

LINCOLN STREET 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 brick veneer and metal panel metal roof deck
- :: Gym, adjacent storage rooms, Commons: Load bearing CMU with brick veneer

SECONDARY STRUCTURAL

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 wood
- :: Miscellaneous
 - Roofing: Built up roof (Temco)

Deficiencies

- :: Windows / Doors
 - Window gasket in gym is failing

SERVICE SYSTEMS

Existing Conditions

- :: Cooling system
 - Roof top units with DX cooling systems
- :: Heating system
 - Natural gas fire 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

- :: Building does not meet current energy codes



W. VERNE MCKINNEY
ELEMENTARY SCHOOL



**ASSESSMENT SCORE 68:
MODERNIZATION**

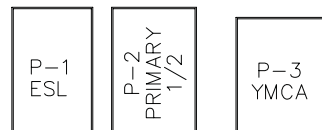
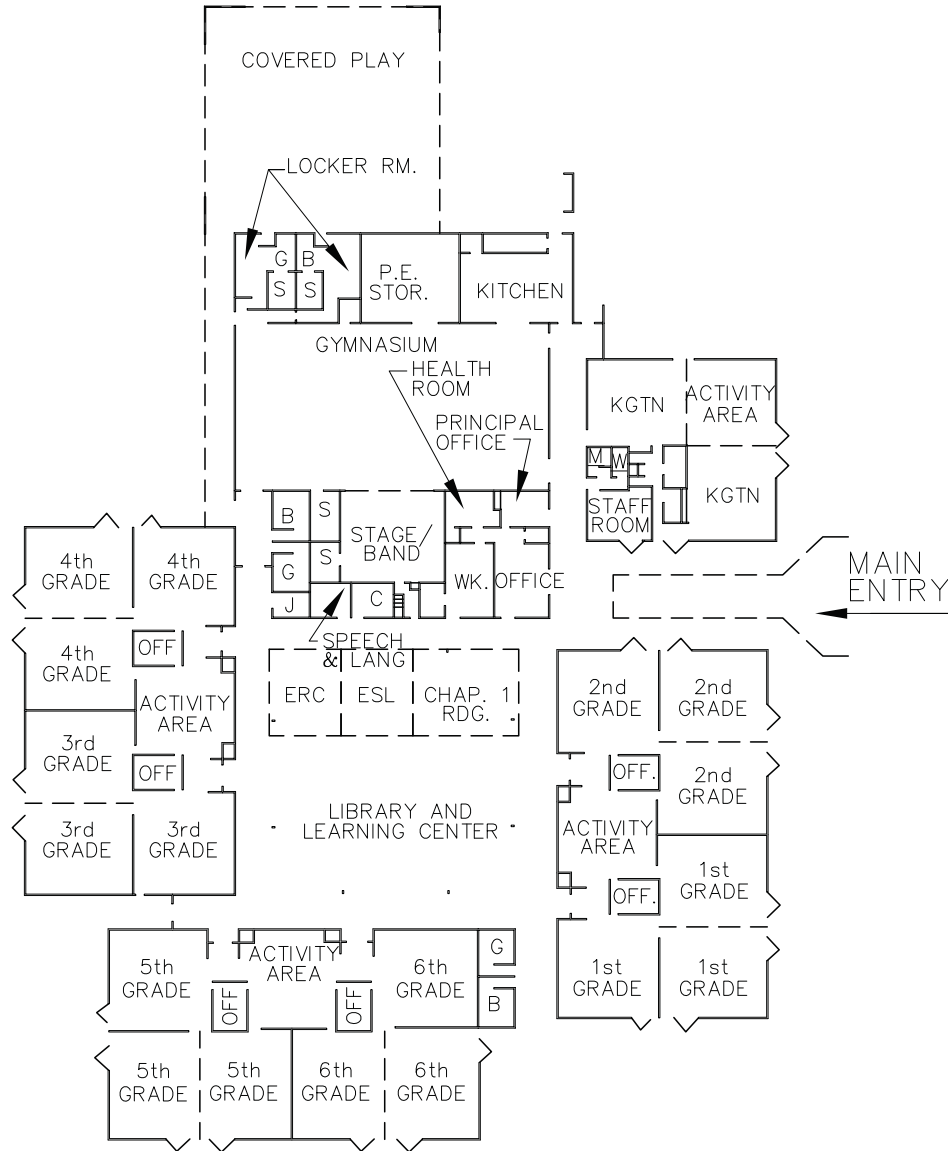
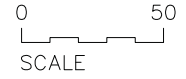
GENERAL INFORMATION

- :: Address: 23870 535 NW Darnielle Street,
Hillsboro, OR 97124-2214
- :: Construction date
 - Original school constructed in early
1970's
- :: Site area: 10.00 acres
- :: Building area: 49,163 square feet
- :: Population: 540 students



W. Verne McKinney Elementary | Floor Plan

NOTES:
 NO ROOM NUMBERS ESTABLISHED
 ROOM DESCRIPTIONS MAY
 CHANGE ANNUALLY



W. VERNE MCKINNEY
ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Primary structure is wood framed walls with brick sheathing, vertical supports are wood bearing walls with wood beams and wood or steel columns.
- :: New roof was installed in 2005

Deficiencies

- :: The 2001 FEMA report indicates that the building needs seismic upgrades
- :: Exterior brick need to be cleaned, re-sealed to remove the effloresce and moss
- :: Walls at portables have mildew and are failing; railings at portables are in poor condition and children have gotten slivers
- :: Floor system
 - Ceramic tile in kindergarten boys' restroom smells and is difficult to clean
 - Building has asbestos flooring
 - Gymnasium floor has cracking
 - Grade at the end of the ramp at the portables does not meet ADA code
- :: Flat roofs at alcoves leak and cause significant damage to the windows, ceilings, walls and doors
- :: Water stands on the roof and then backs-up into the wall behind
- :: Portable roofs have moss

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling system is primarily lay-in tiles. The learning center has an exposed wood ceiling system.
- :: Walls
 - Interior walls are wood studs with drywall and wood paneling
- :: Windows / Doors
 - Windows are fixed steel, with single-glazing

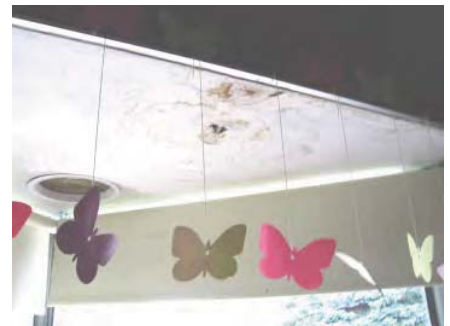
- Doors are steel exterior and interior and in poor condition
- Whole school has been re-keyed in 2006

:: Miscellaneous

- Insulation
 - Therma fiber Silver (3"?) at all class rooms
 - Black Fiber Netting, no label at Portable 1 and 2
 - Black Nylon, no label at Portable 3

Deficiencies

- :: Ceiling
 - Learning center and gymnasium are loud and need acoustical treatment
 - Ceilings at classroom window alcoves have water damage
- :: Walls
 - Learning center walls are all hard surface, it is difficult to control noise in this space
 - Special programs are located behind partitions in learning center. They need an acoustical solution to dampen sound yet keep the space open.
- :: Windows / Doors
 - Variety of blinds in the school, some rooms do not have them, some rooms do not have new vertical blinds
 - Windows below alcove roofs at classrooms are in poor condition
 - Some doors under alcoves do not latch and close
 - Replace single glazed windows



SERVICE SYSTEMS

Existing Conditions

- :: Cooling System
 - Condensing units replace; 2008
 - AHU's evaluated per FSSD
- :: Heating system
 - Heating system is hot water with electric controls
 - Individual natural gas fire hydronic hot water boilers
 - Multi-zoned forced air



- Pneumatic temperature controls replaced with DDC system; 2008

:: Electrical systems

- Electrical system is at capacity
- The school received a technology upgrade
- Emergency lighting in learning center,
- School lighting upgraded to electronic ballasts and T8 lamps; 2006
- Occupancy sensor system installed in classrooms, administration offices, Multi-purpose area and library

Deficiencies

:: Cooling System

- Cooling system has been modified over the course of five years, but does not function adequately; it needs to be "babied"
- Condensers need to be replaced, AHU's evaluated per FSSD

:: Heating system

- Heating system is not flexible; boiler is turned off in the spring, so school can not account for infrequent cool days late in the season; the inverse is true for cooling seasons
- May need additional vents to increase circulation
- Vents blow into special programs area, which is uncomfortable for occupants

:: Plumbing system

- Need new sinks, drinking fountains and counters in pod areas
- Some faucets do not function, some faucets drip
- Some urinals do not flush properly
- Additional adult restrooms are needed. Adult restrooms added at locker rooms are remote and unused, old locker rooms are used for storage
- The school is scheduled to receive new toilets this fall

:: Electrical systems

- Hallway near kindergarten area is dark, it is scheduled to receive new fixtures
- Verify if emergency lighting is in gymnasium
- Corridor egress lighting not on

emergency power

- Multi-purpose/Cafeteria egress lighting does not meet egress code requirements
- Library/Media Center does not meet egress code requirements
- Library/Media Center egress lighting not on emergency power
- Not all exit landing are lighted
- Exit landing lighting not on emergency power

SITE CONDITIONS

Deficiencies

:: Ponding occurs in the east parking lot

:: Grounds need storm drains, per FSSD

:: Inadequate parking

:: Pinch point for bus and parent drop off at east end

:: Black top near portables is in poor condition

:: Bus loop needs to be reconfigured

SAFETY STANDARDS

Existing Conditions

:: School has full fire alarm system

:: School has sonitrol motion sensor type security system

Deficiencies

:: Some exits do not have light signs

:: Music room is not ADA accessible

:: Some exit signs are difficult to see

FUNCTIONAL STANDARDS

Existing Conditions

:: Custodial storage in hall near cafeteria entrance

Deficiencies

:: Counters and sinks in activity areas are old and need to be replaced

:: Suitability

- Insufficient number of adult restrooms
- Difficult to teach in learning lab due to

poor acoustics

- Route to gym/cafeteria is congested
- Gym has poor acoustics
- Refrigerator in hall near cafeteria entrance

PRINCIPAL REQUESTS

Deficiencies

:: Minimum facility requests

- More parking
- Large staff room
- Replace portables, Title 1, ESL and special education in portables

:: Minimum facility needs

- Cafeteria/multi-purpose room
- Covered play structure
- If population grows to 640, need four additional classrooms, in addition to portables



MINTER BRIDGE ELEMENTARY SCHOOL



**ASSESSMENT SCORE 77:
MINOR MODERNIZATION**

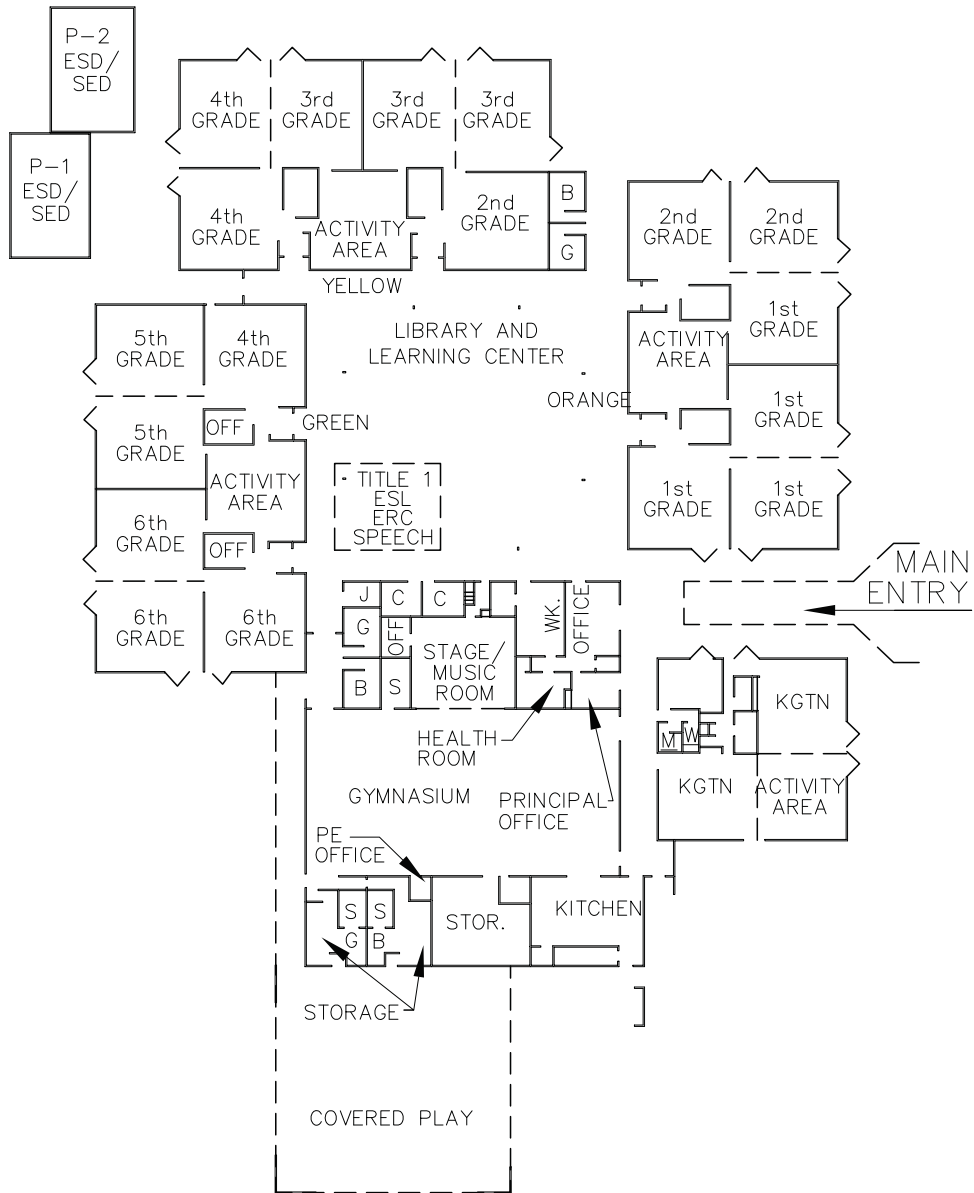
GENERAL INFORMATION

- :: Address: 1750 SE Jacquelin Drive,
Hillsboro, OR 97213-5260
- :: Construction date
 - Original school constructed in 1979
 - Structural drawings are missing
- :: Site area: 10.00 acres
- :: Building area: 49,163 square feet
- :: Population: 381 students



