

# **FACILITIES CAPITAL PLAN**

## **Board Update**

Houston Independent School District

June 2009



# Agenda

- Facilities Capital Plan Update
  - Bond Program
  - Pay-As-You-Go Program
  - Track and Field Funding
  - Health Clinic Program
- Life-Cycle Projections
- Special Considerations
- Funding Alternatives

# 2007 Bond Fund Program

Funding from Bond Issue	\$ 805,000,000
Pay-As-You-Go Program	\$ 145,000,000
Real Estate and Capital Project Reserves	\$ 95,000,000
Total Funding for Rebuild HISD 2007	<u>\$ 1,045,000,000</u>

	Pay-As-You-Go from General Fund Fund Balance	Pay-As-You-Go from State Funding Transfer & Recurring Funds	Capital and other Reserves	Bond Issuance	Totals
Budgeted Funding	<u>\$ 75,000,000</u>	<u>\$ 70,000,000</u>	<u>\$ 95,000,000</u>	<u>\$ 805,000,000</u>	<u>\$ 1,045,000,000</u>
Funded to Date	<u>\$ 30,000,000</u>	<u>\$ 30,000,000</u>	<u>\$ 70,000,000</u>	<u>\$ 400,000,000</u>	<u>\$ 530,000,000</u>
Amount to be Funded	<u>\$ 45,000,000</u>	<u>\$ 40,000,000</u>	<u>\$ 25,000,000</u>	<u>\$ 405,000,000</u>	<u>\$ 515,000,000</u>

# Facilities Capital Program

## ■ Other Program Funding

■ Pay-As-You-Go Deferred Maint.	\$89.8	million
■ Track & Field Program	8.7	million
■ Health Clinic Program	.5	million

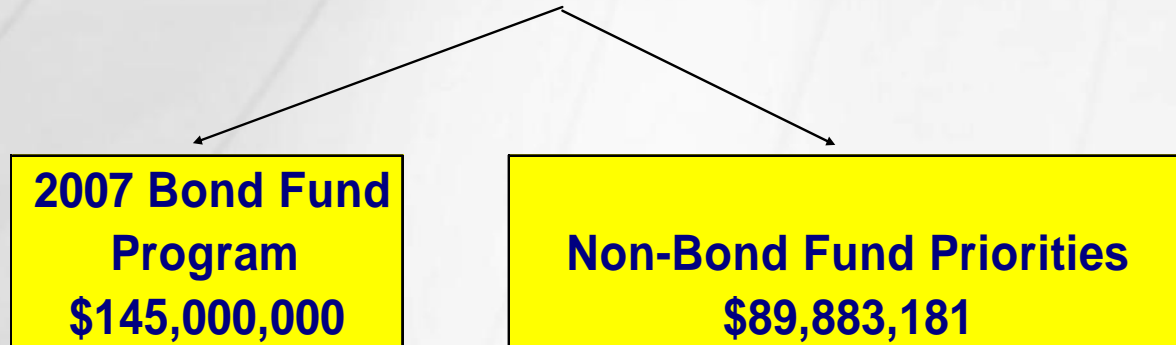
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Total Other Funding	\$ 99.0	million
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# Facilities to Standard

Pay-As-You-Go Six Year Plan

\$234,883,181



Deferred Maintenance Phase II \$11,500,000

Critical/Emergency Repairs \$6,200,000

HVAC \$47,315,000

Roof Assessment/Replacement \$15,500,000

Life Safety \$3,500,000

# Bond Program

## Summary Of Program

- Safety & security upgrades for all schools
- Science lab upgrades for all secondary schools
- Building 24 new schools
- Building 2 additional early college campuses
- 4 Renovation-Additions
- Renovate & repair 134 schools

# Bond Program Status

- Program Management
- Professional Services Firms
- CM at Risk Contracts
- M/WBE Participation
- Science Equipment/Infrastructure
- Opening 2 New Schools
- Summer T-building Relocations
- School Construction Projects

# Program Management

## Program Management Cost Savings

Relative to Prior Bond Program: Approximately **\$20 million**

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- **New Construction:** Managed by internal project managers
- **Renovations:** managed by 5 Program Administrators (PAs)
  - Atser
  - Turner Construction
  - DMJM/AECOM
  - Rice & Gardner
  - The Trevino Group
  - Johnston LLC

