Yamhill-Carlton School District

Building Assessment

Yamhill High School

The following report summaries recommendations contained within this report. The summary is organized by report area for each building; architectural civil, flooring, mechanical, and structural. The Electrical and Roofing summary are separate documents included at the end of this report.

YAMHILL CARLTON HIGH SCHOOL

Architectural Recommendations Exterior

- Tuckpointing of all brick and installation of a high quality masonry water repellant anti-graffiti guard like Prosoco or Professional Products of Kansas. Both of these products come with a factory certified warranty. We recommend requesting quotes from masons experienced in tuckpointing.
- Exterior painting of all wood surfaces, repair of any dry rot found
- Replacement of Exterior door from library
- Replacement of Exterior door from room 211
- North side of Gymnasium Building wood siding needs paint

Architectural Recommendations Interior

- Modernization of science labs and prep room
- Have stored chemicals assessed for volatility and end of life
- Repairs to bathroom vinyl floors
- Upgrades to classroom storage and casework
- Add marker boards and tack boards to classrooms
- Move MDF switches from office to enclosed lockable room
- Improve HVAC in basement computer lab
- Gymnasium buildings needs to major modernization

Architectural Program Recommendations

- Evaluate the replacement of Voc Ag, woodshop/theater building, maintenance building with new Gymnasium, theater, shop building.

Civil Recommendations

- Asphalt driveways are in poor to failing condition. District should hire civil and geo-technical engineers to evaluate pavement sections, base rock, and soil conditions in determining upgrades to driveways. We estimate paving improvements at $375,000.00 to $425,000.00.

Flooring Recommendations

- Removal of all remaining VAT and replacement with new VCT, Vinyl, or carpet.
- Carpet throughout the High School is nearing end of life. We would recommend installing new carpet using a Tandus Powerbond product that carries a 25 year non pro-rated labor and material warranty. Estimated cost for flooring abatement and replacements is $140,000.00.

Mechanical Recommendations

- Replace the existing heating system with high efficiency HVAC. The steam piping will continue to fail and the steam trap maintenance is ongoing. Because of the configuration of the building, this school is a good candidate for a Variable Refrigerant Flow system that takes advantage of the temperature diversity by moving heat from hot areas to areas that need heat and cooling hot areas in the same way.
    - And alternate and recommended approach is to install individual PTAC
        - (Packaged Terminal Air Conditioning) units or heat pumps for each area.
        - Note that installation of PTACs or heat pumps will probably require an upgrade of the electrical service to the campus
    - Boiler replacement is a possibility but will require a complete replacement of all piping in the building. Much of the heating water piping is most probably installed in 1936

- Retro-commissioning of the DDC system. This has been done before however, the results did not correct many of the issues noted above.
- Turn on the exhaust fans and ensure all restrooms and locker rooms are exhausted to meet current code.

Structural Recommendations

- Conduct periodic observation of the cracked west stairs.
- Gymnasium building northeast pilaster show sever deterioration needs immediate attention by removing loose material, cleaning rebar and installing a high quality patching mortar.
- Assessment of site drainage assuring that ground water is either running away from the building or is being collected by perforate foundation drains and conveyed away from the building.
- Replacement of downspouts and connection to storm water conveyance system.
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YAMHILL CARLTON HIGH SCHOOL EXTERIOR ASSESSMENT

The exterior assessment of the building consisted of a visual inspection of the exterior building elements including the brick exterior, wood siding, windows, doors, sidewalks, and accessibility. This report did not conduct a complete American Disability Act (ADA) Assessment; the review was cursory with the items noted in this report as considerations for additional improvements. The overall building exterior is in good condition and appears to have ongoing maintenance work done. From our interview with Bobby Dixon, Facility Manager, he noted that the windows were upgraded recently with Milgard Vinyl thermal insulated LowE windows.

SIDEWALKS, STAIRS, ACCESSBILITY

It appears that a component of Capital Construction work occurring in 2002 that ADA accessibility improvements made to the building included sloping ramps into the building at the first floor. The overall site pathways-concrete sidewalks are in fair to poor condition and a plan to making necessary improvements is recommended.

This section of sidewalk is in the front of the building at ground level to the left of the main entry. Concrete is cracking as well as lifting edges may cause trip hazards

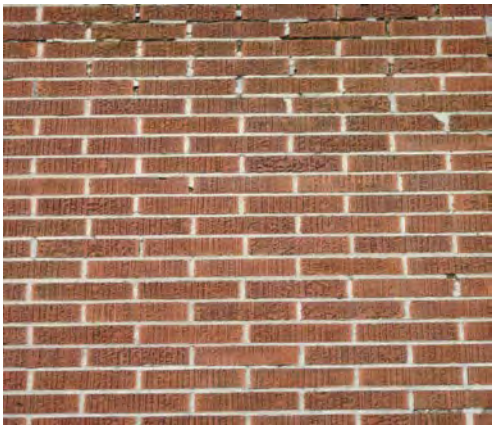
The front stairs at street are showing their age and are in need of updating. Cracking, spalling, moss growth, and inadequate code complaint handrail are all items of concern.

Concrete sidewalks and landscape walls at front parking area are showing signs of deterioration possibly creating a hazard. The District should develop a replacement plan of deterioration site concrete walkways. The plan could schedule replacement over a number of years allowing the work to budgeted with maintenance funds.

The High School Building has six sets of exterior stairs from the main floor to the outside ground level. None of these have an ADA ramp allowing for a egress path for those persons unable to navigate stairs. Even though it appears that the building met ADA code requirements when modernization occurred in 2002 a ramp from the main floor would provide an egress path in case of power outage, fire, or other event. Consideration with future building improvements of installing an ADA ramp from one of the five stairs at the rear of the building would provide accommodation improving ADA egress path in case of emergencies.

EXTERIOR BUILDING SKIN

The building exterior as previously stated is in good condition even though a number of issues are being identified in this report as recommendations for repair. The brick façade is in need of being tuckpointed. This repair removes loose mortar between the brick installing new mortar. In addition, a good brick sealant and anti-graffiti guard; one that would provide a factory certified warranty of at least 10 years for water sealant and 5 years for anti-graffiti guard is recommended. These two items will help prolong the life of the building.



There are a number of areas around the building where the wood trim placard between the 1st and 2nd floor windows are showing signs of deterioration. The following pictures depict some of those areas.

These three pictures are of the front of the building to the right of the main entry. This side of the building faces west and is subject to the prevailing weather. The picture in the upper left corner shows the entire window section while the other two pictures detail close up area of concern.

This same condition was observed on the windows to the left of the main entry as well.

This picture shows peeling paint on the south facing wall at the rear courtyard.

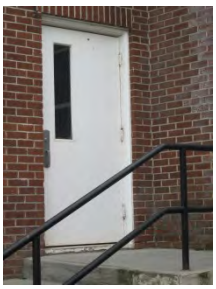
Additional areas showing signs of wood trim deterioration and need of exterior painting. These pictures are of the South facing wall in the rear courtyard.

We recommend that further investigation occur to determine whether the wood has begun experiencing dry rot if found replacement of wood trim prior to painting.

It appears that the condition primarily is in need of paint. Removal of loose paint, application of a good exterior primer and then 2 coats of high quality exterior paint will provide the necessary protection for the wood. This condition is true for the entire building although not as severe in other areas of the building.

EXTERIOR DOORS

The exterior door systems throughout the building are in good condition and consist of period styled wood doors and sidelights, set in wood frames, most entry systems have a transom light above the door. It appears that upgrades have been made within the last 10 years to the hardware including new closers, locksets, ADA compliant panic hardware, and hinges. It is noted that at doors experiencing high use that continuous hinges have been utilized. There are number of doors primarily at the rear of the buildings north facing wall that are in need of replacement. The doors noted have had minimal upgrades made to them primarily panic hardware.



This is the exterior door on the rear side of the building North Facing wall exiting from room 211. The door is a 3’4” X 7’0” wood door and is in poor condition. The wood sill is split and rotting, hinges are original with the building.

One additional door is in poor condition needing replacement is the exterior library door that egresses to the rear north paved parking area. The door is a 3'0" X 7'0" with a 3' transom light above. The doors shows signs of sticking, delamination of the exterior door veneer, dry rot wood sill.

Top of the door is experiencing delamination of wood veneer.

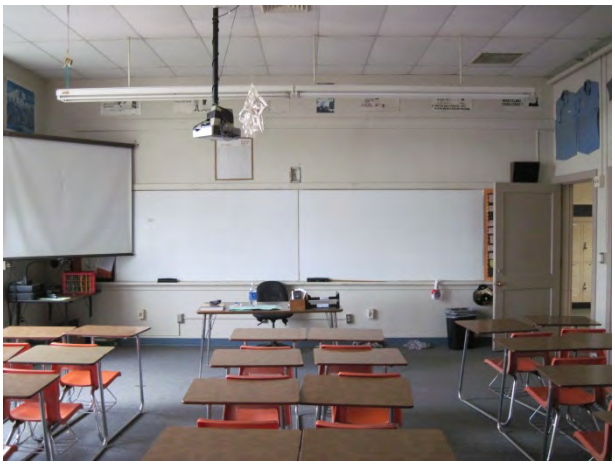
Door observation includes delamination of wood veneer at door bottom as well as dry rot and deteriorating wood sill.

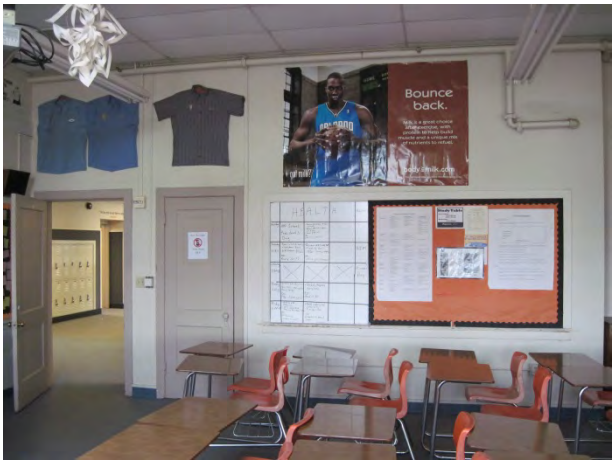
YAMHILL CARLTON HIGH SCHOOL BUILDING ASSESSMENT

The High School building given its age is in good condition. There are a number of deficiencies throughout the building that are worthy of consideration.

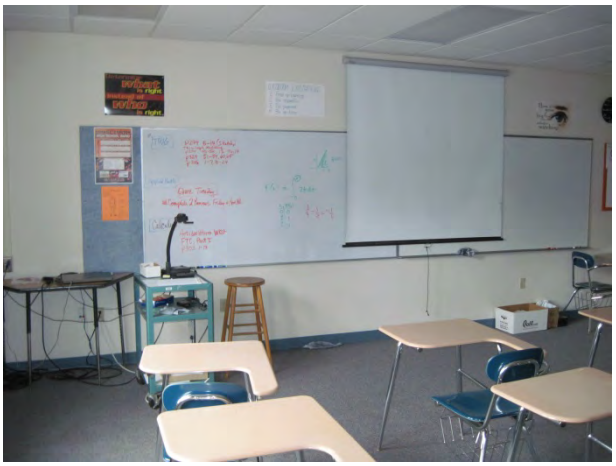
ADA throughout the building is inconsistent. The building has only one ADA complaint entry; there are no ADA compliant restrooms on the main floor, the building still has knob door hardware. Interior doors are original in most basement and main floor locations, considered in fair condition.

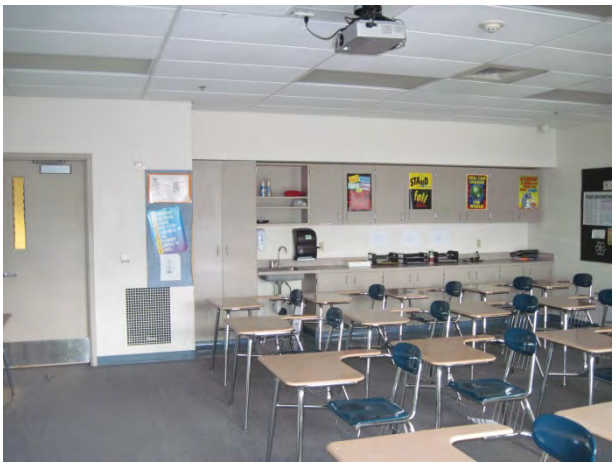
Basement and main floor classrooms do not have adequate storage. Marker boards are inadequate with the porcelain writing surface nearing end of life. Many rooms do not have bulletin boards or have surfaces not made for pinning display materials; teachers use creative ways to display items even when pinnable surfaces are not available. (Pictures below are of room 206)





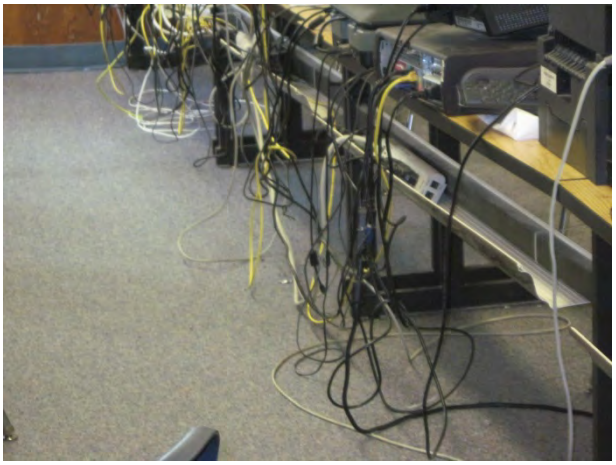
Contrast the pictures above as a typical basement and main floor classroom with pictures of the 2nd floor classrooms having storage, marker and bulletin board accommodations appropriate to a high school standard.





The following pictures are of classroom 310, are typical of the 6 second floor classrooms, show teaching accommodations more in line with a current High School educational standard.

Computer labs are converted classrooms. The labs in basement and on the main floor could use improvements to power, data, and cooling upgrades to better accommodate the educational program served. Power and data cords are potential trip hazards.



