



FACILITY ASSESSMENT REPORT
HILLSBORO SCHOOL DISTRICT
HILLSBORO, OREGON

6 APRIL 2012

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2006 Facilities Assessment

PARTICIPANTS

2011 FACILITIES ASSESSMENT UPDATE

The 2006 Facilities Assessment was updated with the collaboration of Facility Personnel through a series of interviews. District facilities not included in the original report were included in this report.

Reference Use

- :: HSD Facilities Handbook, January 2010
- :: Tremco Roofing Report titled HSD IJ Roof Budget Forecasts for 2010-2017

HILLSBORO SCHOOL DISTRICT FACILITIES

- :: Loren Rogers, *Executive Director of Facilities, Planning, and Property*
- :: Jim Peterson, *Hillsboro SD*
- :: Stan Deweber, *Hillsboro SD*
- :: Scott Ruyle, *Hillsboro SD*

MAHLUM

- :: Gregg Stewart, *Principal in Charge*
- :: Kurt Zenner, *Project Architect*
- :: Jennifer Lupin, *Planner*

HERNDON ENGINEERS

- :: Ray Herndon, *Principal*

EXECUTIVE SUMMARY

2011 FACILITY ASSESSMENT UPDATE

In 2011, the Hillsboro School District hired Mahlum to update their Facilities Assessment Report. The purpose of the update was to document the changes made to District facilities since the report was completed in 2006. Since 2006 upgrades have been made to several buildings as well as four new elementary schools and one middle school were constructed. Properties changed function, Boscow Elementary became the Boscow Center and David Hill Elementary School became the Miller Education Center West. The district sold a property and a middle school was decommissioned. The 2006 report did not include the Administration Center, Facilities and Support Services, Transportation Services and Hare Field Stadium; they have been included in this update.

The update involved a number of steps. Input was gathered from facility personnel regarding outstanding issues with each building. A walk-through of buildings not included in the 2006 report was conducted. Reports prepared regarding the district's facilities were reviewed. This new information was incorporated into the update.

INTRODUCTION AND PROCESS

In the spring of 2006, the Hillsboro School District hired Mahlum Architects to develop a Facilities Assessment Report. The purpose of the report was to evaluate the adequacy of existing facilities. It was found that on average buildings district-wide are generally in good condition and well maintained. There are no school facilities that are unsafe for occupancy in the Hillsboro School District.

The evaluation of the building involved several steps. The building plan and program information were reviewed. Input was gathered from school principals and the facilities department regarding outstanding issues with each building, and FEMA reports were reviewed. This information, along with information gathered during walk-through of each facility, was incorporated into the final assessment. Each facility was given a numerical rating. The primary structure, interior finishes, mechanical and electrical systems, safety standards and functional standards were rated.

The numerical rating given to each building is related to a percentage of replacement cost to fully upgrade the building to a 50-year standard. A score 95 to 100 points is satisfactory (no immediate upgrades are required at the time of the study), a score of 75 to 94 points required restoration, (spending less than 25 percent of replacement cost), a score of 55 to 74 point represents major modernization (spending between 25 to 50 percent of replacement cost), a score of 35 to 54 points represents major remodeling (spending more than 50 percent of replacement cost) and a score of under 34 points denotes the systems are unsatisfactory and it may be more cost effective to replace the school.

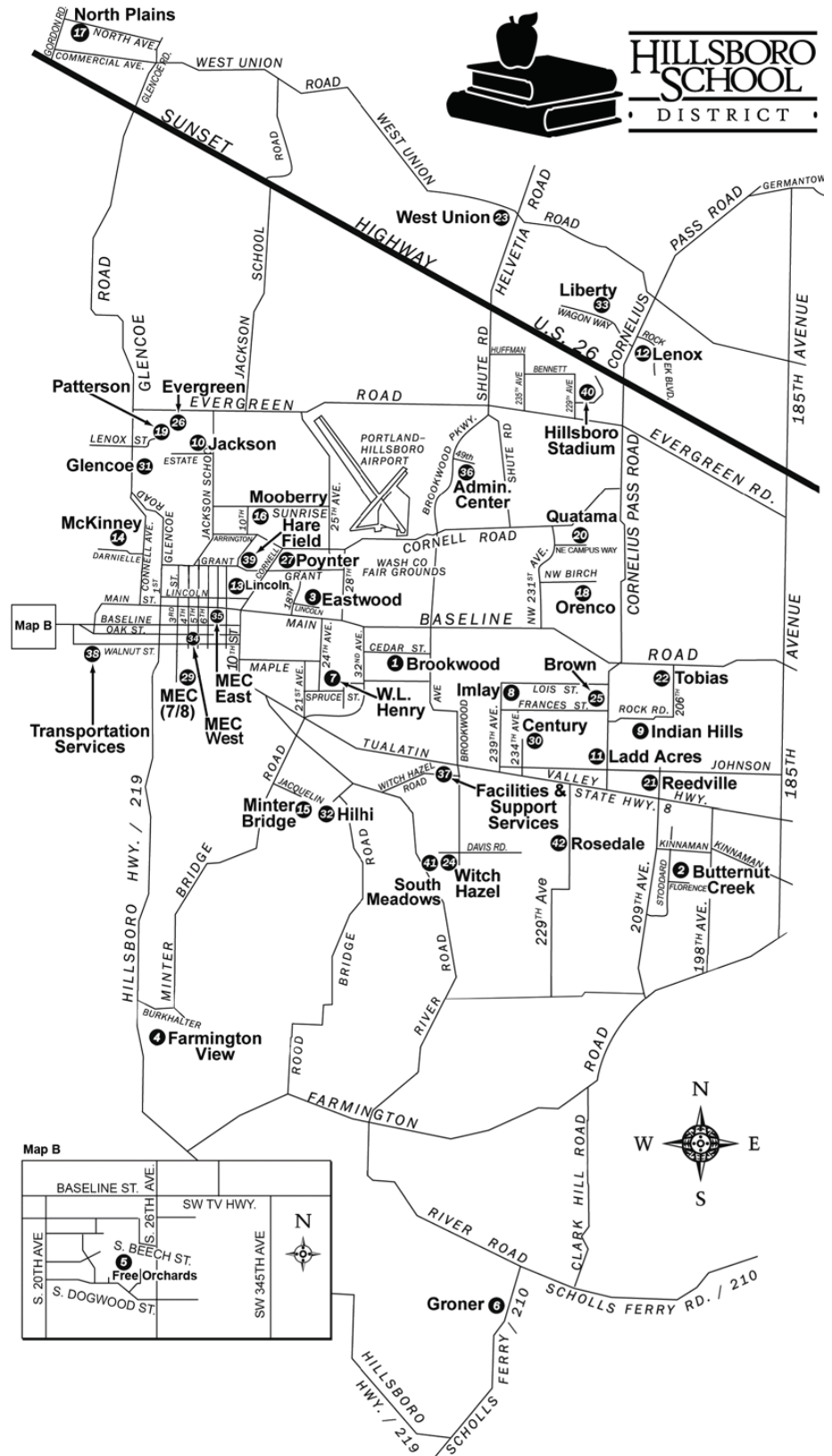
In addition to the rating, program enhancements were considered, including additional work that would bring the school up to the current program standards of the Hillsboro School District and expansion required at each school. The combination of the renovation, program enhancement and expansion provided a percentage of replacement cost to bring the existing facility to a 50-year facility

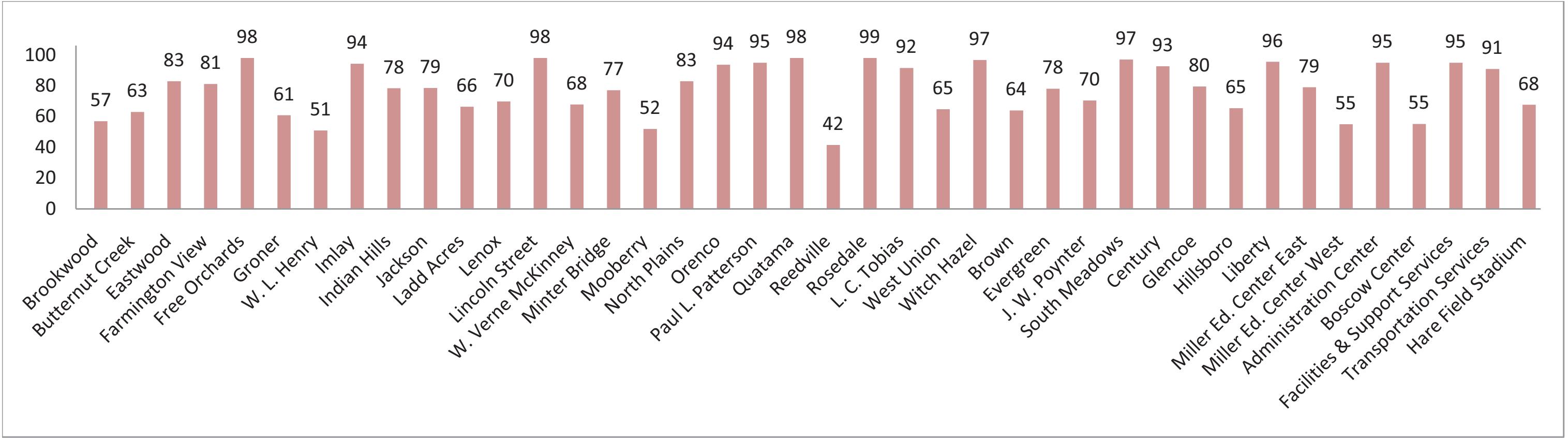
EXISTING CONDITIONS

The District consists of 25 elementary schools, four middle schools, four core high schools and four other learning centers. While the District has several recently built or remodeled schools, many of the schools were originally constructed prior to 1950, with additions in following years. Some of the building systems are outdated, inefficient and in need of significant repair or replacement to meet current educational goals, address failing building systems and achieve full code compliance.

The physical facility assessment of each educational building indicated there are ___ buildings requiring minor modernization, ___ facilities requiring modernization and ___ facilities requiring major modernization.

The District will decide on the amount of funds to be expended at each school to repair and upgrade the existing facilities. In deciding the course of action it might be useful to consider the “two-thirds rule,” which is a “rule of thumb” in the building industry. If you consider only the cost, it is generally thought to be more cost effective to consider replacement of an existing facility if the cost of modernization is two-thirds or greater than the replacement cost.





FACILITY ASSESSMENT
SUMMARY

SCHOOL	DATE OF CONSTR.	AREA					RATING SCORE	BUILDING RATING
		PRIMARY STRUCTURE	SECONDARY STRUCTURE	SERVICE SYSTEMS	SAFETY STANDARDS	FUNCTIONAL STANDARDS		
Elementary Schools								
Brookwood	1953	32.0	5.0	10.0	3.0	7.0	57	Modernization
Butternut Creek	1977	19.5	6.2	24.4	4.5	8.4	63	Modernization
Eastwood	1977	33.3	7.8	26.9	4.5	10.4	83	Minor Modernization
Farmington View	1940	30.1	8.5	29.0	3.5	10.0	81	Minor Modernization
Free Orchards	2008	39.0	9.0	33.0	5.0	12.0	98	Satisfactory
Groner	1957	25.5	6.4	16.3	3.0	9.6	61	Modernization
W. L. Henry	1968	25.0	7.0	13.0	3.0	3.0	51	Major Modernization
Imlay	2002	39.0	8.7	29.7	5.0	11.8	94	Minor Modernization
Indian Hills	1979	31.4	8.1	23.5	4.5	10.8	78	Minor Modernization
Jackson	1990	31.9	7.8	24.1	3.5	11.2	79	Minor Modernization
Ladd Acres	1967	31.4	6.2	19.9	2.5 *	8.8	66	Modernization
Lenox	1978	25.5	8.0	21.1	3.5	11.6	70	Modernization
Lincoln Street	2008	39.0	9.0	33.0	5.0	12.0	98	Satisfactory
W. Verne McKinney	1970'S	30.1	6.9	18.0	4.0	8.8	68	Modernization
Minter Bridge	1979	32.7	7.1	24.6	3.5	9.2	77	Minor Modernization
Mooberry	1963	22.6	5.9	13.5	3.5	6.4	52	Major Modernization
North Plains	1954	37.3	8.5	22.2	4.5	10.4	83	Minor Modernization
Orenco	2000	38.0	7.9	32.0	4.5	11.2	94	Minor Modernization
Paul L. Patterson	2000	37.3	8.7	32.0	5.0	12.0	95	Satisfactory
Quatama	2008	39.0	9.0	33.0	5.0	12.0	98	Satisfactory
Reedville	1922	20.6	6.0	10.0	2.0 *	5.0	42	Major Modernization
Rosedale	2009	39.0	9.0	34.0	5.0	12.0	99	Satisfactory
L. C. Tobias	1992	38.7	8.6	28.1	5.0	11.2	92	Minor Modernization
West Union	1948	26.8	7.5	16.4	4.0	10.0	65	Modernization
Witch Hazel	2003	40.0	8.5	32.0	5.0	11.2	97	Satisfactory
Middle Schools								
Brown	1963	30.1	6.2	13.6	4.0	10.0	64	Modernization
Evergreen	1981	32.7	7.0	22.9	4.5	11.0	78	Minor Modernization
J. W. Poynter	1959	31.3	6.5	16.6	5.6	10.4	70	Modernization
South Meadows	2009	38.0	9.0	33.0	5.0	12.0	97	Satisfactory
High Schools								
Century	1997	37.3	8.3	30.5	5.0	11.6	93	Minor Modernization
Glencoe	1980	36.6	6.9	21.9	4.5	9.6	80	Minor Modernization
Hillsboro	1968	28.5	6.3	19.9	3.5	7.2	65	Modernization
Liberty	2003	40.0	8.7	30.2	5.0	11.6	96	Satisfactory
Miller Ed. Center East	1958	35.3	7.2	26.2	3.5	6.8	79	Minor Modernization
Miller Ed. Center West	1943	23.0	7.0	15.0	3.0	7.0	55	Modernization
Other Facilities								
Administration Center	2001	36.0	9.0	34.0	5.0	11.0	95	Satisfactory
Boscow Center	1947/85	25.5	5.3	14.1	2.5	7.8	55	Modernization
Facilities & Support Services	2004	36.0	9.0	34.0	5.0	11.0	95	Satisfactory
Transportation Services	1990	38.7	8.6	25.0	5.0	10.5	88	Minor Modernization
Hare Field Stadium	1967	26.0	7.3	20.6	2.5	11.2	68	Modernization

AREA	EXPLANATION	HIGHEST POSSIBLE BUILDING RATING FOR EACH AREA
Primary Structure:	Foundation System, Column and Exterior Wall System, Floor System, and Roof System	40
Secondary Structure:	Ceiling System, Interior Walls and Partitions, Window System, and Door System	9
Service Systems:	Cooling and Ventilation, Heating, Plumbing, and Electrical	34
Safety Standards:	Overall Safety Standards	5
Functional Standards:	Assignable Space, Adaptability, and Suitability	12
POSSIBLE BUILDING RATING TOTAL		100
BUILDING RATING	EXPLANATION	
95 - 100 points:	Satisfactory	
75 - 94 points:	Remodeling C (Minor Modernization; less than 25% of replacement cost)	
55 - 74 points:	Remodeling B (Modernization; 25% - 50% of replacement cost)	
35 - 54 points:	Remodeling A (Major Modernization; over 50% of replacement cost)	
0 - 34 points:	Demolition (System is unsatisfactory and cannot be remodeled)	

- * Ladd Acres Elementary -

The school is safe for occupancy. However, the safety rating for this school is low due to the open layout of the school. Concern is based on the potential for an undetected intruder and the poor ability to supervise the school buildings.
- * Reedville Elementary -

The school is safe for occupancy. However, the safety rating for this school is low due to the age of the building, the absence of handrails at the main entrance and site considerations due to traffic loads and layout of the parking and access to school by students.

ASSESSMENT
SUMMARIES:
ELEMENTARY SCHOOLS

INTRODUCTION

The Hillsboro School District has 25 elementary schools. The schools range in age and condition, from Reedville Elementary, built in 1922, to Rosedale Elementary, which was completed in 2009.

The following assessment summaries provide a narrative of building conditions for each facility, as well as site and plan information, and photographs highlighting key conditions. Detailed assessment forms can be found in the appendices.