# Professional Services Firms

## Architects

- 24 new school construction projects
- 64 renovation school construction projects

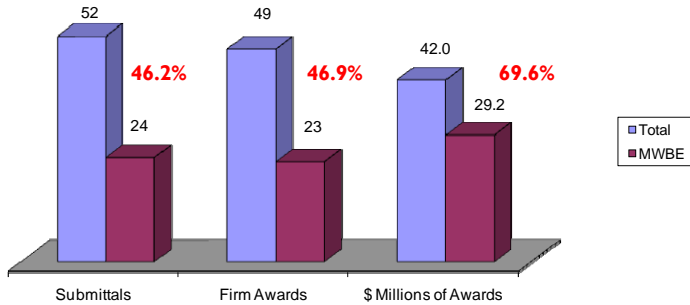
Geotechnical & Materials Testing  
Hazardous Materials Testing  
Surveying & Platting

# Construction Managers at Risk

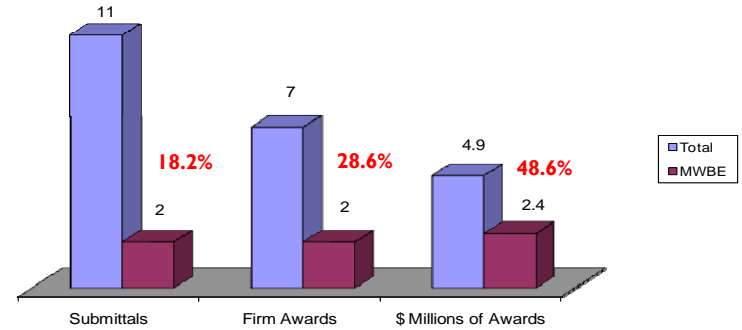
Hired Nine (9)  
**Construction Manager At Risk**  
Contractors for **24 New School**  
Construction Projects

# M/WBE Participation

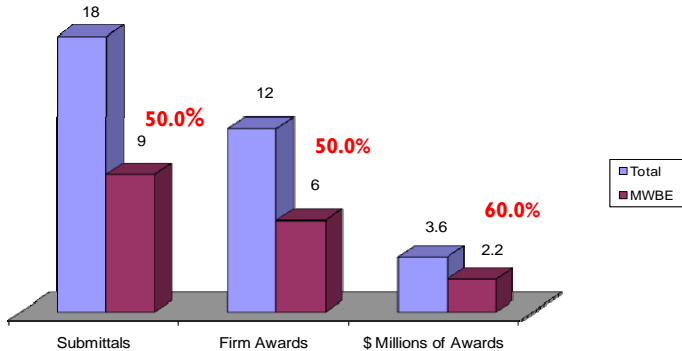
Architecture Submittals & Awards



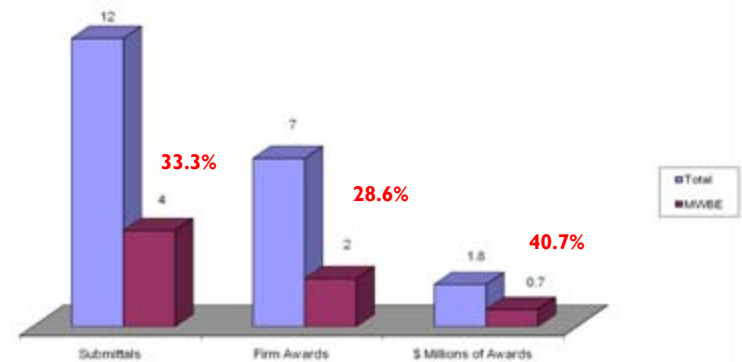
Hazmat Submittals & Awards



Geotechnical / Construction Material Testing Submittals & Awards



Survey & Platting Submittals & Awards



# **Science Equipment/Infrastructure**

**Science Equipment Has Been Provided  
For All Middle Schools and  
All High Schools**

**Science Lab Infrastructure Upgrades To  
Be Included In Planned Renovations**

# Opening 2 New Schools

Opening Fall 2009\*

- HISD East Early College High School Leonel Castillo Academic Center
- Sugar Grove Elementary School

\*Funded from Rebuild 2002

# Summer T-Building Relocations

250 transportable building moves in progress

- Utilizing 4 t-building movers
- 232 for school construction project requirements
- 18 for district-wide requirements

