #6: *SWIMMING POOL*

**PHOTOGRAPHIC RECORD**



Photo #7: *HEAVY TIMBER FRAMING*



Photo #8: *HEAVY TIMBER FRAMING*



Photo #9: *ROADWAYS, ASPHALT PAVEMENT*



Photo #10: *PEDESTRIAN PAVEMENT, SIDEWALK, CONCRETE*



Photo #11: *PARKING LOTS, ASPHALT PAVEMENT*



Photo #12: *CONCRETE STAIRS*



**PHOTOGRAPHIC RECORD**



Photo #13: *LANDSCAPING, GROUND COVER*



Photo #14: *WALL SEPARATION*



Photo #15: *LANDSCAPE AND IRRIGATION*



Photo #16: *SPORTS APPARATUS, BLEACHERS, STEEL FRAME W/ ALUMINUM SEATS*



Photo #17: *FENCES AND GATES, CHAIN LINK, 8' HIGH*



Photo #18: *FENCES AND GATES, CHAIN LINK, 6' HIGH*

## FACILITIES CONDITION ASSESSMENT

### PHOTOGRAPHIC RECORD

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



Photo #19: *SWIMMING POOL HEATER, GAS-FIRED, 300 MBH*



Photo #20: *SWIMMING POOL FILTRATION SYSTEM*



Photo #21: *SIGNAGE, PROPERTY, MONUMENT/PYLON*



Photo #22: *SIGNAGE, PROPERTY, MONUMENT/PYLON*



Photo #23: *POLE LIGHT, EXTERIOR, 80 TO 100 W LED (FIXTURE AND BRACKET ARM ONLY)*



Photo #24: *PLAY SURFACES AND SPORTS COURTS, ASPHALT*



FACILITIES CONDITION ASSESSMENT

PHOTOGRAPHIC RECORD

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



Photo #25: *ROOF, CLAY/CONCRETE TILE*



Photo #26: *ROOF, CLAY/CONCRETE TILE*



Photo #27: *ROOF, BUILT-UP*



