

Requirement Detail

by Asset Name and Category

PIEDMONT

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont - Parking
Asset Number: 550a

Requirement Name	Vehicular Traffic: Parking Lot West of School		
Linked System	Parking Lots	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:	155,760
Funding Year	-	Funding Type	-
Requirement Location	Parking Lot West of School	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Deteriorated parking lot.

PHOTOS



Parking Lot

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ACTION DESCRIPTION

Reconstruct bituminous pavement and replace portland cement concrete curbs and gutter and improve drainage.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Life Safety

Asset Name: Piedmont - Sidewalks
Asset Number: 550b

Requirement Name	Pedestrian Paving: Sidewalks along Main Entrance		
Linked System	Pedestrian Paving	Inspection Date	08/01/2006
Prime System	Paving and Surfacing	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	Inspe	Actual Cost	0
Action Date	08/01/2006	Total Estimated Cost:	11,800
Funding Year	-	Funding Type	-
Requirement Location	Sidewalks along Main Entrance	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Deteriorated sidewalks.

PHOTOS



Pedestrian Paving: Sidewalks

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ACTION DESCRIPTION

Replace/Reconstruct broken and unlevel areas of portland cement concrete sidewalk along Chambersburg Ave/Main Entrance/Bus Loading Area.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Deferred Maintenance

Asset Name: Piedmont - Site
Asset Number: 550c

Requirement Name	Site: Basketball Courts	Inspection Date	08/01/2006
Linked System	Site Improvements	Finish Date	-
Prime System	Playing Fields	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	3,540
Action Date	08/01/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Basketball Courts		
Savings Description	-		

REQUIREMENT DESCRIPTION

Deteriorated play area courts.

PHOTOS

ACTION DESCRIPTION

Seal coat courts

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Deferred Maintenance

Asset Name: Piedmont - Site
Asset Number: 550c

Requirement Name	Site: Drainage	Inspection Date	08/01/2006
Linked System	Site Improvements	Finish Date	-
Prime System	Landscaping	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Inspec	Total Estimated Cost:	11,800
Action Date	08/01/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Playfields		
Savings Description	-		

REQUIREMENT DESCRIPTION

Roof downspouts empty on grade along building edge. Grade looks flat or sloping towards building.

PHOTOS

ACTION DESCRIPTION

Regrade, black dirt and sod.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Accessibility

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	14,291
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: Piedmont Elementary School
Category: Accessibility

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	58,117
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: Piedmont Elementary School
Category: Air and Water Quality

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	291,342
Funding Year	-	Funding Type	-
Requirement Location	All Floors - Entire Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Piedmont Elementary School has no means of dehumidification. Without de-humidification capabilities, these spaces cannot meet ASHRAE 55-1992 space design conditions.

PHOTOS



HVAC - Dehumidification Chiller and Piping Mains

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: Piedmont Elementary School
Category: Air and Water Quality

Asset Name: Piedmont Elementary School
Asset Number: 550

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	1950 and 1964 Crawlspace/Tunnel	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The tunnels have dirt 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

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ACTION DESCRIPTION

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

Two Locations 1950 and 1964 Additions.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Air and Water Quality

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	188,210
Funding Year	-	Funding Type	-
Requirement Location	All Floors 1950 and 1964 Additions	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The 56 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

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ACTION DESCRIPTION

Remove all 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: Piedmont Elementary School
Category: Air and Water Quality

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Service Tunnels: Floor Vapor Barrier		
Linked System	Other Site Construction	Inspection Date	08/01/2006
Prime System	Service and Pedestrian Tunnels	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Inspec	Actual Cost	0
Action Date	-	Total Estimated Cost:	8,850
Funding Year	-	Funding Type	-
Requirement Location	1950 Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Exposed dirt areas contributing to air quality issues.

PHOTOS



Service Tunnels: Floor Vapor Barrier

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ACTION DESCRIPTION

Install poly vapor barrier over exposed earth areas.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Appearance

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Ceiling Finishes: Replace Ceilings	
Linked System	Ceiling Finishes	Inspection Date 08/11/2006
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	08/11/2012	Total Estimated Cost: 73,221
Funding Year	-	Funding Type -
Requirement Location	1st Floor: Rooms 104, 105, 106, 107, 108, Cafeteria, Gymnasium, 2nd Floor: 201, 204, 205, 206, 207, 208	Annual Energy/Ops Savings \$ -
Savings Description	-	

REQUIREMENT DESCRIPTION

Classrooms have 12x12 adhesive applied perforated acoustical tile that is dated, dirty and inefficient. Gymnasium and Cafeteria have 4x8 acoustical panels in similar condition.