Minter Bridge Elementary | Floor Plan

NOTES:
 NO ROOM NUMBERS ESTABLISHED
 ROOM DESCRIPTIONS MAY
 CHANGE ANNUALLY



MINTER BRIDGE ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure is a combination of structural steel and structural wood walls on flat slab
- :: The roof is a combination of flat roofs at the classrooms and sloped glulam beams at the learning center
- :: The school was re-roofed in 2003
- :: The structure is similar to Eastwood and Jackson; Eastwood drawings use FEMA evaluation

Deficiencies

- :: Alcove roofs have poor drainage; the drain pipes are subject to clogging, which causes water to run into windows and ceilings; possible mold at these locations
- :: The 2001 FEMA report recommends a number of seismic upgrades to the structure
- :: Over 60% of floor coverings are original to construction and are showing wear
 - Gymnasium floor has a large crack in the middle
 - Tile in the hall outside the principal's office is cracking
- :: Floors in portables may have dry rot
- :: Clean and seal brick veneer

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling system is lay-in metal grid, gypsum and exposed structure
- :: Walls
 - Interior walls are wood stud with drywall and wood paneling; some classrooms have movable walls
- :: Windows / Doors
 - Windows are single-glazed, fixed aluminum
 - Exterior doors are steel, interior doors

are a combination of steel and wood

:: Miscellaneous

- Insulation
 - Foil Face at Kitchen Storage

Deficiencies

- :: Ceiling
 - Library ceiling has no acoustical treatment and the space can get very loud
 - Ceiling in alcoves are damaged due to poor roof drainage
- :: Walls
 - Movable walls are not easy to move, stick, are inconvenient and contribute to acoustical problems between classrooms
- :: Windows / Doors
 - Exterior windows need to be repaired
 - Window caulking is brittle
 - Some windows are missing blinds
 - Replace single-glazed windows
 - Doors do not have accessible hardware
- :: Miscellaneous
 - Insulation
 - No insulation at Front Office, Rooms 4 through 21, Staff Room
 - Replace unrated insulation

SERVICE SYSTEMS

Existing Conditions

- :: Cooling system
 - The school is air conditioned
 - HVAC was redone in 2005, it is working well, and digital system has improved operation.
 - Filters are changed three times a year. Some have excessive dust
 - Condensing units repalced; 2008
- :: Heating system
 - Electric heating system works well
- :: Electrical systems
 - It is assumed that the electrical system has been upgraded
 - Lighting upgrades throughout



- Maine electrical service: 1000 amp, 480Y/277 vold, distribution panel has six mains.

Deficiencies

- :: Heating system
 - Electric duct heater are under capacity for outside air ventilation requirements during cold weather
- :: Plumbing system
 - Drain at exterior classroom doors frequently clog, poor drainage
 - Mens' and boys' restroom fixtures do not drain well
 - Limited number of adult fixtures for evening use
 - No accessible toilet rooms
 - Teachers have complained about mold in the building
- :: Electrical systems
 - Inadequate number of outlets
 - Floor outlets in media center can be a hazard, especially if they are missing covers
 - Exit signs are inadequate; many are placed where view is obstructed
 - Electric service needs to be upgraded. Additional capacity required when heating system upgrade is done to meet ventilation requirements
 - Lighting system needs to be upgraded
 - Corridor egress lighting is not on emergency power, emergency battery inverter has failed and needs to be replaced
 - 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

SAFETY STANDARDS

Existing Conditions

- :: School has full fire alarm system. Beam dectectors used in IMC

- :: School has Sonitrol motion sensor type security system

Deficiencies

- :: Needs emergency lighting; gymnasium blacks out during power outages
- :: Stage lacks ADA access
- :: School has partial fire sprinkler system. Coverage in corridor only

FUNCTIONAL STANDARDS

Deficiencies

- :: Dual use of cafeteria/gymnasium creates scheduling problems
- :: Evening use of classrooms can create conflicts

PRINCIPAL REQUESTS

Deficiencies

- :: Minimal Facility Needs
 - New cafeteria and enlarged kitchen
 - Larger classrooms for older students
 - Covered garbage area
 - Enlarge covered play



MOOBERRY ELEMENTARY SCHOOL



**ASSESSMENT SCORE 52:
MAJOR MODERNIZATION**

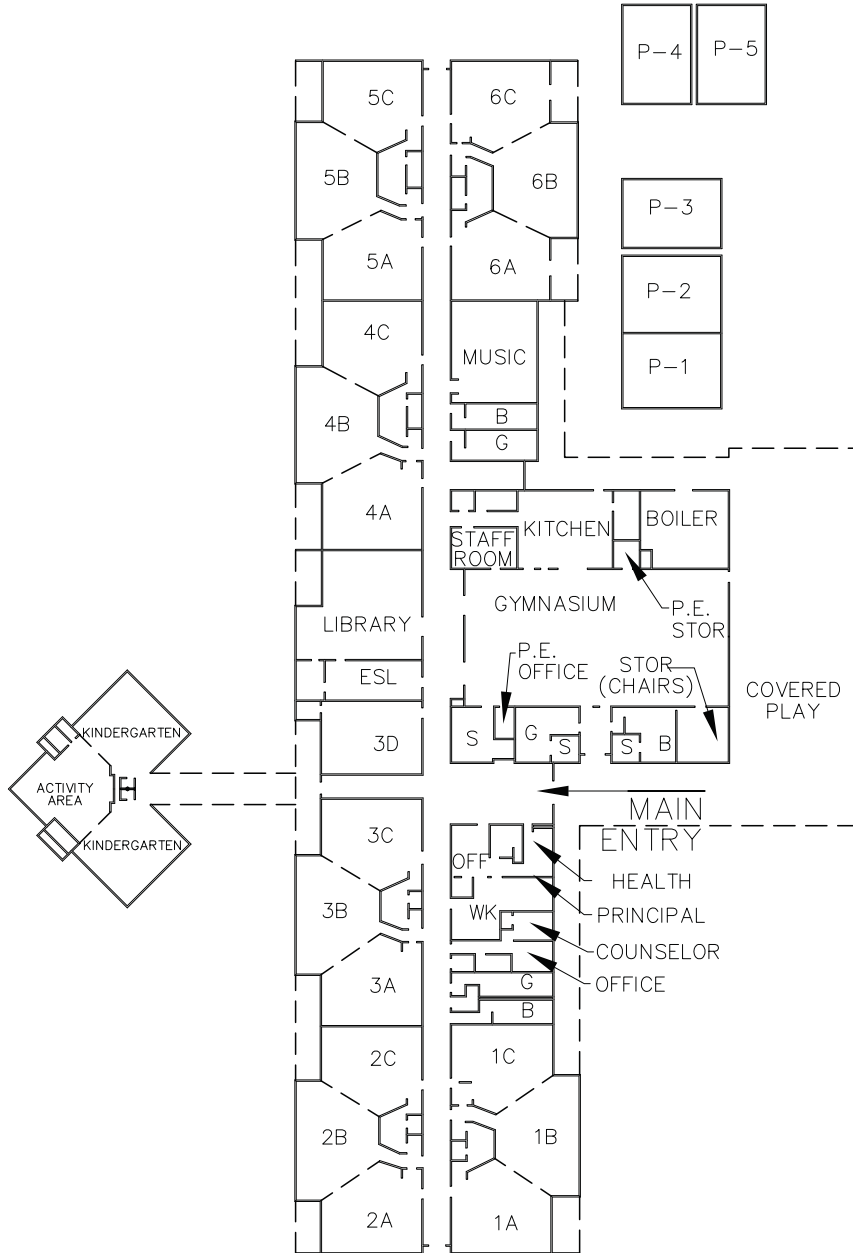
GENERAL INFORMATION

- :: Address: 1230 NE 10th Avenue, Hillsboro, OR 97124-5203
- :: Construction dates:
 - Original school constructed in 1963
 - East portion added between 1963 and 1970
 - Kindergarten constructed in 1970
- :: Site area: 10.00 acres
- :: Building area: 49,493 square feet
- :: Population: 547 students



Mooberry Elementary | Floor Plan

NOTE:
 NUMBERED ROOMS
 ARE CLASSROOMS



MOOBERRY ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Primary structure is structural wood and steel with concrete footings and slab
- :: According to the 2001 FEMA report, the structure needs to be tied together
- :: School has original VAT in classrooms, corridors, and gymnasium
- :: The roof is a joist and beam system with sheathing

Deficiencies

- :: Paint is chipping off metal portions of the building
- :: The floor in kindergarten restroom needs replacing
- :: Gutters and downspouts in building are in very poor condition; they were not replaced with the new roof and need to be replaced
- :: The custodian does not think the roof is insulated
- :: Clean and seal brick veneer

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - Ceiling is primarily lay-in grid that has been painted
- :: Walls
 - Interior walls are studs with drywall
- :: Windows / Doors
 - Aluminum windows are operable with single-pane glass
 - Exterior doors are steel; interior doors are wood sliders; security and operations are an issue
- :: Miscellaneous Insulation
 - Feltrok (2"0 Foil face at Main Entry
 - Black Plain Foil Face at Room 6, Room 9, Library (2"),

- Foil Face Encapsulated Plain, no writing at Hall by Library
- GSU Foil Face at Staff Room (2"), Room 20 (3")
- GSU Black at Room 10 (3"), Room 13,
- Owens Corning at Boys Restroom
- Foil Face at Room 15 (R-11, 3 1/2"), Kraft Fiber Glass Insulation at hall by Room 16 (R-13), (3 different types of paper face flammable insulation in this area), and Kitchen
- Black Plain Insulation at Room 2

Deficiencies

- :: Ceiling
 - Ceiling tiles are water stained
 - Ceiling tiles have been painted; this has an adverse effect on the acoustical performance
 - Gymnasium has poor acoustics
- :: Walls
 - Most classrooms have accordion doors; they are never opened and do not provide good sound separation or adequate pin-up space
- :: Windows / Doors
 - Windows do not perform well in the winter
 - Replace single-glazed windows
 - Doors are old and worn, and in need of replacing
 - Classrooms have exterior aluminum
- :: Miscellaneous Insulation
 - Paper face Flammable at Main Hall
 - Replace kraft-face insulation (location?)

SERVICE SYSTEMS

Existing Conditions

- :: Cooling system
 - Portables have window units
 - School is not air conditioned (kindergarten building only)
- :: Heating system
 - Heating system is gas-fired, hot water with pneumatic controls
 - Natural gas fired hydronic hot water boiler, evaluate for efficiency



- Multi-zone air handler in mechanical mezzanine. Water runs brown if unused for a week
- Pneumatic control system replaced with DDC system; 2008

:: Plumbing system

- Some fixtures have been replaced
- Hot water only in kindergarten, kitchen and health room

:: Electrical systems

- Electrical service is at capacity
- Wiring above ceiling is cloth-covered wires
- Classrooms are dim; halls are over lit
- Main Electrical services: 800 amp, 208Y/120 volt distribution panel board; new November 2009. Panel board has main fusible switch, circuit breaker distribution section
- School lighting system upgraded to electronic ballasts and T8 lamps; 2010
- Corridor egress lighting has battery backed ballasts
- Corridors are over lit

Deficiencies

:: Cooling system

- School is unusable in summer, and difficult to cool in spring and fall

:: Heating system

- Heating system is unreliable; it is in need of constant service
- It is not energy efficient and leaks water into ceiling
- Evaluate boiler for efficiency and gas pressure issues (boiler doesn't fire in cold weather?)
- Replace air handlers
- Multi-purpose/Cafeteria/Gymnasium area lighting upgraded to T5HO fluorescent fixtures; 2010

:: Plumbing system

- Plumbing system and faucets are failing
- Some toilet fixtures have too much pressure and splash
- Water runs brown if unused for a week
- Push-button faucets do not work
- Drinking fountains do not function properly

- No ADA accessible facilities
- Need a restroom for adult males
- Replace domestic hot water located in the attic
- Replace domestic hot water piping located in the attic/mezzanine. Water runs brown if unused for a week
- Downspouts need to be replaced

:: Electrical systems

- Entry has insufficient lighting
- Lighting upgrades throughout
- Multi-purpose/Cafeteria/Gymnasium egress lighting does not meet egress code requirements
- Occupancy sensor system is needed
- Exit landing lighting not on emergency power

SITE CONDITIONS

Deficiencies

- :: Ponding at playground and southwest corner of parking lot
- :: Downspouts need to be replaced

SAFETY STANDARDS

Existing Conditions

- :: Security system consists of motion detectors
- :: Gymnasium has emergency lighting
- :: School has Sonitrol motion sensor type security system
- :: Facility has security concerns

