

Requirement Detail

by Asset Name and Category

ORDEAN MS

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Accessibility

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Interior Construction: Accessibility		
Linked System	Interior Construction	Inspection Date	11/12/2006
Prime System	Interior Construction	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	JQP Inc.	Actual Cost	0
Action Date	11/12/2009	Total Estimated Cost:	4,543
Funding Year	-	Funding Type	-
Requirement Location	Interior	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

This requirement includes accessibility issues encountered while you move through the school. Items include: providing elevator or ramp, adding/modifying handrails (only if the level is not served by an elevator or other accessible route), widening doors, replacing door hardware, eliminating protruding hazards and all permanent room identification signage as well as directional signage (adding signs, replacing signs and relocating signs).

PHOTOS

ACTION DESCRIPTION

Make necessary modifications to correct accessibility issues as needed.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Accessibility

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Plumbing: Accessibility	Inspection Date	11/12/2006
Linked System	Plumbing	Finish Date	-
Prime System	Plumbing	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	JQP Inc.	Total Estimated Cost:	65,809
Action Date	11/12/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Plumbing throughout		
Savings Description	-		

REQUIREMENT DESCRIPTION

This requirement includes accessibility issues in toilet rooms, locker/shower rooms and drinking fountains. All requirements for upgrading a toilet or locker/shower room are included in this category, even if they are not plumbing (i.e. relocating stall partitions to provide 60 in. wide stall, relocating toilet paper dispenser or grab bars, etc.). Items include: replacing drinking fountains, raising/lowering toilets, installing grab bars, relocating toilet paper or towel dispensers, adding handheld shower wands, and providing 60 in. wide fully compliant toilet stalls.

Note: the actual cost to complete work in toilet rooms may be increased by a decision to do work beyond what is required for accessibility, such as re-tiling, replacing all fixtures, replacing all stall partitions, etc.

PHOTOS

ACTION DESCRIPTION

Upgrades as needed to meet plumbing accessibility requirements.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Plumbing: Replace Galvanized Domestic Water Piping		
Linked System	Domestic Water Distribution	Inspection Date	06/28/2006
Prime System	Domestic Water Distribution	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	06/28/2007	Total Estimated Cost:	19,706
Funding Year	-	Funding Type	-
Requirement Location	Building Wide - 1936 Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The 70 year old domestic water distribution piping consists of galvanized piping which is connected together via lead based solder. Current flushing procedures have maintained lead levels at an acceptable level. As the piping continues to age, this may not be possible.

PHOTOS



Plumbing: Replace Galvanized Domestic Water Piping

ACTION DESCRIPTION

Remove all the remaining galvanized domestic water distribution piping as well as faucets and fixtures containing lead solder. Install insulated copper piping and fixtures/faucets where required. Wall cutting and patching would be required.

This would include directly connecting the drinking fountain sumps.

This includes the bradley shower stations in the locker rooms.

All Costs in USD.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Asbestos

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Hazardous Components: Abatement	Inspection Date	07/01/2006
Linked System	Hazardous Components Abatement	Finish Date	-
Prime System	Hazardous Components Abatement	Status	Open
Priority	1- Currently Critical (Immediately)	Actual Cost	0
Inspector Name	Wormuth, Kevin	Total Estimated Cost:	7,100
Action Date	07/01/2006	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Entire Facility		
Savings Description	-		

REQUIREMENT DESCRIPTION

This facility was built when asbestos was a common component of many building materials. The majority of asbestos in this facility was part of the insulating materials. Some has been abated, but in some areas it is still present.

PHOTOS

ACTION DESCRIPTION

Abatement of asbestos containing materials throughtout facility.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Capacity

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Electrical Service: Insufficient Capacity	Inspection Date	11/30/2006
Linked System	Electrical Service and Distribution	Finish Date	-
Prime System	Electrical Service and Distribution	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Crotteau, Paul	Total Estimated Cost:	19,470
Action Date	11/30/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Building Wide		
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing 300 amp service panel has insufficient capacity and could not feed any additional panels or equipment.

PHOTOS

ACTION DESCRIPTION

Install a new main switch board to increase buildings capacity. This will allow additional panels and equipment to be fed. New service entrance conductors will be required and all existing loads will need to be refed.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Occupant Security

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Fire Alarm Systems: Extend System		
Linked System	Fire Alarm Systems	Inspection Date	11/30/2006
Prime System	Fire Alarm Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	11/30/2009	Total Estimated Cost:	13,664
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Currently there is no fire alarm system in the field stadium at Ordean. Complete fire alarm system is needed for occupant safety.

PHOTOS

ACTION DESCRIPTION

Extend the fully addressable fire alarm system at Ordean. This will allow for quick response to exact alarm device and allow for better maintenance and safety

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Communication and Security: Access Control		
Linked System	Communications and Security	Inspection Date	11/30/2006
Prime System	Communications and Security	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	11/30/2009	Total Estimated Cost:	12,626
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Doors need ability to be locked down with access allowed only to authorized people. Also doors without card readers should be monitored for unauthorized access.

PHOTOS

ACTION DESCRIPTION

Install proximity card readers at main entry doors for both public and personal and add magnetic door contacts to all other exterior doors on an alarm system.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	Communication and Security: Public Address and Sound System		
Linked System	Communications and Security	Inspection Date	11/30/2006
Prime System	Public Address and Music Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	11/30/2009	Total Estimated Cost:	6,018
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

There is currently no paging system installed. A paging system may be needed for security reason.

PHOTOS

ACTION DESCRIPTION

Install new paging system and amplifier and install speakers where needed.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean - Old Field House
Asset Number: 320a

Requirement Name	HVAC: Add Relief Ductwork and Louvers/Hoods		
Linked System	Air Distribution Systems	Inspection Date	08/10/2006
Prime System	Air Distribution Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	08/10/2009	Total Estimated Cost:	29,500
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The relief air currently discharges into the attic for an attic plenum relief. Ductwork and hoods/louvers are needed to reduce the moisture level in the attic as well as make sure the air is relieved to the outdoors and not re-circulated to the building.

PHOTOS



HVAC: Add Relief Ductwork and Louvers/Hoods

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ACTION DESCRIPTION

Install painted hoods/louvers and the associated ductwork for the relief air.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean - Parking
Asset Number: 320b

Requirement Name	Vehicular Paving: All Asphalt Pavement Areas		
Linked System	Parking Lots	Inspection Date	08/01/2006
Prime System	Paving and Surfacing	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Inspec	Actual Cost	0
Action Date	08/01/2009	Total Estimated Cost:	23,600
Funding Year	-	Funding Type	-
Requirement Location	All Asphalt Pavement Areas	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Pavement in very good condition, will need crack seal and seal coat in 4-5 years.

PHOTOS

ACTION DESCRIPTION

Crack seal and seal coat all asphalt pavement areas at site.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Life Safety

Asset Name: Ordean - Sidewalks
Asset Number: 320c

Requirement Name	Pedestrian Paving: Sidewalks and Stairs		
Linked System	Pedestrian Paving	Inspection Date	08/01/2006
Prime System	Paving and Surfacing	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Inspec	Actual Cost	0
Action Date	08/01/2007	Total Estimated Cost:	11,800
Funding Year	-	Funding Type	-
Requirement	Sidewalks and Stairs	Annual Energy/Ops	-
Location		Savings \$	
Savings Description	-		

REQUIREMENT DESCRIPTION

Settled portion of concrete sidewalk near basketball court. Stairs and stoop north of building needs repair. Surface runoff goes under sidewalk and stairs at exit leading to Superior Street.

PHOTOS

ACTION DESCRIPTION

Repair/Replace settled portion of sidewalk and stoop and stairs. Improve drainage near stairs north of building.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Accessibility

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Equipment and Furnishings: Accessibility		
Linked System	Equipment and Furnishings	Inspection Date	11/12/2006
Prime System	Equipment and Furnishings	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	JQP Inc.	Actual Cost	0
Action Date	11/12/2009	Total Estimated Cost:	62,083
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

This requirement includes accessibility issues related to high public use areas of the school, including auditoriums, stadiums, gymnasiums, ticket counters, and the main office. Items include: providing wheelchair viewing positions, providing access to the stage, providing an assistive listening system and lowering counters.

It also includes accessibility issues found in Specialty Areas (science labs, cooking labs, industrial arts areas, as well as the media center/library). Items include: providing accessible work stations in kitchens, providing accessible labs and lowering eyewashes.

PHOTOS



Equipment and Furnishings: Accessibility

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ACTION DESCRIPTION

Correct accessibility issues as required.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Accessibility

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Interior Construction: Accessibility		
Linked System	Interior Construction	Inspection Date	11/12/2006
Prime System	Interior Construction	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	JQP Inc.	Actual Cost	0
Action Date	11/12/2009	Total Estimated Cost:	35,825
Funding Year	-	Funding Type	-
Requirement Location	Interior	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

This requirement includes accessibility issues encountered while you move through the school. Items include: providing elevator or ramp, adding/modifying handrails (only if the level is not served by an elevator or other accessible route), widening doors, replacing door hardware, eliminating protruding hazards and all permanent room identification signage as well as directional signage (adding signs, replacing signs and relocating signs).

