



1415 L'ORIENT STREET

Facility + Refrigeration System Assessment

October 29, 2021



Architecture + Engineering + Environmental + Planning

ISGInc.com



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Executive Summary

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Executive Summary

PROCESS OVERVIEW

Subject Properties: 1415 L'Orient Street property

The St. Paul Port Authority is considering the needed maintenance, repairs, and replacement to the 1415 L'Orient Street facility in St. Paul, Minnesota. ISG is pleased to have assisted at this critical point by providing a detailed and forward-looking facility assessment that properly quantifies, prioritizes, and empowers future decisions. By providing a road map for the 1415 L'Orient Street property, the intent of this assessment report is to serve as an integral tool for decision-making.

PURPOSE STATEMENT

The purpose of the assessment is to provide an overview of the current general physical condition of the site and building, and identify recommendations for repairs, replacements, and next steps, which may include the following:

- Planning for facility maintenance and improvements
- Informing stakeholders of facility needs
- Prioritizing long- and short-term projects

SCOPE OF EVALUATION

One location was assessed and included the following conditions: site, exterior and interior architecture, plumbing, mechanical, electrical, refrigeration, life safety, and accessibility. The scope of this report includes document reviews, research, and interviews to augment the walk-through survey to assist in the facility assessment, including the following:

- Completion of a site visit walk-through survey to observe all site and building systems
- Review and documentation of existing site and building systems
- Photos documentation of existing conditions
- Preparation of estimated opinion of probable costs for necessary repairs to remedy deficiencies

The facility assessment report user should only rely on this document for the point in time at which ISG observations and research were conducted. This report includes information pertaining to the current condition of the overall property.

As part of the assessment process, ISG notes systems, equipment, and items that are in good condition. Those items can be maintained with routine maintenance, minor repairs, utilizing normal operating and maintenance budgets. ISG provides the recommendation to perform regular maintenance for these items and therefore includes no associated costs in the opinion of probable costs as part of the report.

No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed as part of this report. This assessment did not include engineering calculations to determine the adequacy of the property's original design or existing systems. Although walk-through observations were performed, not all areas were observed. There may be defects in the property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by the client or property management personnel.

RECOMMENDATION CATEGORIES

The following assessment considers information gathered from field observations, reviews of existing plans, and information provided by facility staff and personnel. The assessment performed on site was limited to non-destructive visual reviews of existing systems. Available information and plans were provided to ISG by the St. Paul Port Authority for review. The following categories were reviewed within the scope of this assessment:



Site + Civil

Review of existing building site, including parking spaces, concrete walks, and other horizontal site elements. Site circulation, grading, paving, parking, and stormwater management were also reviewed.



Exterior Building

Review of each building's exterior shells, including an assessment of the structure, foundation, exterior walls, windows and doors, and thermal efficiency, as well as conditions of existing roofs, gutters, and downspouts.



Structural System

Review of structural integrity of existing buildings with analysis of columns, walls, and roof.



Interior Building

Examination of finishes, equipment, and other conditions found in classrooms, offices, hallways, stairwells, kitchen, and lounge areas.



Plumbing

Review of existing building plumbing systems, including water service, piping, and supply, as well as, plumbing fixtures, including drinking fountains, sinks, toilets, and showers (if applicable).



Mechanical

Review of existing mechanical systems and their components, including verification that HVAC systems meet current building codes.



Electrical

Review of existing building electrical systems, including electrical service, distribution, and lighting.



Life Safety

Review of life safety, egress, and potential code deficiencies as discovered during field observation. This also includes conditions of the fire alarm system.



Hazardous Material

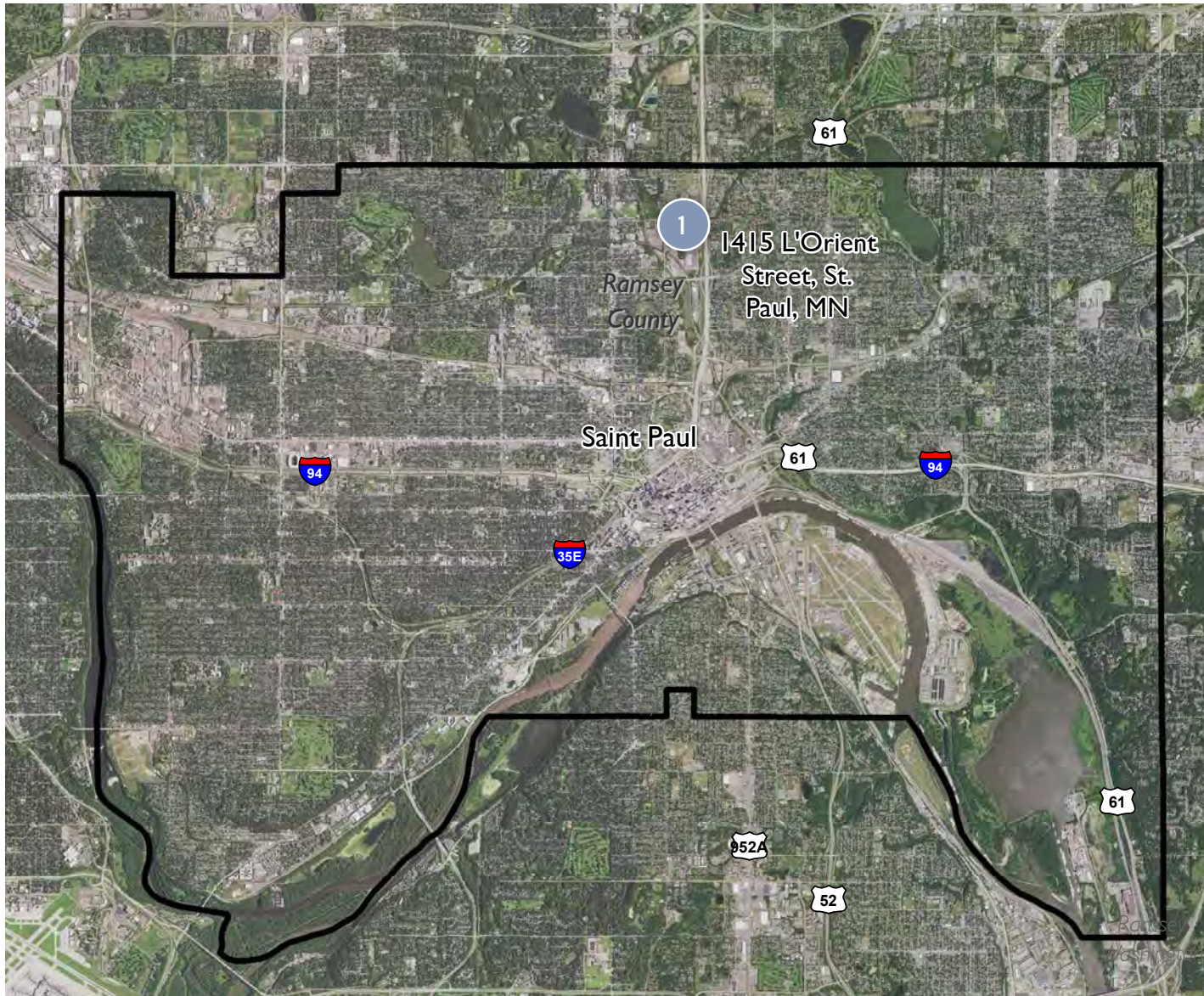
Identification of potential hazardous material noted during visual field observations.



Accessibility

Review of existing structure for conformance with the Americans with Disabilities Act (ADA). Site parking, access into the building and entrances, accessibility routes inside of building, and restroom accessibility were considered.

SITE OVERVIEW



FACILITY

1

1415 L'Orient Street
St. Paul, MN

PRIORITY SUMMARY

Based on the items evaluated, any issues or deficiencies documented have been assigned a priority level based on the chart below and an estimate for costs is provided. Costs for any recommendations that are beyond the scope of the assessment are not included.

	Priority	Time Frame	Item
1	Immediate	0-2 Years	Accessibility Issue Aesthetics Deterioration Item
2	Short-Term	3-5 Years	Energy Issue Estimated Useful Life Hazardous Materials
3	Long-Term	6-10 Years	Health Issue Remaining Useful Life

RECOMMENDATIONS OVERVIEW

The following summarizes the recommendations that resulted from the site assessment. Detailed conditions findings and recommendations are located on the pages to follow.

CIVIL + SITE

The 1415 L'Orient Street site is a 4.9-acre property with 1.9 acres of pavement within the property and a 0.46-acre auxiliary parking lot in the adjacent southwestern property. The employee parking area has severe alligator cracking and likely has subbase issues. The loading dock pavement is also severely damaged. Both need to be replaced as soon as possible to prevent further damage. The storm sewer system is in good condition, but some areas are not draining properly. The recommended pavement maintenance measures should remedy those issues. The retaining walls on site all had stability issues and some already show evidence of slope failures. Those walls will need to be replaced or reset to ensure stable slopes on the site. The site is in fair condition with some pavement in good condition and some in poor condition.

ARCHITECTURE (EXTERIOR)

The original building roof was installed in 1996 and is at the end of its useful life and should be replaced. Portions of the steel roof deck are rusted at varying levels and should also be replaced. In addition, where the roof deck is exposed inside of a cooler or freezer, the deck and bar joist should be protected from condensation so rusting will not occur. Secondary roof drains will be required when installing the new roof section. The exterior walls of the building are in good shape overall, but do require resealing the precast panel connections. There is minor damage of the precast walls at the loading dock doors.

ARCHITECTURE (INTERIOR)

The carpet and acoustical ceiling tiles are in poor condition in the office and break room areas. The walls are outdated and should be refinished as well. Several of the lockers are damaged caused by rust in the locker room. It is recommended the locker system be replaced.

MECHANICAL + PLUMBING

The heating and cooling systems for the building are in fair condition. There is a mixture of equipment that was installed in 1996, 2006 and as recently as 2014. It is recommended that original building equipment be replaced and equipment installed in 2006 be replaced in the next 5 years. The building's plumbing system is in fair shape. There are two water heaters that are past their useful life cycle and should be replaced. Special attention should be placed on the fire suppression system. Years of condensation has led to heavy corrosion at the sprinkler heads. The system should be evaluated by a licensed sprinkler contractor.

ELECTRICAL

The main power distribution system for the building is in good condition and adequately sized for the equipment currently used. There are minor wiring issues throughout the building that have caused wires to be exposed which could lead to potential injuries. A large portion of the building has been upgraded to LED lighting. It is recommended the remaining fluorescent fixtures be upgraded to LED.

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Cost Estimation Summary

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Cost Estimation Summary

COST SUMMARY SORTED BY CATEGORY

SITE + CIVIL

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Grounds Turf	East Retaining Wall	Poor	1	The retaining wall is significantly curved in the middle section, and slope failure will occur if not corrected.	Remove and replace retaining wall.	\$5,400
Grounds Turf	West Retaining Wall	Poor	1	The retaining walls have failed and are no longer holding the slopes at all.	Remove and replace retaining wall.	\$6,700
Grounds Turf	Greenspace	Poor	1	Chain-link fence is damaged.	Remove and replace damaged fence posts and chain-link.	\$6,000
Vehicle Routes	East Entrance	Poor	1	The accessible parking space had slopes in excess of 2% which is not ADA compliant. The parking area in front of the entrance does not drain properly.	Mill and overlay parking lot pavement to repair slopes and improve drainage.	\$11,200
Vehicle Routes	Parking Lot	Poor	1	The employee parking lot has alligator cracking in multiple locations and previous patches and crack fills that have failed. There are multiple wheel indents which indicates subbase issues.	Replace the full depth of the pavement section.	\$362,000
Pedestrian Routes	East and West Entrances	Poor	1	The west entrance has a two-inch lip between the ramp and the landing which is not ADA compliant. The east entrance has a slope greater than 2% and is therefore not ADA compliant.	Remove and replace sidewalk panels.	\$1,000
Vehicle Routes	Catch Basin	Fair	2	The catch basin still has inlet protection installed and does not drain properly through the system.	Remove inlet protection.	\$340
Vehicle Routes	Parking Lot	Fair	2	Cracked curb panels.	Remove and replace cracked curb panels.	\$1,400

COST ESTIMATION SUMMARY

SITE + CIVIL

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Vehicle Routes	Parking Lot	Fair	2	Bituminous pavement requires maintenance every 4 years. This budget item is for the first four years.	Crack fill, seal coat, and stripe parking lot.	\$37,100
Other Site Civil	Loading Dock	Fair	2	The loading dock bumpers have significant rust on them due to exposure.	Paint bumpers to prevent further rusting.	\$2,700
Vehicle Routes	Parking Lot	Fair	3	Bituminous pavement requires maintenance every 4 years. This budget item is for the second four years.	Crack fill, seal coat, and stripe parking lot.	\$1,600
Pedestrian Routes	Southeast Staircase	Fair	3	The stair cases has cracks on the corners and at the connection points to the railings. It also has a three-inch gap between the top step and the landing.	Fill cracks to prevent further damage. Repair railing footing to prevent further rust and maintain stability of railing.	\$1,000
Other Site Civil	West Stairs	Fair	3	Stairs have developed rust due to exposure.	Paint stairs to prevent further rusting.	\$670
Site Subtotal						\$437,110

ARCHITECTURAL + STRUCTURAL

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Exterior Roof	Original 1996 Building Roof	Poor	I	The existing roof is an EPDM ballasted system. The installation date is unknown, but believed to be original to the 1996 construction. The estimated useful life of the roof is 20 years. There are areas of steel roof deck material that are severely rusted. The condition of the insulation is unknown.	Replace the roof and rusted portions of steel deck. Replace roof insulation in areas of deck replacement.	\$1,700,000
Exterior Roof	Roof Hatch	Poor	I	There is no fall protection around the hatch and two pieces of equipment on the roof. This is an OSHA violation.	Install fall protection.	\$6,000
Exterior Walls	Exterior Sealants	Poor	I	The original building is constructed using precast concrete panels. There is a sealant between each panel. The sealants have failed.	Remove and replace exterior wall panel sealants.	\$28,000
Exterior Walls	Interior Wall Sealant	Poor	I	Sealants on the interior side of exterior precast concrete panels have failed in several locations.	Remove and replace failed sealant.	\$1,500
Exterior Walls	Loading Dock Precast Walls	Poor	I	The precast walls under several loading dock doors are damaged.	Remove any loose material and infill damaged areas with concrete.	\$10,000
Exterior Doors	Overhead Doors	Fair	I	Overhead door seals in some locations are damaged or missing. Several of the doors do not stay in the raised position.	Replace door seals. Adjust springs and lubricate rollers.	\$16,000
Exterior Doors	Steel Exit Doors	Poor	I	Several of the steel exit doors and frames are rusted and do not operate correctly.	Replace four of the six exit doors, frames, and hardware.	\$21,500
Exterior Doors	Employee Entrance Canopy	Poor	I	The canopy sheet metal and rain gutter are damaged.	Repair damaged portions of the canopy.	\$1,000
Exterior Other	Exit Stairs	Poor	I	The metal stairs at the loading dock exit are rusted and have holes in the risers.	Replace the metal stairs.	\$10,000
Interior Ceiling	Office Area	Poor	I	The acoustical ceiling tiles are outdated. Several are damaged or missing. Many tiles around diffusers appear dirty.	Replace acoustical ceiling tiles.	\$39,600

COST ESTIMATION SUMMARY

ARCHITECTURAL + STRUCTURAL

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Interior Ceiling	Breakroom/Employee Restrooms	Poor	I	The acoustical ceiling tiles are outdated. Several are damaged or missing. Many tiles around diffusers appear dirty.	Replace acoustical ceiling tiles.	\$9,600
Interior Ceiling	Bar Joist in Raw Cooler Room	Poor	I	The bar joist is heavily rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$154,000
Interior Ceiling	Mezzanine Suspended Ceiling	Fair	I	The suspended ceiling, over the processing room, is attached at the bottom of the bar joist.	Conduct a structural review to determine if bar joist are rated for this type of installation. Cost is for structural analysis.	\$4,000
Interior Walls	Office Area	Poor	I	The walls are damaged in several locations. Water staining is present in office restrooms. The wallpaper is peeling in some of the offices and hallways.	Repair damaged walls. Refinish wall coverings. Install additional wall tile in restrooms.	\$20,000
Interior Walls	Chemical Storage Room	Poor	I	The metal wall panels are rusted.	Replace damaged sections of wall panels.	\$4,000
Interior Walls	West Cooler Sealant	Poor	I	The interior floor sealant at the exterior wall has failed or is missing in places.	Remove and replace the sealant along the exterior wall.	\$1,600
Interior Floors	Office Area	Poor	I	The carpet in the office area is heavily soiled in the lower level. The adhesive under the carpet has failed in many areas.	Replace the carpet.	\$39,600
Interior Other	Office Area Restrooms	Poor	I	Plumbing under sinks does not have pipe wrap installed so is not ADA compliant.	Install ADA compliant pipe wrap.	\$500
Exterior Roof	2006 Addition Building Roof	Good	2	The existing roof is an EPDM ballasted system. The installation date is 2006. The estimated useful life of the roof is 20 years.	Replace the roof in the next five to ten years.	\$530,000
Exterior Doors	Employee Entrance	Fair	2	Door and windows are aluminum framed, double paned glass. The door is rubbing on frame.	Adjust door.	\$200

ARCHITECTURAL + STRUCTURAL

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Interior Ceiling	Bar Joist in Wet Cooler and West Cooler Rooms	Fair	2	The bar joist is moderately rusted in wet cooler and west cooler room.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$373,000
Interior Ceiling	Bar Joist in Dry Cooler	Fair	2	The bar joist is lightly rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$90,500
Interior Ceiling	Bar Joist in Food Waste Containers Room	Fair	2	The bar joist is moderately rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$37,300
Interior Other	Locker Room Lockers	Poor	2	Several of the lockers have substantial rust. Some of the locker floors have holes in them.	Replace locker room lockers.	\$55,000
Exterior Windows	Exterior Windows	Good	3	Windows are aluminum framed, double pane glass. They are located in the office and lab areas of the building.	Perform regular maintenance.	\$0
Exterior Doors	Office Entrance	Good	3	Door and windows are aluminum framed, double paned glass.	Perform regular maintenance.	\$0
Architectural + Structural Subtotal						\$3,152,900

COST ESTIMATION SUMMARY

MECHANICAL + PLUMBING

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Heating Cooling	Employee Entrance	Poor	1	Cabinet unit heater is missing heating unit.	Install heating unit in cabinet.	\$2,000
Heating Cooling	Production Office Condensing Unit	Poor	1	The condensing unit located on the roof appears to be original to the building. The average useful life is 20 years.	Replace condensing unit.	\$4,000
Other Plumbing	Original Building Secondary Roof Drains	Poor	1	There are no secondary roof drains on this portion of the roof.	Install secondary roof drains.	\$21,300
Other Plumbing	2006 Addition Secondary Roof Drains	Poor	1	There are no secondary roof drains on this portion of the roof.	Install secondary roof drains.	\$19,300
Other Plumbing	Mezzanine Sprinkler System	Poor	1	The sprinkler heads in the mezzanine above the processing room have been capped.	Add sprinkler coverage above the processing room ceiling.	\$5,000
Heating Cooling	RTU #14	Fair	2	The rooftop unit serving the dry storage room is a Trane brand, package heating and cooling unit. It was installed in 1997. The average useful life of a rooftop unit is 20 years.	Replace RTU #14.	\$40,000
Heating Cooling	RTU #30	Fair	2	The unit is a 7.5-ton, Carrier brand package heating and cooling unit. It was installed in 2006. The average useful life of a rooftop unit is 20 years. One of the service panels has been blown off by wind and is laying next to the building.	Reinstall service panel. Replace RTU #30 in the next five years.	\$26,600
Heating Cooling	RTU #31 and #32	Fair	2	The Trane brand units are package heating and cooling units. It is unknown when they were installed but appears to have been in 2006. The average useful life of a rooftop unit is 20 years.	Replace RTU #31 and #32 in the next five years .	\$60,000
Plumbing Water	Locker Room Water Heater	Fair	2	The water heater is 40-gallon, electric unit. It was installed in 2010. Average useful life is 15 years.	Replace water heater.	\$1,600
Plumbing Water	Furnace Room Tankless Water Heater	Fair	2	The Rheem brand tankless water heater was installed in 2015. Average useful life of tankless water heaters is 10 years.	Replace water heater in the next three to five years.	\$2,800

