



ROOFING WORKSHOP

February 11, 2020

ROOFING PROGRAM OVERVIEW

TOTAL TIME AND COST LINKED DIRECTLY TO:

SCOPE OF WORK

STANDARDS OF QUALITY

CAPACITY OF THE MARKET



SCOPE – KEY CONSIDERATIONS

QUALITY

COST
—
TIME

SCOPE

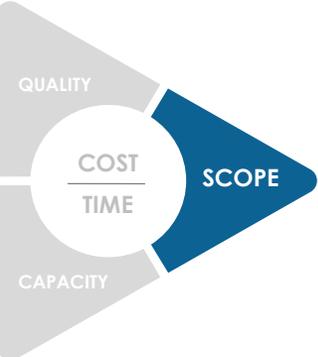
CAPACITY

MAGNITUDE OF ROOFING PROGRAM

POOR INTERPRETATION OF ROOFING ASSESSMENT

COMPLEXITY OF WORK

SITE LOGISTICS



EXTENT OF COVERAGE



**SMART INVESTMENTS
LEAD TO SMART STUDENTS.**

ROOFING PROGRAM



203 CAMPUSES



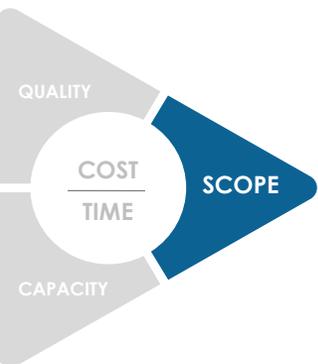
1353 BUILDINGS



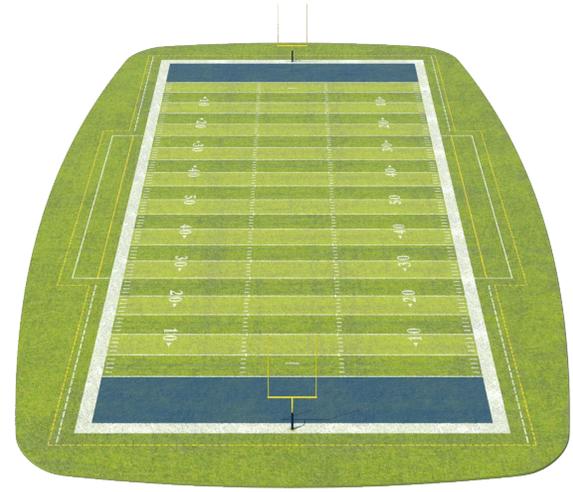
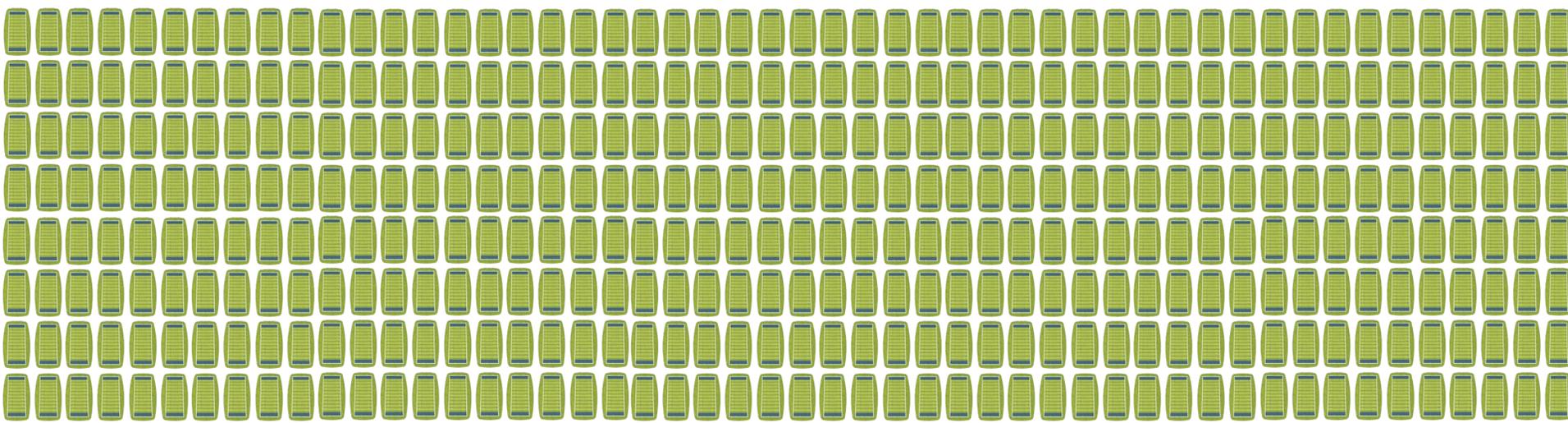
17M+ SQ FT OF ROOFING