Comfort in the basement computer lab is poor, excessively hot needing additional fans to provide air movement

Science rooms need upgrading with new labs, vented fume hood, chemical storage, and improved science prep area. Many of the science labs do not have working fixtures, water faucet, air & gas connections. Lab casework is old drawer locks are missing, door and drawer handles are broken or missing, electrical outlets do not meet current code for GFI protection, and acid resistant tops need upgrading. The student lab configuration of peninsula style casework does not provide the flexibility desired in modern science rooms. (Pictures are of room 212)

The lab above no longer has water faucet or gas and air connections. Of the 6 student labs in the classroom only 2 had working fixtures.

Storage is inadequate and should be considered a hazzard both fire and occupant safety.

Science prep room storage is inadequate. Chemical storage cabinets are not rated. It is recommended to have a person familiar with the chemical stored to survey age, volatility, and grouping of chemicals in cabinets to determine proper storage and whether chemicals are beyond their allowable shelf life. The teaching wall, room 212, needs upgrading, new storage cabinets, marker board, and teaching lab would make noticeable improvements to the space.

Earth Science room 210, countertops and casework are in poor condition and not constructed out of materials typically used in science classrooms. The teaching wall, teacher's lab needs upgrading. Classroom does have whiteboards although the porcelain finish is at end of life. Storage is inadequate needs significant upgrading allowing for science materials to be stored away.

Both science classrooms share one chemical shower housed in room 210. Installation of another emergency shower in room 212, providing immediate adjacency to the space is recommended.

Floors in restrooms on all three floors are in good condition. A number of areas depicted in the following pictures having cracks, tears, or separation of the welded seams. These conditions need repair by a trained floor technician who can use vinyl floor welding techniques to repair these areas. The concern is water over prolonged periods will move migrate beneath the surface promoting mold, mildew, and dry rot.

These pictures are of the basement restrooms. This condition was also noted in 2nd floor restrooms.

The restrooms in the building have had some improvements, upgrades installing low water flow fixtures was completed as part of the Energy Performance Contract. Restrooms have had improvements made improving ADA accessibility, although most are not ADA fully compliant.

OTHER BUILDINGS

Theatre Wood Shop

Another area of major concern is the Theatre Wood Shop building. The current structure presents a serious safety risk to students, staff and theatre patrons. The exits are not clearly marked, there are large amounts of combustibles, and in cases during a theatrical show, a large number of people that are unfamiliar with the exit layout. This occurs in a building that is not fire sprinkled. These functions need to be relocated to appropriate buildings providing the required exiting and occupancy separation.

Ag Shop, Maintenance Office Storage

Both the Ag Shop and Maintenance Office Storage building are both aged and beyond use life. The school district should consider replacing these buildings with new. Because of similar use it is possible to utilize a new shared building located elsewhere on the site.

YAMHILL CALTON HIGH SCHOOL ATHLETIC BUILDING EXTERIOR BUILDING ASSESSMENT

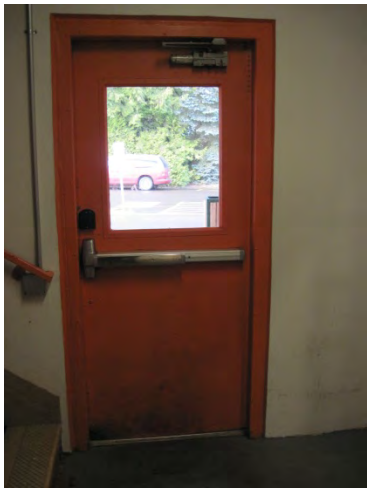
A visual exterior assessment of the Athletic Building reviewed the exterior skin, sidewalks, doors and windows systems as well as ADA accessibility. The building is showing its age of 48 years of continuous use. The building exterior is rated in fair condition.

EXTERIOR DOORS

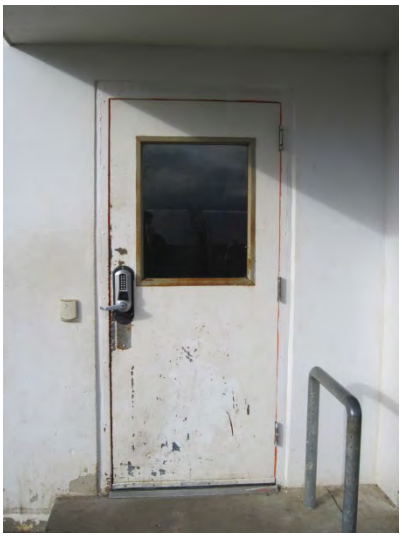
The Main Entry doors are beyond their useful life having experienced failure of the integral hinge door closer system with the middle of the 3 operational doors no longer able to open. The door system is a metal framed metal door with relight. The door is 16'6" X 9'0" with 3 each 3'0" X 7'0" doors. The recommendation is to install new door system fitted within the existing opening.

This door is off of the main entry and enters a small hallway to the woman's locker room and stairs leading to upper floor.

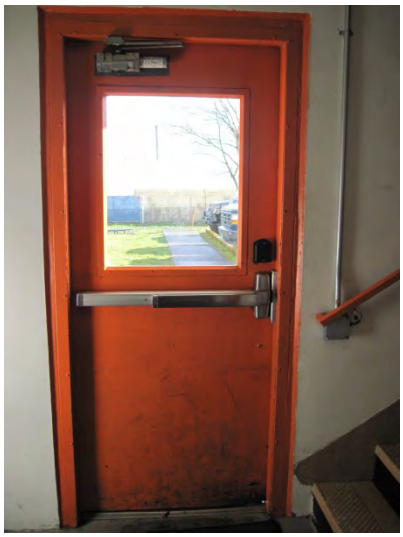
The door operation is fair, hardware showing years of continued service. They may require continuous maintenance until the Athletic Building receives a thorough update.



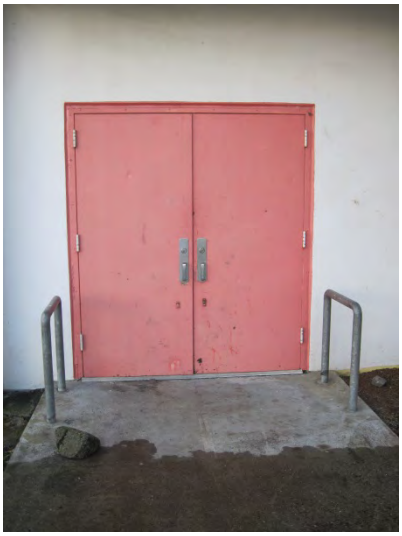
Louvered door to the left are for the mechanical room. The doors are beginning to rust out on the bottom as well as the door jamb at concrete sidewalk. It is recommended that when this door is replaced to install a larger single door allowing for a better maintenance access.



This doors is on the back side of the building (east side) and enters a small hallway to the men's locker room and stairs leading to the upper floor. Doors appear to have experienced greater use/abuse through the years.



The remaining exterior doors all show years of continuous use. Condition of the doors are fair with the recommendation that if modernization occurs in this building that the doors systems be replaced.



EXTERIOR PAINT AND SEALANTS

Three primary areas need attention with recoating of the exterior finish. The North side of the building has a cedar siding feature wall that needs have exterior paint applied.

It is recommended to power wash , apply new caulking, and prime & paint with good exterior paint.

We recommend the painting of all exterior wood trim. Application of a brick water repellant anti-graffiti guard will protect the exterior skin from rainwater, biological growth, and other natural forces that will prematurely degradation of the brick. Rainwater subjects' unprotected to cracking, spalling, delamination, efflorescence, damp walls, and mold & moss growth. Products that provide factory warranted 10 year for water repellant and 5 year for anti-guard will help preserve the brick for many years while providing easy cleaning of graffiti.

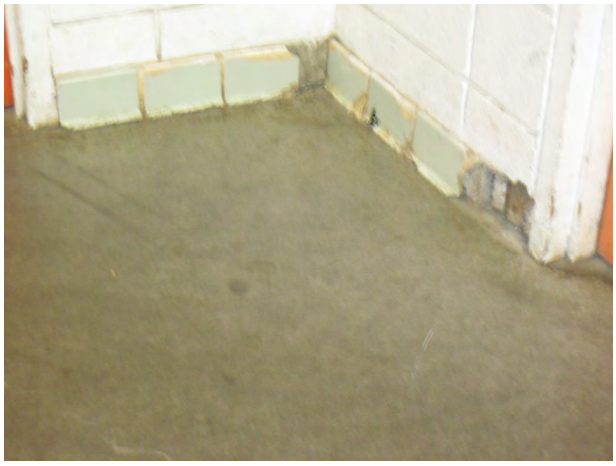
YAMHILL CALTON HIGH SCHOOL ATHLETIC BUILDING INTERIOR BUILDING ASSESSMENT

The athletic building shows its 48 years of continuous service. The building is not ADA compliant; there are no ADA restrooms and no accommodations have been made to address accessibility issues within them. We were unable to determine whether ADA accommodations have been made in the bleachers for handicap spectator seating. The building is in need of serious modernization bringing it to current facility standards. Condition rating of the building is poor. From a program perspective, High Schools of this size typically have two gymnasiums a main gym and an auxiliary gym. The locker rooms are undersized and in need of major upgrades. Concession area is much smaller than other schools of similar size. We were also not able to determine whether there was proper ventilation in the concession area.

Men's restroom entrance, restroom stalls, urinals and lavatories are all in non-compliance for ADA.

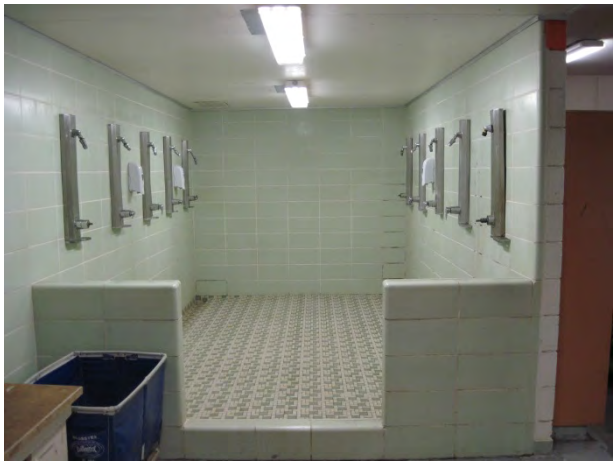
Women's restroom has the same compliance issues that the men's does. There is evidence of plumbing issues as shown in lower right hand picture where an area of the wall was opened to access plumbing.

The Locker Rooms both men's and women's are in similar conditions with the men's being slightly worse. They are not ADA accessible, restroom facilities are aged and at end of life. Showers have nonfunctioning shower facets and heads. Ventilation needs to be improved providing code compliant air exchanges.

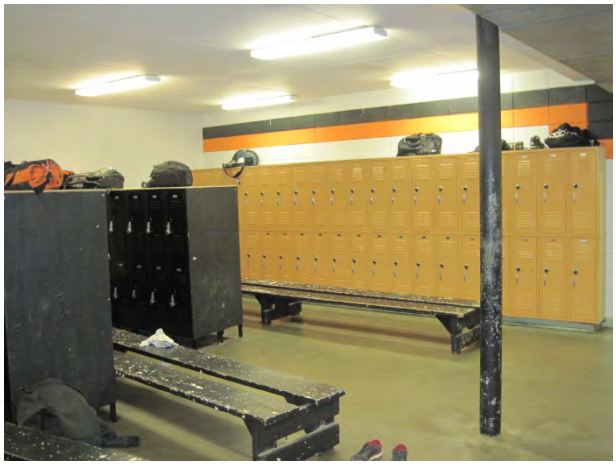


Tile base in the men's locker room is broken and deteriorating.

Pictures below show shower area most notable issues are shower faucets having missing handles and no functional. Areas of tile disrepair are seen in the picture below also on the far wall of the picture to the lower left.



Tile disrepair



Locker room doubles as locker room and team room. It appears that the space is inadequate for the size of the High School. Current standards would have separate locker rooms and team rooms.

YAMHILL CARLTON HIGH SCHOOL EXTERIOR CIVIL / PAVING ASSESSMENT

The exterior assessment of the High School site paving consisted of a visual inspection of all the exterior asphalt driveways, parking lots, and miscellaneous areas. The overall condition of these asphalt drives and parking is fair to poor with many of the areas showing signs of extreme surface wear, cracking, and the absence of proper parking demarcation signage and striping. In addition, there were several areas noted that indicated the complete failure of the base rock through the surface layers of asphalt. Many of the parking lots and street frontage also have inadequate parking stops and curbing or these protective barriers were missing all together. Please note; this civil / paving investigation consisted of a visual inspection of all paved driveways and parking lots on site. Another area of concern is the student parking area seems to be too small. Student parking is spread out in various areas creating vehicle student conflicts. Budget estimates for repair and replacement were made from this visual inspection. If the District was to move forward with the repair or replacement of the asphalt areas indicated in this assessment WESD would strongly recommend a thorough and detailed civil engineering and geo-technical assessment and physical testing be performed by geo-technical firm.

EAST DRIVEWAYS AND ROAD FRONTAGE PARKING LOT – (AREA-A)

The overall asphalt driveways and parking lots in this area are in poor or critical condition and a plan to make necessary improvements is recommended. Many of these main driveway areas indicate signs of base rock failure which is in need of complete replacement and new paving. In addition, the majority of the Buildings East Parking lot and road frontage is beyond repair showing signs of complete base and surface failure. Inadequate parking demarcation and striping is also noted in this area.

High School – Area-A, Southeast Driveway; Note, excessive surface wear, cracking, and base failure.

High School – Area-A, East Street Frontage and Parking; Note, excessive surface wear, cracking, and base failure throughout. Concrete retaining wall failure was also noted.

There was inadequate parking demarcation and striping in this area.

High School – East Street Frontage and Parking; Note, excessive base failure throughout.

High School – Area-A West Driveway and Parking; Note, excessive surface wear and cracking.