MECHANICAL + PLUMBING

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Heating Cooling	Loading Dock Unit Heaters	Good	3	There are three ceiling mounted, gas-fired unit heaters servicing the loading dock. The age of the units is unknown. They appear to be installed in the last five years. There is a fourth unit heater outside the food waste container room that was installed in 2006.	Perform regular maintenance.	\$0
Heating Cooling	Food Waste Container Room Unit Heater	Good	3	The ceiling mounted, gas-fired unit appears to be installed in the last five years. Average useful life is 15 years.	Perform regular maintenance.	\$0
Heating Cooling	Mezzanine Unit Heater	Good	3	The ceiling mounted, gas-fired unit was installed in 2006. Average useful life is 15 years.	Replace ceiling mounted unit heater.	\$2,500
Heating Cooling	RTU #15 and #16	Good	3	The Carrier brand units serving the office area are package heating and cooling units. They were installed in 2014. The average useful life of a rooftop unit is 20 years.	Perform regular maintenance.	\$0
Plumbing Water	Office Area Water Heater	Good	3	The water heater is a 50-gallon, electric unit. It was installed in 2017. The average useful life is 15 years.	Perform regular maintenance.	\$0
Mechanical + Plumbing Subtotal						\$185,100

COST ESTIMATION SUMMARY

ELECTRICAL + TECHNOLOGY

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Power Supply	Dry Room	Poor	1	There is a missing breaker cover in the electrical panel. This is an OSHA violation.	Install a breaker cover.	\$20
Power Supply	Electrical Conduit	Poor	1	There are several areas inside and on the roof where electrical wires are exposed due to damaged conduit.	Replace the damaged conduit.	\$2,700
Life Safety	Fire Alarm Panel	Fair	1	The fire alarm panel is located in the dry storage room. It was installed in 2004. The average useful life of the unit is 15 years.	Replace fire alarm panel.	\$22,000
Exterior Lighting	Throughout Exterior	Fair	2	There are 14 lights on the exterior that have not been upgraded to LED lighting.	Upgrade remaining areas to LED lighting.	\$3,500
Interior Lighting	Throughout	Fair	2	Several areas of the facility have not been upgraded to LED lighting.	Upgrade remaining areas to LED lighting.	\$300,000
Power Supply	Main Distribution Panel	Good	3	Main distribution panel is Siemens brand and is rated for 1,600 amps. Panel is original to 1996 construction. The average useful life expectancy is 40 years.	Perform regular maintenance.	\$0
Power Supply	Branch Panels	Good	3	Branch panels are located throughout the building. The panels range in capacity from 150 amps to 250 amps. All branch panels are in good working condition.	Perform regular maintenance.	\$0
Electrical + Technology Subtotal						\$328,220
Cost Estimate Total						\$4,103,330

COST SUMMARY SORTED BY PRIORITY

PRIORITY I

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Grounds Turf	East Retaining Wall	Poor	I	The retaining wall is significantly curved in the middle section, and slope failure will occur if not corrected.	Remove and replace retaining wall.	\$5,400
Grounds Turf	West Retaining Wall	Poor	I	The retaining walls have failed and are no longer holding the slopes at all.	Remove and replace retaining wall.	\$6,700
Grounds Turf	Greenspace	Poor	I	Chain-link fence is damaged.	Remove and replace damaged fence posts and chain-link.	\$6,000
Vehicle Routes	East Entrance	Poor	I	The accessible parking space had slopes in excess of 2% which is not ADA compliant. The parking area in front of the entrance does not drain properly.	Mill and overlay parking lot pavement to repair slopes and improve drainage.	\$11,200
Vehicle Routes	Parking Lot	Poor	I	The employee parking lot has alligator cracking in multiple locations and previous patches and crack fills that have failed. There are multiple wheel indents which indicates subbase issues.	Replace the full depth of the pavement section.	\$362,000
Pedestrian Routes	East and West Entrances	Poor	I	The west entrance has a two-inch lip between the ramp and the landing which is not ADA compliant. The east entrance has a slope greater than 2% and is therefore not ADA compliant.	Remove and replace sidewalk panels.	\$1,000
Exterior Roof	Original 1996 Building Roof	Poor	I	The existing roof is an EPDM ballasted system. The installation date is unknown, but believed to be original to the 1996 construction. The estimated useful life of the roof is 20 years. There are areas of steel roof deck material that are severely rusted. The condition of the insulation is unknown.	Replace the roof and rusted portions of steel deck. Replace roof insulation in areas of deck replacement.	\$1,700,000
Exterior Roof	Roof Hatch	Poor	I	There is no fall protection around the hatch and two pieces of equipment on the roof. This is an OSHA violation.	Install fall protection.	\$6,000

COST ESTIMATION SUMMARY

PRIORITY I

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Exterior Walls	Exterior Sealants	Poor	I	The original building is constructed using precast concrete panels. There is a sealant between each panel. The sealants have failed.	Remove and replace exterior wall panel sealants.	\$28,000
Exterior Walls	Interior Wall Sealant	Poor	I	Sealants on the interior side of exterior precast concrete panels have failed in several locations.	Remove and replace failed sealant.	\$1,500
Exterior Walls	Loading Dock Precast Walls	Poor	I	The precast walls under several loading dock doors are damaged.	Remove any loose material and infill damaged areas with concrete.	\$10,000
Exterior Doors	Overhead Doors	Fair	I	Overhead door seals in some locations are damaged or missing. Several of the doors do not stay in the raised position.	Replace door seals. Adjust springs and lubricate rollers.	\$16,000
Exterior Doors	Steel Exit Doors	Poor	I	Several of the steel exit doors and frames are rusted and do not operate correctly.	Replace four of the six exit doors, frames, and hardware.	\$21,500
Exterior Doors	Employee Entrance Canopy	Poor	I	The canopy sheet metal and rain gutter are damaged.	Repair damaged portions of the canopy.	\$1,000
Exterior Other	Exit Stairs	Poor	I	The metal stairs at the loading dock exit are rusted and have holes in the risers.	Replace the metal stairs.	\$10,000
Interior Ceiling	Office Area	Poor	I	The acoustical ceiling tiles are outdated. Several are damaged or missing. Many tiles around diffusers appear dirty.	Replace acoustical ceiling tiles.	\$39,600
Interior Ceiling	Breakroom/Employee Restrooms	Poor	I	The acoustical ceiling tiles are outdated. Several are damaged or missing. Many tiles around diffusers appear dirty.	Replace acoustical ceiling tiles.	\$9,600
Interior Ceiling	Bar Joist in Raw Cooler Room	Poor	I	The bar joist is heavily rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$154,000
Interior Ceiling	Mezzanine Suspended Ceiling	Fair	I	The suspended ceiling, over the processing room, is attached at the bottom of the bar joist.	Conduct a structural review to determine if bar joist are rated for this type of installation. Cost is for structural analysis.	\$4,000
Interior Walls	Office Area	Poor	I	The walls are damaged in several locations. Water staining is present in office restrooms. The wallpaper is peeling in some of the offices and hallways.	Repair damaged walls. Refinish wall coverings. Install additional wall tile in restrooms.	\$20,000

PRIORITY I

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Interior Walls	Chemical Storage Room	Poor	I	The metal wall panels are rusted.	Replace damaged sections of wall panels.	\$4,000
Interior Walls	West Cooler Sealant	Poor	I	The interior floor sealant at the exterior wall has failed or is missing in places.	Remove and replace the sealant along the exterior wall.	\$1,600
Interior Floors	Office Area	Poor	I	The carpet in the office area is heavily soiled in the lower level. The adhesive under the carpet has failed in many areas.	Replace the carpet.	\$39,600
Interior Other	Office Area Restrooms	Poor	I	Plumbing under sinks does not have pipe wrap installed so is not ADA compliant.	Install ADA compliant pipe wrap.	\$500
Heating Cooling	Employee Entrance	Poor	I	Cabinet unit heater is missing heating unit.	Install heating unit in cabinet.	\$2,000
Heating Cooling	Production Office Condensing Unit	Poor	I	The condensing unit located on the roof appears to be original to the building. The average useful life is 20 years.	Replace condensing unit.	\$4,000
Other Plumbing	Original Building Secondary Roof Drains	Poor	I	There are no secondary roof drains on this portion of the roof.	Install secondary roof drains.	\$21,300
Other Plumbing	2006 Addition Secondary Roof Drains	Poor	I	There are no secondary roof drains on this portion of the roof.	Install secondary roof drains.	\$19,300
Other Plumbing	Mezzanine Sprinkler System	Poor	I	The sprinkler heads in the mezzanine above the processing room have been capped.	Add sprinkler coverage above the processing room ceiling.	\$5,000
Power Supply	Dry Room	Poor	I	There is a missing breaker cover in the electrical panel. This is an OSHA violation.	Install a breaker cover.	\$20
Power Supply	Electrical Conduit	Poor	I	There are several areas inside and on the roof where electrical wires are exposed due to damaged conduit.	Replace the damaged conduit.	\$2,700
Life Safety	Fire Alarm Panel	Fair	I	The fire alarm panel is located in the dry storage room. It was installed in 2004. The average useful life of the unit is 15 years.	Replace fire alarm panel.	\$22,000
Priority 1 Subtotal						\$2,562,040

COST ESTIMATION SUMMARY

PRIORITY 2

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Vehicle Routes	Catch Basin	Fair	2	The catch basin still has inlet protection installed and does not drain properly through the system.	Remove inlet protection.	\$340
Vehicle Routes	Parking Lot	Fair	2	Cracked curb panels.	Remove and replace cracked curb panels.	\$1,400
Vehicle Routes	Parking Lot	Fair	2	Bituminous pavement requires maintenance every 4 years. This budget item is for the first four years.	Crack fill, seal coat, and stripe parking lot.	\$37,100
Other Site Civil	Loading Dock	Fair	2	The loading dock bumpers have significant rust on them due to exposure.	Paint bumpers to prevent further rusting.	\$2,700
Exterior Roof	2006 Addition Building Roof	Good	2	The existing roof is an EPDM ballasted system. The installation date is 2006. The estimated useful life of the roof is 20 years.	Replace the roof in the next 5-10 years.	\$530,000
Exterior Doors	Employee Entrance	Fair	2	Door and windows are aluminum framed, double paned glass. The door is rubbing on frame.	Adjust door.	\$200
Interior Ceiling	Bar Joist in Wet Cooler and West Cooler Rooms	Fair	2	The bar joist is moderately rusted in wet cooler and west cooler room.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$373,000
Interior Ceiling	Bar Joist in Dry Cooler	Fair	2	The bar joist is lightly rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$90,500
Interior Ceiling	Bar Joist in Food Waste Containers Room	Fair	2	The bar joist is moderately rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$37,300
Interior Other	Locker Room Lockers	Poor	2	Several of the lockers have substantial rust. Some of the locker floors have holes in them.	Replace locker room lockers.	\$55,000
Heating Cooling	RTU #14	Fair	2	The rooftop unit serving the dry storage room is a Trane brand, package heating and cooling unit. It was installed in 1997. The average useful life of a rooftop unit is 20 years.	Replace RTU #14.	\$40,000

PRIORITY 2

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Heating Cooling	RTU #30	Fair	2	The unit is a 7.5-ton, Carrier brand package heating and cooling unit. It was installed in 2006. The average useful life of a rooftop unit is 20 years. One of the service panels has been blown off by wind and is laying next to the building.	Reinstall service panel. Replace RTU #30 in the next five years.	\$26,600
Heating Cooling	RTU #31 and #32	Fair	2	The Trane brand units are package heating and cooling units. It is unknown when they were installed but appears to have been in 2006. The average useful life of a rooftop unit is 20 years.	Replace RTU #31 and #32 in the next five years .	\$60,000
Plumbing Water	Locker Room Water Heater	Fair	2	The water heater is 40-gallon, electric unit. It was installed in 2010. Average useful life is 15 years.	Replace water heater.	\$1,600
Plumbing Water	Furnace Room Tankless Water Heater	Fair	2	The Rheem brand tankless water heater was installed in 2015. Average useful life of tankless water heaters is 10 years.	Replace water heater in the next three to five years.	\$2,800
Exterior Lighting	Throughout Exterior	Fair	2	There are 14 lights on the exterior that have not been upgraded to LED lighting.	Upgrade remaining areas to LED lighting.	\$3,500
Interior Lighting	Throughout	Fair	2	Several areas of the facility have not been upgraded to LED lighting.	Upgrade remaining areas to LED lighting.	\$300,000
Priority 2 Subtotal						\$1,562,040

COST ESTIMATION SUMMARY

PRIORITY 3

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Vehicle Routes	Parking Lot	Fair	3	Bituminous pavement requires maintenance every 4 years. This budget item is for the second four years.	Crack fill, seal coat, and stripe parking lot.	\$1,600
Pedestrian Routes	Southeast Staircase	Fair	3	The stair cases has cracks on the corners and at the connection points to the railings. It also has a three-inch gap between the top step and the landing.	Fill cracks to prevent further damage. Repair railing footing to prevent further rust and maintain stability of railing.	\$1,000
Other Site Civil	West Stairs	Fair	3	Stairs have developed rust due to exposure.	Paint stairs to prevent further rusting.	\$670
Exterior Windows	Exterior Windows	Good	3	Windows are aluminum framed, double pane glass. They are located in the office and lab areas of the building.	Perform regular maintenance.	\$0
Exterior Doors	Office Entrance	Good	3	Door and windows are aluminum framed, double paned glass.	Perform regular maintenance.	\$0
Heating Cooling	Loading Dock Unit Heaters	Good	3	There are three ceiling mounted, gas-fired unit heaters servicing the loading dock. The age of the units is unknown. They appear to be installed in the last five years. There is a fourth unit heater outside the food waste container room that was installed in 2006.	Perform regular maintenance.	\$0
Heating Cooling	Food Waste Container Room Unit Heater	Good	3	The ceiling mounted, gas-fired unit appears to be installed in the last five years. Average useful life is 15 years.	Perform regular maintenance.	\$0
Heating Cooling	Mezzanine Unit Heater	Good	3	The ceiling mounted, gas-fired unit was installed in 2006. Average useful life is 15 years.	Replace ceiling mounted unit heater.	\$2,500
Heating Cooling	RTU #15 and #16	Good	3	The Carrier brand units serving the office area are package heating and cooling units. They were installed in 2014. The average useful life of a rooftop unit is 20 years.	Perform regular maintenance.	\$0

PRIORITY 3

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Plumbing Water	Office Area Water Heater	Good	3	The water heater is a 50-gallon, electric unit. It was installed in 2017. The average useful life is 15 years.	Perform regular maintenance.	\$0
Power Supply	Main Distribution Panel	Good	3	Main distribution panel is Siemens brand and is rated for 1,600 amps. Panel is original to 1996 construction. The average useful life expectancy is 40 years.	Perform regular maintenance.	\$0
Power Supply	Branch Panels	Good	3	Branch panels are located throughout the building. The panels range in capacity from 150 amps to 250 amps. All branch panels are in good working condition.	Perform regular maintenance.	\$0
Priority 3 Subtotal						\$5,770
Cost Estimate Total						\$4,103,330

REFRIGERATION ASSESSMENT COST ESTIMATE

Recommendation	Cost Estimate
Removal of old condensing units and installation of new condensing units	\$832,000
Removal of old evaporator and installation of new evaporators	\$468,000
Cost Estimate Total	\$1,300,000

*Each cost estimate is an approximation and is not guaranteed. The estimate is based on information gathered from RS Means and other similar recent projects. Once each project and phase is identified, cost estimates from contractors should be requested.

OPINION OF PROBABLE COST - ORIGINAL BUILDING ROOF REPLACEMENT

Item Description	Unit	Quantity	Unit Price	Total Amount
54,000 sf of EPDM membrane replacement	sf	54,000	\$20	\$1,080,000
15,000 sf of roof deck replacement	sf	15,000	\$9	\$135,000
15,000 sf of insulation replacement	sf	15,000	\$6	\$90,000
Construction Cost				\$1,305,000
30% Contingency, Design, Permitting				\$395,000
Total Project Cost				\$1,700,000

OPINION OF PROBABLE COST - REFRIGERATION EQUIPMENT REPLACEMENT

Item Description	Unit	Quantity	Unit Price	Total Amount
New rooftop condensing units	Each	14	\$30,000	\$420,000
New evaporators	Each	25	\$10,000	\$250,000
Demolition/Installation	Lump Sum	1	\$330,000	\$330,000
Construction Cost				\$1,000,000
30% Contingency, Design, Permitting				\$300,000
Total Project Cost				\$1,300,000



Facility Assessment

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Facility Assessment

INTRODUCTION

To further prepare the St. Paul Port Authority for repairs, replacements, and other improvements to the 1415 L'Orient Street property building, a facility assessment was conducted for the occupied building.



SITE CONDITIONS

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Grounds + Turf	East Retaining Wall	Poor	I	The retaining wall is significantly curved in the middle section, and slope failure will occur if not corrected.	Remove and replace retaining wall.	\$10,000
Grounds + Turf	West Retaining Wall	Poor	I	The retaining walls have failed and are no longer holding the slopes at all.	Remove and replace retaining wall.	\$14,000
Grounds + Turf	Green-space	Poor	I	Chain-link fence is damaged.	Remove and replace damaged fence posts and chain-link.	\$6,000



East Retaining Wall



East Retaining Wall



West Retaining Wall



West Retaining Wall



West Retaining Wall



West Retaining Wall



Chain Link Fence



Chain Link Fence



Chain Link Fence

SITE CONDITIONS

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Vehicle Routes	East Entrance	Poor	1	The accessible parking space had slopes in excess of 2% which is not ADA compliant. The parking area in front of the entrance does not drain properly.	Mill and overlay parking lot pavement to repair slopes and improve drainage.	\$11,200
Vehicle Routes	Catch Basin	Fair	2	The catch basin still has inlet protection installed and does not drain properly through the system.	Remove inlet protection.	\$340
Vehicle Routes	Parking Lot	Poor	1	The employee parking lot has alligator cracking in multiple locations and previous patches and crack fills that have failed. There are multiple wheel indents which indicates subbase issues.	Replace the full depth of the pavement section.	\$362,000
Vehicle Routes	Parking Lot	Fair	2	Cracked curb panels.	Remove and replace cracked curb panels.	\$1,400
Vehicle Routes	Parking Lot	Fair	2	Bituminous pavement requires maintenance every 4 years. This budget item is for the first four years.	Crack fill, seal coat, and stripe parking lot.	\$37,100
Vehicle Routes	Parking Lot	Fair	3	Bituminous pavement requires maintenance every 4 years. This budget item is for the second four years.	Crack fill, seal coat, and stripe parking lot.	\$66,500



East Entrance



East Entrance



Catch Basin



Parking Lot



Parking Lot



Parking Lot



Parking Lot



Parking Lot



Parking Lot



Parking Lot Curb



Bituminous Pavement



Bituminous Pavement

SITE CONDITIONS

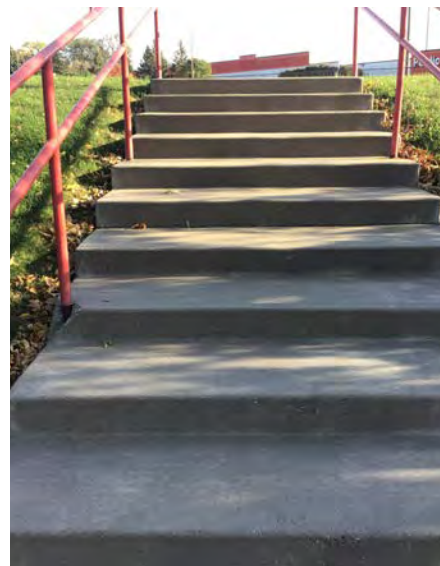
Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Pedestrian Routes	Southeast Staircase	Fair	3	The stair cases has cracks on the corners and at the connection points to the railings. It also has a three-inch gap between the top step and the landing.	Fill cracks to prevent further damage. Repair railing footing to prevent further rust and maintain stability of railing.	\$1,000
Pedestrian Routes	East and West Entrances	Poor	1	The west entrance has a two-inch lip between the ramp and the landing which is not ADA compliant. The east entrance has a slope greater than 2% and is therefore not ADA compliant.	Remove and replace sidewalk panels.	\$1,000
Other Site Civil	Loading Dock	Fair	2	The loading dock bumpers have significant rust on them due to exposure.	Paint bumpers to prevent further rusting.	\$2,700
Other Site Civil	West Stairs	Fair	3	Stairs have developed rust due to exposure.	Paint stairs to prevent further rusting.	\$670