Deficiencies

- :: Building, grounds and play areas have many hidden areas and overgrown shrubbery
- :: Site has insufficient security fencing
- :: Parent and bus drop-off is a potential safety hazard

FUNCTIONAL STANDARDS

Deficiencies

- :: Building is crowded; five portables on site
- :: Adaptability



- Building is over capacity
- Cabinets are losing finish, handles and Formica is chipping
- Folding walls do not make a good surface for hanging
- Stairs and railings at portables are in poor condition; no ramps
- Wind blows into covered play structure along building
- Moveable partitions are kept closed, with cabinets and shelves lined up against them

:: Suitability concerns

- Classrooms are too small for twenty-eight children
- Specialists are doubled and tripled up in offices in portables
- Kindergarten classes are in separate locations
- Gymnasium/cafeteria combo creates scheduling and clean-up conflicts

PRINCIPAL REQUESTS

Deficiencies

:: Minimal Facility Requirements

- Bus/parent drop-off needs to be resolved; principal plays "traffic cop"

:: Minimal Facility Needs

- Five full classrooms
- Music room
- New gymnasium with stage
- Two new offices

NORTH PLAINS ELEMENTARY SCHOOL



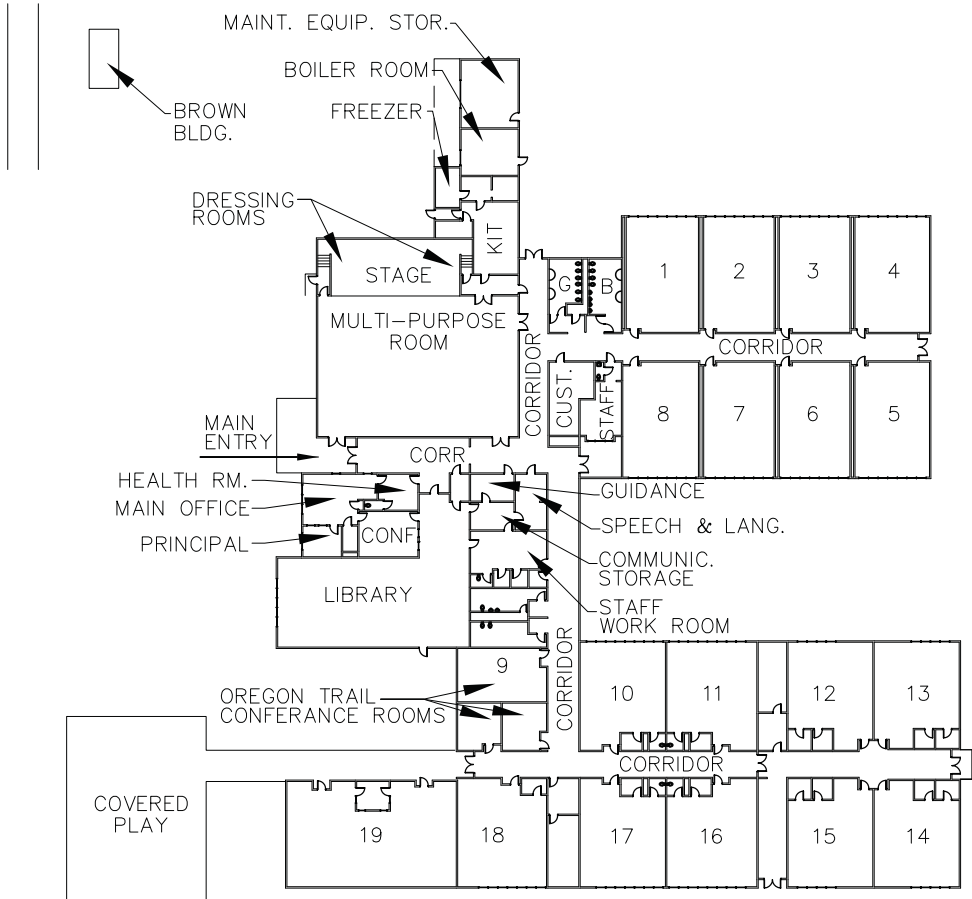
**ASSESSMENT SCORE 83:
MINOR MODERNIZATION**

GENERAL INFORMATION

- :: Address: 32030 NW North Ave, North Plains, OR 97133
- :: Construction dates:
 - Original school constructed in 1954
 - Building additions in 1960, 1968, and 1992
- :: Site area: 14.00 acres
- :: Building area: 46,913 square feet
- :: Population: 292 students



NOTE:
NUMBERED ROOMS
ARE CLASSROOMS



NORTH PLAINS ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: Structural issues were addressed in 2005 when the building was remodeled after the fire

Deficiencies

- :: Floor in room four is bouncy
- :: Roof system
 - Lacks adequate gutters and down spouts at interior courtyard
 - Moss on play structure roof
 - Storm drain at canopy has no screen and roof does not slope toward the drain
 - Roof drain at covered walk has no slope or screen

SECONDARY STRUCTURE

Existing Conditions

- :: Walls
 - Interior walls are wood studs with drywall
 - Corner guards have been added to most walls
- :: Windows / Doors
 - Doors were replaced after the fire
- :: Miscellaneous
 - Insulation
 - Foil Face at North Hall and East Hall (no label)

Deficiencies

- :: Floors
 - Five classrooms have bubbles in rugs
- :: Windows / Doors
 - Window system in older portions of the building will need replacement in a few years
 - Replace single-glazed windows
- :: Miscellaneous
 - Insulation
 - Paper Face at north side of west hall (R-11)

SERVICE SYSTEMS

Existing Conditions

- :: Heating and Cooling Systems
 - New construction has gas packs, older portions of the school utilize hot water heat with DX cooling
 - Older portion of the school utilizes two air handlers with DX condensing units
 - Old cast iron forced draft boiler is out of service. System was natural gas fired, low pressure steam
 - New natural gas fired ydronic boiler feeds one AHU
 - 2005 addition class wing, new natural gas fired hydronic boiler feeds one AHU
- :: Plumbing system
 - Fixtures in the newer addition are ADA compliant, low-flow type
 - Domestic water heater in the 2005 addition is natural gas fired standard type
 - Natural gas fired domestic water boiler and storage tank in old boiler room
- :: Electrical systems
 - Main electric service was installed in 2005. It is 1000 amp, 120Y/208 volt with no main disconnect. It sub-feeds the older Trumbull distribution panel (1954 vintage) in the boiler room. The main service has three main disconnected circuit breakers
 - Classroom, administration office area, corridors and library have new fixtures with electronic ballasts and T8 lamps. Fixture types are both recessed and surface
 - Corridors have emergency lighting units with battery packs
 - Multi-purpose room has open incandescent lighting fixtures, no emergency egress lighting. No emergency power for lighting fixtures.

Deficiencies

- :: Heating and Cooling Systems
 - One unit control for four rooms, uneven distribution of heat and cold
 - One unit makes hissing noises



- Older portions of heating system do not work well
- Upgrade HVAC controls to electric
- :: Plumbing system
 - Fixtures in older portions of the school are standard, non-ADA compliant
- :: Electrical systems
 - West connector hall is dark
 - Trumbull distribution panel should be replaced
 - The classrooms do not have occupancy sensors for lighting controls
 - Needs to be upgraded to fluorescent
 - Exit landing lighting not on emergency power

SITE CONDITIONS

Existing Conditions

- :: No drains in fields, not a problem

Deficiencies

- :: Front driveway higher than school entrance, causes ponding; the drain is poorly designed and causes ponding west of the entrance
- :: Provide drain/drainage to alleviate standing water at "back door"
- :: The school needs additional exterior lighting
 - No lighting in courtyard, lighting needed for anticipated changes to courtyard
 - Parking lot has no lighting
 - Front entrance has one light; inconvenient and dangerous for evening events
 - Old storm drains need constant maintenance to keep free of debris
 - Ponding on ground near play shed

SAFETY STANDARDS

Existing Conditions

- :: The 2005 addition is not fire sprinklered, nor is the older portion of the school
- :: The school has a full fire alarm system
- :: School has Sonitrol motion sensor type security system

Deficiencies

- :: 12 inch to 18 inch drop-off at picnic area needs a railing or the slope brought up to the slab

FUNCTIONAL STANDARDS

Deficiencies

- :: Adaptability
 - Limited break-out area; will be an issue if population increases
 - Conflict between gymnasium, stage and cafeteria
 - Potential conflict between bus and parent drop-off if school enrollment increases
- :: Suitability
 - Size of gymnasium limits size and number of activities for school or parent clubs
 - Roof of school can be accessed via the play structure; this leads to vandalism of roof units and skylights
 - Provide access to courtyard from staff room
 - The exterior layout has a number of "blind spots" that are difficult to supervise

PRINCIPAL REQUESTS

Deficiencies

- :: Minimal facility requirements
 - Remove covered play area to east
 - Would like secured ladder to access roof
 - Enlarged parent drop off inadequate if school grows
 - Learning Lab in courtyard needs ability to be secured, with zeroscape, bird and butterfly garden
- :: Minimal facility needs
 - New gym with adequate chair storage
 - Break-out rooms
 - New covered area at black-top



ORENGO ELEMENTARY SCHOOL



**ASSESSMENT SCORE 94:
MINOR MODERNIZATION**

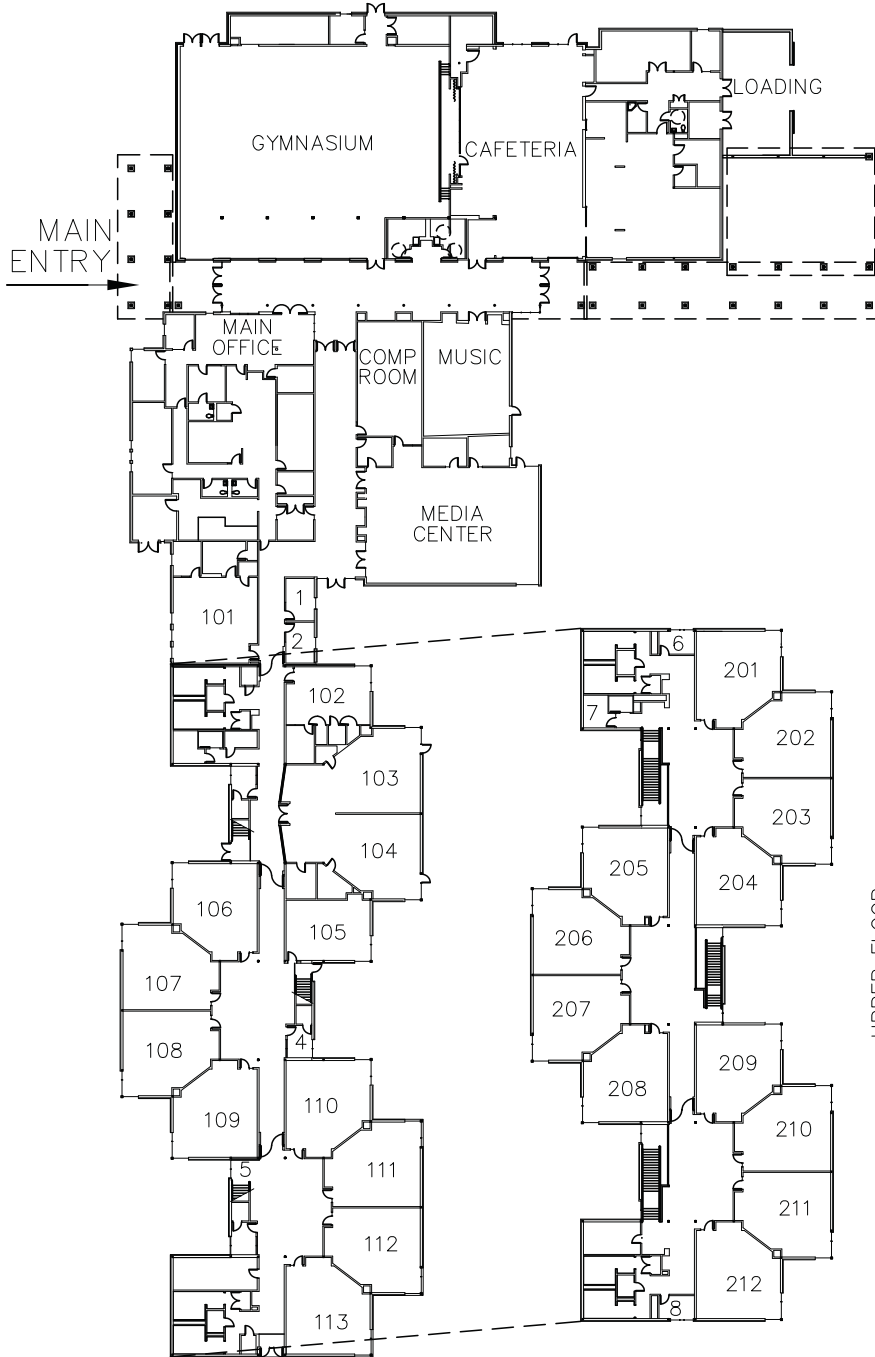
GENERAL INFORMATION

- :: Address: 22550 NW Birch Street, Hillsboro, OR 97124
- :: Construction date:
 - Original school constructed in 2000
- :: Site area: 13.52 acres
- :: Building area: 69,435 square feet
- :: Population: 583 students
- :: Capacity: 600 students



NOTES:

1xx & 2xx NUMBERS ARE CLASSROOMS
1x & 2x NUMBERS ARE SMALL
GROUP AREAS



ORENCO ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

:: This school was constructed after the 2001 FEMA report. It was built to current seismic codes.