ELEMENTARY SCHOOLS

Brookwood Elementary.....	02-2
Butternut Creek Elementary	02-6
Eastwood Elementary	02-10
Farmington View Elementary	02-14
Free Orchards Elementary	02-18
Groner Elementary.....	02-21
W.L. Henry Elementary.....	02-25
Imlay Elementary	02-29
Indian Hills.....	02-33
Jackson Elementary.....	02-37
Ladd Acres Elementary.....	02-41
Lenox Elementary	02-45
Lincoln Street Elementary.....	02-49
W. Verne McKinney Elementary	02-52
Minter Bridge Elementary	02-56
Mooberry Elementary	02-60
North Plains Elementary.....	02-65
Orenco Elementary	02-69
Paul L. Patterson Elementary	02-73
Quatama Elementary	02-76
Reedville Elementary.....	02-80
Rosedale Elementary.....	02-84
L.C. Tobias Elementary.....	02-87
West Union Elementary	02-91
Witch Hazel Elementary	02-95

BROOKWOOD ELEMENTARY SCHOOL



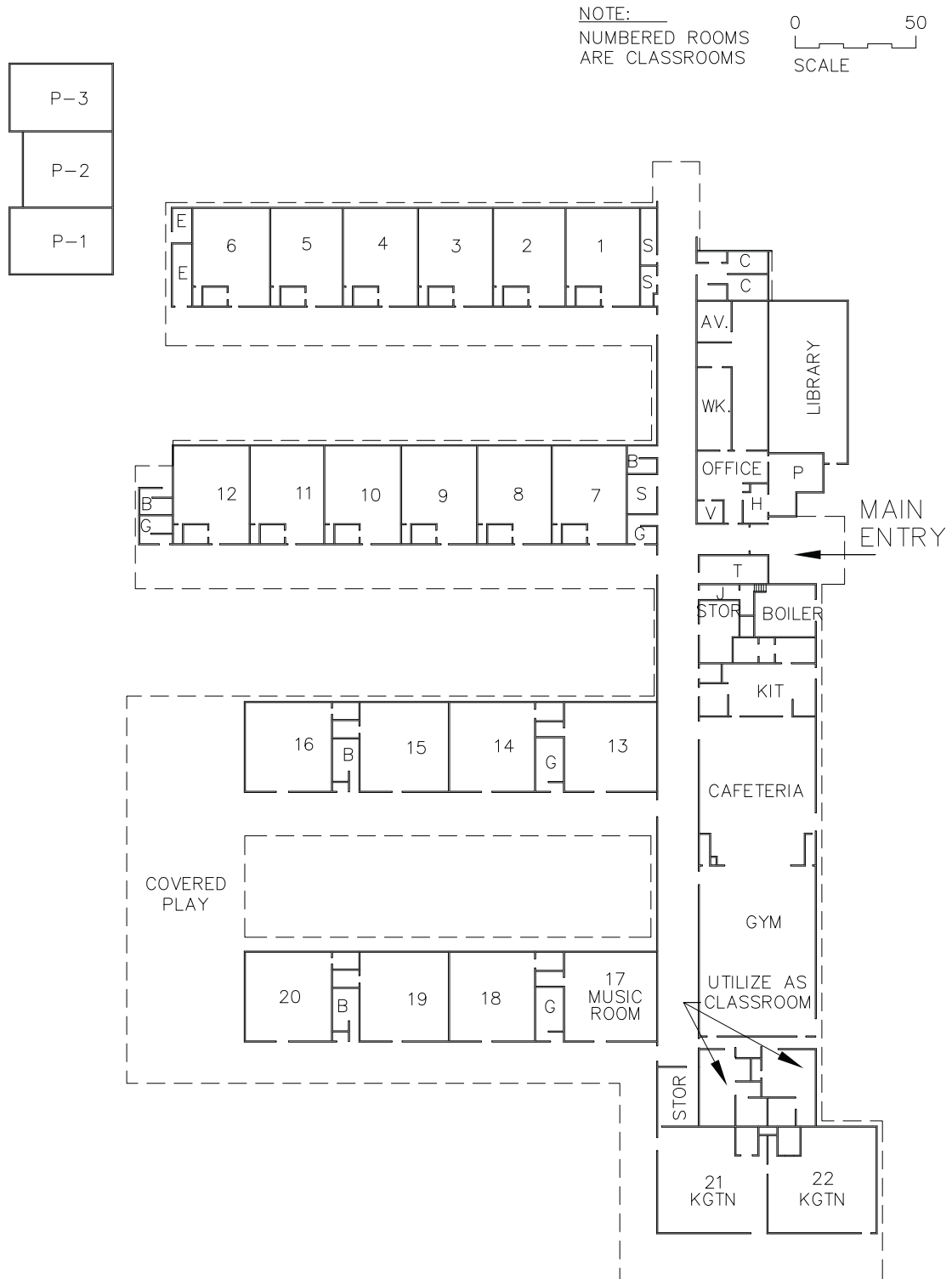
ASSESSMENT SCORE 57: MODERNIZATION

GENERAL INFORMATION

- :: Address: 3960 SE Cedar Street, Hillsboro, OR 97123-7467
- :: Construction dates:
 - Original school constructed in 1953
 - Second phase in 1957
 - Library and administration in 1977
- :: Site area: 10.00 acres
- :: Building area: 43,041 square feet
- :: Population: 560 students



Brookwood Elementary | Floor Plan



BROOKWOOD ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Primary structure is a combination of reinforced concrete walls and concrete pilasters, with a flat slab and concrete footings.
- :: Roof structure is wood rafters, trusses and glu-lam beams with sheathing

Deficiencies

- :: Needs roof replacement between 2010 – 2017 in three phases
- :: The 2001 FEMA report recommends a number of seismic upgrades
- :: Some of the VAT* in the building has been abated in a few areas, but a large amount remains
- :: Insulation is only present in administration and library addition
- :: Kraft-faced insulation needs replacement

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling systems are lay-in metal grid, concealed metal grid and attached to structure
 - Exterior walkway ceilings are wood, they are discolored from weather and low maintenance
 - Majority of school does not have accessible ceiling spaces, as a result new wiring is exposed in wire mold
- :: Walls
 - Interior walls are metal and wood stud with plaster and drywall
 - Vinyl board wall surface in administration offices
- :: Windows / Doors
 - Windows are steel and aluminum, single glazed, fixed and awning
 - Exterior doors are steel, most classroom doors are exterior doors

- Interior doors are wood
- Doors have a variety of hardware
- Doors re-keyed in the summer of 2005 due to safety concerns

Deficiencies

- :: Windows / Doors
 - Blinds and window coverings are in the process of being upgraded
 - Window caulking is failing
- Replace single-glazed windows
- :: Miscellaneous
 - Insulation:
 - Replace paper face insulation
 - There is some R-19 foil face and some paper face (unreadable).
 - Paper face at Kitchen ceiling
 - Portable 1 and 3 – Black plastic/Nylon, no label

SERVICE SYSTEMS

Existing Conditions

- :: Heating system
 - Library roof top unit has electric duct heater
 - Natural gas fired low pressure steam cast iron boiler with steam to hot water heating converter.
 - Classroom wings have hydronic heating unit ventilators.
- :: Heating system is hot water and steam, radiators and radiant floor slab, gas energy source with electric controls
 - Control type DDC
 - Tunnel fans
- :: Plumbing
 - Domestic hot water is heated from the boiler via steam heat exchanger, with large capacity storage tank.
- :: Electrical
 - Alarm system is new
 - Some exterior lights are controlled by photo cells
 - Classroom and corridor lighting upgraded to electronic ballasts and T8 lamps; 2008
 - Occupancy sensors installed throughout



the school; 2008

- Emergency battery backed ballasts installed in corridor lighting fixtures; 2008

Technology

- New main data frame cabling
- One computer lab has 32 computers
- Library lab has 15 computers

Deficiencies

:: Cooling system

- Partial air conditioning (Administration/ Library)
- Library has roof top packaged A/C unit
- Remaining area not air conditioned

:: Heating System

- Administration offices have radiant floor heat. Piping is corroding and leaks have occurred.
- Replace, kitchen, multi-purpose/ cafeteria, gym units.

:: Plumbing

- No sprinkler system
- Fixtures are not low-flow.
- Toilet rooms are not ADA compliant.

:: Electrical

- Has not received any upgrades
- Bathrooms have no emergency lighting, rooms are black if lights go out
- No emergency lighting or battery back-up
- Main electric service: 400 amp, 208Y/120 volts. Main distribution panel board is obsolete.
- Additional emergency battery backed ballasted light fixtures needed in multi-purpose room and gym.
- Exit landing lighting not on emergency power

SITE

Existing Conditions

- :: Some exterior lights are controlled by photo cells

Deficiencies

- :: Standing water at end of parking lot

:: Exterior lighting poor, a safety concern

- Covered walkway lights have been decommissioned

:: Traffic is a concern

- Bus drop off and parent drop off not separated, safety concern

:: Lack of continuous fencing makes it difficult to monitor site, entries and restrooms

:: Parking space limited at school

:: To improve traffic flow it would help to be able to exit site through neighborhood to the south

SAFETY STANDARDS

Existing Conditions

:: Stairs between cafeteria and gymnasium are concrete and narrow

:: Accessibility to building is tolerable since the building is one story

:: Building has portable extinguishers

:: Fire alarm system is new, system includes visual, audible smoke detectors

:: School has Sonitrol audio sensor type security system

Deficiencies

:: Ramp in hallway, slope not to current code

:: Ramps are not to code

:: No emergency power generator

FUNCTIONAL STANDARDS

Deficiencies

:: Safety, security and supervision are the biggest concerns

:: Building is designed so that students go outside to change classrooms

- Restroom facilities are unavailable for students and staff in main building
- Problematic for kindergarten students

:: No restroom for gymnasium/cafeteria area of building

- Students use staff restroom

:: Main entry sequence into building is

confusing due to reconfigured bus drop off and earlier remodel

:: Kitchen needs walk-in space

PRINCIPAL REQUESTS

Deficiencies

:: Minimum Facility Requirements

- Restrooms need to be upgraded

:: Minimum Facility Additions

- Large gymnasium



BUTTERNUT CREEK ELEMENTARY SCHOOL



**ASSESSMENT SCORE 63:
MODERNIZATION**

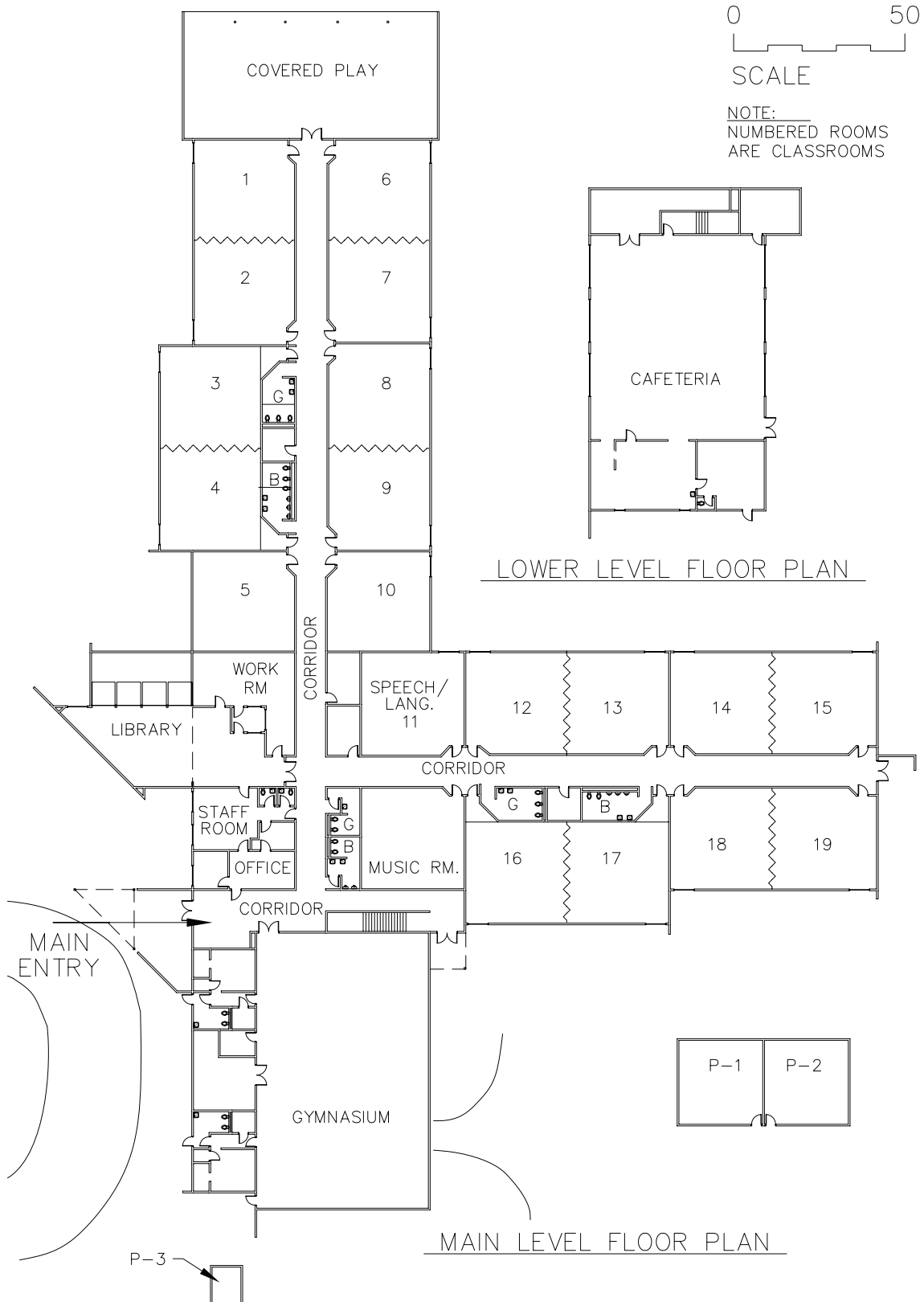
GENERAL INFORMATION

- :: Address: 20395 SW Florence Street, Aloha, OR 97007-2243
- :: Site upgrades - 2010
- :: Construction date:
 - Original school constructed in 1977
- :: Site area: 13.64 acres
- :: Building area: 34,840 square feet
- :: Population: 430 students

BUTTERNUT CREEK



Butternut Creek Elementary | Floor Plan



ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing conditions

- :: Primary structure is structural wood with reinforced concrete columns with continuous concrete footings with a sloped roof
- :: The 2001 FEMA report recommends seismic upgrades to the structure
- :: Siding on portable was replaced
- :: Carpet is in fair condition
- :: New roof was installed in 2005

Deficiencies

- :: The exterior of the building is in poor condition, substantial damage to siding from water, sun and fungus
 - It has been over five years since the building was painted
- :: Replace siding
- :: Cafeteria ceiling vibrates when gymnasium is in use
- :: Epoxy floor in restrooms is difficult to clean
- :: Drainage pipes at exterior are clogged, downspouts were not replaced when the roof was upgraded, and many drains have holes and leak into siding. It is especially problematic where the drain pipes are clogged
- :: Maintenance shed roof leaks, it has no gutters, it is not usable in current state

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling system is a combination of lay-in tiles and hard ceilings
- :: Wall
 - Interior walls are wood stud with plaster or drywall, several classrooms have accordion walls
 - Accordion walls are not used in lower grades, however, they are used in upper grades

:: Windows / Doors

- The window system is single glazed, aluminum, casement.
- The doors are steel interior and exterior
- New door hardware in 2005

:: Miscellaneous

- Security system was recently upgraded

Deficiencies

:: Ceiling

- Ceiling in kitchen needs to be replaced with Mylar faced tiles, existing difficult to clean and maintain

:: Windows / Doors

- Windows are a security problem, it is possible to remove window pane at operable units and enter building. Thefts have occurred in the building as a result of this window system
- Replace single-glazed windows

:: Miscellaneous

Insulation:

- R-19 foil face at Entry Hall, Rooms 3, 15, 18, cafeteria and hall
- No insulation at kitchen or Portable #2
- R-11, paper face at Portable # 3

SERVICE SYSTEMS

Existing Conditions

:: Cooling system

- Air conditioning only in teacher lounge

:: Heating system

- HV units have electric duct heaters. Classrooms also have electric baseboard heaters.