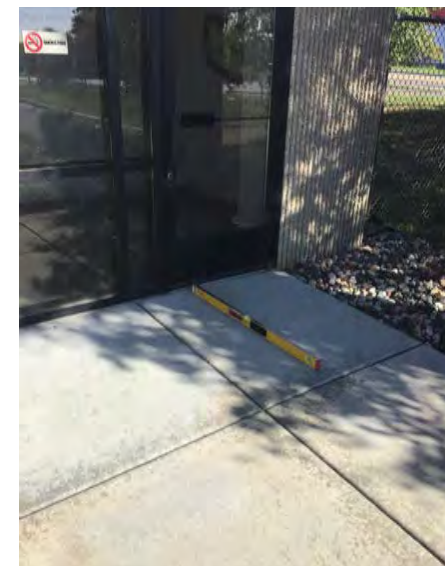
Southeast Staircase



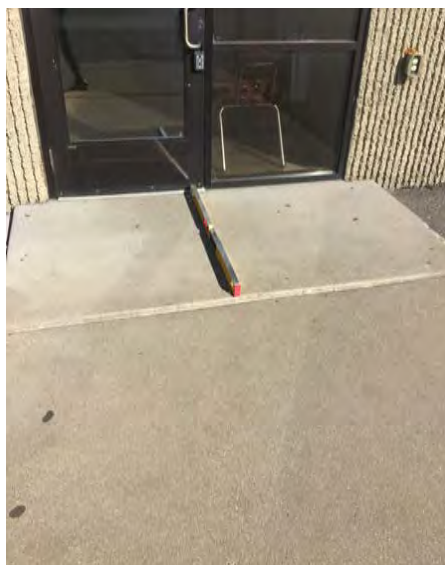
Southeast Staircase



Southeast Staircase



East Entrance



West Entrance



Loading Dock

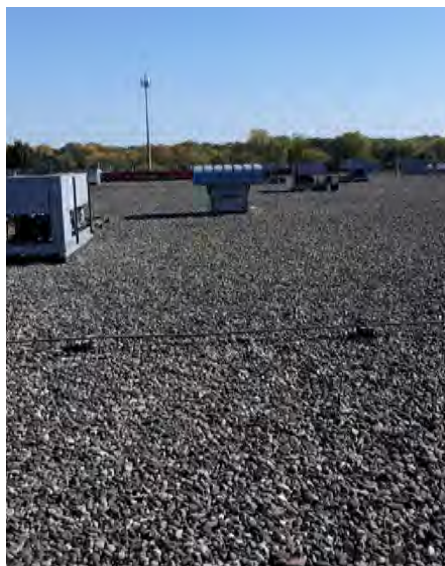


West Stairs

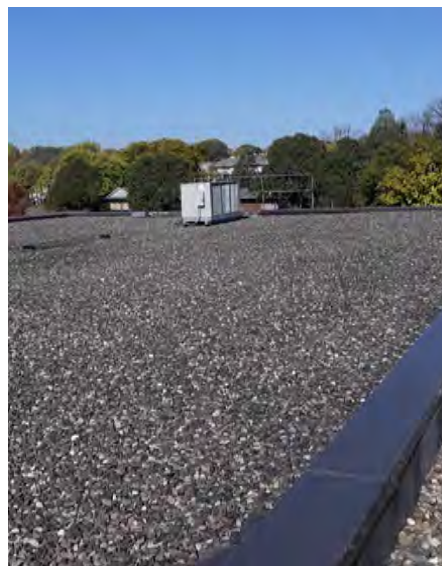
FACILITY CONDITIONS

Architecture Conditions

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Exterior Roof	Original 1996 Building Roof	Poor	1	The existing roof is an EPDM ballasted system. The installation date is unknown, but believed to be original to the 1996 construction. The estimated useful life of the roof is 20 years. There are areas of steel roof deck material that are severely rusted. The condition of the insulation is unknown.	Replace the roof and rusted portions of steel deck. Replace roof insulation in areas of deck replacement.	\$1,700,000
Exterior Roof	2006 Addition Building Roof	Good	2	The existing roof is an EPDM ballasted system. The installation date is 2006. The estimated useful life of the roof is 20 years.	Replace the roof in the next 5-10 years.	\$530,000
Exterior Roof	Roof Hatch	Poor	1	There is no fall protection around the hatch and two pieces of equipment on the roof. This is an OSHA violation.	Install fall protection.	\$6,000
Exterior Walls	Exterior Sealants	Poor	1	The original building is constructed using precast concrete panels. There is a sealant between each panel. The sealants have failed.	Remove and replace exterior wall panel sealants.	\$28,000
Exterior Walls	Interior Wall Sealant	Poor	1	Sealants on the interior side of exterior precast concrete panels have failed in several locations.	Remove and replace failed sealants.	\$1,500
Exterior Walls	Loading Dock Precast Walls	Poor	1	The precast walls under several loading dock doors are damaged.	Remove any loose material and infill damaged areas with concrete.	\$10,000
Exterior Windows	Exterior Windows	Good	3	Windows are aluminum framed, double pane glass. They are located in the office and lab areas of the building.	Perform regular maintenance.	\$0



Roof



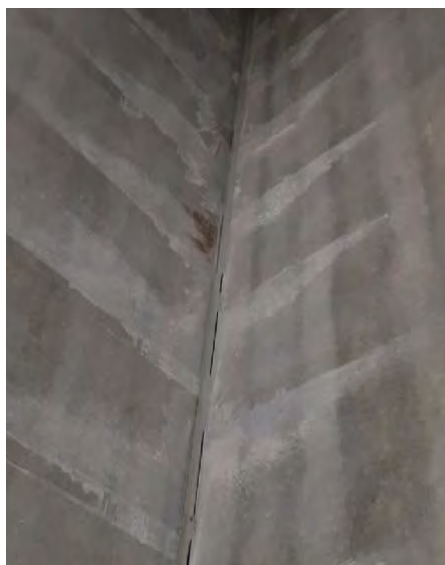
Roof



Roof Hatch



Exterior Wall Panel Sealant



Cracks in Sealant



Precast Wall Damage



Exterior Windows



Exterior Windows

FACILITY CONDITIONS

Architecture (Exterior) Conditions continued

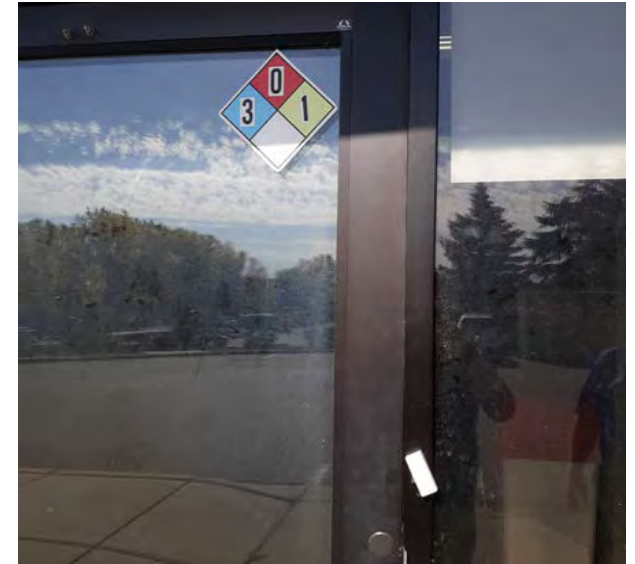
Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Exterior Doors	Overhead Doors	Fair	I	Overhead door seals in some locations are damaged or missing. Several of the doors do not stay in the raised position.	Replace door seals. Adjust springs and lubricate rollers.	\$16,000
Exterior Doors	Steel Exit Doors	Poor	I	Several of the steel exit doors and frames are rusted and do not operate correctly.	Replace four of the six exit doors, frames, and hardware.	\$21,500
Exterior Doors	Office Entrance	Good	3	Door and windows are aluminum framed, double paned glass.	Perform regular maintenance.	\$0
Exterior Doors	Employee Entrance	Fair	2	Door and windows are aluminum framed, double paned glass. The door is rubbing on frame.	Adjust door.	\$200
Exterior Doors	Employee Entrance Canopy	Poor	I	The canopy sheet metal and rain gutter are damaged.	Repair damaged portions of the canopy.	\$1,000
Exterior Other	Exit Stairs	Poor	I	The metal stairs at the loading dock exit are rusted and have holes in the risers.	Replace the metal stairs.	\$10,000



Exterior Door



Office Entrance Door



Employee Entrance Door



Canopy



Metal Stairs

FACILITY CONDITIONS

Architecture (Interior) Conditions

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Interior Ceiling	Office Area	Poor	1	The acoustical ceiling tiles are outdated. Several are damaged or missing. Many tiles around diffusers appear dirty.	Replace acoustical ceiling tiles.	\$39,600
Interior Ceiling	Breakroom/Employee Restrooms	Poor	1	The acoustical ceiling tiles are outdated. Several are damaged or missing. Many tiles around diffusers appear dirty.	Replace acoustical ceiling tiles.	\$9,600
Interior Ceiling	Bar Joist in Raw Cooler Room	Poor	1	The bar joist is heavily rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$154,000
Interior Ceiling	Bar Joist in Wet Cooler and West Cooler Rooms	Fair	2	The bar joist is moderately rusted in wet cooler and west cooler room.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$373,000
Interior Ceiling	Bar Joist in Dry Cooler	Fair	2	The bar joist is lightly rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$90,500
Interior Ceiling	Bar Joist in Food Waste Containers Room	Fair	2	The bar joist is moderately rusted.	Remove rust from bar joist system. Coat ceiling deck and bar joist system.	\$37,300
Interior Ceiling	Mezzanine Suspended Ceiling	Fair	1	The suspended ceiling, over the processing room is attached at the bottom of the bar joist.	Conduct a structural review to determine if bar joist are rated for this type of installation. Cost is for structural analysis.	\$4,000



Acoustical Ceiling Tile



Rusted Bar Joist



Rusted Bar Joist



Rusted Bar Joist



Rusted Bar Joist



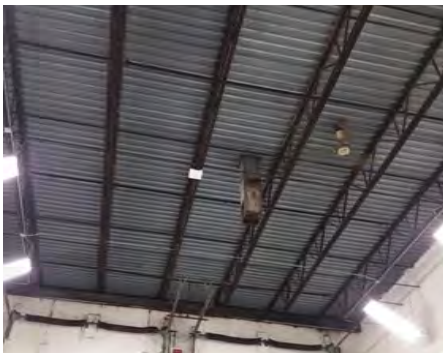
Rusted Bar Joist



Rusted Bar Joist



Rusted Bar Joist



Rusted Bar Joist



Suspended Ceiling Supports

FACILITY CONDITIONS

Interior Conditions

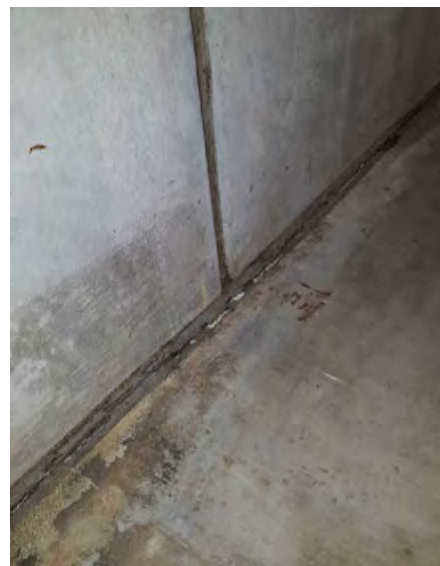
Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Interior Walls	Office Area	Poor	1	The walls are damaged in several locations. Water staining is present in office restrooms. The wallpaper is peeling in some of the offices and hallways.	Repair damaged walls. Refinish wall coverings. Install additional wall tile in restrooms.	\$20,000
Interior Walls	Chemical Storage Room	Poor	1	The metal wall panels are rusted.	Replace damaged wall panels.	\$4,000
Interior Walls	West Cooler Sealant	Poor	1	The interior floor sealant at the exterior wall has failed or is missing in places.	Remove and replace the sealant along the exterior wall.	\$1,600
Interior Floors	Office Area	Poor	1	The carpet in the office area is heavily soiled in the lower level. The adhesive under the carpet has failed in many areas.	Replace the carpet.	\$39,600
Interior Other	Office Area Restrooms	Poor	1	Plumbing under sinks does not have pipe wrap installed so is not ADA compliant.	Install ADA compliant pipe wrap.	\$500
Interior Other	Locker Room Lockers	Poor	2	Several of the lockers have substantial rust. Some of the locker floors have holes in them.	Replace locker room lockers.	\$55,000



Wall Damage



Rusted Wall Panel



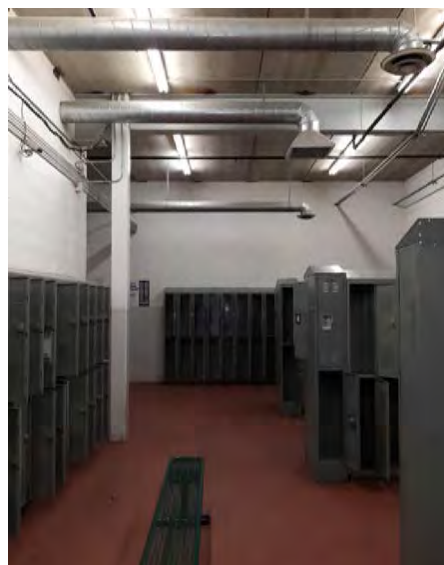
Floor Sealant



Office Carpet



Office Restroom Sink Drain Pipe



Locker Room Lockers



Locker Room Lockers



Locker Room Lockers

FACILITY CONDITIONS

Mechanical Conditions

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Heating Cooling	Employee Entrance	Poor	1	Cabinet unit heater is missing heating unit.	Install heating unit in cabinet.	\$2,000
Heating Cooling	Loading Dock Unit Heaters	Good	3	There are three ceiling mounted, gas-fired unit heaters servicing the loading dock. The age of the units is unknown. They appear to have been installed in the last five years. There is a fourth unit heater outside the food waste container room that was installed in 2006.	Perform regular maintenance.	\$0
Heating Cooling	Food Waste Container Room Unit Heater	Good	3	The ceiling mounted, gas-fired unit appears to have been installed in the last five years. Average useful life is 15 years.	Perform regular maintenance.	\$0
Heating Cooling	Mezzanine Unit Heater	Good	3	The ceiling mounted, gas-fired unit was installed in 2006. Average useful life is 15 years.	Replace ceiling mounted unit heater.	\$2,500
Heating Cooling	RTU #14	Fair	2	The rooftop unit serving the dry storage room is a Trane brand, package heating and cooling unit. It was installed in 1997. The average useful life of a rooftop unit is 20 years.	Replace RTU #14.	\$40,000
Heating Cooling	RTU #15 and #16	Good	3	The Carrier brand units serving the office area are package heating and cooling units. They were installed in 2014. The average useful life of a rooftop unit is 20 years.	Perform regular maintenance.	\$0
Heating Cooling	Production Office Condensing Unit	Poor	1	The condensing unit located on the roof appears to be original to the building. The average useful life is 20 years.	Replace condensing unit.	\$4,000
Heating Cooling	RTU #30	Fair	2	The unit is a 7.5-ton, Carrier brand package heating and cooling unit. It was installed in 2006. The average useful life of a rooftop unit is 20 years. One of the service panels has been blown off by wind and is laying next to the building.	Reinstall service panel. Replace RTU #30 in the next five years.	\$26,600
Heating Cooling	RTU #31 and #32	Fair	2	The Trane brand units are package heating and cooling units. It is unknown when they were installed but appears to have been in 2006. The average useful life of a rooftop unit is 20 years.	Replace RTU #31 and #32 in the next five years .	\$60,000



Unit Heater



Ceiling Mounted Heaters



Ceiling Mounted Heaters



Ceiling Mounted Heaters



Ceiling Mounted Heaters



Rooftop Unit



Rooftop Unit



Rooftop Unit



Condensing Unit



Rooftop Unit



Rooftop Unit



Rooftop Unit

FACILITY CONDITIONS

Plumbing Conditions

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Plumbing Water	Locker Room Water Heater	Fair	2	The water heater is 40-gallon, electric unit. It was installed in 2010. Average useful life is 15 years.	Replace water heater.	\$1,600
Plumbing Water	Furnace Room Tankless Water Heater	Fair	2	The Rheem brand tankless water heater was installed in 2015. Average useful life of tankless water heaters is 10 years.	Replace water heater in the next three to five years.	\$2,800
Plumbing Water	Office Area Water Heater	Good	3	The water heater is a 50-gallon, electric unit. It was installed in 2017. The average useful life is 15 years.	Perform regular maintenance.	\$0
Other Plumbing	Original Building Secondary Roof Drains	Poor	I	There are no secondary roof drains on this portion of the roof.	Install secondary roof drains.	\$21,300
Other Plumbing	2006 Addition Secondary Roof Drains	Poor	I	There are no secondary roof drains on this portion of the roof.	Install secondary roof drains.	\$19,300
Other Plumbing	Mezzanine Sprinkler System	Poor	I	The sprinkler heads in the mezzanine above the processing room have been capped.	Add sprinkler coverage above the processing room ceiling.	\$5,000



Water Heater



Water Heater



Water Heater



Roof Drain

FACILITY CONDITIONS

Electrical Conditions

Sub Category	Element	Condition	Priority	Details	Recommendation	Cost Estimate
Power Supply	Dry Room	Poor	1	There is a missing breaker cover in the electrical panel. This is an OSHA violation.	Install a breaker cover.	\$20
Power Supply	Electrical Conduit	Poor	1	There are several areas inside and on the roof where electrical wires are exposed due to damaged conduit.	Replace the damaged conduit.	\$2,700
Power Supply	Main Distribution Panel	Good	3	Main distribution panel is Siemens brand and is rated for 1,600 amps. Panel is original to 1996 construction. The average useful life expectancy is 40 years.	Perform regular maintenance.	\$0
Power Supply	Branch Panels	Good	3	Branch panels are located throughout the building. The panels range in capacity from 150 amps to 250 amps. All branch panels are in good working condition.	Perform regular maintenance.	\$0
Exterior Lighting	Throughout Exterior	Fair	2	There are 14 lights on the exterior that have not been upgraded to LED lighting.	Upgrade remaining areas to LED lighting.	\$3,500
Interior Lighting	Throughout	Fair	2	Several areas of the facility have not been upgraded to LED lighting.	Upgrade remaining areas to LED lighting.	\$300,000
Life Safety	Fire Alarm Panel	Fair	1	The fire alarm panel is located in the dry storage room. It was installed in 2004. The average useful life of the unit is 15 years.	Replace fire alarm panel.	\$22,000



Missing Breaker Cover



Exposed Wires



Exposed Wires



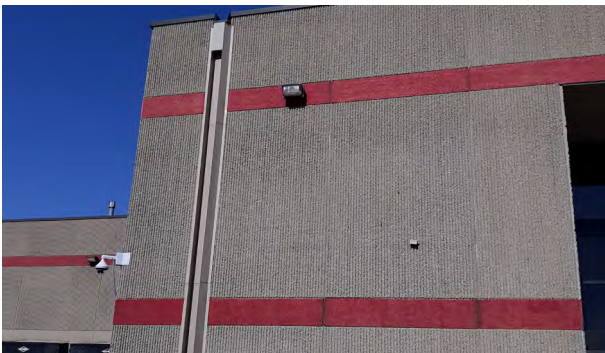
Main Electrical Panel



Branch Panels



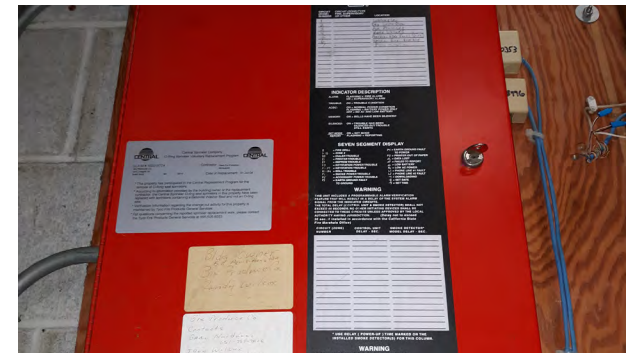
Branch Panels



Exterior Lighting



Existing Lighting



Fire Alarm Panel

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Refrigeration Report

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Refrigeration Report

October 29, 2021

Kathryn Sarnecki

Senior Vice President Development and Property/Project Management

St. Paul Port Authority

400 Wabasha Street North, #240 St. Paul, MN 55102

Re: Refrigeration System Mechanical Integrity

Kathryn,

Attached is a summary of our findings during the recent Mechanical Integrity visual inspection of the refrigeration system of the former Bix Produce facility at 1415 L'Orient Street. These observations were made by an actual walk-through of this split Freon system and discussions with previous service personnel.