Photo #28: *EXTERIOR WALL, PAINTED SURFACE, 1-2 STORIES*



Photo #29: *EXTERIOR WALL, PAINTED SURFACE, 1-2 STORIES*



Photo #30: *LOUVER, WOOD, 1-2 STORIES*



## FACILITIES CONDITION ASSESSMENT

### PHOTOGRAPHIC RECORD

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



Photo #31: WINDOW, ALUMINUM DOUBLE-GLAZED



Photo #32: EXTERIOR DOOR, STEEL



Photo #33: EXTERIOR DOOR, STEEL WITH SAFETY GLASS



Photo #34: EXTERIOR DOOR, FULLY-GLAZED ALUMINUM-FRAMED SLIDING



Photo #35: HVAC SYSTEM

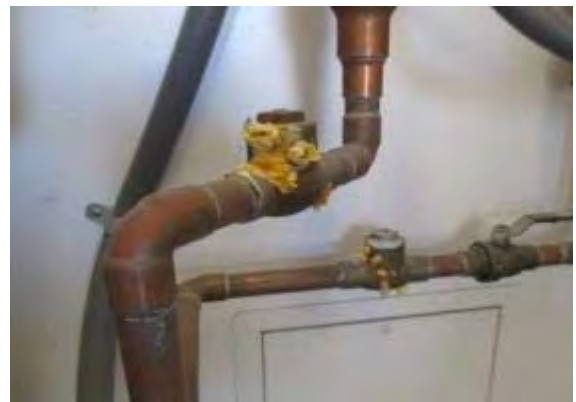


Photo #36: PLUMBING SYSTEM, DOMESTIC SUPPLY AND SANITARY, SCHOOL

## FACILITIES CONDITION ASSESSMENT

### PHOTOGRAPHIC RECORD

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



Photo #37: *TOILET, TANKLESS (WATER CLOSET)*



Photo #38: *FIRE ALARM SYSTEM, SCHOOL*



Photo #39: *INTERIOR FLOOR FINISH, CARPET STANDARD-COMMERCIAL MEDIUM-TRAFFIC*



Photo #40: *INTERIOR WALL FINISH, GYPSUM BOARD/PLASTER*

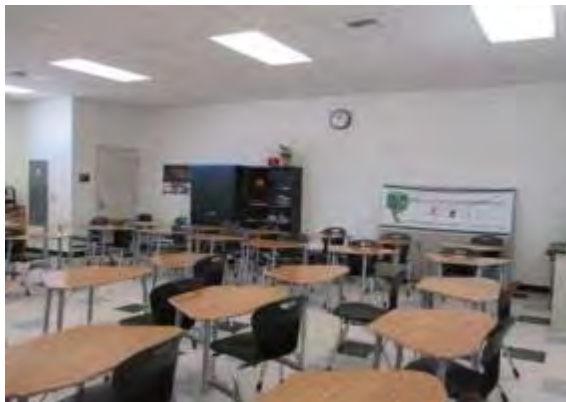


Photo #41: *INTERIOR WALL FINISH, GYPSUM BOARD/PLASTER/METAL*



Photo #42: *INTERIOR FLOOR FINISH, VINYL TILE (VCT)*

## FACILITIES CONDITION ASSESSMENT

### PHOTOGRAPHIC RECORD

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



Photo #43: *INTERIOR WALL FINISH, GYPSUM BOARD/PLASTER/METAL*



