



Facility Assessment and Master Plan

Preliminary Facility Assessment Findings

Canutillo Independent School District

Dec 3, 2015



JACOBS

- Facility vs 'School' vs Site/Campus vs Building vs Component
- Assessment/budget vs Design/take-off estimate
- Deficiency vs Life Cycle
- Costs reflect 'like for like replacement'
- Limits of scope (newest campuses, portables)
- Capacities and enrollment projections by others

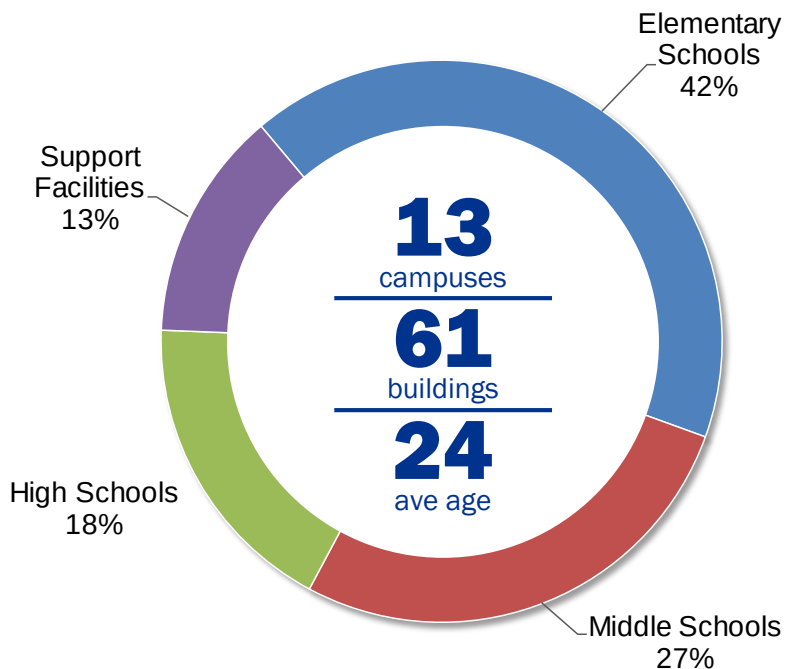
- Priority 1 - Mission Critical Concerns (Current)
 - *Eg. Life Safety, Asset Preservation, Use of Facility*
- Priority 2 - Indirect Impact (1 Year)
- Priority 3 - Short-Term Conditions (2-3 Yrs)
- Priority 4 - Long-Term Requirements (3-5 Yrs)
- Priority 5 – Enhancements
 - *Eg. Aesthetics, paint, carpet*

Facility Portfolio Assessed

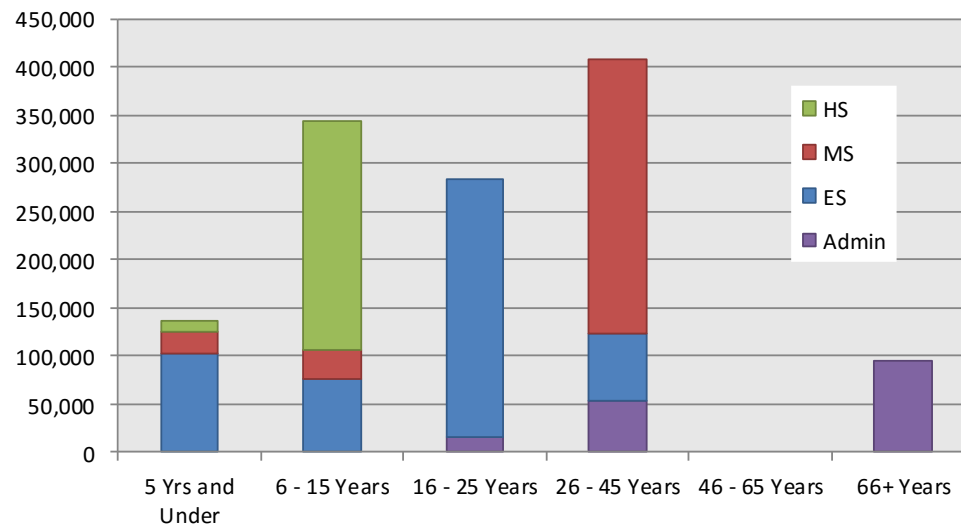
Facility Type	Campuses*	Permanent Buildings		Temporary Buildings		All Buildings		
		Count	Total Sq Ft	Count	Total Sq Ft	Count	Total Sq Ft	Ave Age
Elementary Schools	6	7	514,493	1	768	8	515,261	17
Middle Schools	2	14	336,631	-	-	14	336,631	30
High Schools	2	7	220,250	26	29,400	33	249,650	7
Support Facilities	3	6	163,760	-	-	6	163,760	57
Total	13	34	1,235,134	27	30,168	61	1,265,302	24

* Newly opened Reyes ES assessed for Educational Adequacy, but not for condition.

Facility Inventory



Facility Sq Ft by Age and Type



CANUTILLO ISD ASSESSMENT FINDINGS (In 2015 Dollars)