PHOTOS



Interior Construction: Accessibility

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ACTION DESCRIPTION

Make necessary modifications to correct accessibility issues as needed.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Accessibility

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Plumbing: Accessibility	Inspection Date	11/12/2006
Linked System	Plumbing	Finish Date	-
Prime System	Plumbing	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	JQP Inc.	Total Estimated Cost:	35,337
Action Date	11/12/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Plumbing throughout		
Savings Description	-		

REQUIREMENT DESCRIPTION

This requirement includes accessibility issues in toilet rooms, locker/shower rooms and drinking fountains. All requirements for upgrading a toilet or locker/shower room are included in this category, even if they are not plumbing (i.e. relocating stall partitions to provide 60 in. wide stall, relocating toilet paper dispenser or grab bars, etc.). Items include: replacing drinking fountains, raising/lowering toilets, installing grab bars, relocating toilet paper or towel dispensers, adding handheld shower wands, and providing 60 in. wide fully compliant toilet stalls.

Note: the actual cost to complete work in toilet rooms may be increased by a decision to do work beyond what is required for accessibility, such as re-tiling, replacing all fixtures, replacing all stall partitions, etc.

PHOTOS



Plumbing: Accessibility

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ACTION DESCRIPTION

Upgrades as needed to meet plumbing accessibility requirements.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Accessibility

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Site Improvements: Accessibility		
Linked System	Site Improvements	Inspection Date	11/12/2006
Prime System	Site Improvements	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	JQP Inc.	Actual Cost	0
Action Date	11/12/2009	Total Estimated Cost:	3,040
Funding Year	-	Funding Type	-
Requirement Location	Exterior	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

This requirement includes accessibility issues from the moment you are on school grounds until you get to the front door. Items include: adding and identifying accessible parking and adding or modifying accessible routes (sidewalks).

PHOTOS

ACTION DESCRIPTION

Correct exterior accessibility issues as required.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Accessibility

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Superstructure: Construct Unisex Toilet Rooms		
Linked System	Partitions	Inspection Date	09/01/2006
Prime System	Partitions	Finish Date	-
Priority	6- Does Not Meet Current Codes/Standards	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	-	Total Estimated Cost:	59,000
Funding Year	-	Funding Type	-
Requirement Location	Ground, First, Second Floors	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Partially ADA complying toilet facilities (stalls) exits on 3 floors. Fully complying room conversions of existing rooms may not be possible. Therefore, construct new unisex rooms.

PHOTOS

ACTION DESCRIPTION

Construct a new ADA compliant unisex toilet room on each of 3 floors.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC - Add Ventilation and Replace Wood Shop Dust Collector and Upgrade Shop Hood Exhaust		
Linked System	Air Distribution Systems	Inspection Date	07/25/2006
Prime System	Air Distribution Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	07/25/2009	Total Estimated Cost:	227,150
Funding Year	-	Funding Type	-
Requirement Location	Wood Working and Sheet Metal - 1956 Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The dust collector for the wood shop is 50 years old and is beyond it's recommended useful life. The exhaust duct is located above grade and is need of repair. In addition, make up air is not being supplied to the wood shop as required by the 2000 International Mechanical Code.

The soldering area in the metal shop need the addition of exhaust hoods. Make up air is not being supplied as required by the International Mechanical Code.

The classroom unit ventilators serving these area are not capable of providing 2000 International Mechanical Code required ventilation air.

PHOTOS



HVAC - Add Ventilation and Replace Wood Shop Dust Collector and Upgrade Weld Hood Exhaust

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ACTION DESCRIPTION

Replace the wood shop dust exhaust system with a new re-circulating dust collector and pipe the exhaust duct overhead.

All Costs in USD.

Install new capture type solder exhaust stations and install new exhaust fans.

Install a new air handling unit for the wood shop and an new air handling unit for the sheet metal area.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC - Dehumidification Chiller and Piping Mains		
Linked System	Chilled Water Distribution	Inspection Date	06/28/2006
Prime System	Chilled Water Distribution	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	-	Total Estimated Cost:	472,826
Funding Year	-	Funding Type	-
Requirement Location	All Floors - Entire Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Ordean Middle School has no means of dehumidification, other than the office and boys club area. Without de-humidification capabilities, these spaces cannot meet ASHRAE 55-1992 space design conditions.

PHOTOS



HVAC - Dehumidification Chiller and Piping Mains

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ACTION DESCRIPTION

Addition of an air cooled chiller, pumps, and insulated chilled water pipe distribution system. Chiller to be screened for appearance purposes.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Pool Unit Replacement along with an Automatic Pool Cover		
Linked System	Air Distribution Systems	Inspection Date	07/18/2006
Prime System	Air Distribution Systems	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	07/18/2012	Total Estimated Cost:	354,000
Funding Year	-	Funding Type	-
Requirement Location	Pool	Annual Energy/Ops Savings \$	5,818
Savings Description	Pool cover saving heat and evaporation losses from pool. The pool area also required less ventilation when the pool is covered which results in additional savings. A sensible heat exchanger recovers heat from exhaust to preheat air during the winter. Additional energy will be consumed during the cooling season when mechanical dehumidification is required.		

REQUIREMENT DESCRIPTION

Install an automatic pool cover to save energy when the pool is not occupied during the nights or parts of weekends. Replace pool unit with a new dehumidification unit that recovers exhaust heat and has VFD controls to reduce ventilation rates based on space humidity and temperature levels when the pool is covered.

PHOTOS



HVAC: Pool Unit Replacement along with an Automatic Pool Cover

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ACTION DESCRIPTION

Replace the pool air handling unit with a pool dehumidification unit. This will help maintain acceptable temperature and humidity.

All Costs in USD.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Provide Negative Pressure in Crawlspace/Tunnels		
Linked System	Exhaust Ventilation Systems	Inspection Date	07/15/2006
Prime System	Exhaust Ventilation Systems	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	07/15/2007	Total Estimated Cost:	27,494
Funding Year	-	Funding Type	-
Requirement Location	1956 and 1992 Crawlspace/Tunnel	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The tunnels have concrete floors and if not under negative pressure can transfer odors to the floors above due to the pipe and duct penetrations. The tunnels are also present opportunity for mold growth.

PHOTOS



HVAC: Provide Negative Pressure in Crawlspace/Tunnels

ACTION DESCRIPTION

Install exhaust fans and outdoor air intakes as required to ventilate tunnels, as well as maintain negative pressure.

Two Locations 1956 and 1992 Additions.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Replace Classroom Unit Ventilators		
Linked System	Air Distribution Systems	Inspection Date	07/12/2006
Prime System	Air Distribution Systems	Finish Date	-
Priority	6- Does Not Meet Current Codes/Standards	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	-	Total Estimated Cost:	2,082,818
Funding Year	-	Funding Type	-
Requirement Location	1956 and 1992 Addition	Annual Energy/Ops Savings \$	1,054
Savings Description	Energy savings will be generated by using heat exchangers to recover exhaust air energy in order to pre-condition make-up air. In addition, each classroom occupancy controls will reduce ventilation rates and control the lighting to save energy when rooms are not in use. Additional energy will be consumed to provide dehumidification during the cooling months.		

REQUIREMENT DESCRIPTION

The thirty three (33) classroom unit ventilators are not capable of meeting current ASHRAE indoor air quality standards.

In addition classrooms have had walls added and some of the spaces have no means of ventilation. This does not meet 2000 International Mechanical Code. As part of this upgrade, the new mechanical system will incorporated heat recovery and classroom occupancy / CO2 controls to save energy.

PHOTOS



HVAC: Replace Classroom Unit Ventilators

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ACTION DESCRIPTION

All Costs in USD.

Remove existing classroom unit ventilators, patch wall to match existing. Replace with modern ventilation system with energy recovery with dehumidification, duct distribution system, and variable air volume boxes with hot water reheat coils and hot water finned tube radiation on exterior walls. Upgrade the controls systems to DDC and commission the new system.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Replace Ventilation in the Gym/Auditorium/Cafeteria / Locker Room Areas.		
Linked System	Air Distribution Systems	Inspection Date	07/11/2006
Prime System	Air Distribution Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	07/11/2009	Total Estimated Cost:	590,000
Funding Year	-	Funding Type	-
Requirement Location	Gymnasium/Auditorium/Cafeteria in 1958 Building	Annual Energy/Ops Savings \$	3,042
Savings Description	Energy savings will be generated by reducing the fan cfm and OA ventilation during part load operation utilizing variable speed drives and CO2 controls as well as recovering heat from the locker room exhaust. Additional energy will be consumed during the cooling season to provide dehumidification.		

REQUIREMENT DESCRIPTION

The air handling systems serving the auditorium and cafeteria and music practice rooms are 50 years old and have exceed their recommended service life. As part of the upgrade the air handling units will come with variable speed drive and CO2 controls to reduce ventilation rates during part load operation as well as a heat recovery unit for the locker room.