~5 ROOFING FIRMS
WITH EXPERIENCE
IN BCPS PROCESS



THE MAGNITUDE



17M+ SQ FT OF ROOFING

OR

308 FOOTBALL FIELDS

OR

400 ACRES

REVISED



QUALITY

COST
TIME

SCOPE

CAPACITY

THE MAGNITUDE



PORT EVERGLADES (North Federal Highway)



WESTON
(11 miles)



WESTON (Sawgrass)

SMART INVESTMENTS
LEAD TO SMART STUDENTS.

ROOFING
PROGRAM

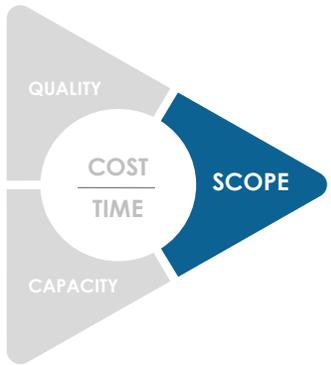


17M+ SQ FT OF ROOFING

OR

I-595

LEVELS OF COMPLEXITY



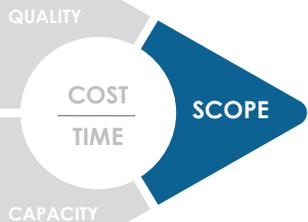
**ROOF
REPLACEMENT**



**ROOF
RECOVERY**

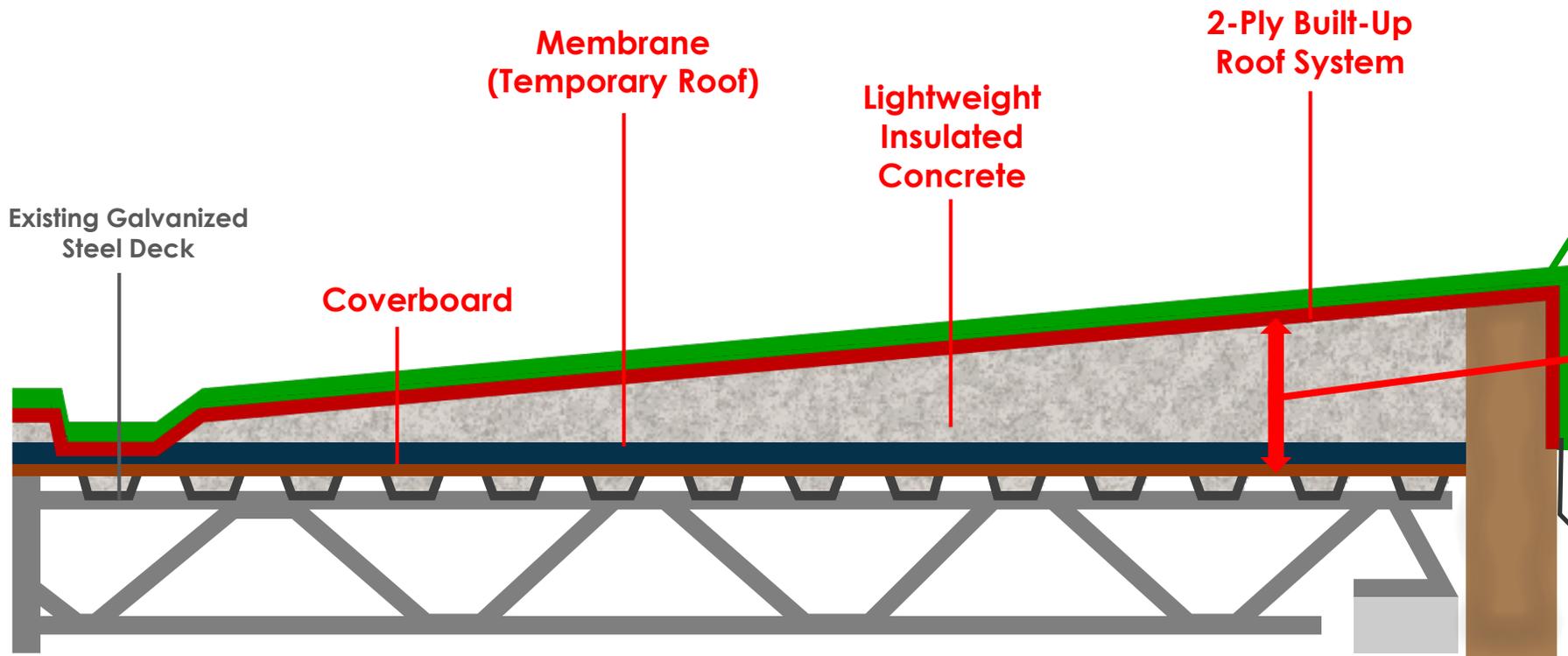
ROOFING LIFECYCLE

**NEW
INSTALLATION**



UNDER THE SURFACE (ROOFING 101)

TYPES OF ROOFING WORK

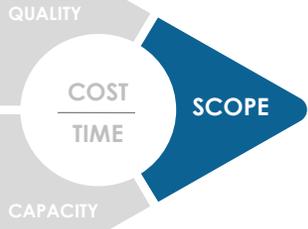


RECOVERY

NEW 2-PLY MEMBRANE OVER EXISTING SYSTEM

REPLACEMENT

DEMO DOWN TO EXISTING LIGHTWEIGHT OR THE DECK AND REPLACE WITH NEW ROOF ASSEMBLY



UNDER THE SURFACE (ROOFING 101)



