Facility Assessment Report and Database
July 12, 2010

I. Introduction

A. Facility Assessment Presentation

B. Erik Kass, Assistant Superintendent for Business Services

C. Background information – This project began when the Board of Education approved the contract with Durrant Engineering in April of 2009. Durrant was hired to provide a full condition assessment of all school district buildings to identify long and short-term repair needs. The vision of this project was to deliver to the school district a living database that would aid in the budgeting and planning process into the future.

The study focused primarily on all engineering systems and equipment, but also included an in-depth study of the Americans with Disabilities Act (ADA) issues our school district faces. The study didn't include roofing projects, as that work has already been completed and is continually updated on an annual basis. For the assessment, trained professional engineers visited every site within the school district, evaluating systems and conditions, while also taking actual photographs to integrate into the report. This work transitioned into a grading system that has become part of the database delivered to the school district for future planning.

All of the information gathered and organized into the database format provides a lot of functionality for the school district moving forward. Each item has actual digital photos attached for reference, cost ranges are summarized for each item, and the ability to sort the information in various ways are examples of the functionality of the database.

Four individuals from Durrant Engineering will be present to provide a more in-depth review of the work that was completed. This presentation will also include a demonstration of the database that was created to show the functionality provided to the district with this tool.

D. Describe the action requested of the BOE - Administration is looking for the Board of Education to accept the maintenance project study with the database which is the planning tool to be used for future maintenance projects.

II. Implications

A. Budget - Once accepted by the Board of Education as a planning document, administration will begin to utilize this tool for prioritizing and identifying future maintenance projects.

B. Strategic Plan – The strongest connection to the strategic plan and this work is to maintain a safe and secure environment for all children to learn in. Projects prioritize and identified within the database directly reflect our district needs which are most critical to maintaining the buildings within our school district.

C. Equity Plan – Part of this project is aimed at ensuring equitable facilities in support of student learning across the district.

D. Implications for other aspects of the organization - This tool will impact many different pieces of our organization as we intend to utilize this tool to create proactive conversations about facility needs within our organization. Our hope is to utilize this to engage staff within our buildings to help further identify the needs of our facilities that don't solely encompass our systems and building envelope.

E. Next Steps – It is the intent of Administration to work toward creating a multi-year project plan, along with projected funds necessary to implement this plan each year. This work will begin upon approval by the Board of the information and data within the database, and will become important work of the new Director for the division of Building Services. Our goal is to return to the Board in May/June 2011 to present this multi-year plan with projected sources of funding.

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Facility Assessment Report and Database

MMSD Board Meeting

July 12, 2010

Kevin Eipperle
Thom Flickinger
Jim Kolf
Chris Wand

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HISTORY

- Access database created and used for facility management
- Has seen continual improvement and refinement
- Used to assess numerous hospitals, college campuses and school districts
- Primary tool used during the State of Iowa Vertical Infrastructure Assessment in 1998-99 encompassing over 20 million sf
- Utilizes tablet PCs and integrates photos into the process and report

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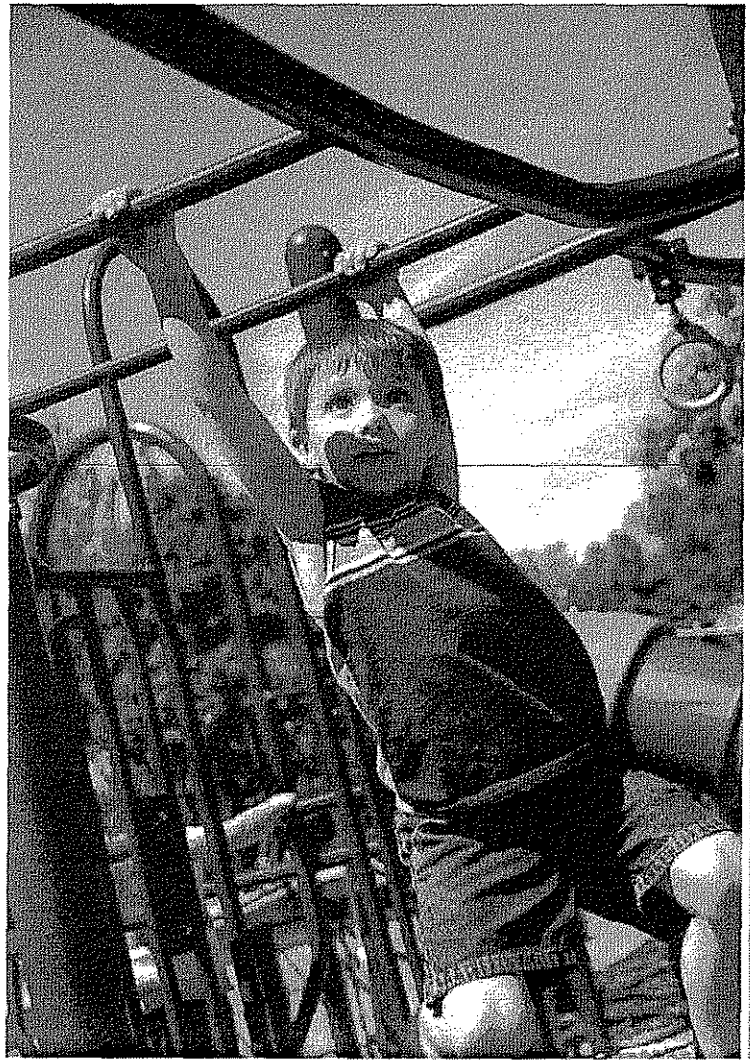
FACILITY ASSESSMENT PROCESS



Direction and Input from District Staff

- Condition assessment of all engineering systems and equipment
- Only identify ADA and building envelope deficiencies
- Provided a spreadsheet of recently completed envelope projects
- Provided input with regard to on-going maintenance issues such as entrance doors, hardware, etc.

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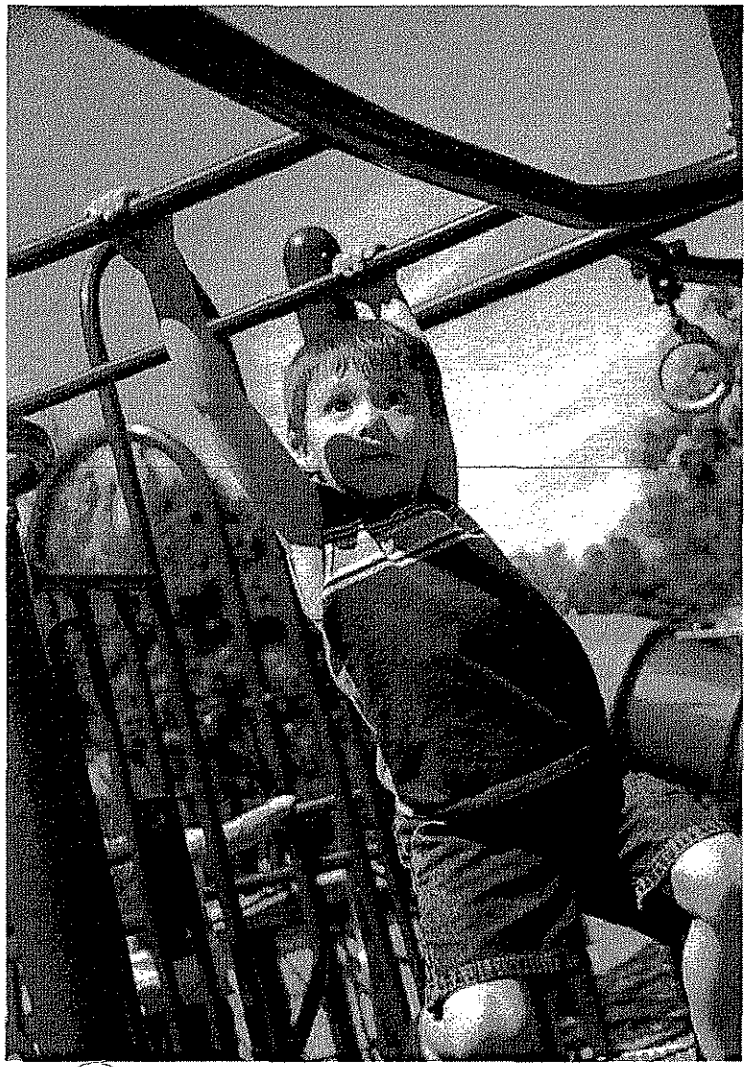
FACILITY ASSESSMENT PROCESS



Direction and Input from District Staff

- Directed not to include items such as roofs which had already been addressed
- Directed to not include ADA issues in database, nor their costs