:: Plumbing

- Gutters replaced with roof, but not downspouts

:: Electrical system

- Main electric service: 2000 amp, 208Y/120 volt fusible switchboard. The switchboard has four main switches.
- New lighting in staff restroom
- Rewired for computer lab



- Gym HID lighting upgraded to T5HO fluorescent; 2010

Deficiencies

- :: Cooling system
 - school does not have air conditioning
- :: Heating system
 - Fans in unit ventilators are noisy
- :: Plumbing
 - Water lines are corroding, runs brown if not used for a week
 - Toilets & sinks are difficult to clean
 - Low water pressure
- :: Electrical system
 - Fans in kitchen do not work well
 - Covered play need to have vandal proof light on a timer to discourage illegal activities
 - Staff restrooms and entry lights are incandescent, need to be upgraded
 - Gym egress lighting needs to be upgraded, does not meet egress code requirements
 - Classroom lighting needs to be upgraded
 - Occupancy sensor systems need to be provided. Occupancy sensors only in staff lounge and health room.
 - Corridor egress lighting is not on emergency power
 - Cafeteria egress lighting is not on emergency power
 - Exit landing lighting is not on emergency power

SITE CONDITIONS

Existing Conditions

- :: ADA accessible parking added in 2010
- :: ADA accessible ramp to front door added in 2011

Deficiencies

- :: Parking lot and wall ball areas subject to flooding
- :: Sink hole problem in lower field
- :: Exterior drain at cafeteria door clogs and water migrates into cafeteria

- :: Grounds need storm piping

SAFETY STANDARDS

Existing Conditions

- :: School has full fire alarm system
- :: School has Sonitrol audio sensor type security system
- :: Emergency lighting only in gymnasium

Deficiencies

- :: No fire sprinkler system
- :: Bathroom, music room, few offices are interior rooms without emergency lighting
- :: Refrigerator walk-in door can not be opened from the inside

FUNCTIONAL STANDARDS

Deficiencies

- :: Sinks, faucets and sink cabinets in classrooms need to be replaced due to water damage
- :: Movable walls in primary wing should be changed to stud walls with a door, team teaching does not occur in this area, the wall space is needed
- :: Circulation congested where halls meet in center of school

PRINCIPAL REQUESTS

Deficiencies

- :: Minimum Facility Requirements
 - Air conditioning throughout
 - ADA restroom
 - ADA cafeteria access
 - Remove accordion walls in primary classrooms
- :: Minimum Facility Additions
 - Additional office space



EASTWOOD ELEMENTARY SCHOOL



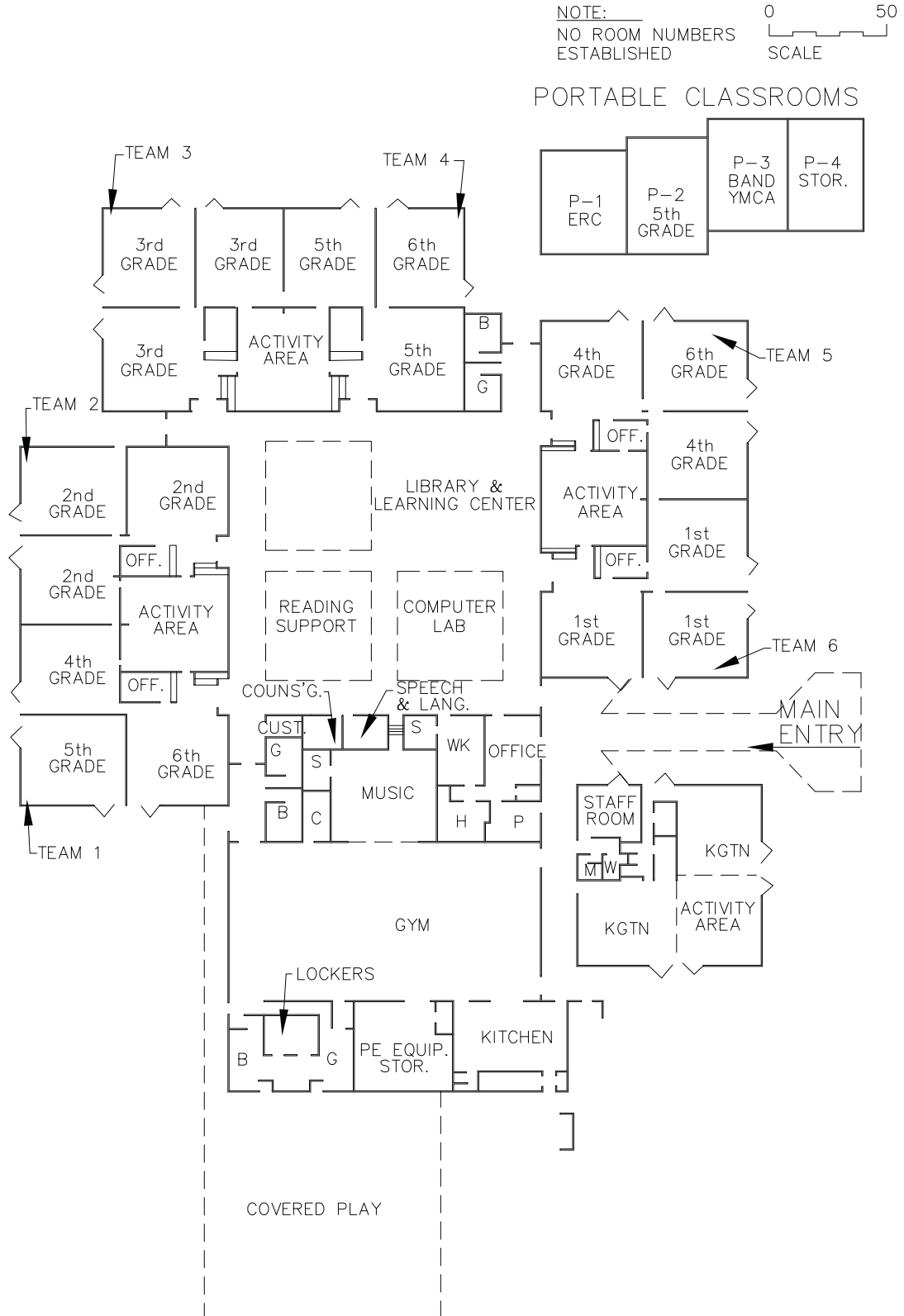
ASSESSMENT SCORE: 83
MINOR MODERNIZATION

GENERAL INFORMATION

- :: Address: 2100 NE Lincoln Street, Hillsboro, OR 97124-3575
- :: Construction date:
 - Original school constructed in 1977
- :: Site area: 10.00 acres
- :: Building area: 49,163 square feet
- :: Population: 495 students



Eastwood Elementary | Floor Plan



EASTWOOD ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Primary structure is a combination of structural steel and structural wood on concrete footings with a flat roof
- :: The 2001 FEMA report recommends a number of seismic upgrades to the structure
 - Carpet has been replaced over the course of three to five years

- :: Roof was replaced around 1995

Deficiencies

- :: Exterior painting is needed at the canopy and exterior windows
- :: Ceramic tile floor in some restrooms is cracking and is difficult to clean
- :: Roof is leaking, problems have been discussed with facilities
- :: The alcoves have serious drainage problems that affect the structure, windows and doors below
- :: The custodian cleans the alcove roofs frequently but the drains are still subject to clogging
- :: Need to keep alcove roofs free of debris or drains will clog and continue to damage the windows, ceilings and doors below
- :: Needs roof replacement in two phases (2010-2014)
- :: Clean and seal brick veneer

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling Systems are a lay-in metal grid, gypsum and exposed structure
 - Tiles are replaced when stained
 - The gymnasium has fiber Tectum panels to improve the acoustics

:: Walls

- The interior walls are wood stud with gypsum or wood paneling, the walls are in good condition

:: Windows / Doors

- The window system is double glazed, fixed aluminum
- New vertical blinds were installed in 2005
- The door system is exterior steel doors and interior wood doors

Deficiencies

:: Ceiling

- Stains could be related to sprinkler system or roof drains. A persistent maintenance issue.

:: Walls

- The bathroom walls are gypsum, children scratch into the walls, hard surface is recommended

:: Windows / Doors

- Door closers do not work, fire doors are propped open. A school wide upgrade is needed.

:: Miscellaneous

Insulation:

- East portable clear plastic face Insulation, remaining portables black poly/plastic faced

SERVICE SYSTEMS

Existing Conditions

:: Cooling system

- school has air conditioning
- condensing units replaced; 2009

:: Heating system

- Forced air electric heating system works well, although energy usage may be high since it is electric
- Pneumatic temperature control system replaced with DDC; 2009

:: Electrical system

- Main electrical service: 1000 amp, 480Y/277 volt, distribution panel has six mains



- Incandescent fixtures with bulbs have been switched to fluorescent
- Fluorescent lighting upgraded to electronic ballasts and T8 lamps; 2007
- Occupancy sensors installed in classrooms, multi-purpose area, Library and administration offices; 2007

Deficiencies

- :: Heating system
 - Electric duct heaters do not have capacity to temper code required ventilation air quantities, additional heating capacity is needed.
 - Building has significant dust problems, filters need to be replaced frequently
- :: Plumbing
 - Restroom fixtures are old and difficult to clean
 - Restroom partitions are failing and unstable
 - The school does not have accessible fixtures
- :: Electrical system
 - Electric service needs to be upgraded. Additional capacity required when heating system upgrade is done to meet ventilation requirements
 - Corridor egress lighting is not on emergency power
 - Multi-purpose/Cafeteria egress lighting does not meet egress code requirements.
 - Library/Media Center egress lighting does not meet egress code requirements, and is not on emergency power
 - Exit landing lighting not on emergency power
 - Classrooms need additional convenience outlets

SITE CONDITIONS

Deficiencies

- :: Site drainage at play area near swing set gets clogged by bark chips

SAFETY STANDARDS

Existing Conditions

- :: School has full fire alarm system. Beam detectors used in IMC. Gym detection coverage inadequate.
- :: School has Sonitrol audio sensor type security system
- :: Smoke detection beam system in learning center

Deficiencies

- :: School has partial fire sprinkler system. Coverage in corridor only.
- :: Bus and parent drop off has circulation conflicts

FUNCTIONAL STANDARDS

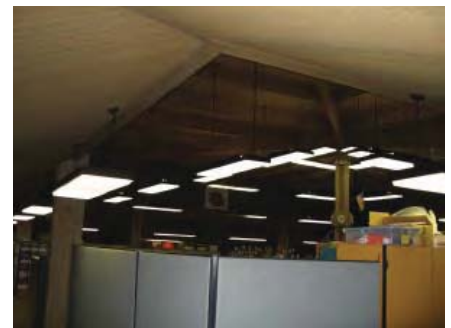
Deficiencies

- :: The gym/cafeteria creates scheduling and use conflicts
- :: Staff needs the ability to secure property at night. Would eliminate undesirable activity that occurs due to the secluded nature of the site

PRINCIPAL REQUESTS

Deficiencies

- :: Minimum Facility Requirements
 - Restrooms need to be upgraded, including ADA upgrade
 - Resolve bus and parent drop off conflicts
 - New ramp at portables
 - Hard surface on restroom walls
 - Ability to secure property at night
- :: Minimum Facility Additions
 - New cafeteria
 - Larger covered play
 - Covered walkway between building and portable