BEFORE



DURING



AFTER

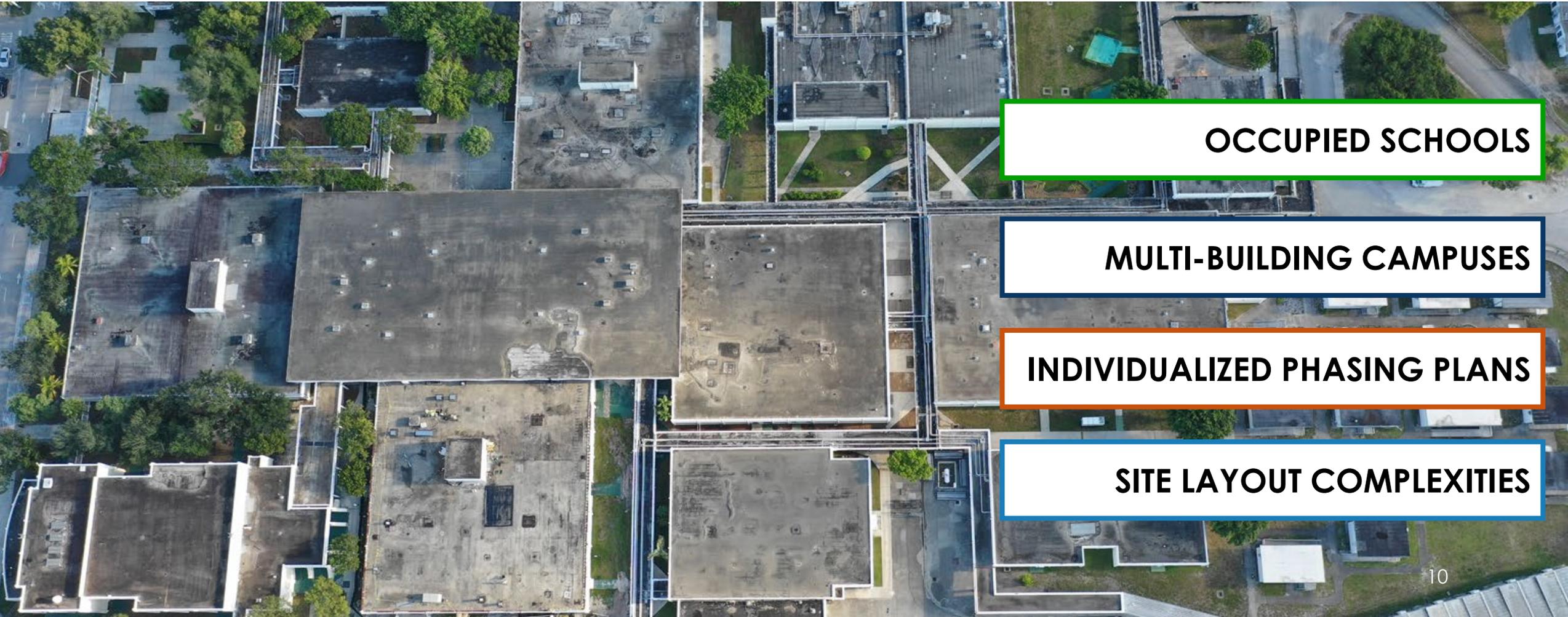
QUALITY

COST
TIME

SCOPE

CAPACITY

SITE LOGISTICS



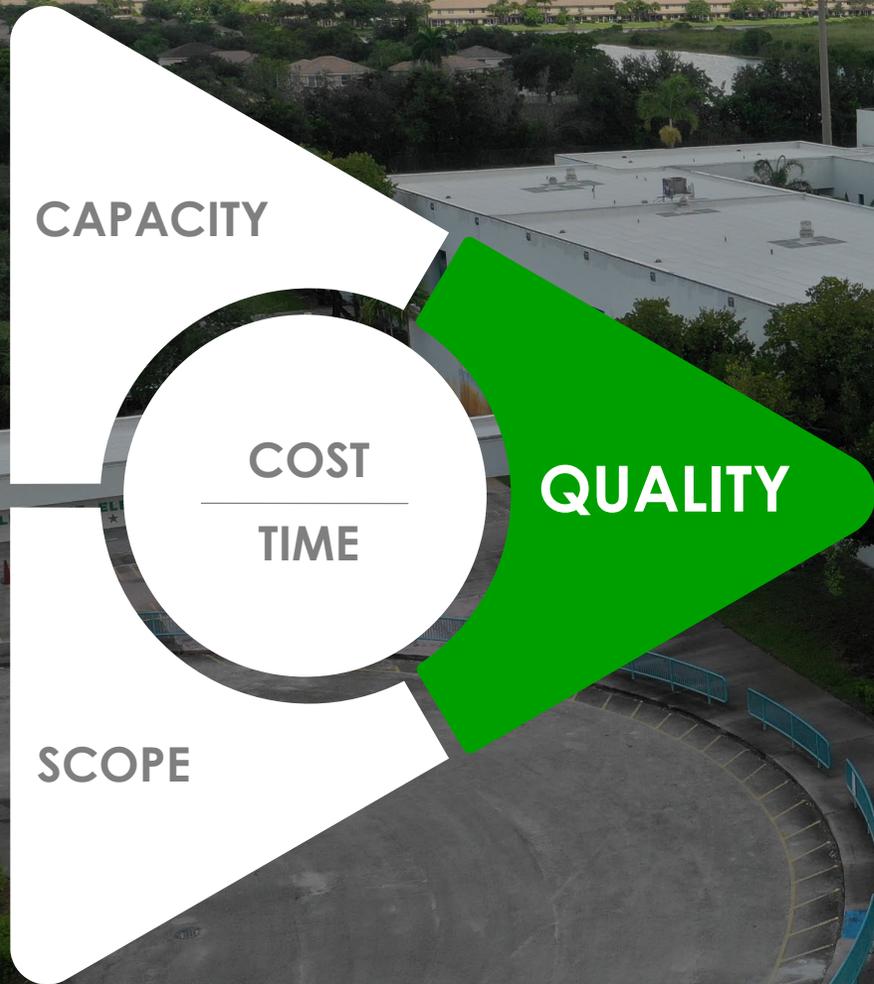
OCCUPIED SCHOOLS

MULTI-BUILDING CAMPUSES

INDIVIDUALIZED PHASING PLANS

SITE LAYOUT COMPLEXITIES

QUALITY – KEY CONSIDERATIONS



ENSURING BEST ROOFING PRODUCT

CODE COMPLIANCE

TIME VS. QUALITY

CAPACITY

COST
TIME

QUALITY

SCOPE

QUALITY STANDARDS

QA/QC



THOROUGH INSPECTIONS

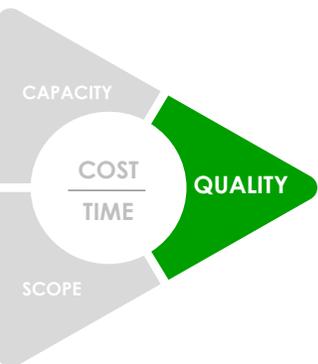


FULL CODE COMPLIANCE



LONG LIFECYCLE APPROACH





GETTING IT DONE RIGHT



DOES NOT MEET QUALITY STANDARDS

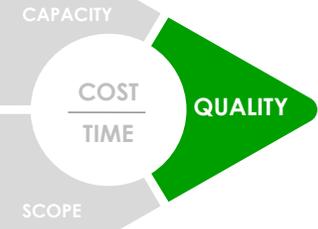
FAILED INSPECTION



MEETS QUALITY STANDARDS