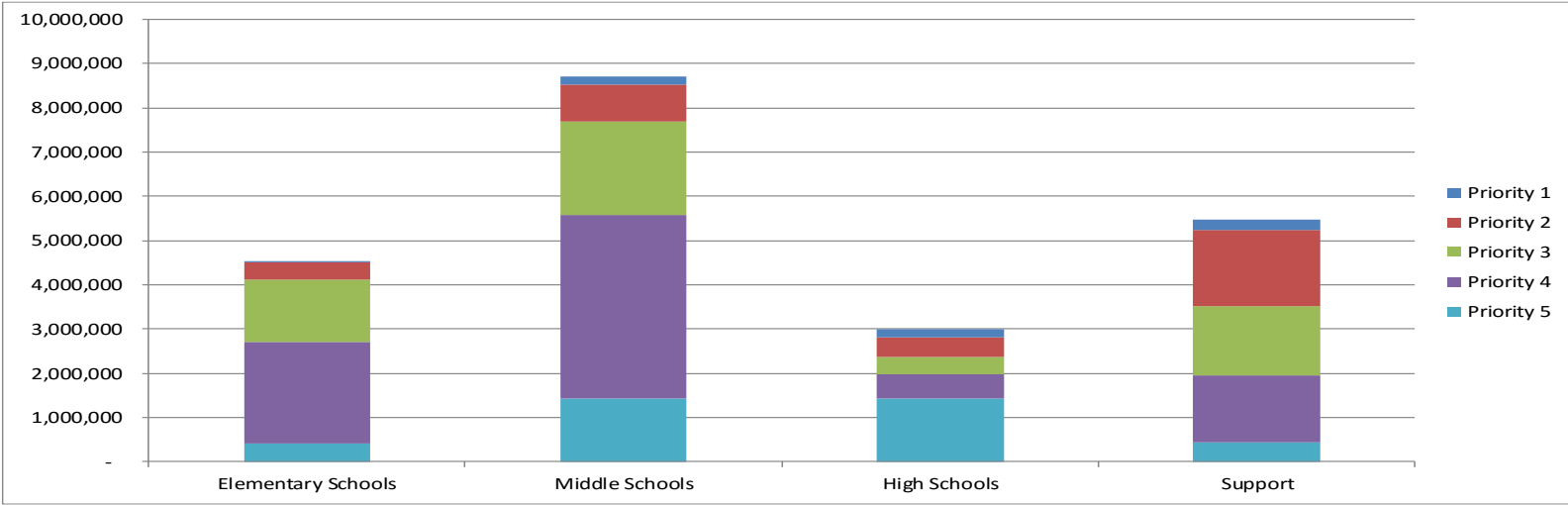
FACILITY DEFICIENCY COST (Current)	+	\$ 21.7 Million
5-YEAR LIFE CYCLE FORECAST	+	\$ 29.6 Million
ADEQUACY AND EQUITY DEFICIENCY COSTS	+	\$ 15.8 Million
TOTAL 5-YEAR NEED		\$ 67.1 Million

- Buildings are generally in very good condition for schools of their age, reflecting CISD’s recent investments in capital renewal.
- Buildings are well-maintained, with appropriate focus on priorities.
- Some building systems are at or near the end of expected useful life.
- Near-term moderate capital reinvestment recommended.
- Additional District requests pending.

Deficiency Costs by Facility Type

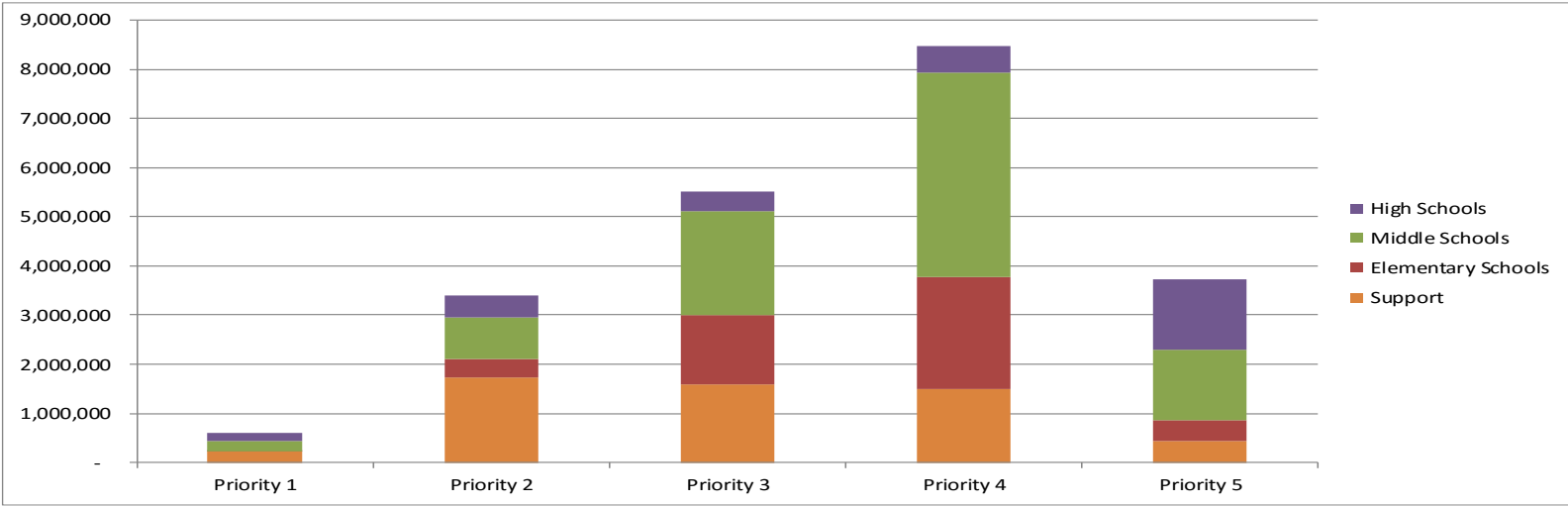
Current Deficiency Cost by Priority, Facility Type (excludes Educational Adequacy Deficiencies)

Type	Facility Condition Assessment Priority						Total	%
	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5			
Elementary Schools	8,416	387,413	1,423,698	2,285,367	417,572		4,522,466	21%
Middle Schools	195,671	840,745	2,102,553	4,151,571	1,430,934		8,721,474	40%
High Schools	173,239	444,581	397,579	531,095	1,440,116		2,986,609	14%
Support	224,213	1,719,675	1,581,090	1,496,660	439,706		5,461,343	25%
Grand Total	\$ 601,539	\$ 3,392,414	\$ 5,504,920	\$ 8,464,692	\$ 3,728,328		\$ 21,691,892	
%	3%	16%	25%	39%	17%			