PHOTOS



Ceiling Finishes: Replace Ceilings

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ACTION DESCRIPTION

Replace al ceilings with 2x2 suspended acoustic board ceiling.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Appearance

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Fittings: Refurbish Wood Casework		
Linked System	Fittings	Inspection Date	08/11/2006
Prime System	Fittings	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	-	Total Estimated Cost:	46,109
Funding Year	-	Funding Type	-
Requirement Location	1st floor: 101,102,104,106,108,105,107, work room, 113, 115, 2nd Floor 204,205,206,207,208,210,216,215,217,computer lab, 200	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Wood casework finish is worn and dated in appearance. Plastic laminate tops in classrooms are worn and beyond rated life.

PHOTOS



Fittings: Refurbish Wood Casework

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ACTION DESCRIPTION

Refinish wood casework. Replace plastic laminate countertops typical.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Appearance

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Interior Doors: Refinish Doors	Inspection Date	08/11/2006
Linked System	Interior Doors	Finish Date	-
Prime System	Interior Doors	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	2,313
Action Date	08/11/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Interior wood doors in rooms (not corridor doors)		
Savings Description	-		

REQUIREMENT DESCRIPTION

Most interior wood doors exhibit faded, soiled and dated finish.

PHOTOS



Interior Doors: Refinish Doors

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ACTION DESCRIPTION

Refinish interior wood doors. 32 Doors

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Appearance

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	10,426
Action Date	10/03/2007	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Property around facility		
Savings Description	-		

REQUIREMENT DESCRIPTION

There are areas around the facility (lawn, trees, shrubs and perennials) that require care to improve appearance. 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

Pruning, cultivating and mulching of existing trees, shrubs and perennials. 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: Piedmont Elementary School
Category: Appearance

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Wall Finishes: Paint Interior	Inspection Date	08/11/2006
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:	94,017
Action Date	08/11/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	All Classrooms		
Savings Description	-		

REQUIREMENT DESCRIPTION

Paint finishes are dated in color and condition.

PHOTOS



Wall Finishes: Paint Interior

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ACTION DESCRIPTION

Re-paint interior.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Asbestos

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	48,675
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 throughout facility.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Fittings: Replace Lockers	Inspection Date	08/11/2006
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:	149,317
Action Date	08/11/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Corridors		
Savings Description	-		

REQUIREMENT DESCRIPTION

Lockers are rusted, drab with many in need of repair.

PHOTOS



Fittings: Replace Lockers

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ACTION DESCRIPTION

Replace metal lockers with new metal lockers. 400 Total

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Floor Finishes: Replace Carpet	Inspection Date	08/11/2006
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:	44,014
Action Date	08/11/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Rooms 108, Recessed Entry Mat 200, Computer Lab, 210, 212, 214, 216, 215		
Savings Description	-		

REQUIREMENT DESCRIPTION

Carpet is worn, torn, deteriorated, and beyond rated life.

PHOTOS



Floor Finishes: Replace Carpet

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ACTION DESCRIPTION

Replace existing carpet with new carpet. Approximately 6000 S. F.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Floor Finishes: Replace Vinyl Asbestos Tile (VAT)		
Linked System	Floor Finishes	Inspection Date	08/11/2006
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	08/11/2012	Total Estimated Cost:	95,285
Funding Year	-	Funding Type	-
Requirement Location	First Floor Corridors, Stairs, Rooms 104, 106, 107, 108, Misc. Closets, Second Floor Corridors, Stairs, Rooms 204, 205, 206, Misc. Closets, Basement Boiler Room Entry, Stairs	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Vinyl Asbestos Tile exists, and is in need of replacement.

PHOTOS



Floor Finishes: Replace Vinyl Asbestos Tile (VAT)

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ACTION DESCRIPTION

Replace existing Vinyl Asbestos Tile with Vinyl Composition Tile (VCT). Approximately 9700 S.F.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	440,730
Funding Year	-	Funding Type	-
Requirement Location	All Floors - Entire Building	Annual Energy/Ops Savings \$	2,732
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 56 year old steam system has exceeded the recommended useful life. The steam system is a two pipe system. In addition the building has only one boiler. A backup boiler is necessary to minimize the chance of building freeze up.