GYMNASIUM BUILDING PARKING LOT AND DRIVEWAYS– (AREA-B)

The overall condition of the Gymnasium Area-B asphalt driveways and parking lots are in poor to critical condition and a plan to making necessary improvements is recommended. Many of these main driveway and parking areas indicate signs of base rock and surface failure which is in need of complete replacement and new paving. Several areas of curbing are damaged or missing all together and Inadequate parking demarcation and striping is also noted in this area.

Note; damaged curbing along NW area of Gymnasium (Area-B)

Area-B driveways and parking lots indicating signs of complete base rock and surface asphalt failure. Also indicate above are areas of severe cracking of asphalt drives and deterioration of curbing.

NORTH DRIVEWAYS AND PARKING LOT – (AREA-C)

The overall asphalt driveways and parking lots in Area-C are in poor condition and a plan to making necessary improvements is recommended. Many of these main driveway areas indicate signs of severe cracking and surface wear. In addition, there were many areas noted in this area with inadequate curbing or wheel stops which if replaced or installed could reduce further damage to the buildings, parking lot perimeter, or landscaping areas.

High School – Area-C, North Driveway and Parking Lot; Note, excessive surface wear, cracking, and some base failure.

High School – Area-C, North Parking Lot; Note, excessive surface wear, erosion, and inadequate curbing and wheel stops around landscape areas

SOUTH DRIVEWAYS AND PARKING LOT – (AREA-D)

The overall asphalt parking lot in Area-D is in poor condition and a plan to making necessary improvements is recommended. This main parking lot area indicated signs of cracking and surface wear. In addition, there were many areas noted in this area with inadequate curbing or wheel stops which if replaced or installed could reduce further damage to the building and perimeter fencing as indicated below.

High School – Area-D, South Parking Lot; Note, excessive surface wear, cracking, and some base failure.

High School – Area-D, South Parking Lot; Note, perimeter erosion, and inadequate curbing or wheel stops causing damage to fencing.

EAST VOCATIONAL DRIVEWAYS AND PARKING LOT AREAS – (AREA-E)

The assessment of the remaining High School areas consists of the paved driveways, parking lots, asphalt paved paths, and miscellaneous areas east of the Vocational and Maintenance buildings and around the Industrial Arts Center, Cafeteria building, and Stadium. The majority of the asphalt paved areas in Area-E are in poor to critical condition and a plan to making necessary improvements is recommended. The inspection noted that most of the driveways and alleys throughout this area are in need of complete replacement indicated by signs of complete base rock and surface failure. In addition, the majority of the parking areas, paths, and miscellaneous areas are showing signs of extreme surface wear, lack of proper curbing, and a lack of proper demarcation and striping.

High School – Area-E, Note, excessive surface wear, cracking, and base failure.

High School – Area-E, Cafeteria Frontage; Note, surface and base rock failure causing pitting.

High School – Area-E, Industrial Arts Frontage; Note, surface and base rock failure causing pitting.

High School – Area-E, Cafeteria South, Note, excessive surface wear, cracking, and base failure.

High School – Area-E, Stadium West, Note, excessive surface wear, cracking, and base failure.

YAMHILL CARLTON HIGH SCHOOL FLOORING ASSESSMENT

The interior assessment of the flooring consisted of a visual inspection of all areas throughout three levels of the building's basement, first floor, and second floor. In addition the High School has several detached buildings consisting of; Gymnasium, Agriculture Shop, Kitchen / Cafeteria, Maintenance Building, and the Acts Modular Building. A review of the Districts Asbestos Hazard Emergency Response Act (AHERA) Manual indicated that asbestos containing flooring was installed during the original construction of the Main Building, Kitchen / Cafeteria, and Gym Buildings. Because no abatement records could be found indicating these flooring materials were removed, additional non-destructive investigation was performed to verify whether the original asbestos containing floor tile was still present under the existing carpeting. The results of this investigation determined that the original asbestos containing floor tile and mastic materials are still present in the main corridors and under the carpeting of the Basement and first floor classrooms in the Main Building and additional areas in the Kitchen Cafeteria, and Gym Buildings.

The essential elements of the flooring replacement and asbestos removal projects are as follows:

- Replace existing asbestos containing floor tile and mastic with new vinyl composition tile or other modern non-hazardous flooring materials
- Removal and replacement of old or worn carpeting or sheet vinyl flooring
- Replacement of rubber cove base in all areas being upgraded

***ASSESSMENT*;** the review was cursory with the items noted in this report as considerations for additional improvements. The results of the assessment indicate the building flooring is a mixture of old and new materials due to the building's recent upgrades and different remodels. The Second Floor has been completely remodeled with new flooring throughout. There are no asbestos containing flooring materials present under the new Second Floor carpeting. The First Floor mostly consists of older, worn carpeting that has been installed over the existing asbestos containing floor tile in most corridor and classroom areas with some sheet vinyl in the restrooms. There was newer 12'x12' floor tile noted in the main entry. The Basement mostly consists of older, worn carpeting that has been installed over the existing asbestos containing floor tile in most corridor and classroom areas with some sheet vinyl in the restrooms. In addition, the Basement level SE Faculty area consists of 12'x12' suspect asbestos floor tile.

MAIN BUILDING - SECOND FLOOR

This flooring was replaced during a recent building modernization remodel. No action needed.

MAIN BUILDING - FIRST FLOOR

The majority of the floor coverings on the First Floor are in fair to poor condition and a plan for making necessary replacement is recommended. The carpeting in all corridors and classrooms is worn, showing signs of age and deterioration, and beyond its useful life. In addition, this carpeting has been installed over the original asbestos floor tile, which will need to be addressed when the carpeting is replaced. The flooring in the restrooms consists of older sheet vinyl that is also showing signs of wear. The main entry area consists of newer 12'x12' floor tile that was observed in good condition, but replacement may be considered if the other adjacent flooring materials are replaced.

The carpeted area in need of replacement is approximately 13,400 square feet. The majority of this carpeting has been installed over the original 9'x9' asbestos floor tile and mastic which may require abatement during the carpet replacement. The restroom area sheet vinyl flooring in need of replacement is approximately 600 square feet.

Typical area of warn and outdated carpeting First Floor

Typical area of warn and outdated carpeting First Floor

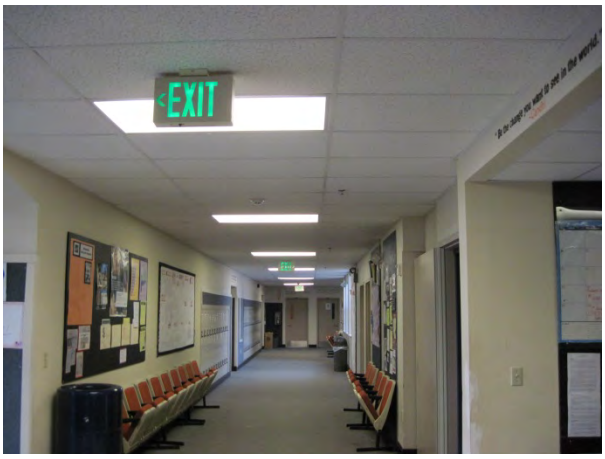
Entry Area 12'x12' Floor Tile and Corridor carpeting, First Floor

MAIN BUILDING - BASEMENT

The majority of the floor coverings on the Basement Floor are in fair to poor condition and a plan for making necessary replacement is recommended. The carpeting in all corridors and classrooms is worn, showing signs of age and deterioration, and beyond its useful life. In addition, this carpeting has been

installed over the original asbestos floor tile, which will need to be addressed when the carpeting is replaced. The flooring in the restrooms consists of older sheet vinyl that is also showing signs of wear.

The carpeted area in need of replacement is approximately 8,000 square feet. The majority of this carpeting has been installed over the original 9'x9' asbestos floor tile and mastic which may require asbestos abatement during the carpet replacement. The restroom area sheet vinyl flooring in need of replacement is approximately 400 square feet



Corridor Carpeting, Basement

GYMNASIUM BUILDING

The majority of the floor coverings in the Gymnasium Building are wood, with the exception of the Main entry, restroom, and stairways which consist of 9'x9' asbestos containing floor tile. The asbestos floor tile is in fair to poor condition and a plan for making necessary replacement is recommended.

The floor tile area in need of replacement is approximately 950 square feet.

9'x9' Asbestos Floor Tile, Main Entry of Gymnasium Building

Damaged 9'x9' in Gymnasium Stairway

VOCATIONAL BUILDING

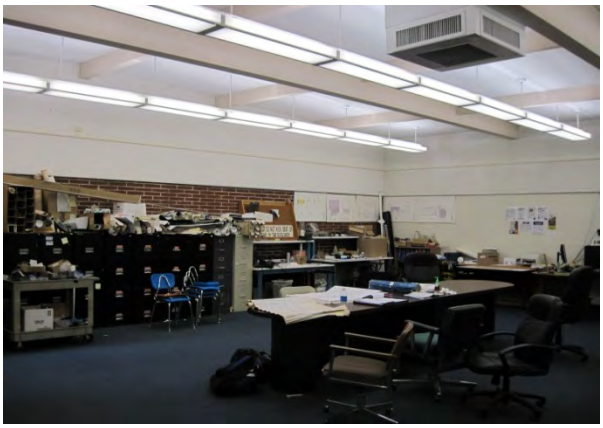
The majority of the floor coverings in the Vocational Building are concrete in the shop areas and 12'x12' vinyl floor tile in the classroom, corridor and restroom. The floor tile is in fair to poor condition and a plan for making necessary replacement is recommended.

The floor tile area in need of replacement is approximately 1,200 square feet.

MAINTENANCE BUILDING

The majority of the floor coverings in the Maintenance Building are a mixture of old carpeting, asbestos containing floor tile and asbestos containing sheet vinyl. All of the flooring throughout this building is in fair to poor condition showing signs of wear, delamination, and some irreversible damage. A plan for making necessary replacement is recommended for this entire building's floor coverings.

The floor tile area in need of replacement is approximately 5,000 square feet.



Carpeting in Main area

Asbestos Sheet Vinyl and 9'x9' Floor Tile

Damaged asbestos containing sheet vinyl

ARTS MODULAR BUILDING

The majority of the floor coverings in the Arts Modular Building consist of 12'x12' vinyl floor tile. This flooring was in good to fair condition during our inspection and replacement is not recommended for this building's floor coverings.

The floor tile area in need of replacement is approximately 5,000 square feet.

Arts Modular Building

PROJECT OVERVIEW

Fluent Engineering completed an electrical assessment of the Yamhill Carlton School District campuses located at 275 N. Maple Street in Yamhill, Oregon and 420 S. Third Street in Carlton, Oregon. Site visits conducted on February 4 and 5, 2013 are the basis of the following Electrical Analysis. The Electrical Analysis focused on:

- Code violations and conditions outside standard industry practice
- Condition of existing equipment
- Description of function for equipment
- Estimated remaining equipment service life
- Budgetary upgrade cost estimates

For the purpose of this report the campuses are separated into the High School and Intermediate School on the Yamhill Campus and the Elementary School on the Carlton Campus. The Yamhill Campus shown in Figure 1 consists of multiple buildings, some with independent electrical meters and others that may be fed from larger buildings. The Carlton Campus shown in Figure 2 consists of the main school building fed by one or two electrical meters and two trailers with their own electrical meters.

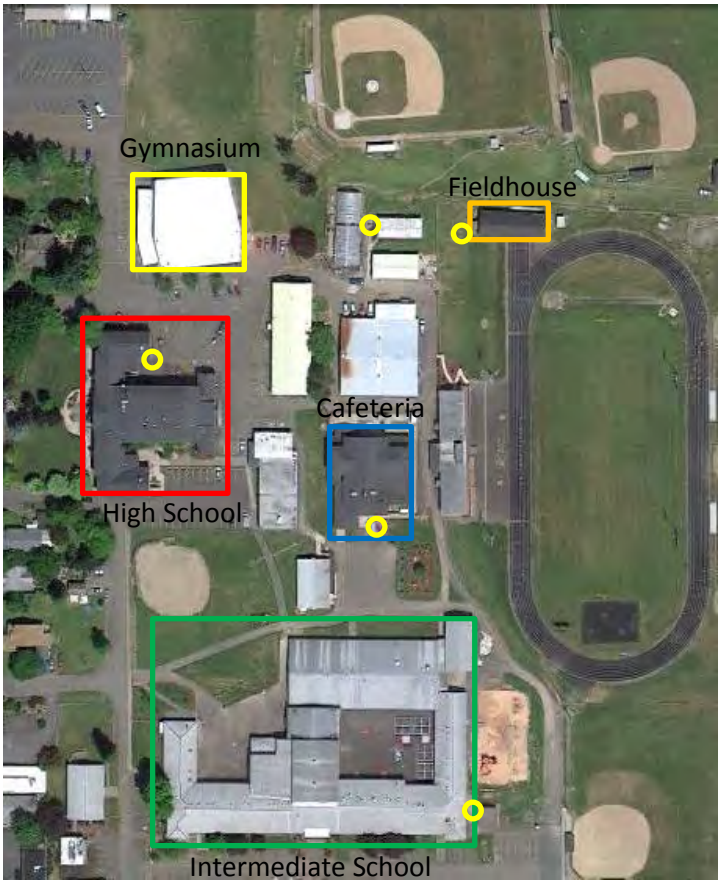


Figure 1: Yamhill Carlton School District - Yamhill Campus
(Known electric meter locations shown with yellow circles)