PHOTOS



HVAC: Replace Ventilation in the Gym/Auditorium/Cafeteria Areas

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ACTION DESCRIPTION

Addition of three new air handling units. One to serve the Auditorium, and one to serve the Cafeteria, one to serve the music practice rooms. Installation of new external insulated supply duct systems. Upgrade Controls System. Test and *All Costs in USD.*

Balance and Commissioning of air handling units.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

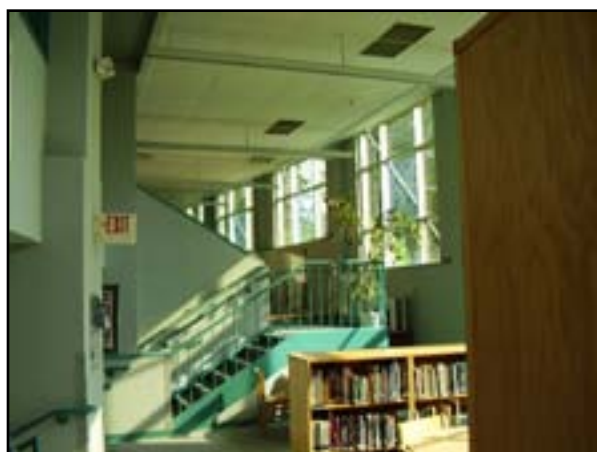
Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Add Dehumidification 1992 and 1994 Units		
Linked System	Cooling Generating Systems	Inspection Date	06/28/2006
Prime System	Cooling Generating Systems	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	-	Total Estimated Cost:	690,831
Funding Year	-	Funding Type	-
Requirement Location	Media Center and Surrounding Classrooms and Science Classrooms - 1992 and 1994 Addition/Remodel Area	Annual Energy/Ops Savings \$	1,054
Savings Description	Energy savings will be generated by using heat exchangers to recover exhaust air energy in order to pre-condition make-up air. In addition, each classroom occupancy controls will reduce ventilation rates and control the lighting to save energy when rooms are not in use. Additional energy will be consumed to provide dehumidification during the cooling months.		

REQUIREMENT DESCRIPTION

The seven air handling systems serving the 1992 and 1994 addition/remodel Area have no means of dehumidification. Without de-humidification capabilities, these spaces cannot meet ASHRAE 55-1992 space design conditions. As part of this upgrade, the new mechanical system will incorporated heat recovery and classroom occupancy / CO2 controls to save energy.

PHOTOS



HVAC: Add Dehumidification 1992 and 1994 Units

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ACTION DESCRIPTION

All Costs in USD.

Addition of dehumidification coils to the existing unit via modification and internal closed cell AHU liner. Installation of external duct insulation, new acoustical ceiling tile, lighting removal and re-installation or new lights where required. Variable Air Volume box installation. Rezone ductwork where required. Upgrade Controls System to DDC. Test and Balance and Commissioning of entire system.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Air and Water Quality

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Plumbing: Replace Galvanized Domestic Water Piping		
Linked System	Domestic Water Distribution	Inspection Date	06/28/2006
Prime System	Domestic Water Distribution	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	06/28/2007	Total Estimated Cost:	360,962
Funding Year	-	Funding Type	-
Requirement Location	Building Wide - Except for 1992 and 1994 Additions	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The 50 year old domestic water distribution piping consists of galvanized piping which is connected together via lead based solder. Current flushing procedures have maintained lead levels at an acceptable level. As the piping continues to age, this may not be possible.

PHOTOS



Plumbing: Replace Galvanized Domestic Water Piping

ACTION DESCRIPTION

Remove all the remaining galvanized domestic water distribution piping as well as faucets and fixtures containing lead solder. Install insulated copper piping and fixtures/faucets where required. Wall cutting and patching would be required.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Ceiling Finishes: Replace 12x12 Acoustical Tile		
Linked System	Ceiling Finishes	Inspection Date	08/29/2006
Prime System	Ceiling Finishes	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2012	Total Estimated Cost:	109,106
Funding Year	-	Funding Type	-
Requirement Location	Ground Floor Rooms: G3, G4, G5, G6, G13, G15, G17, Boys and Girls Locker, Cafeteria, Kitchen, G19, First Floor Rooms: 101, 102, 103, 105, Main Office, Nurse, Work Rooms, Principal, 115, 146, 148, 150, Band Storage, Second Floor Rooms: 201, 202, 203, 205, 206, 213, 215, 217, 218,	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

12x12 adhesive applied acoustical tile exists. It is beyond rated life and less effective than suspended acoustical tile.

PHOTOS



Ceiling Finishes: Replace 12x12 Acoustical Tile

ACTION DESCRIPTION

Replace existing 12x12 adhesive applied acoustical tile with 2x2 suspended acoustical tile. 23,800 S.F.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Equipment & Furnishings: Replace Wood Casework		
Linked System	Equipment and Furnishings	Inspection Date	08/29/2006
Prime System	Equipment and Furnishings	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2009	Total Estimated Cost:	156,551
Funding Year	-	Funding Type	-
Requirement Location	Rooms 202, 204, 237, 243, 104	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing wood casework is unsightly. Sewing 104 requires new plastic laminate tops. Miscellaneous casework throughout is in need of new plastic laminate countertops.

PHOTOS



Equipment and Furnishings: Replace Wood Casework

-



Equipment and Furnishings: Replace Wood Casework

-

ACTION DESCRIPTION

Refinish existing wood casework and replace plastic laminate countertops as required.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Fittings: Replace Toilet Partitions	Inspection Date	08/29/2006
Linked System	Fittings	Finish Date	-
Prime System	Fittings	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	14,750
Action Date	08/29/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Boys and Girls toilet rooms (3 floors)		
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing toilet partitions are old wood and metal.

PHOTOS



Fittings: Replace Toilet Partitions

-

ACTION DESCRIPTION

Replace existing wood and metal toilet partitions with new plastic laminate. 15 stalls.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Floor Finishes: Replace Carpet		
Linked System	Floor Finishes	Inspection Date	08/29/2006
Prime System	Floor Finishes	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2009	Total Estimated Cost:	131,263
Funding Year	-	Funding Type	-
Requirement Location	Ground Floor Rooms: G5, G13, G15, G17, G19, Library, Computer Room, Work Room, First Floor Rooms: 103, 105, Main Office, Principal Offices, 117, 119, Second Floor Rooms: 205, 215, 217, 219, 221, 223, 227, 229, 231, Resource	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Carpet, in general, is exhibiting wear.

PHOTOS



Floor Finishes: Replace Carpet

-

ACTION DESCRIPTION

Replace existing carpet with new. Approximately 17900 S.F.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Interior Doors: Replace Wood Classroom Doors		
Linked System	Interior Doors	Inspection Date	08/29/2006
Prime System	Interior Doors	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2009	Total Estimated Cost:	124,785
Funding Year	-	Funding Type	-
Requirement Location	Classroom (Corridors)	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Classroom doors are generally surface damaged, old and unsightly.

PHOTOS



Interior Doors: Replace Wood Classroom Doors

ACTION DESCRIPTION

Replace classroom entry doors with new solid core wood.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Site Improvements: General Landscaping	Inspection Date	10/03/2006
Linked System	Site Improvements	Finish Date	-
Prime System	Site Improvements	Status	Open
Priority	2- Potentially Critical (1-2 Yrs)	Actual Cost	0
Inspector Name	Northern Lights Landscaping	Total Estimated Cost:	6,688
Action Date	10/03/2007	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Property around facility		
Savings Description	-		

REQUIREMENT DESCRIPTION

There are negative slope areas around the facility bringing drainage towards the facility instead of away from the facility. There are lawn areas around the immediate building requiring restoration.

PHOTOS

ACTION DESCRIPTION

Correct negative slope around foundations by installing soil and sod. Restore lawn at stressed and/or non existing lawn areas around immediate building by installing soil and sod.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Wall Finishes: Auditorium Interior Paint		
Linked System	Wall Finishes	Inspection Date	08/29/2006
Prime System	Wall Finishes	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2012	Total Estimated Cost:	17,228
Funding Year	-	Funding Type	-
Requirement Location	Auditorium	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Paint in auditorium is dated. (Including ceiling.)

PHOTOS



Wall Finishes: Auditorium Interior Paint

-

ACTION DESCRIPTION

Repaint auditorium walls and ceiling.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Appearance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Wall Finishes: Interior Paint	Inspection Date	08/29/2006
Linked System	Wall Finishes	Finish Date	-
Prime System	Wall Finishes	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	232,139
Action Date	08/29/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Classroom, offices		
Savings Description	-		

REQUIREMENT DESCRIPTION

Paint finishes are exhibiting wear and are/will be in need of refreshment.

PHOTOS



Wall Finishes: Interior Paint

-

ACTION DESCRIPTION

Repaint classrooms and offices as part of routine maintenance.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Asbestos

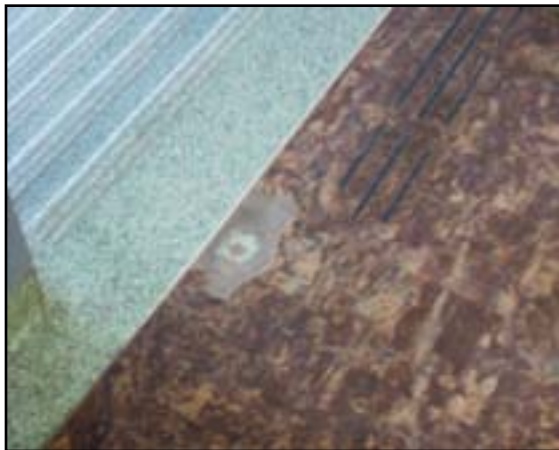
Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Floor Finishes: Replace VAT	Inspection Date	09/01/2006
Linked System	Floor Finishes	Finish Date	-
Prime System	Floor Finishes	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	273,170
Action Date	09/01/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Ground Floor Rooms: Girls Locker Storage, Cafeteria, Kitchen, Corridors, First Floor Rooms: 102, 104, Main Office Work and Nurse, 123, 125, 126, 127, 128, 129, 131, 130, 132, 134, 136, 138, 140, Corridors, 2nd Floor Rooms: 201, 202, 203, 204, 213, 218, Corridors		
Savings Description	-		

REQUIREMENT DESCRIPTION

VAT (Vinyl Asbestos Tile) exists throughout building. Generally beyond rated life.