PASSED INSPECTION

GETTING IT DONE RIGHT



DOES NOT MEET QUALITY STANDARDS

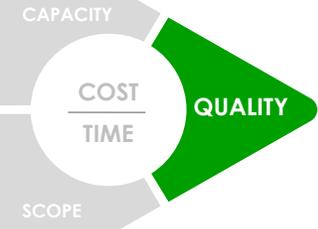
FAILED INSPECTION



MEET QUALITY STANDARDS

PASSED INSPECTION

GETTING IT DONE RIGHT



DETACHED MEMBRANE

DOES NOT MEET QUALITY STANDARDS

FAILED INSPECTION



MEETS QUALITY STANDARDS

PASSED INSPECTION

GETTING IT DONE RIGHT



BEFORE



AFTER

CAPACITY

COST
TIME

QUALITY

SCOPE

GETTING IT DONE RIGHT



BEFORE



AFTER

CAPACITY

COST
TIME

QUALITY

SCOPE

GETTING IT DONE RIGHT

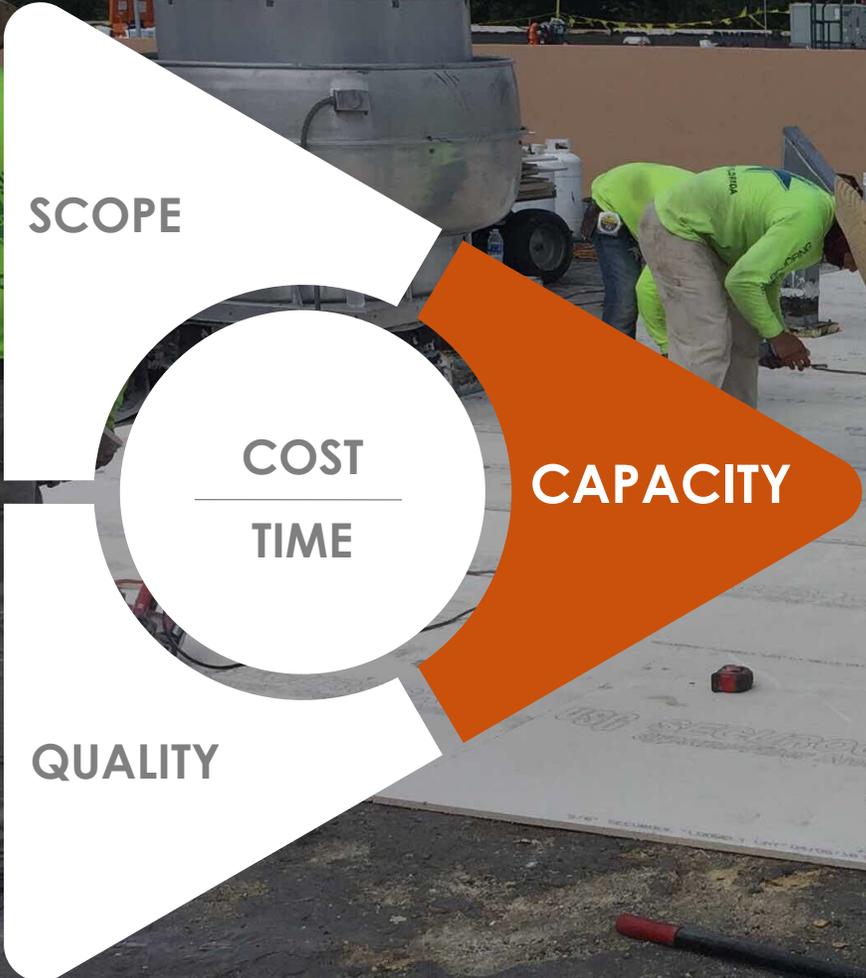


BEFORE



AFTER

CAPACITY – KEY CONSIDERATIONS



~5 PROVEN ROOFING FIRMS CURRENTLY IN USE

MARKET CONDITIONS

CONTRACTOR ABILITY & WILLINGNESS