# School Construction Projects

## Breaking Ground In The Next 6 Months

Project	Notice To Proceed
Gregg ES	Summer 2009
Lovett ES	Summer 2009
Piney Point ES	Summer 2009
Patterson ES	Fall 2009
DeChaumes ES	Fall 2009
Crockett ES	Fall 2009
Herod ES	Fall 2009
Valley West ES	Fall 2009
Frost ES	Fall 2009
Almeda ES	Fall 2009

# School Construction Projects Breaking Ground In The First Half Of 2010

Berry ES	Cunningham ES
Horn ES	Kate Smith ES
Lewis ES	Mitchell Relief ES
Neff/White Relief ES	Peck/MacArthur ES

# Status of Other Funded Programs

- Pay-As-You-Go Program
- Track and Field Program
- Health Clinic Program

# Pay As You Go Program

## Roofing Projects (\$15.5 million)

- 9 projects complete
- 4 projects in progress

## Deferred Maintenance Projects (\$59.0 million)

- Chiller replacements at 46 schools
- Boiler replacements at 29 schools
- Piping replacement/repairs and new insulation at 23 schools
- Unit ventilators/air handling units replaced 13 schools
- Direct digital controls (DDC) replaced at 18 schools

## Critical/Emergency Repairs (\$6 million)

## Life Safety Needs (\$3.5 million)

# Track and Field Program

## Four Tracks Completed

Davis High School	Dyer Stadium
Washington High School	Westbury High School

# Track and Field Program

## Tracks To Be Completed Within 12 Months

Austin High School	Bellaire High School
Furr High School	Sam Houston High School
Jones High School	Lee High School
Madison High School	Milby High School
Scarborough High School	Sharpstown High School
Sterling High School	Waltrip High School
Yates High School	

# Health Clinic Program

## Health Clinics To Be Completed In 2009

- HMW Education Support Center
- Police Department
- Fleming Middle School
- Sharpstown Middle School
- To Be Determined

# Real Estate Questions

- Carnegie Vanguard High School
- South Early College High School
- Mitigation – Roosevelt Elementary School

# Life Cycle Analyses

# Life Cycle Forecasting

The Recurring Cost for **Capital Renewal** to maintain/replenish the **Depreciating Value** of a permanent structure.

These costs do not necessary infer a lack of maintenance but rather a cycle of expected life for given building system or subsystem

**... all of which expire at different rate.**

# The Facility Life Cycle

- Assume a Typical school building lasts 50 years
- The building is replaced twice in 100 years
- $100/50$  equals 2% per year
- In a linear model, 2% of the buildings replacement cost is incurred each year, starting in the first year.

**... It is, however, not Linear!**

# Annual Renewal Rate

		100	Annual
Average Age		Year Replacement Multiple (x)	Renewal Rate
50	Year Average Age	2.00 x	2.0%
48	Year Average Age	2.08 x	2.1%
46	Year Average Age	2.17 x	2.2%
44	Year Average Age	2.27 x	2.3%
42	Year Average Age	2.38 x	2.4%
40	Year Average Age	2.50 x	2.5%
38	Year Average Age	2.63 x	2.6%
36	Year Average Age	2.78 x	2.8%
34	Year Average Age	2.94 x	2.9%
32	Year Average Age	3.13 x	3.1%
30	Year Average Age	3.33 x	3.3%

