



## Darien Public Schools

*Master Plan Discussion – Review of Elementary Schools  
Board of Education Meeting – March 14, 2018*

# BACKGROUND

## MASTER PLAN REPORT SUBMITTED DECEMBER 2016

- DOCUMENTED DISTRICT-WIDE INFRASTRUCTURE AND FACILITY CONDITIONS
- ANALYZED ENROLLMENT PROJECTIONS
- OUTLINED SCHOOL DISTRICT'S PLANNED PROGRAM AND INFRASTRUCTURE NEEDS.

## RECOMMENDATIONS AT ELEMENTARY SCHOOLS

- MAJOR RENOVATION/ADDITION OR REPLACEMENT OF OX RIDGE ES
- CONSOLIDATION OF ELP PROGRAM ON OX RIDGE CAMPUS
- REMOVAL OF MODULAR CLASSROOMS (4 ELEMENTARY SCHOOL CAMPUSES = 14 TOTAL)
- PROVIDE ADDITION OF 2 TO 4 CLASSROOMS AT HINDLEY, HOLMES & ROYLE (8-12 TOTAL)



# INITIAL FOCUS ON OX RIDGE

- AGREEMENT FROM FACILITIES COMMITTEE AND ADMINISTRATION THAT THIS PART OF THE PROJECT NEEDED TO BE BROUGHT TO THE BOE
- REMAINING RECOMMENDATIONS TO BE EXPLORED FURTHER IN COMING WEEKS AND MONTHS FOR CONSIDERATION BY THE BOE





# OX RIDGE EXISTING SITE PLAN



CAMPUS STATISTICS	CURRENT	PLANNED
BUILDING AREA (GROSS)	58,344 SF	+/- 87,500 SF
YEAR BUILT / LAST RENOVATION	1966 / 1996	-
SITE AREA	10.0 ACRES	10.0
GRADE CONFIGURATION	ELP, K – 5	ELP, K - 5
# OF GENERAL CLASSROOMS	24	27/24+10 ELP
MODULAR CLASSROOMS (TO BE REMOVED)	4	0
FUNCTIONAL CAPACITY (CURRENT / PROPOSED W/O MODULARS)	528	528/594
CURRENT ENROLLMENT	451	-
BUS QUEUING	300 Linear Feet	500
PARENT QUEUING	300 Linear Feet	600
PARKING SPACES (PROVIDED / PLANNED)	91	115
PLAYING FIELDS	2 MULTI-PURPOSE	2



# WHAT SHOULD BE CONSIDERED WHEN DETERMINING REPLACEMENT VS. RENOVATIONS/ADDITIONS?

- **BUILDING CONSTRUCTION** - INSULATION FACTOR OF ROOF, WALLS, AND GLAZING
- **ENERGY CODE** – END OF USEFUL LIFE MECHANICAL, ELECTRICAL/LIGHTING & PLUMBING/FIRE SYSTEMS
- **CHALLENGE OF RENOVATING AN OCCUPIED SCHOOL** – LENGTHENS CONSTRUCTION ON CAMPUS
- **OPPORTUNITY TO 'RIGHT-SIZE EDUCATIONAL SPACES AND DESIGN FOR 21<sup>ST</sup> CENTURY/'NEXT GEN'**
- **INDEPENDENT ACCESS TO COMMONS SPACES (GYM/CAFETERIA)**





# WHY IS OX RIDGE THE BEST LOCATION FOR THE ELP PROGRAM?

- **USEABLE SITE AREA ON THE OX RIDGE CAMPUS** - APPROXIMATELY 2-ACRES LARGER THAN THE OTHER ELEMENTARY SCHOOL CAMPUSES. ADDITIONAL PROPERTY ALLOWS FOR BETTER VEHICULAR CIRCULATION, ADDITIONAL SCHOOL SIZE, AND OUTDOOR ACTIVITY AREAS.
- **DIRECT CONNECTION TO ELEMENTARY SCHOOL PROGRAM** THROUGH EXISTING 1996 BUILDING WHILE ALSO CREATING A DEDICATED WING FOR THE ELP PROGRAM
- **OX RIDGE REQUIRES THE GREATEST CAPITAL EXPENDITURE** TO BRING THE BUILDING UP TO GOOD CONDITION. ONE LARGE PROJECT TENDS TO HAVE LOWER COST/SF THAN MULTIPLE SMALLER ONES.