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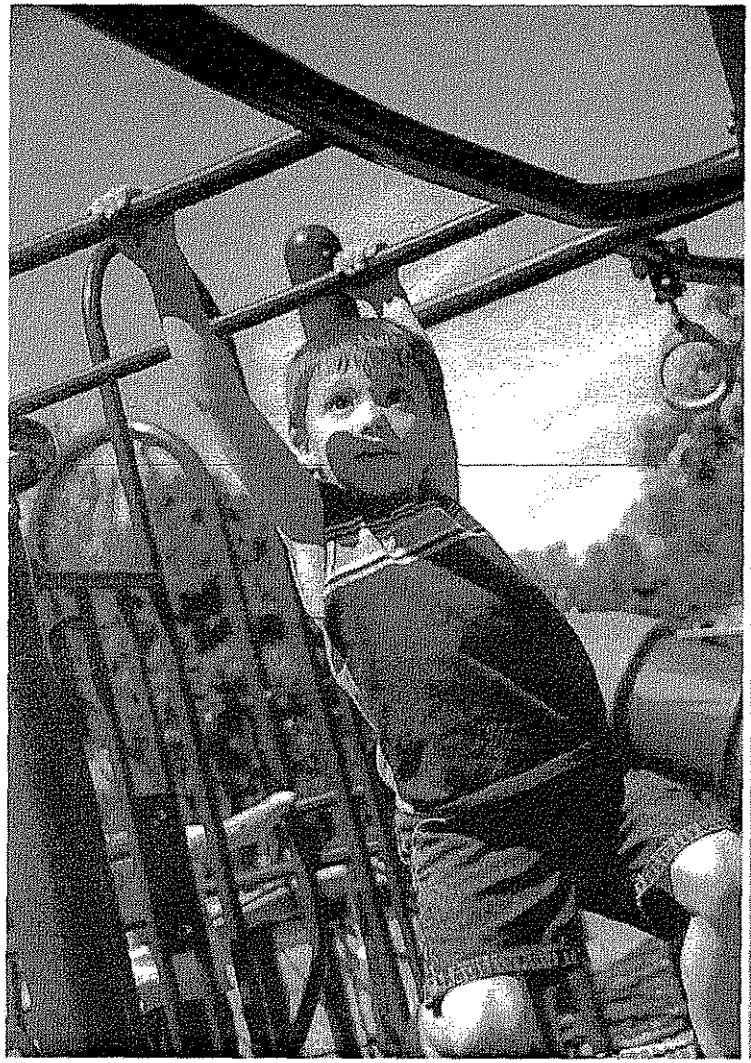
FACILITY ASSESSMENT PROCESS



Establishment and Communication of Assessment Goal

- Identify long and short term repairs
- Budgeting tool for facility needs
- Ability to prioritize and implement repairs, corrections and energy efficiency improvements

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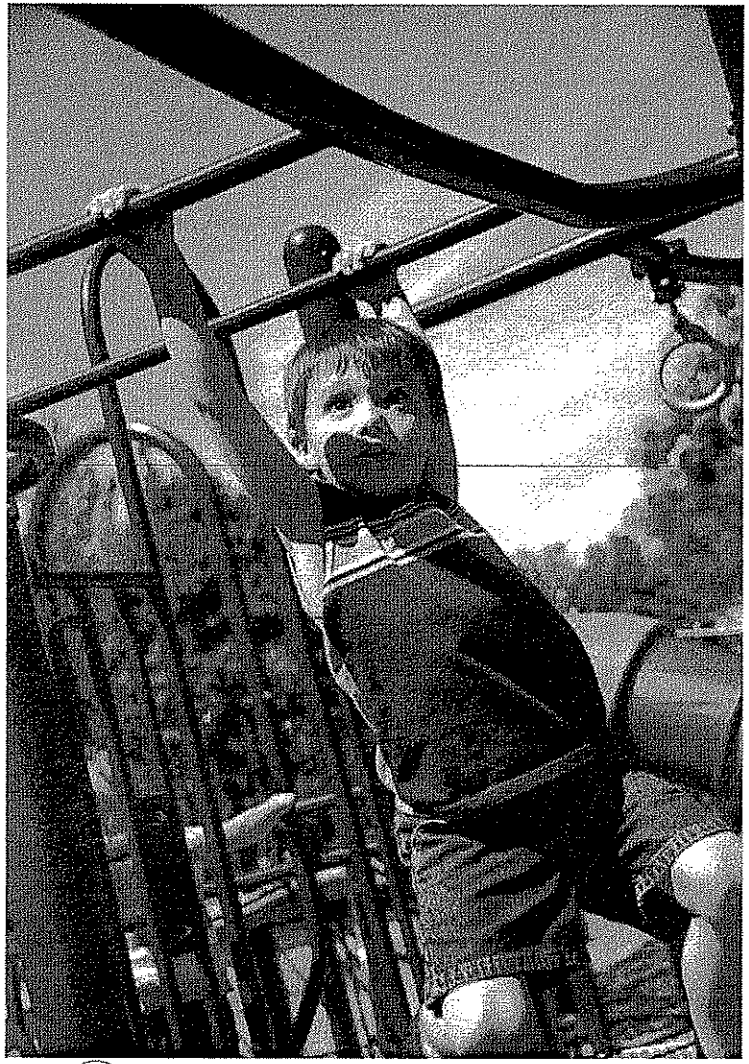
FACILITY ASSESSMENT PROCESS



Building Visits – System and Equipment Condition Evaluations

- Evaluate every engineering system and component
- Identify grade, priority and criticality of engineering systems/components and architectural deficiencies
- Determine code, ADA and safety violations

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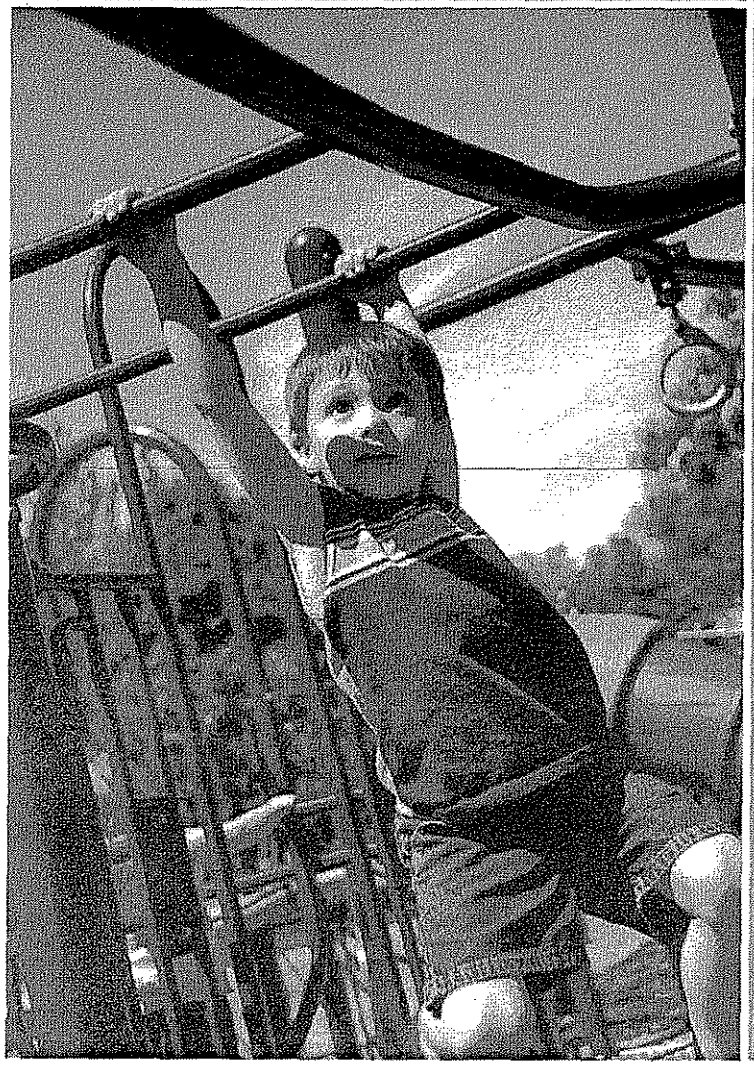
FACILITY ASSESSMENT PROCESS



Data Input and Documentation

- Each engineering system and components entered into database using Tablet PCs with the following:
  - Grade
  - Criticality
  - Expected Remaining Life (ERL)
  - Floor Level
  - Local ID/Description

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FACILITY ASSESSMENT PROCESS

Data Input and Documentation

- Exterior architectural components entered into database with the following:
  - Grade
  - Criticality
  - Expected Remaining Life
  - Material Description
  - Deficiency Type
  - Quantity
  - Estimated Size

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FACILITY ASSESSMENT PROCESS

Data Input and Documentation

- Exterior architectural components entered into database with the following (cont):
  - Unit of Measure
  - Memo
  - Estimated Replacement Cost
  - CSI Division