Deficiency Costs by Priority

Current Deficiency Cost by Priority, Facility Type (excludes Educational Adequacy Deficiencies)							
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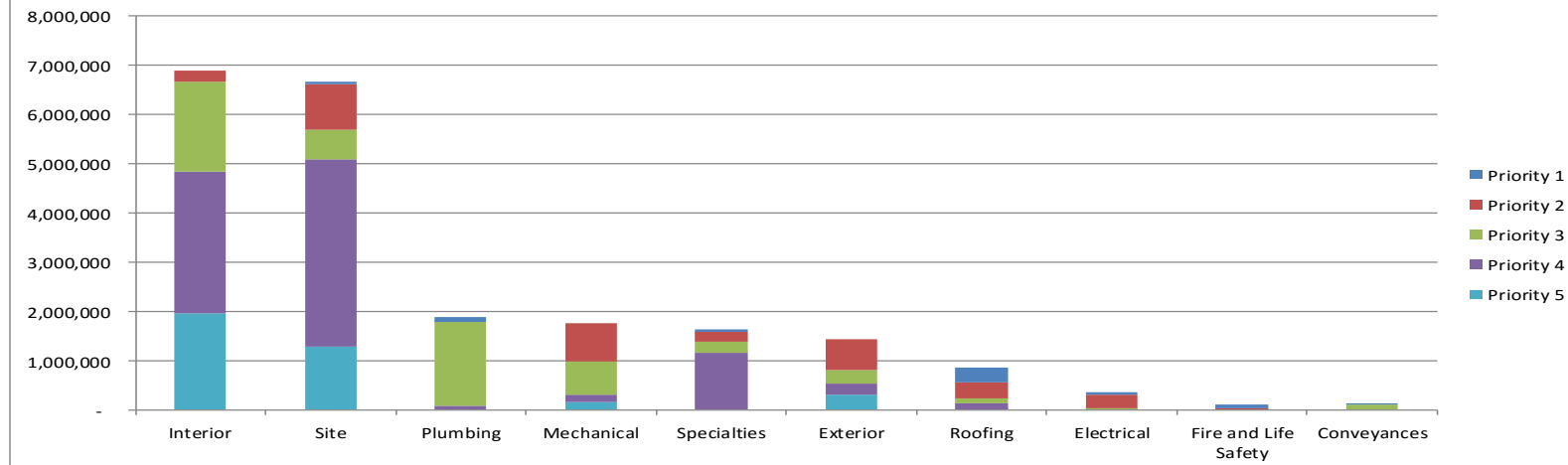


Deficiency Costs by System

Current Deficiency Cost by Priority, System (excludes Educational Adequacy Deficiencies)

Category	Facility Condition Assessment Priority						Total	%
	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5			
Interior	-	212,526	1,829,931	2,875,129	1,973,091		6,890,677	32%
Site	48,363	927,126	588,053	3,819,830	1,281,936		6,665,308	31%
Plumbing	110,300	3,819	1,683,139	93,324	-		1,890,580	9%
Mechanical	-	781,802	663,242	142,157	167,987		1,755,188	8%
Specialties	33,017	216,984	212,059	1,167,875	-		1,629,935	8%
Exterior	-	623,556	282,375	233,771	296,742		1,436,445	7%
Roofing	298,911	309,181	111,634	122,118	8,572		850,416	4%
Electrical	43,618	285,529	10,449	10,489	-		350,084	2%
Fire and Life Safety	54,658	31,890	9,511	-	-		96,059	0%
Conveyances	12,674	-	114,528	-	-		127,201	1%
Total	\$ 601,539	\$ 3,392,414	\$ 5,504,920	\$ 8,464,692	\$ 3,728,328	\$ 21,691,892		100%

%



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Deficiency Cost Build-Up

- All costs derived from visually observed needs
- RS Means industry standard estimating



Deficiency:			
Assess ID	2089	Surveyor/Update	
Deficiency Code ID	A11-02		
Status	Estimated	FCI	Yes
Life Cycle	8263		
Deficiency: Asphalt Paving Is Damaged And Requires Replacement			
Category	Capital Renewal	System	Site
Priority	4-Long Term Requirements (8-5 years)	Functional Adequacy	Non Related

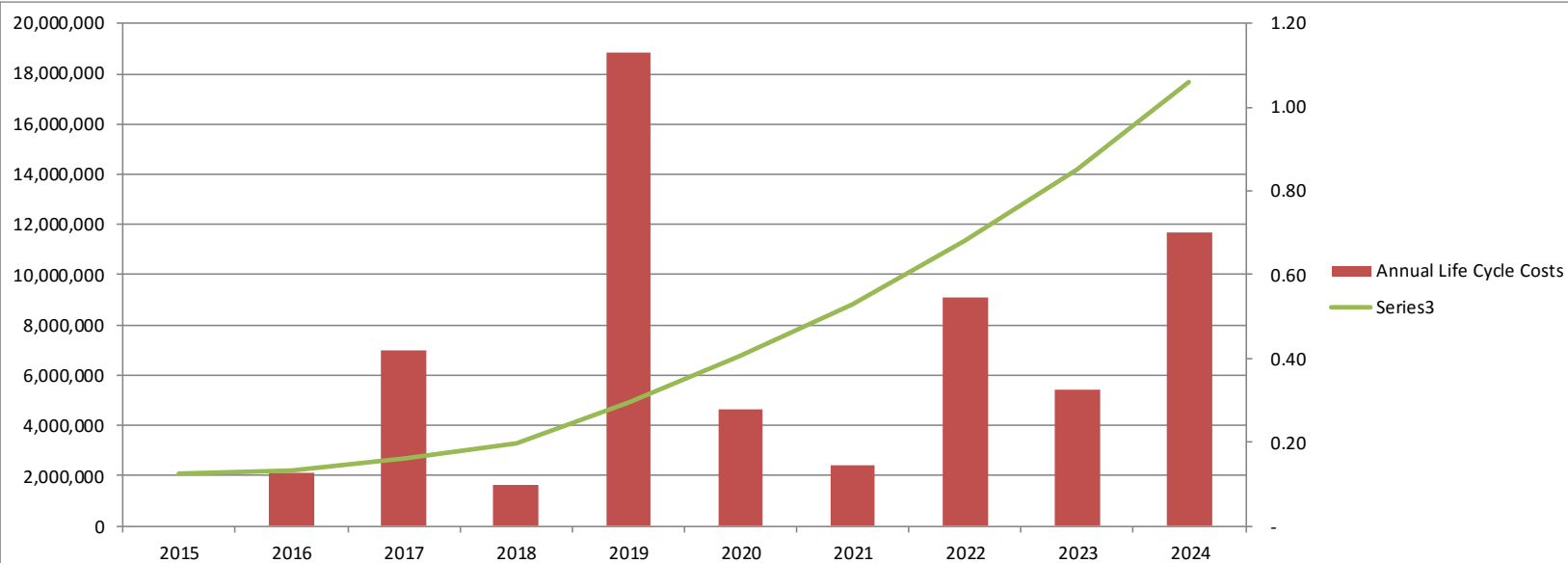
Deficiency:						
Assess ID	843	Surveyor/Update				
Deficiency Code ID	R2-03C					
Status	Estimated	FCI	Yes			
Life Cycle	3881					
Deficiency: The Modified Roof Covering Requires Replacement						
Category	Capital Renewal	System	Roofing			
Priority	1-Mission Critical Concerns	Functional Adequacy	Non Related			
Correction	Replace Modified Roof Covering	Quantity / UoM				
Project(s) Note	poor drainage, insufficient drains, leaks/icepage, deteriorated roof material					
Estimate:						
Type	Number	Description	Qty UoM	Price	Extension	
U	072216101735	Polyisocyanurate insulation, for roof decks, 2-1/2" thick, 28PCF density, fastening excluded	25,830 SF	1.52	\$39,262	
M	070505100200	General Roofing Labor	25,830 SF	1.98	\$51,143	
M	070505103000	Roofing and siding demolition, roofing, built-up, 5-ply, excluding gravel	25,830 SF	1.08	\$27,896	
U	075213100040	APP modified bituminous membrane, base sheet, #15 glass fiber felt, fully mopped to deck	258 Sq	45.00	\$11,824	
Sub Total					\$129,925	
Construction Adjustment					39%	50,021
Construction Cost						\$179,946
Adjustment Factor					0%	0
Soft Cost Adjustment					36%	64,835
Total Estimated Amount						\$244,781