# WHAT ARE THE PROGRAM ADVANTAGES AND DISADVANTAGES OF CONSOLIDATING ELP ONTO ONE CAMPUS?

ELP IS CURRENTLY DECENTRALIZED ON THREE CAMPUSES: TOKENEKE, ROYLE AND OX RIDGE

## ADVANTAGES FOR CONSOLIDATION INCLUDE:

- SPECIFICALLY DESIGNED FOR PROGRAM NEEDS
- CONSOLIDATED ELP OFFICE SPACE/SHARED ELP RESOURCES
- FREES UP CLASSROOMS SPACE AT ROYLE & TOKENEKE

## DISADVANTAGES INCLUDE:

- INCREASES STUDENT POPULATION AND TRAFFIC AT OX RIDGE



# OPTIONS

## OX RIDGE ELEMENTARY SCHOOL MASTER PLAN SUMMARY

### **OPTION 1 (RENOVATION TO 'GOOD CONDITION')**

- RENOVATE EXISTING EDUCATIONAL SPACES AND REPLACE EXISTING SYSTEMS

### **OPTION 2 (RENOVATION PLUS CLASSROOM ADDITION)**

- INCLUDES OPT 1 SCOPE
- NEW CLASSROOM WING ADDITION THAT WILL ALLOW THE ENTIRE ELP PROGRAM TO BE CONSOLIDATED AT OX RIDGE ES

### **OPTION 3 (REPLACEMENT - NEW CONSTRUCTION)**

- REPLACE EXISTING BUILDING WITH NEW CLASSROOM & COMMUNITY BUILDINGS (GYM, CAFETERIA/THEATER/COMMONS)
- RENOVATE 1996 ADDITION FOR ELP PROGRAM



# OPTION 1 – RENOVATION

## RENOVATE EXISTING BUILDING:

- **BUILDING ENCLOSURE**  
INSULATION, ROOF MEMBRANE, NEW WINDOWS
- **BUILDING SYSTEMS**  
HVAC, PLUMBING FIXTURES, CLOCK & PA SYSTEM,  
ELEC SERVICE, LIGHTING
- **INTERIOR FINISHES**  
FLOOR & WALL FINISHES, CEILINGS, CASEWORK,  
DOORS & HARDWARE, TOILET ROOMS
- **21<sup>ST</sup> CENTURY/NEXT GEN EDUCATIONAL  
TOOLS, EQUIP & FURNITURE**
- **SITE FEATURES**  
REPAVE DRIVEWAY & PARKING LOTS, SIDEWALK  
REPAIR, PLAY AREA & PLAYING FIELD RENOVATIONS



# OPTION 1 – RENOVATION

## ADVANTAGE

- TOTAL PROJECT COST

## DISADVANTAGES

- EXISTING EDUCATIONAL & FUNCTIONAL DEFICIENCIES WOULD REMAIN
- NO “SWING SPACE” WOULD REQUIRE MULTIPLE SUMMERS TO COMPLETE WORK
- SHORTER CONSTRUCTION CYCLE LONGEVITY, 25-30 YRS VS. 40+ YRS FOR NEW CONSTRUCTION
- DOES NOT ACCOUNT FOR ENROLLMENT GROWTH, CENTRALIZED ELP, LARGER CLASSROOM SIZES OR REPLACEMENT OF THE MODULAR CLASSROOM SPACE



# OPTION 1 COST SUMMARY

<b>Ox Ridge Elementary School - OPTION 1 (22 General Classrooms + 2 ELP)</b>				
General Renovations (1966 Bldg)	49,500	SF	\$175	\$8,662,500
Architectural/Structural (1966 Bldg)	1	EA		\$899,259
Mechanical (1966 Bldg)	1	EA		\$3,114,792
Plumbing (1966 Bldg)	1	EA		\$300,486
Electrical (1966 Bldg)	1	EA		\$993,802
Renovated classroom area (1996 wing)	8,830	SF	\$175	\$1,545,250
Air Conditioning 1996 wing	8,830	SF	\$60	\$529,800
Renovate Modular Classrooms	3,200	SF	\$100	\$320,000
Site work - Paving, Play Areas + Demolition	100,000	SF	\$10	\$1,000,000
<b>Construction Sub-Total</b>				<b>\$17,365,889</b>
General Conditions + O&P			17.00%	\$2,952,201
Escalation			5.00%	\$1,015,905
Contingency			8.00%	\$1,625,447
Project Costs - 12%			12.00%	\$2,633,224
<b>ORES - Option 1 Subtotal</b>				<b>\$25,592,666</b>