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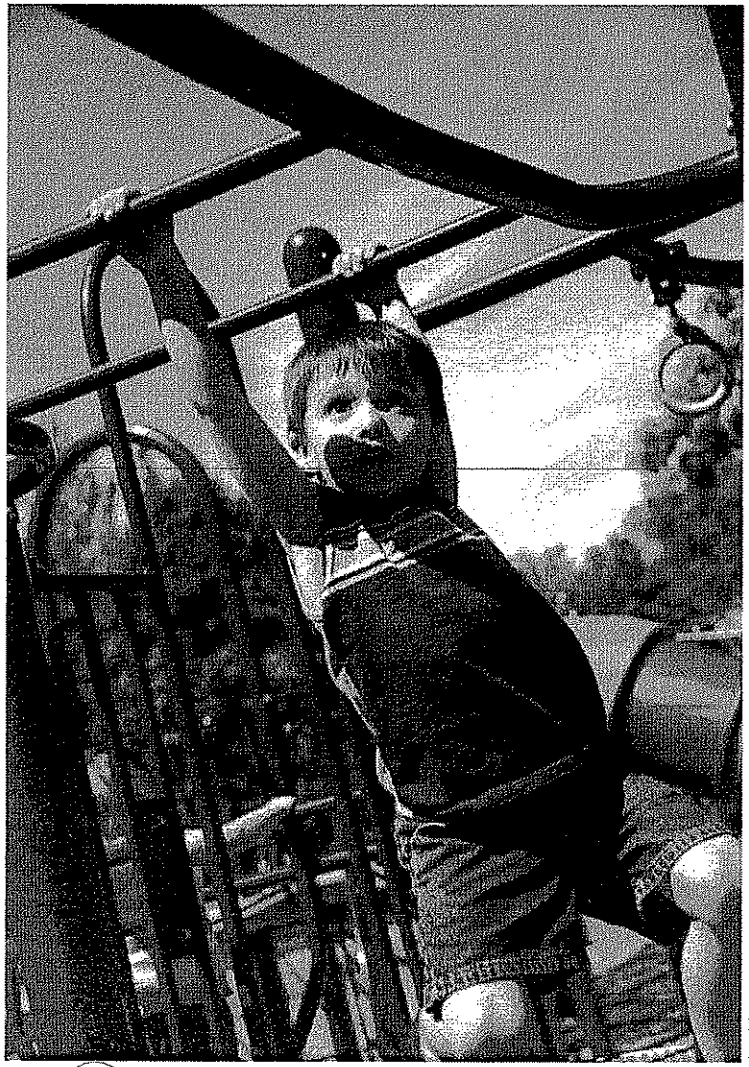
FACILITY ASSESSMENT PROCESS



Data Input and Documentation

- Digital photos attached to each item
- Associated items that may affect costs identified
- Cost ranges summarized
- Components may be sorted by any one of the types of information entered
- Components may be sorted by school or building
- ADA spreadsheet for each building

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COSTING ASSIGNMENT WORK

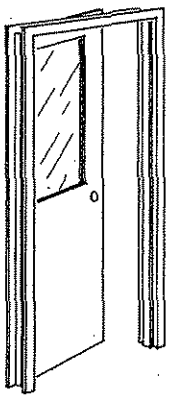
RSMeans as a Base

RSMeans
Repair & Remodeling Cost Data

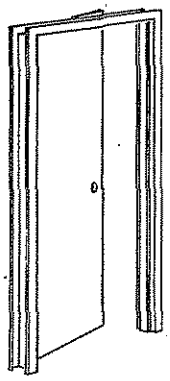
RSMeans
Facilities Construction Cost Data

RSMeans
Assemblies Cost Data

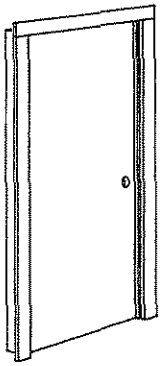
C1020 Interior Doors



Steel Door, Half Glass
Steel Frame



Steel Door, Flush
Steel Frame



Wood Door, Flush
Wood Frame

The Metal Door/Metal Frame Systems are defined as follows: door type, design and size, frame type and depth. Included in the components for each system is painting the door and frame. No hardware has been included in the systems.

System Components	QUANTITY	UNIT	COST EACH MAT.	COST EACH INST.	COST EACH TOTAL
SYSTEM C1020 114 1200					
STEEL DOOR, HOLLOW, 20 GA., HALF GLASS, 3'-0"X7'-0", D.W.FRAME, 4-7/8" DP					
Steel door, flush, hollow core, 1-3/4" thk, half gla 20 ga., 3'-0" x 7'-0"	1.000	Ea.	465	57	522
Steel frame, 16 ga., up to 4-7/8" deep, 7'-0" H, 3'-0" W, single	1.000	Ea.	170	64	234
Hinges full mortise, avg. freq., steel base,USP, 4-1/2" x 4-1/2"	1.500	Pr.	42		42
Float glass, 3/16" thick, clear, tempered	5.000	S.F.	34	37.25	71.25
Paint door and frame each side, primer	1.000	Ea.	6.38	87	93.38
Paint door and frame each side, 2 coats	1.000	Ea.	11.30	144	155.30
TOTAL			728.68	389.25	1,117.93

C1020 114 Metal Door/Metal Frame

	TYPE	DESIGN	SIZE	FRAME	DEPTH	COST EACH MAT.	COST EACH INST.	COST EACH TOTAL
1000	Flush-hollow	20 ga. full panel	3'-0" x 7'-0"	drywall K.D.	4-7/8"	660	355	1,015
1020				butt welded	8-3/4"	740	400	1,140
1160			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,125	565	1,690
1180				butt welded	8-3/4"	1,250	610	1,860
1200		20 ga. half glass	3'-0" x 7'-0"	drywall K.D.	4-7/8"	730	390	1,120
1220				butt welded	8-3/4"	805	435	1,240
1360			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,250	630	1,880
1380				butt welded	8-3/4"	1,375	675	2,050
1800		18 ga. full panel	3'-0" x 7'-0"	drywall K.D.	4-7/8"	720	355	1,075
1820				butt welded	8-3/4"	800	400	1,200
1960			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,250	565	1,815
1980				butt welded	8-3/4"	1,350	610	1,960
2000		18 ga. half glass	3'-0" x 7'-0"	drywall K.D.	4-7/8"	775	395	1,170
2020				butt welded	8-3/4"	850	440	1,290
2160			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,350	640	1,990
2180				butt welded	8-3/4"	1,450	685	2,135

C1020 Interior Doors

C1020 116 Labeled Metal Door/Metal Frames

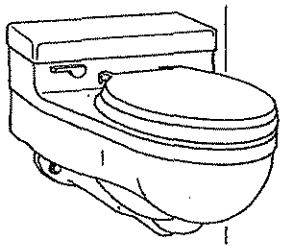
	TYPE	DESIGN	SIZE	FRAME	DEPTH	COST EACH		
						MAT.	INST.	TOTAL
6000	Hollow-1-1/2 hour	20 ga. full panel	2'-8" x 6'-8"	drywall K.D.	4-7/8"	610	355	965
6020				butt welded	8-3/4"	785	405	1,190
6160			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,100	575	1,675
6180				butt welded	8-3/4"	1,250	620	1,870
6200		20 ga. vision	2'-8" x 6'-8"	drywall K.D.	4-7/8"	760	365	1,125
6220				butt welded	8-3/4"	935	410	1,345
6360			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,400	590	1,990
6380				butt welded	8-3/4"	1,550	635	2,185
6600		18 ga. full panel	2'-8" x 7'-0"	drywall K.D.	4-7/8"	685	360	1,045
6620				butt welded	8-3/4"	860	405	1,265
6760			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,175	585	1,760
6780				butt welded	8-3/4"	1,350	630	1,980
6800		18 ga. vision	2'-8" x 7'-0"	drywall K.D.	4-7/8"	835	365	1,200
6820				butt welded	8-3/4"	1,000	415	1,415
6960			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,475	600	2,075
6980				butt welded	8-3/4"	1,625	645	2,270
7200	Hollow-3 hour	18 ga. full panel	2'-8" x 7'-0"	butt K.D.	5-3/4"	685	360	1,045
7220				butt welded	8-3/4"	860	405	1,265
7360			6'-0" x 7'-0"	butt K.D.	5-3/4"	1,175	585	1,760
7380				butt welded	8-3/4"	1,350	630	1,980
8000	Composite-1-1/2 hour	20 ga. full panel	2'-8" x 6'-8"	drywall K.D.	4-3/8"	710	360	1,070
8020				butt welded	8-3/4"	885	405	1,290
8160			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,300	585	1,885
8180				butt welded	8-3/4"	1,450	630	2,080
8200		20 ga. vision	2'-8" x 6'-8"	drywall K.D.	4-7/8"	860	365	1,225
8220				butt welded	8-3/4"	1,025	415	1,440
8360			6'-0" x 7'-0"	drywall K.D.	4-7/8"	1,600	600	2,200
8400	Composite-3 hour	18 ga. full panel	2'-8" x 7'-0"	drywall K.D.	5-3/4"	800	365	1,165
8420				butt welded	8-3/4"	975	410	1,385
8560			6'-0" x 7'-0"	drywall K.D.	5-3/4"	1,425	590	2,015

C1020 120 Wood Door/Wood Frame

	TYPE	FACE	SIZE	FRAME	DEPTH	COST EACH		
						MAT.	INST.	TOTAL
1600	Hollow core/flush	lauan	2'-8" x 6'-8"	pine	3-5/8"	169	219	388
1620					5-3/16"	153	232	385
1760			6'-0" x 6'-8"	pine	3-5/8"	277	360	637
1780					5-3/16"	257	375	632
1800		birch	2'-8" x 6'-8"	pine	3-5/8"	219	219	438
1820					5-3/16"	203	232	435
1960			6'-0" x 6'-8"	pine	3-5/8"	370	360	730
1980					5-3/16"	350	375	725
2000		oak	2'-8" x 6'-8"	oak	3-5/8"	141	180	321
2020					5-3/16"	220	235	455
2160			6'-0" x 6'-8"	oak	3-5/8"	360	365	725
2180					5-3/16"	370	380	750
3000	Particle core/flush	lauan	2'-8" x 6'-8"	pine	3-5/8"	218	227	445
3020					5-3/16"	202	240	442
3160			6'-0" x 7'-0"	pine	3-5/8"	365	400	765
3180					5-3/16"	345	415	760

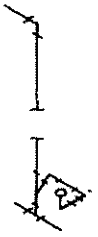
D2010 Plumbing Fixtures

Systems are complete with trim seat and rough-in (supply, waste and vent) for connection to supply branches and waste mains.