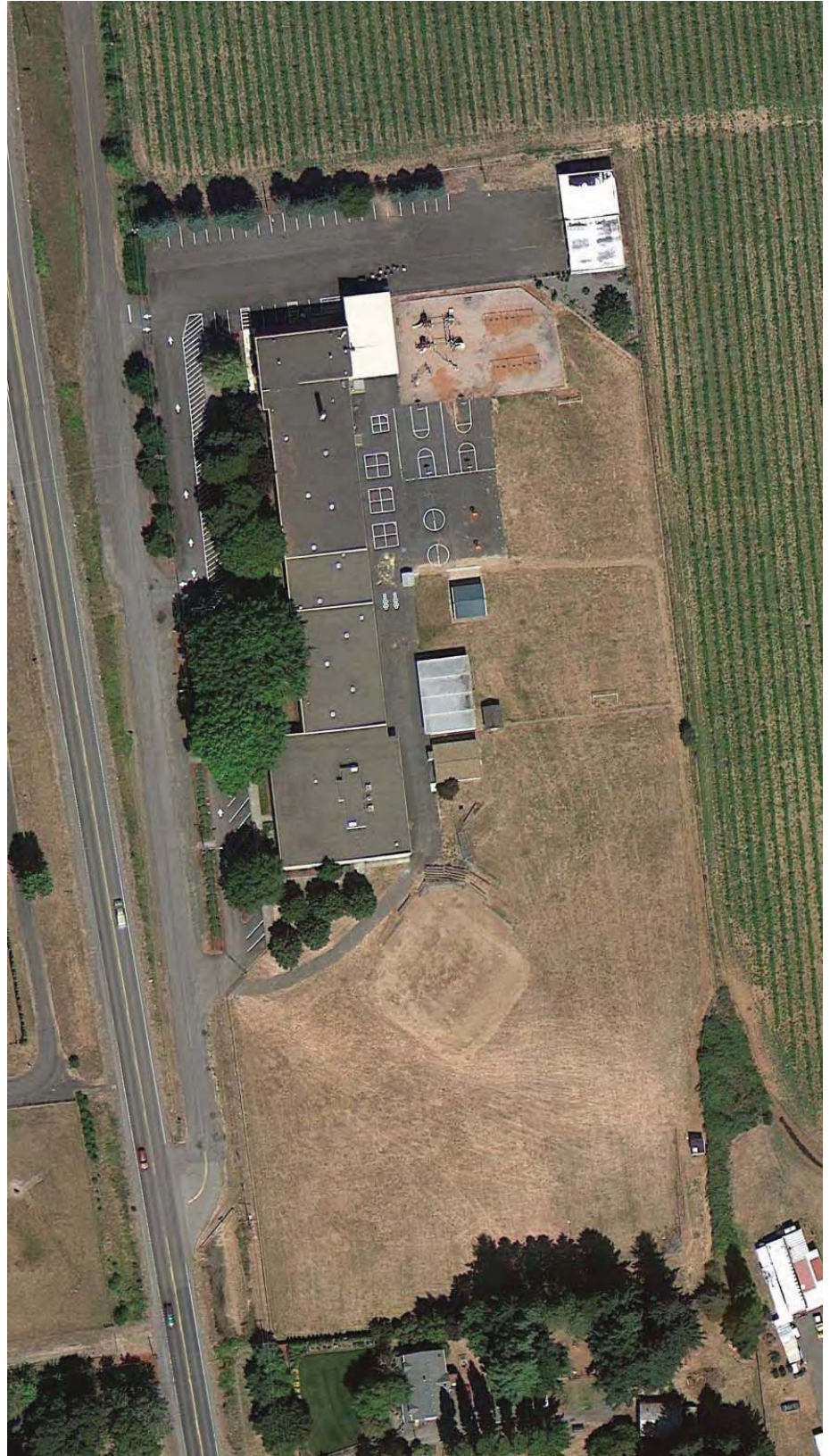
FARMINGTON VIEW ELEMENTARY SCHOOL



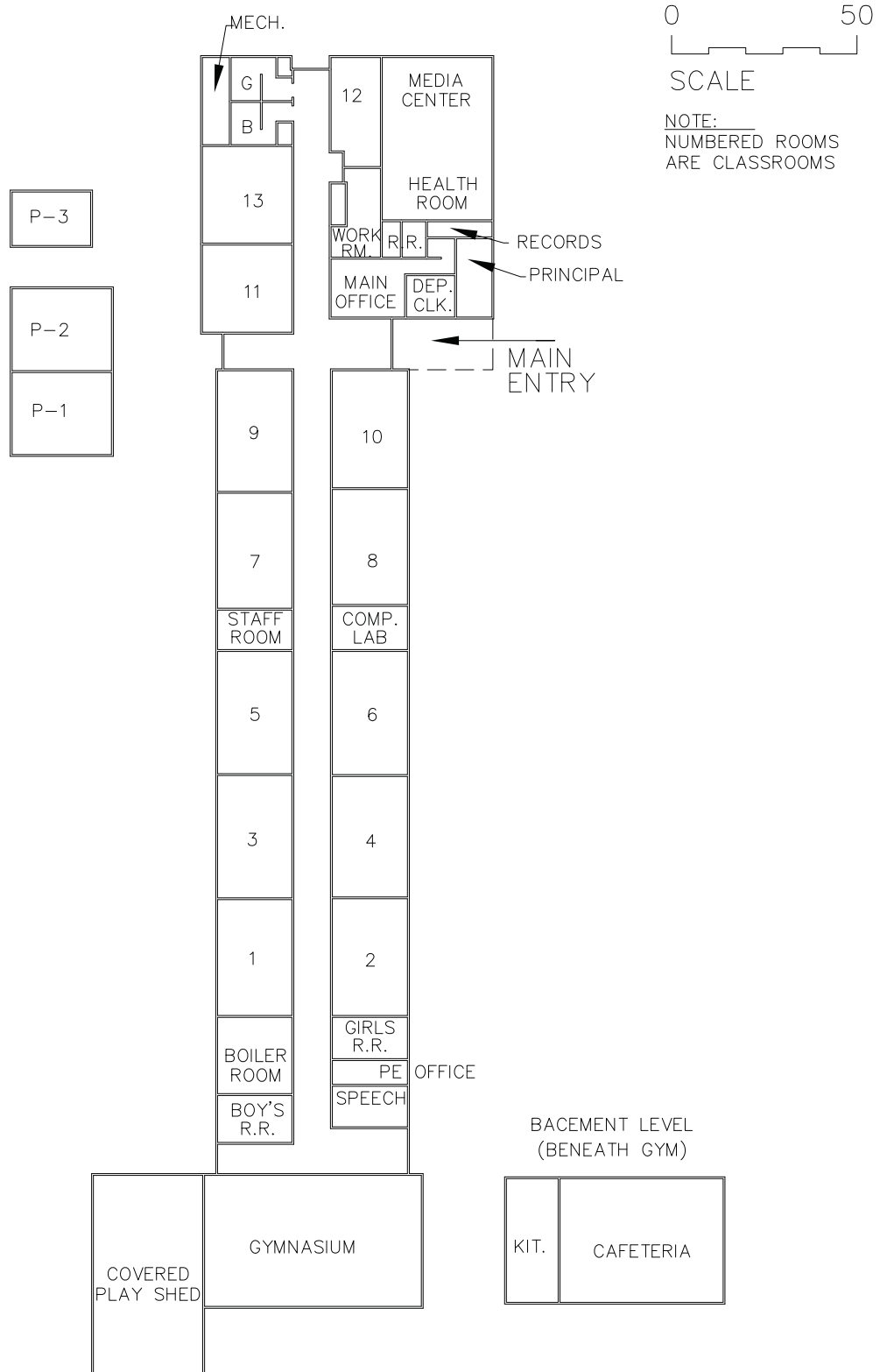
ASSESSMENT SCORE 81: MINOR MODERNIZATION

GENERAL INFORMATION

- :: Address: 28300 SW Hillsboro Highway,
Hillsboro, OR 97123-9284
- :: Construction dates:
 - Original school constructed in 1949
 - Two-classroom addition in 1959
 - Four-classroom addition in 1965
 - Classrooms and offices in 1987
 - Seismic upgrade drawings dated 1993
(work not performed)
 - Mechanical/Plumbing upgrade in 2010
- :: Site area: 7.88 acres
- :: Building area: 22,867 square feet
- :: Population: 217 students



Farmington View Elementary | Floor Plan



FARMINGTON VIEW ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Primary structure is reinforced concrete walls and structural wood with concrete footings and slab
- :: 2001 FEMA report indicates building needs seismic upgrades
- :: Roof structure is sloped, combination of rafters and glu-lams

Deficiencies

- :: Structural drawings for seismic upgrades prepared in 1993 do not appear to have been implemented
- :: Exterior paint starting to peel
- :: One fourth of the building still has VAT*, some minor flooring concerns in kitchen and hall
- :: New roof within last five years
- :: Roof on north portable has standing water

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling is a combination of lay-in metal grid and plaster
- :: Walls
 - Interior walls are wood stud with plaster and are in excellent condition
- :: Windows / Doors
 - Exterior doors are steel, interior doors are wood; all are in good condition with upgraded hardware.
 - The windows are single pane, aluminum
 - Windows are in good condition
- R-11 at Library (?)
- None at Portables

Deficiencies

- :: Ceiling
 - Cafeteria has some acoustic problems

- Some ceiling tiles are stained

:: Windows / Doors

- Some doors at main entry do not close, assume it is either the HVAC system pressure or adjustment issues
- Replace single-glazed windows

:: Miscellaneous

Insulation:

- R-19 no face at Boys Restroom, Small Conference Room, Rooms 1,2,3,4
- None at by office and hall adjacent to office

SERVICE SYSTEMS

Existing Conditions

:: Cooling system

- Air conditioning is only in new portion of school

:: Heating system

- Classroom unit ventilators replaced, additional outside air introduced; 2010
- HVAC in new wing, included three classrooms, and office pneumatic controls - DDC
- Steam and condensate piping in steam access tunnels replaced; 2010

:: Plumbing

- Classroom sink/bubblers replaced; 2010

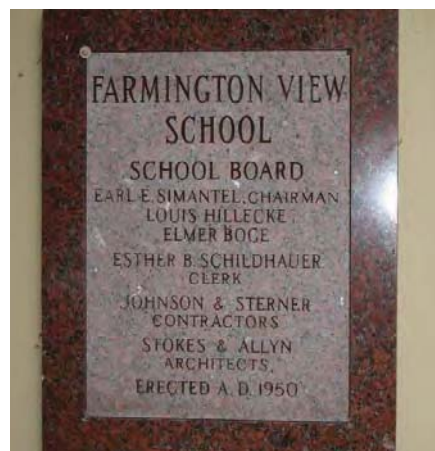
:: Electrical system

- Classroom lighting upgraded to high efficiency direct/indirect, with electronic ballasts and T8 lamps; 2005
- Gym lighting upgraded to T5HO with electronic ballasts; 2005
- Classrooms, gym, cafeteria and administration areas have occupancy sensors; 2005
- School had three electric services; the kitchen and south wing are modern and have capacity for current loads.

Deficiencies

:: Heating system

- PS3 oil fired steam boiler, parts becoming difficult to obtain, replace burners.



- Change fuel source from bulk oil (PS3) to gas.
- Temperature of HVAC difficult to control
- Some unit ventilators do not get air for outside air change requirements
- Upgrade air handlers; gym, kitchen, cafeteria
- Install burner assemblies

:: Plumbing

- Concerns about internal piping
- Hot water slow in restrooms
- No staff restroom in north wing
- No ADA toilets, requires remodeling in student restroom

:: Electrical system

- The classroom electrical service in the boiler room is antiquated and has no additional capacity.
- The Cafeteria egress lighting does not meet egress code requirements.
- The Gymnasium egress lighting does not meet egress code requirements.
- Corridor egress lighting does not meet egress code requirements, and not on emergency power.
- Exit landing lighting not on emergency power.
- Provide more exterior lighting

SITE CONDITIONS

Deficiencies

- :: Fields have poor drainage

SAFETY STANDARDS

Existing Conditions

- :: School has Sonitrol audio sensor type security system
- :: School has full fire alarm system
- :: Sprinklers in restrooms only

Deficiencies

- :: Possible need for center rail at stair to cafeteria
- :: Gym and cafeteria have limited ADA exiting and accessibility
- :: Cannot access cafeteria via a wheelchair

FUNCTIONAL STANDARDS

Deficiencies

- :: Would be good to add door to storage area in classrooms, fire marshal does not like curtains
- :: Staff restroom at gym end would be nice

PRINCIPAL REQUESTS

Existing Conditions

- :: Minimum Facility Additions

Deficiencies

- :: Larger covered play
- Level ball fields, eliminate gophers



FREE ORCHARDS ELEMENTARY SCHOOL

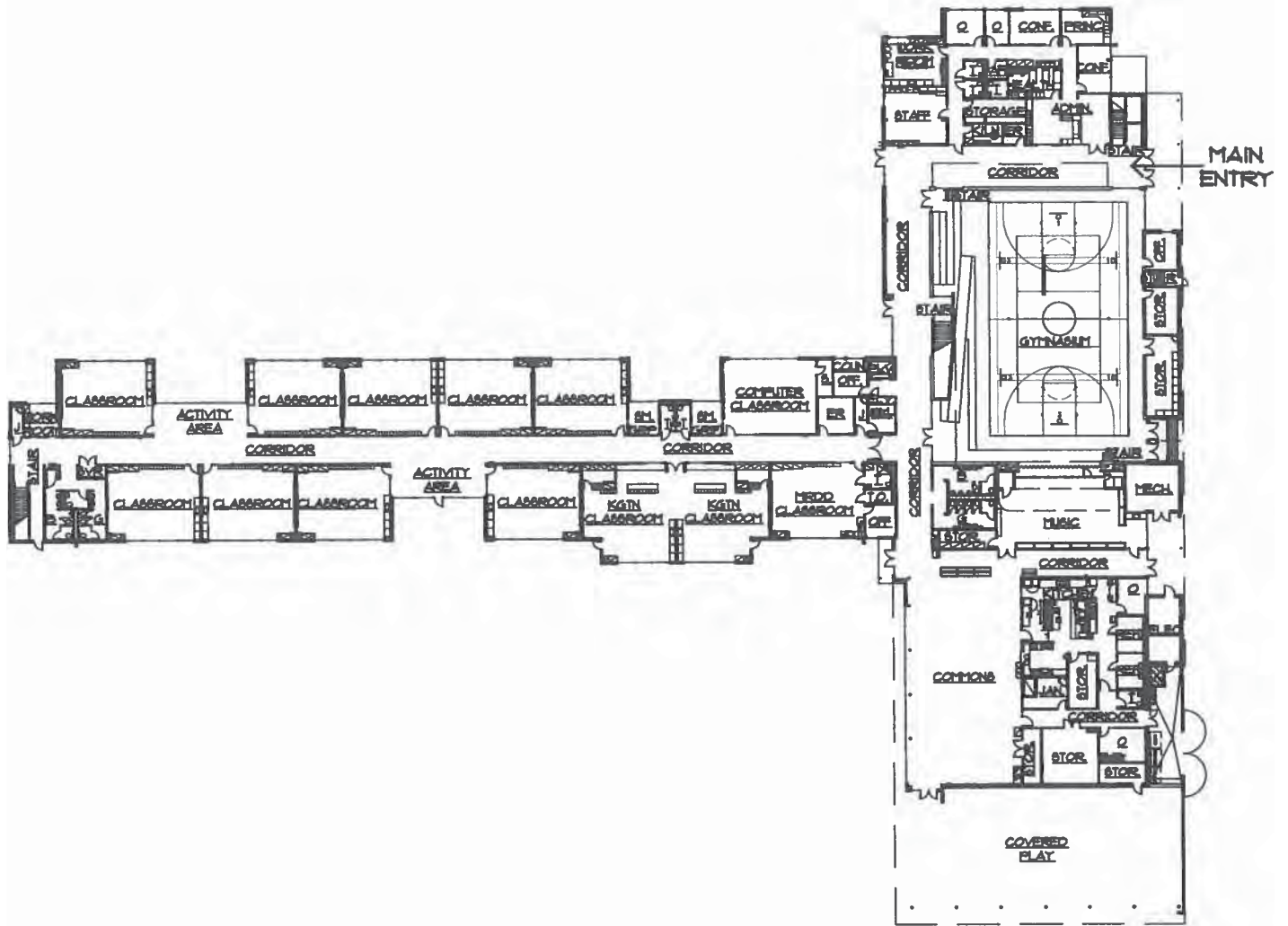


**ASSESSMENT SCORE 98:
SATISFACTORY**

GENERAL INFORMATION

- :: Address: 2499 S. Beech Street, Cornelius, OR 97113
- :: Construction date:
 - Constructed in 2008
- :: Site area: 11.26 acres
- :: Building area: 72,500 square feet
- :: Population: 457 students
- :: Capacity 600 students





60 45 30 0 60 120
FLOOR PLAN - MAIN LEVEL

FREE ORCHARDS ELEMENTARY SCHOOL - 247
2499 S BEECH STREET
CORNELIUS OR 97113



FREE ORCHARD ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: This school was constructed after the 2001 FEMA report. It was built to meet the seismic requirements of the 2007 Oregon Structural Specialty Code.
- :: Administration and Classroom Wing: Steel structure with CMU veneer and metal panel metal roof deck
- :: Gym, adjacent storage rooms, Commons: Load bearing CMU at gym

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - The school has primarily lay-in ceiling tiles, exposed structure at the gym
- :: Walls
 - Interior partitions are metal studs with drywall
- :: Windows / Doors
 - Windows are aluminum with fixed glass and operable units
 - Exterior doors are aluminum and steel. Interior doors are solid core with plastic laminate faces
 - Roofing: Built up roof (Tremco)

Deficiencies

- Effervescent at CUM second floor (top of stair)

SERVICE SYSTEMS

Existing Conditions

- :: Cooling system
 - Roof top units with DX cooling systems
- :: Heating system
 - Natural gas fired high efficiency hydronic boilers
 - Secondary hydronic circulation pumps AFD controlled
 - Roof top units with hydronic heating coils
 - Roof top unit supply fans AFD controlled

- Roof top units have heat recovery wheel
- Zoned variable volume terminal units with hydronic reheat coils
- DDC control system

:: Plumbing

- Natural gas fired high efficiency hot water heater
- Full kitchen for serving breakfast and lunch

:: Electrical system

- Main electric service is 480 volt, sized for 25% additional capacity
- Classroom lighting high efficiency direct/indirect with electronic ballasts and T8 lamps
- Occupancy sensors installed throughout the school
- Corridor emergency egress lighting has battery backed ballasts
- Corridor lighting on lighting controller
- Classroom and administration area lighting controlled by occupancy sensors
- Gym and Multi-purpose area lighting fixtures use T5HO lamps
- Exterior lighting on lighting controller
- Exterior egress landing lighting battery backed

Deficiencies

:: Heating system

- Building does not meet current energy codes

SAFETY SYSTEMS

Existing Conditions

- :: School has Sonitrol motion sensor type security system
- :: School is fully fire sprinklered
- :: School has full fire alarm system