IMPROVEMENT EFFORTS THROUGH TRAINING

SCOPE

COST
TIME

CAPACITY

QUALITY

HIRING CHALLENGES



BADGING REQUIREMENTS



DIFFICULTY OF EFFORT



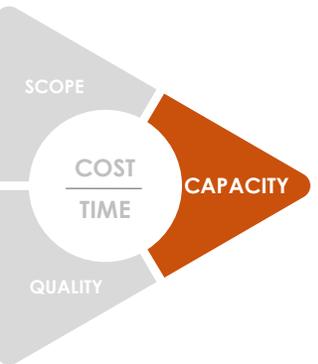
HARSH WORK CONDITIONS



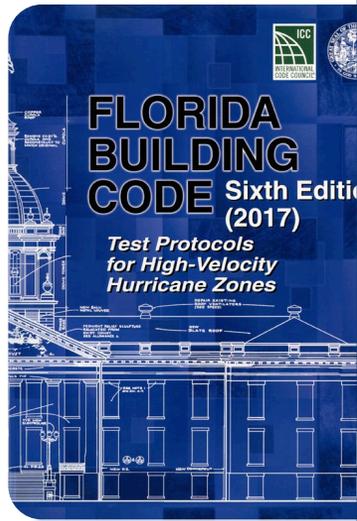
PROCESS COMPLEXITIES



**RELUCTANCE TO WORK ON
BCPS SMART ROOFING PROJECTS**



PERMIT ISSUES & DELAYS





Broward County Public Schools

Long Middle School
1234 NE 12th St, Plantation, FL 33324
Roof Renovations Project Number: P. #123456



[School Logo]

Roof Replacement
SUB-PERMIT PACKAGE

XYZ Roofing, Inc.
789 SW Green St
Oakland Park, FL 33314
Tel: (954) 555-8888 Fax: (954) 777-7777

www.xyzroofing.com
info@xyzroofing.com