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

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ACTION DESCRIPTION

Install new high efficiency hot water condensing boilers and hot water piping system. Add medium efficiency boiler for dual 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: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	HVAC: Replace Ventilation in Classrooms	Inspection Date	06/28/2006
Linked System	Air Distribution Systems	Finish Date	-
Prime System	Air Distribution Systems	Status	Open
Priority	3- Necessary - Not Yet Critical (3-5 Yrs)	Actual Cost	0
Inspector Name	Schumacher, Russ	Total Estimated Cost:	2,001,752
Action Date	06/28/2009	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	783
Requirement Location	All Floors - Entire Building Except for Gym, Cafeteria, and Kitchen		
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 56 year old ventilation system has exceeded the recommended useful life expectancy and currently poorly distributes ventilation air. As part of this upgrade, the new mechanical system will incorporated heat recovery and classroom occupancy / CO2 controls to save energy.

PHOTOS



HVAC: Replace Ventilation in Classrooms

ACTION DESCRIPTION

Replacement of the Existing Ventilation System with a Modern Ventilation System consisting of Air Handling Units with Energy Recovery, Duct Distribution System, and Variable Air Volume Boxes with Hot Water Reheat Coils and Hot Water Finned Tube Radiation.

All Costs in USD.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Interior Doors: Replace Doors		
Linked System	Interior Doors	Inspection Date	08/11/2006
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	08/11/2009	Total Estimated Cost:	9,204
Funding Year	-	Funding Type	-
Requirement Location	Entry vestibules, corridor by kitchen	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Doors are old wood with glass (non-tempered) and in need of repair

PHOTOS



Interior Doors: Replace Doors

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ACTION DESCRIPTION

Replace wood doors with new wood doors, less glass area and safety glazing. 7 doors

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	5,014
Funding Year	-	Funding Type	-
Requirement Location	Classrooms	Annual Energy/Ops 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: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Plumbing: Replace Underground Sanitary Sewer Lines	Inspection Date	11/29/2006
Linked System	Plumbing	Finish Date	-
Prime System	Plumbing	Status	Open
Priority	5- Recommendations/ Improvements	Actual Cost	0
Inspector Name	Schumacher, Russ	Total Estimated Cost:	70,800
Action Date	-	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	All Building Areas 35 Years or Older		
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: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	278,456
Action Date	08/01/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	442
Requirement Location	Multiple Locations		
Savings Description	Energy savings generated from improved roof insulation.		

REQUIREMENT DESCRIPTION

Roof system beyond rated life. Includes roof Areas 4-9.

PHOTOS



Roof System: Replace Roof

ACTION DESCRIPTION

Replace EPDM roof system. Sequence work with roof-level wall restoration.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Beyond Rated Life

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	77,243
Funding Year	-	Funding Type	-
Requirement Location	Facility Grounds	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Playground equipment was built in 1990 and 1996. The majority of the playground equipment (except the newer equipment) does not meet current safety and ADA requirements. The playground has a "pea rock" surface which does not meet ADA. Some of the equipment is for pre-school.

PHOTOS



Site Furnishings: Playground Upgrade / Replacement

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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: Piedmont Elementary School
Category: Building Code

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Electrical Service: Code Violation	Inspection Date	08/14/2006
Linked System	Electrical Service and Distribution	Finish Date	-
Prime System	Electrical Service and Distribution	Status	Open
Priority	6- Does Not Meet Current Codes/Standards	Actual Cost	0
Inspector Name	Crotteau, Paul	Total Estimated Cost:	16,520
Action Date	-	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Building Wide		
Savings Description	-		

REQUIREMENT DESCRIPTION

Main service is fed unfused through the building which is a violation of the National Electric Code. The service is also lacking capacity to feed additional branch panel boards.