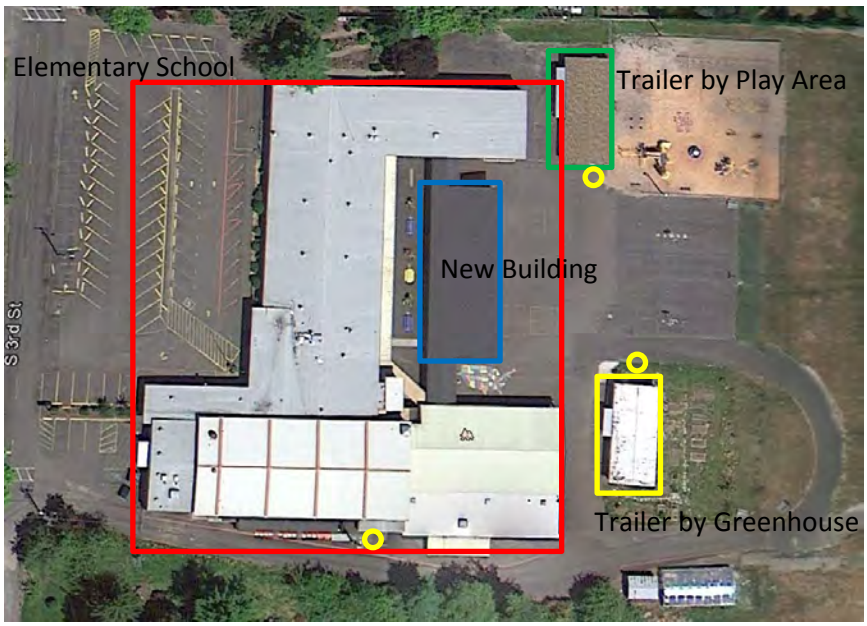


Figure 2: Yamhill Carlton School District - Carlton Campus

EXECUTIVE SUMMARY

For the purposes of this report the Yamhill Carlton School District has been divided into a Yamhill Campus and a Carlton Campus. The analysis of the Yamhill Carlton School District has been further divided into several distinct electrical systems, each by their respective utility meter. The purpose of segmenting the facilities in this manner was to provide a detailed assessment of the main electrical systems: General Power Distribution, Voice/Data, Fire Alarm, Security/Intrusion, Emergency Power/Lighting, Lighting/Lighting Control, and Intercom. Further, the analysis addresses the condition and capacity of each of the main electrical systems within the buildings that comprise the Yamhill Carlton School District. Equipment in each of the buildings has been categorized as obsolete, poor, fair, good, or new. The following recommendations have been offered to provide detail as to the service life remaining, overall condition, and if equipment meets current Code. Some of the more significant issues to address include:

1. The gymnasium and elementary school main services should be updated to current Code.
2. Obsolete panelboards should be replaced with new as existing protection may not be adequate.
3. Security and intrusion systems may be upgraded to add capabilities not currently available.
4. Converting to a primary meter system on the Yamhill Campus may reduce electric cost.

GENERAL POWER DISTRIBUTION

The power distribution system in each of the schools is a mixture of new and obsolete equipment. A portion of the equipment at each school was upgraded in 2002 and is in good condition, while approximately half does not meet current Code and is classified as fair to obsolete. Each of the systems is currently functional, however a review is recommended before any future expansion is initiated. A comprehensive overview, providing further detail as to the state of individual panelboards has been provided in the attached Tables. The construction cost for updating the normal power distribution system within both Campuses, to current Code, should be budgeted at $200,000 +/- 20%. The cost to upgrade the General Power Distribution does not include Emergency Power Distribution system upgrades.

TRANSFORMERS

The transformers on both Campuses are all owned and maintained by the electric utility rather than the school district.

VOICE/DATA

Cable was observed to be in good condition. Currently CAT-5 cabling is used throughout both Campuses, however an upgrade to CAT-6 is recommended if additional bandwidth, to enable functionality such as Voice Over Internet Protocol (VOIP) or video broadcast, is needed in the future. Fiber optic cables were also observed running between buildings.

FIRE ALARM

The fire alarm systems on both Campuses have some upgraded features and although Code compliant when installed, do not meet all requirements of the current Fire Alarm Code NFPA 72. Most of the facilities have new master panels; however, many of the fire alarm notification devices (horns/strobes) do not meet the current Fire Alarm Code NFPA72 or ADA Requirements. Total cost for Fire Alarm Upgrades is $48,000.

SECURITY/INTRUSION

The elementary school has cameras monitoring the entries and some halls. The intermediate school has a security system for use when the school is unoccupied. The high school has no security system installed. Upgraded systems are available over a wide price range depending on the needs of the schools.

EMERGENCY POWER/LIGHTING

Neither campus has a generator so the only emergency lighting is from battery packs (self-contained egress lighting). While some areas have new fixtures installed many areas do not meet Code. The estimated construction cost for replacing the emergency lighting system equipment is $75,000.

LIGHTING/LIGHTING CONTROL

Overall lighting controls do not meet current Energy Code standards. Most lighting fixtures have been upgraded to T8 efficient lamps on both Campuses and a few T5 fixtures in limited areas. However, some incandescent bulbs and T12 lamps with magnetic ballasts are still in limited use. All magnetic ballasts should be upgraded to electronic ballasts to meet the current Energy Code.

INTERCOM

The intercom systems utilize Dukane and Bogen systems. Overall the systems are reported to be functional although they lack features found in newer technologies. The current systems are likely expandable with limited parts availability. Today's design standards include emergency lock-down, earthquake, other tones, and features that are not found at any of these facilities. Upgrades to the Intercom system will be in the range of $55,000 to $85,000 depending on the options selected.

YAMHILL CAMPUS

The Yamhill Campus consists of the High School and Intermediate School along with several detached buildings. The electrical systems for these buildings are serviced through several separate meters. A review of the record drawings provided by the school district shows only the meters with distribution systems found in the two main buildings and cafeteria. Other drawings may exist that document the systems found in the other detached buildings but they were not available during this visit. A partial list of these meters includes:

High School Main Building: 09782964
Gymnasium: Unknown
Stadium Fieldhouse: 23782409
Art/Health Services Trailer: 21752836
Trailer near greenhouses: 23210280
Intermediate School Main Building: Unknown
Cafeteria: 09912830

The school district may be able to reduce utility costs by installing a campus wide distribution system served by a single meter. A review of recent electric bills may determine if this is worth further investigation.

HIGH SCHOOL – MAIN BUILDING

The electrical service is provided by Meter: 09782964

GENERAL POWER DISTRIBUTION

The main distribution panel (MDP) and panelboards located throughout the main building were replaced in 2002. These panels should provide reliable service for approximately 20 years and support future upgrades as may be required. See Table A for further detail.

FIRE ALARM

The Silent Knight Fire Alarm Panel has been updated, however the Fire Alarm initiating devices (pulls and smoke detectors) do not meet the current Code.

VOICE/DATA

Cable was observed to be in good condition. Currently CAT-5 cabling and fiber optic cable is used throughout the High School, however an upgrade to CAT-6 is recommended if additional bandwidth, to enable functionality such as VOIP or video broadcast, is needed in the future.

SECURITY/INTRUSION

The control panel for the security system has been removed. Switches are still installed at some doors and windows but wiring is reported to be unreliable.

LIGHTING/LIGHTING CONTROL

A lighting upgrade project was completed in 2002 to improve efficiency and bring the equipment up to Code at that time. Lighting fixtures were upgraded to T8 lamps and electronic ballasts in many rooms. In some locations new fixtures were installed and in others existing fixtures were modified. Exposed lamps were observed in some classrooms and the faculty lounge.

Occupancy sensors were installed in some classrooms, however, lighting controls overall do not meet current Energy Code.

EMERGENCY POWER/LIGHTING

The Emergency Lighting system does not meet current Code and it is recommended that it be upgraded. Emergency Lighting is provided by battery backup fixtures with no generator or UPS.

INTERCOM

The intercom uses a Dukane Compact 3200 console with Dukane and Bogen units in the classrooms. The system is in fair condition with parts still available. Current design standards include emergency lock-down, earthquake, other tones, and features not found in this facility.

GYMNASIUM

This building was not shown on the electrical record drawings and the meter supplying the building was not located.

GENERAL POWER DISTRIBUTION

These panels were labeled as being installed in 1964 so they are all obsolete and should be replaced. The MDP uses fused disconnects rather than circuit breakers. One issue posed by fuses is that one phase may open while the other two phases remain energized, which can lead to failures in loads served. The conductors should be evaluated when the panels are replaced to determine if they too should be replaced.

FIRE ALARM

Fire Alarm Panel was not observed and may be connected to the system in the main building. The Fire Alarm initiating and notification devices (horns/strobes) do not meet the current Code. In some areas exposed wiring is stapled to ceiling tiles.

VOICE/DATA

Not Applicable.

SECURITY/INTRUSION

Not Applicable.

LIGHTING/LIGHTING CONTROL

Lighting has been upgraded to efficient T5HO fixtures with electronic ballasts in areas with high ceilings. However, in some halls and smaller rooms obsolete residential grade fixtures are still in use with exposed bulbs. Lighting controls overall do not meet current Energy Code.

EMERGENCY POWER/LIGHTING

The Emergency Lighting system does not meet current Code and it is recommended that it be replaced. Either individual battery backup fixtures or a central battery system can be added.

INTERCOM

Not applicable.

OTHER DETACHED BUILDINGS NOT SHOWN ON ELECTRICAL RECORD DRAWINGS

FACILITIES BUILDING

This building is primarily used for storage and offices for facilities staff. The panels are obsolete and should be replaced if the service load increases due to increased activity in the building. No meter was observed near the building.

STADIUM

The Stadium is an old structure of wooden construction. It has exposed incandescent bulbs that provide minimal lighting in the stands. These fixtures are inefficient and present a hazard due to being easily broken. No meter was observed and the electrical panel appeared to be in a locked outdoor cabinet.

STADIUM FIELDHOUSE

The building was locked so no equipment was observed on the interior. A meter is mounted on the side of the building that may supply the Stadium and field lights. The electrical service is provided by Meter: 23782409

VOCATIONAL AG BUILDING

The Vocational Ag Building has upgraded T5HO fixtures in the shop area while old T-12 fixtures with magnetic ballasts remain in the classroom area. The intercom in the classroom was disconnected leaving wires exposed. The building electrical panels are in fair condition with likely a low service load and no meter was observed near the building.

INDUSTRIAL ARTS/THEATER BUILDING

The Industrial Arts/Theater Building houses both activities. Three of the panels are in fair condition with one newer panel installed. Fused disconnects are used to supply the large shop tools and some loads on the theater side. There are old T-12 fixtures in the shop area and T-8 fixtures in the drafting area still using magnetic ballasts. The meter supplying this building was not located.

ART/HEALTH SERVICES TRAILER

As the electrical equipment is newer construction provided with the structure it will likely provide reliable service for the life of the trailer. The electrical service is provided by Meter: 21752836

TRAILER NEAR GREENHOUSES

As the electrical equipment is newer construction provided with the structure it will likely provide reliable service for the life of the trailer. This system was not inspected during this visit. The electrical service is provided by Meter: 23210280

HIGH SCHOOL PANELBOARDS

Yamhill Carlton High School Panelboards								
Panel	Campus	Meter	Area	Equipment	Condition	Recommendation	Estimated Service Years Remaining	Estimated Upgrade Cost
Main Distribution	Yamhill	9782964	Boiler Room	Siemens 120/208V 1200A 3P 4W	Good	Post One-Line	20+	$0
A			Middle Floor	120/208V 125A 1P	Good	None	20+	$0
B			Middle Floor	120/208V 125A 1P	Good	None	20+	$0
C			Middle Floor	120/208V 125A 1P	Good	None	20+	$0
D			Middle Floor	120/208V 125A 1P	Good	None	20+	$0
F			Boiler Room	Siemens 120/208V 250A 3P	Good	None	20+	$0
G			Basement	Siemens 120/208V 250A 3P	Good	None	20+	$0
H			Basement	120/208V 125A 1P	Good	None	20+	$0
J			Boiler Room	Siemens 120/208V 250A 3P	Good	None	20+	$0
K			Middle Floor	Siemens 120/208V 250A 3P	Good	None	20+	$0
L			Middle Floor	Siemens 120/208V 250A 3P	Good	None	20+	$0
M			Student Store	Not Observed	Good	None	10+	$0
N			Library	120/208V 250A 3P	Good	None	20+	$0
Elev.			Elev. Mech Room	Not Observed	Good	None	10+	$0
Main Distribution		Unknown	Gymnasium	Coast 120/208V 600A 3P 4W	Obsolete	Replace	0	$20,000
B				Coast 120V 225A 1P	Obsolete	Replace	0	$3,000
c				Coast 120/208V 225A 3P	Obsolete	Replace	0	$3,000
E				Coast 120V 125A 1P	Obsolete	Replace	0	$2,000
		Unknown	Facilities Building					
A				Square D 120V XXXA 3P	Fair	Plan for replace	5	$2,000
B				Trumbull 120V 200A 1P	Obsolete	Replace	0	$2,000
C				Federal Pacific 120V 100A 1P	Obsolete	Replace	0	$2,000
		23782409	Stadium Fieldhouse	Unknown				
Main Distribution		Unknown	Vocational AG	Unknown				
A				Square D 120V 150A MB 1P	Fair	Plan for replace	5	$3,000
B				Square D 120/208V 125A MB 3P	Fair	Plan for replace	5	$3,000
C				Square D 120/208V 225A MB 3P	Fair	Plan for replace	5	$3,000
D				Square D 120V XXXA 1P	Fair	Plan for replace	5	$3,000
Main Distribution		Unknown	Industrial Arts/Theater	Unknown				
A				ITE 120V 225A 1P	Fair	Plan for replace	5	$3,000
B				ITE 120V 100A 1P	Fair	Plan for replace	5	$3,000
C				ITE 120V 100A 1P	Fair	Plan for replace	5	$3,000
Unlabeled				Square D 120/208V 225A 3P	Good	None	20+	$0
Main		21752836	Art/Health Trailer	Siemens 120/208V 225A 1P	Good	None	20+	$0
Main		23210280	Trailer (by greenhouse)	CH 120V 200A 1P	Good	None	20+	$0
							Total	$55,000

YAMHILL CARLTON HIGH SCHOOL – MECHANICAL, HVAC, CONTROLS

MAIN BUILDING

The primary heating system for the High School (main building) is a 3770 MBH Weil McClain steam boiler serving 17 Fan Coil Units (FCU) located below the ceiling in the basement rooms and above the t-bar on the first and second floor as well as 3 Unit Ventilators and 26 cabinet unit heaters. The unit heaters were not replaced when the boiler was replaced. Most of the FCUs have economizers and provide adequate outside air. There is one compressor unit to provide cooling to the conference room and one small office. There were no nametags on the boilers and most of the FCUs and unit heaters. The steam boiler is 78% efficient per design and is approximately 12 years old. Most of the doors to the classrooms were left open when the rooms were occupied. The design air flow for the rooms as shown on the design drawings is adequate. The boiler was not working on the days the buildings were observed sue to failure of the oil pump in the burner. the drawings indicate that most of the classrooms get 700 to 1200 cfm supply air and the number of diffusers were minimal. There is one supply air diffuser on the FCU below the ceiling and two diffusers on all other FCUs. The Facilities Manager said that the Outside air dampers were set at a percent of total supply air and not adjustable.