BUDGET DEVELOPMENT WAS BASED ON DARIEN HS AND TOKENEKE ES PROJECT COSTS, BUILDING SYSTEMS AND LEVEL OF FINISH MULTIPLIED BY THE TURNER CONSTRUCTION ESCALATION INDEX PUBLISHED QUARTERLY. NEW CONSTRUCTION = \$375 - 425/SF.

# OPTION 2 – RENOVATION & ADDITION

- RENOVATE EXISTING BUILDING PER OPTION 1 SCOPE
- DEMOLISH MODULAR CLASSROOMS AND RELOCATE IN NEW ADDITION
- NEW 18,000 SF ADDITION
  - 8 NEW CLASSROOM
  - NEW MEDIA CENTER
  - LOSS OF 1 PLAYING FIELD
- ADAPTIVE REUSE OF 1996 BUILDING FOR CONSOLIDATED ELP PROGRAM
- MODIFY CAMPUS DROP-OFF/PICK-UP CIRCULATION & CENTRALIZE MAIN OFFICE





# OPTION 2 – RENOVATION & ADDITION

## ADVANTAGES

- ADDITION PROVIDES “SWING SPACE” FOR RENOVATION WORK
- DEDICATED DISTRICT ELP BUILDING

## DISADVANTAGES

- TEMPORARY SHORTAGE OF CLASSROOMS AFTER MODULAR DEMOLITION
- EXISTING EDUCATIONAL & FUNCTIONAL DEFICIENCIES WOULD REMAIN
- SHORTER CONSTRUCTION CYCLE LONGEVITY, 25-30 YRS VS. 40+ YRS FOR NEW CONSTRUCTION

# OPTION 2 COST SUMMARY

<b>Ox Ridge Elementary School - OPTION 2 (23 General Classrooms + 9 ELP)</b>				
Eight-Classroom + Media Center Addition	18,900	SF	\$425	\$8,032,500
Main Entrance Reconfiguration	2,000	SF	\$375	\$750,000
General Renovations (1966 Bldg)	49,500	SF	\$175	\$8,662,500
Architectural/Structural (1966 Bldg)	1	EA		\$899,259
Mechanical (1966 Bldg)	1	EA		\$3,114,792
Plumbing (1966 Bldg)	1	EA		\$300,486
Electrical (1966 Bldg)	1	EA		\$993,802
Renovated classroom area (1996 wing)	8,830	SF	\$175	\$1,545,250
Air Conditioning 1996 wing	8,830	SF	\$60	\$529,800
Site work - Paving, Play Areas + Demolition	100,000	SF	\$20	\$2,000,000
Site work - Remove Modulares	1	EA	\$200,000	\$200,000
<b>Construction Sub-Total</b>				<b>\$27,028,389</b>
General Conditions + O&P			17.00%	\$4,594,826
Escalation			5.00%	\$1,581,161
Contingency			8.00%	\$2,529,857
Project Costs - 12%			12.00%	\$4,098,369
<b>ORES - Option 2 subtotal</b>				<b>\$39,832,602</b>

BUDGET DEVELOPMENT WAS BASED ON DARIEN HS AND TOKENEKE ES PROJECT COSTS, BUILDING SYSTEMS AND LEVEL OF FINISH MULTIPLIED BY THE TURNER CONSTRUCTION ESCALATION INDEX PUBLISHED QUARTERLY. NEW CONSTRUCTION = \$375 - 425/SF.