Deficiencies

- :: Brick wall and some brick columns have efflorescence and need to be resealed
- :: Floor system
 - Bubbles in carpet in a few locations
 - Grout is stained white in some restrooms
- :: Snow guards came off roof in 2003 ice storm

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - The school has primarily lay-in ceiling tiles
- :: Walls
 - Interior walls and partition are wood stud with drywall
- :: Windows / Doors
 - Windows are aluminum with fixed glass and operable units
 - Doors are aluminum steel, exterior, and wood interior doors

Deficiencies

- :: Ceiling
 - Gymnasium is a very loud space
 - Ceiling under walkway, clean and paint, is experiencing moisture uptake and has black mold
- :: Walls
 - Concrete at lower part of gym is uneven color and needs to be painted
 - Carpet on walls in gym is coming loose and being peeled off
 - Fabric wall covering is difficult to clean,

has been painted in the cafeteria

:: Windows / Doors

- Seven or eight windows in corners near heatilator have broken from heat stress cracks, replaced with tempered glass
- Horizontal window blinds are not appropriate at locations near where children sit, they get bent by children
- Door into cafeteria is bent
- Some entrance doors stick, it may be from the building settling

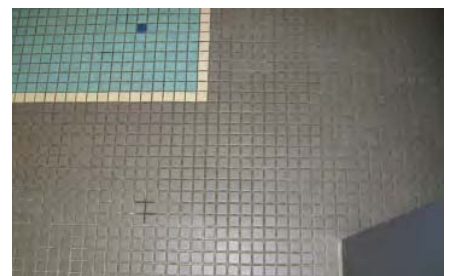
SERVICE SYSTEMS

Existing Conditions

- :: Cooling system
 - The school is air conditioned, chilled water with DX cooling
 - Thermostat was relocated to get a more accurate temperature reading in the rooms; it was located low on the wall
- :: Heating system
 - The heating system is gas central boiler with unit ventilators or VAV boxes
- :: Plumbing system
 - Auto flushers have been removed from the urinals
- :: Electrical systems
 - Motherboard for exterior lights blew after a power surge; this took out exterior lighting; a timer has been added to correct the situation

Deficiencies

- :: Cooling system
 - Filters need cleaning
- :: Plumbing system
 - Sprinkler pipes under covered play have broken twice
 - Paint is peeling off sprinkler pipes in canopy
 - Faucets may need to be replaced soon; they do not hold up to use
 - Gutters need to be cleaned more



frequently or covered with screens

SAFETY STANDARDS

Deficiencies

- :: No alarm in recess area; leads to confusion when there is a fire drill during recess
- :: Congested exiting in the middle of building; one stair for four classes; leads to one exit door for eight classes

FUNCTIONAL STANDARDS

Deficiencies

- :: Formica is chipping at bottom of cupboards near corner seating areas
- :: Cabinetry has loose corners
- :: Composite board wainscoting may not withstand use over time; is starting to show wear
- :: Some cabinets are missing handles; they swing open too far and bang into each other
- :: Light bulbs in fixtures over stairs are almost impossible to change
- :: Windows over stairs are difficult to clean

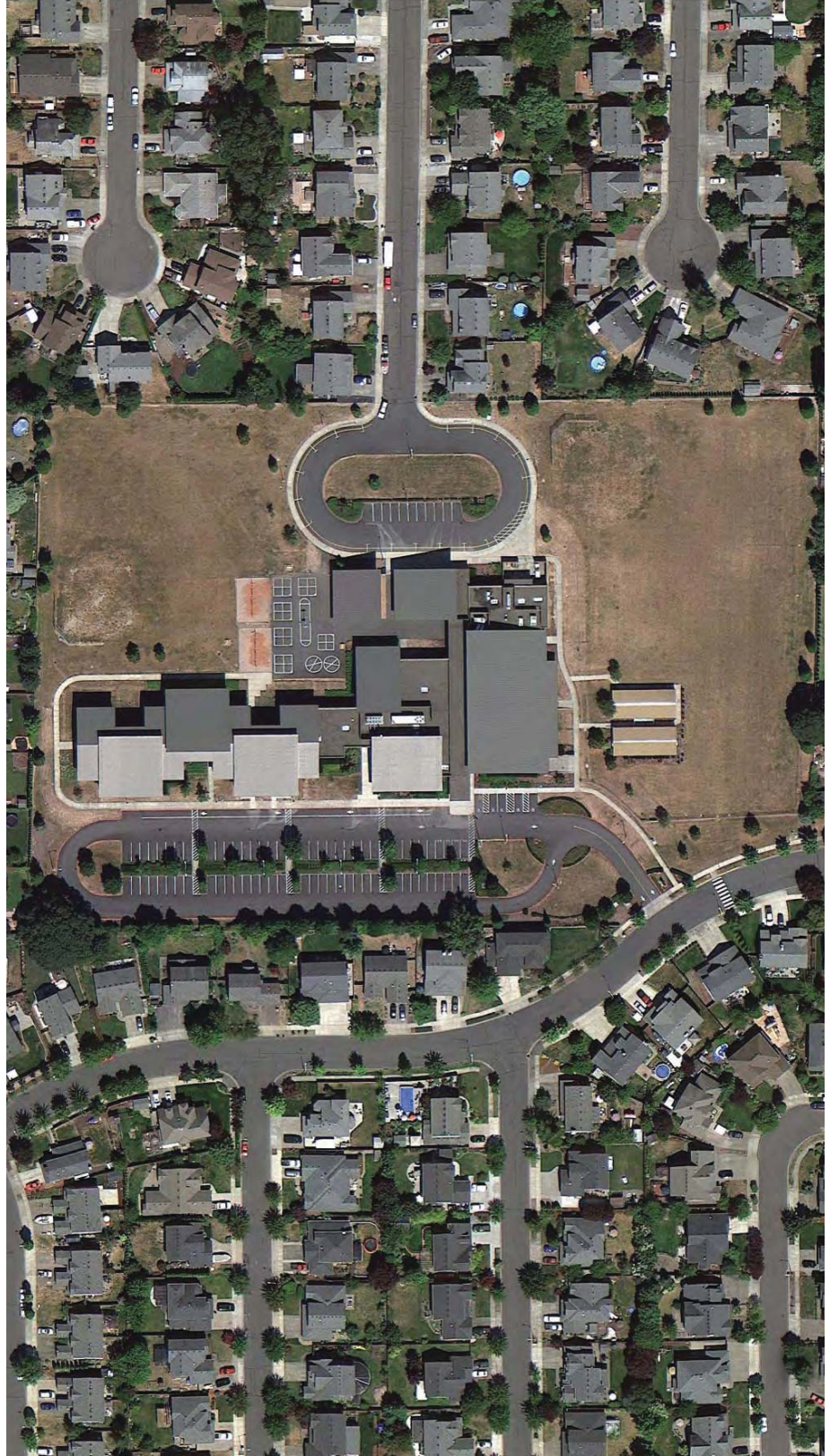
PAUL L. PATTERSON ELEMENTARY SCHOOL



**ASSESSMENT SCORE 95:
SATISFACTORY CONDITION**

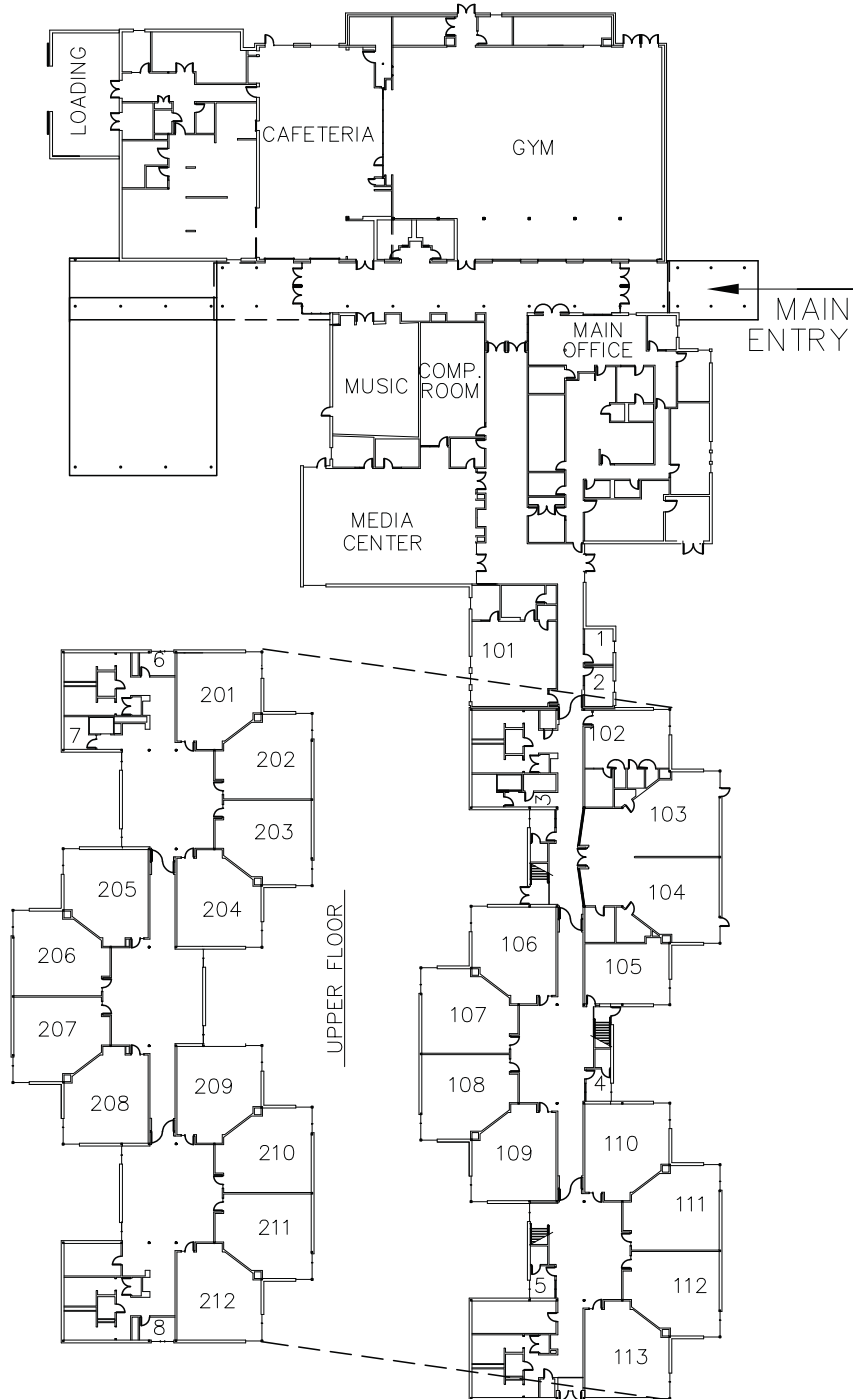
GENERAL INFORMATION

- :: Address: 261 N. Lenox Street, Hillsboro, OR 97124
- :: Construction date:
 - Original building constructed in 2000
- :: Site area: 10.00 acres
- :: Building area: 69,435 square feet
- :: Population: 508 students



NOTES:

1xx & 2xx NUMBERS ARE CLASSROOMS
1x & 2x NUMBERS ARE SMALL
GROUP AREAS



PAUL L. PATTERSON ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

:: This school was constructed after the 2001 FEMA report. It was constructed to current seismic codes.

Deficiencies

:: Brick at recycle/garbage surround showing some efflorescence, needs to be cleaned and resealed

:: Exterior canopy needs a coat of paint at main entry

:: VCT appears to be shrinking or moving in the main hallways; happened summer 2005. The problem is wide spread on the first floor. Use low water cleaning and no power scrubbing. Tiles bubble and have come up in the past.

SECONDARY STRUCTURE

Existing Conditions

:: Walls

- Interior walls are steel stud with drywall
- Folding panel in cafeteria/gym works great; lesson learned, due to number of kids in cafeteria bottom 6' of panels had to be painted, would recommend FRP surface next time.