PHOTOS



Floor Finishes: Replace VAT

-

ACTION DESCRIPTION

Replace existing VAT with VCT. 27,800 S.F.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Asbestos

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Hazardous Components: Abatement	Inspection Date	07/01/2006
Linked System	Hazardous Components Abatement	Finish Date	-
Prime System	Hazardous Components Abatement	Status	Open
Priority	1- Currently Critical (Immediately)	Actual Cost	0
Inspector Name	Wormuth, Kevin	Total Estimated Cost:	68,015
Action Date	07/01/2006	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Entire Facility		
Savings Description	-		

REQUIREMENT DESCRIPTION

This facility was built when asbestos was a common component of many building materials. The majority of asbestos in this facility was part of the insulating materials. Some has been abated, but in some areas it is still present.

PHOTOS

ACTION DESCRIPTION

Abatement of asbestos containing materials throughtout facility.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Aquatic Facilities: Filtration System		
Linked System	Aquatic Facilities	Inspection Date	10/08/2006
Prime System	Aquatic Facilities	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	USAquatics	Actual Cost	0
Action Date	-	Total Estimated Cost:	54,516
Funding Year	-	Funding Type	-
Requirement	Pool	Annual Energy/Ops	-
Location		Savings \$	
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing filtration system is a diatomaceous earth (DE) filter. The DE filter is a waste media filter since you must continuously buy DE. Depending on the bather load, the filters are backwashed weekly. DE has been found to be a carcinogen by several testing agencies. Its handling characteristics are similar to asbestos. When wetted it can be handled safely, when it is a dry dust it can be inhaled into the lungs. There has been a trend nationally away from DE filters because of operational costs and health concerns. The filter is being backwashed down the sewer. In many jurisdictions, DE is considered a hazardous waste and must be separated from the water during the backwash process with the DE material being sent to the proper disposal sites. The DE system used requires dual pumps and a governor valve. Flooding is always a possibility and two pumps require twice the power of a single pump system.

PHOTOS



Aquatic Facilities: Filtration System

-

ACTION DESCRIPTION

Install a high rate pressure sand filter system and add backwash retention capability. Pressure sand filters are a permanent media filter, which are more efficient to operate than other types of filters. Backwashing the filters take approximately 10 minutes per filter as compared to several hours for the DE filter. When proper sizing methods are used and the correct type of filter is specified, filtration effectiveness comparable to DE can be achieved without the associated dangers. The filters are also non-metallic, so rusting will not be an issue. Since backwashing is a process of reversing flow in the filter, the only

All Costs in USD.

elements going to waste are pool water and organics.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Electrical Distribution: Outdated Switchgear & Panels		
Linked System	Electrical Service and Distribution	Inspection Date	09/12/2006
Prime System	Electrical Service and Distribution	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	-	Total Estimated Cost:	37,170
Funding Year	-	Funding Type	-
Requirement Location	Equipment Rooms	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Some existing panels and distrubtion switchgear is outdated making it difficult to find replacement parts for and to maintain.

PHOTOS



Electrical Distribution: Outdated Gear

-

ACTION DESCRIPTION

New panels and distribution switchgear will replace outdated panels and gear. The new panels and gear will be easier to find parts for and to maintain.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Equipment and Furnishings: Replace Auditorium Seating		
Linked System	Equipment and Furnishings	Inspection Date	08/29/2006
Prime System	Equipment and Furnishings	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2009	Total Estimated Cost:	309,249
Funding Year	-	Funding Type	-
Requirement Location	Auditorium	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Original Auditorium seats are in fair to poor condition, with repair parts not available. Replace seats. Four rows of seats have been replaced.

PHOTOS



Equipment and Furnishings: Replace Auditorium Seating

-

ACTION DESCRIPTION

Remove existing seats and replace with new.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Heating System Conversion - Steam to Hot Water		
Linked System	Steam Distribution Systems	Inspection Date	06/28/2006
Prime System	Steam Distribution Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	06/28/2009	Total Estimated Cost:	458,430
Funding Year	-	Funding Type	-
Requirement Location	All Floors - Entire Building Except for 1994 Addition	Annual Energy/Ops Savings \$	10,666
Savings Description	Energy savings generated from converting from a steam system with old boilers to a how water system that includes condensing style boiler(s).		

REQUIREMENT DESCRIPTION

The steam system (50 years old) has exceeded the recommended useful life. A steam system requires substantially more maintenance than a modern hot water heating system due to steam traps, condensate pumps, and chemical treatment.

PHOTOS



HVAC: Heating System Conversion - Steam to Hot Water

-

ACTION DESCRIPTION

Install new high efficiency hot water condensing boilers and hot water piping system. Retrofit the small steam boiler to hot water and utilize for interruptible fuel rates. Replace all steam terminal heating devices and coils with hot water devices and coils.

All Costs in USD.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Lighting Equipment: Occupancy Sensors		
Linked System	Lighting Equipment	Inspection Date	09/19/2006
Prime System	Lighting Equipment	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Ruud, Mark	Actual Cost	0
Action Date	09/19/2012	Total Estimated Cost:	12,976
Funding Year	-	Funding Type	-
Requirement	Classrooms	Annual Energy/Ops	-
Location		Savings \$	
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing classroom occupancy sensors are single technology sensors and will need replacement in the mid term future. Dual technology sensors offer improved performance.

PHOTOS

ACTION DESCRIPTION

Remove and replace existing classroom occupancy sensors with dual technology occupancy sensors.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Plumbing: Replace Underground Sanitary Sewer Lines		
Linked System	Plumbing	Inspection Date	11/29/2006
Prime System	Plumbing	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	-	Total Estimated Cost:	206,500
Funding Year	-	Funding Type	-
Requirement Location	All Building Areas 35 Years or Older	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Underground sanitary sewer lines require replacement due to tree roots, pipe degradation, and pipe damage due to ground shifting over time.

PHOTOS

ACTION DESCRIPTION

Replace the underground sanitary sewer lines with new.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Roof System: Replace Roof	Inspection Date	08/01/2006
Linked System	Roofing	Finish Date	-
Prime System	Roofing	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	42,721
Action Date	08/01/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	65
Requirement Location	Media Center		
Savings Description	Energy savings generated from improved roof insulation.		

REQUIREMENT DESCRIPTION

Roof system beyond rated service life. Includes roof Area 5.

PHOTOS

ACTION DESCRIPTION

Replace the ballasted EPDM roof in this area.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Roof System: Replace Roof	Inspection Date	08/01/2006
Linked System	Roofing	Finish Date	-
Prime System	Roofing	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	97,024
Action Date	08/01/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	149
Requirement Location	North Classrooms		
Savings Description	Energy savings generated from improved roof insulation.		

REQUIREMENT DESCRIPTION

Roof system beyond rated service life. Includes roof Area 4.

PHOTOS

ACTION DESCRIPTION

Replace ballasted EPDM roof in this area.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Roof System: Replace Roof	Inspection Date	08/01/2006
Linked System	Roofing	Finish Date	-
Prime System	Roofing	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	233,640
Action Date	08/01/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	357
Requirement Location	South Classrooms		
Savings Description	Energy savings generated from improved roof insulation.		

REQUIREMENT DESCRIPTION

Roof system beyond rated service life. Includes roof Area 1 (partial).

PHOTOS



Roof System: Replace Roof

-

ACTION DESCRIPTION

Replace the built-up roof in this area. Note: the pool/gym roof is contiguous with this area and should be reroofed concurrently.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Roof System: Replace Roof	Inspection Date	08/01/2006
Linked System	Roofing	Finish Date	-
Prime System	Roofing	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	212,400
Action Date	08/01/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	324
Requirement Location	Pool/Gym		
Savings Description	Energy savings generated from improved roof insulation.		

REQUIREMENT DESCRIPTION

Roof system beyond rated service life. Includes roof Area 1 (partial).

PHOTOS



Roof System: Replace Roof

-

ACTION DESCRIPTION

Replace the built-up roof on this area. Note: the south classroom roof area is contiguous with this area and should be reroofed concurrently.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Roof System: Replace Roof	Inspection Date	08/01/2006
Linked System	Roofing	Finish Date	-
Prime System	Roofing	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	105,534
Action Date	08/01/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	162
Requirement Location	Music Wing		
Savings Description	Energy savings generated from improved roof insulation.		

REQUIREMENT DESCRIPTION

Roof system beyond rated service life. Includes roof Area 2.

PHOTOS



Roof System: Replace Roof

-

ACTION DESCRIPTION

Replace the built-up roof in this area. Sequence work with roof-level wall restoration.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Roof System: Replace Roof	Inspection Date	08/01/2006
Linked System	Roofing	Finish Date	-
Prime System	Roofing	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	54,186
Action Date	08/01/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Field House		
Savings Description	-		

REQUIREMENT DESCRIPTION

Roof system beyond useful life.