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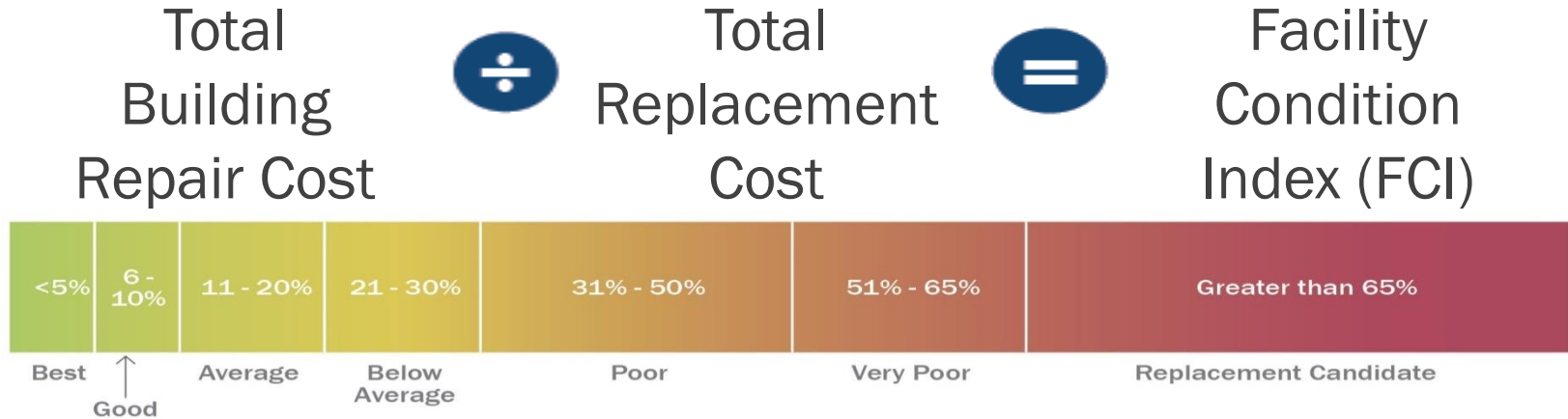
Life Cycle Forecast

10-Year Life Cycle by Building Type

Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Elementary Schools	\$ -	\$ 971,713	\$ 2,525,973	\$ 772,823	\$ 1,973,878	\$ 1,180,713	\$ 931,473	\$ 5,236,828	\$ 2,264,506	\$ 4,376,725
Middle Schools	\$ -	\$ 436,088	\$ 1,136,759	\$ 228,211	\$ 1,400,199	\$ 2,809,371	\$ 535,889	\$ 3,346,426	\$ 2,509,301	\$ 2,865,437
High Schools	\$ -	\$ 452,610	\$ 181,864	\$ 514,691	\$ 13,719,931	\$ 369,318	\$ 621,366	\$ 290,409	\$ 476,619	\$ 3,699,745
Support	\$ -	\$ 236,053	\$ 3,148,776	\$ 140,967	\$ 1,742,766	\$ 282,318	\$ 314,968	\$ 220,747	\$ 192,958	\$ 727,188
Annual Life Cycle Costs	\$ -	\$ 2,096,464	\$ 6,993,372	\$ 1,656,692	\$ 18,836,774	\$ 4,641,720	\$ 2,403,696	\$ 9,094,410	\$ 5,443,384	\$ 11,669,095
Running Total	\$ -	\$ 2,096,464	\$ 9,089,836	\$ 10,746,528	\$ 29,583,302	\$ 34,225,022	\$ 36,628,718	\$ 45,723,128	\$ 51,166,512	\$ 62,835,607



Facility Condition Index



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Facility Condition Index

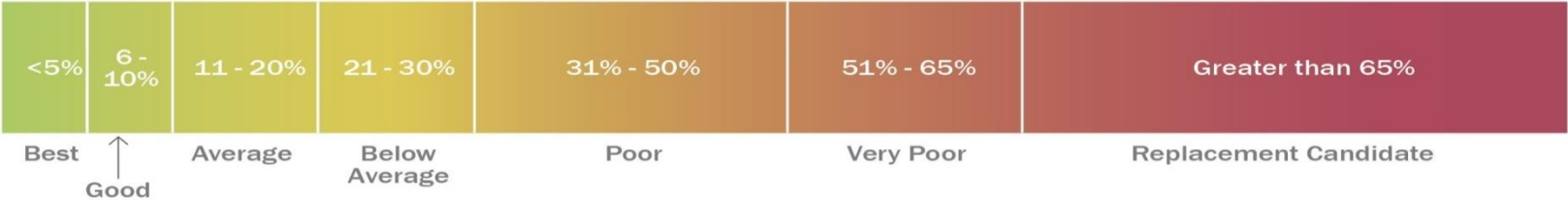
\$37.5 Million
Repair and Adequacy
Cost (Current)