:: Windows / Doors

- Windows are aluminum fixed glass and operable units
- Had some window glazing crack and seals broke. These have been replaced and there have been no further problems
- Exterior doors are steel or aluminum, interior doors are wood or steel

Deficiencies

:: Walls

- Tack boards in hallway show dirt
- would choose darker color or different material next time

SERVICE SYSTEMS

Existing Conditions

:: Cooling system

- Building is air conditioned

:: Heating system

- Heating system is gas, central boiler with unit ventilators and VAV boxes

:: Plumbing system

- No issues

:: Electrical system

- No issues

Deficiencies

:: Cooling system

- Cooling system has a delay in two or three classrooms due to chiller load at start-up
- Teachers don't like the loss of floor area taken up by unit ventilators in classrooms

SAFETY STANDARDS

Existing Conditions

:: Main board and chip has been replaced at FSL alarm

PRINCIPAL REQUESTS

Deficiencies

:: Minimal facility requirements

- Provide exit door at bottom of west stair with sidewalk tie to playground, so that fire drills can all exit to same side of building; this would assist in speed and supervision of fire drills
- More storage
- Increased population requires use of portables on site



QUATAMA ELEMENTARY SCHOOL



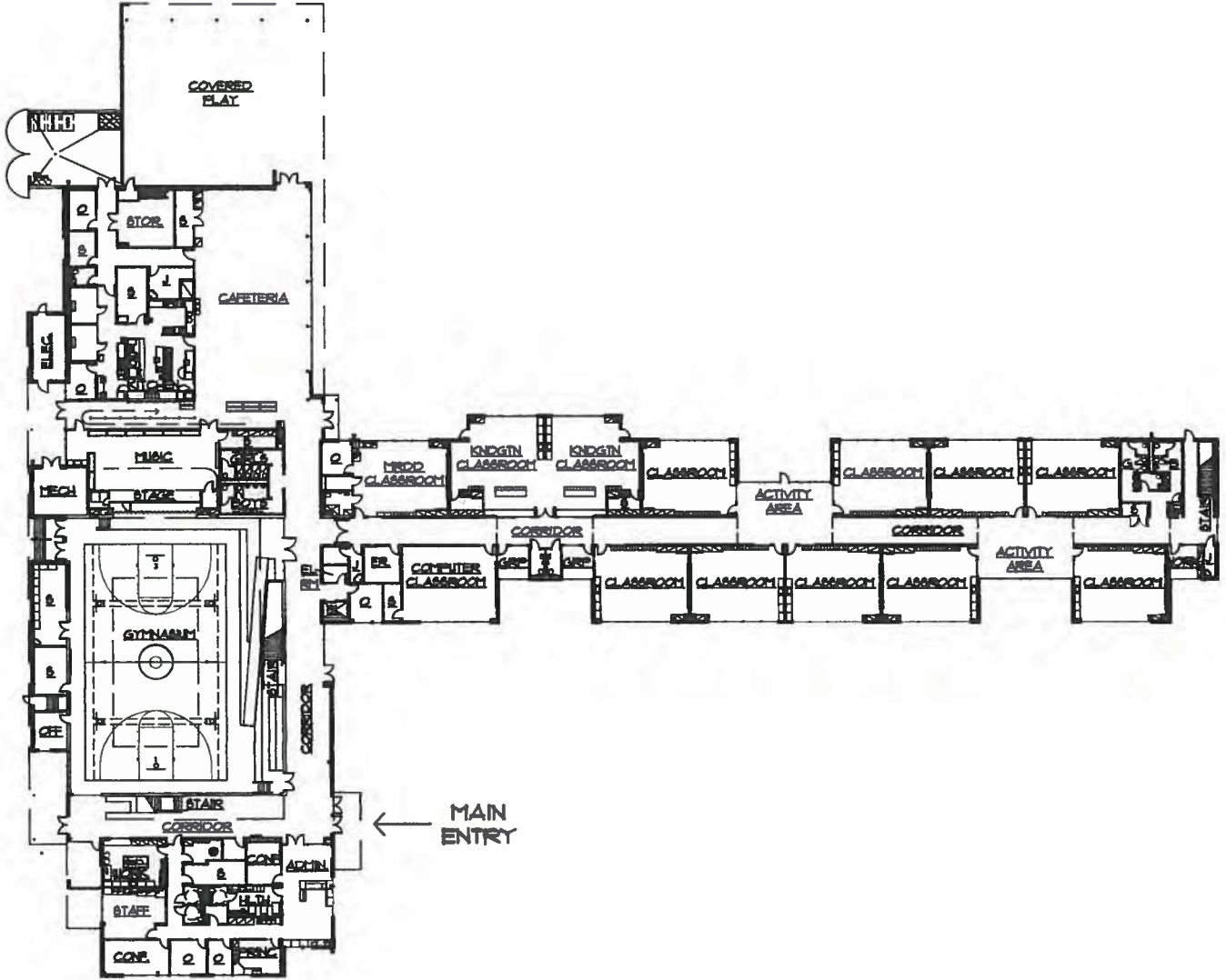
**ASSESSMENT SCORE 98:
SATISFACTORY CONDITION**

GENERAL INFORMATION

- :: Address: 6905 N.E. Campus Way, Hillsboro, OR 97124
- :: Construction date:
 - Constructed in 2008
- :: Site area: 10.02 acres
- :: Building area: 73,000 square feet
- :: Population: 583 students
- :: Capacity: 600 students



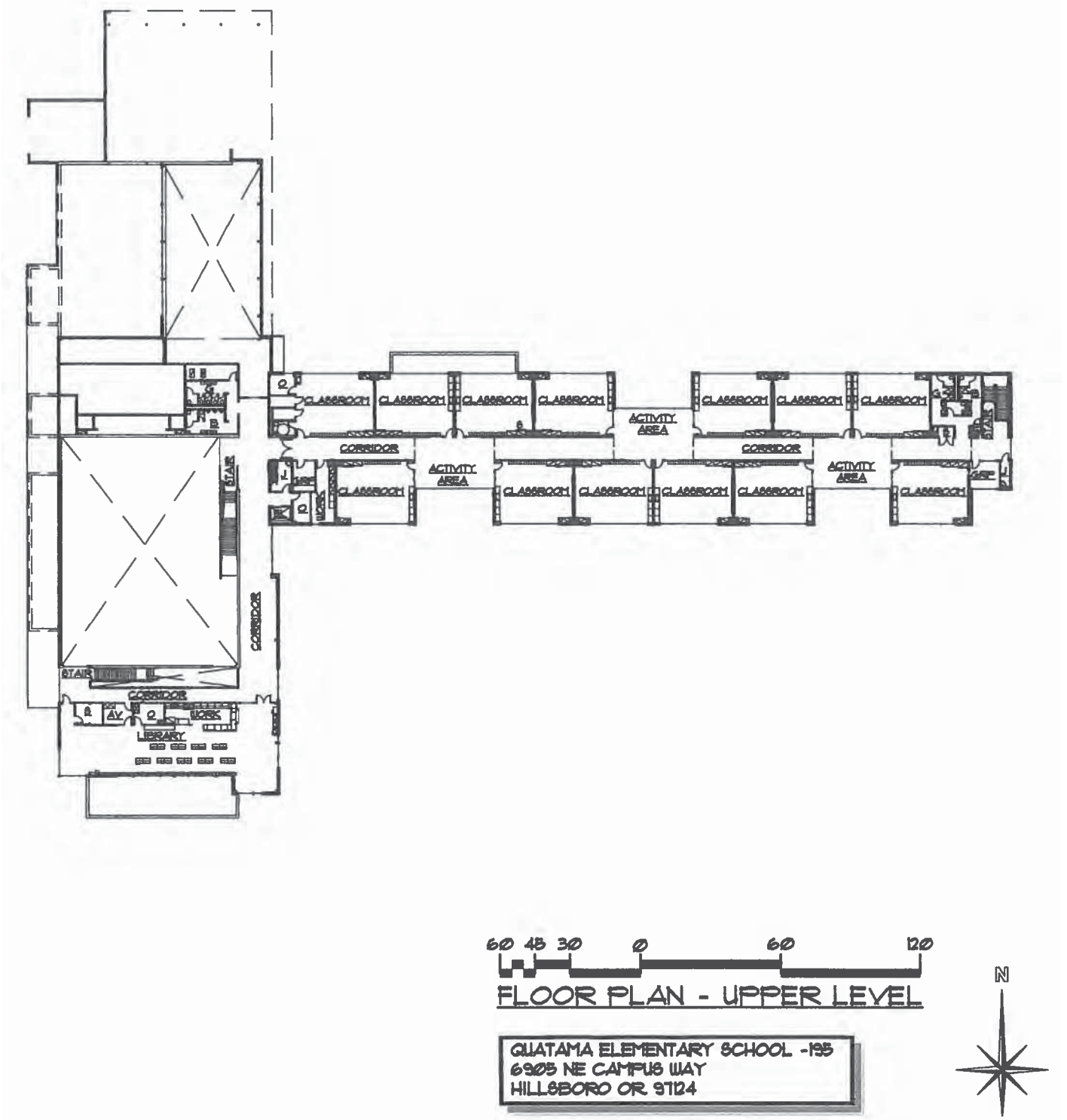
Quatama Elementary | Floor Plan



FLOOR PLAN - MAIN LEVEL

QUATAMA ELEMENTARY SCHOOL - 195
6905 NE CAMPUS WAY
HILLSBORO OR 97124





QUATAMA 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

Deficiencies

- :: Clean and seal exterior block

SECONDARY STRUCTURE

Existing conditions

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

Deficiencies

- :: Does not meet with current energy codes

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

SAFETY SYSTEMS

Existing Conditions

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



REEDVILLE ELEMENTARY SCHOOL



**ASSESSMENT SCORE 35:
MAJOR MODERNIZATION**

GENERAL INFORMATION

:: Address: 2695 SW 209th Avenue, Aloha,
OR 97006-1736

:: Construction dates:

- Original school constructed in 1922
- Southwest classrooms and gymnasium in 1938
- West wing in 1952
- Window replacement and siding replacement in 2010
- Covered play in 2009

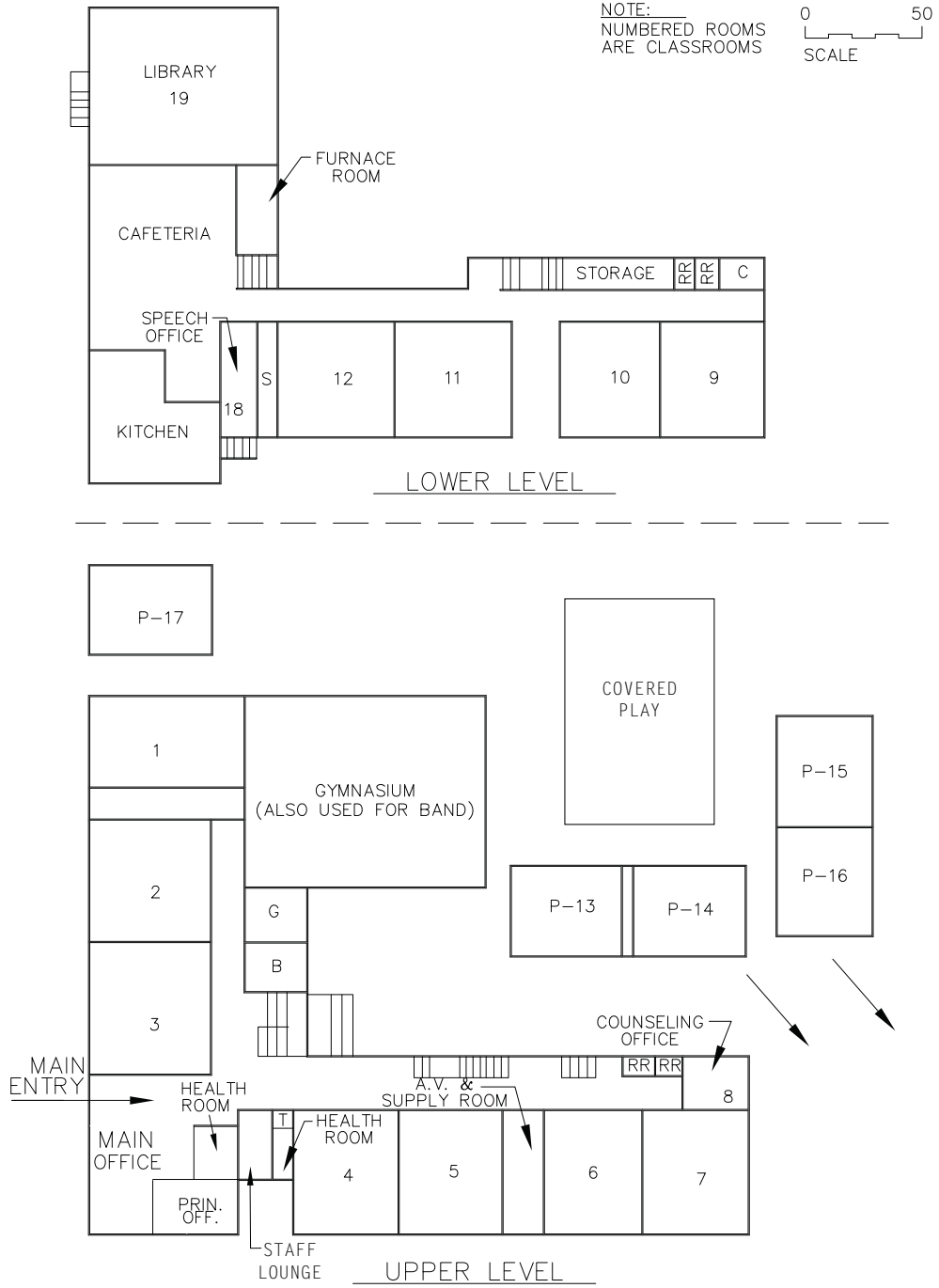
:: Site area: 7.50 acres

:: Building area: 16,247 square feet

:: Population: 360 students



Reedville Elementary | Floor Plan



REEDVILLE ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The building structure is a combination of reinforced concrete and structural wood with continuous footings and individual footings
- :: Wood floors are in good condition
- :: The roof structure is a combination of truss and sheathing and ratters with sheathing

Deficiencies

- :: The 2001 FEMA report recommends seismic upgrades to the structure
- :: Due to the age of the building it is assumed the exterior walls do not have insulation and are not energy code compliant
- :: Additional area of VAT abatement needed
 - Painted concrete floors in restrooms are in poor condition
- :: Building lacks eaves, gutters overflow and water runs down the wall and into the building system
- :: West wing has problems with drainage system
- :: Portables have low slopes and drainage problems
- :: Replace roof between 2010 and 2014

SECONDARY SYSTEM

Existing Conditions

- :: Ceiling
 - Main building has 12x12 direct glue ceiling tiles. Portables have a 2x4 lay-in ceiling
 - Interstitial space is not accessible; this is not a problem due to the lack of mechanical and electrical systems in the facility
- :: Walls
 - Interior walls are wood stud with plaster, drywall and exposed concrete

:: Windows / Doors

- Doors are steel and wood

:: Miscellaneous

Insulation

- Office: Pink - blown in
- West Portable: Fiber netting, no label

Deficiencies

:: Miscellaneous

Insulation

- None at the remaining sections of the school

SERVICE SYSTEMS

Existing Conditions

:: Cooling system

- Building does not have air conditioning
- West-facing classrooms have ceiling fans
- Some classrooms have window air conditioning units

:: Heating system

- The building is heated with steam supplied to radiators

:: Plumbing system

- Piping is internal

:: Electrical systems

- New electrical service within last five years.