PHOTOS



Roof System: Replace Roof

-

ACTION DESCRIPTION

Replace the 3-tab shingle roof on this building. Sequence work with roof-level wall restoration.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Beyond Rated Life

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Site Furnishings: Playground Upgrade / Replacement		
Linked System	Site Furnishings	Inspection Date	10/03/2006
Prime System	Site Furnishings	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Earl F. Anderson	Actual Cost	0
Action Date	10/03/2009	Total Estimated Cost:	60,074
Funding Year	-	Funding Type	-
Requirement Location	Facility Grounds	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Playground equipment was built in 1994. The equipment does not match age group. There is exposed concrete in play area. There is an ADA component, but it is in the wrong spot.

PHOTOS



Site Furnishings: Playground Upgrade / Replacement

-

ACTION DESCRIPTION

Replace existing playground with new equipment to meet needs of enrollment. Replace surface material with district standard and replace edging as needed.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Building Code

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Elevators and Lifts: Elevator Repair		
Linked System	Elevators and Lifts	Inspection Date	08/28/2006
Prime System	Elevators and Lifts	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schindler Elevator Corp.	Actual Cost	0
Action Date	08/28/2007	Total Estimated Cost:	64,381
Funding Year	-	Funding Type	-
Requirement Location	South Classrooms	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Work required falls into three categories: Code Compliance A17.3, Life Safety Issues and Product Upgrades.

PHOTOS

ACTION DESCRIPTION

Upgrade elevators for code compliance, life safety issues and product upgrades.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Building Code

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Add Exhaust Hood to Dishwasher	
Linked System	Exhaust Ventilation Systems	Inspection Date 06/28/2006
Prime System	Exhaust Ventilation Systems	Finish Date -
Priority	6- Does Not Meet Current Codes/Standards	Status Open
Inspector Name	Schumacher, Russ	Actual Cost 0
Action Date	-	Total Estimated Cost: 16,520
Funding Year	-	Funding Type -
Requirement Location	Kitchen 1956 Building	Annual Energy/Ops Savings \$ -
Savings Description	-	

REQUIREMENT DESCRIPTION

The existing dishwasher does not have an exhaust hood as required by the 2000 International Mechanical Code. Exhausting the dishwasher steam is critical in maintaining proper indoor air quality in the kitchen.

PHOTOS



HVAC: Add Exhaust Hood to Dishwasher

-

ACTION DESCRIPTION

Add a Type II hood and dishwasher exhaust fan with the required externally insulated aluminum ductwork. Installation to comply with the 2000 International Mechanical Code.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Building Code

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Replace Kitchen Grease Exhaust Hood / Add Kitchen Make Up Air		
Linked System	Exhaust Ventilation Systems	Inspection Date	07/12/2006
Prime System	Exhaust Ventilation Systems	Finish Date	-
Priority	6- Does Not Meet Current Codes/Standards	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	-	Total Estimated Cost:	135,700
Funding Year	-	Funding Type	-
Requirement Location	Kitchen - 1956 Addition	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing grease exhaust hood has been written up as a non compliant hood by the State Fire Marshall. This hood needs to be replaced with a code compliant grease exhaust hood and fan.

In addition, the kitchen does not have a dedicated make up air unit. Make up air for the kitchen hood is required by the 2000 International Mechanical Code.

PHOTOS



HVAC: Replace Kitchen Grease Exhaust Hood / Add Kitchen Make Up Air

-

ACTION DESCRIPTION

Replace the existing grease exhaust hood and fan and grease duct with 2000 International Mechanical Code compliant kitchen grease hood exhaust system.

Add a dedicated make up air unit with dehumidification.

This will require ductwork up two floors.

All Costs in USD.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Capacity

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Electrical Distribution: Insufficient Capacity		
Linked System	Electrical Service and Distribution	Inspection Date	09/12/2006
Prime System	Electrical Service and Distribution	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	09/12/2009	Total Estimated Cost:	40,710
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing Branch Panels are lacking capacity for additional circuits. Panels must be added to accommodate circuits needed for additional receptacles in classrooms. A new distribution panel will also be required to feed new branch panels.

PHOTOS



Electrical Distribution: Insufficient Capacity

-

ACTION DESCRIPTION

Provide two new 200 amp feeders and panels along with a 600A distribution panel to help carry the extra load of additional receptacles throughout the building.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Capacity

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Fittings: Add New Lockers	Inspection Date	08/29/2006
Linked System	Fittings	Finish Date	-
Prime System	Fittings	Status	Open
Priority	5- Recommendations/ Improvements	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	85,137
Action Date	-	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Entire Building		
Savings Description	-		

REQUIREMENT DESCRIPTION

Building is short of lockers based on student population.

PHOTOS



Fittings: Add New Lockers

-

ACTION DESCRIPTION

Add new lockers to school

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Capacity

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Add Cooling Capability to Computer Lab and IT Data Rooms		
Linked System	Cooling Generating Systems	Inspection Date	07/11/2006
Prime System	Cooling Generating Systems	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	07/11/2007	Total Estimated Cost:	169,566
Funding Year	-	Funding Type	-
Requirement Location	IT Data Rooms Located by Metal Shop Room G3 and Media Center Room 119 - 1956 Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The Computer Room and IT Data rooms get hot, which could cause technology equipment failure.

PHOTOS



HVAC: Add Cooling Capability to IT Data Rooms

ACTION DESCRIPTION

Provide a fan coil with a DX cooling coil and full economizer capability to utilize free cooling when outdoor conditional allow.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Capacity

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Wiring Devices: Insufficient Receptacles		
Linked System	Branch Wiring Devices	Inspection Date	09/12/2006
Prime System	Branch Wiring Devices	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	09/12/2009	Total Estimated Cost:	119,888
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

In general, classrooms have an insufficient number of receptacles. Computers and other electronics are plugged into power strips due to the lack of receptacles. This limits future addition of electronic devices and presents a fire hazard.

PHOTOS



Wiring Devices: Insufficient Receptacles

-

ACTION DESCRIPTION

Provide six eight additional 20 amp receptacle per classroom and associated branch wiring. Upgrade will first require additional branch panel boards and service modifications.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Aquatic Facilities: Pool inlets and grout		
Linked System	Aquatic Facilities	Inspection Date	10/08/2006
Prime System	Aquatic Facilities	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	USAquatics	Actual Cost	0
Action Date	10/08/2007	Total Estimated Cost:	36,863
Funding Year	-	Funding Type	-
Requirement	Pool	Annual Energy/Ops	-
Location		Savings \$	
Savings Description	-		

REQUIREMENT DESCRIPTION

The inlet grates (by Josam) are no longer made and the grates cannot be replaced. The inlets fittings should be replaced with a different model to facilitate easier repair and replacement in the future. The inlet piping surrounding the pool that feeds the inlets should be a complete loop in order to equalize the pressure in the pipe and evenly distribute filtered and disinfected water to the pool. Inlets are required to be adjustable.

The pool tile must be re-grouted in order to preclude the delaminating of the tile from the pool shell. The tile is cracked in several locations. A thick black tar like substance is entering the pool through the tile.

PHOTOS



Aquatic Facilities: Pool inlets and grout

-

ACTION DESCRIPTION

Complete inlet pipe loop. Replace inlet fittings with adjustable eyeball fittings. Repalce inlet piping through pool wall. Re-grout pool.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Exterior Walls: Grade-Level Wall Restoration		
Linked System	Exterior Walls	Inspection Date	08/01/2006
Prime System	Exterior Walls	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Inspec	Actual Cost	0
Action Date	08/01/2009	Total Estimated Cost:	436,600
Funding Year	-	Funding Type	-
Requirement Location	Entire Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Deteriorated grade-level walls around the building perimeter.

PHOTOS



Exterior Walls: Grade-Level Wall Restoration

ACTION DESCRIPTION

Tuck pointing, spot brick replacement, spot glass block replacement, joint sealant replacement, EIFS repair, and misc. items.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Exterior Walls: Roof-Level Wall Restoration		
Linked System	Exterior Walls	Inspection Date	08/01/2006
Prime System	Exterior Walls	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Inspec	Actual Cost	0
Action Date	08/01/2007	Total Estimated Cost:	70,800
Funding Year	-	Funding Type	-
Requirement Location	Music Wing and Auditorium	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Deteriorated roof-level walls and chimney at roof Areas 2 and 3.

PHOTOS



Exterior Walls: Roof-Level Wall Restoration

-

ACTION DESCRIPTION

Tuck pointing, spot brick replacement, and new chimney cap. Sequence work with reroofing.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Exterior Walls: Wall Restoration		
Linked System	Exterior Walls	Inspection Date	08/01/2006
Prime System	Exterior Walls	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Inspec	Actual Cost	0
Action Date	08/01/2012	Total Estimated Cost:	47,200
Funding Year	-	Funding Type	-
Requirement Location	Entire Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Deteriorated roof-level and grade-level walls around building perimeter.

PHOTOS



Exterior Walls: Wall Restoration

-

ACTION DESCRIPTION

Tuck pointing, spot brick replacement, joint sealant replacement, new chimney cap. Sequence work with reroofing.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Fittings: Replace Existing Lockers	Inspection Date	08/29/2006
Linked System	Fittings	Finish Date	-
Prime System	Fittings	Status	Open
Priority	5- Recommendations/ Improvements	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	207,987
Action Date	-	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Entire Building		
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing lockers are showing age and are in various degrees of serviceability.

