



PBK SPORTS K-12

PLANNING THE RIGHT AQUATIC FACILITIES FOR YOUR SCHOOL DISTRICT + COMMUNITY

INTRODUCTIONS



KEVIN MCKEEVER

EXECUTIVE DIRECTOR, FACILITIES +
PLANNING, LAMAR CISD



TREY SCHNEIDER

PARTNER, PBK SPORTS



LORIN PARGOUD

PRINCIPAL, PBK



JUAN LÓPEZ

PRINCIPAL, PBK SPORTS

- 
- A swimmer wearing an orange cap and goggles is captured in motion, creating a large splash of water. The swimmer's arm is extended forward, and the water is turbulent around their head and shoulders. The background is a deep blue, suggesting an outdoor pool setting.
1. AQUATICS PROGRAMS TODAY
 2. PLANNING + DESIGN
 3. LAMAR CISD AQUATICS MASTER PLAN
 4. FACILITY MAINTENANCE + OPERATIONS
 5. AQUATIC FACILITY TRENDS

01 Aquatics Programs Today



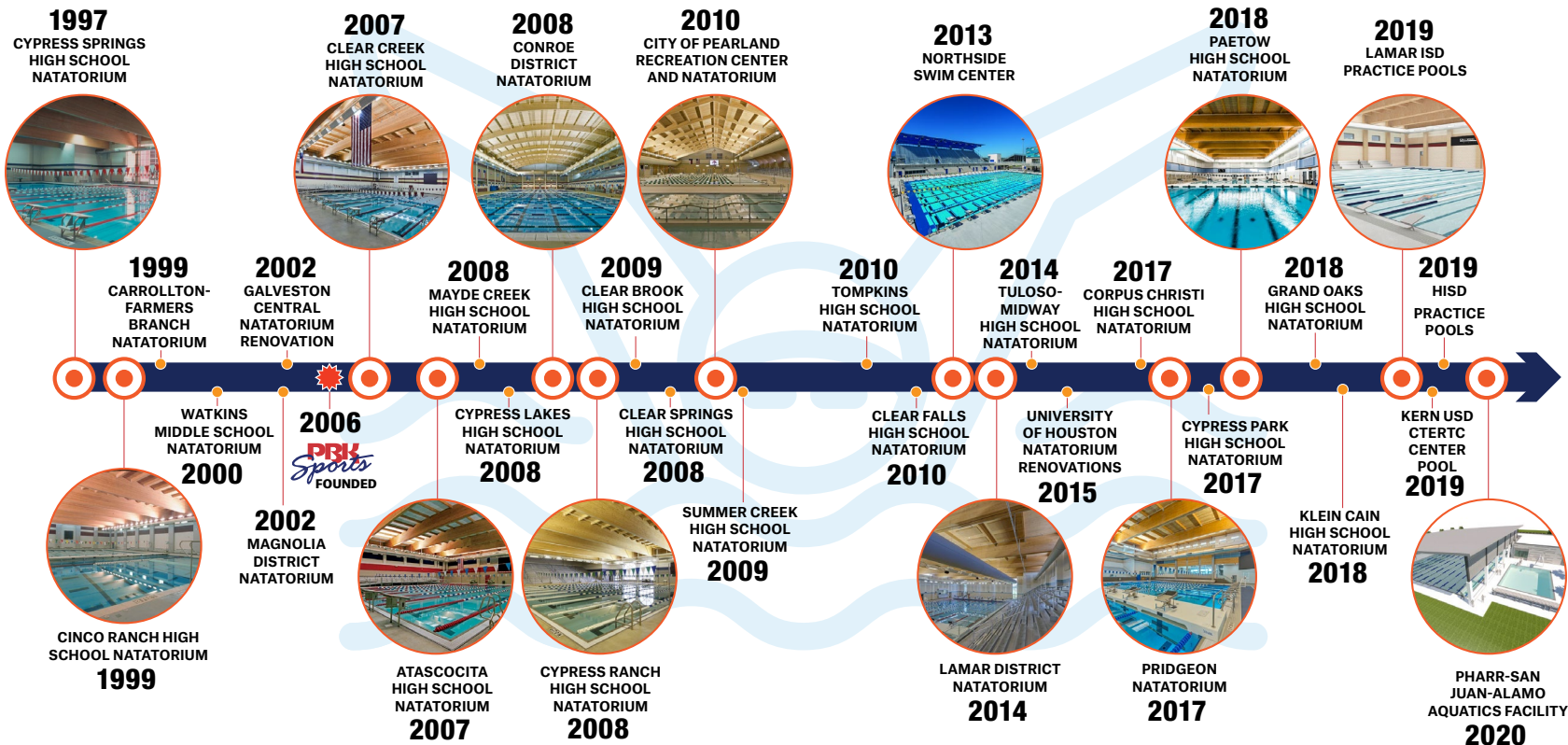
GROWTH OF SPORT



THE MICHAEL PHELPS EFFECT + U.S. OLYMPIC SUCCESS

In 2008, US swimmer Michael Phelps became the most successful man at a single Olympic Games by winning eight gold medals. His total medal haul of 23 golds between 2004–2016 is the most out of all sports.

"EVOLUTION OF THE EXPERIENCE"



GOVERNING BODIES, FACILITY STANDARDS, EVENTS



UIL SWIMMING + DIVING EVENTS



FACILITY STANDARDS

EVENTS FOR DISTRICT, REGIONAL AND STATE

Boys and girls events for district, regional and state meets shall be as follows:

200 Yard Medley Relay

200 Yard Freestyle

200 Yard Individual Medley

50 Yard Freestyle

1 Meter Diving

100 Yard Butterfly

100 Yard Freestyle

500 Yard Freestyle

200 Yard Freestyle Relay

100 Yard Backstroke

100 Yard Breaststroke

400 Yard Freestyle Relay



USA SWIMMING

FACILITY STANDARDS

50, 100, 200, 400m/500y, 800m/1000y, 1500m/1650 freestyle