PHOTOS



Electrical Service: Code Violation

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ACTION DESCRIPTION

To feed the new branch panel boards a new 800 amp service panel will replace the existing service. New breakers will be installed to refeed the existing busway and new branch panels.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Building Code

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Elevators and Lifts: Elevator Repair	Inspection Date	08/28/2006
Linked System	Elevators and Lifts	Finish Date	-
Prime System	Elevators and Lifts	Status	Open
Priority	2- Potentially Critical (1-2 Yrs)	Actual Cost	0
Inspector Name	Schindler Elevator Corp.	Total Estimated Cost:	13,110
Action Date	08/28/2007	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	1980 Addition		
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: Piedmont Elementary School
Category: Building Code

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	HVAC: Replace Dishwasher Exhaust Hood		
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:	17,700
Funding Year	-	Funding Type	-
Requirement Location	Kitchen 1965 Building Addition	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing dishwasher has an existing exhaust hood but is not tagged as a type II Hood. It 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: Replace Dishwasher Exhaust Hood

-

ACTION DESCRIPTION

Demolish the existing dishwasher hood and fan system.

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: Piedmont Elementary School
Category: Building Code

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	120,950
Funding Year	-	Funding Type	-
Requirement Location	Kitchen - 1950 Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

The existing grease exhaust hood does not appear to be drawing the exhaust airflow as required by the 2000 Uniform Mechanical Code. The hood has been tagged non compliant by the State Fire Marshall and utilizes an Ansul system. 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.

All Costs in USD.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Capacity

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Electrical Distribution: Insufficient Capacity		
Linked System	Electrical Service and Distribution	Inspection Date	08/14/2006
Prime System	Electrical Service and Distribution	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	08/14/2007	Total Estimated Cost:	24,308
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.

PHOTOS



Electrical Distribution: Insufficient Capacity

-

ACTION DESCRIPTION

Provide two new 100 amp feeders and panels to help carry the extra load of additional receptacles throughout the building.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Capacity

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	HVAC: Add Cooling Capability to Computer Lab and IT Data Room		
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:	133,930
Funding Year	-	Funding Type	-
Requirement Location	IT Data Room Located in Staff Work Room	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

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

PHOTOS



HVAC: Add Cooling Capability to IT Data Room

-

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: Piedmont Elementary School
Category: Capacity

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Wiring Devices: Insufficient Receptacles		
Linked System	Branch Wiring Devices	Inspection Date	07/18/2006
Prime System	Branch Wiring Devices	Finish Date	-
Priority	2- Potentially Critical (1-2 Yrs)	Status	Open
Inspector Name	Crotteau, Paul	Actual Cost	0
Action Date	07/18/2007	Total Estimated Cost:	45,548
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 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: Piedmont Elementary School
Category: Deferred Maintenance

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Exterior Walls: 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:	271,400
Funding Year	-	Funding Type	-
Requirement Location	Entire Building	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Deteriorated walls at roof-level and around the entire perimeter of building. Leakage reported at east elevation of 1950 Building during driving rain. I-beam detail at top of 1964 Addition is suspect for leakage and efflorescence.

PHOTOS



Exterior Walls: Wall Restoration

ACTION DESCRIPTION

Tuck point, spot brick replacement, through-wall flashing replacement, joint sealant replacement, stone patch repair, paint, and new drip edge at I-beam. Sequence work with reroofing of Areas 4 and 5.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Deferred Maintenance

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Floor Finishes: Refinish Wood Flooring	Inspection Date	08/11/2006
Linked System	Floor Finishes	Finish Date	-
Prime System	Floor Finishes	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	28,161
Action Date	08/11/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	Cafeteria, Gymnasium		
Savings Description	-		

REQUIREMENT DESCRIPTION

Hardwood flooring finish is worn and unsightly.

PHOTOS



Floor Finishes: Refinish Wood Flooring

-

ACTION DESCRIPTION

Sand and refinish existing hardwood flooring. Aproximately 4300 S.F.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Deferred Maintenance

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Floor Finishes: Replace Vinyl Composition Tile		
Linked System	Floor Finishes	Inspection Date	08/11/2006
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	08/11/2012	Total Estimated Cost:	12,606
Funding Year	-	Funding Type	-
Requirement Location	Art Room, Music Room	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Vinyl tile is worn and in poor condition.

PHOTOS



Floor Finishes: Replace Vinyl Composition Tile

-

ACTION DESCRIPTION

Replace VCT with new VCT. Approximately 1750 S.F.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Deferred Maintenance

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	5,900
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: Piedmont Elementary School
Category: Energy and Operational Efficiency

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Controls: VendingMiser Vending Machine Controls		
Linked System	Controls and Instrumentation	Inspection Date	10/02/2006
Prime System	Controls and Instrumentation	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	Ruud, Mark	Actual Cost	0
Action Date	10/02/2006	Total Estimated Cost:	826
Funding Year	-	Funding Type	-
Requirement Location	Vending Machines	Annual Energy/Ops Savings \$	86
Savings Description	VendingMiser controls cycle power to the vending machines during unoccupied times to save energy.		