PHOTOS



Fittings: Replace Existing Lockers

-



Fittings: Replace Existing Lockers

-

All Costs in USD.

ACTION DESCRIPTION

Remove existing lockers and replace with new.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Fittings: Replace Stage Curtain	Inspection Date	08/29/2006
Linked System	Fittings	Finish Date	-
Prime System	Fittings	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	97,645
Action Date	08/29/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Auditorium Stage		
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing curtains are torn in many places and require new rod attachment hardware.

PHOTOS



Fittings: Replace Stage Curtain

-

ACTION DESCRIPTION

Removed existing curtains and replace with new.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

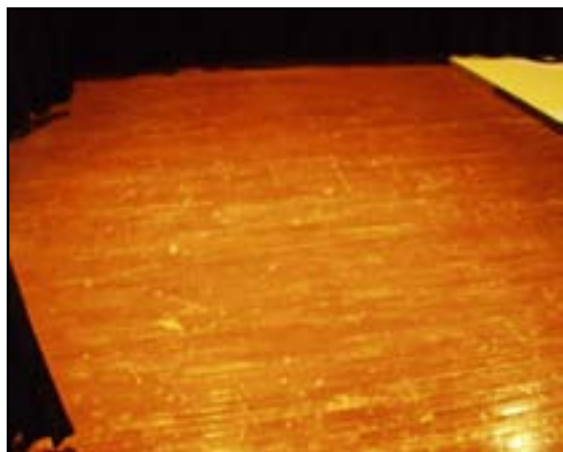
Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Floor Finishes: Refinish Hardwood Flooring		
Linked System	Floor Finishes	Inspection Date	08/29/2006
Prime System	Floor Finishes	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2012	Total Estimated Cost:	54,357
Funding Year	-	Funding Type	-
Requirement Location	Gymnasium, Auditorium Stage	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Hardwood flooring requires refinishing.

PHOTOS



Floor Finishes: Refinish Hardwood Flooring

-

ACTION DESCRIPTION

Strip, sand, and refinish hardwood flooring. Approximately 8,300 S.F.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Ductwork Cleaning	Inspection Date	11/29/2006
Linked System	Air Distribution Systems	Finish Date	-
Prime System	Air Distribution Systems	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Schumacher, Russ	Total Estimated Cost:	17,700
Action Date	11/29/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Building Wide		
Savings Description	-		

REQUIREMENT DESCRIPTION

Clean the duct systems that are not replaced by the indoor air quality upgrade.

PHOTOS

ACTION DESCRIPTION

Clean ductwork that is not replaced due to indoor air quality upgrades.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Roof System: Replace Roof	Inspection Date	08/01/2006
Linked System	Roofing	Finish Date	-
Prime System	Roofing	Status	Open
Priority	2- Potentially Critical (1-2 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	128,828
Action Date	08/01/2007	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	197
Requirement Location	Auditorium		
Savings Description	Energy savings generated from improved roof insulation.		

REQUIREMENT DESCRIPTION

Roof system is beyond rated service life. Includes roof Area 3.

PHOTOS



Roof System: Replace Roof

-

ACTION DESCRIPTION

Replace the adhered EPDM roof in this area. Sequence work with roof-level wall restoration.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Deferred Maintenance

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Superstructure: Wall Cracks	Inspection Date	08/29/2006
Linked System	Superstructure	Finish Date	-
Prime System	Superstructure	Status	Open
Priority	2- Potentially Critical (1-2 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	28,910
Action Date	08/29/2007	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Second floor upper auditorium projection rooms		
Savings Description	-		

REQUIREMENT DESCRIPTION

Walls are cracked and out of plumb. Four roof mounted air handling units are located above this wall and suspect load is causing the wall to fail. Engineering analysis is required.

PHOTOS



Superstructure: Wall Cracks

-

ACTION DESCRIPTION

Retain Structural Engineer to review severity and cause of wall cracking/ bowing. Correct source of problem and repair damaged wall.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Aquatic Facilities: Operational Upgrades		
Linked System	Aquatic Facilities	Inspection Date	11/05/2006
Prime System	Aquatic Facilities	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	USAquatics	Actual Cost	0
Action Date	11/05/2007	Total Estimated Cost:	29,335
Funding Year	-	Funding Type	-
Requirement	Pool	Annual Energy/Ops	-
Location		Savings \$	
Savings Description	-		

REQUIREMENT DESCRIPTION

REPLACE PUMP

The pump characteristics for a pressure system are different than those for a vacuum DE system.

STRAINER

The pump strainers were just replaced with dual 4" strainers on a parallel pipe installation. If and when they are replaced, we recommend the installation of a single larger strainer to reduce pressure loss and cleaning requirements.

SURGE TANK

The surge tank is an open vessel in the equipment room. This leads to corrosion of metals in the room (potable water line in particular) and the potential for flooding.

UPDATED AUTOMATED CHEMICAL CONTROLLER

A micro-processor based chemical controller with high resolution oxidation reduction potential (ORP) capabilities should be installed which can improve water chemistry, reduce maintenance requirements and save on chemical costs. These controllers are very reliable and control pool water chemistry eliminating the peaks and valleys associated with many other controllers. The chemical controller should include a memory with down load and modem capabilities. These features give the ability to store the history of the pool chemistry to protect the owner in case of liability issues, allows easier trouble shooting and is controllable from remote locations via the modem for easier management of the facility or assistance from outside parties who can download the pools data.

pH ADJUSTMENT

The Duluth school pools are unique in their chemical feed needs. Limited adjustment is required for pH control. This is unusual in that the use of gas chlorine (pH = 1) drives the pool water pH lower, generally requiring the use of caustic soda or soda ash to maintain the required pH. Due to this limited adjustment, the pool pH is maintained manually. Despite the limited adjustment necessary, it is still necessary. The installation of automatic pH adjustment chemicals will reduce the potential for peak and valley pH changes which can reduce the chlorine effectiveness.

PHOTOS



Aquatic Facilities: Operational Upgrades

-

ACTION DESCRIPTION

Replace pump and strainer.

Seal the top of the surge tank and vent accordingly.

Add pH feed equipment.

Install an updated automatic chemical controller.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Aquatic Facilities: Pool Pump VFD		
Linked System	Aquatic Facilities	Inspection Date	09/11/2006
Prime System	Aquatic Facilities	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	Ruud, Mark	Actual Cost	2,000
Action Date	09/11/2006	Total Estimated Cost:	2,360
Funding Year	-	Funding Type	-
Requirement Location	Pool Mechanical	Annual Energy/Ops Savings \$	73
Savings Description	Pool pump saving from VFD controls to reduce flow during low filter head conditions or elimination of balancing valves.		

REQUIREMENT DESCRIPTION

Install VFD on pool pump and control to maintain constant flow.

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Controls: VendingMiser Vending Machine Controls		
Linked System	Controls and Instrumentation	Inspection Date	10/03/2006
Prime System	Controls and Instrumentation	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	Ruud, Mark	Actual Cost	0
Action Date	10/03/2006	Total Estimated Cost:	2,478
Funding Year	-	Funding Type	-
Requirement Location	Vending Machines	Annual Energy/Ops Savings \$	258
Savings Description	VendingMiser controls cycle power to the vending machine during unoccupied times to save energy.		

REQUIREMENT DESCRIPTION

Install VendingMiser controls on vending machines.

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Remote Condenser Heat Removal		
Linked System	Exhaust Ventilation Systems	Inspection Date	07/12/2006
Prime System	Exhaust Ventilation Systems	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	07/12/2007	Total Estimated Cost:	3,776
Funding Year	-	Funding Type	-
Requirement Location	Kitchen - 1956 Addition	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The cooler and freezer condensers are located on top of cooler and freezer. This overheats the kitchen area.

PHOTOS



HVAC: Remote Condenser Heat Removal

-

ACTION DESCRIPTION

Add an roof exhaust fan above the condensers for summer operation and duct up through 2 floors as required.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Install a New Dehumidification Unit along with an Automatic Pool Cover		
Linked System	Aquatic Facilities	Inspection Date	09/08/2006
Prime System	Aquatic Facilities	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	Ruud, Mark	Actual Cost	0
Action Date	09/08/2006	Total Estimated Cost:	354,000
Funding Year	-	Funding Type	-
Requirement Location	Pool Area	Annual Energy/Ops Savings \$	2,458
Savings Description	Pool cover saving heat and evaporation losses from pool. The pool area also required less ventilation when the pool is covered which results in additional savings. A sensible heat exchanger recovers heat from exhaust to preheat air during the winter. Additional energy will be consumed during the cooling season when mechanical dehumidification is required.		

REQUIREMENT DESCRIPTION

Install an automatic pool cover to save energy when the pool is not occupied during the nights or parts of weekends. Replace pool unit with a new dehumidification unit that recovers exhaust heat and has VFD controls to reduce ventilation rates based on space humidity and temperature levels when the pool is covered.

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Steam System Steam Trap Upgrades		
Linked System	Steam Distribution Systems	Inspection Date	09/07/2006
Prime System	Steam Distribution Systems	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	Ruud, Mark	Actual Cost	0
Action Date	09/07/2006	Total Estimated Cost:	17,016
Funding Year	-	Funding Type	-
Requirement Location	Facility Wide	Annual Energy/Ops Savings \$	2,858
Savings Description	Heating savings attributed to leaking steam traps that result in the overheating of tunnel areas or steam venting in condensate receiver tanks.		