# OPTION 3 – REPLACEMENT

- NEW 60,000 SF CLASSROOM BUILDING
  - 25 GENERAL CLASSROOMS
  - 7 SPECIAL SUBJECT ROOMS
  - CENTRAL LIBRARY / MEDIA CENTER
- NEW GYM & CAFETERIA COMMONS
  - ALLOW SEPARATE, SECURED ACCESS
  - CENTRALIZED MAIN ENTRANCE
- DEMOLISH MODULAR CLASSROOMS + RELOCATE IN NEW BUILDING
- ADAPTIVE REUSE OF 1996 BUILDING FOR CONSOLIDATED ELP PROGRAM
- NEW PARKING LOT AND DROP-OFF
- LOWER FIELD RENOVATION
- 2 NEW PLAYGROUNDS





# OPTION 3 – AERIAL



# OPTION 3 – REPLACEMENT

## ADVANTAGES

- LONGER CONSTRUCTION CYCLE LONGEVITY, 40+ YRS FOR NEW VS. 25-30 YRS FOR RENO
- AMPLE “SWING SPACE”, USE OF EXISTING BUILDING DURING NEW CONSTRUCTION
- FLEXIBILITY IN CONSTRUCTION SCHEDULE
- ENERGY EFFICIENT BUILDING SAVES ON OPERATIONAL COSTS AND USER COMFORT
- NO TEMPORARY SHORTAGE OF CLASSROOMS
- DEDICATED DISTRICT ELP BUILDING
- 21<sup>ST</sup> CENTURY / NEXT GEN TECHNOLOGY WILL BE INCORPORATED THROUGHOUT NEW FACILITY

## DISADVANTAGE - COST



# OPTION 3 COST SUMMARY

CAMPUS - Description	Quantity	Unit	Unit cost	Extended Cost
<b>Ox Ridge Elementary School - OPTION 3 (25 General Classrooms + 10 ELP)</b>				
New Construction	75,000	SF	\$375	\$28,125,000
Renovated classroom area (1996 wing)	8,830	SF	\$175	\$1,545,250
Air Conditioning 1996 wing	8,830	SF	\$60	\$529,800
Site work - Paving, Play Areas + Demolition	435,600	SF	\$10	\$4,356,000
Site work - Remove Modulares	1	EA	\$200,000	\$200,000
<b>Construction Sub-Total</b>				<b>\$34,756,050</b>
General Conditions + O&P			17.00%	\$5,908,529
Escalation			5.00%	\$2,033,229
Contingency			5.00%	\$2,033,229
Project Costs - 12%			12.00%	\$5,123,737
<b>ORES - Option 3 Total</b>				<b>\$49,854,773</b>

BUDGET DEVELOPMENT WAS BASED ON DARIEN HS AND TOKENEKE ES PROJECT COSTS, BUILDING SYSTEMS AND LEVEL OF FINISH MULTIPLIED BY THE TURNER CONSTRUCTION ESCALATION INDEX PUBLISHED QUARTERLY. NEW CONSTRUCTION = \$375 - 425/SF.

# CONCLUSION

THE FOLLOWING POINTS NEED TO BE CONSIDERED PRIOR TO DECIDING BETWEEN RENOVATION AND REPLACEMENT OF OX RIDGE ELEMENTARY SCHOOL:

- **AGING INFRASTRUCTURE**
  - REQUIRES MAJOR UPGRADES, SYSTEMS ARE PAST USEFUL LIFE
- **ELP CONSOLIDATION**
  - OPTIONS 2 & 3 WOULD ALLOW THE DISTRICT ELP PROGRAM TO BE HOUSED IN ONE BUILDING
- **COST BENEFIT**
  - NEW CONSTRUCTION HAS GREATER UPFRONT COSTS BUT LOWER ANNUAL MAINTENANCE AND UTILITY COSTS
- **HEALTH & LIFE SAFETY**
  - WITHOUT SWING SPACE, RENOVATION WORK CAN ONLY OCCUR WHEN CLASS IS NOT IN SESSION, ELONGATING THE CONSTRUCTION SCHEDULE.
- **SECURITY**
  - OPTIONS 2 & 3 PROVIDE A MORE CENTRALIZED MAIN ENTRY AND THE FLEXIBILITY OF ALLOWING SEPARATE ACCESS TO THE “COMMONS BUILDING.”
- **DURATION OF CONSTRUCTION**
  - NEW CONSTRUCTION WOULD MOST LIKELY BE 2 YEARS VERSUS 3 YEARS FOR RENOVATION WORK