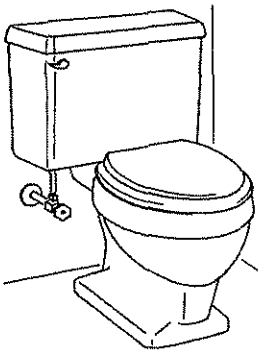


One Piece Wall Hung

Supply



Waste/Vent



Floor Mount

System Components	QUANTITY	UNIT	COST EACH MAT.	COST EACH INST.	COST EACH TOTAL
SYSTEM D2010 110 1880					
WATER CLOSET, VITREOUS CHINA, ELONGATED					
TANK TYPE, WALL HUNG, TWO PIECE					
Water closet, tank type vit china wall hung 2 pc. w/seat supply & stop	1.000	Ea.	655	212	867
Pipe Steel galvanized, schedule 40, threaded, 2" diam.	4.000	L.F.	76	70.20	146.20
Pipe, CI soil, no hub, cplg 10' OC, hanger 5' OC, 4" diam.	2.000	L.F.	29.10	38.70	67.80
Pipe, coupling, standard coupling, CI soil, no hub, 4" diam.	2.000	Ea.	45	68	113
Copper tubing type L solder joint, hangar 10' O.C., 1/2" diam.	6.000	L.F.	16.44	46.20	62.64
Wrought copper 90° elbow for solder joints 1/2" diam.	2.000	Ea.	3.20	62	65.20
Wrought copper Tee for solder joints 1/2" diam.	1.000	Ea.	2.74	48	50.74
Supports/carrier, water closet, siphon jet, horiz, single, 4" waste	1.000	Ea.	830	117	947
TOTAL			1,657.48	662.10	2,319.58

D2010 110	Water Closet Systems		COST EACH MAT.	COST EACH INST.	COST EACH TOTAL
1800	Water closet, vitreous china, elongated				
1840	Tank type, wall hung				
1880	Close coupled two piece	RD2010 -400	1,650	660	2,310
1920	Floor mount, one piece		930	705	1,635
1960	One piece low profile		970	705	1,675
2000	Two piece close coupled		625	705	1,330
2040	Bowl only with flush valve				
2080	Wall hung		1,425	750	2,175
2120	Floor mount		750	715	1,465
2160	Floor mount, ADA compliant with 18" high bowl		770	735	1,505

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COSTING ASSIGNMENT WORK

Cost Range Philosophy

- Scope of Work
  - Limited to item only, minimal other work
  - Includes rough-in, finish and other additional related work
  - Work item may affect other spaces
- Procurement of Work
  - District staff work order
  - Outside contractor for individual items
  - Contracted as part of a larger project

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COSTING ASSIGNMENT WORK

Scope Definition and Potential Related Work

- Scope Considerations
  - Patching or replacing adjacent floors or walls
  - Rework existing or provide new
  - Upgrade component or replace system
  - Other components affected by relocation or replacement of another
  - Replace that next section of pipe

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COSTING ASSIGNMENT WORK

Efficiency Upgrades

- Identify Improvements with Greatest Return on Investment (ROI)
  - Systems that use the most energy
  - Outdated systems
  - Buildings that are least efficient
  - Upgrades that have the greatest opportunities for outside funding

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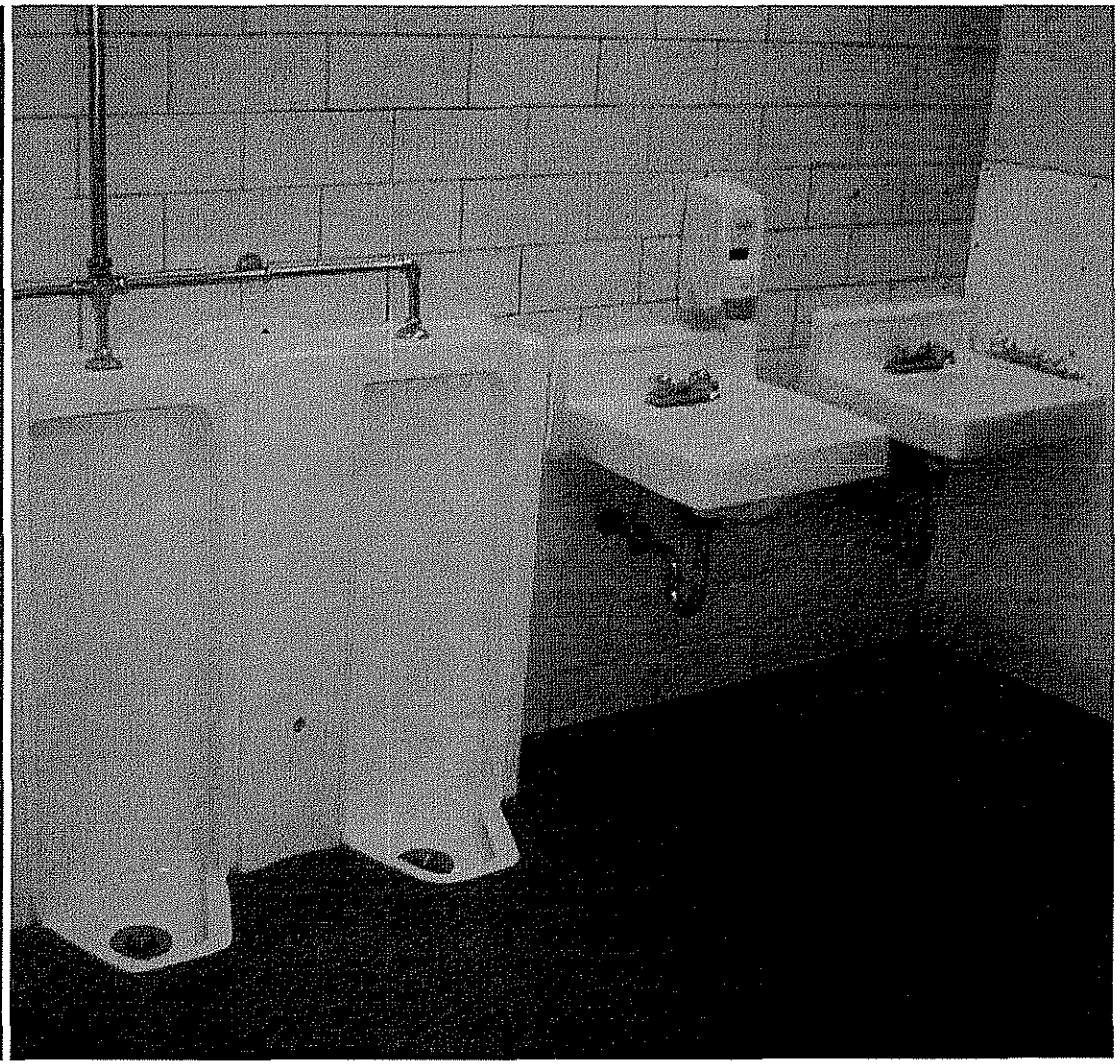
REVIEW OF THE REPORT