\$302 Million
Replacement Cost



12%
FCI
Current



\$67.1 Million
Repair and Adequacy
Cost (5-Year)

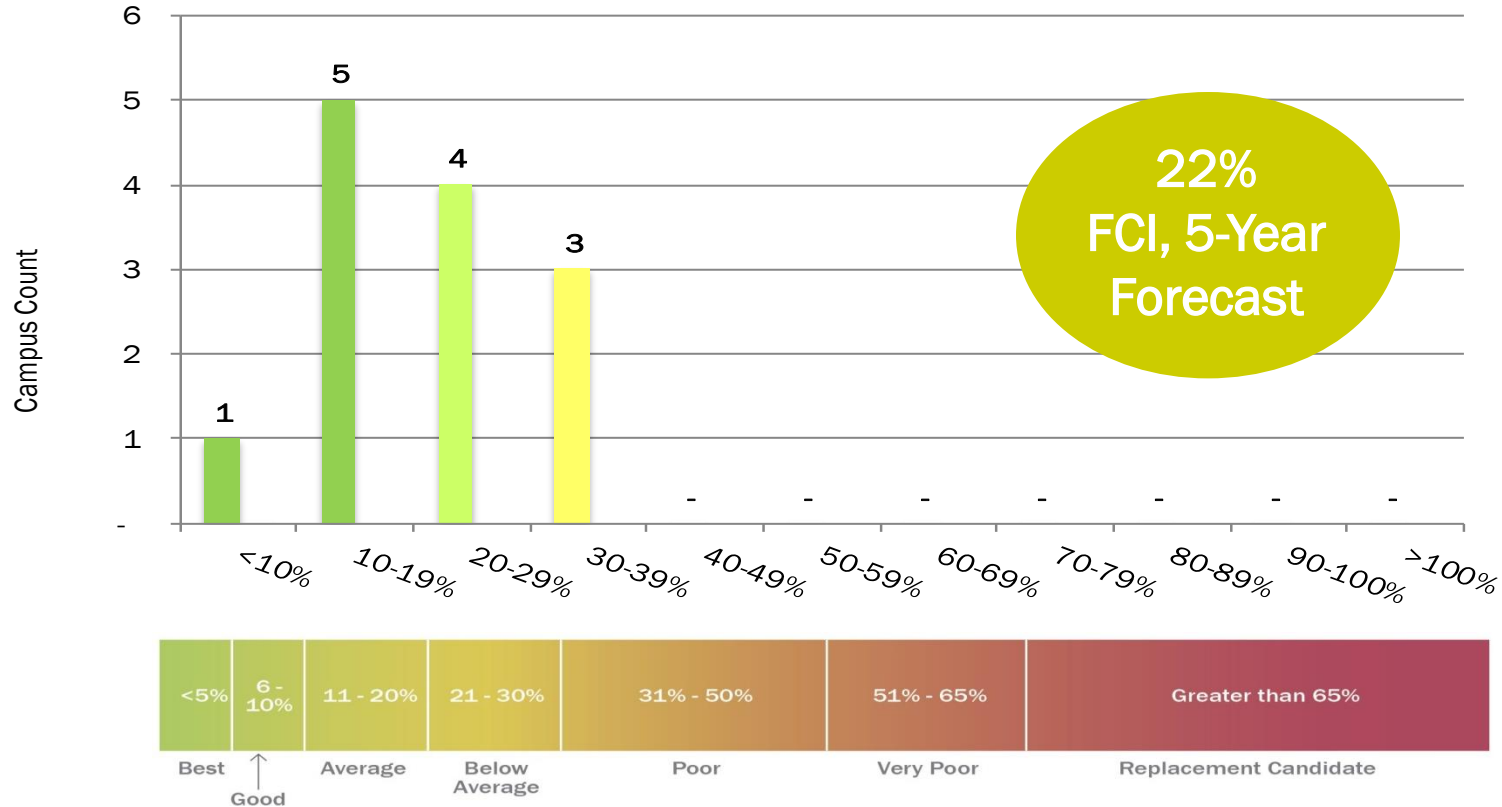


\$302 Million
Replacement Cost



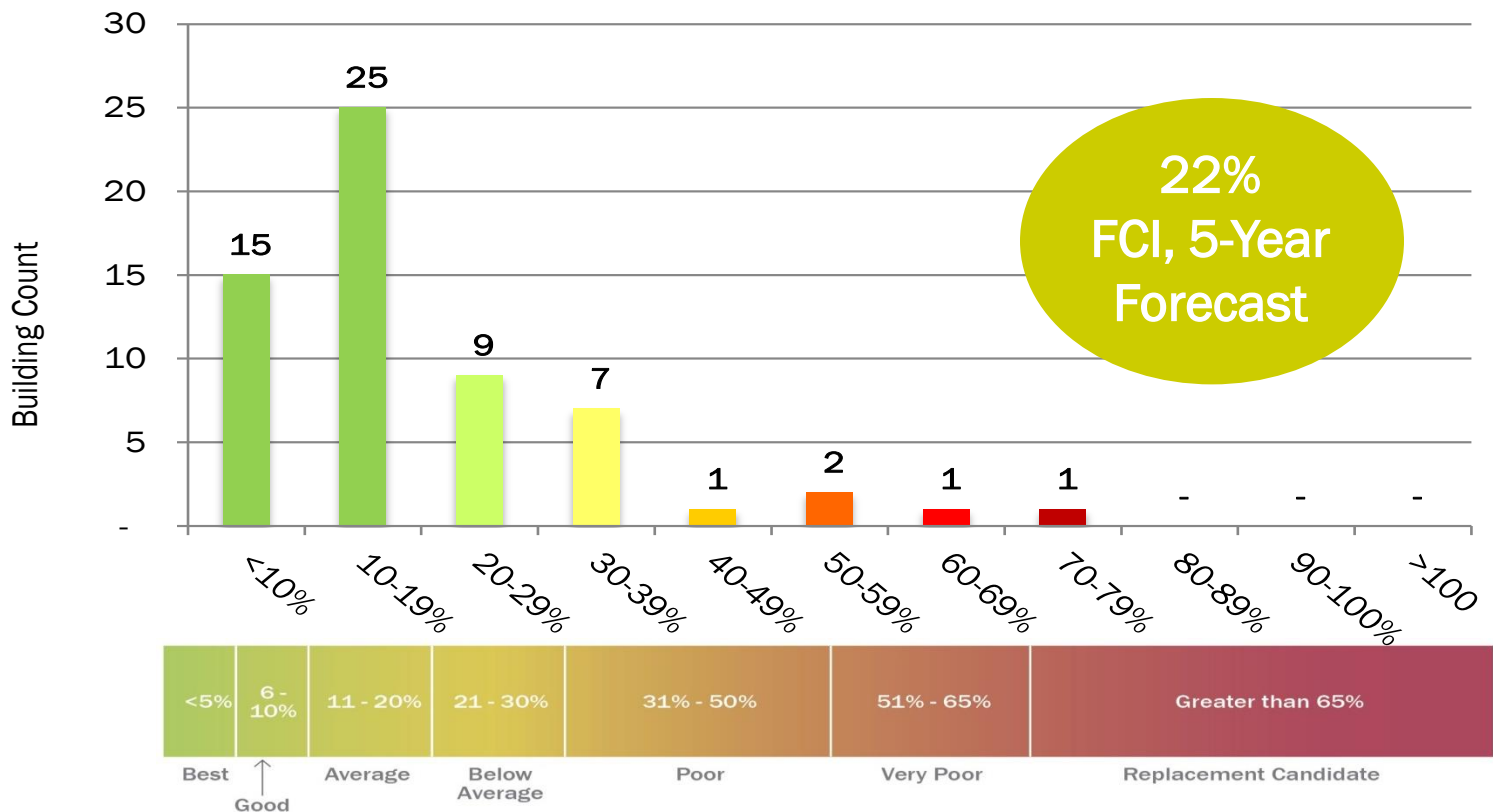
22%
FCI, 5-Year
Forecast

FCI by Campus



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FCI by Building



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5-Yr Deficiency Costs by School

5-Year Needs by School

Type	Facility Condition Assessment Category							
	Repair	5-Year Life Cycle	Code Compliance	Educational Adequacy	Total 5-Year Need	Replacement Value	Current FCI	Projected 5-Year FCI
Canutillo H. School	2,357,297	14,407,773	11,723	2,438,060	19,214,854	55,811,350	0.09	0.34
NW Early College HS (NECHS)	597,812	461,323	19,776	681,158	1,760,069	7,449,960	0.17	0.24
Canutillo Middle School	4,738,051	1,641,649	55,354	2,500,645	8,935,700		0.18	0.23
Alderete Middle School	3,588,438	1,559,608	339,630	2,579,085	8,066,761	37,471,990	0.17	0.22
Canutillo Elementary School	422,345	1,138,754	1,670	966,514	2,529,284	21,112,982	0.07	0.12
Deanna Davenport Elementary School	499,545	1,276,551	29,033	982,996	2,788,125	16,035,823	0.09	0.17
Jose Damian Elementary School	1,082,405	1,663,473	52,965	1,378,846	4,177,689	19,961,794	0.13	0.21
Bill Childress Elementary School	1,308,816	1,382,342	50,495	1,395,455	4,137,108	21,519,230	0.13	0.19
Garcia Elementary School	1,073,899	783,267	1,292	741,076	2,599,534	17,612,594	0.10	0.15
Reyes Elementary School	-	-	-	959,962	959,962	23,782,476	0.04	0.04
Central Office	208,683	1,820,514	170,887	367,433	2,567,517	13,632,920	0.05	0.19
Lone Star Building	3,874,011	2,919,691	445,468	523,304	7,762,474	23,809,464	0.20	0.33
Facilities & Transportation	752,659	528,357	9,635	263,507	1,554,158	4,054,400	0.25	0.38