# 30-Year Linear Forecast

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017

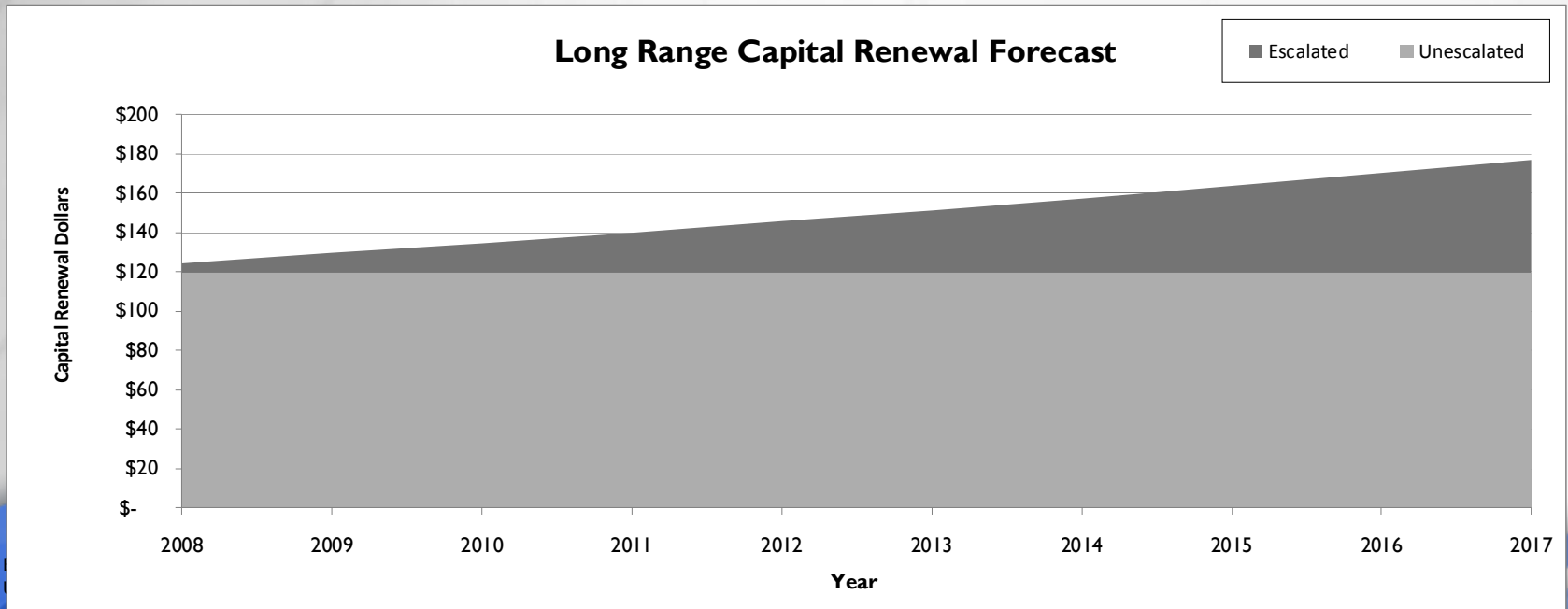
Annual Capital Renewal (Unescalated)	\$ 119.6	\$ 119.6	\$ 119.6	\$ 119.6	\$ 119.6	\$ 119.6	\$ 119.6	\$ 119.6	\$ 119.6	\$ 119.6
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	Total
10-Year Annual Total (Unescalated)	\$ 1,196

10-Year Average Annual Total (Unescalated)	\$ 119.6
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	Renewal Rate
HISD Portfolio Replacement Value (Billion)	\$ 5,438 2.2%

Average Age of Buildings (2009)	46
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# Capital Renewal Forecasting

The Capital Renewal Costs for a Building  
**Can be Calculated:**

- Buildings are made up of **Systems**
- Systems have **Subsystems**
- Subsystem Life can be **Projected**
  - Construction Type
  - Maintenance Quality
  - Current Age
- Projected Costs can be **Calculated**

# HISD Capital Renewal

1. Identified all **Buildings** within the District
2. Established **Systems** and **Subsystems**
3. Identified **Subsystem Type**
4. Documented the **Original Date** and/or **Replacement Date**
5. Compared Date to Expected Life and Calculate **Remaining Life**
6. Projected and Escalated the **Replacement Cost**
7. Summed Cost for **Annual District Wide Total**