001 Allis Elementary



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REVIEW OF THE REPORT

007 Emerson Elementary

DURRANT

REVIEW OF THE REPORT

009 Glendale Elementary

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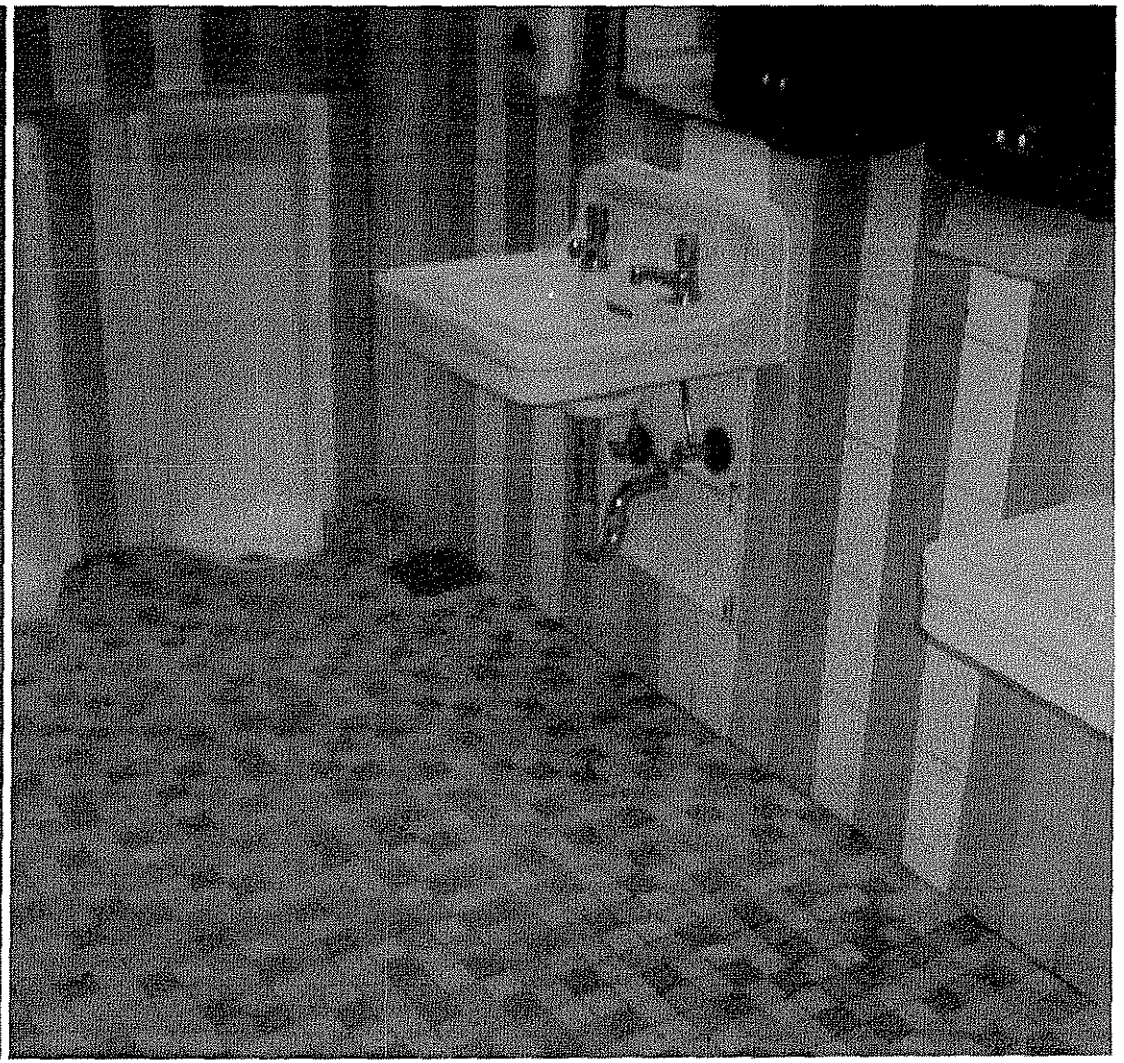
REVIEW OF THE REPORT

014 Lakeview Elementary



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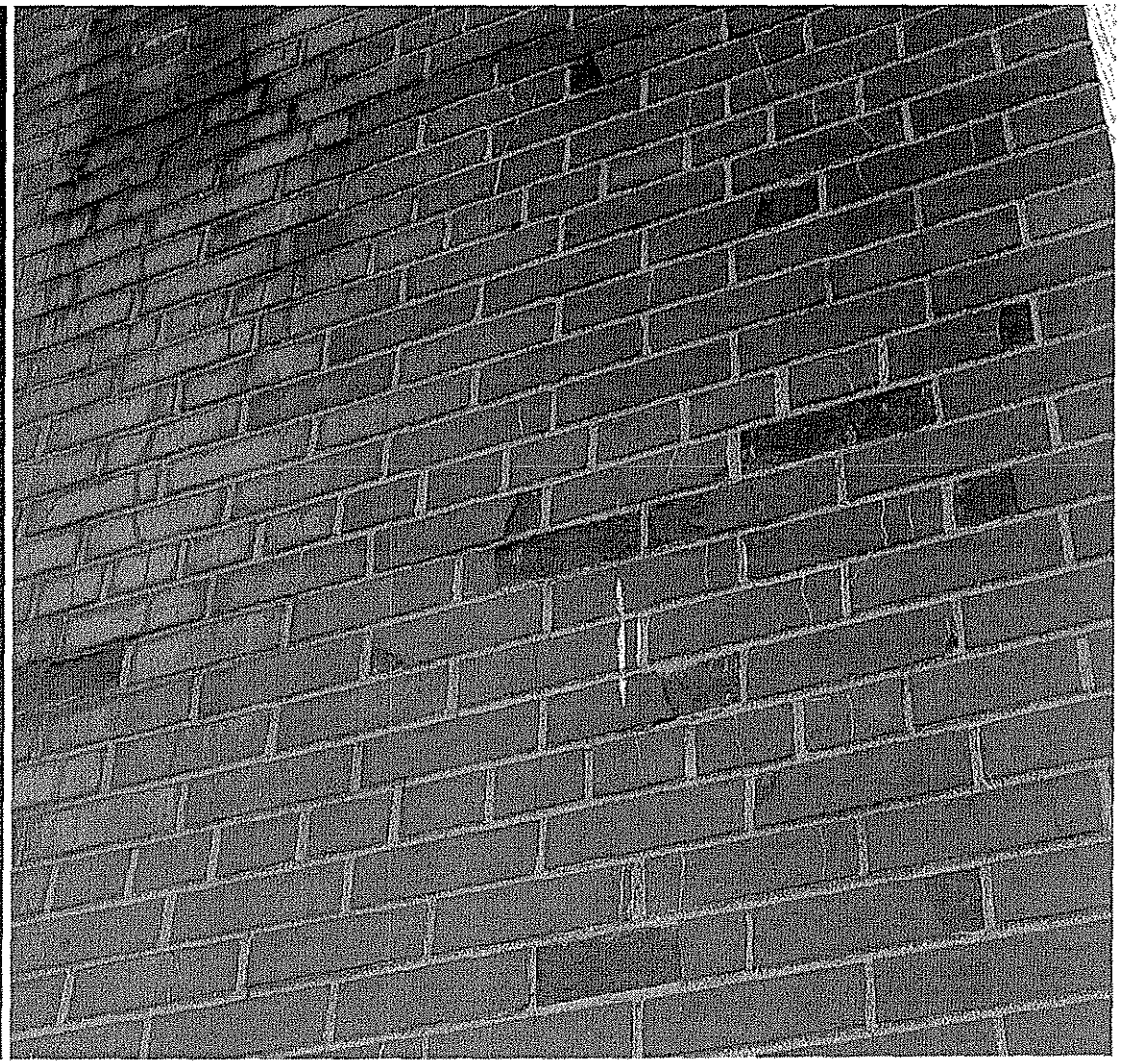
REVIEW OF THE REPORT

015 Chavez Elementary

DURRANT

REVIEW OF THE REPORT

022 Midvale Elementary



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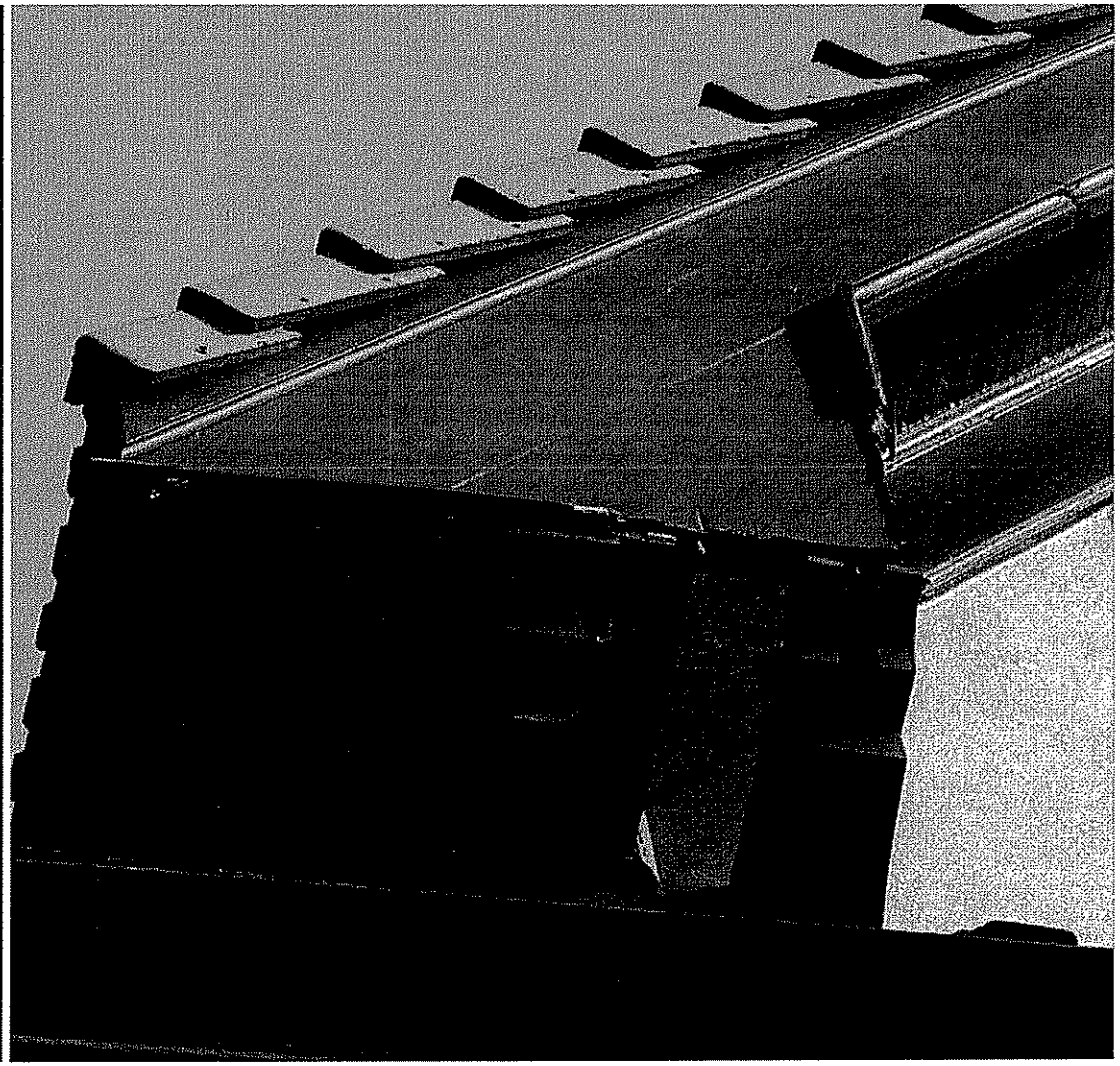
REVIEW OF THE REPORT