Grand Total	20,503,962	29,583,302	1,187,930	15,778,041	\$ 67,053,236	262,254,983	0.14	0.26
%	31%	44%	2%	24%				

Space Inventory and Capacity Analysis

- Consistent, equitable school capacities generated from field verified space inventory.

School Capacity and Utilization Analysis

Aldine ISD Facility Condition Assessment

124 Dunn Elementary School

2023 W W Thomas Dr, Houston

School Summary

Facility

Grade 8

4,488

Core Capacity

Calculus @ 3 Sem

4,488

Classroom Capacity

Scheduling Factor (ES=95%, Int/MS=85%, HS=95%)

95 %

Utilization

L = B / H

Classroom Utilization 2015

121.55 %

M-A-P-N-S ©, Jacobs 2015

School Capacity and Utilization Analysis

Aldine ISD Facility Condition Assessment

122 Carmichael Elementary School

6602 Silver Star Dr, Houston, TX 77066-2134

Room Capacity

Summary

Facility Inventory						Classroom Capacity		
A	B	C	D	E	F	G	H	I
Bldg # / Floor	Bldg Name	Room #	Room Name	Standard Student Stations	Room Area, Actual / Std / Adjustment (" Area Adj < 85%)	Scheduling Factor (ES=95%, Int/MS=85%, HS=95%)	Permanent Classroom Capacity	Temporary Classroom Capacity

101 Main Bldg 107 107-Primary Classroom

101 Main Bldg 108 108-Computer Laboratory

101 Main Bldg 109 109-Primary Classroom

101 Main Bldg 110 110-Primary Classroom

101 Main Bldg 111 111-Primary Classroom

101 Main Bldg 112 112-Primary Classroom

101 Main Bldg 113 113-Resource Room ES

101 Main Bldg 114 114-Resource Room ES

101 Main Bldg 115 115-Intermediate Classroom

101 Main Bldg 116 116-Intermediate Classroom

101 Main Bldg 117 117-Primary Classroom

101 Main Bldg 118 118-Intermediate Classroom

101 Main Bldg 119 119-Intermediate Classroom

101 Main Bldg 120 120-Intermediate Classroom

101 Main Bldg 121 121-Intermediate Classroom

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101 Main Bldg 146 146-Intermediate Classroom