# Life Cycle by System

Building System	Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012	Year 6 2013	Year 7 2014	Year 8 2015	Year 9 2016	Year 10 2017
Site	\$ 0.30	\$ 0.53	\$ 0.33	\$ 5.66	\$ 0.38	\$ 3.16	\$ 0.29	\$ 10.56	\$ 1.25	\$ 1.37
Roofing	\$ 0.21	\$ 0.12	\$ 1.99	\$ 1.65	\$ 7.41	\$ 1.30	\$ 4.49	\$ 9.25	\$ 7.42	\$ 16.03
Structural	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Exterior	\$ 0.84	\$ 1.53	\$ 2.56	\$ 2.76	\$ 4.35	\$ 6.03	\$ 0.35	\$ 3.31	\$ 1.58	\$ 7.45
Interior	\$ 0.83	\$ 2.58	\$ 2.56	\$ 14.47	\$ 5.58	\$ 17.16	\$ 4.13	\$ 15.17	\$ 5.11	\$ 9.26
Mechanical	\$ -	\$ 0.32	\$ 0.65	\$ 14.64	\$ 7.34	\$ 9.30	\$ 0.24	\$ 18.66	\$ 5.32	\$ 9.94
Electrical	\$ 0.04	\$ 0.64	\$ 0.00	\$ 4.66	\$ 26.74	\$ 1.04	\$ 0.39	\$ 4.60	\$ 0.07	\$ 26.37
Plumbing	\$ -	\$ 0.01	\$ 0.17	\$ 1.21	\$ 0.14	\$ 3.74	\$ 0.00	\$ 1.50	\$ 0.29	\$ 0.29
Fire and Life Safety	\$ -	\$ 0.19	\$ 5.32	\$ 0.04	\$ 1.04	\$ 5.78	\$ 1.27	\$ 0.44	\$ 3.50	\$ 16.35
Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Stairs and Elevators	\$ -	\$ 0.05	\$ 0.10	\$ 0.05	\$ 0.13	\$ 0.60	\$ -	\$ 0.05	\$ 0.09	\$ 0.14
Specialties	\$ 0.12	\$ 1.77	\$ 1.51	\$ 0.55	\$ 4.64	\$ 12.30	\$ 0.69	\$ 2.30	\$ 1.12	\$ 9.22
Annual Capital Renewal (Unescalated)	\$ 2.3	\$ 7.7	\$ 15.2	\$ 45.7	\$ 57.7	\$ 60.4	\$ 11.9	\$ 65.8	\$ 25.7	\$ 96.4
Cummulative Capital Renewal (Unescalated)	\$ 2.3	\$ 10.1	\$ 25.3	\$ 71.0	\$ 128.7	\$ 189.1	\$ 201.0	\$ 266.8	\$ 292.5	\$ 388.9

# HISD Ten Year Forecast

	Year 1 2008	Year 2 2009	Year 3 2010	Year 4 2011	Year 5 2012	Year 6 2013	Year 7 2014	Year 8 2015	Year 9 2016	Year 10 2017
Annual Capital Renewal (Unescalated)	\$ 2.3	\$ 7.7	\$ 15.2	\$ 45.7	\$ 57.7	\$ 60.4	\$ 11.9	\$ 65.8	\$ 25.7	\$ 96.4
10-Year Annual Total (Unescalated)	Total \$ 388.9		HISD Portfolio Replacement Value (Billion)					\$ 5,438	Renewal Rate 0.7%	
10-Year Average Annual Total (Unescalated)	\$ 38.9						Average Age of Buildings (2009)			46

- HISD at .7% due to prior Investment
  - Versus 2.2 Straight-line Capital Depreciation (46 Years)
- \$388.9 million in Total Cost over 10 Years

\* Figures in current day unescalated dollars

# Capital Funding Levels

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Annual Capital Renewal (Unescalated)</b>	<b>\$ 2.3</b>	<b>\$ 7.7</b>	<b>\$ 15.2</b>	<b>\$ 45.7</b>	<b>\$ 57.7</b>	<b>\$ 60.4</b>	<b>\$ 11.9</b>	<b>\$ 65.8</b>	<b>\$ 25.7</b>	<b>\$ 96.4</b>