026 Randall Elementary



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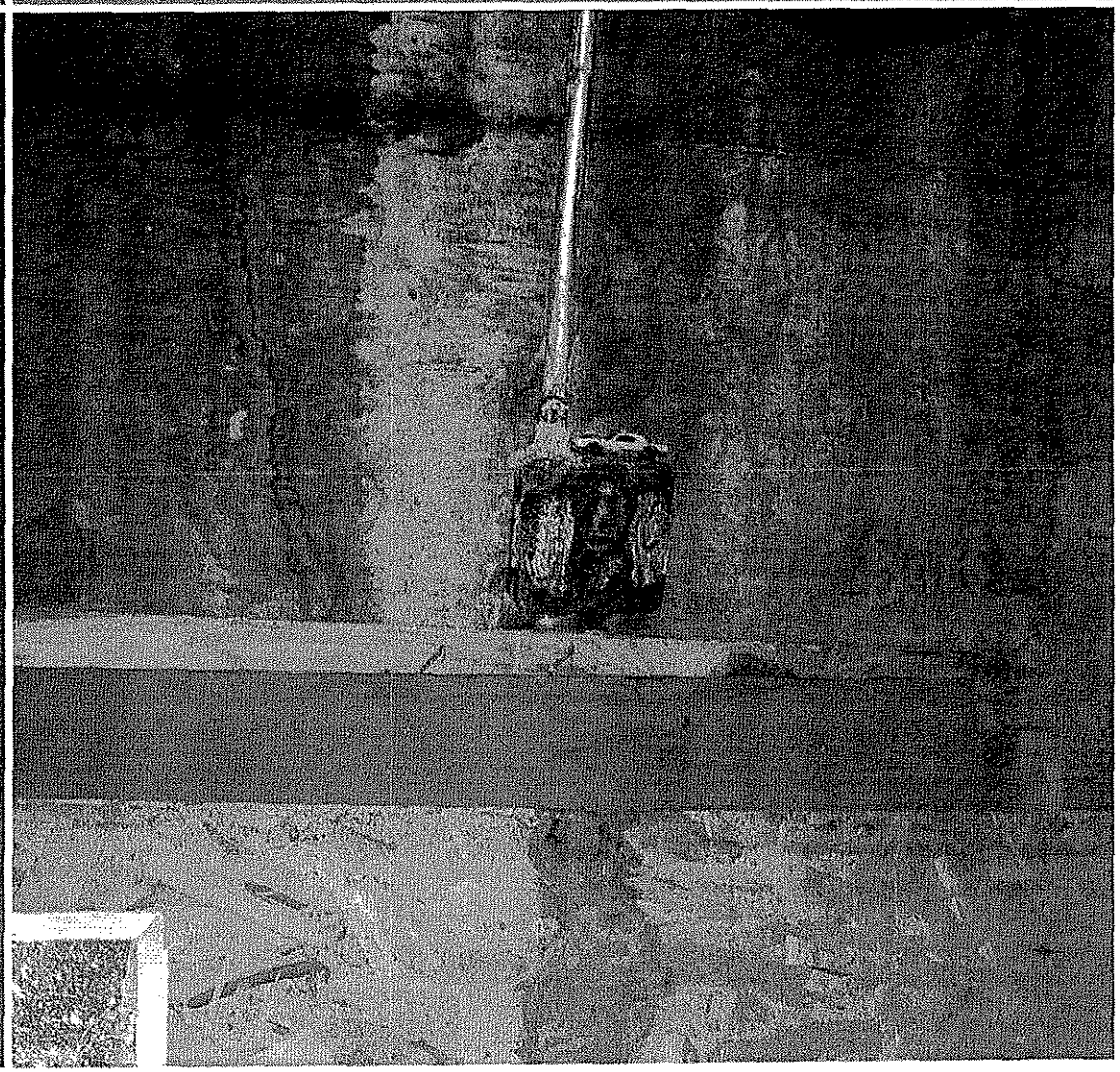
REVIEW OF THE REPORT

072 Leopold Elementary



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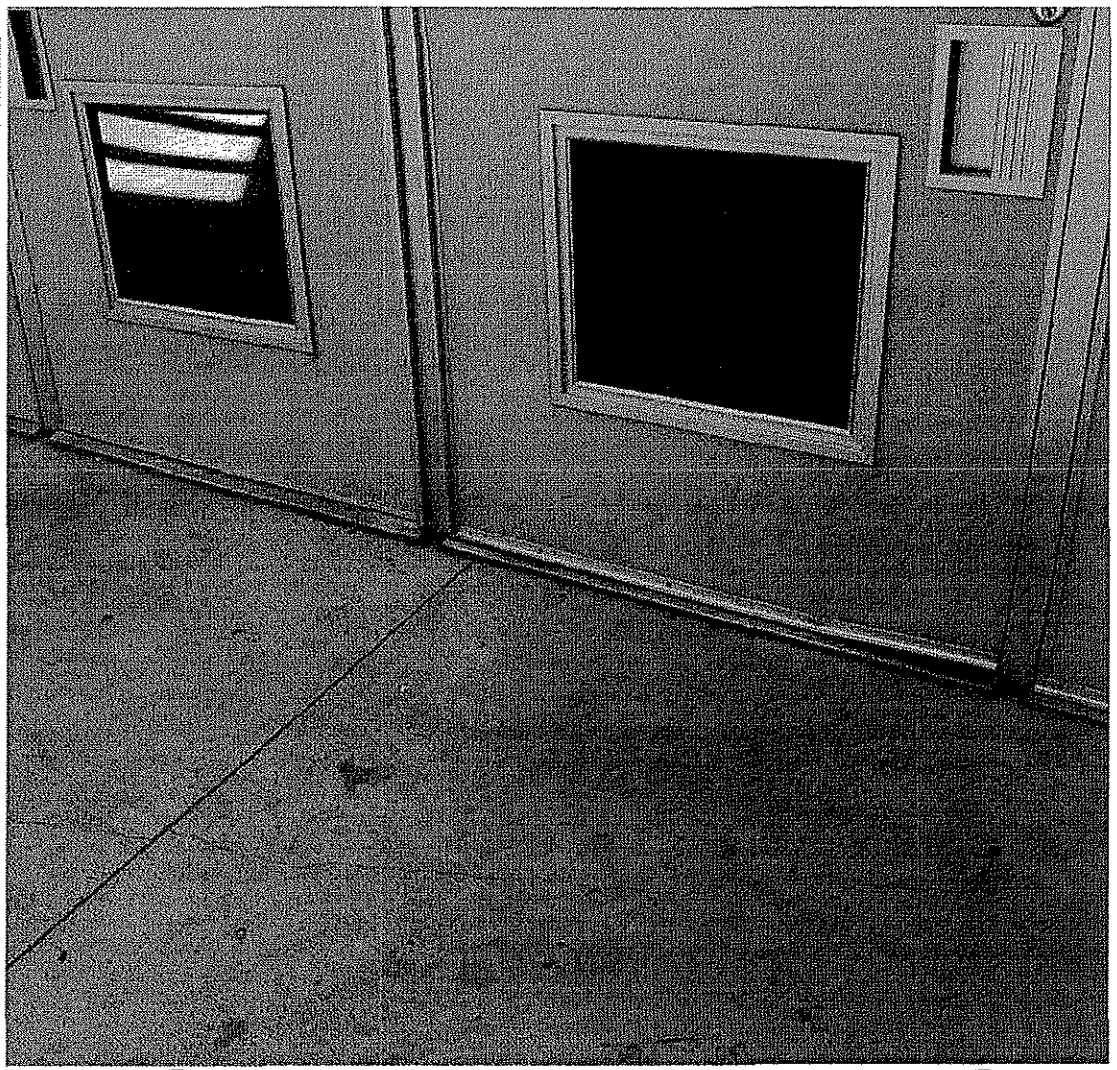
REVIEW OF THE REPORT