Please call if you would like to discuss any of this information.

Sincerely,

A handwritten signature in black ink, appearing to read "Philip Golden".

Philip Golden, PE

ISG Refrigeration Group Lead Engineer

Phil.Golden@ISGInc.com

REFRIGERATION SYSTEM

What follows is a list of equipment, piping, and general construction of these split systems. In addition, there are observations from a field survey and recommendations to improve mechanical integrity. The refrigeration of this facility is provided by Freon-based “split systems” of roof-mounted condensing units and their attached evaporators. These systems were originally charged with R-22 but were later converted to R-407a in accordance with the Montreal Protocol. The freezer split systems (RU-10 and 11) were converted to R-404a. All systems were inactive at the time of inspection.

SYSTEM RU-I (Dock, manufactured 1997)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and two (2) Heatcraft evaporators.
- Condensing unit not properly bolted to structural steel.
- Rooftop insulation heavily damaged.
- Unit lacks a suction accumulator (standard practice is to specify one when ordering).
- Suction line filter hermetically sealed; cannot be replaced.
- Condensing unit lacks a nameplate.
- Evaporators are extremely dirty. Intake clogged.
- Evaporator RU-1b not square to bar joists.
- Evaporator RU-1b has a damaged housing on one of its fans.
- Insulated piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Install suction trap.
- Install accessible suction filter.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-2 (Dock, manufactured 1997)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and two (2) Heatcraft evaporators.
- Condensing unit not properly bolted to structural steel.
- Rooftop insulation heavily damaged.
- Unit lacks a suction accumulator (standard practice is to specify one when ordering).
- Suction line lacks filtration system.
- Condensing unit lacks a nameplate.
- Evaporators are extremely dirty. Intake clogged.
- Evaporator RU-2a fan guard missing bolts.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Install suction trap.
- Install accessible suction filter.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-3 (Dry Cooler, manufactured 1997)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and three (3) Heatcraft evaporators.
- Compressor replaced in 2011.
- Condensing unit not properly bolted to structural steel.
- Considerable dirt on condenser fins.
- Rooftop insulation heavily damaged.
- Unit lacks a suction accumulator (standard practice is to specify one when ordering).
- Suction line filter hermetically sealed; cannot be replaced.
- Condensing unit lacks a nameplate.
- Evaporators are extremely dirty.
- Evaporator RU-3c missing bolt on fan housing.
- Liquid line zip-tied or duct taped to suction line in lieu of proper pipe support.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Install suction trap.
- Install accessible suction filter.
- Reinsulate suction line and cover with PVC jacketing.
- Remove zip ties and duct tape. Properly support piping.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-4 (Dry Cooler, manufactured 1997)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and three (3) Heatcraft evaporators.
- Condensing unit not properly bolted to structural steel.
- Considerable dirt on condenser fins. Some clogging.
- Rooftop insulation damaged.
- Unit lacks a suction accumulator (standard practice is to specify one when ordering).
- Suction line filter hermetically sealed; cannot be replaced.
- Condensing unit lacks a nameplate.
- Evaporators are extremely dirty.
- Some fin damage on evaporator RU-4b.
- Evaporator RU-4c hanger rods severely bent.
- Poor piping practice on liquid line.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Comb fins on evaporator 4b.
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Install suction trap.
- Install accessible suction filter.
- Reinsulate suction line.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-5 (Wet Cooler, manufactured 1997)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and three (3) Heatcraft evaporators.
- Compressor replaced in 2015.
- Condensing unit not properly bolted to structural steel.
- Considerable dirt on condenser fins. Some clogging.
- Rooftop insulation damaged.
- Unit lacks a suction accumulator (standard practice is to specify one when ordering).
- Suction line filter hermetically sealed; cannot be replaced.
- Suction line filter considerably corroded.
- Condensing unit lacks a nameplate.
- Loose wire pieces on base of condensing unit.
- Evaporators are dirty.
- Evaporator RU-5c missing bolt on fan housing.
- Evaporators RU-5a,b,c all have bent electric heating rods.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Reinstall evaporator heating rods.
- Install suction trap.
- Install accessible suction filter.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-6 (Wet Cooler, manufactured 1997)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and two (2) Heatcraft evaporators.
- Condensing unit not properly bolted to structural steel.
- Considerable dirt on condenser fins. Heavy clogging.
- Condenser fins slightly damaged.
- Rooftop insulation damaged.
- Suction accumulator corroded.
- Conduit corroded.
- Condensing unit lacks a nameplate.
- Evaporators are dirty.
- Evaporators RU-6a,b have bent electric heating rods.
- Evaporator RU-6a,b have bent hanger rods.
- Open junction box above RU-6b.
- Suction riser on RU-6b bent out of place.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Reinstall evaporator heating rods.
- Replace cover on junction box.
- Re-pipe and laterally brace suction riser so it stands vertically.
- Ensure all safeties are functional.
- Secure fan guards.
- Remove corrosion from suction accumulator.
- Replace conduit.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-7 (Raw Cooler, manufactured 1995)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and one (1) evaporator of unknown make.
- Condensing unit not properly bolted to structural steel. Bolts missing in places.
- Considerable dirt on condenser fins. Heavy clogging.
- Rooftop insulation damaged.
- Unit lacks a suction accumulator (standard practice is to specify one when ordering).
- Condensing unit lacks a nameplate.
- Evaporator lacks equipment tag. Unknown if evaporator correctly corresponds with rooftop condensing unit.
- Evaporator lacks nameplate.
- Evaporator hanger rod housing bent out of place.
- Evaporator missing bolt on fan housing.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Install suction trap.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-8 (Process Room, manufactured 1997)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and two (2) Heatcraft evaporators.
- Compressor replaced in 2017.
- Compressor insufficiently anchored to vibration-dampening springs.
- Condensing unit not properly bolted to structural steel.
- Some dirt on condenser fins.
- Condenser fins slightly damaged.
- Rooftop insulation damaged.
- Suction accumulator corroded.
- Condensing unit lacks a nameplate.
- Evaporator lacks equipment tag. Unknown if evaporator correctly corresponds with rooftop condensing unit.
- Evaporators are covered in a crusty substance. This could be the potential reaction of cleanup chemicals on galvanizing.
- Fan guards corroded.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Install extra nut or spacer to prevent excess movement on compressor springs.
- Clean condenser coils.
- Comb condenser fins.
- Re-anchor condensing unit skid with larger diameter bolts.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Remove corrosion from fan guards or replace.
- Remove corrosion from suction accumulator.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-9 (Process Room, manufactured 1997)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and two (2) Heatcraft evaporators.
- Compressor replaced recently. Date unknown.
- Compressor insufficiently anchored to vibration-dampening springs.
- Condensing unit not properly bolted to structural steel.
- Some dirt on condenser fins.
- Condenser fins slightly damaged.
- Rooftop insulation damaged.
- Suction accumulator corroded.
- Condensing unit lacks a nameplate.
- Evaporator lacks equipment tag. Unknown if evaporator correctly corresponds with rooftop condensing unit.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Install extra nut or spacer to prevent excess movement on compressor springs.
- Clean condenser coils.
- Comb condenser fins.
- Re-anchor condensing unit skid with larger diameter bolts.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Remove corrosion from fan guards or replace.
- Remove corrosion from suction accumulator.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-10 (Freezer, manufactured 1997)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and one (1) Bohn evaporator.
- Condensing unit not properly bolted to structural steel. Bolts missing in places.
- Considerable dirt on condenser fins. Heavy clogging.
- Rooftop insulation damaged.
- Unit lacks a suction accumulator (standard practice is to specify one when ordering).
- Suction line lacks filtration system.
- Voltage monitor lacks a screw, hanging at an angle in electrical box.
- Condensing unit lacks a nameplate.
- Suction riser insulation shoddily installed and in poor condition.
- Exposed wiring on liquid feed solenoid actuator.
- Evaporator drain line connected with RU-11. Potential for water vapor from defrost to migrate and freeze onto other unit's drain pan, plugging inlet over time.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Reinstall missing screw on voltage monitor.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Replace cover on solenoid actuator.
- Separate evaporators' drain lines.
- Ensure all safeties are functional.
- Secure fan guards.
- Install suction trap.
- Install accessible suction filter.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-11 (Freezer, manufacture date unknown)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and one (1) Bohn evaporator.
- Condensing unit not properly bolted to structural steel.
- Considerable dirt on condenser fins. Heavy clogging.
- Condenser fins heavily damaged.
- Rooftop insulation damaged.
- Condensing unit lacks a nameplate.
- Evaporator drain line connected with RU-10. Potential for water vapor from defrost to migrate and freeze onto other unit's drain pan, plugging inlet over time.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Separate evaporators' drain lines.
- Ensure all safeties are functional.
- Secure fan guards.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-12 (Ripening Room, manufacture date unknown)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and one (1) Bohn evaporator.
- Condenser fins damaged.
- Rooftop insulation damaged.
- Condensing unit lacks a nameplate.
- Evaporator located in a difficult to reach area preventing proper access for service.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Improve accessibility by installing service platform.
- Ensure all safeties are functional.
- Secure fan guards.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-13 (Ripening Room, manufacture date unknown)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and one (1) Bohn evaporator.
- Condenser fins damaged.
- Rooftop insulation damaged.
- Condensing unit lacks a nameplate.
- Evaporator located in a difficult to reach area preventing proper access for service.
- Evaporator intake fins dirty.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Improve accessibility by installing service platform.
- Ensure all safeties are functional.
- Secure fan guards.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-14 (Dry Storage, manufacture date unknown)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and two (2) Heatcraft evaporators.
- Condensing unit not properly bolted to structural steel.
- Equipment lacks placards. Unknown condensing unit number; presumed to be RU-14 due to proximity to RU-12,13.
- Condenser fins dirty and clogged.
- Fittings on suction accumulator corroded.
- Condensing unit lacks a nameplate.
- Evaporator intake fins dirty.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

The following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Remove corrosion from suction accumulator.
- Place equipment placards on condensing unit and evaporators.
- Recommission system.

SYSTEM RU-18 (Process Room, manufactured 1998)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Krack condenser, and a Condex receiver.
- Condensing unit not properly bolted to structural steel.
- Condensing unit disconnected. Presumably formerly attached to process chillers.
- Considerable corrosion on compressor and suction accumulator.
- Compressor assembly housing missing panels.

RECOMMENDATIONS:

Demolish and remove this unused equipment.

SYSTEM RU-19 (Process Room, manufactured 1998)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Krack condenser, and a Condex receiver.
- Condensing unit not properly bolted to structural steel.
- Condensing unit disconnected. Presumably formerly attached to process chillers.
- Condenser fins dirty.

RECOMMENDATIONS:

Split system is near the end of its useful life and currently disconnected.

Assess feasibility of repurposing condensing unit for usage on new evaporators based on future load. In lieu of removal, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Ensure all safeties are functional.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-20 (Process Room, manufacture date unknown)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Larkin condenser, and a receiver of unknown make.
- Condensing unit not properly bolted to structural steel.
- Condensing unit disconnected. Presumably formerly attached to process chillers.
- Condensing unit lacks a nameplate.
- Considerable corrosion on receiver and suction filter.
- Compressor assembly housing damaged.

RECOMMENDATIONS:

Demolish and remove this unused equipment.

SYSTEM RU-21 (Process Room, manufacture date unknown)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Russell condenser, and a receiver of unknown make.
- Condensing unit not properly bolted to structural steel.
- Live hornet nest on inside of electrical panel.
- Condensing unit disconnected. Presumably formerly attached to process chillers.
- Condenser fins damaged.
- Rooftop piping insulation damaged.

RECOMMENDATIONS:

Split system is near the end of its useful life and currently disconnected.

Assess feasibility of repurposing condensing unit for usage on new evaporators based on future load. In lieu of removal, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Safely remove hornet nest.
- Clean condenser coils.
- Ensure all safeties are functional.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-22 (Process Room, manufacture date unknown)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Russell condenser, and a receiver of unknown make.
- Condensing unit not bolted to structural steel.
- Condensing unit disconnected. Presumably formerly attached to process chillers.
- Condenser fins damaged.
- Rooftop piping insulation damaged.

RECOMMENDATIONS:

Split system is near the end of its useful life and currently disconnected.

Assess feasibility of repurposing condensing unit for usage on new evaporators based on future load. In lieu of removal, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Ensure all safeties are functional.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-23 (Process Room, manufacture date unknown)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Russell condenser, and a receiver of unknown make.
- Condensing unit not properly bolted to structural steel.
- Condensing unit disconnected. Presumably formerly attached to process chillers.

RECOMMENDATIONS:

Demolish and remove this unused equipment.

SYSTEM RU-25 (Raw Cooler, manufactured 2006)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Condex receiver, and one (1) Heatcraft evaporator.
- Compressor replaced in 2015.
- Condensing unit not properly bolted to structural steel.
- Rooftop insulation damaged.
- Condenser fins damaged. Evidence of being struck by fan blade.
- Unit lacks a suction accumulator.
- Condensing unit lacks a nameplate.
- Evaporator heating rods bent.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

Split system is near the end of its useful life. In lieu of replacing, the following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Ensure all safeties are functional.
- Secure fan guards.
- Install suction trap.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-26 (West Cooler, manufactured 2008)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Blissfield receiver, and two (2) Heatcraft evaporators.
- Compressor replaced in 2015.
- Rooftop insulation damaged.
- Condenser fins severely damaged. Evidence of being struck by unsecured fan blade.
- Condensing unit lacks a nameplate.
- Evaporator heating rods bent out of position.
- Liquid line into evaporator RU-26b lacks lateral bracing.
- Evaporator RU-26a difficult to access.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

The following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Reinstall evaporator heating rods.
- Ensure all safeties are functional.
- Secure fan guards.
- Laterally brace liquid line.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Install service platform to improve access to RU-26a.
- Recommission system.

SYSTEM RU-27 (West Cooler, manufactured 2006)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Blissfield receiver, and two (2) Heatcraft evaporators.
- Compressor replaced in 2015.
- Rooftop insulation damaged.
- Condenser fins damaged. Evidence of being struck by fan blade.
- Condensing unit's nameplate heavily faded.
- Considerable corrosion on suction accumulator.
- Piping near filter improperly supported.
- Conduit near compressor disconnected, exposing wiring.
- Evaporator hangers connected to channel iron.
- Evaporator piping insufficiently supported.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

The following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Remove corrosion from suction accumulator.
- Reconnect conduit.
- Properly support filter piping.
- Replace rods on evaporators with larger diameter.
- Re-hang evaporators using a single rod instead of channel iron.
- Ensure all safeties are functional.
- Secure fan guards.
- Install more hangers to support piping.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-28 (Warm Cooler, manufactured 2006)

OBSERVATIONS:

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Blissfield receiver, and one (1) Heatcraft evaporator.
- Compressor replaced in 2015.
- Rooftop insulation damaged.
- Condenser fins damaged.
- Condensing unit lacks a nameplate.
- Evaporator drain pan damaged.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

The following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Repair or replace drain pan.
- Ensure all safeties are functional.
- Secure fan guards.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

SYSTEM RU-29 (West Dock, manufactured 2006)**OBSERVATIONS:**

- Condensing unit consists of a Copeland compressor, a Bohn condenser, a Blissfield receiver, and three (3) Heatcraft evaporators.
- Rooftop insulation heavily damaged.
- Condenser fins damaged.
- Condensing unit lacks a nameplate.
- Intakes on each evaporator extremely dirty.
- Evaporators single-nutted.
- Evaporator RU-29c missing fan guard bolt.
- Piping lacks PVC jacketing to protect insulation.

RECOMMENDATIONS:

The following tasks should be completed before recommissioning:

- Evacuate refrigerant.
- Pressure test entire split system package to 250 psig with dry nitrogen.
- Identify and repair any leaks.
- Clean condenser coils.
- Comb condenser fins.
- Clean evaporators (coils, fins, and casing).
- Replace rods on evaporators with larger diameter.
- Repair or replace drain pan.
- Ensure all safeties are functional.
- Secure fan guards.
- Reinsulate suction line and cover with PVC jacketing.
- Anchor condensing unit to steel.
- Recommission system.

PLANTWIDE NOTES

OBSERVATIONS:

- The previous plant owner took a more reactive approach to maintenance. Preventative maintenance was not emphasized, therefore out-sourced maintenance costs ranged between \$150,000-\$210,000 annually. These figures are based on a conversation with the former plant service tech.
- Service tech also indicated evaporator drain pans were in poor condition. However, this cannot be verified since the system was inactive at the time of inspection.
- Numerous bottles of R-407a refrigerant were observed. This implies the presence of leaks.
- Piping and insulation practices were poor. Numerous cases of piping supported with zip-ties and duct tape. A wholesale lack of PVC jacketing on insulation shortened the lifespan and increased exposure to damage. It also decreased compressor efficiency by introducing superheat to the suction vapor.
- Most of the equipment was installed in the mid-90s and is therefore at or near the end of their useful life. They will only continue to increase maintenance cost.
- Several condensing units over the process room were tied to process equipment, so when that equipment was removed the condensing units were left behind.
- Numerous condensing units were observed to lack suction accumulators. This opens-up the possibility for liquid carryover. The large number of replaced compressors is evidence many may have been destroyed over the years from drawing in slugs of liquid.
- Most of the condensing units were observed to not have nameplates. The ones which did were heavily faded and illegible. It is therefore impossible to determine unit capacity based on observation without referring to product manuals.