Photo #44: *INTERIOR FLOOR FINISH, RUBBER TILE*



Photo #45: *INTERIOR CEILING FINISH, ACOUSTICAL TILE (ACT)*



Photo #46: *INTERIOR FLOOR FINISH, VINYL TILE (VCT)*



Photo #47: *CLASSROOM*



Photo #48: *COMMERCIAL KITCHEN, CONVECTION OVEN, DOUBLE*



**PHOTOGRAPHIC RECORD**



Photo #49: *COMMERCIAL KITCHEN, GRIDDLE*



Photo #50: *COMMERCIAL KITCHEN, RANGE/OVEN, 4-BURNER WITH GRIDDLE*



Photo #51: *COMMERCIAL KITCHEN, STEAM KETTLE*

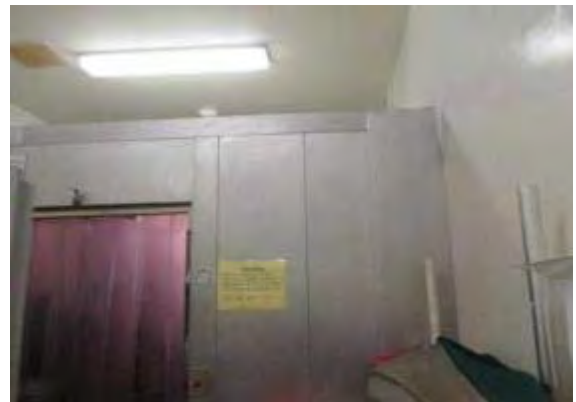


Photo #52: *COMMERCIAL KITCHEN, WALK-IN REFRIGERATOR*

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

---

---

## APPENDIX B: SITE PLANS

---

---

**AERIAL SITE PLAN**

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



SOURCE:  
Google Maps: Imagery ©2016 Google, Map data ©2016 Google



ON-SITE DATE:  
October 17-19, 2016

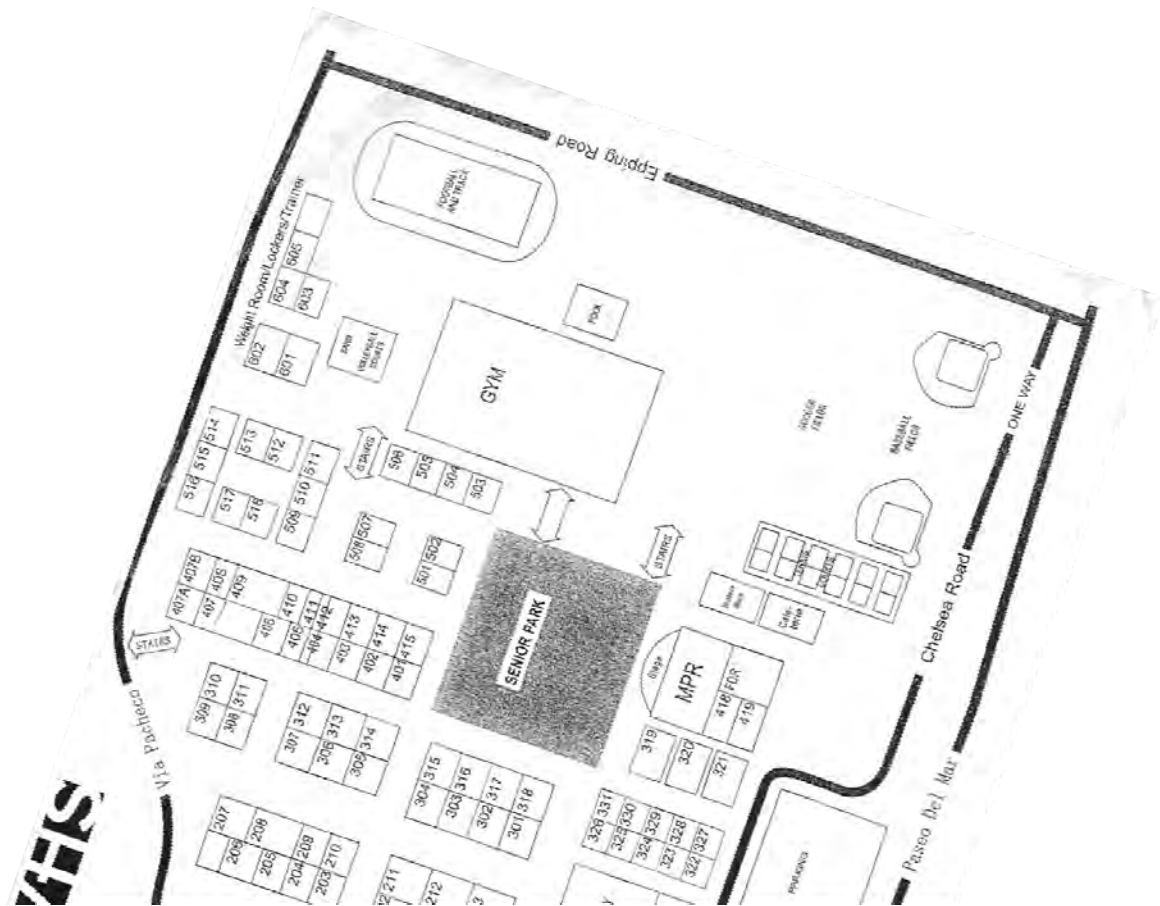


## FACILITIES CONDITION ASSESSMENT

### SITE PLAN

PALOS VERDES HIGH SCHOOL

EMG PROJECT NO: 119663.16R000-015.017



SOURCE:  
PV High School Admin Office

ON-SITE DATE:  
October 17-19, 2016

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

---

---

# APPENDIX C: SUPPORTING DOCUMENTATION

---



**FLOOD MAP**



SOURCE:

FEMA Map No.: 06037C1918G Dated: January 6, 2016

FEMA Map No.: 06037C1916G Dated: January 6, 2016

ON-SITE DATE:

October 17-19, 2016

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

---

# APPENDIX D: EMG ABBREVIATED ADA CHECKLIST

---

# FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

PROPERTY NAME: Palos Verdes High School

DATE: October 17-19, 2016

PROJECT NUMBER: 119663.16R000-015.017

EMG ABBREVIATED ADA CHECKLIST					
	BUILDING HISTORY	YES	NO	N/A	COMMENTS
1.	Has the management previously completed an ADA review?				Unknown
2.	Have any ADA improvements been made to the property?	✓			
3.	Does a Barrier Removal Plan exist for the property?				Unknown
4.	Has the Barrier Removal Plan been reviewed/approved by an arms-length third party such as an engineering firm, architectural firm, building department, other agencies, etc.?				Unknown
5.	Has building ownership or management received any ADA related complaints that have not been resolved?		✓		
6.	Is any litigation pending related to ADA issues?				Unknown
	PARKING	YES	NO	N/A	COMMENTS
1.	Are there sufficient accessible parking spaces with respect to the total number of reported spaces?	✓			With 265 total spaces 7 accessible spaces are required, 16 are provided
2.	Are there sufficient van-accessible parking spaces available (96" wide/ 96" aisle for van)?	✓			Two van spaces are required, two are provided
3.	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?		✓		"Van Accessible" sign is missing
4.	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	✓			
5.	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	✓			
6.	Does signage exist directing you to accessible parking and an accessible building entrance?	✓			
	RAMPS	YES	NO	N/A	COMMENTS
1.	If there is a ramp from parking to an accessible building entrance, does it meet slope requirements? (1:12)	✓			
2.	Are ramps longer than 6 ft. complete with railings on both sides?	✓			
3.	Is the width between railings at least 36 inches?	✓			
4.	Is there a level landing for every 30 ft. horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?	✓			
	ENTRANCES/EXITS	YES	NO	N/A	COMMENTS
1.	Is the main accessible entrance doorway at least 32 inches wide?	✓			

# FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

EMG ABBREVIATED ADA CHECKLIST					
	ENTRANCES/EXITS (CONT.)	YES	NO	N/A	COMMENTS
2.	If the main entrance is inaccessible, are there alternate accessible entrances?			✓	
3.	Can the alternate accessible entrance be used independently?			✓	
4.	Is the door hardware easy to operate (lever/push type hardware, no twisting required, and not higher than 48 inches above the floor)?	✓	✓		Lever hardware predominates, however knob hardware was noted at the garden/maintenance.
5.	Are main entry doors other than revolving door available?	✓			
6.	If there are two main doors in series, is the minimum space between the doors 48 inches plus the width of any door swinging into the space?			✓	
	PATHS OF TRAVEL	YES	NO	N/A	COMMENTS
1.	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 inches wide)?	✓			
2.	Does a visual scan of the main path reveal any obstacles (phones, fountains, etc.) that protrude more than 4 inches into walkways or corridors?		✓		
3.	Are floor surfaces firm, stable, and slip resistant (carpets wheelchair friendly)?	✓	✓		At the OAR the carpet has pulled open at the seam and is a trip hazard
4.	Is at least one wheelchair-accessible public telephone available?			✓	
5.	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			
6.	Is there a path of travel that does not require the use of stairs?	✓			
7.	If audible fire alarms are present, are visual alarms (strobe light alarms) also installed in all common areas?	✓			
	ELEVATORS	YES	NO	N/A	COMMENTS
1.	Do the call buttons have visual signals to indicate when a call is registered and answered?	✓			
2.	Are there visual and audible signals inside cars indicating floor change?	✓			
3.	Are there standard raised and Braille marking on both jambs of each host way entrance?	✓			
4.	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	✓			
5.	Do elevator lobbies have visual and audible indicators of car arrival?	✓			
6.	Does the elevator interior provide sufficient wheelchair turning area (51" x 68")?	✓			
7.	Are elevator controls low enough to be reached from a wheelchair (48 inches front approach/54 inches side approach)?	✓			
8.	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?	✓			

# FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

EMG ABBREVIATED ADA CHECKLIST					
	<b>ELEVATORS (CONT.)</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	<b>COMMENTS</b>
9.	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	✓			
	<b>RESTROOMS</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	<b>COMMENTS</b>
1.	Are common area public restrooms located on an accessible route?	✓			
2.	Are pull handles push/pull or lever type?	✓			
3.	Are there audible and visual fire alarm devices in the toilet rooms?	✓			
4.	Are corridor access doors wheelchair-accessible (at least 32 inches wide)?	✓			
5.	Are public restrooms large enough to accommodate a wheelchair turnaround (60" turning diameter)?	✓			
6.	In unisex toilet rooms, are there safety alarms with pull cords?		✓		No safety alarms in unisex toilet rooms.
7.	Are stall doors wheelchair accessible (at least 32" wide)?	✓			
8.	Are grab bars provided in toilet stalls?	✓			
9.	Are sinks provided with clearance for a wheelchair to roll under (29" clearance)?	✓			
10.	Are sink handles operable with one hand without grasping, pinching or twisting?	✓			
11.	Are exposed pipes under sink sufficiently insulated against contact?	✓			
12.	Are soap dispensers, towel, etc. reachable (48" from floor for frontal approach, 54" for side approach)?	✓			
13.	Is the base of the mirror no more than 40" from the floor?	✓			
	<b>POOLS</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
1	Are public access pools provided? If the answer is no, please disregard this section.	✓			
2	How many accessible access points are provided to each pool/spa?				
3	Is at least one fixed lift or sloped entry to the pool provided?		✓		No fixed lift or sloped entry was noted.
	<b>PLAY AREA</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
1	Has the play area been reviewed for accessibility? All public playgrounds are subject to ADAAG standards.			✓	
2	Are play structures accessible?			✓	
	<b>EXERCISE EQUIPMENT</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
1	Does there appear to be adequate clear floor space around the machines/equipment (30" by 48" minimum)?	✓			

*\*Based on visual observation only. The slope was not confirmed through measurements.*

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

---

---

# APPENDIX E: PRE-SURVEY QUESTIONNAIRE

---

---





# Facility Condition Assessment Pre-Survey Questionnaire

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. If the form is not completed, EMG's Project Manager will require **additional time** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final report.

<b>NAME OF INSTITUTION:</b>		Palos Verdes High School	
Name of Building:		Building #:	
Name of person completing questionnaire: TERRY KAMI BAYASHI			
Length of Association With the Property:		1 year	Phone Number: 424-903-5241

SITE INFORMATION	
Year of Construction?	1962
No. of Stories?	1 Floors
Total Site Area?	Acres
Total Building Area?	177,276

INSPECTIONS	DATE OF LAST INSPECTION	LIST OF ANY OUTSTANDING REPAIRS
1. Elevators	8-25-2016	MAINT CONTRACTS EXISTS
2. HVAC Mechanical, Electric, Plumbing?		
3. Life-Safety/Fire?	7-14-2016	
4. Roofs?		

KEY QUESTIONS	RESPONSE
Major Capital Improvements in Last 3 yrs.	
Planned Capital Expenditure For Next Year?	
Age of the Roof?	
What bldg. Systems Are Responsibilities of Tenants? (HVAC/Roof/Interior/Exterior/Paving)	District Responsible for all

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")

QUESTION	Y	N	UNK	NA	COMMENTS
<b>ZONING, BUILDING, DESIGN AND LIFE SAFETY ISSUES</b>					
1 Are there any unresolved building, fire, or zoning code issues?		/			
2 Is there any pending litigation concerning the property?		/			
3 Are there any other significant issues/hazards with the property?		/			



# Facility Condition Assessment Pre-Survey Questionnaire

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", UNK indicates "Unknown")

	QUESTION	Y	N	UNK	NA	COMMENTS
4	Are there any unresolved construction defects at the property?		/			
5	Has any part of the property ever contained visible suspect mold growth?			/		
6	Is there a mold Operations and Maintenance Plan?			/		
7	Are there any recalled fire sprinkler heads (Star, GEM, Central, and Omega)?		/			
8	Have there been indoor air quality or mold related complaints from tenants?			/		
GENERAL SITE						
9	Are there any problems with erosion, storm water drainage or areas of paving that do not drain?	/				
10	Are there any problems with the landscape irrigation systems?		/			
BUILDING STRUCTURE						
11	Are there any problems with foundations or structures?	/				
12	Is there any water infiltration in basements or crawl spaces?	/				
13	Has a termite/wood boring insect inspection been performed within the last year?					
14	Are there any wall, or window leaks?	/				
BUILDING ENVELOPE						
15	Are there any roof leaks?	/				
16	Is the roofing covered by a warranty or bond?		/			
17	Are there any poorly insulated areas?	/				
18	Is Fire Retardant Treated (FRT) plywood used?		/			





# Facility Condition Assessment Pre-Survey Questionnaire

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", UNK indicates "Unknown")