There was concern that the existing boiler was oversized for the building. Based on the building size of 45,705 sq.ft the existing boiler supplies 12BTU/sq.ft which is not excessive.

The water heater in the boiler room is a PVI model #20N-125A-MVO. This is a 125 gallon, oil-fired unit sized at 199,000 BTU/hr. There are no reported problems with the Domestic Hot Water system. Some abandoned HWS and HWR pipe was observed.

The Building Control System is Siemens DDC installed in 2006. The controls appear to work pretty well in the High School although some of the teachers we interviewed noted that some rooms were often too hot or too cold. The Woman's Restroom on the basement floor was often over 80^{o}. Layout of the building with three floors and most doors left open allows heat to rise to the top floor and this makes control of the rooms more difficult. All temperature sensors are Johnson Controls sensors with no local indication or adjustment. The room temperatures indicated on the DDC system computer showed all rooms were controlled in the comfort zone but several rooms were 2 to 3 degrees above the set point. The Outside Air temperature at the time was 41^{o}.

There are 10 exhaust fans in the building for restrooms but exhaust was only observed in one area of the top floor. It appeared that most of the exhaust fans were off.

The Domestic water in the building is clear. Hot water was available within one minute of turning on a tap and was within the correct temperature range. No leaks were noted in the domestic or heating water systems anywhere in the building.

Concerns:

1. The steam system infrastructure and piping are old and leaks should be anticipated. Many of the leaks recorded by the Facilities department have been "pinhole" leaks in the steam piping.
2. The boiler efficiency is only 78%.
3. The exhaust fans in the restrooms are not operating.
4. The building control system cannot control within specifications.
5. The outside air requirement for the classrooms may not be adequate and the classrooms get too much outside air during unoccupied and warm-up periods.
6. Combustion air to the boiler room does not meet current code requirements.



Recommendations:

The systems are in generally very good shape and are well maintained. The District should consider the following:

1. Replace the existing heating system with high efficiency HVAC. The steam piping will continue to fail and the steam trap maintenance is ongoing. Because of the configuration of the building, this school is a good candidate for a Variable Refrigerant Flow system that takes advantage of the temperature diversity by moving heat from hot areas to areas that need heat and cooling hot areas in the same way.
   a. And alternate and recommended approach is to install individual PTAC (Packaged Terminal Air Conditioning) units or heat pumps for each area.

      Note that installation of PTACs or heat pumps will probably require an upgrade of the electrical service to the campus
   b. Boiler replacement is a possibility but will require a complete replacement of all piping in the building. Much of the heating water piping is most probably installed in 1936
2. Retro-commissioning of the DDC system. This has been done before however, the results did not correct many of the issues noted above.
3. Turn on the exhaust fans and ensure all restrooms and locker rooms are exhausted to meet current code.

Other Building associated to the High School

Observations:

The maintenance building has minimal heating. There is a small unit heater above one door and fin tube radiator alone the outside wall that was not in use. All rooms other than the Maintenance area were cold and obviously not in use for anything but unorganized storage.

The vocational/ag building has been remodeled and walls removed. The diffusers in the north end were not relocated and the area is heated by an Iceco 80% efficient oil furnace with no nameplate. The south end of the building is heated by a Berkett oil furnace with no nameplate. The classroom has four diffusers and the temperature was comfortable.

The Industrial Arts building is heated by two 104 MBH American Standard furnaces. There is no nameplate but the manual next to the furnace indicates they are model # AUH1D120A9601A. the furnaces were not running and all areas were cold. There is dust exhaust connected to most of the tool in the room. It was noted that there are still T-12 lights in this building.

Recommendations:

No recommendations will be made to upgrade or control the mechanical systems in these buildings. They seem adequate for the purpose of the building

OVERALL STRUCTURAL SCOPE & LIMITATIONS

BMGP Engineers, Inc. was retained to provide an overall Structural Systems Assessment for Yamhill Carlton School District Facilities. These include the High, Intermediate, and Grade schools.

Each of these schools has undergone renovation/remodels since original construction and the High School Complex included several accessory buildings in addition to the main building.

Our observations were limited and purely visual. No demolition of finishes was performed, therefore no comments can be made regarding hidden conditions.

While on site, we also had the opportunity to review construction plans for significant portions of each school. Again, time constraints allowed for only limited review of these plans.

We wish to acknowledge the valuable input provided by Bobby Dixon, the District Facilities Manager. His input on issues that he was familiar with allowed us to use our time more effectively.

The schools all had varying degrees of work done in the past ten years or so. Each facility included partial seismic upgrading as part of this work.

Our work was strictly limited to the structural aspects of the subject buildings. Others involved dealt with Electrical, Mechanical, Roofs and General Architectural conditions. The following pages contain comments other than structural that we deemed significant and that could possibly have structural impacts if not remedied. However, these issues should be further dealt with by other disciplines. In particular, site drainage appears to be negatively impacting several of the buildings. Numerous downspouts and/or leader lines are also in need of attention.

On the following pages all dates shown are based upon dates on plans located or as provided by district personnel. Actual construction may have been slightly different.

PROJECT OVERVIEW – HIGH SCHOOL MAIN BUILDING

The original High School building was constructed in 1935. The basic construction is load bearing masonry exterior walls with wood framed interior walls, roof and floors. The building is two story, with the lower level partially below grade. Much of the lower level has limited head height and is unused or used for storage.

At some unknown point in time, the original two story gymnasium was renovated and an intermediate floor area added creating a partial third floor.

In 2001, the building underwent a renovation which included at least a partial seismic upgrade. Several interior walls were sheathed with plywood and plywood was added to a portion of the roof.

EXECUTIVE SUMMARY

Overall, the high school structure appears to be in good structural condition with no significant structural defects observed. Minor cracks were observed in the terra cotta tile wall of the boiler room, but these are not deemed structural. Also, the lower level concrete walls, including buttresses, have numerous minor nonstructural cracks which should be sealed to prevent water intrusion.

The only structural cracks observed were the south stairs on the east side where the concrete stairs show a significant crack and the landing shows cracking and damage due to apparent impact. These issues are not a structural hazard at this time but repair should be undertaken in the near future.

Exterior wall brick shows deterioration of mortar with numerous relatively minor cracks. None of the defects observed are considered as structural at this time, but could become so without attention. Tuck pointing should be considered within the next few years.

No signs of structural deficiencies were noted in either the roof structure or floor framing. No excessive deflections were noted as we walked the building. The library area requires a heavier live load than typical classrooms and it is unknown if these loads were allowed for. However, we noted no distress or signs of excessive deflection in this area so assume the floor framing is adequate.

The small "garden" area of the south side of the main wing appears to accumulate rain water. This can become a structural issue impacting concrete lower walls. Improved drainage is recommended.

PROJECT OVERVIEW – HIGH SCHOOL GYMNASIUM

The exact date of construction for this building is unknown but reportedly about 1964. It is predominately one story with a large second floor over the locker rooms. The exterior walls are precast tilt-up wall panels with poured in place pilasters. Interior walls are predominately concrete masonry units (CMU) with some wood framed. The second floor framing could not be determined. The roof is wood framed with composite panels. Floor is a concrete slab on grade.

In 2001, the gymnasium was seismically upgraded by tying exterior walls to the roof structure. It could not be determined if additional upgrades were performed.

EXECUTIVE SUMMARY

Overall the gymnasium is in good structural condition. No signs of structural distress were observed, however several items noted may become structural if not remedied.

Exterior pilasters are typically exhibiting significant "map cracking" and associated deterioration of surface finish. We do not consider the cracks to be a serious structural issue at this time, but unless patched and sealed, deterioration of reinforced steel will occur which is a structural concern.

The northeast corner pilaster is an exception. This pilaster shows severe deterioration with exposed rebar. This pilaster is in need of immediate attention. At a minimum, the loose material should be removed, rebar cleaned and the void area filled with high quality patching mortar.

Minor fascia and soffit deterioration due to moisture was noted. Again, this is not structural but can become so.

Site drainage is a definite concern which may become structural if not dealt with. A district representative noted that the gymnasium floor has moisture intrusion problems. Again, not a structural issue. However, if footings do not remain on non-saturated solid material, problems may be encountered in the future.

At the southwest corner, site grading is such that water drains toward the main entrance slab. This allows accumulation of water which can find its way under the floor slab.

In addition, along the north wall downspouts are in disrepair and allow roof drainage to accumulate adjacent to the wall footings. This excess moisture is also contributing to that noted in the gym floor.

HIGH SCHOOL – FACILITIES BUILDING

The age of this building is unknown, and it is apparent that the south 40' or so is an addition. From what we could observe, the building has wood framed walls with brick veneer exterior, and a wood framed roof. The wall extends above the roof creating parapet walls. The floor is a concrete slab on grade.

EXECUTIVE SUMMARY

The south addition appears to be in good structural condition, with no defects noted. The original portion to the north has suffered severe roof leaking which has progressed to structural water damage. This damage is apparent to most of the roof near the east wall and to a lesser degree at the west wall. Damage has also occurred to both east and west wall framing. This damage has reached the point of impacting structural integrity and repairs should be undertaken very soon.

HIGH SCHOOL – ACCESSORY BUILDINGS (VOCATIONAL AG, INDUSTRIAL ARTS, STADIUM)

The age of each of these buildings is unknown, but appear to be at least thirty to fifty years, possibly more.

The Vocational Ag building is likely the oldest and constructed of wood wall framing on concrete stem walls and wood roof with metal skin. The floor appears to be a concrete slab on grade.

The Industrial Arts building is a pre-engineered steel building (PEMB) and is likely the newest. Interior walls appear to be of wood frame construction with a concrete slab on grade floor.

The stadium is predominately wood frame construction. The seating area has wood surfacing and the actual structure could not be observed.

EXECUTIVE SUMMARY

The Vocational Ag building is in poor condition, primarily due to age. No serious structural issues were noted, however wall metal siding is damaged to the extent structural deterioration is likely in the future. Also along the west, pavement drains toward the building and it appears may be an issue at times. The roof structure could not be observed, however no excessive sagging or other defects were apparent. The metal siding offers only nominal resistance to wind or seismic loading, however no distress was observed.

The Industrial Arts building appears to be in good condition with no structural defects noted. Our only structural concern is that it appears that the small lean-to at the northeast is supported by the PEMB wall. This wall was not intended to be a bearing wall and we recommend secondary supports be added at the building wall.

The stadium was given only a cursory walkthrough. No overt structural defects were observed, however this structure is showing its age. The lateral load resisting system of knee braces and metal siding is undoubtedly deficient, but appears to have performed satisfactorily to this point in time.

HIGH SCHOOL/INTERMEDIATE SCHOOL CAFETERIA

The Cafeteria building was constructed in 2001 or 2002. The walls are CMU and the roof structure appears to be of wood frame construction, although finishes precluded observation of the main building roof structure.

EXECUTIVE SUMMARY

As would be anticipated with a relatively new building, we observed no significant structural issues. No cracks other than "hairline" were observed in the CMU walls nor were any defects noted with the roof or observable soffits.

The only item we noted was a missing downspout from upper to lower roof in the southwest walkway area.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School – Main Building
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Shingle Roof:
   a. Roofs A, E, G, J, L, P & Q:
      (1) Surface:..... Composition Shingle
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... Unknown
      (4) Deck:..... Plywood
      (5) Age: ..... 2002 *(11 years)*
      (6) Warranty: ..... Unknown
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Good

2. Built-up Roofs:
   a. Roofs B, C, D, F, H, I, K, M, N & O:
      (1) Surface:..... Mineral grain cap sheet
      (2) Manufacturer:..... Unknown

(3) Insulation:..... Unknown
(4) Deck:..... Plywood
(5) Age: ..... 2002 *(11 years)*
(6) Warranty: ..... Unknown
(7) Contractor: ..... Unknown
(8) General Condition: ..... Good

3. Square Footage *(Approx.)*

a. Shingle Roof Total:..... 14,875 *sq. ft.*

Roof A:..... 10,131 *sq. ft.*
Roof E..... 1,289 *sq. ft.*
Roof G: ..... 1,289 *sq. ft.*
Roof J: ..... 735 *sq. ft.*
Roof L: ..... 702 *sq. ft.*
Roof P:..... 702 *sq. ft.*
Roof Q: ..... 27 *sq. ft.*

b. Built-up Roof Total:..... 5,951 *sq. ft.*

Roof B:..... 287 *sq. ft.*
Roof C..... 287 *sq. ft.*
Roof D:..... 412 *sq. ft.*
Roof F: ..... 3,011 *sq. ft.*
Roof H:..... 412 *sq. ft.*
Roof I: ..... 315 *sq. ft.*
Roof K:..... 315 *sq. ft.*
Roof M: ..... 90 *sq. ft.*
Roof N:..... 732 *sq. ft.*
Roof O: ..... 90 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. The units are mounted on roofed-in curbs as well as typical penetrations, etc.
2. The condition of the equipment, visually, good.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*

a. Shingle Roofs:

(1) Roofs A, E, G, J, L, P & Q: These roofs are reported to be approximately eleven years old (*11 yrs)* and have approximately thirteen to fifteen years *(11-15 yrs)* of their life expectancy remaining with maintenance.

b. Built-up Roofs:

(1) Roofs D, C, D, F, H, I, K, M, N & O: These roofs are reported to be approximately eleven years old (*11 yrs)* and have approximately eight to ten years *(8-10 yrs)* of their life expectancy remaining with maintenance.