LICENSE #: CCC1234567



NEW BCPS ROOFERS PERMIT REVIEW

← UP TO **6-9 MONTHS** FOR APPROVAL →



EXPERIENCED BCPS ROOFERS PERMIT REVIEW

← AS LITTLE AS
1-3 MONTHS
FOR APPROVAL →

COST & TIME – KEY CONSIDERATIONS

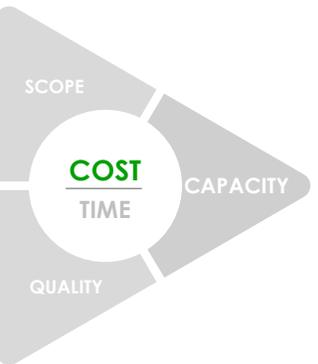


NEIGHBORING COUNTIES

BCPS \neq MDCPS

PROGRAM DYNAMICS

MOVING FORWARD



BCPS ≠ MDCPS



PRIOR ROOFING IMPROVEMENTS PROGRAM	NO	YES
ROOFING WORK MAJORITY	REPLACEMENT	RECOVERY
DELIVERY METHOD	VARIES (CMAR, HARD BID)	2014 FIXED TERM**
REPLACEMENT COST/SF ROOFER PRICING ONLY	\$20-23*	\$16-20*



VARIES (CMAR, HARD BID)	VARIES (CMAR, HARD BID)	VARIES (CMAR, HARD BID)
\$21-23	\$20-\$25	\$22-25

* Today's cost including inflation.