100, 200 backstroke

100, 200 butterfly

100, 200 breaststroke

200, 400 individual medley

200, 400, 800 freestyle relay

200, 400 medley relay

200, 400, 800 mixed gender freestyle relay

200, 400 mixed gender medley relay



USA DIVING



SPRINGBOARD

- ✓ 1 meter
- ✓ 3 meter

PLATFORM

- ✓ 1 meter
- ✓ 3 meter
- ✓ 5 meter
- ✓ 7.5 meter
- ✓ 10 meter



AQUATICS PROGRAM TODAY

FACILITY SPECS	Meet or exceeds championship requirements.	NORTHSIDE NATATORIUM (secondary pool)	NORTHSIDE SWIM CENTER (main pool & diving pool)		CHAMPIONSHIP FACILITY	IDEAL FACILITY	
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SIZE

Main Competition Pool	YES	NA	50 METER (8 lanes @ 9' wide, 2m deep min.)		50 METER (8-10 lanes @ 2.5m wide 2m deep min.)	50 METER (8 lanes x 9' wide, 2m deep min.)	
Secondary Competition Pool	YES	50 METER (8 lanes @ 9' wide, 2m deep min.)	50 METER (8 lanes @ 9' wide, 2m deep min.)		NA	SAME AS COMPETITION POOL	
Warm-up Pool	YES	NA	25 METER X 25 YD.		25 METER (min. 8 lanes @ 2.5m wide)	25 METER (8 lanes @ 9' wide)	
Diving Pool	YES	NA	Two 1-meter and two 3-meter springboards. Height of highest platform will be 10-meters. Intermediate platforms TBD.		Two 1-meter and two 3-meter springboards. Height of highest platform must be 10-meters. Intermediate platforms may be 5 and 7.5 meters.	Two 1-meter and two 3-meter springboards. Height of highest platform must be 10-meters. Intermediate platforms may be 5 and 7.5 meters.	
Deck Size	YES	15' on sides: SECONDARY POOL	MAIN POOL 25' on sides	WARM-UP POOL 15' on sides	MAIN POOL 20' on sides	WARM-UP POOL 15' on sides	MAIN POOL 20' on sides WARM-UP POOL 15' on sides