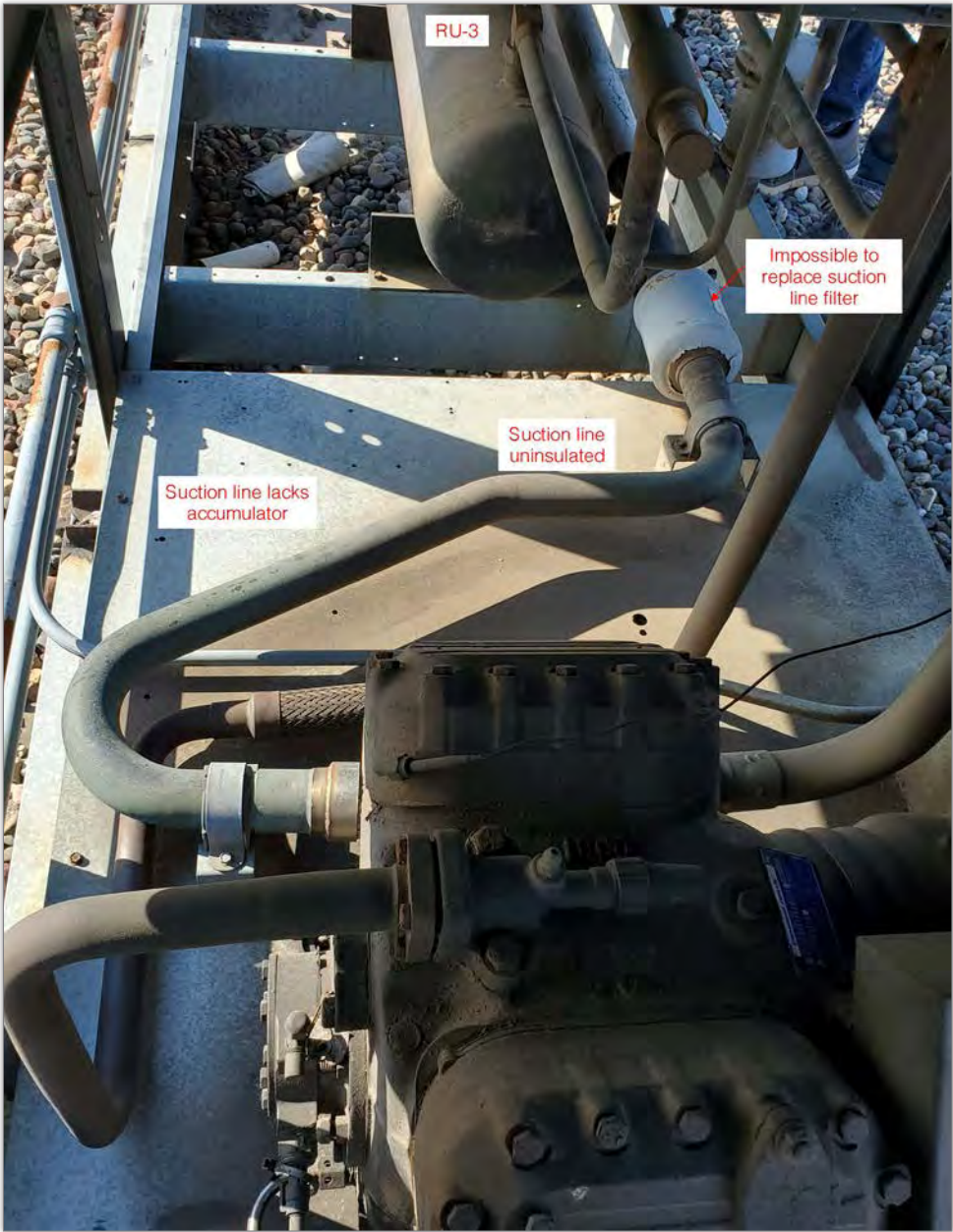
RECOMMENDATIONS:

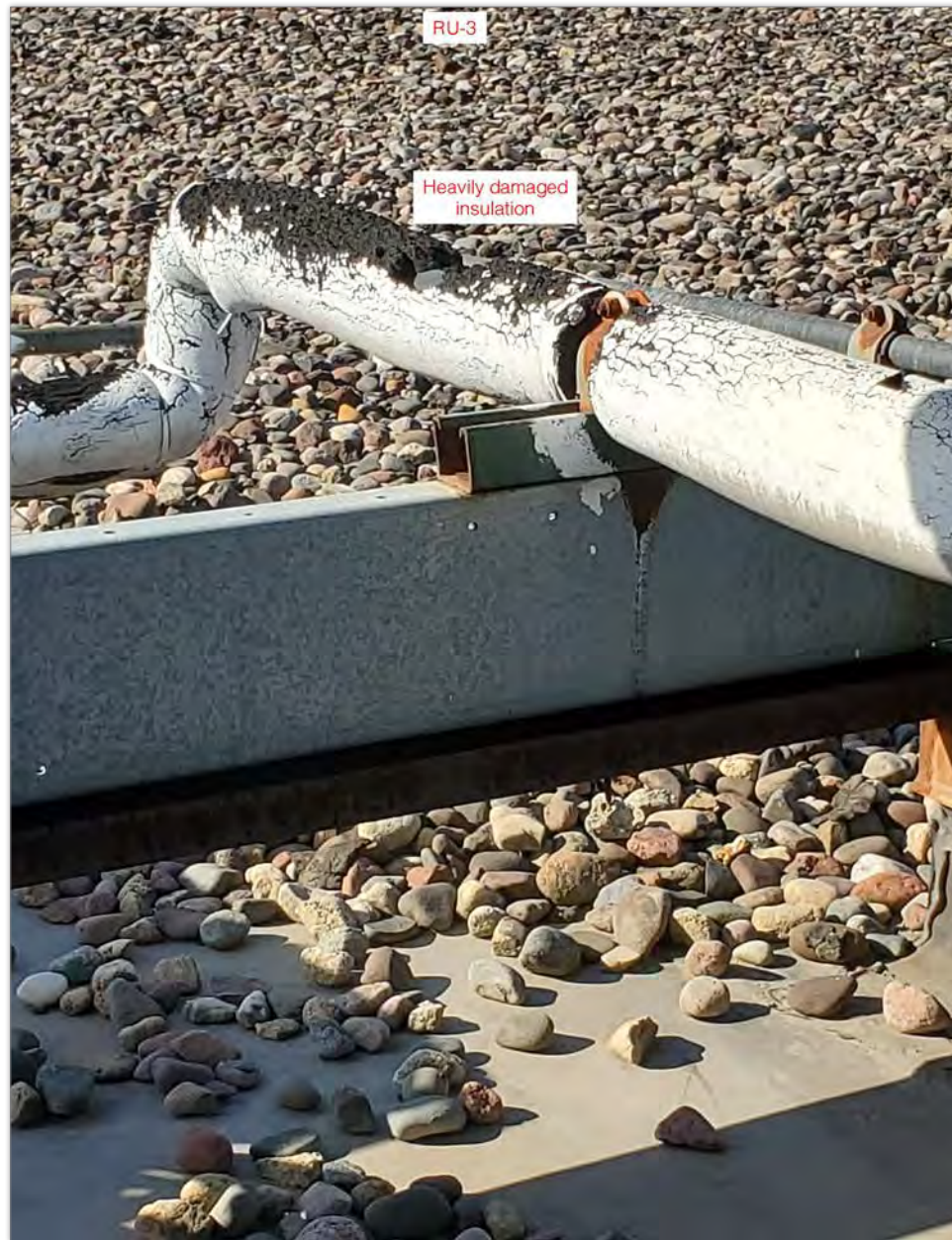
- Implement a preventative maintenance program plantwide.
- Ensure evaporator drain pans are in good working order when evaporators are in operation. Otherwise, consider replacing them.
- Pressure test any units not being replaced with 250 psig of dry nitrogen to determine source of leaks and repair accordingly.
- Replace all pipe insulation and properly jacket with PVC for protection.
- Replace condensing units determined to be beyond their useful life.
- Assess the future refrigeration load of the process room. If necessary, some of the condensing units may be repurposed for service with evaporators. If not, demolish and remove unused condensing units.
- Install suction accumulators in any condensing unit to be kept.
- Re-order nameplates from manufacturer.





















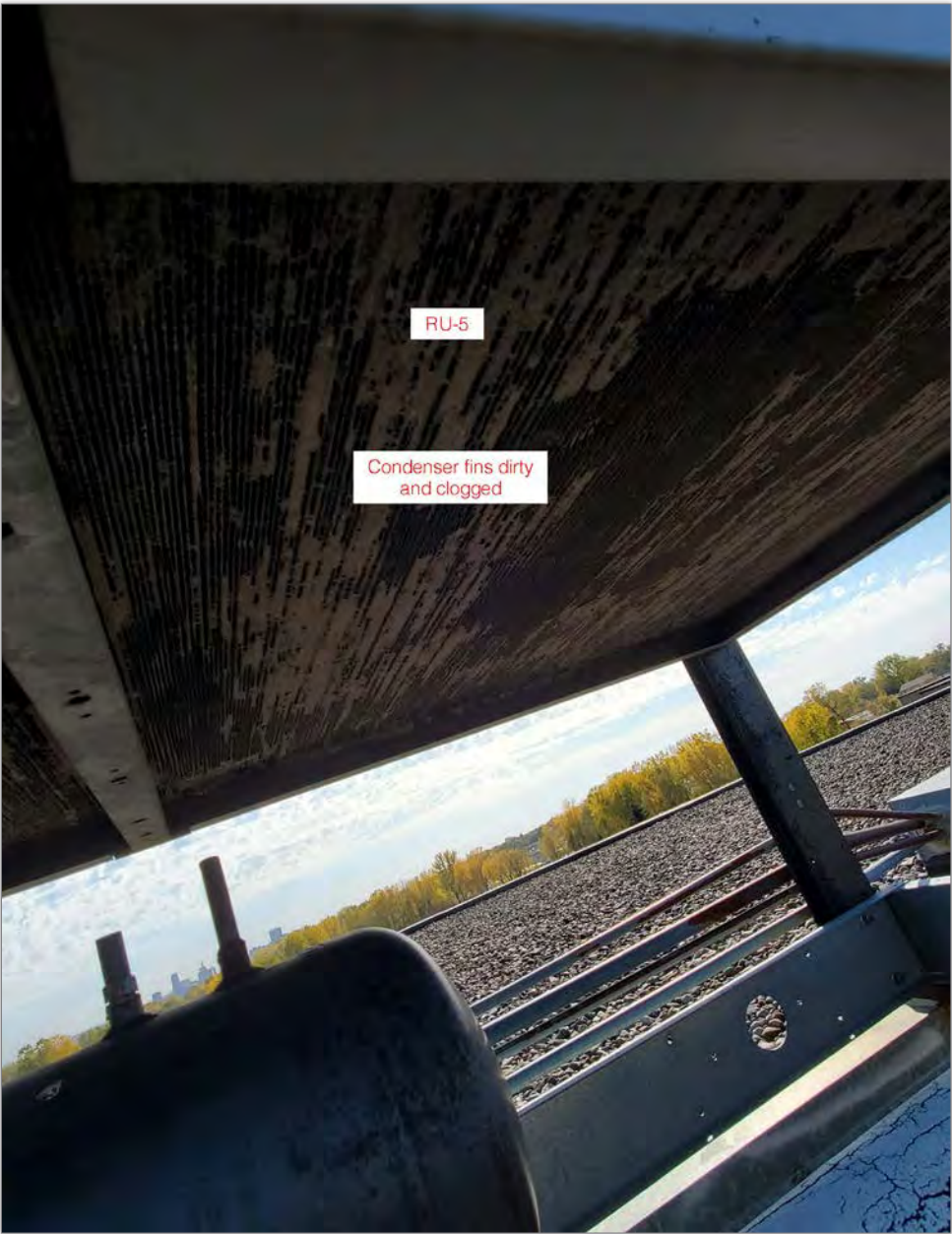






































RU-9

Considerable
corrosion on
accumulator



































RU-22

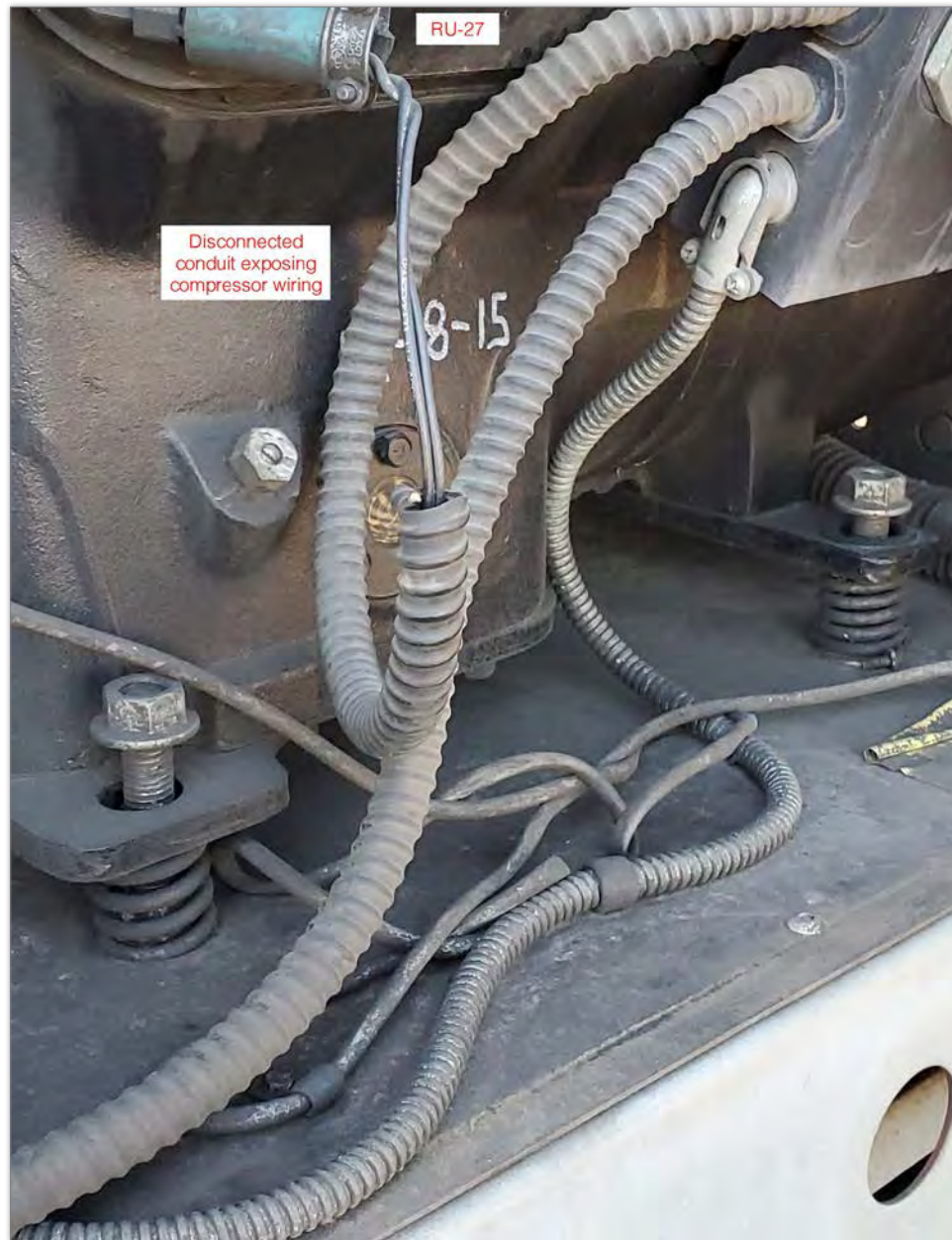
Rooftop piping
insulation
damaged

















RU-28a

Cardboard
"escutcheon plate"







Appendix

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Fire Life Safety System Inspection

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Fire Life Safety System Inspection



Corrective Action Proposal

Company Address4200 West 76th Street
Minneapolis, MN 55435-5108
United States

Created Date6/20/2021

Phone(952) 835-4600

Quote Number00014197

Fax(952) 835-4153

Project Code2106-28288

Account Information

Account Name1415 L'Orient Ave

Service Location

Ship To Name1415 L'Orient Ave

Ship To1415 L'Orient Ave
St Paul, MN 55117

Opportunity Contact Wayne Waslaski

Mobile(651) 201-2548

Emailwayne.waslaski@state.mn.us

Scope Of Work

Opportunity Name2021. 06 1415 L'Orient SPRK CA

Description

Scope of Work:

- Replace accelerator that is currently out of service.
- Perform 5 year inspection of 1 wet and 1 dry system.
- Perform 5 year hydro of the FDC.
- Perform 3 year air test on the dry system.
- Inspect the anti freeze systems.
- Perform annual inspection of 2 backflow preventers.
- Perform 3 year full trip on the dry system.


Clarifications:

- State Contract F-556(5) release 134473
- Work will be performed during normal business hours.
- Building management will provide uninterrupted access to system equipment.
- Quote prepared as Not to Exceed without approval from authorized customer representative.
- NET 30

Exclusions:

- Sales tax
- Overtime labor
- Labor and materials outside the Scope of Work
- Personnel lift rental

Quote Line Items



LVC
COMPANIES
Fire Protection • Systems Integration

Corrective Action Proposal

Investment

Subtotal	\$5,170.00
Discount	0.00%
Total Price	\$5,170.00

Signatures

Simon Ferriere
Service Sales Representative
952-837-0583 Direct
sterriere@lvcinc.com

Approved By:
Printed Name:
Title:
Date:

1415 L'Orient Ave
Annual Fire Alarm



LVC COMPANIES
FIRE PROTECTION SYSTEMS INTEGRATION

<div><div>Delivering Outstanding Service</div><div><div>➤ Competence</div><div>LVC Service Technicians average more than 11 years of industry experience, are individually licensed and factory trained on the systems we service. They also have demonstrated knowledge by passing the tests required for NICET (National Institute for Certification in Engineering Technologies) certification of proficiency</div><div>➤ Commitment</div><div>All LVC customers, new or old, deserve and receive our utmost attention. This is the only way we know how to do it. Your problem is important to you and its resolution is important to us.</div><div>➤ Total Compliance Management (TCM)</div><div>Our TCM program relieves our customers of the responsibility of managing inspections, maintenance, and deficiency correction for all their fire safety systems. LVC schedules and submits reports of all inspections on a timely basis. This program has been so successful LVC has provided this service on national bases for major customers. Please contact LVC for more information on TCM and National accounts.</div><div>➤ Personalized Service</div><div>LVC Service Technicians are focused on their customers and their needs. Typically they are known by name and are often complemented by customers for their Raving fan service.</div><div>➤ Emergency Response</div><div>Our service technicians are available 24-7 to respond quickly to your emergency with a quick diagnosis and repair.</div><div>➤ Value</div><div>A quick resolution is a cost-effective resolution. Partner with LVC and benefit from the quality and value that comes from knowledgeable, experienced and well-trained technicians.</div></div></div> <div><div>Section Index</div><div><div>1. Report Summary</div><div><div>1.1.Contact Information</div><div>1.2.Prior To Testing</div><div>1.3.System Overview</div><div>1.4.After Testing</div><div>1.5.Comments</div><div>1.6.Signatures</div></div><div>2. Device Tables</div><div><div>2.1.System Control Components</div><div><div>2.1.1.Fire Alarm Control Panel(s)</div><div>2.1.2.Communication Devices</div><div>2.1.3.Remote Power Supplies</div><div>2.1.4.Batteries</div></div><div>2.2.Intiation Devices</div><div><div>2.2.1.Smokes, Heats, Pull Stations</div><div>2.2.2.Sprinkler and Extinguishing Supervision</div><div>2.2.3.Miscellaneous Inputs</div></div><div>2.3.Output Devices</div><div><div>2.3.1.Notification Appliances</div><div>2.3.2.Auxiliary Functions</div></div></div><div>3. Deficiencies</div><div>4. Not Inspected</div></div></div>
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Section 1 - Report Summary

1.1 Contact Information

Bill To	Service At
1415 L'Orient	1415 L'Orient
1415 L'Orient Ave	1415 L'Orient Ave
St Paul MN 55117	St Paul MN 55117
107972	990213

1.2 Prior to Testing

Notifications	Yes/No/NA	Name	Time
Monitoring Agency	No	Not monitored	11:15 AM
Building Occupants	N/A	No on site personnel	11:15 AM
AHJ Notified of Impairments	N/A	N/A	11:00 AM
Other	N/A	N/A	11:00 AM

1.3 System Overview**Monitoring Agency Information**

Agency Name	CENTRAL STATION	Phone Number	1-800-631-2299	Account Number	RIY-4460 PW VIKING
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Fire Alarm Panel Information

Panel ID	Manufacturer	Model	Area	Location
FACP	SILENT KNIGHT	5207	N.E. WAREHOUSE	SPRINKLER RISER AREA
SUP FACP	KIDDIE	SCORPIO	OFFICE AREA	IT ROOM

Device Counts

Device Type	Total	Tested	Failed	Device Type	Total	Tested	Failed
Smoke Detectors	3	3	0	Dampers	0	0	0
Heat Detectors	0	0	0	AHU Shutdown	0	0	0
Duct Detectors	0	0	0	Elevator Recall	0	0	0
Other Detectors/Supervised Devices	2	2	0	Notification Appliances	0	0	0
Manual Pull Stations	2	2	0	Auxiliary Functions	0	0	0
Batteries	2	2	0	Communication Devices	0	0	0
Door Holder	0	0	0	Control Valve Tamper Switch	3	3	0
Door Unlock	0	0	0	Water Flow Detector	2	2	0
Fire Door	0	0	0				
Automatic Fire Door	0	0	0				

Note: See Device Tables for Details

1.4 After Testing Is Complete

Notifications	Yes/No/NA	Name	Time
Monitoring Agency	Yes	Sydney	12:45 PM
Building Occupants	N/A	All	12:15 PM
AHJ Notified of Impairments	N/A	N/A	11:00 AM
Other	N/A	N/A	12:15 PM
System Returned to Normal?	Yes	Rick Hendren	12:45 PM

1.5 Comments

POSTED NEW MONITORING INFORMATION AT PANEL.
FIRE ALARM SYSTEM TESTED WELL.