** Expired Q1 2020, out to bid for renewal.

PROGRAM DYNAMICS



SCOPE

1353

BUILDINGS



QUALITY

10 / 10

RATING



CAPACITY

~5

PROVEN ROOFING COMPANIES

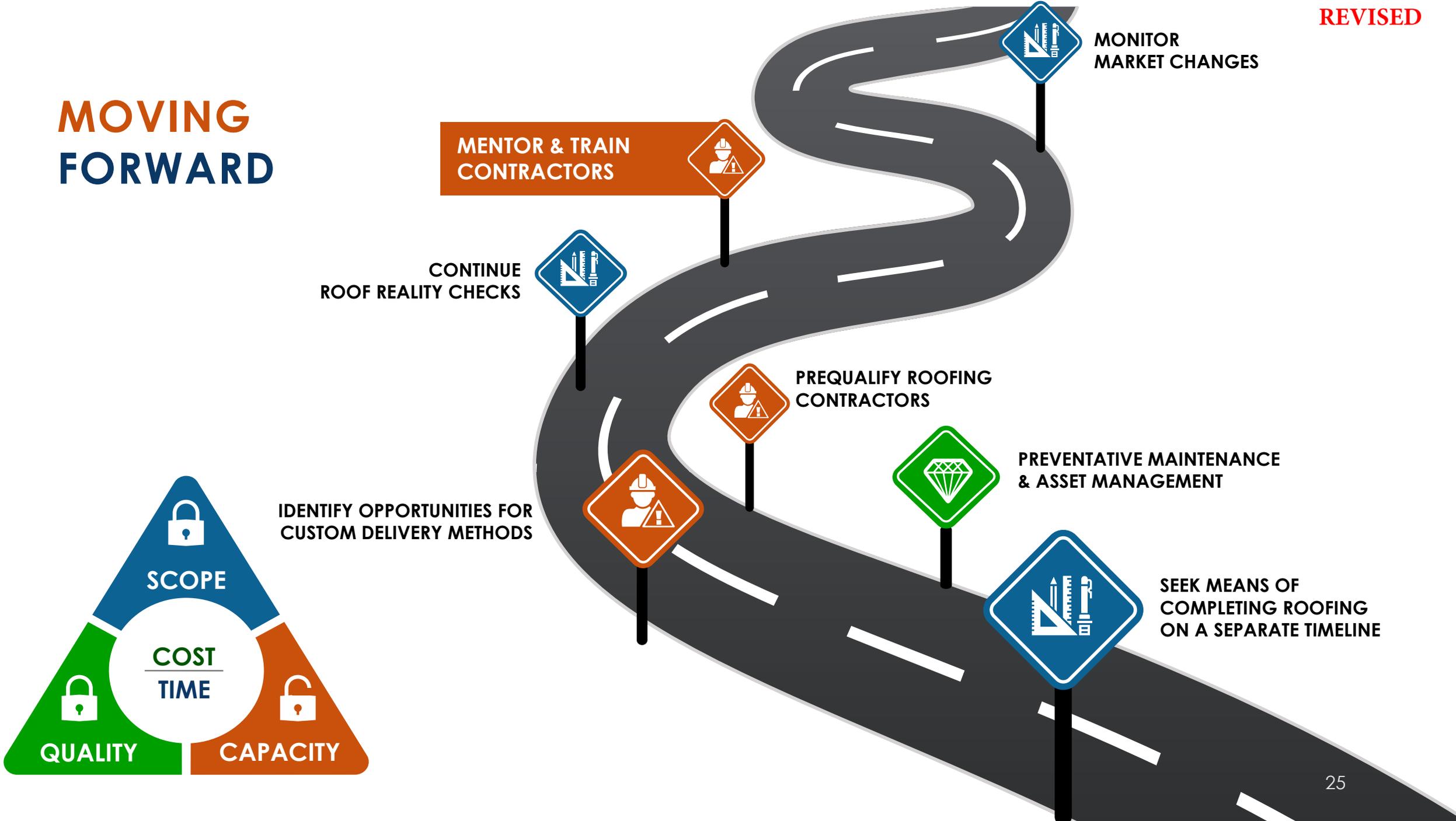
\$



FLUCTUATING CAPACITY DETERMINES TIME & COST

SCOPE & QUALITY UNCHANGEABLE

MOVING FORWARD



IDENTIFY OPPORTUNITIES FOR CUSTOM DELIVERY METHODS

MENTOR & TRAIN CONTRACTORS

CONTINUE ROOF REALITY CHECKS

PREQUALIFY ROOFING CONTRACTORS

PREVENTATIVE MAINTENANCE & ASSET MANAGEMENT

SEEK MEANS OF COMPLETING ROOFING ON A SEPARATE TIMELINE

MONITOR MARKET CHANGES



ACTIONABLE NEXT STEPS

1 MEET WITH ROOFING FIRM OWNERS TO COLLABORATE ON BEST PRACTICES & EXPAND CAPACITY

2 EXPLORE POTENTIAL OF SUPPLEMENTING WORKFORCE WITH TECHNICAL COLLEGE GRADUATES

3 SIMPLIFY & STANDARDIZE PROCESSES/DETAILS FOR ROOFERS TO UTILIZE

4 CONTINUE TO PROVIDE EDUCATION AND TRAINING ABOUT THE ROOFING PROCESS

A person wearing a green and white checkered short-sleeved shirt is holding a blue hard hat. They are also wearing a tan leather tool belt with a yellow power drill handle visible. The background is a blurred cityscape with buildings under a blue sky.