Deficiencies

:: Heating system

- Unit ventilators may provide a better delivery system than radiators
- Possible air in the pipes causes the system to knock in the morning
- Poor ventilation in most restrooms
- No exhaust fan in health room toilet
- Outside air replacement is needed

:: Plumbing system

- The facility has no ADA restrooms or fixtures
- Facility lacks adult restrooms
- Water is not used for drinking due to rust and age of pipes
- Internal domestic water piping needs to be replaced



:: Electrical system

- Electrical system functions but not adequate for current loads
- Additional electrical service needed in computer lab in library
- Data in building unable to utilize CATV signal connection which is needed for teaching purposes

SITE CONDITIONS

Deficiencies

- :: Playground has drainage problems and cannot be used when wet
- :: High drain near portable classrooms
- :: Site access is via asphalt paved paths that are not code compliant in regards to slope and ADA standards
- :: Poor drainage for walkways around building and play areas

SAFETY STANDARDS

Existing Conditions

- :: Facility is sprinklered in hallways

Deficiencies

- :: Ramps do not meet ADA requirements
- :: Parking is perpendicular to street, cars back out into traffic and in front of busses on a busy street

FUNCTIONAL STANDARDS

Deficiencies

- :: Classrooms are too small for over 30 students, especially with computers
- :: PE and Music use the same space
- :: Library is low on space due to computers
- :: Limited alternate spaces for teaching
- :: Current classroom size adequate

PRINCIPAL REQUESTS

Deficiencies

- :: Minimum facility needs
 - Need walk-in space in kitchen
- :: Minimum facility additions
 - Separate music room
 - Larger library
 - Lunch room/kitchen is too small; must have four lunches



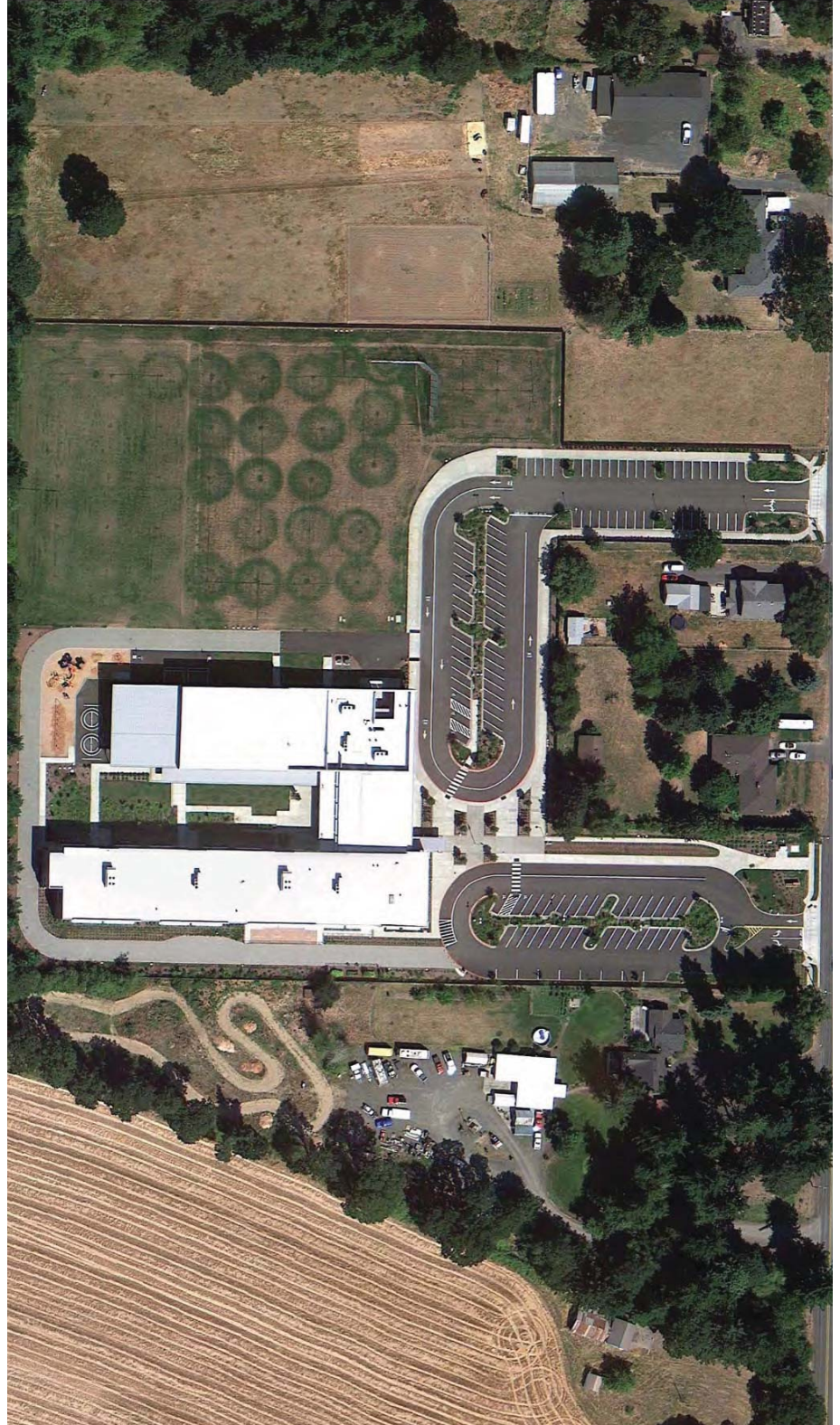
ROSEDALE ELEMENTARY
SCHOOL



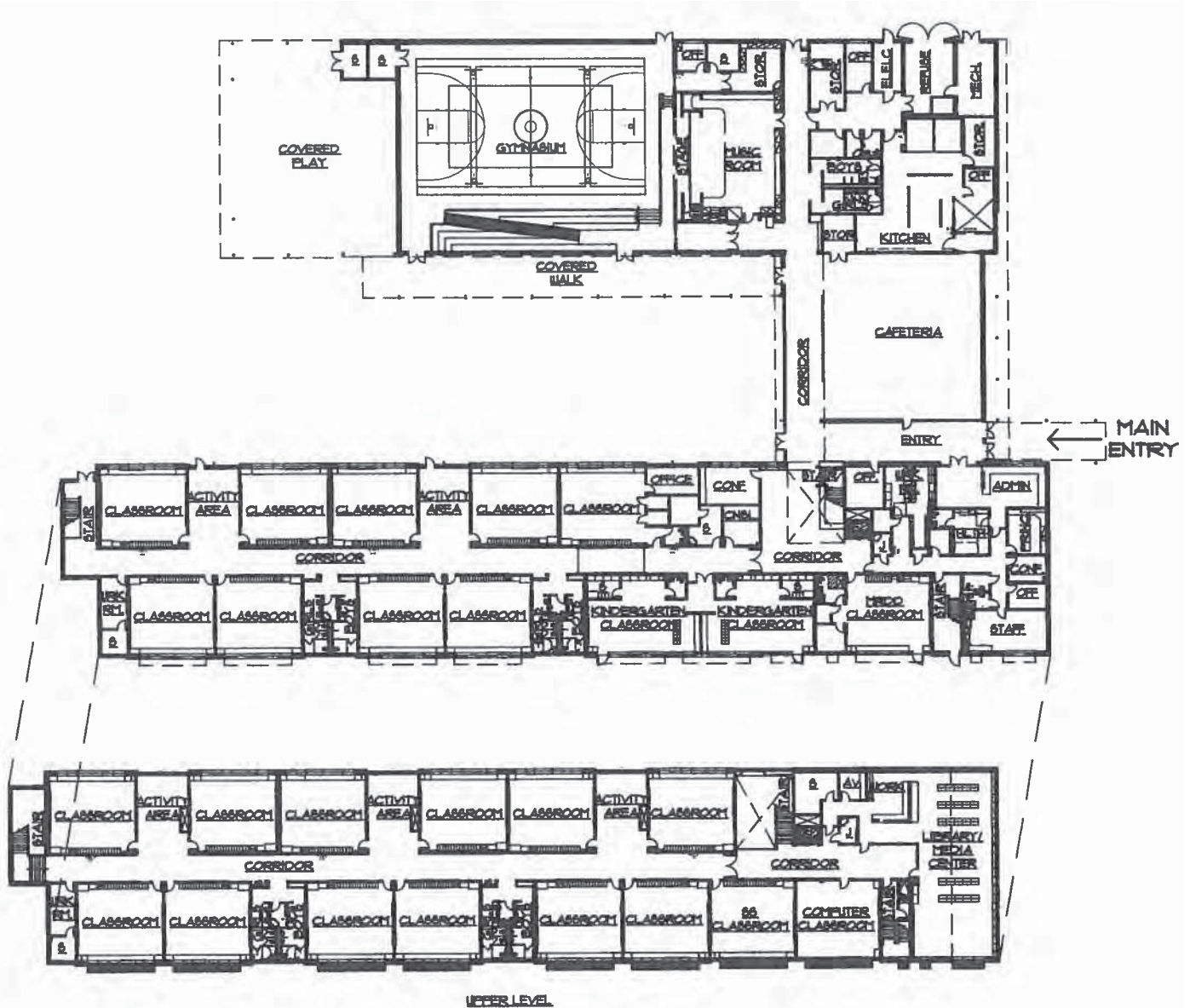
ASSESSMENT SCORE 98
SATISFACTORY CONDITION

GENERAL INFORMATION

- :: Address: 3901 SW 229th Avenue,
Hillsboro, OR 97007
- :: Construction date:
 - Constructed in 2009
- :: Site area: 9 acres
- :: Building area: 73,700 square feet
- :: Population: 334 students
- :: Capacity: 600 students



Rosedale Elementary | Floor Plan



UPPER LEVEL



FLOOR PLAN

ROSEDALE ELEMENTARY SCHOOL -272
3901 SW 229TH AVENUE
HILLSBORO OR 97107



ROSEDALE 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.
- :: Slab on grade at first floor and Concrete Tilt walls with brick veneer, metal panel, exposed painted concrete. Steel floor and roof structure.

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 wood.
- :: Roof
 - Roofing: Built up Roof (Tremco)

SERVICE SYSTEMS

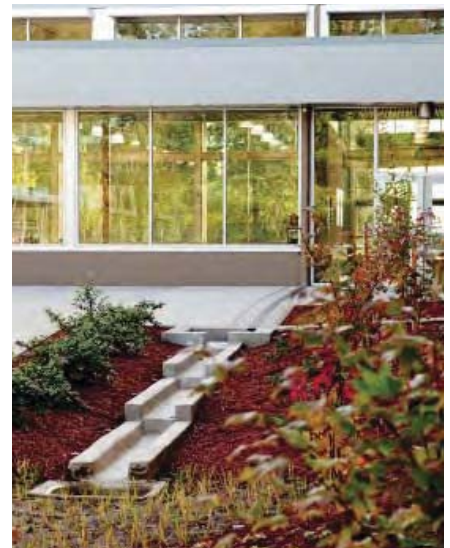
Existing Conditions

- :: Mechanical
 - Building is fully air conditioned
 - Radiant Slab Heat at Commons, Entry and Corridor west of Commons
 - Roof top Air Handling Units
 - Heat Recovery System
 - High Efficiency boiler (gas)
 - VAV Distribution w/ fan power terminal units.
- :: Electrical
 - Occupancy sensor at Classrooms with master on/off switch and 3-way switch.
 - 277/480V, anticipated load: 600A

FUNCTIONAL STANDARDS

Existing Conditions

- :: Sustainability
 - LEED Gold for School
 - Dual flush toilet
 - Low-flow fixtures
 - Rainwater harvest tanks (for irrigation)
 - Reduce material use (exposed concrete floors)
 - Highly insulated thermal envelope