2. ROOF DRAINS:
   a. The shingle roofs drain via gutters. The built-up roofs drain onto shingle roofs.
      (1) The gutters appear to be in good condition and working well.

3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in good condition and working well.

4. GENERAL SUMMARY:
   a. Roofs A-Q on this facility are considered to be manageable for several more years; however, minor maintenance and cleaning is required.
   b. No major work is recommended at this time.

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. SHINGLE ROOF SYSTEM:

1. Roof A: A few fasteners are starting to back out at ridge cap. This is considered a potential future interior leakage problem.
   a. ***ACTION:*** Reattach fasteners. *(contractor item)*

B. BUILT-UP ROOF SYSTEM:

1. Roof F: Base flashing is not tight at equipment curbs at the northwest section of the roof. This is considered a potential future interior leakage problem.
   a. ***ACTION:*** Repair base flashing. *(contractor item)*

C. SHEET METAL:

1. Roof M: Cut in metal coping at the southwest section of the roof. This is considered a potential future interior leakage problem.
   a. ***ACTION:*** Repair metal. *(contractor item)*

D. HVAC:

1. No problems reported or noted during this inspection.

E. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, the roofs on this facility are considered to be manageable for several more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the roofs can be cost-effectively and successfully managed for several more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Shingle Roofs:
   a. Reattach fasteners at ridge cap.
2. Built-up Roofs:
   a. Repair base flashing.
3. Sheet Metal:
   a. Repair metal coping.

B. MAJOR MAINTENANCE:

1. None.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roofs A-Q: ..... *$* 140,000.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 250.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to east of west elevation at left and south elevation at right.

Sec. 1.02 – Roof A: View of fastener that is starting to back out at ridge cap at northeast corner of the roof.

Sec. 1.03 – Roof A: View of fastener that is starting to back out at ridge cap at southeast corner of the roof.

Sec. 1.04 – Roof A: View to south across roof field at south section of the roof.

Sec. 1.05 – Roof F: View to west across roof field.

Sec. 1.06 – Roof F: View of base flashing that is not tight at equipment curb at northwest section of the roof.

Sec. 1.07 – Roof M: View of cut in metal coping at southwest section of the roof.

Sec. 1.08 – Roof N: View to south across roof field.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School – Art Modular
275 N. Maple
Yamhill, Oregon

Present at Inspection: Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Shingle Roof:
   a. Roof A:
      (1) Surface:..... Composition Shingle
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... Unknown
      (4) Deck:..... Plywood
      (5) Age: ..... 1997 *(16 years)*
      (6) Warranty: ..... None
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Fair

2. Square Footage *(Approx.)*
   a. Shingle Roof Total:..... 2,730 *sq. ft.*
      Roof A:..... 2,730 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Shingle Roof:
      (1) Roof A: The roof is reported to be approximately sixteen years old (*16 yrs)* and has approximately four to six years *(4-6 yrs)* of its life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The shingle roof drains via gutters.
      (1) The gutters appear to be in fair condition and working adequately.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in fair condition and working adequately.
4. GENERAL SUMMARY:
   a. Roof A on this facility is considered to be manageable for a few more years; however, minor maintenance and cleaning is required.
   b. Major work is recommended as follows:
      (1) Roof A should be scheduled for replacement within the next four to six years *(4-6 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. SHINGLE ROOF SYSTEM:

1. Roof A:
   a. A few shingles missing in the roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Replace missing shingles. *(contractor item)*
   b. Minor curling of shingles in the roof field. This is considered a minor problem at this time.
      (1) ***ACTION:*** Monitor shingles for any changes. *(in-house item)*

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on these roofs.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report as action items and recommendations, Roof A on this facility is considered to be manageable for a few more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the Roof A can be cost-effectively and successfully managed for four to six *(4-6 yrs)* more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Shingle Roof:
   a. Replace missing shingles.

B. MAJOR MAINTENANCE:

1. Schedule Roof A for replacement in 2017 to 2019.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roof A:..... *$* 15,000.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 350.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to southeast of west elevation at right and north elevation at left.

Sec. 1.02 – Roof A: View of curling shingles at east section of the roof.

Sec. 1.03 – Roof A: View of missing shingles at southeast section of the roof.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Special Learning Module
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Metal Roof:
   a. Roof A:
      (1) Surface:..... Metal
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... Unknown
      (4) Deck:..... Unknown
      (5) Age: ..... 1983 *(30 years)*
      (6) Warranty: ..... Unknown
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Fair

2. Square Footage *(Approx.)*
   a. Metal Roof Total:..... 1,450 *sq. ft.*

      Roof A:..... 1,450 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Metal Roof:
      (1) Roof A: This roof is reported to be approximately thirty years old (*30 yrs)* and has approximately two to five years *(2-5 yrs)* of its life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The metal roof drains via gutters.
      (1) The gutters appear to be in fair condition and working adequately.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in fair condition and working adequately.
4. GENERAL SUMMARY:
   a. Roof A on this facility is considered to be manageable for a few more years; however, minor maintenance and cleaning is required.
   b. Roof A should be scheduled for replacement within the next two to five years *(2-5 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. METAL ROOF SYSTEM:

1. Roof A:
   a. Staple backing out at peel and stick material at ridge line at the center section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Remove staple and repair hole. *(contractor item)*
   b. Holes in peel and stick material at ridge line at the center section of the roof. This is considered a potential future interior leakage problem.

      ACTION: Repair holes. *(contractor item)*

   c. Metal is rusting at several locations in the roof field. This is considered a minor problem at this time.
      (1) ***ACTION:*** Monitor rusting metal for any changes. *(in-house)*

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on this roof.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, the roof on this facility is considered to be manageable for a few more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the roofs can be cost-effectively and successfully managed for a few more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Metal Roof:
   a. Remove staple and repair hole.
   b. Repair holes.

B. MAJOR MAINTENANCE:

1. Schedule Roof A for replacement in 2015 to 2018.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roof A:..... *$* 24,000.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 350.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to northeast of west elevation at left and south elevation at right.

Sec. 1.02 – Roof A: View to east across roof field at south section of the roof. Note rusting at several locations.

Sec. 1.03 – Roof A: View of staple that is backing out at center section of the roof.

Sec. 1.04 – Roof A: View of holes in peel and stick material at center section of the roof.

Sec. 1.05 – Roof A: View to east across roof field at north section of the roof. Note rusting at several locations.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Gymnasium
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data due to the possibility of a manufacturer's warranty.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Single-Ply Roof:
   a. Roofs A & B:
      (1) Surface:..... Single-ply *(mechanically attached)*
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... Rigid Insulation *(thickness unknown)*
      (4) Deck:..... Wood
      (5) Age: ..... 1998 *(15 years)*
      (6) Warranty: ..... Unknown
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Fair
2. Metal Roof:
   a. Roof C:
      (1) Surface:..... Metal
      (2) Manufacturer:..... Unknown

(3) Insulation:..... None above deck
(4) Deck:..... Plywood
(5) Age: ..... 1998 *(15 years)*
(6) Warranty: ..... Unknown
(7) Contractor: ..... Unknown
(8) General Condition: ..... Good

3. Square Footage *(Approx.)*
   a. Single-Ply Roof Total: ..... 14,751 *sq. ft.*

      Roof A:..... 12,664 *sq. ft.*
      Roof B:..... 2,087 *sq. ft.*

   b. Metal Roof Total:..... 125 *sq. ft.*

      Roof C:..... 125 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. The units are mounted on roofed-in curbs as well as typical penetrations, etc.
2. The general condition of the roof-mounted equipment, visually, is good.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Single-Ply Roofs:
      (1) Roofs A & B: The roofs are reported to be approximately fifteen years old (*15 yrs)* and have approximately four to six years *(4-6 yrs)* of their life expectancy remaining with maintenance.
   b. Metal Roof:
      (1) Roof C: This roof is reported to be approximately fifteen years old (*15 yrs)* and has approximately fourteen to sixteen years *(14-16 yrs)* of its life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The single-ply and metal roofs drains via gutters.
      (1) The gutters appear to be in good condition and working well.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in good condition and working well.
4. GENERAL SUMMARY:
   a. Roofs A & B on this facility are considered to be manageable for a few more years; however, minor maintenance and cleaning is required.
   b. Roof C on this facility is considered to be manageable for several more years; however, minor maintenance and cleaning is required.

c. Major work is recommended as follows:
   (1) Roofs A & B should be scheduled for recover or replacement within the next four to six years *(4-6 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. SINGLE-PLY ROOF SYSTEM:

1. Roof A:
   a. Loose seam at north perimeter at the center section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair loose seam. *(contractor item)*
   b. Fasteners are starting to back out in the roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Inspect fasteners and repair as required. *(contractor item)*
2. Roof B:
   a. Fasteners are starting to back out in the roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Inspect fasteners and repair as required. *(contractor item)*

B. SHEET METAL:

1. Roof B:
   a. Gaps in drip edge metal at perimeter of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair gaps. *(contractor item)*

C. HVAC:

1. The units are mounted on roofed-in curbs as well as typical penetrations, etc.
2. The general condition of the roof-mounted equipment, visually, is fair.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, Roofs A & B on this facility are considered to be manageable for a few more years. Roof C on this facility is considered to be manageable for several more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the Roofs A & B can be cost-effectively and successfully managed for a few more years and Roof C can be cost-effectively managed for several more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Single-Ply Roofs:
   a. Repair loose seam.
   b. Inspect fasteners and repair as required.

c. Repair gaps in drip edge metal.

B. MAJOR MAINTENANCE:

1. Schedule Roofs A & B for replacement in 2017 to 2019.

C. GENERAL MAINTENANCE: ***(In-house)***

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET ***(Refer to Part I-E-1 for Life Expectancy)*:**

1. Roofs A & B: ..... *$* 135,000.00 *(estimated)*

B. REPAIR MAINTENANCE ***(2013)*:**

1. Contractor repairs: ..... *$* 500.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to northeast of south elevation at right and west elevation at left.

Sec. 1.02 – Roof A: View to east across roof field at south section of the roof.

Sec. 1.03 – Roof A: View to north across roof field at east section of the roof.

Sec. 1.04 – Roof A: View of loose seam at north perimeter at center section of the roof.

Sec. 1.05 – Roof A: View to east across roof field at north section of the roof.

Sec. 1.06 – Roof A: View to east across roof field at center section of the roof.

Sec. 1.07 – Roof A: View of typical fastener that is backing out at northeast section of the roof.

Sec. 1.08 – Roof B: View to north across the roof field.

Sec. 1.09 – Roof B: View of fasteners starting to back out in the roof field.

Sec. 1.10 – Roof B: View of gap in drip edge metal at the south perimeter.

Sec. 1.11 – Roof C: View to north across the roof field.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School – Industrial Arts-Wood Shop
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Metal Roof:
   a. Roof A:
      (1) Surface:..... Metal
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... Batt below roof
      (4) Deck:..... Unknown
      (5) Age: ..... Unknown *(est. 30+ years)*
      (6) Warranty: ..... Unknown
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Fair
   b. Roof B:
      (1) Surface:..... Metal
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... None
      (4) Deck:..... None

(5) Age: ..... Unknown *(est. 30+ years)*
(6) Warranty: ..... Unknown
(7) Contractor: ..... Unknown
(8) General Condition: ..... Fair

2. Square Footage *(Approx.)*
   a. Metal Roof Total:..... 11,060 *sq. ft.*

      Roof A:..... 10,000 *sq. ft.*
      Roof B:..... 1,060 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Metal Roof:
      (1) Roof A & B: These roofs are reported to be over thirty years old (*30+ yrs)* and have approximately two to five years *(2-5 yrs)* of their life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The metal roof drains via gutters.
      (1) The gutters appear to be in fair condition and working adequately.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in fair condition and working adequately.
4. GENERAL SUMMARY:
   a. Roof A & B on this facility are considered to be manageable for a few more years; however, minor maintenance and cleaning is required.
   b. Roof A & B should be scheduled for replacement within the next two to five years *(2-5 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. METAL ROOF SYSTEM:

1. Roof A:
   a. A few fasteners are backing out in the roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Inspect fasteners and repair as required. *(contractor item)*
   b. Voids in sealant at base of vent at the center section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Replace sealant. *(contractor item)*
   c. Metal is rusting at the west section of the roof. This is considered a minor problem at this time.
      (1) ***ACTION:*** Monitor rusting metal for any changes. *(in-house)*

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on this roof.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report as action items and recommendations, the roof on this facility is considered to be manageable for a few more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the roofs can be cost-effectively and successfully managed for a few more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Metal Roof:
   a. Repair fasteners that are backing out.
   b. Replace sealant at vent.

B. MAJOR MAINTENANCE:

1. Schedule Roof A & B for replacement in 2015 to 2018.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*

b. Independent professional inspection conducted a minimum of every other year.
   (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roof A & B: ..... *$* 155,000.00 *(estimated)*

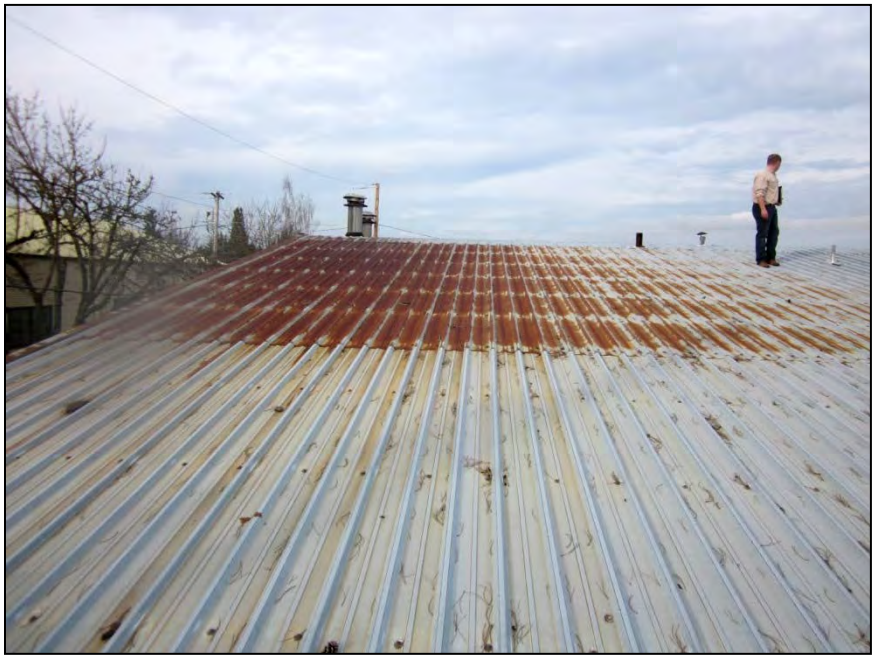
B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 300.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to northeast of west elevation at left and south elevation at right.