REQUIREMENT DESCRIPTION

- 1) Complete survey all steam traps system wide to locate failed traps.
- 2) Replace or repair of failed traps depending on trap age, condition, and availability of replacement part kits.

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Lighting: Lighting Retrofit	Inspection Date	09/20/2006
Linked System	Lighting Equipment	Finish Date	-
Prime System	Lighting Equipment	Status	Open
Priority	1- Currently Critical (Immediately)	Actual Cost	0
Inspector Name	Ruud, Mark	Total Estimated Cost:	188,415
Action Date	09/20/2006	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	8,028
Requirement Location	Entire Facility		
Savings Description	Energy savings generated through more efficient lighting technology.		

REQUIREMENT DESCRIPTION

Lighting project consists of the following:

- 1) Retrofit/Replace 34w T12 fixtures with 25w T8 lighting
- 2) Relamp 32w T8 lamps with 25w T8 lamps
- 3) Replace HID lighting with T8 lighting fixtures
- 4) Replace Incand. lighting with Fluorescent
- 5) Upgrade exit signs with LED technology
- 6) Gym Occupancy Sensors

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Plumbing - Addition of Natural Gas Water Heater		
Linked System	Plumbing	Inspection Date	07/17/2006
Prime System	Plumbing	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	-	Total Estimated Cost:	29,500
Funding Year	-	Funding Type	-
Requirement Location	Boiler Room	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The domestic hot water is currently generated by a steam to hot water heat exchanger. A natural gas water heater is desired for summer operation.

PHOTOS



Plumbing - Addition of Natural Gas Water Heater

-

ACTION DESCRIPTION

Add Natural Gas Water Heater for summer operation.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Energy and Operational Efficiency

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Plumbing: Water Conservation Upgrades		
Linked System	Plumbing Fixtures	Inspection Date	09/21/2006
Prime System	Plumbing Fixtures	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	Ruud, Mark	Actual Cost	0
Action Date	09/21/2006	Total Estimated Cost:	29,946
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	4,655
Savings Description	Reduce water and sewer usage using new low flow devices. Savings includes constant flow urinals. Savings from urinal is \$931, savings from other improvements \$3,725.		

REQUIREMENT DESCRIPTION

Replace / Retrofit standard flow flush valves and faucets with low flow devices.

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Life Safety

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Lighting Equipment: Exterior Lighting	Inspection Date	09/19/2006
Linked System	Lighting Equipment	Finish Date	-
Prime System	Lighting Equipment	Status	Open
Priority	1- Currently Critical (Immediately)	Actual Cost	0
Inspector Name	Ruud, Mark	Total Estimated Cost:	23,290
Action Date	09/19/2006	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Building Perimeter Parking		
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing exterior lighting for this facility is getting old and the light levels and coverage for adequate safety is a concern.

PHOTOS

ACTION DESCRIPTION

Replace and add exterior fixtures as needed to improve light levels and coverage. To discourage vandalism and increase occupant safety.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Life Safety

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Lighting Equipment: Stadium Lighting	Inspection Date	09/19/2006
Linked System	Lighting Equipment	Finish Date	-
Prime System	Lighting Equipment	Status	Open
Priority	1- Currently Critical (Immediately)	Actual Cost	0
Inspector Name	Ruud, Mark	Total Estimated Cost:	52,357
Action Date	09/19/2006	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Building Perimeter Parking		
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing exterior lighting for this facility is getting old and the light levels and coverage for adequate safety is a concern.

PHOTOS

ACTION DESCRIPTION

Install 14 pole lights

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Occupant Security

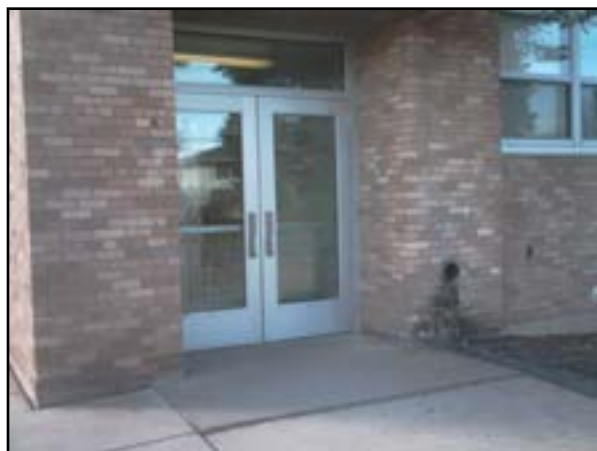
Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communication and Security: Access Control		
Linked System	Communications and Security	Inspection Date	09/20/2006
Prime System	Security and Detection Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	09/20/2009	Total Estimated Cost:	23,600
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Doors need ability to be locked down with access allowed only to authorized people. Also doors without card readers should be monitored for unauthorized access.

PHOTOS



Communication and Security: Access Control

-

ACTION DESCRIPTION

Install 6 proximity card readers at main entry doors for both public and personal
 And add magnetic door contacts to all other exterior doors on a alarm system.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Occupant Security

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communications and Security: CCTV		
Linked System	Communications and Security	Inspection Date	11/30/2006
Prime System	Communications and Security	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	11/30/2007	Total Estimated Cost:	159,253
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

There are currently no cameras located in the school. Cameras would add an increased security throughout the school which is becoming more critical.

PHOTOS

ACTION DESCRIPTION

Provide cameras throughout school. Camera locations provided by ISD 709.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Occupant Security

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Fire Alarm Systems: Outdated System		
Linked System	Fire Alarm Systems	Inspection Date	09/20/2006
Prime System	Fire Alarm Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	09/20/2009	Total Estimated Cost:	134,520
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Fire alarm systems are old analog system. System is prone to malfunctions and is very hard to identify exact area of alarm. It is also difficult to troubleshoot and find malfunctions.

PHOTOS



Fire Alarm Systems: Outdated System

-

ACTION DESCRIPTION

Replace fire system with a fully addressable fire system.
 This will allow for quick response to exact alarm device
 And allow for better maintenance and safety

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Ceiling Finishes: Replace 2x4 Acoustical Tile		
Linked System	Ceiling Finishes	Inspection Date	08/29/2006
Prime System	Ceiling Finishes	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/29/2012	Total Estimated Cost:	101,893
Funding Year	-	Funding Type	-
Requirement Location	Ground Floor Rooms: Computer Room, Library, First Floor Rooms: Main Office, 117, 119, 121, 126, 128, Second Floor Rooms: 204, 219, 221, 223, 227, 229, 231, Resource, 233, 235, 237, 243	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Future district standardization goal is to have all acoustical tile to be suspended 2x2.

PHOTOS



Ceiling Finishes: Replace 2x4 Acoustical Tile

-

ACTION DESCRIPTION

Replace 2x4 suspended Acoustical Tile with suspended 2x2 acoustical tile. Approximately 17,300 S.F.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communication and Security: Cabling Upgrade		
Linked System	Communications and Security	Inspection Date	08/16/2006
Prime System	Local Area Networks	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	The Westlund Group	Actual Cost	0
Action Date	-	Total Estimated Cost:	188,210
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing building cabling has been installed in several stages over the years and contains different categories of cabling.

PHOTOS

ACTION DESCRIPTION

Replace old and mixed telephone/data cabling with up to date category 6 of 6A. Add basic wireless coverage. Add high bandwidth Fiber Optic Cabling between wiring closets. Standardize quantity of phone and data in classroom and offices.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communication and Security: Clock System		
Linked System	Communications and Security	Inspection Date	09/20/2006
Prime System	Clock and Program Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	09/20/2009	Total Estimated Cost:	33,040
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Master clock systems no longer keep clocks in time. Most are only used for running the bells. Atomic clocks may not receive a signal through the brick buildings. Many clocks do not work at all.

PHOTOS



Communication and Security: Clock System

-

ACTION DESCRIPTION

Install new wireless master clock system. The main clock receives the GPS signal for exact time and then sends signal to other clocks in facility. This will allow for accurate time and less tardiness between classes.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communication and Security: Public Address and Sound System		
Linked System	Communications and Security	Inspection Date	09/20/2006
Prime System	Intercommunication and Paging System	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	09/20/2009	Total Estimated Cost:	33,040
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

PA system is 25+ years old but is still functional.
 There are no speakers located in hallways or commons areas.

PHOTOS



Communication and Security: Public Address and Sound System
 -

ACTION DESCRIPTION

Update paging head end with new system and amplifier
 And install speakers where needed.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communication and Security: Telephone System Upgrade		
Linked System	Communications and Security	Inspection Date	08/16/2006
Prime System	Telephone Systems	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	The Westlund Group	Actual Cost	0
Action Date	08/16/2006	Total Estimated Cost:	5,841
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The telephone system should be upgraded to the new District standard of CISCO VOIP. The telephone system should include port for access to the Paging/Intercom system. The Paging/Intercom system should be modified to allow access from the new telephone system.

PHOTOS

ACTION DESCRIPTION

Install a new CISCO phone system. Add paging interface. Remove old system after installation of new.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communication and Security: Video/TV Distribution Upgrade		
Linked System	Communications and Security	Inspection Date	08/16/2006
Prime System	Television Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	The Westlund Group	Actual Cost	0
Action Date	08/16/2009	Total Estimated Cost:	41,536
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Analog Broadcast TV Signals are required by the FCC to be turned off in the Spring of 2009.