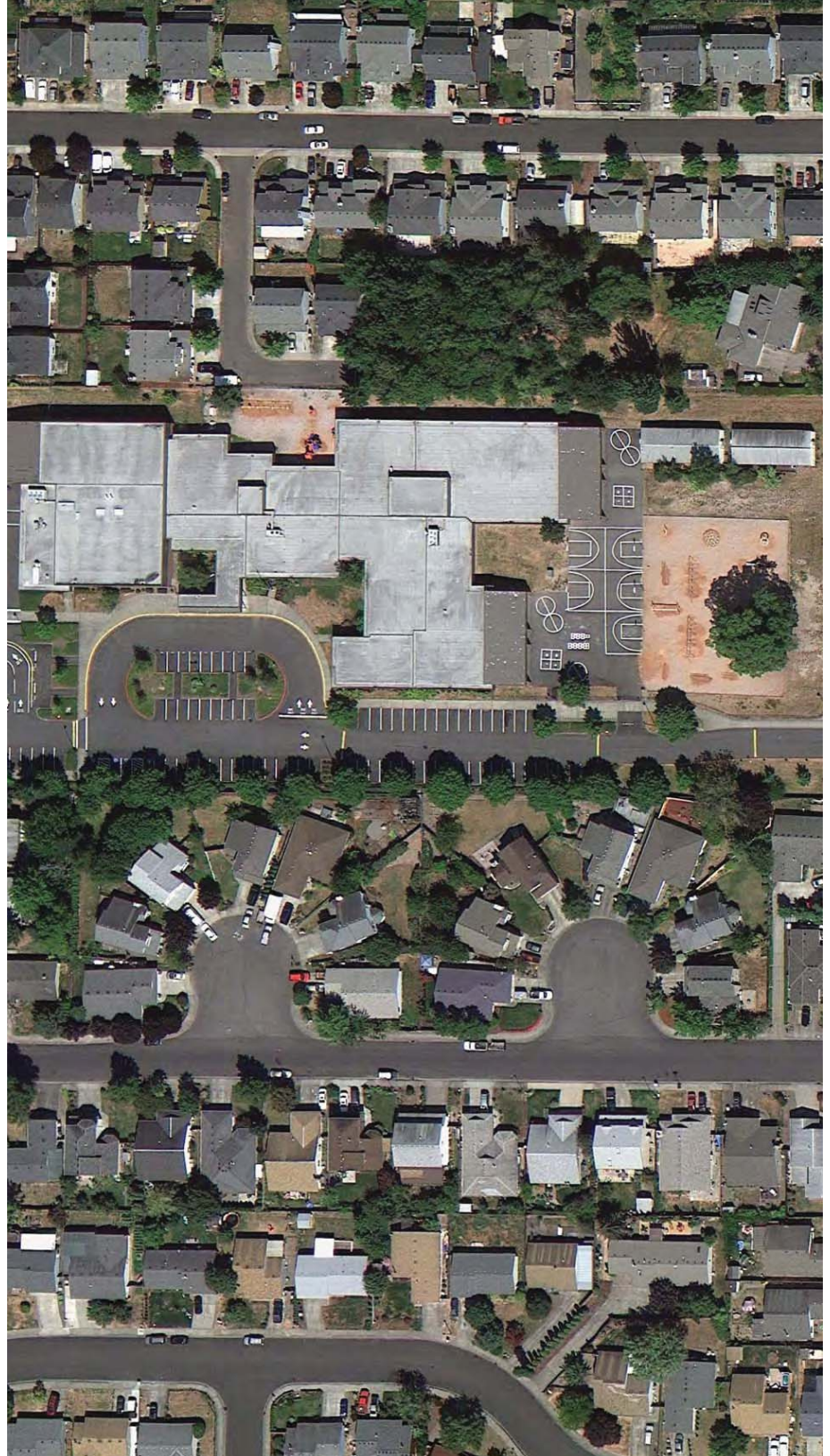
L. C. TOBIAS ELEMENTARY SCHOOL



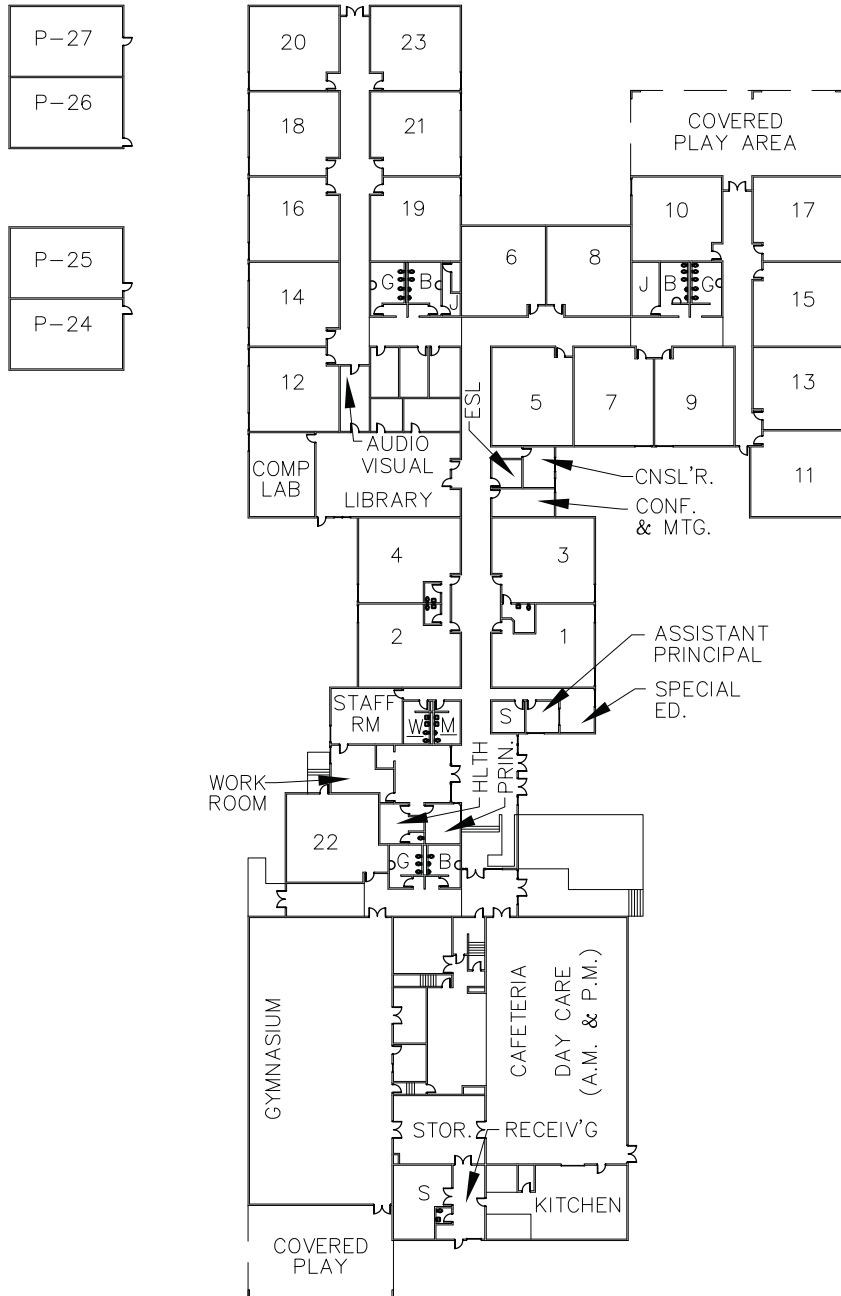
**ASSESSMENT SCORE 92:
MINOR MODERNIZATION**

GENERAL INFORMATION

- :: Address: 1065 SW 206th Avenue, Aloha, OR 97006-1571
- :: Construction date:
 - Original school constructed in 1992
- :: Site area: 9.00 acres
- :: Building area: 50,000 square feet
- :: Population: 575 students



NOTE: _____
 NUMBERED ROOMS 0 50
 ARE CLASSROOMS SCALE



L. C. TOBIAS ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure is stud wall with brick, veneer and pipe columns supporting glu-lam beams
- :: The carpet has been replaced in most of the school

Deficiencies

- :: Original carpet bubbles up
- :: Roof surface has some bubbling
 - Roof drain at east end of play structure has been repaired but it still does not function properly
 - Roof replacement between 2012-2014
 - Some ponding on roof

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - The ceiling is primarily lay-in grid and ACT
- :: Wall
 - Interior walls are primarily stud walls with drywall
- :: Windows / Doors
 - Window system is double glazed, a combination of steel and aluminum with either a fixed or casement system
 - Doors are steel, exterior and interior
- :: Miscellaneous
 - Insulation
 - Black Plastic/Nylon, no label

Deficiencies

- :: Ceiling
 - Leak in PE storage from mechanical system
 - Oil leaks (from boiler) on second floor to gymnasium below
- :: Wall
 - Vinyl wall covering coming off walls in some areas, worst in cafe

- Need additional pin-up space in corridors
- Some cracks in interior walls
- Movable walls on stage are in fair condition, stick, difficult to move

:: Windows / Doors

- School scheduled to be re-keyed
- Door closers to playground do not hold open; increases wear and tear on doors

:: Miscellaneous

Insulation

- None at Staff Room, Rooms 2, 5, 8, 13, 16

SERVICE SYSTEMS

Existing Conditions

- : Cooling system
 - The school is air conditioned
- :: Heating system
 - Heating system is hot water with a gas boiler
 - Natural gas fire hydronic hot water boiler
 - Forced air, multi-zone
- :: Plumbing system
 - Water temperature in restrooms is variable
 - No toilets near playground
 - Domestic and hydronic water share common piping (Domestic water system shares piping with hydronic heating system)
- :: Electrical systems
 - Lighting upgraded in 2005 with electronic ballasts and T8 lamps
 - Main electrical service: 2000 amp, 208Y/120 volt main distribution panel. MDP has single main circuit breaker
 - Classrooms and administration offices have occupancy sensor for control of lighting

Deficiencies

- : Cooling system
 - Recent upgrades of AC have not resolved all the functional difficulties of the system



- Ducts need to be thoroughly cleaned
- :: Heating system
 - Heating system is difficult to control and has similar operational difficulties as the cooling system
 - Boiler replacement needed
- :: Electrical systems
 - Lights are needed in covered play areas
 - Additional circuits are needed in staff room
 - Intercom upgrade needed

SAFETY STANDARDS

Existing Conditions

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

Deficiencies

- :: Intercom, security and phone all upgraded within the last seven years, however the system does not always interface well
- :: Intercom needs to be upgraded
- :: Multi-purpose/Cafeteria area egress lighting does not meet egress code requirements
- :: Gymnasium area egress lighting does not meet egress code requirements
- :: Portable ramp needs to be replaced

FUNCTIONAL STANDARDS

Existing Conditions

- :: Suitability
 - Classrooms are adequate for up to 25 students
 - Playground can only accommodate half the students at one time, recesses are split
 - School has three lunches

Deficiencies

- :: Hinges in cupboards need adjustment
- :: Location of playground at the opposite end of the school from the cafeteria, requires additional time for faculty to escort children to activities

- :: Bus loop may have some conflicts with parent drop-off

PRINCIPAL REQUESTS

Existing Conditions

- :: Facility growth limited by space; currently at capacity

Deficiencies

- :: Minimal facility requirements
 - Stage to break through to gymnasium
 - Restructure playground with more age appropriate structures
 - Field area adjacent to playground
 - Covered play over play structures
 - New carpet in conference suite
 - Hard paths in kinder play area to accommodate DD students
- :: Minimal facility additions
 - Four additional classrooms

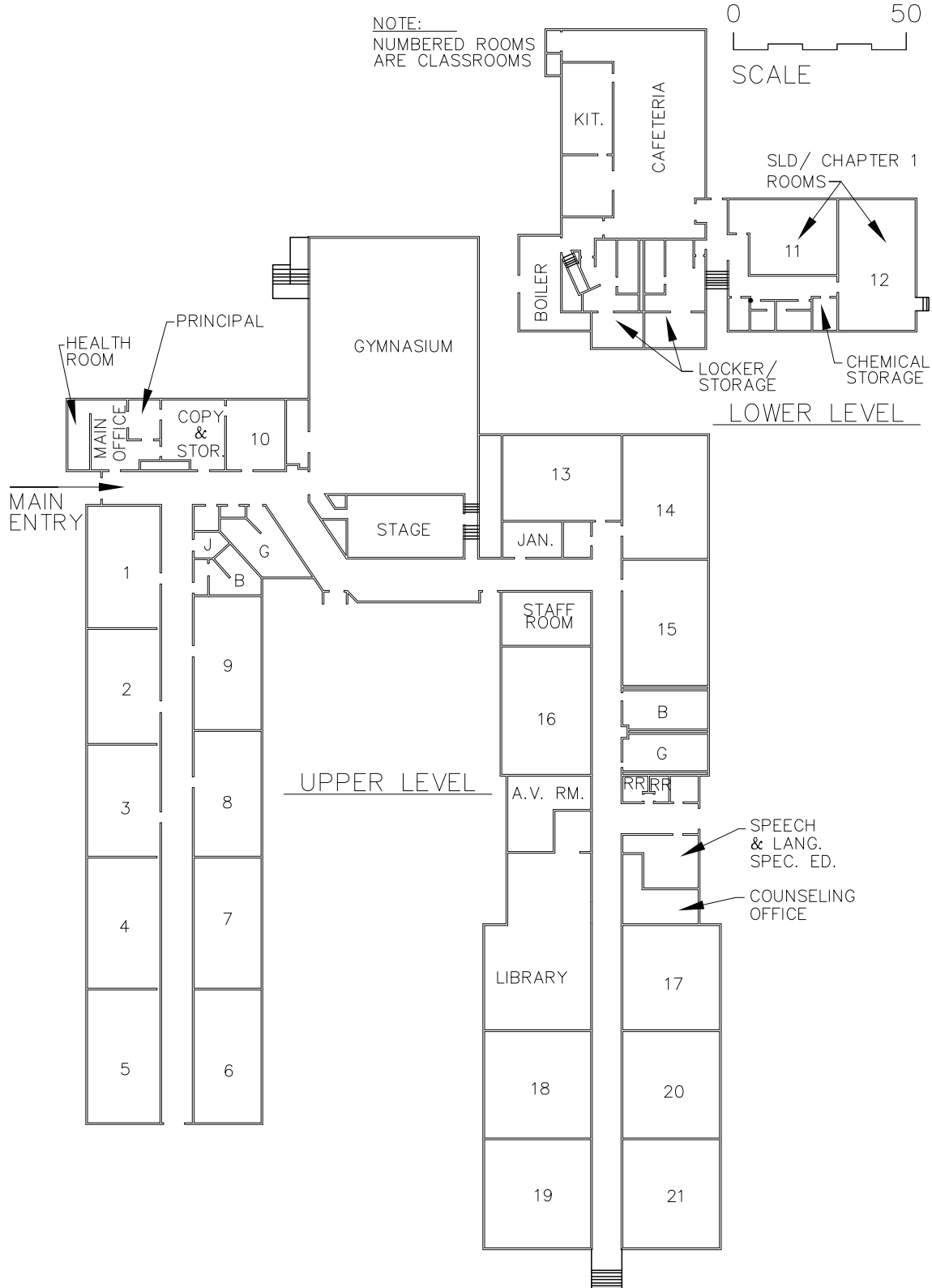
WEST UNION ELEMENTARY SCHOOL

ASSESSMENT SCORE 65: MODERNIZATION

GENERAL INFORMATION

- :: Address: 23870 NW West Union Rd., Hillsboro, OR 97124-8545
- :: Construction dates:
 - Original school constructed in 1948
 - Extension of classroom wing at southwest corner in 1950
 - Classroom addition at east in late 1950's to early 1960's
 - Classroom wing at south end in 1986
 - Gymnasium trusses bolted with steel plates in 1995
- :: Site area: 12.34 acres
- :: Building area: 42,757 square feet
- :: Population: 500 students