SITE CONDITIONS NA

SAFETY STANDARDS NA

FUNCTIONAL STANDARDS NA

PRINCIPAL REQUEST NA



GRONER ELEMENTARY SCHOOL

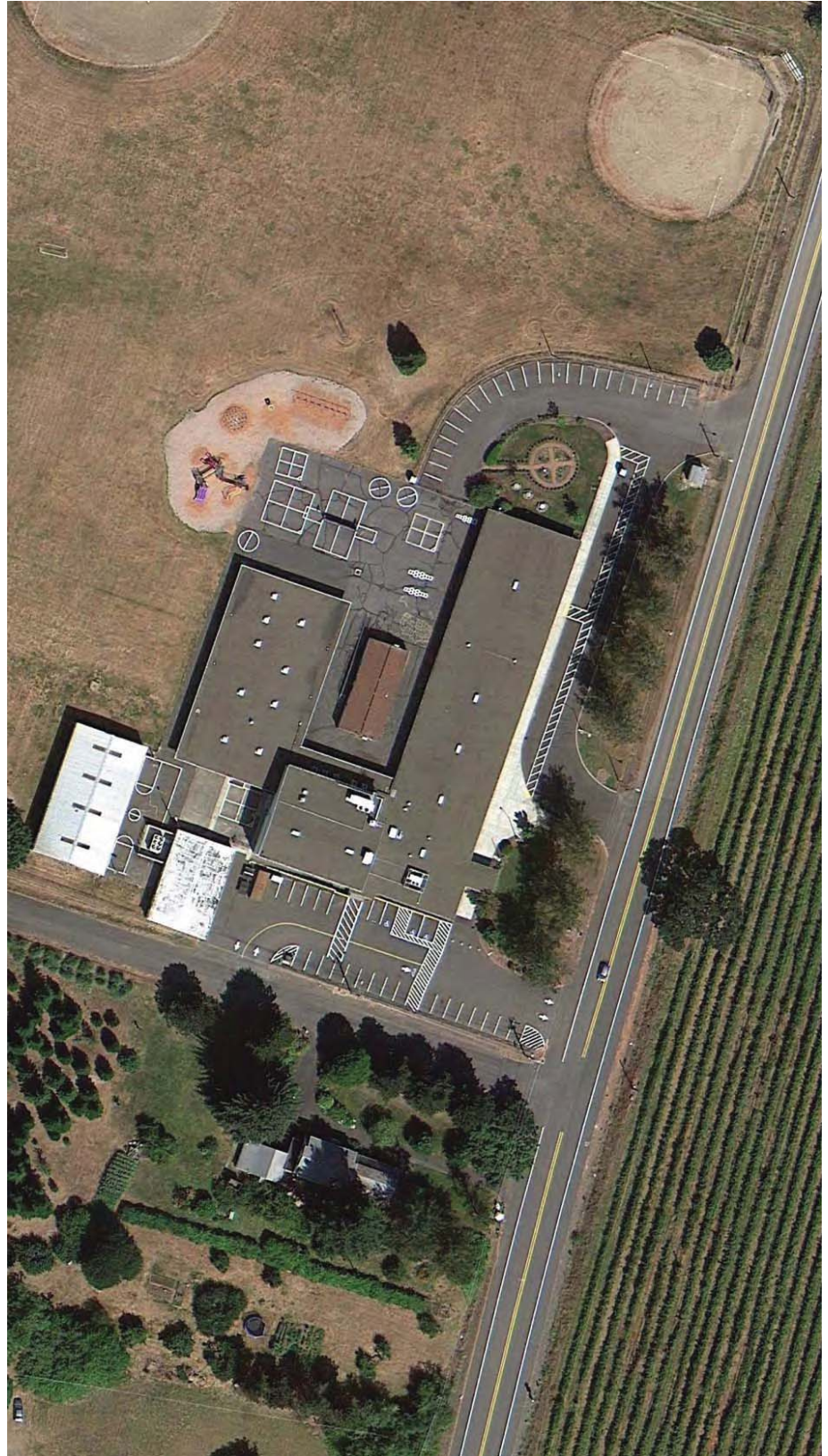


ASSESSMENT SCORE 61: MODERNIZATION

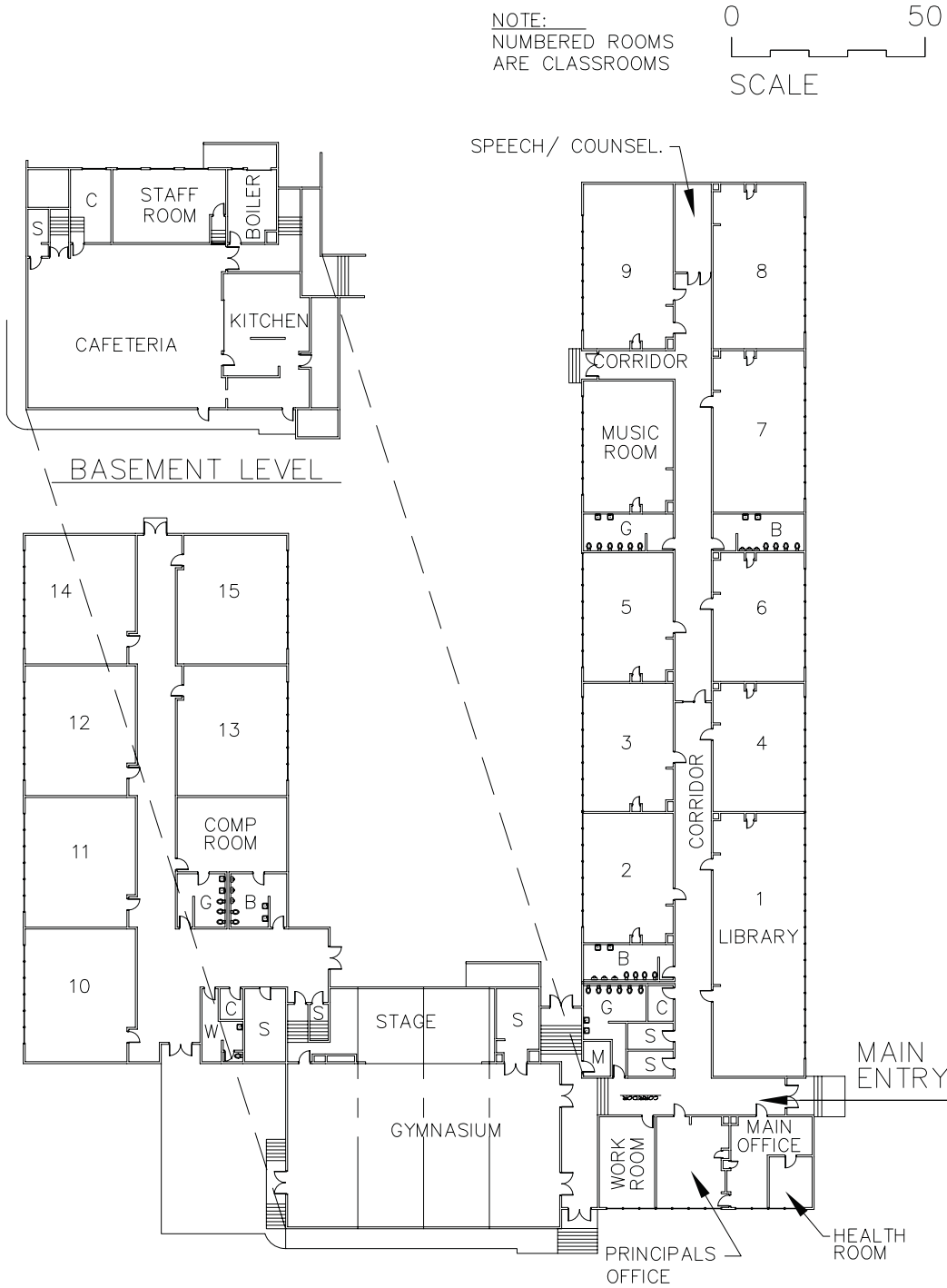
GENERAL INFORMATION

- :: Address: 23405 SW Scholls Ferry Road, Hillsboro, OR 97123-9317
- :: Construction dates:
 - Original school constructed in 1957
 - Six classrooms, boys' and girls' toilets and storage added to the west and north of gymnasium in 1968
- :: Site area: 10.00 acres
- :: Building area: 32,402 square feet
- :: Population: 227 students

GRONER ELEMENTARY SCHOOL



Groner Elementary | Floor Plan



PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure is wood stud walls on continuous concrete foundation with a concrete slab. The roof is a combination of wood joists and trusses.

- :: Roof is approximately five years old

Deficiencies

- :: 2001 FEMA report recommends a number of seismic upgrades to the primary structure
 - FEMA report indicates exterior brick is not adequately anchored
 - Dry rot on south elevation siding and overhang
 - East side of west wing needs painting
 - Brick needs to be cleaned and waterproofed
 - Building needs to be scraped and painted
 - Clean and seal brick veneer

Floor system

- 50% of VAT* has been removed, in process of abating the remaining amount
- Vibration of gym floor is a concern for lights in cafeteria
- West wing hall flooring has cracks
- Administration carpet is to be replaced summer 2006

- :: Gutters are a continual maintenance issue

- :: Remedial repairs to roof required between 2010 and 2017

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling system
 - 12 x 12 glue-on in classroom
- :: Walls
 - Interior walls are wood stud with plaster
- :: Windows / Doors
 - Windows are single pane, wood or aluminum, casement and fixed

- :: Exterior doors are a combination of steel

and wood, interior doors are wood

:: Insulation

- Blown in insulation at the offices and primary wing
- None at the stage
- None at the Bus Garage

Deficiencies

:: Ceiling system

- Lay-in panels in gym are not a suitable choice for this area

:: Walls

- Acoustical tile on corridor walls are getting beat-up, they are fragile and break easily
- Vinyl wall panels are difficult to maintain
- Paint bathroom with anti-graffiti paint

:: Windows / Doors

- Windows experience air infiltration and unacceptable heat gain and loss
- Replace single-glazed windows

SERVICE SYSTEMS

Existing Conditions

:: Cooling system

- Chiller water cooling system installed in 2009
- Classroom unit ventilators provide chiller water cooling
- Small units provide cooling portables
- Administration offices roof top A/C replaced; 2009
- Gym roof top unit has A/C

:: Heating system

- Natural gas fired high efficiency boilers; 2009
- DDC control system
- Classrooms unit ventilators replaced; 2009
- Unit ventilators provide hydronic hot water heating
- Music room is off of the system, it has electric heat
- System is problematic in gym



- Fan noise in unit ventilators in west wing is problematic
- Air circulation and ventilation in room 9 is a concern

:: Plumbing

- Domestic hot water heater upgraded to natural gas; 2009

:: Electrical system

- New 208Y/120 volt, 2000 amp capacity electric serviced installed; 2009. Older panels and older main distribution panel sub-fed from new service.

Deficiencies

:: Heating system

- Provide heat in unconditioned space where HVAC chiller pump is located
- Heating system controls need to be converted from pneumatic controls-DDC to electricity
- Difficult to control temperature

:: Plumbing

- Girls restroom has no water pressure
- Air in water in 7 & 8 grade rooms
- Well needs repair
- Septic tank problem issues
- Building needs additional staff restrooms
- Faucets need to be replaced
- Fixtures are old and difficult to maintain

:: Electrical system

- Gym lighting uses T5HO lamps
- New lights needed in staff room and covered entry
- Classroom lighting has electronic ballasts and T8 lamps
- Occupancy sensors installed in classroom, Gym, Cafeteria and administration offices
- Occupancy sensor needs to be adjusted
- Emergency lighting needed in gym or hallway, areas are subject to black-outs
- Cafeteria egress lighting does not meet code requirements.
- Gymnasium egress lighting does not meet code requirements.
- Exit landing lighting not on emergency power.

- ADA ramp lighting does not meet egress code requirements.
- Sensor does not work for exterior lights
- Older panels; circuit breakers are not clearly marked, this is a concern given the age of the building

SITE CONDITIONS

Deficiencies

- :: Asphalt at play structure surface is breaking up and needs to be replaced
- :: Play structure has major leaks and needs to be repaired

SAFETY STANDARDS

Existing Conditions

- :: Gym, staff lounge and boiler room are sprinklered

Deficiencies

- :: School needs additional extinguishing systems
- :: Building is not accessible throughout, required to go outside to get to all areas
- :: Exterior ramp to cafeteria not to code, it is too steep for ADA purposes
- :: Bus loop conflicts with parent drop-off staff monitors to provide safety

FUNCTIONAL STANDARDS

Deficiencies

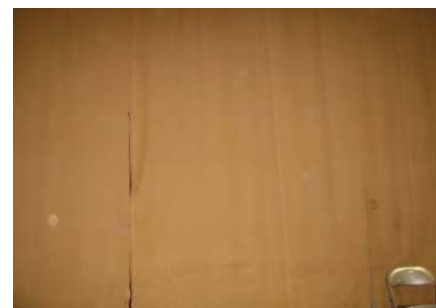
- :: Kitchen needs walk-in freezer space
- :: No science area
- :: Some book shelves, insufficient quantity of storage available in school
- :: No adequate place for required testing

PRINCIPAL REQUESTS

Deficiencies

- :: Minimum facility requirements
 - ADA upgrade
 - Additional storage for PE
 - Bus/parent drop-off needs to be reconfigured
- :: Minimum Facility Additions

- Large covered play
- Two science classrooms
- Counseling room



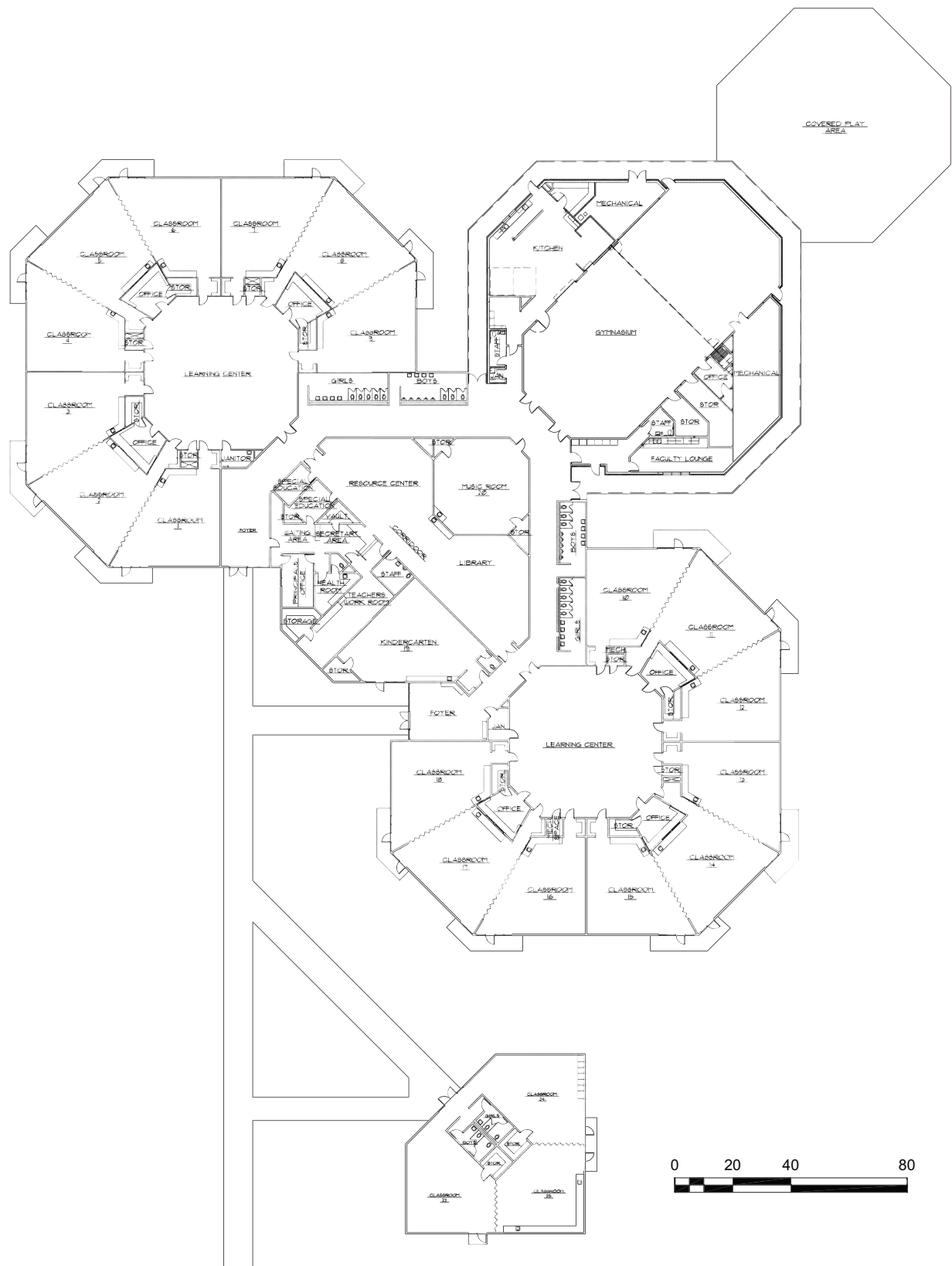
W. L. Henry Elementary | Aerial/Site Plan

W. L. HENRY ELEMENTARY
SCHOOL**ASSESSMENT SCORES 51:
MAJOR MODERNIZATION****GENERAL INFORMATION**

- :: Address: 1060 SE 24th Avenue, Hillsboro, OR 97123-7210
- :: Construction dates:
 - Original school constructed in 1968
 - Kindergarten building in 1992
 - Kitchen remodel and new staff lounge in 2010
- :: Site area: 7.50 acres
- :: Building area: 52,813 square feet
- :: Population: 594 students



W. L. Henry Elementary | Floor Plan



W.L. HENRY ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Primary structure a combination of structural steel and wood on continuous footings and piers with a truss roof system
- :: Carpet in library, music, office, portables and kindergarten building
- :: Ceramic tiles in restrooms on floors and walls

Deficiencies

- :: Gym walls have cracks but no water infiltration
- :: The 2001 FEMA report recommends seismic upgrades to the structure
- :: Roof lacks insulation
- :: Poor drainage on roof causes standing water
- :: Clean and seal brick
- :: Roof replacement (Area 6) 2012-2014
- :: Repair dry rot in toilet rooms

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling system is a lay-in metal grid
- :: Walls
 - The interior walls are wood stud with plaster and drywall and moveable walls
- :: Windows / Doors
 - Windows are aluminum, awning, single glazed with clear glass
- :: Doors are steel and wood
- :: Miscellaneous
 - Insulation
 - Kraft Faced WR 13 C & F Thermafiber at all of the main school building
 - No insulation at Kindergarten

Deficiencies

- :: Walls
 - The moveable walls are not serviceable
 - Difficult to move so are not used
 - Accordion type surface is not usable for display surface
- :: Windows / Doors
 - Drapes need replacing
 - Replace single glazed windows
 - Exterior doors and hardware need replaced, as repairs do not last
- :: Miscellaneous
 - Insulation
 - Replace kraft-face insulation (in all of main school)

SERVICE SYSTEMS

Existing Conditions

- :: Cooling system
 - School has partial cooling system, kitchen and staff lounge only have A/C.
 - cooling added to new make-up air unit in kitchen; 2010
 - Remodeled staff lounge had split system heat pump; 2010
- :: Heating system
 - Natural gas fire hydronic hot water boiler
 - multi-zoned air handlers, with pneumatic controls
- :: Plumbing
 - New low flow toilets in 2005
 - New staff toilet adjacent to staff lounge is ADA compliant, with low flow fixtures
- :: Electrical system
 - 208Y/120 volt, 1000 amp switchboard.
 - New panels in kitchen; 2010
 - Lighting system upgraded to electronic ballasts and T8 lamps; 2006
 - Occupancy sensor system installed; 2006
 - Multi-purpose/Gymnasium egress lighting upgraded; 2010
 - Library egress lighting not on emergency power.