141 East High



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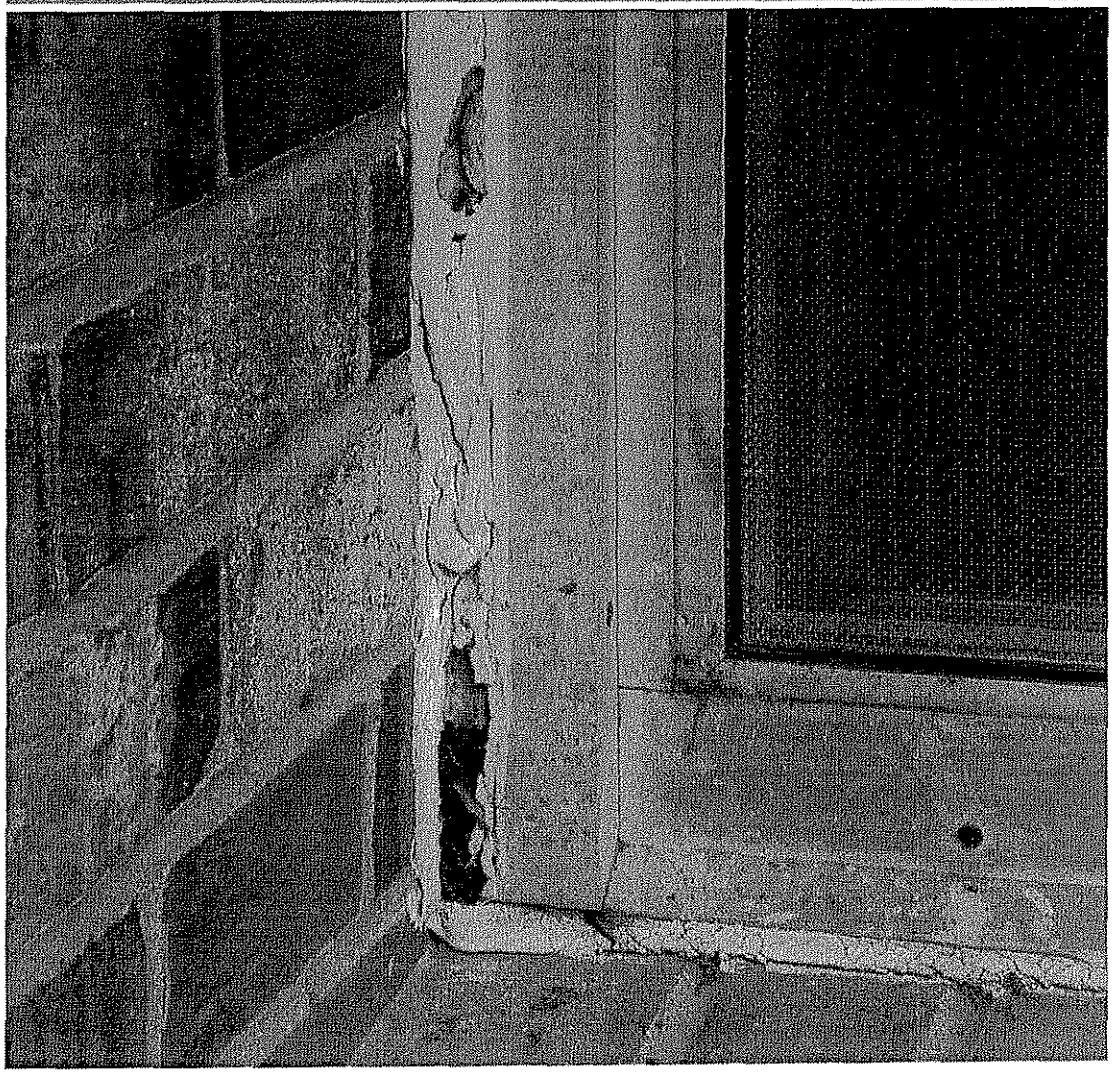
REVIEW OF THE REPORT

210 Blackhawk Middle/ Gompers Elementary



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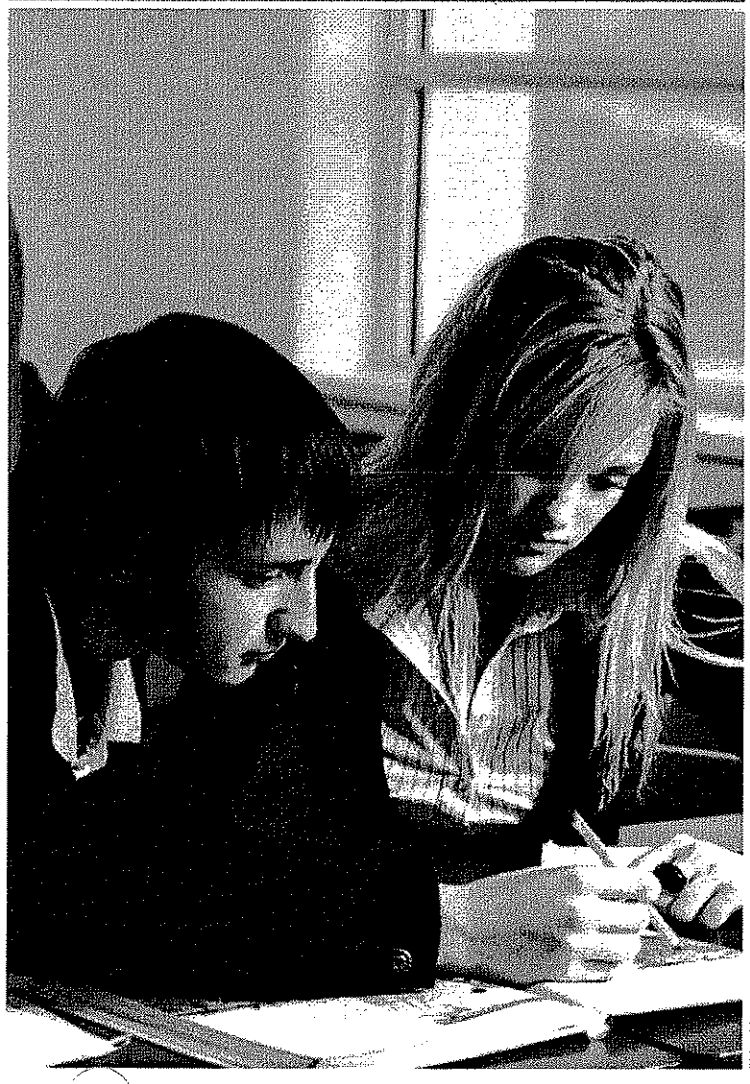
PROJECT IMPLEMENTATION



- Work Completed by District Staff
  - Smaller summer projects
- Work Completed by Contractors
  - Specific buildings
  - Specific types of work
  - Summer or year-round work
- Sequencing
  - Systems
  - Buildings
  - Building zones

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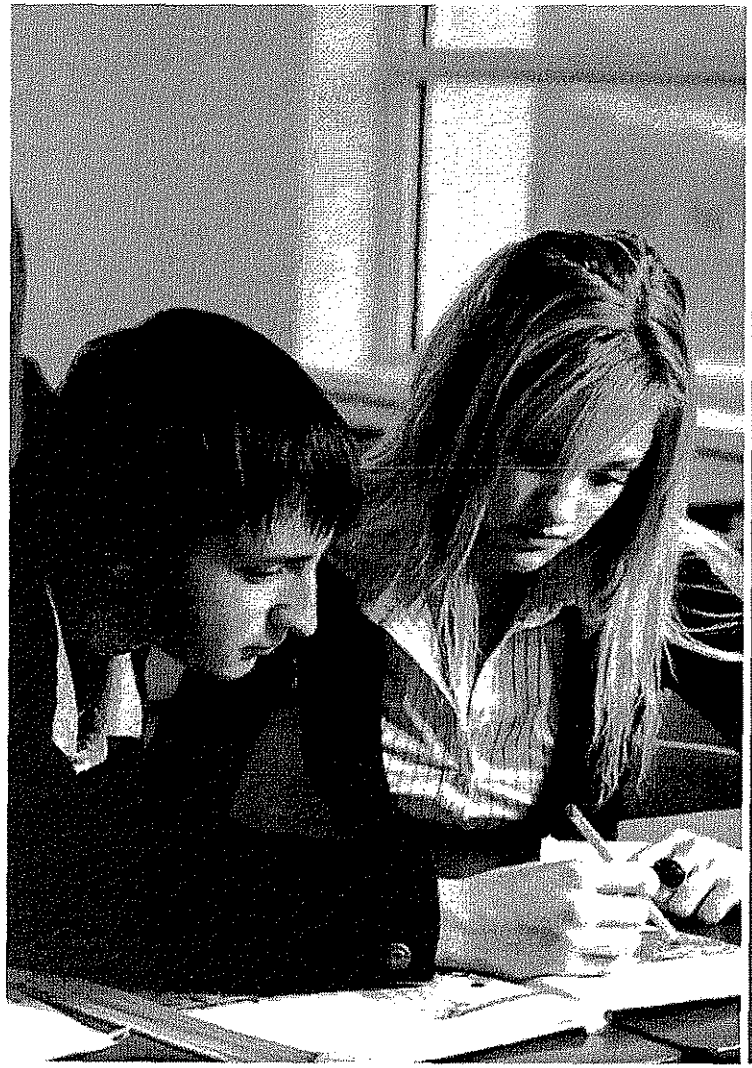
PROJECT IMPLEMENTATION