Sec. 1.02 – Roof A: View to north of rusting at southwest section of the roof.

Sec. 1.03 – Roof A: View to north of rusting at northwest section of the roof.

Sec. 1.04 – Roof A: View to east across roof field at center section of the roof.

Sec. 1.05 – Roof A: View of voids in sealant at vent at center section of the roof.

Sec. 1.06 – Roof A: View of peel and stick repair at center section of the roof.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Vocational-Ag Shop
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Metal Roof:
   a. Roofs A & B:
      (1) Surface:..... Metal
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... None
      (4) Deck:..... None
      (5) Age: ..... Unknown *(est. 30 years)*
      (6) Warranty: ..... Unknown
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Fair

2. Square Footage *(Approx.)*
   a. Metal Roof Total:..... 7,290 *sq. ft.*

      Roof A:..... 7,250 *sq. ft.*
      Roof B:..... 40 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Metal Roof:
      (1) Roofs A & B: These roofs are reported to be approximately thirty years old (*30 yrs)* and have approximately four to seven years *(4-7 yrs)* of their life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The metal roofs drain via gutters.
      (1) The gutters appear to be in fair condition and working adequately.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in fair condition and working adequately.
4. GENERAL SUMMARY:
   a. Roofs A & B on this facility are considered to be manageable for a few more years; however, minor maintenance and cleaning is required.
   b. Roofs A & B should be scheduled for replacement within the next four to seven years *(4-7 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. METAL ROOF SYSTEM:

1. Roof A:
   a. A few fasteners are backing out at ridge cap. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Inspect fasteners and repair as required. *(contractor item)*
   b. Organic debris restricting water flow in gutters. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Clean gutters. *(in-house item)*

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on these roofs.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, the roofs on this facility are considered to be manageable for a few more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of these roofs.

2. As the roofs age, they will require periodic maintenance. With proper maintenance, there is a high probability that the roofs can be cost-effectively and successfully managed for a few more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: ***(Roofing Contractor)***

1. Metal Roof:
   a. Repair fasteners that are backing out.

B. MAJOR MAINTENANCE:

1. Schedule Roofs A & B for replacement in 2017 to 2020.

C. GENERAL MAINTENANCE: ***(In-house)***

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET ***(Refer to Part I-E-1 for Life Expectancy)*****:**

1. Roofs A & B: ..... *$* 100,000.00 *(estimated)*

B. REPAIR MAINTENANCE ***(2013)*****:**

1. Contractor repairs: ..... *$* 400.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to east of west elevation.

Sec. 1.02 – Roof A: View to north across roof field at west section of the roof.

Sec. 1.03 – Roof A: View to north across roof field at east section of the roof.

Sec. 1.04 – Roof A: View of fastener backing out at ridge cap at center of the roof.

Sec. 1.05 – Roof A: View to north of organic debris in west gutter.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Grandstand
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Built-up Roof:
   a. Roof A:
      (1) Surface:..... Mineral Grain Cap Sheet
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... None
      (4) Deck:..... Wood
      (5) Age: ..... Unknown *(estimated 20+ years)*
      (6) Warranty: ..... None
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Poor
2. Shingle Roof:
   a. Roofs B:
      (1) Surface:..... Composition shingle
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... None

(4) Deck:..... Plywood
(5) Age: ..... Reported 2 years
(6) Warranty: ..... None
(7) Contractor: ..... Unknown
(8) General Condition: ..... Good

b. Roof C, D & E:

(1) Surface:..... Composition shingle
(2) Manufacturer:..... Unknown
(3) Insulation:..... None
(4) Deck:..... Plywood
(5) Age: ..... Unknown *(estimated 10 years)*
(6) Warranty: ..... None
(7) Contractor: ..... Unknown
(8) General Condition: ..... Good to fair

3. Square Footage *(Approx.)*

a. Built-up Roof Total: ..... 5,184 *sq. ft.*

Roof A:..... 5,184 *sq. ft.*

b. Composition Shingle Total: ..... 843 *sq. ft.*

Roof B:..... 225 *sq. ft.*
Roof C:..... 506 *sq. ft.*
Roof D:..... 56 *sq. ft.*
Roof E:..... 56 *sq. ft.*

C. INTERIOR LEAKAGE:

1. Current interior leakage was reported at several locations during most rains at Roof A.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*

a. Built-up Roof:

(1) Roof A: The roof is estimated to be approximately twenty + years old (*20+ yrs)* and is considered to be at or near the end of its life expectancy and has approximately one to two years *(1-2 yrs)* of its life expectancy remaining with maintenance.

(2) Roof B: The roof is reported to be approximately two years old (*2 yrs)* and has approximately eighteen to twenty years *(18-20 yrs)* of its life expectancy remaining with maintenance.

(3) Roofs C, D & E: These roofs are estimated to be approximately ten years old (*10 yrs)* and have approximately eight to ten years *(8-10 yrs)* of their life expectancy remaining with maintenance.

2. ROOF DRAINS:

a. The built-up and shingle roofs drain via gutters.

(1) The gutters appear to be in fair condition and working adequately.

3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) Some of the gutters are rusting.
      (2) The metal system at the perimeter appears to be in fair condition and working adequately.
4. GENERAL SUMMARY:
   a. Roof A on this facility is considered to be currently manageable for a short period of time; however, minor maintenance and cleaning is required. Roofs B, C, D & E on this facility are considered to be manageable for several more years; however, minor maintenance and cleaning is required.
   b. Major work is recommended as follows:
      (1) Roof A should be scheduled for replacement within the next one to two years *(1-2 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. BUILT-UP ROOF SYSTEM:

1. Roof A:
   a. Considerable cap sheet ridging in roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Keep foot traffic off of the roof and inspect and repair ridging as required. *(contractor item)*
   b. Cap sheet is breaking at lap at the southeast section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair laps. *(contractor item)*
   c. Holes in cap sheet at walk path at the center section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair cap sheet. *(contractor item)*

B. SHEET METAL:

1. Roof A:
   a. Gutters are rusting at a few locations. This is considered a minor problem at this time.
      (1) ***ACTION:*** Replace gutters when major work is conducted. *(contractor item)*

C. HVAC:

1. There is no HVAC equipment mounted on these roofs.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report as action items and recommendations, Roof A on this facility is considered to be manageable for a short period of time. Roofs B, C, D & E on this facility are considered to be manageable for several more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.

2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the Roofs B, C, D & E can be cost-effectively and successfully managed for several more years. Roof A should be scheduled for replacement within the next one to two years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Built-up Roof:
   a. Repair cap sheet.

B. MAJOR MAINTENANCE:

1. Schedule Roof A for replacement in 2013 to 2014.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roof A:..... *$* 35,000.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 500.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to southwest of east elevation at front of Grandstand.

Sec. 1.02 – Roof A: View to north across roof field at north section of the roof.

Sec. 1.03 – Roof A: View to north across roof field at south section of the roof.

Sec. 1.04 – Roof A: View of typical cap sheet ridging in roof field.

Sec. 1.05 –Roof A: View of cap sheet breaking along lap at southeast section of the roof.

Sec. 1.06 – Roof A: View of holes in cap sheet at walkway at center section of the roof.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Garage
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Metal Roof:
   a. Roof A:
      (1) Surface:..... Metal
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... Unknown
      (4) Deck:..... Unknown
      (5) Age: ..... Unknown *(est. 20 years)*
      (6) Warranty: ..... Unknown
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Fair

2. Square Footage *(Approx.)*
   a. Metal Roof Total:..... 1,800 *sq. ft.*
      Roof A:..... 1,800 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Metal Roof:
      (1) Roof A: This roof is estimated to be approximately twenty years old (*20 yrs)* and has approximately seven to ten years *(7-10 yrs)* of its life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The metal roof drains via gutters.
      (1) The gutters appear to be in fair condition and working adequately.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in fair condition and working adequately.
4. GENERAL SUMMARY:
   a. Roof A on this facility is considered to be manageable for a few more years; however, minor maintenance and cleaning is required.
   b. Roof A should be scheduled for replacement within the next seven to ten years *(7-10 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. METAL ROOF SYSTEM:

1. Roof A:
   a. Loose ridge metal with a few fasteners backing out at the center section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Inspect fasteners and repair as required. *(contractor item)*
   b. Loose ridge metal at the west section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Reattach loose metal. *(contractor item)*

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on this roof.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, the roof on this facility is considered to be manageable for a few more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the roofs can be cost-effectively and successfully managed for a few more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: ***(Roofing Contractor)***

1. Metal Roof:
   a. Repair fasteners that are backing out.
   b. Reattach ridge metal.

B. MAJOR MAINTENANCE:

1. Schedule Roof A for replacement in 2020 to 2023.

C. GENERAL MAINTENANCE: ***(In-house)***

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2014.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET ***(Refer to Part I-E-1 for Life Expectancy)*:**

1. Roof A:..... *$* 30,000.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 350.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to northeast of west elevation at left and south elevation at right.

Sec. 1.02 – Roof A: View to east across roof field at south section of the roof.

Sec. 1.03 – Roof A: View of loose ridge metal at west section of the roof.

Sec. 1.04 – Roof A: View of loose ridge metal and fasteners backing out at center section of the roof.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School – Maintenance Building
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. Core samples were cut to determine roof construction data at Roofs A & B.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Built-up Roof:
   a. Roofs A & E:
      (1) Surface:..... Smooth surface
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... None
      (4) Deck:..... Plywood
      (5) Age: ..... Unknown *(estimated 25+ years)*
      (6) Warranty: ..... None
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Poor
   b. Roofs B & C:
      (1) Surface:..... Mineral Grain Cap Sheet *(roof over roof)*
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... 1" Fiberglass
      (4) Deck:..... Wood

(5) Age: ..... Unknown *(estimated 25+ years)*
(6) Warranty: ..... None
(7) Contractor: ..... Unknown
(8) General Condition: ..... Poor

2. Metal Roof:

a. Roof D:

(1) Surface:..... Metal
(2) Manufacturer:..... Unknown
(3) Insulation:..... None
(4) Deck:..... None
(5) Age: ..... 2001 *(12 years)*
(6) Warranty: ..... Unknown
(7) Contractor: ..... Unknown
(8) General Condition: ..... Good

3. Square Footage *(Approx.)*

a. Built-up Roof Total: ..... 5,714 *sq. ft.*

Roof A:..... 1,600 *sq. ft.*
Roof B:..... 2,250 *sq. ft.*
Roof C:..... 1,800 *sq. ft.*
Roof E:..... 64 *sq. ft.*

b. Metal Roof Total:..... 240 *sq. ft.*

Roof D:..... 240 *sq. ft.*

C. INTERIOR LEAKAGE:

1. Current interior leakage was reported at several locations on all built-up roofs at most rains.

D. HVAC UNITS:

1. The majority of the units on these roofs are mounted on wood sleepers as well as typical penetrations, etc.
2. The general condition of the roof mounted equipment, visually, is poor.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*

a. Built-up Roof:

(1) Roofs A, B, C & E: These roofs are estimated to be approximately twenty-five+ years old (*25+ yrs)* and are considered to be at or near the end of their life expectancy and have approximately one to two years *(1-2 yrs)* of their life expectancy remaining with maintenance.

b. Metal Roof:

(1) Roof D: This roof is reported to be approximately eleven years old (*11 yrs)* and has approximately seventeen to nineteen years *(17-19 yrs)* of its life expectancy remaining with maintenance.

2. ROOF DRAINS:

a. Roofs A & E drains via gutters.

(1) The gutters appear to be in fair condition and working adequately.

b. Roofs B & C drains via scuppers.
   (1) The scuppers appear to be in poor condition and working adequately.

c. Roof D drains via gutters.
   (1) The gutters appear to be in good condition and working well.

3. PERIMETER METAL:
   a. The perimeter metal at Roofs A & E is a combination gravel stop and drip edge metal system.
      (1) The metal system at the perimeter appears to be in fair to poor condition and working adequately.
   b. The perimeter metal at Roofs B & C is a standing seam system.
      (1) The metal system at the perimeters appears to be in fair condition and working adequately.
   c. The perimeter metal at Roof D appears to be in good condition and working well.