1.6 Signatures

Customer	Date	Inspector	Date
	6/7/2021		6/7/2021
UNKNOWN		Rick Hendren	



Section 2 - Device Tables

Section 2.1 - System Control Components

2.1.1 Fire Alarm Control Panel(s)

Manufacturer	Model	Area	Location	AssetID	Results	Date/Time
SILENT KNIGHT	5207	N.E. WAREHOUSE	SPRINKLER RISER AREA	FACP	Pass	6/7/2021 12:36:58 PM
KIDDIE	SCORPIO	OFFICE AREA	IT ROOM	SUP FACP	Pass	6/7/2021 12:20:20 PM

2.1.4 Batteries

Size	Area/Location	Expiration Date	AssetID	Results	Date/Time
12V/7AH	N.E. WAREHOUSE FACP	6-30-2023	FACP.BATT	Pass	6/7/2021 11:39:01 AM
12V/1.4AH	OFFICE AREA SUPPRESSION FACP	6-30-2023	SUPFACP.BATT	Pass	6/7/2021 12:21:16 PM

Section 2.2 - Initiation Devices

2.2.1 Smokes, Heats and Pull Stations

Device Name	Area/Location	AssetID	Results	Date/Time
Pull Station - Annual	OFFICE AREA IT ROOM	Z5	Pass	6/7/2021 12:20:20 PM
Pull Station - Annual	N.E. WAREHOUSE BY FACP	Z7	Pass	6/7/2021 11:36:38 AM
Smoke Detector - Photoelectric - Annual	OFFICE AREA IT ROOM	Z5SD1	Pass	6/7/2021 12:19:53 PM
Smoke Detector - Photoelectric - Annual	OFFICE AREA IT ROOM	Z5SD2	Pass	6/7/2021 12:19:53 PM
Smoke Detector - Photoelectric - Annual	OFFICE AREA IT ROOM	Z5SD3	Pass	6/7/2021 12:19:53 PM

2.2.2 Sprinkler and Extinguishing Supervision

Device Name	Area/Location	AssetID	Results	Date/Time
Air Pressure Switch - Annual	N.E. WAREHOUSE SPRINKLER RISER AREA	Z3AIR	Pass	6/7/2021 11:38:42 AM
Control Valve Tamper Switch - Annual	N.E. WAREHOUSE SPRINKLER RISER AREA	Z4GV1	Pass	6/7/2021 11:36:07 AM
Control Valve Tamper Switch - Annual	N.E. WAREHOUSE SPRINKLER RISER AREA	Z4GV2	Pass	6/7/2021 11:36:07 AM
Control Valve Tamper Switch - Annual	N.E. WAREHOUSE SPRINKLER RISER AREA	Z4GV3	Pass	6/7/2021 11:36:07 AM
Water Flow Detector - Annual	N.E. WAREHOUSE SPRINKLER RISER AREA	Z1WF1	Pass	6/7/2021 11:36:22 AM
Water Flow Detector - Annual	N.E. WAREHOUSE SPRINKLER RISER AREA	Z2WF1	Pass	6/7/2021 11:38:42 AM

2.2.3 Miscellaneous

Device Name	Area/Location	AssetID	Results	Date/Time
Abort Switch - Dead Man - Annual	OFFICE AREA IT ROOM	Z6AB1	Pass	6/7/2021 12:19:53 PM

1415 L'Orient
Annual Sprinkler System Inspection



www.lvcinc.com
Office: (952) 835-4600
Fax: (952) 835-4153



4200 W 76th St, Minneapolis, MN 55435

License No.: C156
Inspector: Roy Peterson
Work Order No.: 46217

Sprinkler Inspection Summary Page and Comments

Inspection Performed

Monthly

☐

Quarterly

☐

Semi-Annual

☐

Annual

☒

Account Number

990213

Facility Name

1415 L'Orient

Address

1415 L'Orient Ave. St Paul, MN 55117

Site Contact

Phone

Date of Inspection

6/7/2021

Next Due Date

6/7/2022

Device Summary				
Type	Total	Passed	Failed	Not Inspected
City Connection with Tamper Switch	2	2		
City Connection Without Tamper Switch				
Wet System	1	1		
Dry System	1	1		
Deluge				
Pre-Action				
Hydrants				
Fire Pumps				
Fire Pump Bypass Valves				
Elevator Valve				
Jockey Valve				
Test Pump Valve				
Foam System				
Antifreeze System	2	2		
Kitchen				
Nitrogen Wet				
Nitrogen Dry				
Standpipe System				
Water Tank				
Sectionals				
Pump Valves				
Paint Booth				



4200 W 76th St, Minneapolis, MN 55435

License No.: C156
Inspector: Roy Peterson
Work Order No.: 46217

Critical Deficiency Information	
Deficiency & Correction Needed	Location (Rm/FI/Area)
Repalce accelerator that is currently out of service.	
Perform 5 year inspection of 1 wet and 1 dry system.	
Perform 5 year hydro of the FDC.	
Perform 3 year air test on the dry system.	
Inspect the anti freeze systems.	
Test 2 backflows annually.	
Perform 3 year full trip on the dry system.	
NOTESystem is not being monitored currently.	
**I recommend on checking the sprinklers on the west end for corrosion(need lift)	
**I recommend checking the dates on the dry sprinklers(need lift)	

[illegible]

6/7/2021


 Inspector: Roy Peterson
 Work Order No.: 46217

Report of Inspection

Section 1 - Owner's Section: To be answered by owner or occupant			
	Y	N	NA
a Was the system(s) free of actuation of devices or alarms since last inspection?	x		
b Have there been any changes in occupancy since the last inspection?		x	
If yes, explain:			
c Have there been any fires since the last inspection?		x	
If yes, describe:			
d Have there been any fire protection modifications since the last inspection?		x	
If yes, describe:			
e Date the system was last checked for stoppage, corrosion or foreign material			N/A
f Date dry piping system last checked for proper pitch			N/A
g Is the building occupied?	x		

Roy Peterson

6/7/2021

Inspector's Signature		Date	Customer's Signature		Date
Section 2 - General					
a	Are all the systems in service?		Y	N	NA
b	Is there a minimum of 18 inches (457mm) of clearance between the top of storage and sprinkler detectors?		x		
c	Does the hand hose or standpipe on the sprinkler system(s) appear to be satisfactory?				x
d	Sprinkler pipe, fittings, hangers and braces shall be inspected annually from the floor level		x		
Section 3 - Control Valves					
a	Do sprinkler system control valves appear to be in the appropriate open or closed position?		Y	N	NA
b	Are all control valves in the open position; locked, sealed or equipped with a tamper switch?		x		
Section 4 - Tanks, Pumps and Fire Department Connections					
a	Are fire pumps, gravity tanks, reservoirs and pressure tanks in good condition and properly maintained?				x
b	Are fire department connections in satisfactory condition; couplings free, caps in place and check valves tight?		x		
	Are they accessible and visible?		x		
Section 5 - Wet Systems					
a	Have antifreeze system solutions been tested?			x	
b	Antifreeze test result:				x
c	In areas protected by wet system(s), does the building appear to be properly heated in all areas?		x		
Section 6 - Dry Systems					
a	Are dry valves in service?		Y	N	NA
b	Are the air pressures and priming water level in accordance with the manufacturer's instructions?		x		
c	Has the operation of the air or nitrogen supplies been tested?		x		
d	Were all known low points drained during this inspection?		x		
e	Did quick opening devices operate satisfactorily?			x	
f	Did the dry valves trip properly during the trip test?		x		
g	Did the heating equipment in the dry pipe valve room(s) operate at time of inspection?		x		
Section 7 - Special Systems					
a	Did the deluge or pre-action valves operate properly during testing?		Y	N	NA
b	Did the heat responsive devices operate properly during testing?				x
c	Did the supervisory devices operate properly during testing?				x
Section 8 - Alarms					
a	Did water, electric and mechanical alarms test satisfactorily?		Y	N	NA
b	Did supervisory devices test satisfactorily?		x		
Section 9 - Sprinklers					
a	Do visible sprinklers appear to be free from corrosion, loading or obstruction to spray discharge?		Y	N	NA
b	Are sprinklers less than 50 years old? (Older sprinklers require sample testing)		x		
c	Are quick response and residential sprinklers less than 20 years old? (Older sprinklers require sample testing)		x		
d	Do dry sprinklers appear to be less than 10 years old? (Older sprinklers require sample testing)				x
e	Is a stock of spare sprinkler heads and wrenches available?		x		
f	Does the exterior condition of sprinkler system appear to be satisfactory?		x		
Section 10 - Nitrogen Dry Systems					
a	Are dry valves in service?		Y	N	NA
b	Is nitrogen pressures and priming water level in accordance with the manufacturer's instructions?				x
c	Has the operation of the nitrogen supplies been tested?				x
d	Were all known low points drained during this inspection?				x
e	Did quick opening devices operate satisfactorily?				x
f	Did the dry valves trip properly during the trip test?				x
g	Did the heating equipment in the dry pipe valve room(s) operate at time of inspection?				x
Section 11 - Nitrogen Wet Systems					
a	Have nitrogen strainers been cleaned on vents?		Y	N	NA
b	Spare nitrogen tanks available?				x



Inspector: Roy Peterson
Work Order No.: 46217

[illegible]

Sprinkler Riser						
Water Flow Test at Riser	Source:	City	x	Tank	Pump	
	Date	Test Pipe Loc.	Size of Test Pipe	Static Pressure	Residual Flow	
Previous Flow Test	6-2020	At riser	2"	75	70	
Current Flow Test	6/7/2021	At riser	2"	75	70	

6/7/2021

Inspector:
Work Order No.:Roy Peterson
46217

Trip Test Table

Dry Pipe Valve									
System Location		Coolers							
Make	CSC		Model	AG		Size	6"		
Pressure	Air	35	Water	75	Operated at	17 (LBS)			
						Y	N	NA	
Partial Trip						x			
Full Trip							x		
Has 5-year internal been performed?							x		
Time to inspector's test	-	Min	-			Seconds			
Trip time	-	Min	-			Seconds			
QOD									
Make	-		Model	-		S/N	-		
Trip time	-	Min	-			Seconds			
Comments									
Partial trip only, full trip due.									

Dry Pipe Valve									
System Location									
Make			Model			Size			
Pressure	Air		Water		Operated at	(LBS)			
						Y	N	NA	
Partial Trip									
Full Trip									
Has 5-year internal been performed?									
Time to inspector's test	-	Min	-			Seconds			
Trip time	-	Min	-			Seconds			
QOD									
Make	-		Model	-		S/N	-		
Trip time	-	Min	-			Seconds			
Comments									


Dry Pipe Valve									
System Location									
Make			Model			Size			
Pressure	Air		Water		Operated at	(LBS)			
						Y	N	NA	
Partial Trip									
Full Trip									
Has 5-year internal been performed?									
Time to inspector's test		Min				Seconds			
Trip time		Min				Seconds			
QOD									
Make			Model			S/N			
Trip time		Date	Min			Seconds			
Comments									

1415 L'Orient

Sprinkler System Inspection



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Office: (952) 835-4600
Fax: (952) 835-4153


4200 W 76th St, Minneapolis, MN 55435

License No.: C156
Inspector: Jeff O'Connor
Job No.: 53118

Sprinkler Inspection Summary Page and Comments

Inspection Performed

3 Year☒

5 Year☒

3 year full trip

5 year internal

Account Number

Facility Name

Address

Site Contact

Date of Inspection

990213

Admin/Financial MGMT & RPTG

1415 I Orient Ave St Paul MN 55117

Wayne Waslaski

7/26/2021

Phone

Next Due Date

(651) 201-2548

7/2024 and 7/2026

Device Summary				
Type	Total	Passed	Failed	Not Inspected
Wet System	1	1		
Dry System	1	1		
Deluge				
PreAction				
Standpipe System				
Hose Connection				
Other				
Other				

Deficiencies Noted on Inspection

Page 140 of 167

Architecture + Engineering + Environmental + Planning

Date : 7/26/2021



Inspector: Jeff O'Connor

Job Number: 53118

5 year Internal Pipe Inspection

System Location						
East side of Building						
	Y	N	NA			
Check valves internally inspected?	X			Hose Connection	Supply Connection	Flow
Components operate correctly, move freely and are in good condition?	X					
Pre-action/deluge valves that can be reset, without removal of a faceplate, internally inspected?			X			
Strainers, filters, restricted orifices, and diaphragm chambers pass internal inspection?			X			
Extra high temp. solder type sprinklers tested?			X			
Recalibrated gauges that did not test within 3% of full scale?	X			Static Press	Residual Press	Flow
Pressure reducing and relief valves passed full flow test?			X			
Hose connection pressure-regulating devices passed full flow test?			X			
Hose rack assembly pressure-regulating devices passed full flow test?			X			
Standpipe systems tested at required flows?			X			
Above flows and pressures acceptable?			X			
The interior of the sprinkler piping appears to be in satisfactory condition.	X					
Comments						
Performed 5 year internal inspection and a 3 year air test on dry system. Performed 3 year full trip on dry system and performed 5 year						
Took two samples of antifreeze loops and will send in for testing.						
Photos of System						



LVC Companies, Inc.
 4200 W 76th Street Minneapolis, MN 55435
 Office: (952) 835-4600 / Fax: (952) 835-4153
www.LVCinc.com

OFFICE USE ONLY	
A/P LIC #:	
DATE:	8/5/2021
AMOUNT:	

REGULATED BACKFLOW ASSEMBLY (RBA) TEST REPORT

COMPLETE JOB ADDRESS (INCLUDE apt/Unit#)		NAME OF BUILDING, OWNER/OCCUPANT, CONTACT NAME AND PHONE #	
1415 L'Orient Ave. St Paul MN 55117		1415 L'Orient	
APPLICANT COMPANY NAME		CONTRACTOR LICENSE #	CONTACT NAME AND PHONE #
LVC		C156	952-835-4600
ADDRESS	CITY	STATE	ZIP
4200 West 76th Street	Mpls	MN	55435
TESTER NAME		TESTER CERTIFICATION #	Phone #
Roy Peterson		BT693952	952-495-0014
TESTER MANUFACTURER	TEST EQUIPMENT MODEL #	TEST EQUIPMENT SERIAL #	TESTING EQUIPMENT CALIBRATION DATE
Mid-West	845	6200890	MO ___ @ ___ YR 2021 ___

BACKFLOW ASSEMBLY DETAIL INFORMATION

Type (check one): ☐ Reduced Pressure Principal or Pressure Principal Fire Protection ☐ Reduced Pressure Detector ☐ Double Check Valve ☒ Double Check Detector Fire Protection ☐ Pressure Vacuum Breaker ☐ Spill Resistant Pressure Vacuum Breaker

MANUFACTURER	MODEL #	SERIAL #	SIZE (Inches)	SYSTEM SERVICED
Watts	007M1	34858	3/4"	Fire Sprinklers
LOCATION IN BLDG		FLOOR #	ROOM #	
Sprinkler riser area		1st		

TEST RESULTS: ☒ Pass ☐ Fail (COMPLETE APPLICABLE ASSEMBLY TYPE SECTION BELOW)

Reduced Pressure Principal or Reduced Pressure Detector Fire Protection (RP) - TEST RESULTS

	Check Valve #2	Shutoff Valve #2	Check Valve #1
INITIAL TEST	Closed tight	Closed tight	Closed tight Pressure drop across - check valve #1 Yes
			Pressure Differential Relief Valve
FINAL TEST	Closed tight	Closed tight	Closed tight Pressure drop across - check valve #1 ____ psid
			Pressure Differential Relief Valve Opened at ____ psid

Double Check Valve or Double Check Detector Fire Protection (DC) - TEST RESULTS

	Check Valve #1	Check Valve #2	Shutoff Valve #2
INITIAL TEST	Closed tight Yes	Closed tight Yes 1.6 psid	Closed tight Yes
FINAL TEST	Closed tight	Closed tight ____ psid	Closed tight

Pressure Vacuum Breaker (PVB) or Spill Resistant Vacuum Breaker (SRVB) - TEST RESULTS

	Air Intel Valve	Check Valve	Shutoff #2
INITIAL TEST	Failed to open Opened at ____ psid	Closed tight Check Valve #1 ____ psid	Closed tight
FINAL TEST	Failed to open Opened at ____ psid	Closed tight Check Valve #1 ____ psid	Closed tight

DESCRIBE PARTS AND REPAIRS WHEN NEEDED

CERTIFICATION: I hereby certify the foregoing information provided by me to be correct and that the tested device is functioning in compliance with State of Minnesota Plumbing Code, Chapter 47144.

Roy Peterson	8/5/2021
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OFFICE USE ONLY	
A/P LIC #:	
DATE:	8/5/2021
AMOUNT:	

REGULATED BACKFLOW ASSEMBLY (RBA) TEST REPORT

COMPLETE JOB ADDRESS (INCLUDE apt/Unit#)		NAME OF BUILDING, OWNER/OCCUPANT, CONTACT NAME AND PHONE #	
1415 L'Orient Ave. St Paul MN 55117		1415 L'Orient	
APPLICANT COMPANY NAME		CONTRACTOR LICENSE #	CONTACT NAME AND PHONE #
LVC		C156	952-835-4600
ADDRESS	CITY	STATE	ZIP
4200 West 76th Street	Mpls	MN	55435
TESTER NAME		TESTER CERTIFICATION #	Phone #
Roy Peterson		BT693952	952-495-0014
TESTER MANUFACTURER	TEST EQUIPMENT MODEL #	TEST EQUIPMENT SERIAL #	TESTING EQUIPMENT CALIBRATION DATE
Mid-West	845	6200890	MO ___ @ ___ YR 2021 ___

BACKFLOW ASSEMBLY DETAIL INFORMATION

Type (check one): ☐ Reduced Pressure Principal or Pressure Principal Fire Protection ☐ Reduced Pressure Detector ☐ Double Check Valve ☒ Double Check Detector Fire Protection ☐ Pressure Vacuum Breaker ☐ Spill Resistant Pressure Vacuum Breaker

MANUFACTURER	MODEL #	SERIAL #	SIZE (Inches)	SYSTEM SERVICED
Ames	3000SS	3LM0528	6"	Fire Sprinklers
LOCATION IN BLDG		FLOOR #	ROOM #	
Sprinkler riser area.		1st		

TEST RESULTS: ☒ Pass ☐ Fail (COMPLETE APPLICABLE ASSEMBLY TYPE SECTION BELOW)

Reduced Pressure Principal or Reduced Pressure Detector Fire Protection (RP) - TEST RESULTS

	Check Valve #2	Shutoff Valve #2	Check Valve #1
INITIAL TEST	Closed tight	Closed tight	Closed tight Pressure drop across - check valve #1
			Pressure Differential Relief Valve
FINAL TEST	Closed tight	Closed tight	Closed tight Pressure drop across - check valve #1 ___ psid
			Pressure Differential Relief Valve Opened at ___ psid

Double Check Valve or Double Check Detector Fire Protection (DC) - TEST RESULTS

	Check Valve #1	Check Valve #2	Shutoff Valve #2
INITIAL TEST	Closed tight Yes	Closed tight Yes 2.7 psid	Closed tight Yes
FINAL TEST	Closed tight	Closed tight ___ psid	Closed tight

Pressure Vacuum Breaker (PVB) or Spill Resistant Vacuum Breaker (SRVB) - TEST RESULTS

	Air Intel Valve	Check Valve	Shutoff #2
INITIAL TEST	Failed to open Opened at ___ psid	Closed tight Check Valve #1 ___ psid	Closed tight
FINAL TEST	Failed to open Opened at ___ psid	Closed tight Check Valve #1 ___ psid	Closed tight

DESCRIBE PARTS AND REPAIRS WHEN NEEDED

CERTIFICATION: I hereby certify the foregoing information provided by me to be correct and that the tested device is functioning in compliance with State of Minnesota Plumbing Code, Chapter 47144.