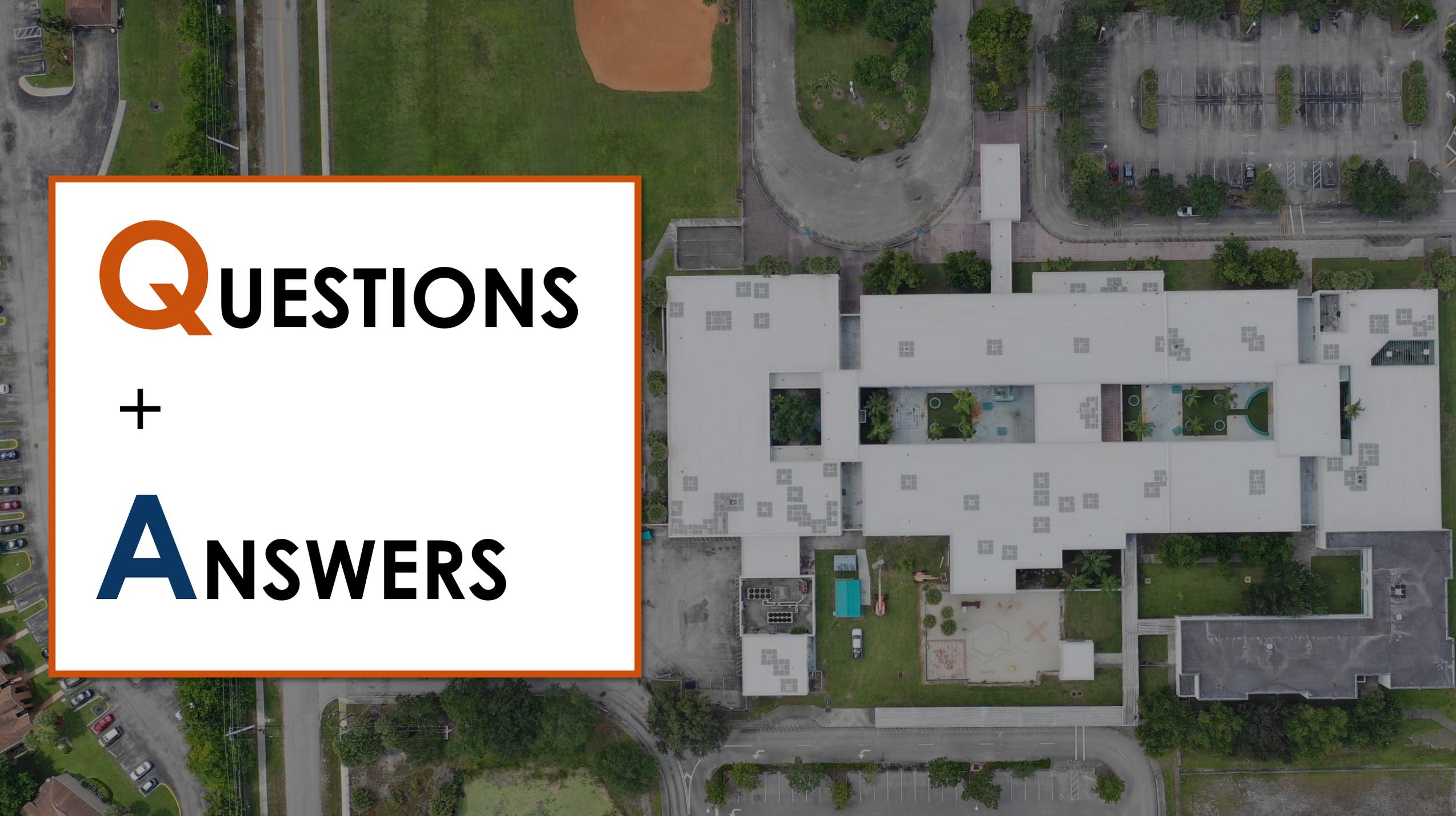
PREVENTATIVE MAINTENANCE & ASSET MANAGEMENT

ROOFING MAINTENANCE PROGRAM



- The roofs that we replaced in 2007-2010 and were maintained have held up and are in good shape
- Facilities and PPO are working together to develop a maintenance plan for the new roofs being installed by the SMART Program
- Facilities and PPO are actively receiving presentations from maintenance companies to obtain recommendations to move forward





QUESTIONS

+

ANSWERS

The School Board of Broward County, FL

Donna P. Korn, Chair
Dr. Rosalind Osgood, Vice Chair

Lori Alhadeff
Robin Bartleman
Heather P. Brinkworth
Patricia Good
Laurie Rich Levinson
Ann Murray
Nora Rupert

Robert W. Runcie, Superintendent of Schools

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