WEST UNION ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

- :: The primary structure of the building is a structural wood with a brick face on concrete footings and grade beams
- :: No insulation in walls
- :: Floor system is wood frame
 - Lower level has original VAT*
 - Carpet in classroom was replaced in the lower level
- :: The roof was replaced two years ago
 - Trusses in gym had steel plates bolted on in 1995

Deficiencies

- :: Foundation has some cracking at classroom wings
- :: The 2001 FEMA report indicated seismic upgrades needed for the structure
 - Building needs exterior paint
- :: Sheet vinyl in restrooms needs to be replaced
- :: Some ponding occurs in upper wing of roof
- :: Restore roof (Area 5) in 2010-2011
- :: New roof drains needed

SECONDARY STRUCTURE

Existing Conditions

- :: Ceiling
 - The ceiling is exposed or attached to structure
 - New wiring requires use of wire mold
- :: Walls
 - Interior walls are wood stud with plaster
- :: Windows / Doors
 - The windows are original wood casements with limited operability
 - The wood doors are original

:: Miscellaneous

Insulation

- None at rooms 16 through 21
- Owens Corning Foil Face at Gym/Stage

Deficiencies

:: Walls

- Some interior walls have cracks in walls over door

:: Windows / Doors

- Exterior doors are in poor condition and need to be replaced
- Gym door sticks, hinge is loose
- Crash bars need to be updated
- Closers need to be updated
- Exterior doors need to be re-keyed
- Replace single glaze windows

:: Miscellaneous

Insulation

- Paper Face (2 sides) at Rooms 1 through 9
- Replace paper-faced insulation

SERVICE SYSTEMS

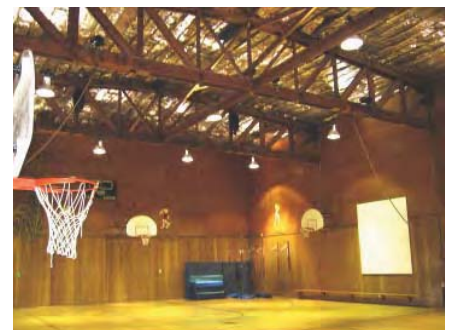
Existing Conditions

- :: Cooling system
 - School has partial air conditioning (one classroom)
- :: Plumbing system
 - School is on a well
 - No hot water in staff lounge
- :: Electrical systems
 - Incandescent bulbs changed out to fluorescents
 - Converting all fluorescents to T-8
 - School has a number of different light fixtures, due to different ages of school
 - School electrical service updated for computer lab

Deficiencies

:: Cooling system

- Computer lab does not have air conditioning



- :: Heating system
 - There is unequal distribution of heat throughout school
 - School does not have any ceiling fans
 - Restrooms lack ventilation
 - Replace air handlers
- :: Plumbing system
 - Toilets and urinals run
 - Urinal valves get clogged with sand
 - No HC toilets on lower level
 - Additional staff restrooms are needed
 - Replace galvanized piping
- :: Electrical systems
 - Switching in school is inconvenient



SITE CONDITIONS

Existing Conditions

- :: District added large drains

Deficiencies

- :: Courtyard drainage runs into play structure, no drainage under play structure
- :: Asphalt in courtyard is sagging
- :: Replace storm water drain lines

FUNCTIONAL STANDARDS

Deficiencies

- :: Limited activity areas if building is at full capacity
- :: Currently there is no way to secure the building when it is used in the evening
- :: Lower level playground and cafeteria are not accessible

PRINCIPAL REQUESTS

Deficiencies

- :: Minimal facility requirements
 - Planting and trees in courtyard with security fencing
 - Health room is too small
 - More storage
- :: Minimal facility needs
 - Larger covered play area, double in size, block from blowing rain

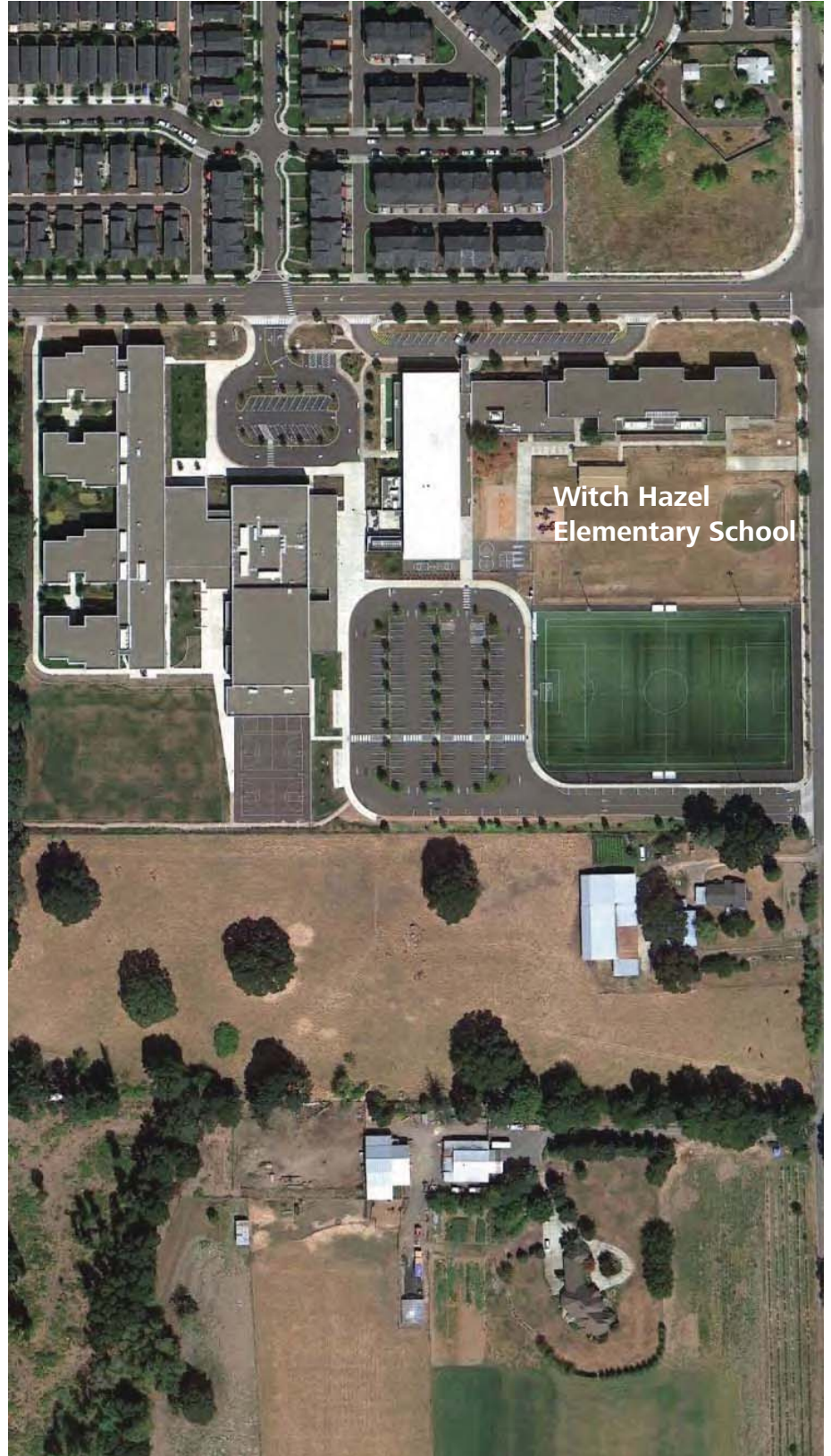
WITCH HAZEL ELEMENTARY SCHOOL

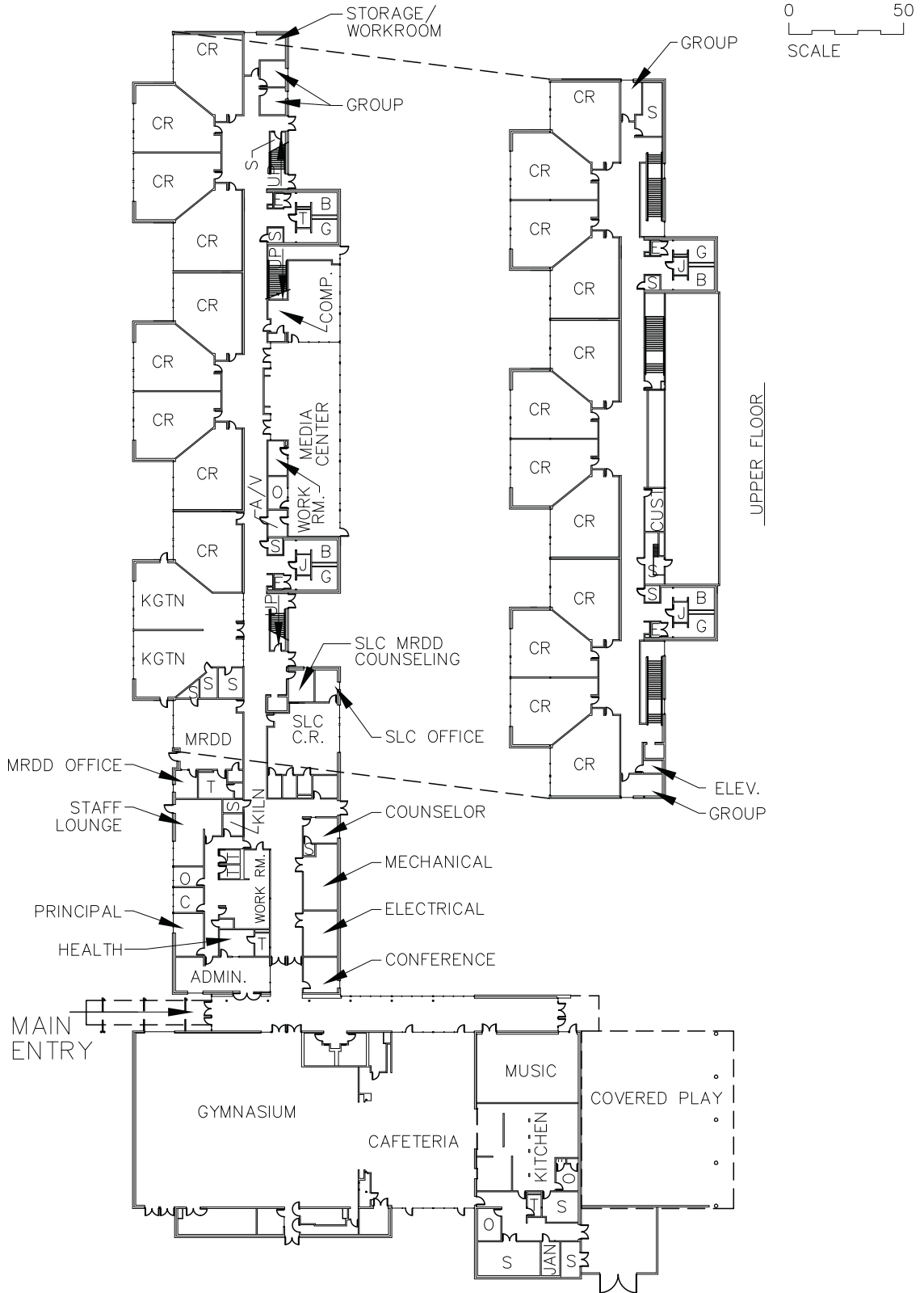


**ASSESSMENT SCORE 97:
SATISFACTORY**

GENERAL INFORMATION

- :: Address: 4950 SW Davis Road, Hillsboro, OR 97123-8523
- :: Construction date:
 - Original school constructed in 2003
 - Middle school was added to site in 2009
- :: Site area: 9.00 acres
- :: Building area: 69,435 square feet
- :: Population: 600 students





WITCH HAZEL ELEMENTARY SCHOOL

PRIMARY STRUCTURE

Existing Conditions

:: This school was constructed after the 2001 FEMA report and was built to current seismic codes

Deficiencies

:: Clean and seal block

SECONDARY STRUCTURE

Existing Conditions

:: Ceiling

- The school has primarily lay-in ceiling tiles
- Stained tiles from leaks in HVAC

:: Walls

- Interior walls and partition are metal stud with drywall

:: Windows / Doors

- Windows are aluminum with fixed glass and operable units
- Doors are aluminum steel, exterior, and wood interior doors
- Exterior doors facing south will receive canopies to prevent water from blowing in under lintel

Deficiencies

:: Walls

- Finish on wall thin. Paint and drywall poor finish - can't use "waxer"

:: Windows / Doors

SERVICE SYSTEMS

Existing Conditions

:: The school is air conditioned

:: The heating system is gas central boiler with unit ventilators or VAV boxes

Deficiencies

- Leaks in HVAC system causing stains on tiles

FUNCTIONAL STANDARDS

Deficiencies

:: Storage facilities needed in staff restrooms by office