	QUESTION	Y	N	UNK	NA	COMMENTS
19	Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?	/				
BUILDING HVAC & ELECTRICAL						
20	Are there any leaks or pressure problems with natural gas service?		/			
21	Does any part of the electrical system use aluminum wiring?		/			
22	Do Residential units have a less than 60-Amp service?				/	
23	Do Commercial units have less than 200-Amp service?				/	
24	Are there any problems with the utilities, such as inadequate capacities?				/	480VOLT 3000 AMPS MAIN COPPER CONDUCTORS UPGRADED 10 YEARS
ADA						
25	Has the management previously completed an ADA review?	/				
26	Have any ADA improvements been made to the property?	/				
27	Does a Barrier Removal Plan exist for the property?		/			
28	Has the Barrier Removal Plan been approved by an arms-length third party?		/			
29	Has building ownership or management received any ADA related complaints?			/		
30	Does elevator equipment require upgrades to meet ADA standards?		/			
PLUMBING						
31	Is the property served by private water well?		/			
32	Is the property served by a private septic system or other waste treatment systems?		/			
33	Is polybutylene piping used?					
34	Are there any plumbing leaks or water pressure problems?					



# Facility Condition Assessment Pre-Survey Questionnaire

## ADDITIONAL ISSUES OR CONCERNS THAT EMG SHOULD KNOW ABOUT?

- 1 MAIN A.H.U + CONTROLS NEED UPGRADE
- 2 SHUT OFF VALVES FOR WATER TO BUILDINGS NEED TO BE REPLACED
- 3 GAS REGULATORS ARE IN VAULTS UNDER GROUND

## ITEMS PROVIDED TO EMG AUDITORS

	YES	NO	NA	ADDITIONAL COMMENTS
Access to All Mechanical Spaces	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Roof/Attic Space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Building As-Built Drawings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Site plan with bldg., roads, parking and other features	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Details for Mech, Elevator, Roof, Fire Contractors:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
List of Commercial Tenants in the property	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Previous reports pertaining to the physical condition of property.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ADA survey and status of improvements implemented.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Current / pending litigation related to property condition.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Any brochures or marketing information.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Signature of person interviewed or completing form

Date



## FCA (Commercial) Pre-Survey Questionnaire

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. If the form is not completed, EMG's Project Manager will require **additional time** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final report.

Name of Institution: <b>P.V. HIGH SCHOOL</b>	
Name of Building:	Building #:
Name of person completing questionnaire: <b>TONY PRING Dist. ELECTRICIAN</b>	
Length of Association With the Property: <b>20 YRS</b>	Phone Number: <b>210.753 7771</b>

Site Information	
Year of Construction?	<b>1961</b>
No. of Stories?	<b>1</b>
Total Site Area?	
Total Building Area?	

Inspections	Date of Last Inspection	List of Any Outstanding Repairs Required
1. Elevators	<b>NA</b>	
2. HVAC Mechanical, Electric, Plumbing?	<b>2001 MODERN 2.</b>	
3. Life-Safety/Fire?	<b>2001</b>	
4. Roofs?	<b>15 YEARS</b>	<b>SPANISH TILE / BUILD-UP</b>

Key Questions	Response
Major Capital Improvements in Last 3 yrs.	<b>NO</b>
Planned Capital Expenditure For Next Year?	<b>UNKNOWN</b>
Age of the Roof?	<b>20+ YEARS</b>
What bldg. Systems Are Responsibilities of Tenants? (HVAC/Roof/Interior/Exterior/Paving)	<b>—</b>

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable". Unk indicates "Unknown")

QUESTION	Y	N	Unk	NA	COMMENTS
<b>ZONING, BUILDING DESIGN &amp; LIFE SAFETY ISSUES</b>					
1. Are there any unresolved building, fire, or zoning code issues?		✓			
2. Is there any pending litigation concerning the property?		✓			
3. Are there any other significant issues/hazards with the property?		✓			
4. Are there any unresolved construction defects at the property?		✓			