REQUIREMENT DESCRIPTION

Install VendingMiser controls on vending machines.

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Energy and Operational Efficiency

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	10,821
Funding Year	-	Funding Type	-
Requirement Location	Facility Wide	Annual Energy/Ops Savings \$	667
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: Piedmont Elementary School
Category: Energy and Operational Efficiency

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	95,468
Action Date	09/20/2006	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	2,655
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 Controls

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Energy and Operational Efficiency

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Plumbing: Add Domestic Water Heat Exchanger		
Linked System	Plumbing	Inspection Date	07/12/2006
Prime System	Plumbing	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Schumacher, Russ	Actual Cost	0
Action Date	-	Total Estimated Cost:	35,046
Funding Year	-	Funding Type	-
Requirement Location	Boiler Room	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Provide a domestic water heat exchanger. This will allow for an alternate fuel source selection.

PHOTOS



Plumbing: Add Domestic Water Heat Exchanger

-

ACTION DESCRIPTION

Provide a domestic hot water heat exchanger and all required piping and controls.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Energy and Operational Efficiency

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	8,749
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	999
Savings Description	Reduce water and sewer usage using new low flow devices. Savings from constant running urinals - savings from urinals \$535, savings from remaining improvements \$464.		

REQUIREMENT DESCRIPTION

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

PHOTOS

ACTION DESCRIPTION

-

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Life Safety

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	11,759
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: Piedmont Elementary School
Category: Occupant Security

Asset Name: Piedmont Elementary School
Asset Number: 550

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: Piedmont Elementary School
Category: Occupant Security

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	69,360
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: Piedmont Elementary School
Category: Occupant Security

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	66,080
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: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Communication and Security: Cabling Upgrade		
Linked System	Communications and Security	Inspection Date	08/15/2006
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:	64,900
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing building has older 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. Standardize quantity of phone and data in classroom and offices.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	25,960
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.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	19,588
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: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Communication and Security: Telephone System Upgrade		
Linked System	Communications and Security	Inspection Date	08/15/2006
Prime System	Telephone Systems	Finish Date	-
Priority	1- Currently Critical (Immediately)	Status	Open
Inspector Name	The Westlund Group	Actual Cost	0
Action Date	08/15/2006	Total Estimated Cost:	3,894
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

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

PHOTOS

ACTION DESCRIPTION

Install new CISCO telephone system. Add paging interface. Remove old telephone system.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Communication and Security: Video/TV Distribution Upgrade		
Linked System	Communications and Security	Inspection Date	08/15/2006
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	08/15/2009	Total Estimated Cost:	24,013
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: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Communications and Security: Sound System Upgrades		
Linked System	Communications and Security	Inspection Date	08/15/2006
Prime System	Classroom Sound Systems	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	The Westlund Group	Actual Cost	0
Action Date	-	Total Estimated Cost:	85,668
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Currently the 1st and 2nd grades have audio enhancement systems in the classrooms. The Gymnasium sound system is adequate.

PHOTOS

ACTION DESCRIPTION

Add audio enhancement systems to remaining classrooms.
 Replace Gymnasium sound system.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Controls and Instrumentation: BAS and Controls Upgrade		
Linked System	Controls and Instrumentation	Inspection Date	07/18/2006
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	07/18/2007	Total Estimated Cost:	112,100
Funding Year	-	Funding Type	-
Requirement Location	Entire building	Annual Energy/Ops Savings \$	1,136
Savings Description	Energy saving through optimization and repairs of existing control system.		