- Exit landing lighting fixtures, other than Multi-purpose/Gymnasium, not on emergency power.
- Electrical clocks do not work consistently

Deficiencies

- :: Heating system
 - Replace roof top multi-zone air handlers
 - Building has poor ventilation
 - Building overheats in spring and fall, most likely due to lack of insulation in the roof
 - Upgrade pneumatic TC system to DDC.
 - Replace boiler
- :: Plumbing
 - Domestic water piping in poor condition throughout school requires replacement.
- :: Electrical system
 - Power distribution inadequate for current technology
 - Power supply is maxed out for technology
 - Limited electrical capacity (sub-standard service), increase electrical service capacity.
 - Lights fixtures are not secured to ceiling grid, difficult to re-lamp
 - Corridor egress lighting not on emergency power.

SAFETY STANDARDS

Existing Conditions

- :: School has full fire alarm system
- :: Building has sprinklers and portable extinguishers
- :: Detection and alarm systems are manual
- :: Exit signs are in place
- :: School has Sonitrol motion sensor type security system

Deficiencies

- :: No stair enclosures

FUNCTIONAL STANDARDS

Existing Conditions

- :: Open spaces used for ESL, Title 1 and special education
- :: Offices used as one-on-one classrooms

Deficiencies

- :: Poor assignable space ratio
- :: Accordion doors are not functional and need to be replaced with walls and door
- :: Spring and fall temperatures are a safety concern to the building occupants

PRINCIPAL REQUESTS

Deficiencies

- :: Minimum Facility Requirements
 - Connect kindergarten building to main with a covered walkway
 - Many areas need more storage
 - Kitchen needs more area
 - Larger cafeteria
 - Remodel learning centers into computer labs
 - Remodel locker rooms into usable space
- :: Minimum Facility Additions
 - Four additional classrooms, six without portables
 - New gymnasium, convert existing gymnasium into a cafeteria



IMLAY ELEMENTARY SCHOOL



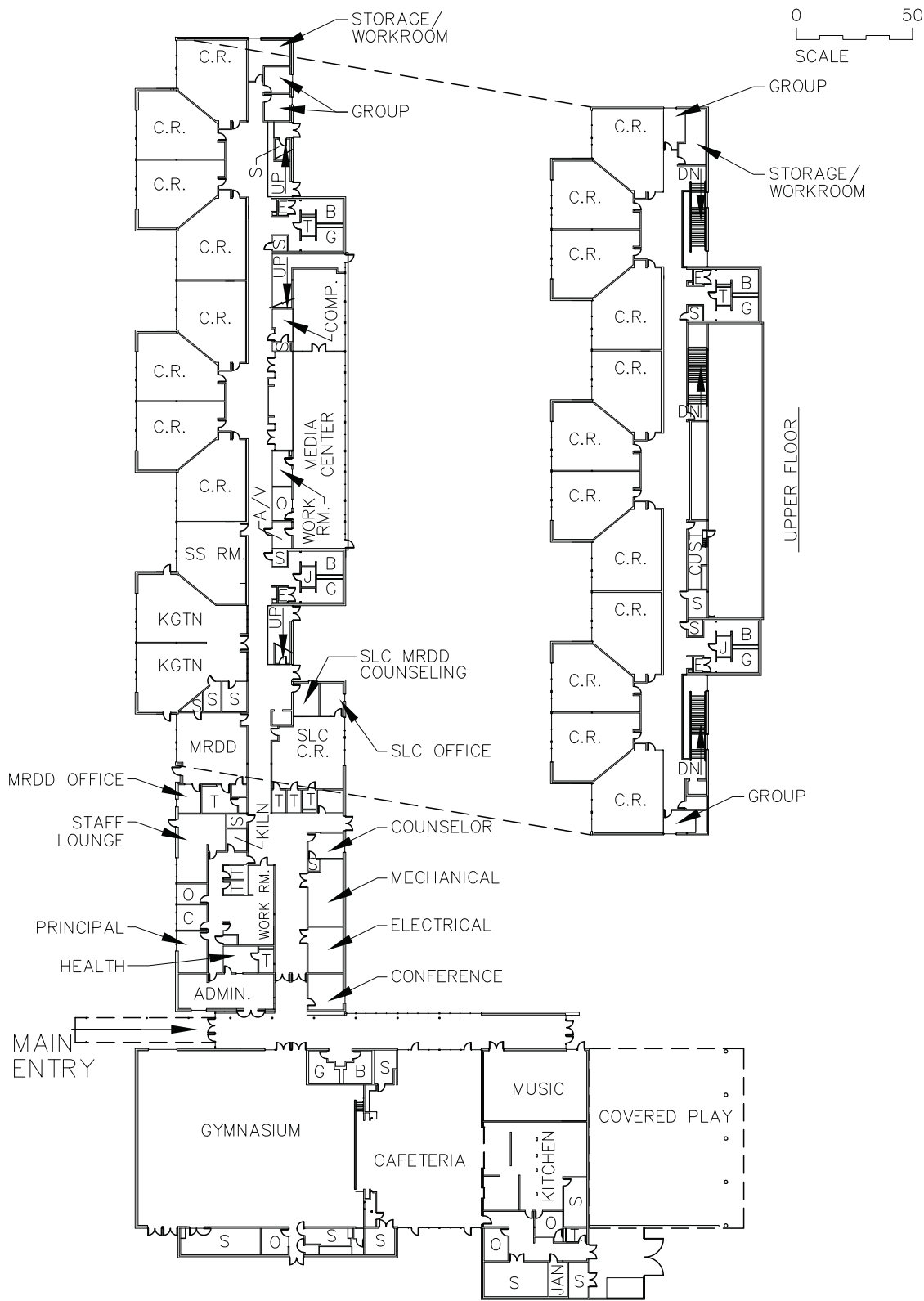
ASSESSMENT SCORE 94: MINOR MODERNIZATION

GENERAL INFORMATION

- :: Address: 5900 SE Lois Street, Hillsboro, OR 97123-7460
- :: Construction date:
 - Original school constructed in 2002
- :: Site area: 8.68 acres
- :: Building area: 69,435 square feet
- :: Capacity: 600 students



Imlay Elementary | Floor Plan



IMLAY ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Building was built after the 2001 FEMA Report. It is built to 2000 Oregon Structural Specialty Code. The seismic codes have been changed
- :: Primary structure is in good condition

Deficiencies

- :: Carpet seams are in poor condition considering the age of the building
- :: VCT seams are expanding
- :: Clean and seal exterior block

SECONDARY STRUCTURE

Existing Conditions

- :: Ceilings
 - Ceilings are lay-in metal grid, gypsum and exposed to structure
- :: Walls
 - Interior walls are steel stud with drywall
- :: Windows / Doors
 - Windows are fixed, aluminum casement with double glazing
 - Exterior doors are steel or aluminum, interior doors are solid core with plastic laminate faces or steel

Deficiencies

- :: Walls
 - Acoustics in gym and café area a problem, acoustic panels are needed to improve facility
- :: Windows / Doors
 - Windows are difficult to open

SERVICE SYSTEMS

Existing Conditions

- :: Cooling System
 - Cooling/Ventilation system leaks at HVAC joints, on going in three or four locations

- Ventilation system leaks at HVAC joints, ongoing in 3 or 4 locations.

:: Heating System

- Heating system is gas, central boiler with unit ventilators and VAV boxes
- Natural gas fired forced draft hydronic boilers
- HVAC units are mounted on roof top, in penthouse enclosure. Filter access is outside
- Temperature control system is Alerton DDC

:: Electrical

- Energy codes have changed since building was constructed
- Electrical service is 1200 amp 277Y/480 volt switchboard
- 120Y/208 volt system is derived from 200 Kva step-down transformer
- Gymnasium lighting is combination of fluorescent and 400 watt metal halide
- Lighting system control for corridors, flag pole, and toilet rooms
- Classrooms have direct/indirect suspended type fluorescent and 400 watt metal halide
- Classrooms have occupancy control for lighting
- Exit landing lighting is on emergency power

:: Plumbing

- Toilets are ADA compliant, low flow type
- Lavatories and sinks are ADA compliant, with low flow faucets
- Domestic water heaters are natural gas fired, high efficiency type

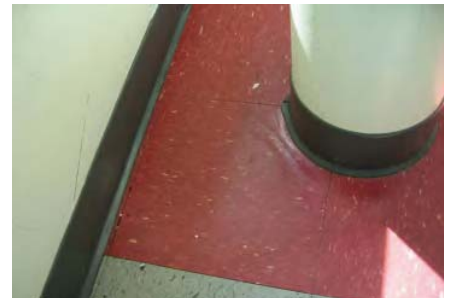
Deficiencies

:: Cooling System

- Restrooms need additional ventilation.
- HVAC system does not adjust to change in seasons well

:: Heating System

- Restrooms need additional ventilation
- Boilers are not high efficiency type



:: Electrical System

- Corridors have inadequate light
 1. Down light fixtures in hallways have electrical problems
 2. Down light lamps have to be replaced after 90 days of use

SAFETY SYSTEMS

Existing Conditions

- :: School is fully fire sprinklered
- :: Fire alarm smoke detectors and pull stations in corridors. No detectors in classrooms or administration offices
- :: School has Sonitrol audio sensor type security system

Deficiencies

- :: Fields have poor drainage, effects play area



SITE CONDITIONS

Deficiencies

- :: Fields have poor drainage, effects play area
- :: Some landscaping died, non-native plants

FUNCTIONAL STANDARDS

Deficiencies

- :: Handles are breaking off case work

PRINCIPAL REQUESTS

Deficiencies

- :: Minimum facility requests
 - Fence at top of covered area play area wall
 - Covered play area gets wet as rain comes in from the south east
 - Drainage poor at edge of play area
 - Offices need more windows to the interior and exterior



INDIAN HILLS ELEMENTARY SCHOOL



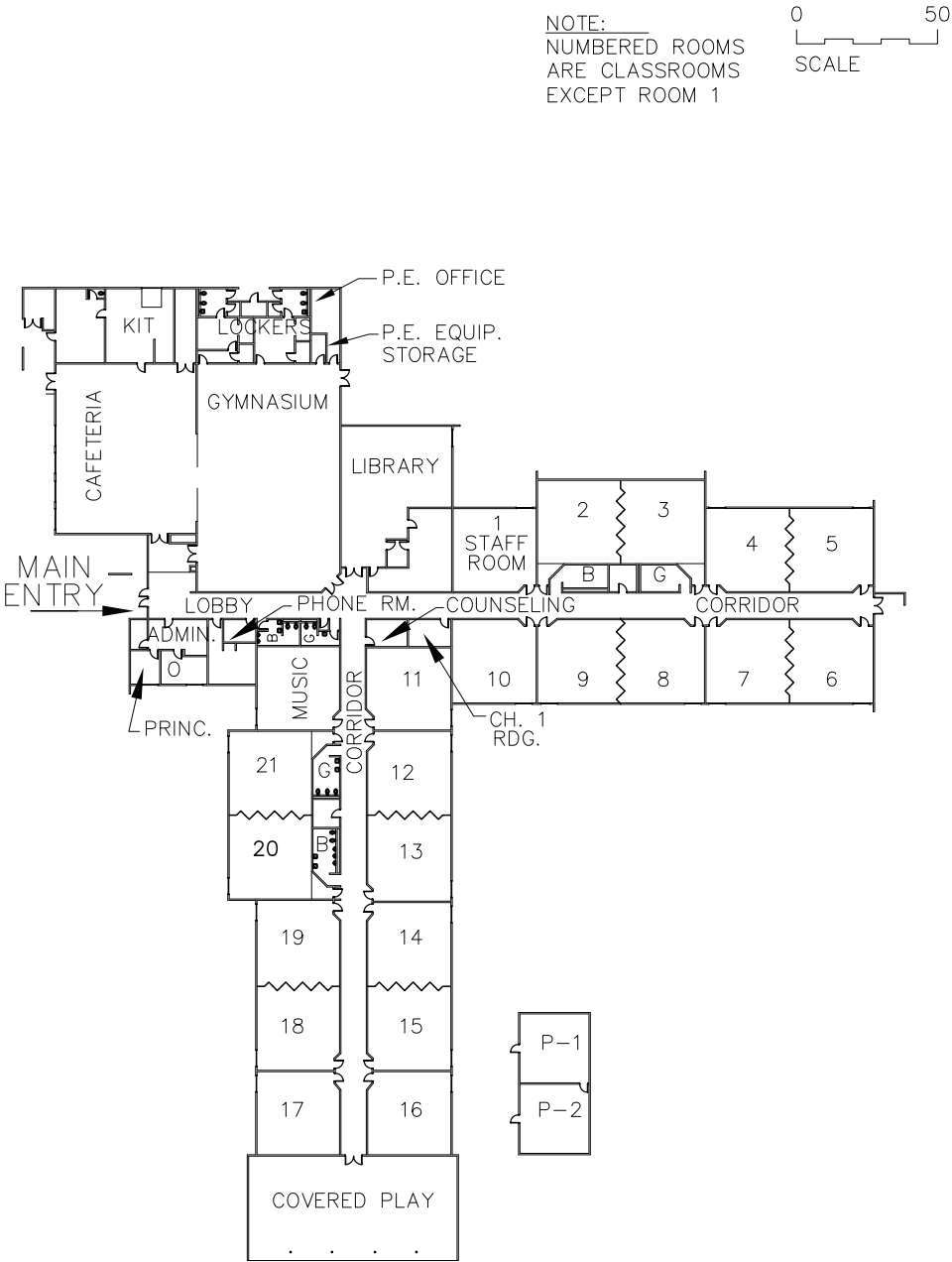
ASSESSMENT SCORE 78: MINOR MODERNIZATION

GENERAL

- :: Address: 21260 SW Rock Road, Aloha, OR 97006-1542
- :: Construction date:
 - Original school constructed in 1979
- :: Site area: 10.10 acres
- :: Building area: 40,219 square feet
- :: Population: 407 students



Indian Hills Elementary | Floor Plan



INDIAN HILLS ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure of this building is a combination of wood frame walls at the classrooms and concrete at the gymnasium
- :: Floor system
 - Health room VAT flooring has been abated
- :: New metal roof in 2005, major seismic work was done when the new roof was installed
 - Insulation added in 2005

Deficiencies

- :: FEMA report recommends significant seismic upgrades to walls
- :: Floor system
 - Floor in bathroom needs to be replaced
 - Floor in hall has a crack
- :: Existing down spouts were not replaced

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - The ceiling is primarily lay-in metal grid
 - Tectum ceiling panels in gymnasium
- :: Walls
 - Interior walls are wood stud with dry wall and accordion doors
- :: Windows / Doors
 - Windows are single pane, aluminum awning and fixed glass
 - New blinds in 2006
 - Exterior doors are steel, interior doors are wood
 - Lever hardware to be added in summer 2006
- :: Miscellaneous
 - Insulation
 - R-9 Foil face at kitchen, library, hallways

Deficiencies

- :: Walls
 - Building needs to be repainted throughout
 - Accordion doors do not lock, some doors are coming away from the wall
- :: Windows / Doors
 - Exterior operable windows open too easily, are a security and safety issue
 - Replace single-glazed windows
 - Exterior doors need maintenance
 - Center post not removable
- :: Miscellaneous
 - Insulation
 - R-11 paper face at shed (south)
 - R-19 paper face at shed (north)

SERVICE SYSTEMS

Existing Conditions

- :: Heating System
 - Heating system is electric
 - Large single zone systems
- :: Electrical
 - Office scheduled for a remodel this summer

Deficiencies

- :: Cooling System
 - Building is not air conditioned
- :: Plumbing
 - Insufficient staff toilets
 - Urinals no water to fill basin, emits odors
 - No ADA fixtures
 - Caulking around sink in classrooms needs to be reapplied
- :: Electrical
 - Provide more exterior lighting

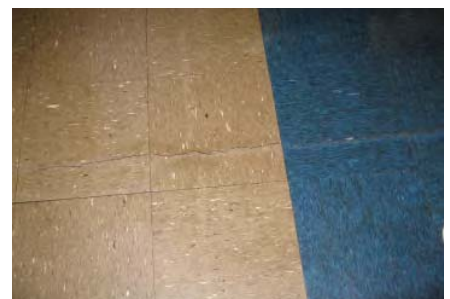
SITE CONDITIONS

Existing Conditions

- :: Site drainage is fine

Deficiencies

- :: Area around basketball court does not drain well



SAFETY STANDARDS

Existing Conditions

- :: Emergency lighting in gym only
- :: Sprinklers at kitchen, one custodial closet and entry

Deficiencies

- :: Structure at primary means of egress has significant seismic concerns
- :: Tubular shelves in classrooms have safety concerns, students are able to run into end of shelving in some rooms
- :: Lack sprinklers in classroom, corridors, admin and gym.