101 Main Bldg 147 147-Primary Classroom

101 Main Bldg 148 148-Intermediate Classroom

101 Main Bldg 149 149-Intermediate Classroom

101 Main Bldg 150 150-Intermediate Classroom

101 Main Bldg 151 151-Intermediate Classroom

101 Main Bldg 152 152-Intermediate Classroom

101 Main Bldg 153 153-Intermediate Classroom

101 Main Bldg 154 154-Intermediate Classroom

School Capacity and Utilization Analysis

Canutillo ISD Facility Condition Assessment

105

Garcia Elementary School

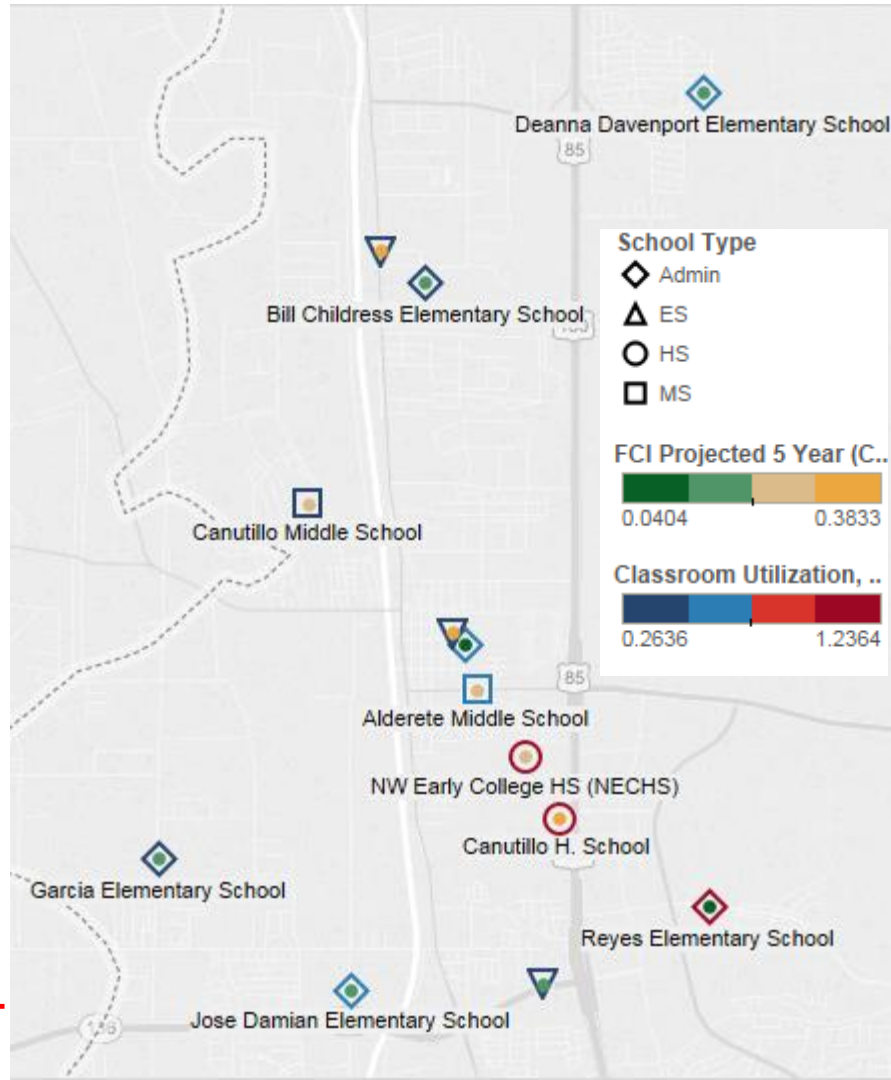
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6550 Westside Drive, El Paso, TX 79932

Room Capacity Summary

Facility Inventory						Classroom Capacity		
A	B	C	D	E	F	G	H=ExFxG	I
Bldg # / Floor	Bldg Name	Room #	Room Name	Standard Student Stations	Room Area, Actual / Std / Adjustment (" Area Adj < 85%)	Scheduling Factor (ES=95%, Int/MS=85%, HS=95%)	Permanent Classroom Capacity	Perm Classroom Capacity
01/01	main	307	307-Intermediate Classroom	22	756/900(84.00 %)	95 %	18	
01/01	main	308	308-Science Classroom (Exploratorium)	0	756/900(84.00 %)	95 %		
01/01	main	309	309-Intermediate Classroom	22	756/900(84.00 %)	95 %	18	
01/01	main	310	310-Intermediate Classroom	22	756/900(84.00 %)	95 %	18	
01/01	main	311	311-Intermediate Classroom	22	756/900(84.00 %)	95 %	18	