REQUIREMENT DESCRIPTION

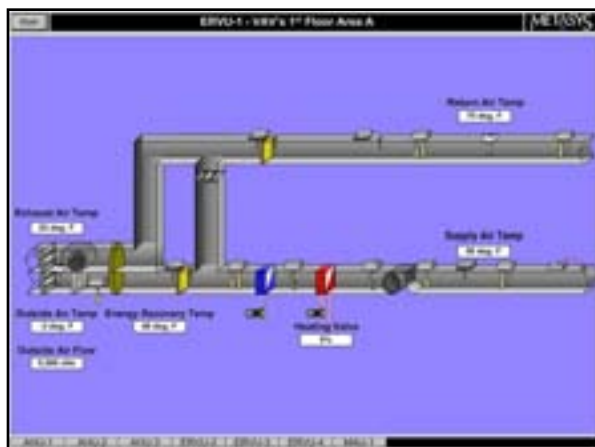
Install new BAS headend to Web-based headend to tie to the District wide BAS network. Upgrade existing pneumatic controls with new DDC controls. Existing mechanical equipment has existing Pneu controls. These controls should be recommissioned to verify proper operation and optimize energy efficiency. Additional control and monitoring point should be added to the BAS system.

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.

Repair existing 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



BAS Graphic

ACTION DESCRIPTION

All Costs in USD.

Install new web based BAS and tie to District-wide BAS network. Add new DDC controls and additional monitoring and control points to optimize BAS system.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Elevators and Lifts: Elevator Modernization		
Linked System	Elevators and Lifts	Inspection Date	08/28/2006
Prime System	Elevators and Lifts	Finish Date	-
Priority	5- Recommendations/ Improvements	Status	Open
Inspector Name	Schindler Elevator Corp.	Actual Cost	0
Action Date	-	Total Estimated Cost:	63,720
Funding Year	-	Funding Type	-
Requirement Location	1980 Addition	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Modernizations - Control changes, door operator, power unit change, car station, fixtures.

PHOTOS

ACTION DESCRIPTION

Upgrade elevators: control changes, door operator, power unit change, car station, fixtures.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	54,457
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: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

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:	220,660
Funding Year	-	Funding Type	-
Requirement Location	Entire Facility	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Site has one projector on a cart. Two Smart Boards are on order.

PHOTOS

ACTION DESCRIPTION

Install additional Smart Boards.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Fittings: Replace Chalkboards	Inspection Date	08/11/2006
Linked System	Fittings	Finish Date	-
Prime System	Fittings	Status	Open
Priority	5- Recommendations/ Improvements	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	23,836
Action Date	-	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	All Classrooms, 201		
Savings Description	-		

REQUIREMENT DESCRIPTION

Chalkboards are aged and do not comply with district goal to standardize to markerboards.

PHOTOS

ACTION DESCRIPTION

Replace chalkboards with markerboards approximately 1300 S.F.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Fittings: Replace Toilet Partitions		
Linked System	Fittings	Inspection Date	08/11/2006
Prime System	Fittings	Finish Date	-
Priority	4- Mid Term Needs (6-10 Yrs)	Status	Open
Inspector Name	Siddens, Lance	Actual Cost	0
Action Date	08/11/2012	Total Estimated Cost:	22,538
Funding Year	-	Funding Type	-
Requirement Location	1st Floor Girls Toilet, 2nd Floor Girls Toilet	Annual Energy/Ops Savings \$	-
Savings Description	-		

REQUIREMENT DESCRIPTION

Existing metal toilet partitions are old, dated and district goal is to standardize to plastic partitions.

PHOTOS



Fittings: Replace Toilet Partitions

-

ACTION DESCRIPTION

Replace metal toilet partitions with plastic laminate toilet partitions. 8 stall partitions.

District: Duluth Public Schools
Facility: Piedmont Elementary School
Category: Upgrades

Asset Name: Piedmont Elementary School
Asset Number: 550

Requirement Name	Floor Finishes: Replace Carpet	Inspection Date	08/11/2006
Linked System	Floor Finishes	Finish Date	-
Prime System	Floor Finishes	Status	Open
Priority	4- Mid Term Needs (6-10 Yrs)	Actual Cost	0
Inspector Name	Siddens, Lance	Total Estimated Cost:	1,804
Action Date	08/11/2012	Funding Type	-
Funding Year	-	Annual Energy/Ops Savings \$	-
Requirement Location	1st Floor Corridor		
Savings Description	-		

REQUIREMENT DESCRIPTION

Carpet exists in the corridor outside rooms 101 and 102. District goal is to eliminate all corridor carpet.

PHOTOS



Floor Finishes: Replace Carpet

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ACTION DESCRIPTION

Replace corridor carpet with VCT (vinyl composition tile). Approximate 270 S.F.