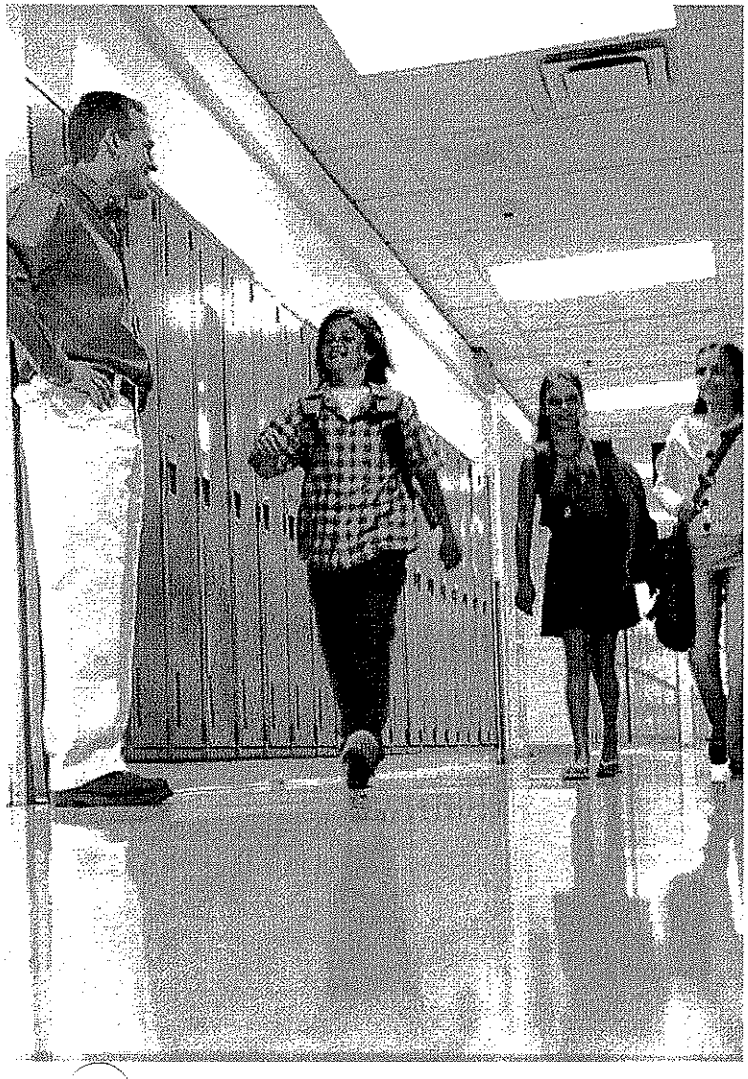


Scope of Actual, Defined Projects

- Condition assessment report is not a list of defined projects
- Projects should be defined based on priorities and deficiencies
  - Building by building
  - Systems
  - Work item types

DURRANT

USE OF DATABASE AS A LIVING TOOL

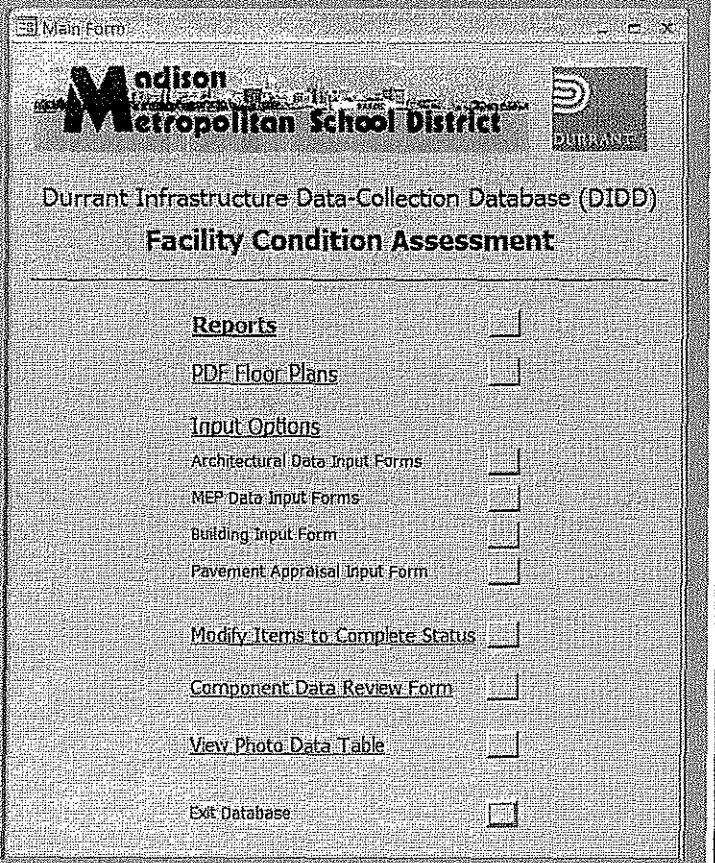


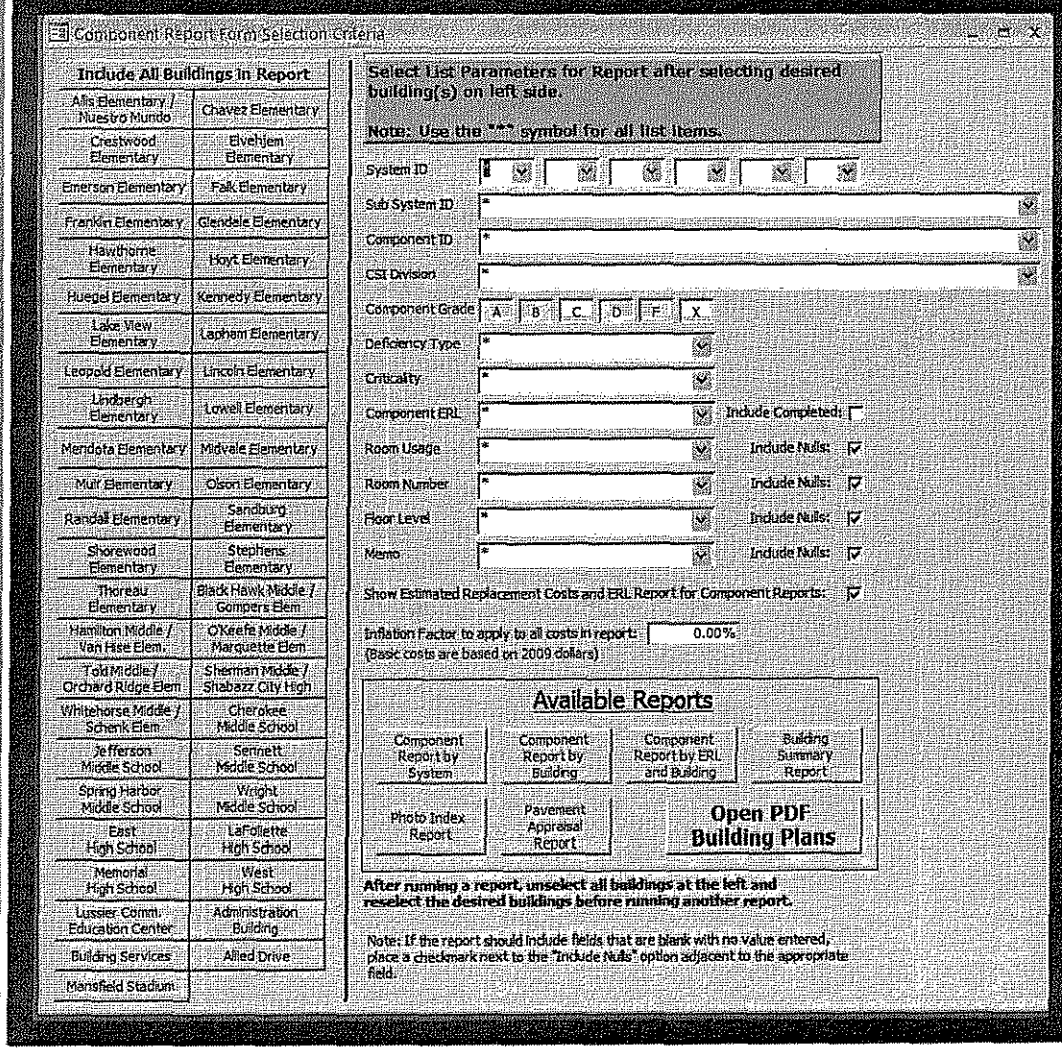
For Planning and Budgeting

- Must be edited and maintained to stay current
  - As work is accomplished
  - Overall update every 5-10 years
- Can be sorted for planning and budgeting
  - By building
  - By equipment type
  - By grade
  - By criticality

DURRANT

DATABASE DEMONSTRATION





DURRANT

Facility Assessment Report and Database

MMSD Board Meeting

July 12, 2010

Kevin Eipperle
Thom Flickinger
Jim Kolf
Chris Wand