## Capital Renewal Funding Levels

1) Capital Renewal Funding Level - Zero	<b>\$ -</b>			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cumulative Deferred Capital Renewal Bond Funding	\$ (2.3)	\$ (10.1)	\$ (25.3)	\$ (71.0)	\$(128.7)	\$(189.1)	\$(201.0)	\$(266.8)	\$(292.5)	\$(388.9)	
2) Capital Renewal Funding Level - Full	<b>\$ 48.6</b>			\$ 48.6	\$ 48.6	\$ 48.6	\$ 48.6	\$ 48.6	\$ 48.6	\$ 48.6	\$ 48.6
Cumulative Deferred Capital Renewal Bond Funding	\$ (2.3)	\$ (10.1)	\$ 23.3	\$ 26.3	\$ 17.1	\$ 5.4	\$ 42.1	\$ 24.9	\$ 47.8	\$ 0.0	
3) \$10 Million Capital Renewal Funding Level	<b>\$ 10.0</b>			\$ 10.0	\$ 10.0	\$ 10.0	\$ 10.0	\$ 10.0	\$ 10.0	\$ 10.0	\$ 10.0
Cumulative Deferred Capital Renewal Bond Funding	\$ (2.3)	\$ (10.1)	\$ (15.3)	\$ (51.0)	\$ (98.7)	\$(149.1)	\$(151.0)	\$(206.8)	\$(222.5)	\$(308.9)	
4) \$20 Million Capital Renewal Funding Level	<b>\$ 20.0</b>			\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0
Cumulative Deferred Capital Renewal Bond Funding	\$ (2.3)	\$ (10.1)	\$ (5.3)	\$ (31.0)	\$ (68.7)	\$(109.1)	\$(101.0)	\$(146.8)	\$(152.5)	\$(228.9)	
5) \$30 Million Capital Renewal Funding Level	<b>\$ 30.0</b>			\$ 30.0	\$ 30.0	\$ 30.0	\$ 30.0	\$ 30.0	\$ 30.0	\$ 30.0	\$ 30.0
Cumulative Deferred Capital Renewal Bond Funding	\$ (2.3)	\$ (10.1)	\$ 4.7	\$ (11.0)	\$ (38.7)	\$ (69.1)	\$ (51.0)	\$ (86.8)	\$ (82.5)	\$(148.9)	

# Special Considerations

- Bellaire HS \$12-15 Million Addition
- Grady MS \$10-12 Million Addition
- HSPVA \$40-50 Million
- Lockhart \$6-8 Million Increase\*
- Westbury HS Property Acquisition
- Worthing HS \$6-8 Million Increase\*
- Sam Houston HS \$5-7 Million

\* In Current Bond Program

# Funding Alternatives

## Houston Independent School District

### Comparison of Qualified School Construction Bonds versus Conventional Financing

Year	QSCBs			Total of Net Payments	Conventional Financing		
	Net HISD Payments	Invested SF 3.00%	Gross Payments		Series 2009	Series 2010	Total
2010	3,954,765	1,661,001	5,615,766	3,954,765	3,954,765		3,954,765
2011	4,083,698	1,592,642	5,676,340	4,083,698	4,083,698		4,083,698
2012	4,418,538	1,590,674	6,009,212	4,418,538	4,418,538		4,418,538
2013	4,490,732	1,481,941	5,972,673	4,490,732	4,490,732		4,490,732
2014	4,757,594	1,427,278	6,184,873	4,757,594	4,757,594		4,757,594
2015	888,449	239,881	1,128,330	888,449	888,449		888,449
2016	909,492	218,278	1,127,770	909,492	909,492		909,492
2017	3,821,232	802,459	4,623,691	3,821,232	3,821,232		3,821,232
2018	3,780,800	680,544	4,461,344	3,780,800	3,780,800		3,780,800
2019	3,977,405	596,611	4,574,015	3,977,405	3,977,405		3,977,405
2020	4,193,678	503,241	4,696,920	4,193,678	4,193,678		4,193,678
2021	4,315,360	388,382	4,703,742	4,315,360	4,315,360		4,315,360
2022	6,020,857	361,251	6,382,108	6,020,857	6,020,857		6,020,857
2023	6,161,364	184,841	6,346,205	6,161,364	6,161,364		6,161,364
2024	6,250,582	-	6,250,582	6,250,582	6,250,582		6,250,582
2025				-			-
					62,024,546	-	62,024,546

## Houston Independent School District Comparison of Qualified School Construction Bonds versus Conventional Financing

Principal Amount of Conventional Bonds (3.75% Rate)		\$45,705,085
Principal Amount of QSCBs	73,753,572	
Loss of Projects due to Inflated Cost	(14,750,714)	
		\$59,002,858
Savings of QSCBs Program over Conventional Financing		<u>\$13,297,773</u>

# Facilities to Standard

**General Fund Undesignated Fund Balance** **\$ 20 - 25 million**

*(recommendation is to use over time for  
repayment of PFC debt)*

**Amount Available for PFC Issuance of Bonds** **\$ 52,527,786**

*(using TIRZ funds for annual repayments; assumes  
use of Davis Bacon Wage Rates)*

**Amount Available for PFC Issuance of Bonds** **\$ 45,705,585**

*(using TIRZ funds for annual repayments; assumes  
conventional financing)*

**Use of 2009-2010 One-Time Funds** **TBD**