## FCA (Commercial) Pre-Survey Questionnaire

5	Has any part of the property ever contained visible suspect mold growth?		✓			
Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")						
QUESTION		Y	N	Unk	NA	COMMENTS
6	Is there a mold Operations and Maintenance Plan?	✓				
7	Are there any recalled fire sprinkler heads (Star, GEM, Central, and Omega)?		✓			
8	Have there been indoor air quality or mold related complaints from tenants?		✓			
<b>GENERAL SITE</b>						
9	Are there any problems with erosion, storm water drainage or areas of paving that do not drain?		✓			
10	Are there any problems with the landscape irrigation systems?		✓			
<b>BUILDING STRUCTURE</b>						
11	Are there any problems with foundations or structures?		✓			
12	Is there any water infiltration in basements or crawl spaces?		✓			
13	Has a termite/wood boring insect inspection been performed within the last year?			✓		
<b>BUILDING ENVELOPE</b>						
14	Are there any wall, or window leaks?		✓			
15	Are there any roof leaks?		✓			



## FCA (Commercial) Pre-Survey Questionnaire

16	Is the roofing covered by a warranty or bond?		✓			
17	Are there any poorly insulated areas?					NO INSULATION
18	Is Fire Retardant Treated (FRT) plywood used?		✓			
19	Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?		✓			
<p>Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable". Unk indicates "Unknown")</p>						
QUESTION		Y	N	Unk	NA	COMMENTS
<b>BUILDING HVAC AND ELECTRICAL</b>						
20	Are there any leaks or pressure problems with natural gas service?	#	✓			
21	Does any part of the electrical system use aluminum wiring?		✓			REPID ELEC. 2001
22	Do Residential units have a less than 60-Amp service?				✓	
23	Do Commercial units have less than 200-Amp service?				✓	
24	Are there any problems with the utilities, such as inadequate capacities?		✓			
<b>ADA</b>						
25	Has the management previously completed an ADA review?			✓		
26	Have any ADA improvements been made to the property?	✓				
27	Does a Barrier Removal Plan exist for the property?		✓			



## FCA (Commercial) Pre-Survey Questionnaire

28	Has the Barrier Removal Plan been approved by an arms-length third party?			✓	
29	Has building ownership or management received any ADA related complaints?		✓		
30	Does elevator equipment require upgrades to meet ADA standards?			✓	
<b>PLUMBING</b>					
31	Is the property served by private water well?		✓		
32	Is the property served by a private septic system or other waste treatment systems?		✓		
33	Is polybutylene piping used?				PRETTY MUCH COPPER. SOME GALVAN. ZOR.
34	Are there any plumbing leaks or water pressure problems?			✓	

1.	
2.	
3.	

	Yes	No	N/A	Additional Comments?
Access to All Mechanical Spaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Roof/Attic Space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Building As-Built Drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Site plan with bldg., roads, parking and other features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Details for Mech, Elevator, Roof, Fire Contractors:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
List of Commercial Tenants in the property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Previous reports pertaining to the physical condition of property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ADA survey and status of improvements implemented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Current / pending litigation related to property condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Any brochures or marketing information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## FACILITY CONDITION ASSESSMENT

PALOS VERDES HIGH SCHOOL  
600 CLOYDEN ROAD  
PALOS VERDES ESTATES, CALIFORNIA 90274

EMG PROJECT NO: 119663.16R000-015.017

On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

### INFORMATION REQUIRED

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work.</li><li>2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features.</li><li>3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s).</li><li>4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet.</li><li>5. For hotel or nursing home properties, provide a summary of the room types and room type quantities.</li><li>6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents.</li><li>7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.</li></ol> | <ol style="list-style-type: none"><li>8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors.</li><li>9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements.</li><li>10. Records of system and material ages (roof, MEP, paving, finishes, furnishings).</li><li>11. Any brochures or marketing information.</li><li>12. Appraisal, either current or previously prepared.</li><li>13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties).</li><li>14. Previous reports pertaining to the physical condition of property.</li><li>15. ADA survey and status of improvements implemented.</li><li>16. Current / pending litigation related to property condition.</li></ol> |
|---|---|

Your timely compliance with this request is greatly appreciated.