Roy Peterson	8/5/2021
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Invoice 67956
Invoice Date 08/19/21
Due Date 09/18/21
Terms: Net 30 days
Lead Technician: Mark Arens

Bill To: 107972

Service Location: 990213

Admin/Financial MGMT & RPTG
50 Sherburne Ave
309 Administration Bldg
St Paul, MN 55155-1402

1415 L'Orient
1415 L'Orient Ave
St Paul, MN 55117

Work Order: 53118

Scope: 1

Price Method: Time and Materials

Customer PO: H1201-

Date of Service	Description	Quantity	Unit Price	Price Total	Tax Amount	Total
07/10/21	Labor - Sprinklerfitter	1.00	\$140.00	\$140.00	\$0.00	\$140.00
07/26/21	Labor - Sprinklerfitter	6.00	\$140.00	\$840.00	\$0.00	\$840.00
07/26/21	Labor - Sprinklerfitter	8.00	\$140.00	\$1,120.00	\$0.00	\$1,120.00
07/26/21	Labor - Sprinklerfitter	2.00	\$140.00	\$280.00	\$0.00	\$280.00
07/27/21	Other - LIFT RENTAL	0.00	\$0.00	\$649.19	\$51.12	\$700.31
08/05/21	Labor - Sprinklerfitter	3.00	\$140.00	\$420.00	\$0.00	\$420.00
08/05/21	Other - Project Management	2.00	\$125.00	\$250.00	\$0.00	\$250.00
07/26/21	Other - Replacement Gauges	4.00	\$25.00	\$100.00	\$7.88	\$107.88
07/26/21	Other - B-1 Accelerator	1.00	\$900.00	\$900.00	\$70.88	\$970.88
Scope 1 Subtotal				\$4,699.19	\$129.88	\$4,829.07

Work Description:

Scope of Work:

- Replace accelerator that is currently out of service.

- Perform 5 year inspection of 1 wet and 1 dry system.

- Perform 5 year hydro of the FDC.

- Perform 3 year air test on the dry system.

- Inspect the anti freeze systems.

- Perform annual inspection of 2 backflow preventers.

- Perform 3 year full trip on the dry system.

PC#2106-28288

Subtotal

Tax

Total

\$4,699.19

\$129.88

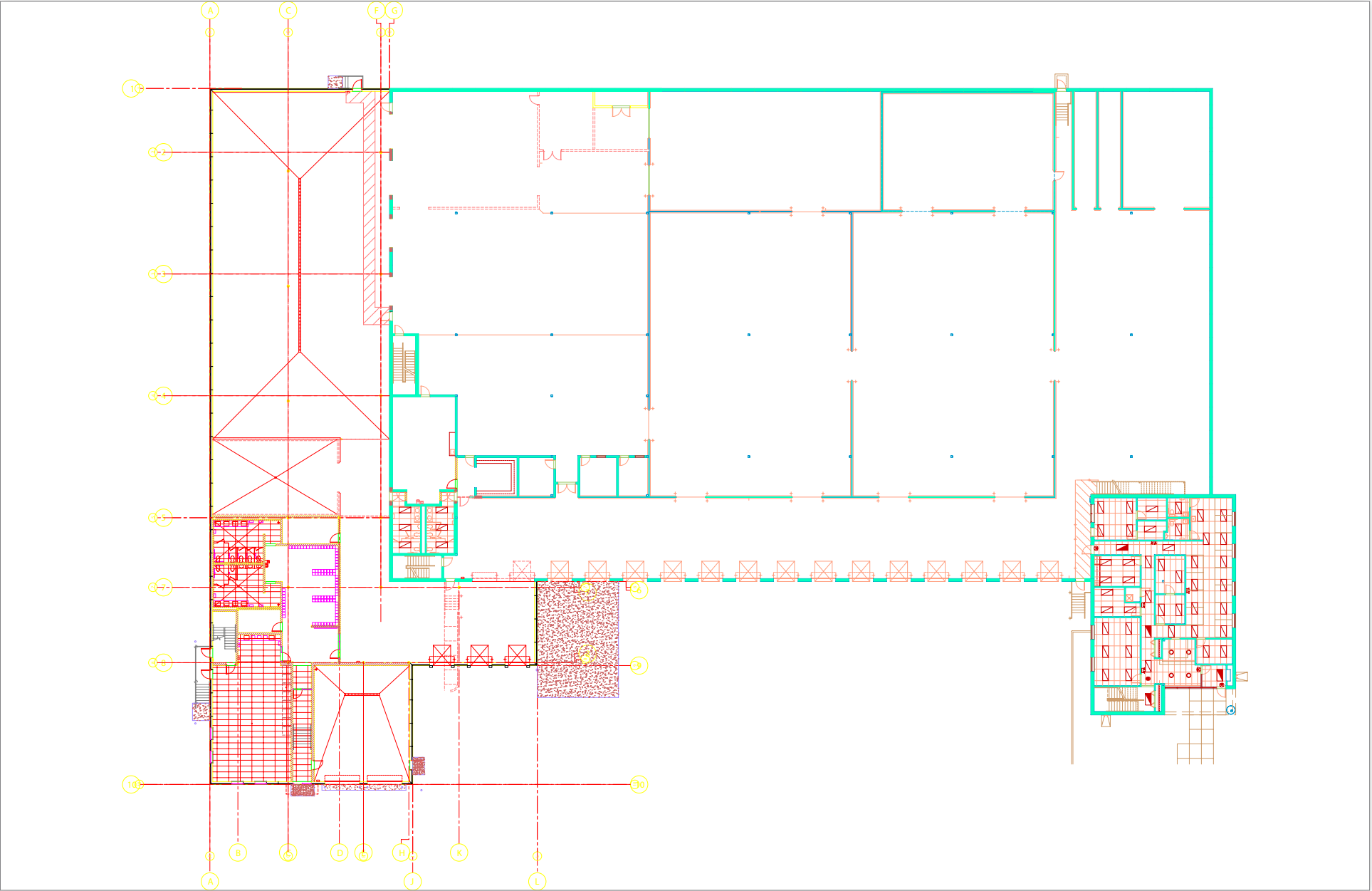
\$4,829.07

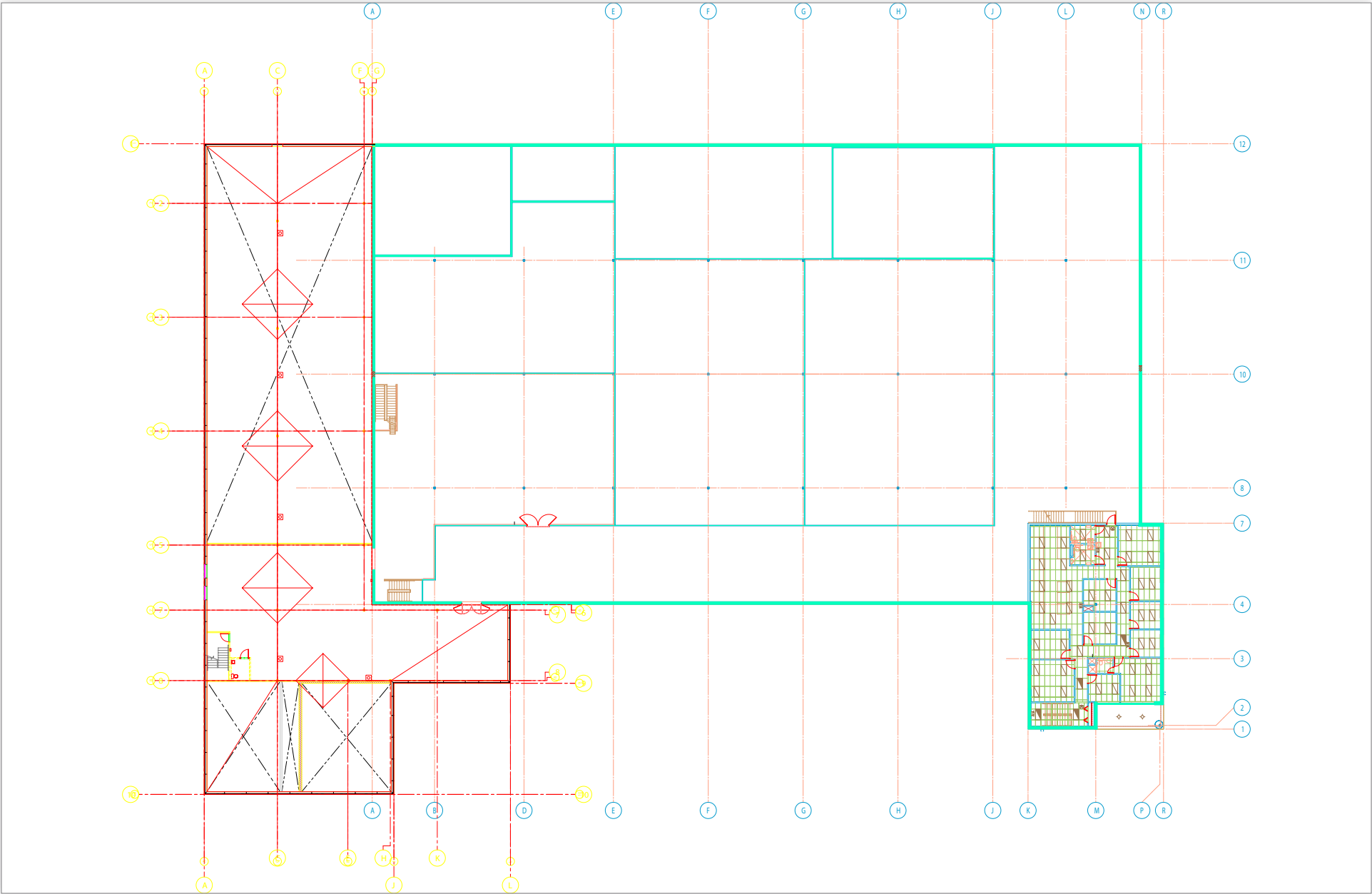
Remit Payments to: LVC Companies
4200 W 76th St
Edina, MN 55435
Phone: 952-835-4600
Fax: 952-835-4153
Page 1



CAD Drawings

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BIX Site Plans

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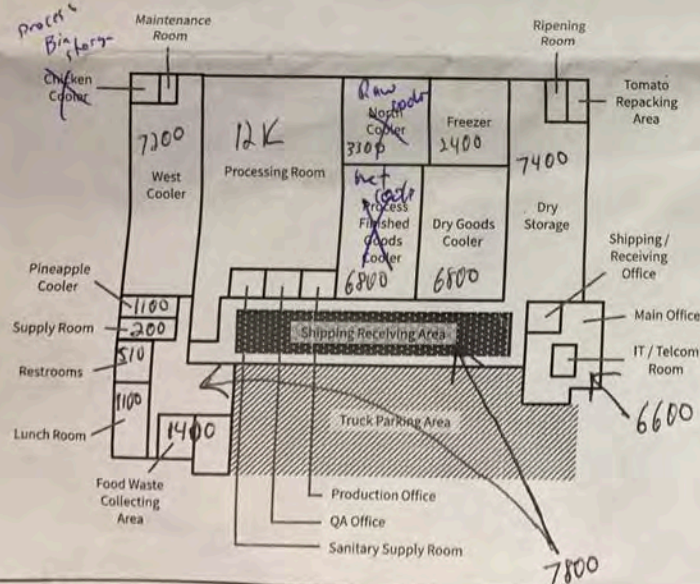
BIX Site Plans

FACILITY

A state-of-the-art owned facility houses office space, processing and storage, and shipping and receiving

Facility Overview

- The Company operates out of a 78,000 square foot state-of-the-art, SQF Level 2 certified facility in St. Paul, MN
- With 22,000 square feet added in 2006, Management estimates sales could increase ~35% before capacity was maximized
- Capacity can be expanded quickly and affordably by adding equipment, such as an additional flume or scale

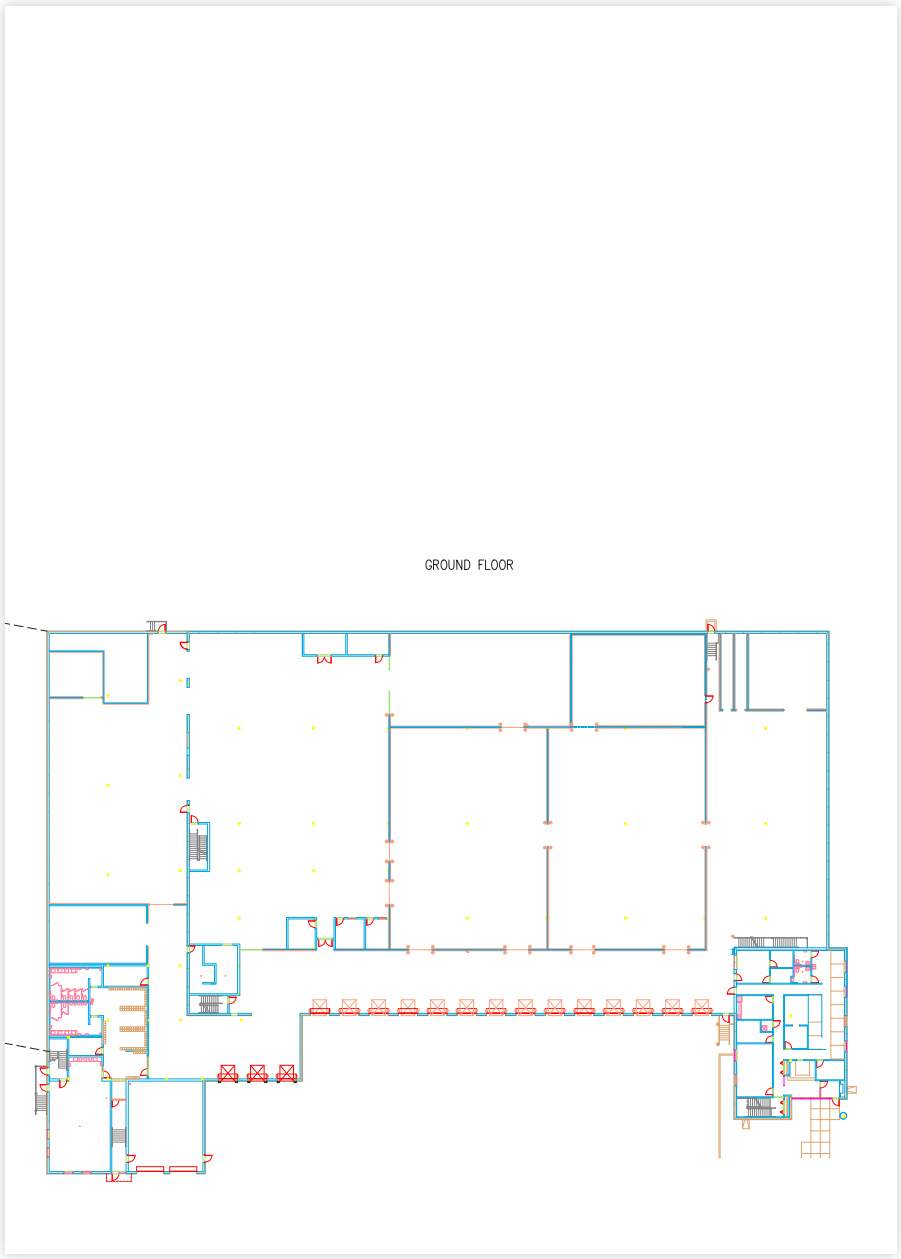


Please confirm facility layout is still accurate

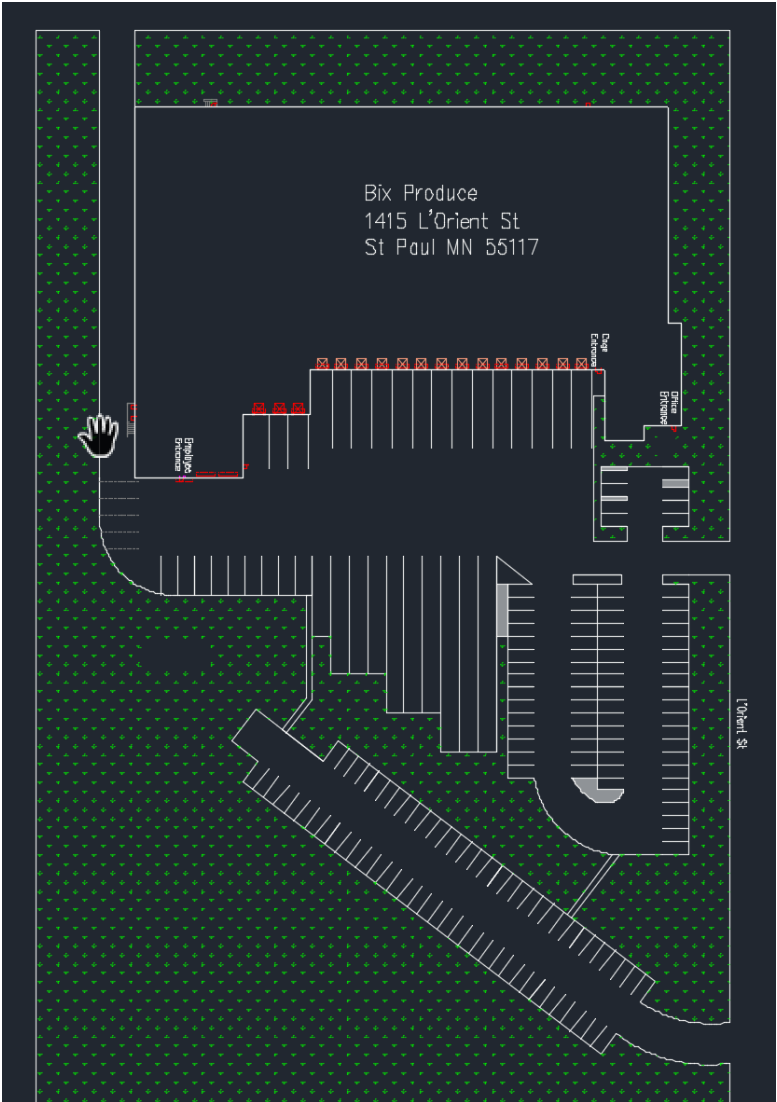
Facility

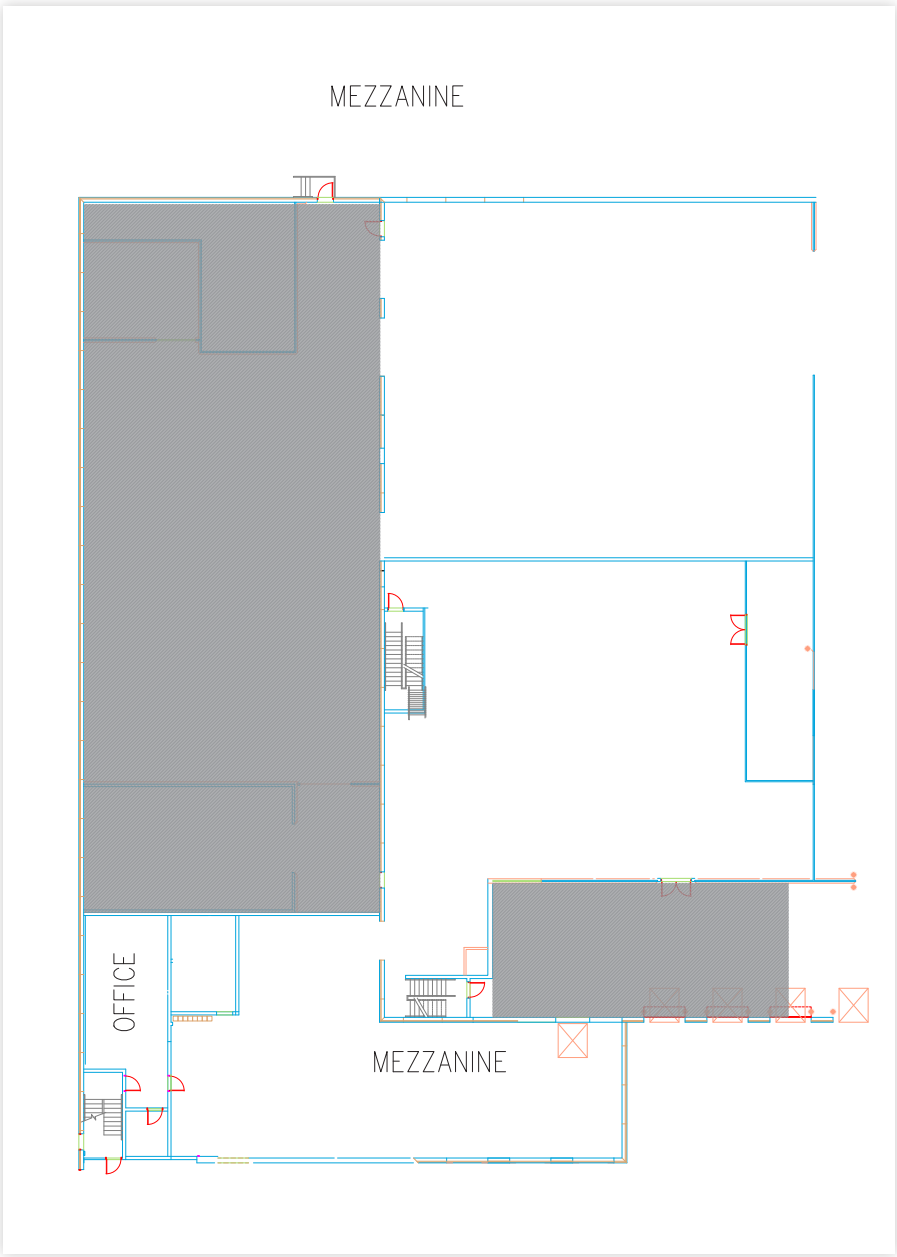
Functional Area	Size (sq. ft.)	
Storage (Coolers)	25,200	24,600
Storage (Mezzanine)	11-13K?	14,000
Processing - including offices	12K	14,000
Storage (Dry)	7,400	8,700
Shipping & Receiving	7800	5,000
Freezer	2,400	2,400
Office	7,700	9,300
Total		78,000