FUNCTIONAL STANDARDS

Deficiencies

- :: Lack of small group areas

PRINCIPAL REQUESTS

Deficiencies

- :: Minimal Facility Requirements
 - Air Conditioning
 - Performance area
 - New intercom system
 - Timekeeping system
- :: Minimal Facility Needs
 - Larger, lighter, and taller covered play area

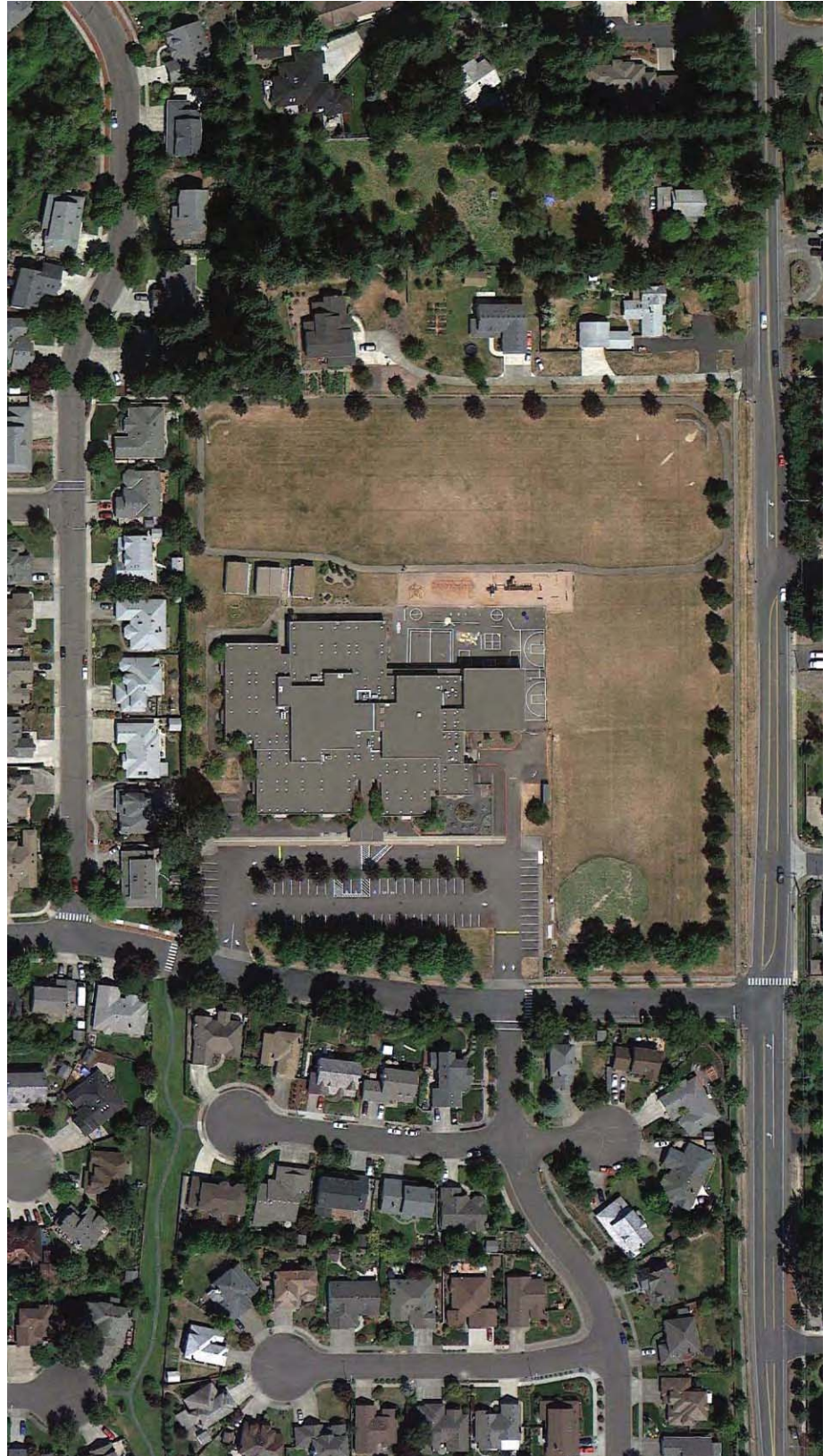
JACKSON ELEMENTARY SCHOOL



**ASSESSMENT SCORE 79:
MINOR MODERNIZATION**

GENERAL INFORMATION

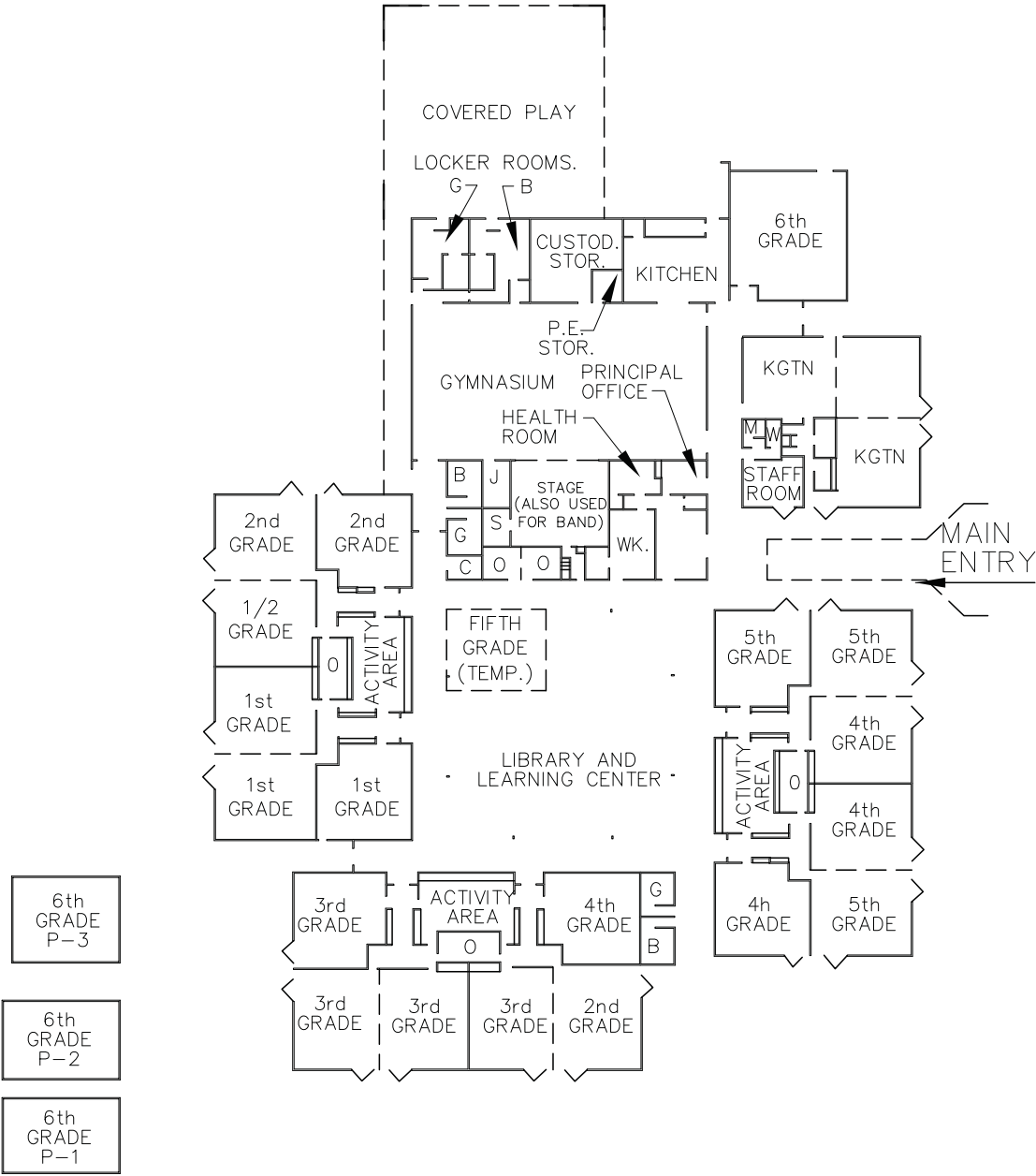
- :: Address: 675 SE Century Boulevard, Hillsboro, OR 97124-2197
- :: Construction date:
 - Original school constructed in 1990
- :: Site area: 10.00 acres
- :: Building area: 50,767 square feet
- :: Population: 640 students



Jackson Elementary | Floor Plan

NOTE:
DESCRIPTIONS (ROOMS) WILL
CHANGE ANNUALLY

0 50
SCALE



JACKSON ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure is wood framed walls with brick sheathing, vertical supports are wood bearing walls with wood beams and wood or steel columns on a concrete stem wall

Deficiencies

- :: The 2001 FEMA report indicates that the building needs seismic upgrades
- :: Floor system
 - VCT - joints in hallways are widening
 - may or may not be shrinking
 - Carpet replaced within the past five to six years
 - Kitchen sheet vinyl is starting to have punctures and tears; seams starting to come apart, making it difficult to clean
- :: Roof system
 - Roof leaks at west end of Library learning center; walls are damp
 - Drains at alcove roofs do not drain, continually clog, causes standing water on the roof, drain is higher than the surface
 - Roof surface is starting to bubble
 - Roofs are starting to leak over classrooms
 - Most alcove roofs in the building leak and damage the ceilings in the alcoves

- :: Clean and seal brick veneer

SECONDARY STRUCTURE

Existing Conditions

- :: Ceilings
 - Ceilings are lay-in tiles and exposed structure
- :: Walls
 - Interior walls are wood stud with drywall or wood paneling, moveable walls are located between classrooms

:: Windows / Doors

- Windows are steel, fixed glass with double glazing
- All doors are steel

:: Miscellaneous

Insulation

- Black nylon cover on insulation, no label at portables

Deficiencies

:: Ceilings

- Some lay in tiles in classrooms need to be replaced due to roof leaks

:: Walls

- Folding panel door at stage does not work well
- Tackable surfaces are showing wear, replace surface in one room
- Plaster walls in gym and shower area have cracks
- Learning center has poor acoustic issues

:: Windows / Doors

- Interior blinds at re-lites in classrooms needed
- Exterior doors need to be repainted
- Exit door threshold coming loose, due to settling

SERVICE SYSTEMS

:: Cooling system

- The school is air conditioned

:: Heating system

- Hot water, gas fired with electric controls
- New HVAC computer

:: Electrical systems

- Main electric service: 1600amp, 208Y/120 volt, fused switchboard, with single main switch
- Lighting in play areas in pods upgraded; 2007
- Lighting upgraded to electronic ballasts, T8 lamps; 2007



Deficiencies

- :: Cooling system
 - System is difficult to control
 - Library has one ceiling fan; as a result the room is normally too warm
- :: Heating system
 - Heating system has filtration problems and should be checked
 - Replace condensing units
 - Upgrade DDC controls
- :: Plumbing system
 - Penthouse has drain and flashing needs to be repaired
 - Storm drain needs to be cleaned more often
- :: Electrical systems
 - Staff room microwave needs a separate circuit
 - Emergency lighting does not work; it is needed in interior spaces
 - Upgrade intercom
 - Corridor egress lighting not on emergency power
 - Multi-purpose/Cafeteria/Gymnasium egress does not meet egress code requirements
 - Exit landing lighting not on emergency power

SITE CONDITIONS

Deficiencies

- :: Covered play is not adequate due to wind blown rain
- :: Water blows into play area of pod one and two and does not drain
- :: Fields are unusable in winter
- :: Parking is too small or poorly configured

SAFETY STANDARDS

Existing Conditions

- :: Boiler room and basement are fire sprinklered
- :: School has full fire alarm system
- :: School has Sonitrol audio sensor type security system

PRINCIPAL REQUESTS

Deficiencies

- :: Minimal Facility Requirements
 - A science lab area
 - Wall to block rain at covered play
 - Need acoustical treatment at covered play
- :: Minimal Facility Needs
 - Additional classroom, multipurpose room (science)
 - Storage area