Facility Condition & Utilization

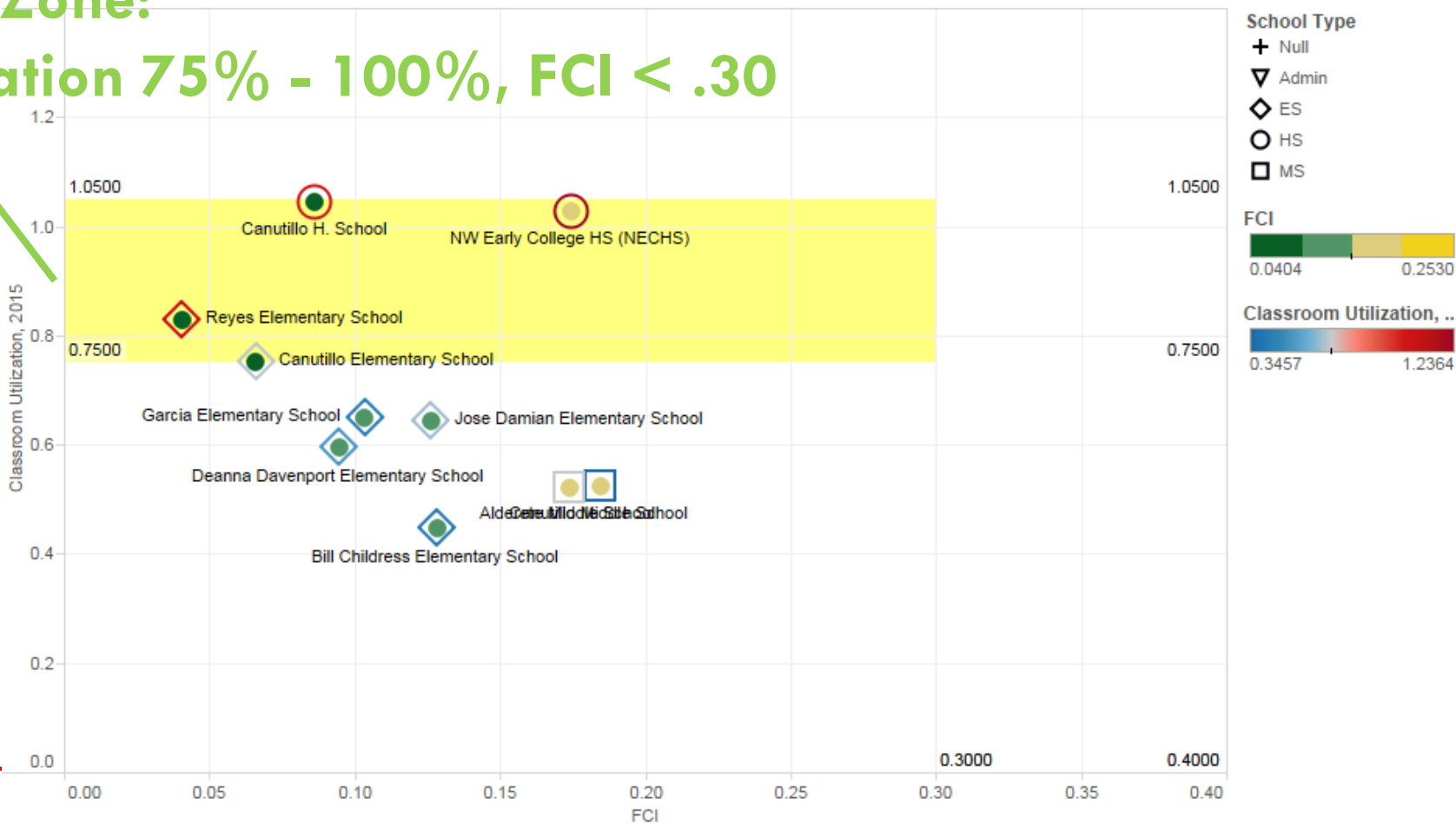


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Utilization and FCI Scatter Diagram, 2015

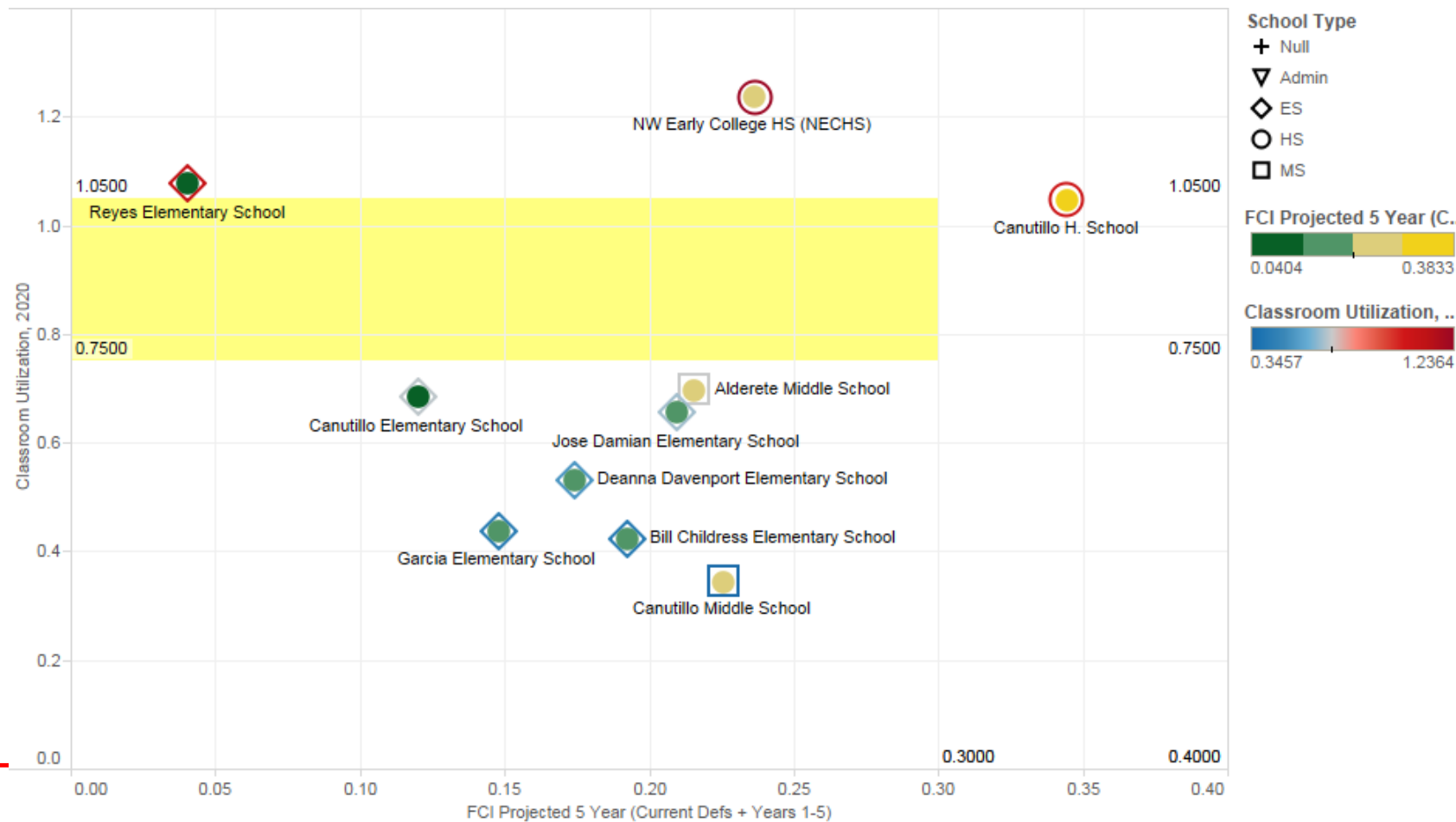
Ideal Zone:

Utilization 75% - 100%, FCI < .30



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Utilization and FCI Scatter Diagram, 2020



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THANK YOU!