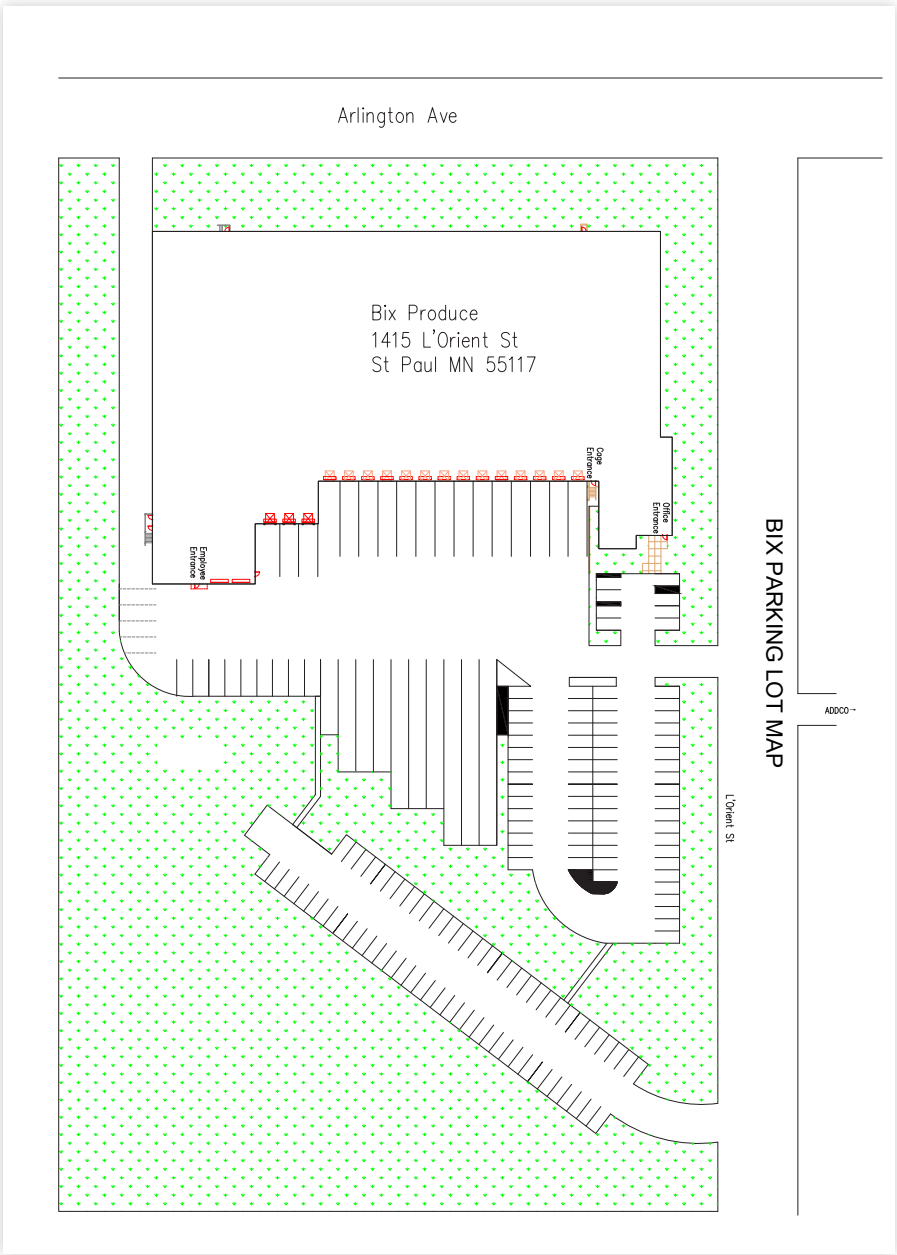








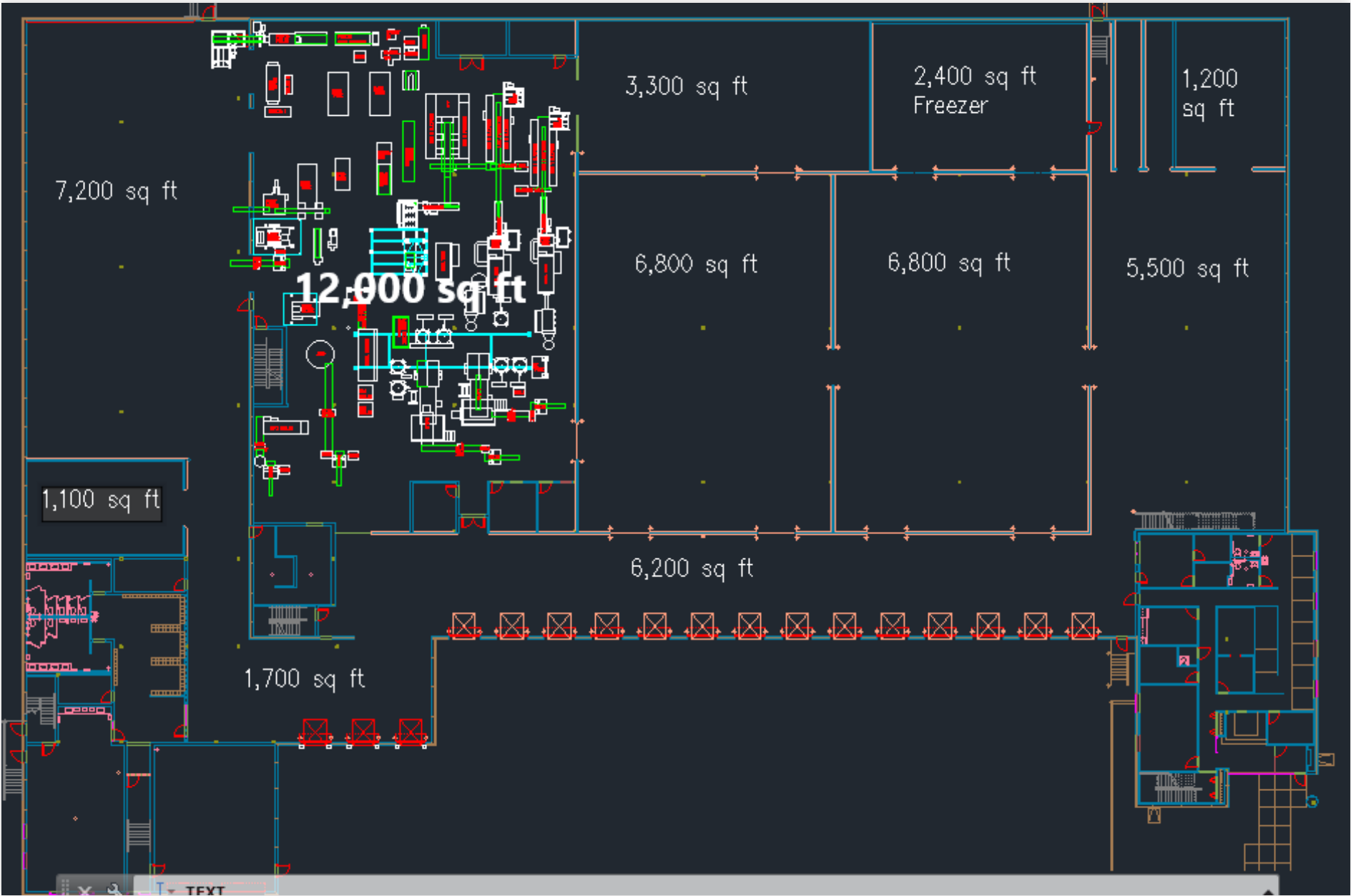




Total SF	81,335
Acres	5
Office SF	7,190
Warehouse SF	63,825
Mezzanine SF	10,320
Employee Parking Spaces	153
Dock Doors	17

SF BREAKDOWN

55F Cooler (Dry Storage)	5,745
Freezer	2,406
Tomato Re-Pack	1,171
Ripening Rooms (Circulated Warming Only)	400
35F Cooler (Drains)	22,939
45F Cooler (Pineapple Cooler)	1,092
Processing	11,485
Splits	487
Processing Office	140
QA Lab	196
Processing Chemical / Electrical / Storage Room	600
Corrugate Storage	5,000
Farm Waste	1,320
Maintenance	780
Employee Break Room	1,230
Employee Lockers / Bathroom	2,114



BIX PRODUCE COMPANY	QUALITY SYSTEMS	Document #	Issue #
		P002QA	7
	Emergency Evacuation Map	Issued Date: 4/16/18	
		Issued By: Scott Tedson	
		Reviewed By: Troy Wilcox	

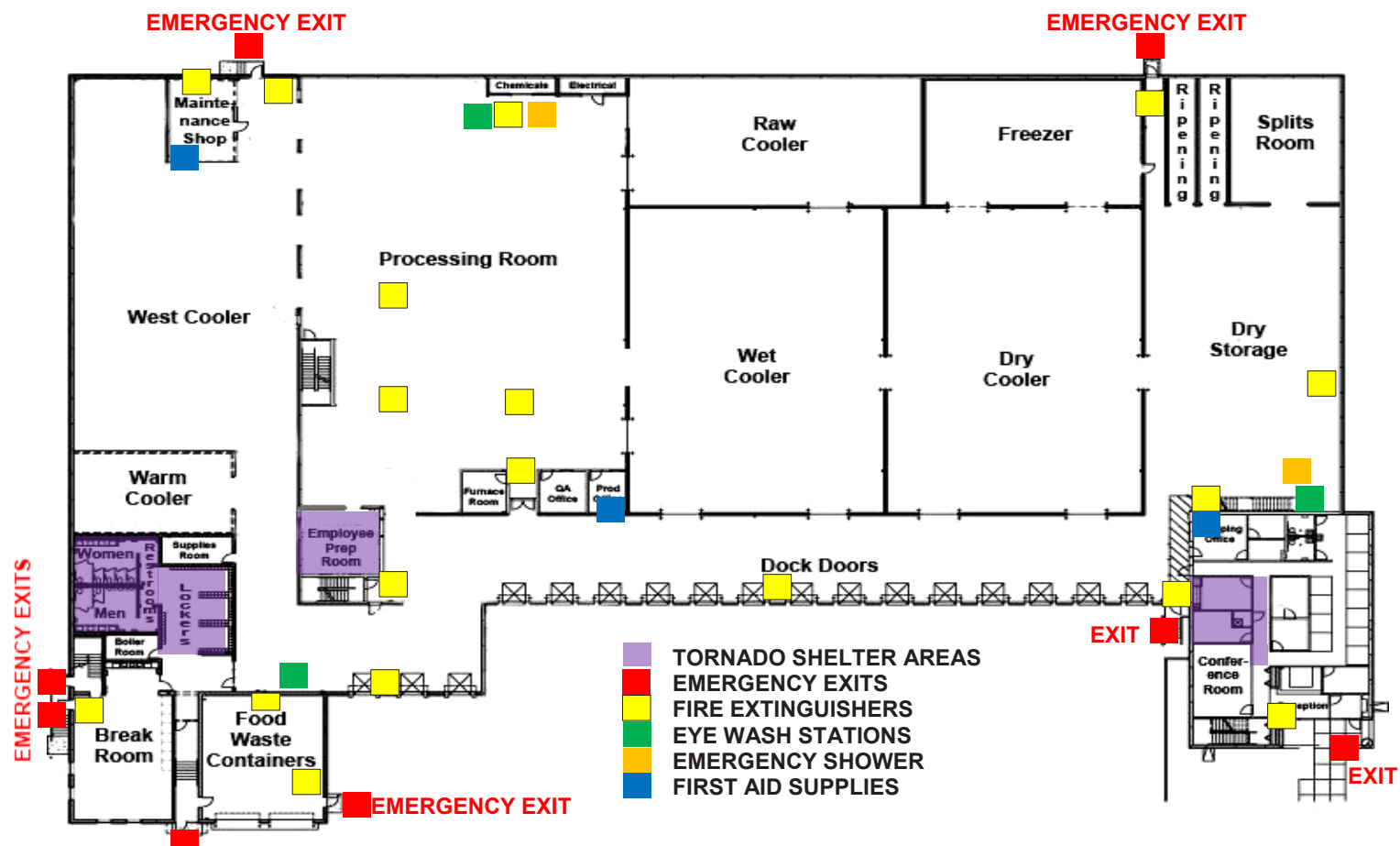


Figure 1- Ground Floor Evacuation Map

BIX PRODUCE COMPANY	QUALITY SYSTEMS	Document #	Issue #
		P002QA	7
	Emergency Evacuation Map	Issued Date: 4/16/18	
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1. Procedures
- a. Evacuate the building as soon as possible (see CP002SHE). Use the Emergency Evacuation Map for assistance.

b. In the event of a chemical spill or mixing of chemicals resulting in gas formation, use the closest emergency exit path available. Do not use an emergency exit if you must pass through or near a cloud of gas.

c. All employees must meet in the southeast corner of the main parking lot or other designated area to be accounted for.

d. The assigned meeting location should be opposite to the direction that the wind is blowing in case of chemical or fire emergency.
2. Responsibilities
- a. Refer to emergency evacuation procedures policy CP002SHE for details.

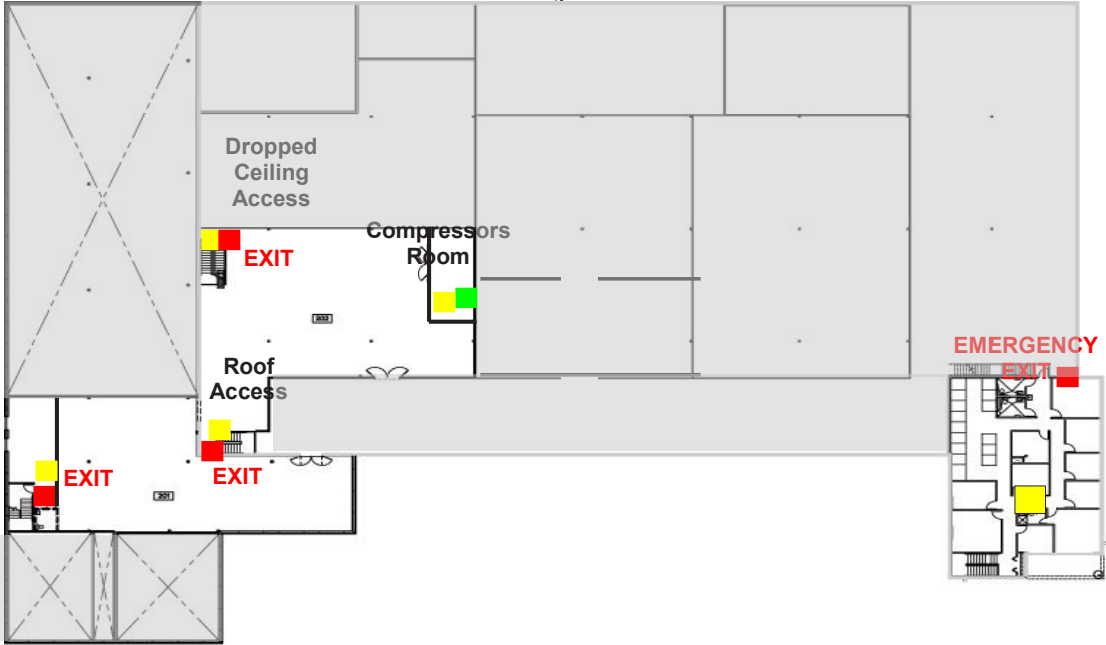


Figure 2: Mezzanine Level Emergency Evacuation Map

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Glossary

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Glossary

Word Acronym	Definition/Acronym
A/C	Air conditioning.
ADA	Americans with Disabilities Act.
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers. ASHRAE standards establish consensus for test methods and performance criteria. These include voluntary consensus standards for Method of Measurement or Test, Standard Design and Standard Practice. Consensus standards define minimum values or acceptable performance. ASHRAE is accredited by the American National Standards Institute (ANSI) and follows ANSI's requirements for due process and standards development.
BUR	Built up roof.
Casework	Casework is storage, shelving, and cabinetry, that can be purchase ready-made.
CIPC	Cast-in-place concrete.
CMU	Concrete Masonry Units.
Domestic Cold Water	Drinking water.
Egress	An exit out of a space, building, or parking lot.
EPDM	Ethylene propylene diene terpolymer rubber (EPDM).
Exposed (isolation) joints, Isolation joint	Allows movement to occur between a concrete slab and adjoining columns and walls of a building. Isolation joints are provided to separate new concrete from existing or adjacent construction, which might expand and contract differently or experience different soil settlement or other movement.
Façade	Exterior surface of a structure.

Word Acronym	Definition/Acronym
Fluorescent	Traditional lighting that often is in a tube. Known to be less efficient than LED.
Gypsum Board	A type of sheathing used for interior walls and ceilings, also known as sheetrock or drywall.
Hazardous Materials	Any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.
HVAC	Heating, Ventilation, and Air Conditioning.
Ingress	Entrance into a space, building, or parking lot.
LED	Light-emitting diode. Light bulb type that uses less energy and has a longer lifespan than incandescent lighting.
Life Safety	Construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire. Life Safety Code and NFPA 101 are registered trademarks of NFPA. All or part of the NFPA's Life Safety Code are adopted as local regulations throughout the country.
MEP	Mechanical, Electrical, and Plumbing.
Millwork	Custom made cabinets, shelving, and storage.
Panic bar	The operational bar or paddle that when pushed against, opens a latching mechanism on an assembly referred to as panic hardware.
Parcel	A portion or area of land.
Sheet Flow	Flow that occurs overland in places where there are no defined channels, the flood water spreads out over a large area at a uniform depth. This also referred to as overland flow.
Site Grading	Site grade is the slope and elevation of the soil around a building.

Word Acronym	Definition/Acronym
Topography	The detailed mapping or charting of the features of a land area.
Truncated domes	Truncated domes are tactile paving or a set of raised bumps on a pathway (sidewalk) or platform. Truncated domes alert visually impaired individuals of surface changes and other potential hazards.
Utilities	Services typically piped or wired onto the site from a city source. For example, electricity, gas, water, cable, and telephone services are considered utilities.
VCT	Vinyl Composition Tile. Typically used on floors.

EXPERTISE

Architecture
Engineering
Environmental
Planning

WORK

Commercial
Education
Energy
Food + Industrial
Government + Cultural
Healthcare
Housing
Mining
Public Works
Sports + Recreation
Transportation
Water



Mankato, MN
Minneapolis/St. Paul, MN
Rochester, MN
Des Moines, IA
Storm Lake, IA
Waterloo, IA
Green Bay, WI
La Crosse, WI
Milwaukee, WI
Sioux Falls, SD

ISGInc.com

On January 12, 2017, ISG formally announced its transition of firm ownership to a 100% employee stock ownership plan (ESOP). As a multi-disciplinary firm that started 48+ years ago, ISG has since grown to be a Top 500 Design Firm as recognized by Engineering News-Record (ENR), a Zweig Group Hot Firm, and PSMJ Circle of Excellence recipient, illustrating the progressive increase in talent, expertise, and market share.