PHOTOS

ACTION DESCRIPTION

Install new TV Distribution System capable of digital signals in all classrooms and administrative areas as required.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Communications and Security: Sound Systems, Auditorium Control Booth Upgrades		
Linked System	Communications and Security	Inspection Date	08/15/2006
Prime System	Classroom Sound Systems	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	The Westlund Group	Actual Cost	0
Action Date	08/15/2007	Total Estimated Cost:	345,150
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

There are little or no Audio Enhancement systems in the Classrooms. The Auditorium Sound System is not working and control booth components need upgrades (video/projection). The Gym Sound System is not working as well. Site borrows a small portable Sound System from the PTA.

PHOTOS

ACTION DESCRIPTION

- Add audio enhancement systems to Classrooms.
- Replace Gymnasium sound system.
- Upgrade Auditorium sound and video/projection system.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Controls and Instrumentation: BAS and Controls Upgrade		
Linked System	Controls and Instrumentation	Inspection Date	08/08/2006
Prime System	Building Automation Systems	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schmidt, Brian	Actual Cost	0
Action Date	08/08/2007	Total Estimated Cost:	265,500
Funding Year	-	Funding Type	-
Requirement Location	Entire building	Annual Energy/Ops Savings \$	3,950
Savings Description	Energy saving through optimization and repairs of existing control system.		

REQUIREMENT DESCRIPTION

Upgrade existing, outdated BAS to new Web-based BAS and tie to new District-wide BAS network. This will allow for central monitoring and control of all buildings from the Facilities Management building.

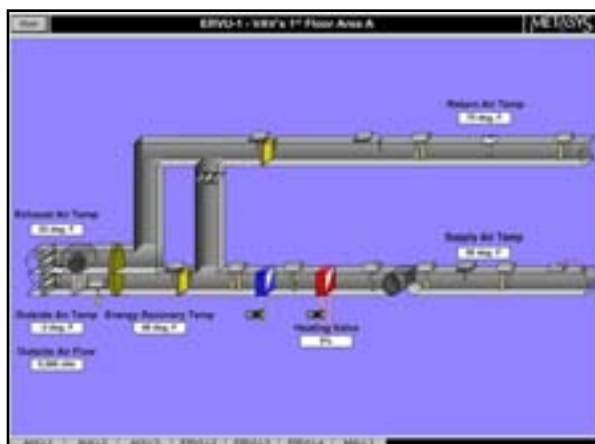
Upgrade existing pneumatic controls (old technology) to new Direct Digital controls.

Upgrade/replace existing temperature control valves, dampers, and actuators. The majority are beyond rated life and many are disconnected and not functioning, thus not operating as energy efficiently as possible.

Replace existing temperature control air compressor and air dryer with new and repair control air line leaks. This will improve the energy efficiency of the existing control system.

The existing controls shall be recommissioned to verify proper sequence of operation and optimize energy efficiency. Additional control and monitoring points shall also be added to the BAS system to optimize HVAC system performance.

PHOTOS



Controls and Instrumentation: BAS and Controls Upgrade

ACTION DESCRIPTION

Upgrade existing BAS to new web based to tie to District-wide BAS network. Add additional monitoring and control points to optimize BAS system.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Emergency Power Distribution: Generator Backup		
Linked System	Emergency Light and Power Systems	Inspection Date	09/19/2006
Prime System	Emergency Light and Power Systems	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	09/19/2007	Total Estimated Cost:	131,275
Funding Year	-	Funding Type	-
Requirement Location	Exterior near Electrical Room	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

School currently has no backup power system to be used during a power failure. To keep students in school during power outage sufficient lighting must be maintained along with necessary life safety systems.

PHOTOS



Emergency Power Distribution: Generator Backup

-

ACTION DESCRIPTION

Install transfer switch and generator to feed distribution system during a power outage. Generator will be sized to handle the full building demand.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Equipment and Furnishings: Construct Computer Stations		
Linked System	Equipment and Furnishings	Inspection Date	08/29/2006
Prime System	Equipment and Furnishings	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	-	Total Estimated Cost:	74,694
Funding Year	-	Funding Type	-
Requirement Location	Rooms G3, Library, Computer Room, 218	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing work stations are currently serviceable, but are starting to show wear. Recommend replacement to district standards.

PHOTOS



E-Equipment and Furnishings: Construct Computer Stations

-

ACTION DESCRIPTION

Replace existing computer stations with new workstations. 95 stations.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Equipment and Furnishings: Replace Gym Bleachers		
Linked System	Equipment and Furnishings	Inspection Date	08/29/2006
Prime System	Equipment and Furnishings	Finish Date	-
Priority	6- Does Not Meet Current Codes/Standards	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	-	Total Estimated Cost:	104,784
Funding Year	-	Funding Type	-
Requirement Location	Gymnasium	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Wood Bleachers are old and replacement parts may become an issue in the future.

PHOTOS



E-Equipment and Furnishings: Replace Gym Bleachers

-

ACTION DESCRIPTION

Replace existing wood telescoping bleachers with new aluminum telescoping system. Approximately 8 tiers, 75' long.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Equipment and Furnishings: Visual Systems (Smart Boards)		
Linked System	Equipment and Furnishings	Inspection Date	08/15/2006
Prime System	Audio-visual Equipment	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	The Westlund Group	Actual Cost	0
Action Date	-	Total Estimated Cost:	246,620
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Site has three projectors and one Smart Board installed. Four Smart Boards are on order.

PHOTOS

ACTION DESCRIPTION

Install additional Smart Boards.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Fittings: Replace Chalkboard		
Linked System	Fittings	Inspection Date	08/29/2006
Prime System	Fittings	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	-	Total Estimated Cost:	40,356
Funding Year	-	Funding Type	-
Requirement Location	Ground Floor Rooms: G5, G6, G13, G15, G17, First Floor Rooms: 101, 103, 104, 105, 117, 123, 125, 127, 129, 131, 133, 135, 139, Second Floor Rooms: 201, 202, 203, 204, 206, 213, 215, 219, 218	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

District Standardization Goal is to replace chalkboard with markerboard.

PHOTOS



Fittings: Replace Chalkboard

-

ACTION DESCRIPTION

Replace chalkboard with markerboard. Approximately 2,200 S.F.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	HVAC: Computer Room Liebert Unit Noise Reduction		
Linked System	Cooling Generating Systems	Inspection Date	07/31/2006
Prime System	Cooling Generating Systems	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	07/31/2007	Total Estimated Cost:	14,750
Funding Year	-	Funding Type	-
Requirement Location	Media Center Computer Room - 1956 Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing Liebert Cooling unit is ducted directly from the unit to the space and is so noisy that the unit is not run when the space is occupied.

PHOTOS



HVAC: Computer Room Liebert Unit Noise Reduction

-

ACTION DESCRIPTION

Reroute supply and return ductwork to above ceiling. Add sound attenuators. Externally insulate the supply ductwork.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean Middle School
Asset Number: 320

Requirement Name	Lighting Equipment: Dimming System		
Linked System	Lighting Equipment	Inspection Date	09/19/2006
Prime System	Lighting Equipment	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	-	Total Estimated Cost:	118,000
Funding Year	-	Funding Type	-
Requirement Location	Stage Area	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Dimming system could be improved with newer system and better technology.

PHOTOS



Lighting Equipment: Dimming System

-

ACTION DESCRIPTION

Replace dimming system with newer system for better stage lighting and control.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Occupant Security

Asset Name: Ordean-Concessions/Press Box
Asset Number: 320d

Requirement Name	Fire Alarm Systems: Extend System		
Linked System	Fire Alarm Systems	Inspection Date	11/30/2006
Prime System	Fire Alarm Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	11/30/2009	Total Estimated Cost:	8,732
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Currently there is no fire alarm system in the field stadium at Ordean. Complete fire alarm system is needed for occupant safety.

PHOTOS

ACTION DESCRIPTION

Extend the fully addressable fire alarm system at Ordean. This will allow for quick response to exact alarm device and allow for better maintenance and safety

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean-Concessions/Press Box
Asset Number: 320d

Requirement Name	Communication and Security: Access Control		
Linked System	Communications and Security	Inspection Date	11/30/2006
Prime System	Security and Detection Systems	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	11/30/2009	Total Estimated Cost:	5,900
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Doors need ability to be locked down with access allowed only to authorized people. Also doors without card readers should be monitored for unauthorized access.

PHOTOS

ACTION DESCRIPTION

Install proximity card readers at main entry doors for both public and personal and add magnetic door contacts to all other exterior doors on an alarm system.

District: Duluth Public Schools
Facility: Ordean Middle School
Category: Upgrades

Asset Name: Ordean-Concessions/Press Box
Asset Number: 320d

Requirement Name	Communication and Security: Public Address and Sound System		
Linked System	Communications and Security	Inspection Date	11/30/2006
Prime System	Intercommunication and Paging System	Finish Date	-
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	11/30/2009	Total Estimated Cost:	3,658
Funding Year	-	Funding Type	-
Requirement Location	Building Wide	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

There is currently no paging system installed. A paging system may be needed for security reason.

PHOTOS

ACTION DESCRIPTION

Install new paging system and amplifier and install speakers where needed.