Ladd Acres Elementary | Aerial/Site Plan

LADD ACRES ELEMENTARY SCHOOL



ASSESSMENT SCORE 66: MODERNIZATION

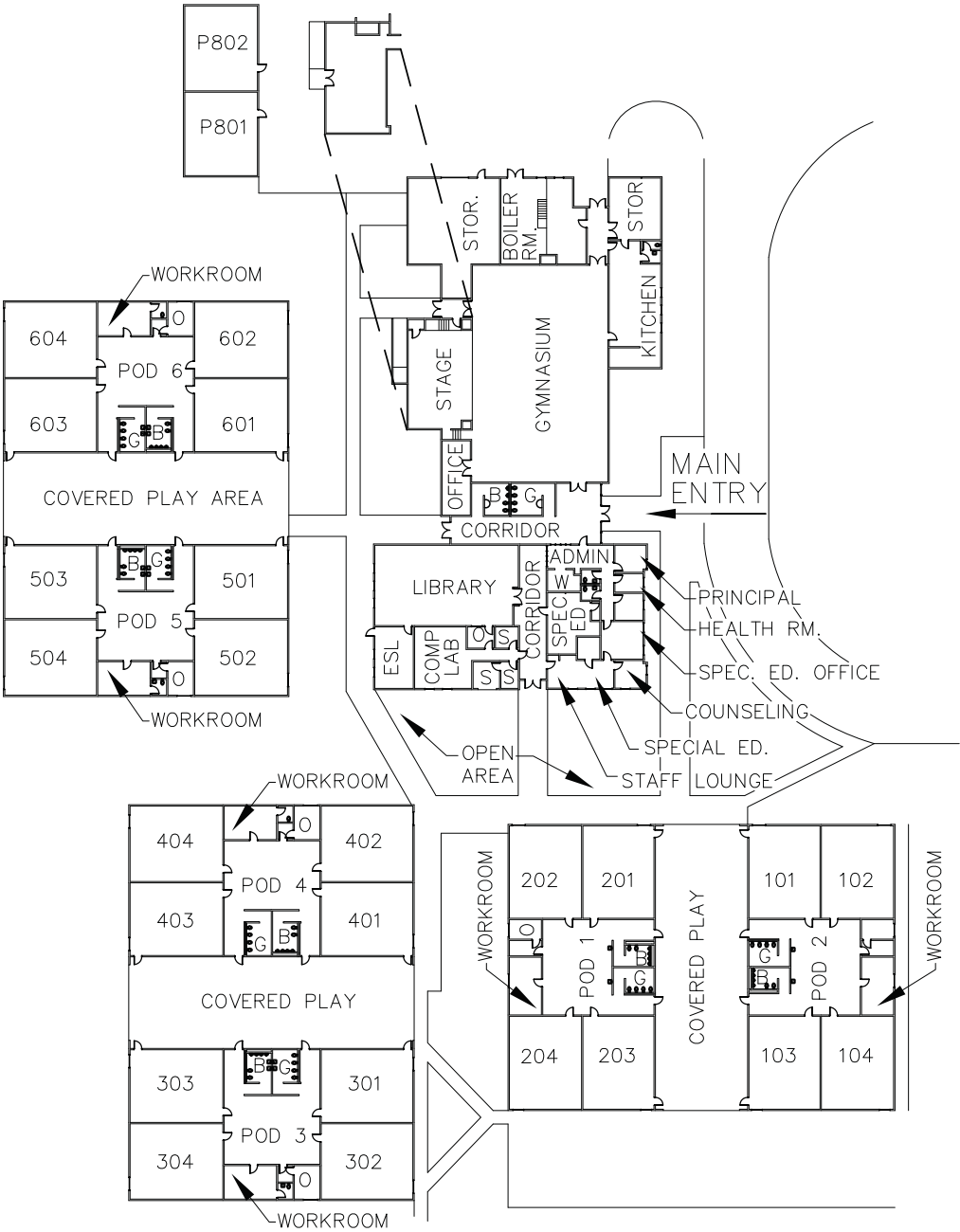
GENERAL INFORMATION

- :: Address: 2425 SW Cornelius Pass Road, Hillsboro, OR 97123-6736
- :: Construction dates:
 - Original school constructed in 1967
 - Pods D, E, F, and G constructed in 1974
 - Storage room constructed in 1987
- :: Site area: 15.00 acres
- :: Building area: 60,825 square feet
- :: Population: 600 students



Ladd Acres Elementary | Floor Plan

NOTE:
ROOMS ONLY HAVE 1 TO 4 ON DOORS.
PODS ARE IDENTIFIED BY THE NUMBER
OF STARS ON THE ENTRY AREA.



LADD ACRES ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure is wood or concrete bearing walls with roof joists
- :: The 2001 FEMA report recommends a number of seismic upgrades
- :: The roof is fifteen or sixteen years old; it is holding up well
 - Roof has been patched as needed
 - Some areas of ponding on roof

Deficiencies

- :: The exterior surface has a few small holes
- :: Epoxy finish in bathrooms difficult to clean, trapped dirt a sanitation problem
- :: There have been leaks at corner of gymnasium and door to library

SECONDARY STRUCTURE

- :: Ceilings
 - Ceilings are lay-in grid at classrooms; attached to structure at play areas and gymnasium
 - Ceiling is insulated
- :: Walls
 - Interior walls are wood stud and movable walls between classrooms
- :: Windows / Doors
 - Windows are aluminum single-pane and in good condition
 - Classrooms have only one large window in each room
 - Exterior doors are steel; interior doors are wood and steel
 - School was re-keyed in 2005
- :: Miscellaneous
 - Insulation
 - Black insulation, paper face at Pod 1 and 2, Gym, Office area, Library, and Kitchen
 - Silver shield Therma Fiber Foil faced at

Pod 2,3,4,5, and 6

Deficiencies

- :: Ceilings
 - Exterior play area at Pod 1 needs acoustical panels
- :: Walls
 - Movable walls no longer work properly, inhibit cleaning, are unable to get parts and create sound issues between classrooms
- :: Windows / Doors
 - Drafty on cold days
 - Exterior doors are in poor condition
 - Replace single glazed windows
- :: Miscellaneous
 - Insulation
 - Replace paper face insulation in Pods 1 and 2, gymnasium, office, library and kitchen

SERVICE SYSTEMS

Existing Conditions

- :: Cooling System
 - Building is only partially air conditioned (only in administration area)
 - Administration office area addition has a packaged roof top AC unit
- :: Heating System
 - The heating system is a natural gas fired steam boiler
 - Steam piping running through tunnels connecting the schools
 - DDC temperature control system
- :: Electrical system
 - Main electric service: 1600 amp, 208y/120 volt, fused switchboard, with single main switch.
 - Lighting in play areas in pods upgraded; 2007
 - Lighting upgraded to electronic ballasts, T8 lamps; 2007
 - Occupancy sensor system installed; 2007

Deficiencies

- :: Cooling System
 - Classrooms are uncomfortable, but not



unbearable on hot days

:: Heating System

- The heating system is not adequate for winter. Classrooms are not warm enough in winter.
- Tunnels in school complex fill with water after heavy rains
- Replace piping in tunnels

:: Plumbing

- Fixtures are showing age; some drinking faucets don't work, some faucets drip, toilets are aging
- No HC accessible toilets, although grab bars have been added
- Replace plumbing piping throughout the school -Scheduled for 2012
- Upgrade lift station
- Domestic water piping in utility tunnels is failing

:: Electrical

- Play areas in pods are dark, need additional lighting
- No emergency lighting in school
- Convenience outlets are all in one location in classrooms
- Corridor egress lighting not on emergency power
- Multi-purpose/Cafeteria/Gymnasium egress does not meet egress code requirements
- Exit landing lighting not on emergency power
- Convenience outlets are all in one location in classroom

SITE CONDITIONS

Deficiencies

- :: Water blows into play area of pod one and two and does not drain
- :: Fields are unusable in winter
- :: Parking is too small and poorly configured

SAFETY STANDARDS

Existing Conditions

- :: Boiler room and basement are sprinklered

Deficiencies

- :: Parent and bus drop off can back-up onto Cornelius Pass Road, needs to be reconfigured
- :: Layout of school makes it unable to secure the entire facility. It has not been a problem, but it is a concern.
 - Layout of school causes safety concerns for children moving between pods
 - Layout has blind spots
 - School has many points of entry
 - Conflict at bus and parent drop-off

FUNCTIONAL STANDARDS

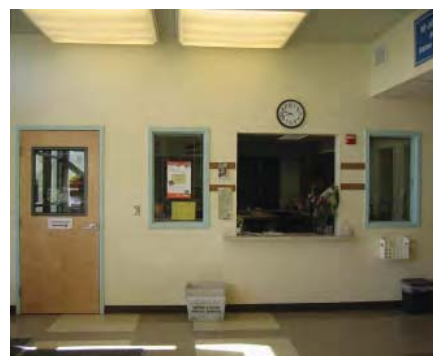
Deficiencies

- :: Cabinets are showing wear
- :: Need additional storage shelving for physical education
- :: Suitability
 - Classrooms lose flexibility if class size is over 30 children
 - Entrance into school is too small, and creates congestion when students are released
 - Gymnasium is too small for the whole school; need to schedule two assemblies
 - Parking is too small or poorly configured
 - Parent and bus drop-off needs to be reconfigured

PRINCIPAL REQUESTS

Deficiencies

- :: Minimum Facility Requirements
 - System to monitor school; prefers cameras over a fence
- :: Minimal Facility Needs
 - ESL classroom
 - Special education classroom
 - Music room
 - New gymnasium with a stage
 - Covered play structure



LENOX ELEMENTARY SCHOOL



ASSESSMENT SCORE 70: MODERNIZATION

GENERAL INFORMATION

- :: Address: 21200 NW Rock Creek Boulevard, Portland, OR, 97229-1042
- :: Construction date:
 - Original school constructed in 1978
- :: Site area: 9.95 acres
- :: Building area: 51,074 square feet
- :: Population: 450 students



Lenox Elementary | Floor Plan

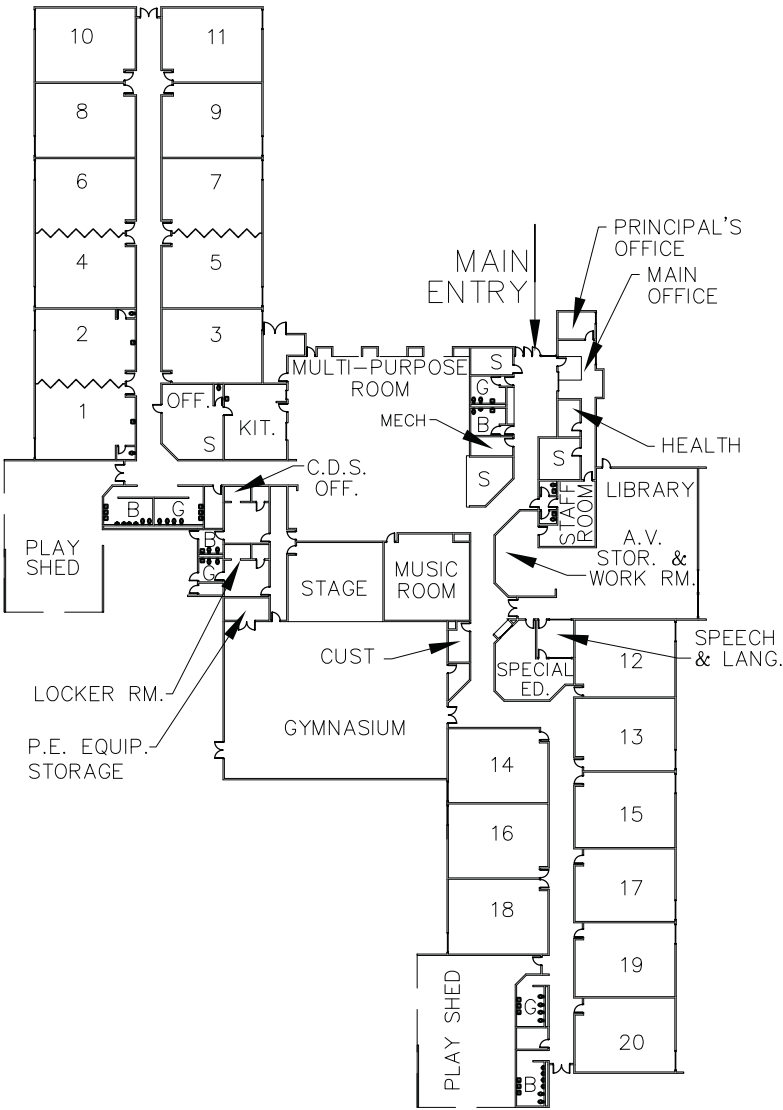
NOTES

NO PORTABLES

NO NATURAL GAS

050

SCALE



LENOX ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure is wood walls and columns supporting wood beams and joists. Concrete grade beams are at bearing walls and concrete pad footings at columns
- :: Front doors, storage building and intermediate play shed are subject to vandalism
- :: Floor system
 - One or two rooms a year receive new carpet
- :: New roof installed in 2002

Deficiencies

- :: The 2001 FEMA report recommends a number of seismic upgrades to the structure
 - Exterior siding needs painting and some siding replacement
- :: Floor system
 - Epoxy finish in restrooms difficult to clean, and in poor condition
- :: Roof
 - Downspouts clog, gutters were not replaced when the school was re-roofed
 - Skylights in play shed need replacing
 - "Re-aluminized" roof in 2015

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling are lay-in tiles or attached to structure
- :: Walls
 - Interior walls are wood stud with drywall and some movable walls between classrooms
- :: Windows / Doors
 - Windows are double glazed, aluminum
 - Over 100 windows replaced 5 years ago, 4 or 5 more still need to be replaced

- Windows have a top vent window that is used to cool the un-air conditioned building
- Some classrooms still have roller shades
- Exterior of building was re-keyed one year ago
- Interior of building was re-keyed three years ago

Miscellaneous

- Insulation
 - None at the shed

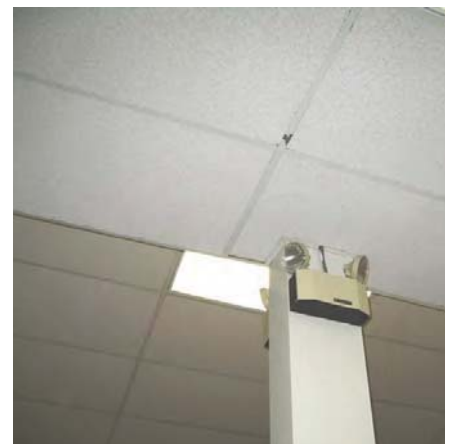
Deficiencies

- :: Ceiling
 - A number of lay-in ceiling tiles are stained tiles from leaks in ceiling
- :: Walls
 - Movable walls in some classrooms sag and do not operate smoothly
 - Rooms with movable walls have some acoustical problems
 - Movable walls need adjustment
- :: Windows / Doors
 - Some fire doors are missing closers
 - Closers need frequent adjusting
 - Finish on exterior doors is dull, needs paint

SERVICE SYSTEMS

Existing Conditions

- :: Cooling system
 - The school does not have air conditioning
 - Top vent window opens
- :: Heating system
 - Heating system is electric
 - Strip heat in class rooms
 - Wall heaters in hallways
- :: Electrical systems
 - Lighting system upgraded to electronic ballasts and T8 lamps; 2007
 - Main electrical service: 1200 amp, 480Y/277 volt. 208Y/120 volt distribution system is 400 amp. Electric service is adequate for future needs
 - Additional lighting in administration office area installed; 2007



- Gymnasium lighting upgraded to T%HO fluorescent fixtures; 2007
- Occupancy sensor system installed; 2007

Deficiencies

- :: Cooling system
 - South wing and computer room get unbearably hot
 - Provide a different cooling system at kitchen compressor
 - Replace HVAC system
- :: Heating system
 - North wing gets very cold
 - Poor circulation in school is augmented by windows and floor fans
 - Intake vents are located low on the wall, this location stirs up dust and clogs the system
 - Roof vents over rooms 19-20 leak water into the classrooms in severe weather, staining ceilings
 - System is difficult to control
 - Replace HVAC
 - Ventilation systems do not have air tempering capacity
 - When outside air ventilation air is brought to Code requirements, additional electric heating capacity will be required
- :: Plumbing system
 - Classroom sinks do not drain well
 - No ADA restrooms in school
 - Gutters overflow during heavy rains
 - Poor site drainage
- :: Electrical systems
 - Light levels in office and staff rooms are low and need to be upgraded
 - No emergency lighting in restrooms or gym, may be dark in the event of a power outage
 - Corridor egress lighting not on emergency power
 - Gymnasium egress lighting does not meet egress code requirements
 - Multi-purpose/Cafeteria egress lighting does not meet egress code requirements
 - Multi-pupose/Cafeteria egress lighting not on emergency power

- Exit landing lighting not on emergency power

SITE CONDITIONS

Deficiencies

- :: Drainage at play areas to north are problematic
- :: Poor site drainage

SAFETY STANDARDS

Existing Conditions

- :: Building security system was upgraded in 2004
- :: School has Sonitrol motion sensor type security system
- :: School has full fire alarm system

Deficiencies

- :: Bus drop-off and parent drop-off share a common driveway, causing traffic to back up onto neighborhood streets. Improve circulation for bus and parent drop off.

FUNCTIONAL STANDARDS

Existing Conditions

- :: One locker room has been configured for offices, the other is used for storage, it could also be configured for offices or better configured for storage

Deficiencies

- :: Moveable walls do not always function
- :: Hall into cafe congested when north wing lines up for lunch
- :: Building needs air conditioning, at a minimum in the computer lab



Lincoln Street Elementary | Aerial/Site Plan

LINCOLN STREET ELEMENTARY SCHOOL



**ASSESSMENT SCORE 98:
SATISFACTORY CONDITION**

GENERAL INFORMATION

- :: Address: 801 N.E. Lincoln Street, Hillsboro, OR 97124
- :: Construction date:
 - Constructed in 2008
- :: Site area: 11.79 acres
- :: Building area: 71,513 square feet
- :: Capacity: 600 students



Lincoln Street Elementary | Floor Plan