4. GENERAL SUMMARY:
   a. Roofs A, B, C & E on this facility are considered to be currently manageable for a short period of time; however, minor maintenance and cleaning is required. Roof D on this facility is considered to be manageable for several more years; however, minor maintenance and cleaning is required.
   b. Major work is recommended as follows:
      (1) Roofs A, B, C & E should be scheduled for replacement within the next one to two years *(1-2 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. BUILT-UP ROOF SYSTEM:

1. Roof A:
   a. Voids in mastic at chimney at the northwest section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Replace mastic. *(contractor item)*
   b. Membrane split at the southwest section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair membrane. *(contractor item)*

2. Roof B:
   a. Considerable cap sheet blistering and ridging in the roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Keep foot traffic off of the roof and inspect and repair blistering and ridging as required. *(contractor item)*
   b. Scupper is roofed over at the northeast corner of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Cut out roofing and seal scupper *(contractor item)*

c. Base flashing is not tight at the south parapet at the southeast section of the roof. This is considered a potential future interior leakage problem.
   (1) ***ACTION:*** Repair base flashing. *(contractor item)*

3. Roof C:
   a. Considerable cap sheet blistering and ridging in the roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Keep foot traffic off of the roof and inspect and repair blistering and ridging as required. *(contractor item)*
   b. Nails thru base flashing all along the north parapet. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair base flashing. *(contractor item)*
   c. Cap sheet is not watertight at the east parapet at the northeast section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair cap sheet. *(contractor item)*
4. Roof E:
   a. Membrane splits in the roof field. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Repair membrane. *(contractor item)*

B. SHEET METAL:

1. Roofs B & C:
   a. Metal coping joints are not tight at a few locations at parapets. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Inspect and seal metal coping joints as required. *(contractor item)*

C. HVAC:

1. Roof A:
   a. Wood sleepers are nailed thru the roof at the north section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Seal top of nails. *(contractor item)*
2. Roof B:
   a. Wood sleepers are nailed thru the roof at the southeast corner of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Seal top of nails. *(contractor item)*

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, Roofs A, B, C & E on this facility are considered to be manageable for a short period of time. Roof D on this facility is considered to be manageable for several more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.

2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the Roof D can be cost-effectively and successfully managed for several more years. Roofs A, B, C & E should be scheduled for replacement within the next one to two years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Built-up Roofs:
   a. Replace mastic at chimney.
   b. Repair membrane and cap sheet.
   c. Repair base flashing.
   d. Cut out scupper.
   e. Seal metal coping joints.
   f. Seal nails at wood supports.

B. MAJOR MAINTENANCE:

1. Schedule Roofs A, B, C & E for replacement in 2013 to 2014.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roof A, B, C & E: ..... *$* 60,000.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 2,500.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to west of east elevation.

Sec. 1.02 – Roof A: View to northwest across roof field at center section of the roof.

Sec. 1.03 – Roof A: View of wood sleepers nailed thru roof at north section of the roof.

Sec. 1.04 – Roof A: View of voids in mastic repairs at chimney at northwest section of the roof.

Sec. 1.05 – Roof A: View of membrane split at southwest section of the roof.

Sec. 1.06 – Roof B: View to south at west section of the roof. Note cap sheet blisters and ridging.

Sec. 1.07 – Roof B: View to north at east section of the roof. Note previous repairs.

Sec. 1.08 – Roof B: View of scupper that is roofed over at east parapet at northeast corner of the roof. Note ponding and previous repairs.

Sec. 1.09 – Roof B: View of wood sleepers that are nailed thru roofs at southeast corner of the roof.

Sec. 1.10 – Roof B: View of base flashing that is not tight at south parapet at southeast section of the roof.

Sec. 1.11 – Roof C: View to south at west section of the roof. Note cap sheet blisters and ridging.

Sec. 1.12 – Roof C: View to east at north section of the roof.

Sec. 1.13 – Roof C: View of typical nail thru base flashing along north parapet.

Sec. 1.14 – Roof C: View of cap sheet that is not watertight at east parapet at northeast section of the roof.

Sec. 1.15 – View of water stained ceiling tile below northwest corner at Roof A.

Sec. 1.16 – Roof D: View to southeast across the roof field.

Sec. 1.17 – Roof E: View to debris on roof surface.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Boys Batting Cage
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington ..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Shingle Roof:
   a. Roofs A & B:
      (1) Surface: ..... Composition Shingle
      (2) Manufacturer:..... Unknown
      (3) Insulation: ..... None
      (4) Deck:..... Plywood
      (5) Age:..... Unknown *(est. 15 years)*
      (6) Warranty: ..... None
      (7) Contractor: ..... Unknown
      (8) General Condition:..... Good to fair

2. Square Footage *(Approx.)*
   a. Shingle Roof Total: ..... 3,153 *sq. ft.*

      Roof A:..... 3,045 *sq. ft.*
      Roof B:..... 108 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Shingle Roof:
      (1) Roofs A & B: These roofs are reported to be approximately fifteen years old (*15 yrs)* and have approximately eight to ten years *(8-10 yrs)* of its life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The shingle roofs drain via gutters.
      (1) The gutters appear to be in good condition and working well.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in good condition and working well.
4. GENERAL SUMMARY:
   a. Roofs A & B on this facility are considered to be manageable for several more years; however, minor maintenance and cleaning is required.
   b. Major work is recommended as follows:
      (1) Roofs A & B should be scheduled for replacement within the next eight to ten years *(8-10 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. SHINGLE ROOF SYSTEM:

1. Roof A:
   a. Shingle is missing near ridge line at the southeast section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Replace missing shingle. *(contractor item)*

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on these roofs.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, Roofs A & B on this facility are considered to be manageable for several more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of these roofs.

2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the Roofs A & B can be cost-effectively and successfully managed for several more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Shingle Roof:
   a. Replace missing shingle.

B. MAJOR MAINTENANCE:

1. Schedule Roofs A & B for replacement in 2021 to 2023.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roofs A & B:..... *$* 15,000.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs:..... *$* 300.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

BOYS BATTING CAGE

Sec. 1.01 – View to northeast of south elevation at right and west elevation at left.

Sec. 1.02 – Roof A: View of missing shingle near ridge line at southeast section of the roof.

Sec. 1.03 – Roof A: View to east across roof field at north section of the roof.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Girls Batting Cage
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Shingle Roof:
   a. Roofs A, B & C:
      (1) Surface:..... Composition Shingle
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... None
      (4) Deck:..... Plywood
      (5) Age: ..... 1995 *(18 years)*
      (6) Warranty: ..... None
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Good to fair

2. Square Footage *(Approx.)*
   a. Shingle Roof Total:..... 3,304 *sq. ft.*
      Roof A:..... 2,880 *sq. ft.*

Roof B:..... 224 *sq. ft.*
Roof C:..... 200 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Shingle Roof:
      (1) Roofs A, B & C: These roofs are estimated to be approximately eighteen years old (*18 yrs)* and have approximately six to eight years *(6-8 yrs)* of their life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The shingle roofs drain via gutters.
      (1) The gutters appear to be in good condition and working well.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in good condition and working well.
4. GENERAL SUMMARY:
   a. Roofs A, B & C on this facility are considered to be manageable for several more years; however, minor maintenance and cleaning is required.
   b. Major work is recommended as follows:
      (1) Roofs A, B & C should be scheduled for replacement within the next six to eight years *(6-8 yrs).*

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. SHINGLE ROOF SYSTEM:

1. Roof A:
   a. Shingle is missing near ridge line at south section of the roof. This is considered a potential future interior leakage problem.
      (1) ***ACTION:*** Replace missing shingle. *(contractor item)*
   b. Shingles are curling above gutter at south section of the roof. This is considered a minor problem at this time.
      (1) ***ACTION:*** Monitor curling shingles for changes. *(in-house item)*
   c. Moss is growing at north section of the roof. This is considered a minor problem at this time.
      (1) ***ACTION:*** Remove moss. *(in-house item)*

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on these roofs.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, the roofs on this facility is considered to be manageable for several more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the roofs can be cost-effectively and successfully managed for several more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. Shingle Roof:
   a. Replace missing shingle.

B. MAJOR MAINTENANCE:

1. Schedule Roof A, B & C for replacement in 2019 to 2021.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.
2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roofs A, B & C:..... *$* 15,000.00 *(estimated)*

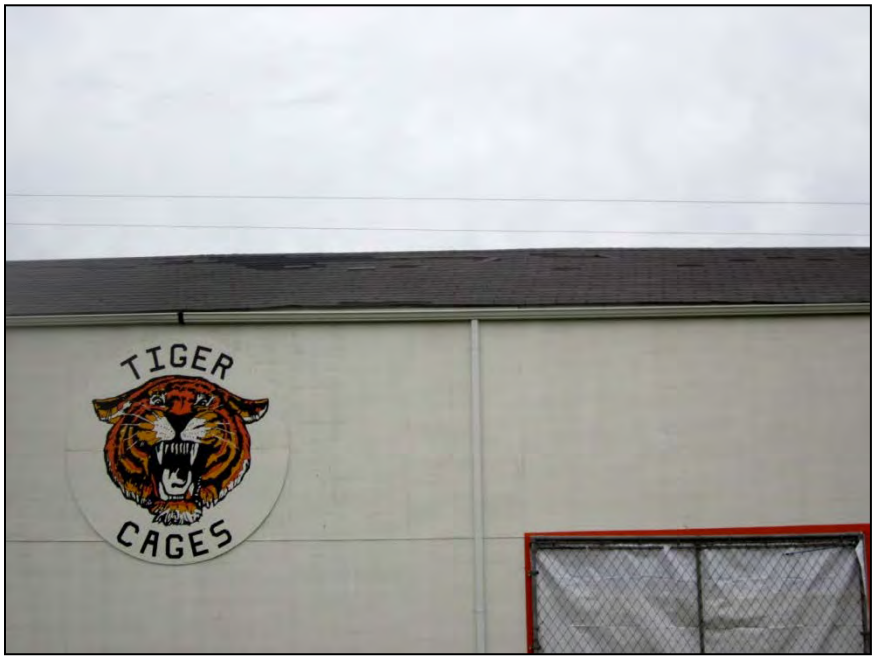
B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 300.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to northwest of south elevation.



Sec. 1.02 – Roof A: View of missing shingle near ridge line at south section of the roof.

Sec. 1.03 – Roof A: View of curling shingles above gutter at south section of the roof.

Sec. 1.04 – Roof A: View of replacement shingles at southwest section of the roof.

Sec. 1.05 – Roof A: View to east of moss growing at north section of the roof.

ROOF INSPECTION REPORT

(Limited – Visual)

Inspection Date:	February 4, 2013	***Inspection #:***	V-01
Project #:	13053	***Report Date:***	2/13/13
		RMS Reference #:	n/a

Company: **WILLAMETTE EDUCATION SERVICE DISTRICT**
2611 Pringle Road SE
Salem, OR 97302

Attn: David McKay
Director
503-385-4788
503-540-2952 *(fax)*

Inspected Facility: **YAMHILL-CARLTON SCHOOL DISTRICT**
High School - Track Shed
275 N Maple Street
Yamhill, Oregon

Present at Inspection:
Doug Coddington..... A-Tech/Northwest, Inc.
David Anderson ..... A-Tech/Northwest, Inc.

PART I - DISCUSSION:

A. PURPOSE:

1. The purpose of the inspection is to review the existing condition of the roof system, applicable warranties, etc. and develop recommendations and budgets for any necessary repairs and/or replacement.
   a. The available history of the building was limited. The majority of this report is based on the visual inspection alone.
   b. No destructive testing was conducted to determine roof construction data.

B. GENERAL ROOF/BUILDING INFORMATION:

1. Shingle Roof:
   a. Roofs A & B:
      (1) Surface:..... Composition Shingle
      (2) Manufacturer:..... Unknown
      (3) Insulation:..... None
      (4) Deck:..... Plywood
      (5) Age: ..... 2007 *(6 years)*
      (6) Warranty: ..... Unknown
      (7) Contractor: ..... Unknown
      (8) General Condition: ..... Good

2. Square Footage *(Approx.)*
   a. Shingle Roof Total:..... 1,632 *sq. ft.*

      Roof A:..... 1,512 *sq. ft.*
      Roof B..... 120 *sq. ft.*

C. INTERIOR LEAKAGE:

1. No current interior leakage was reported.

D. HVAC UNITS:

1. There are no HVAC units mounted on the roof.

E. GENERAL CONDITION SUMMARY/REVIEW:

1. LIFE EXPECTANCY: *(Refer to attached as-built drawing for roof identification)*
   a. Shingle Roof:
      (1) Roofs A & B: These roofs are reported to be approximately six years old (*6 yrs)* and has approximately eighteen to twenty years *(18-20 yrs)* of their life expectancy remaining with maintenance.
2. ROOF DRAINS:
   a. The shingle roof drains via gutters.
      (1) The gutters appear to be in good condition and working well.
3. PERIMETER METAL:
   a. The perimeter metal is a drip edge metal system.
      (1) The metal system at the perimeter appears to be in good condition and working well.
4. GENERAL SUMMARY:
   a. Roofs A & B on this facility are considered to be manageable for several more years; however, minor maintenance and cleaning is required.
   b. No major work is recommended at this time.

PART II - PROBLEMS/CONDITIONS NOTED w/Action Items:

A. SHINGLE ROOF SYSTEM:

1. No problems reported or noted during this inspection.

B. SHEET METAL:

1. No problems reported or noted during this inspection.

C. HVAC:

1. There is no HVAC equipment mounted on these roofs.

D. GENERAL MAINTENANCE:

1. Other than the items noted within this report, as action items and recommendations, the roofs on this facility are considered to be manageable for several more years. No crisis is pending, but minor maintenance and cleaning is required to extend the life and performance of this roof.
2. As the roof ages, it will require periodic maintenance. With proper maintenance, there is a high probability that the roofs can be cost-effectively and successfully managed for several more years.

PART III - RECOMMENDATIONS:

A. REPAIR & MAINTENANCE: *(Roofing Contractor)*

1. None.

B. MAJOR MAINTENANCE:

1. None.

C. GENERAL MAINTENANCE: *(In-house)*

1. Clean all debris from roof and gutters and inspect on a regular basis and keep clear.
   a. Refer to action items within this report.

2. VISUAL INSPECTIONS:
   a. In-house twice annually *(minimum).*
   b. Independent professional inspection conducted a minimum of every other year.
      (1) Next scheduled RMP inspection in 2015.

PART IV - BUDGET ESTIMATE:

A. REPLACEMENT BUDGET *(Refer to Part I-E-1 for Life Expectancy)*:

1. Roofs A & B: ..... *$* 6,800.00 *(estimated)*

B. REPAIR MAINTENANCE *(2013)*:

1. Contractor repairs: ..... *$* 0.00 *(estimated)*

C. GENERAL MAINTENANCE:

1. In house *(roof cleaning)*:..... 8 hours *(annually)*

Sec. 1.01 – View to northeast of south elevation at right and west elevation at left.