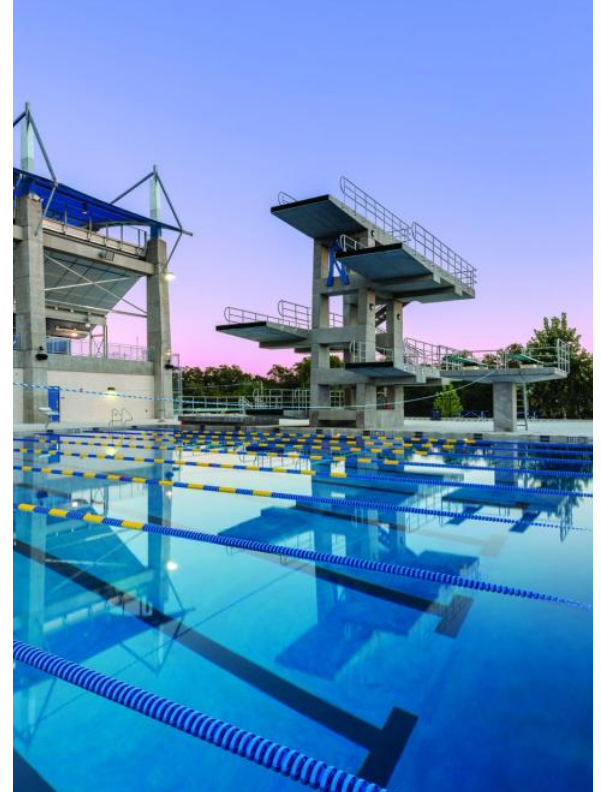
SEATING

Spectator Seating	POSSIBLE	800 SEATS: SECONDARY POOL	2,500 SEATS: MAIN POOL X TEMPORARY SEATS: DIVING POOL		3,000 SEATS: MAIN POOL	6,000 SEATS: MAIN POOL 2,000 SEATS: SECONDARY POOL	
Athlete Seating	POSSIBLE	TBD	1,000 ATHLETES		1,500: ATHLETE SEATS	1,200 SEATS TOTAL: 500 SEATS ON EACH SIDE OF MAIN POOL 100 SEATS ON EACH SIDE OF WARM-UP POOL	
Media Seating	POSSIBLE	TBD	TBD		50: SEATING WITH TABLES NEAR FINISH END	200: SEATING WITH TABLES NEAR FINISH END	
VIP Seating	POSSIBLE	TBD	TBD		50: VIP SEATING ALONG ONE SIDE OF MAIN POOL	200: VIP SEATING ALONG ONE SIDE OF MAIN POOL	

ADMINISTRATION

Hospitality	NO	NONE	NONE		Near pool deck to accommodate 300 at round banquet tables.	Near pool deck to accommodate 300 at round banquet tables.	
VIP suite	NA	NONE	NONE		NA	Room overlooking main pool with bar, lounge seating, and video monitors.	
General Meeting	POSSIBLE	Could utilize bleacher space with 400 seats in existing natatorium space.	NONE		Nearby room to accommodate 400 in theatre seating.	Nearby room to accommodate 600 in theatre seating.	
Officials	POSSIBLE	NA	Temporary bleachers at north deck to accommodate 60.		Near pool deck to accommodate 60 in theatre seating.	Near pool deck to accommodate 125 in theatre seating.	
Meet Administration	YES	NONE	Windowed room at each end of home side with 12 desks/computers each.		Windowed room at finish-end of main pool with three desks/computers for meet administration.	Windowed room at finish-end of main and secondary pools with three desks/computers for meet administration.	
Audio/Lighting	NA	NONE	NONE		NA	Windowed room at turning-end of main and secondary pools with all controls for sound and lighting.	
Drug Testing	YES	NA	Near pool deck. Single toilet space		Near pool deck w/ 3 desks and seating for 10, adjacent to private men's and women's restrooms.	Near pool deck w/ 3 desks and seating for 20, adjacent to private men's and women's restrooms.	
Staff	YES	Nearby rooms with workspaces for 9 staff.	Office spaces on either side of home side.		NA	Nearby room with minimum of 6 desks w/ computer connections.	
Media Workroom	POSSIBLE	Workroom located near secondary pool	NONE		Near pool w/ min. workspaces for 30 w/ computer connections, phones, fax copiers, etc.	Near pool w/ min. workspaces for 50 w/ computer connections, phones, fax copiers, etc.	

PUBLIC-PRIVATE PARTNERSHIPS



SUSTAINABILITY



02 Planning + Design



ASSEMBLE THE DESIGN COMMITTEE

COMMITTEE

- ✓ Aquatic Director
- ✓ Administration
- ✓ Coaches
- ✓ Parents
- ✓ Students
- ✓ Community
- ✓ Principal



ESTABLISH GOALS + OBJECTIVES



MASTER PLAN VENUE/SITE



DEFINE EVENTS + PROGRAMS



VISIT DIFFERENT POOL FACILITY TYPES



DESIGNATE FACILITY MANAGER



PROGRAM OF SPACES

Space/Function	Quantity	Net Unit Area -	Total Area -
Pool Deck	1	4,450	
Pool	1	5,625	
Pool Equipment Room	1	800	
Girl's Locker Room	1	780	
Boy's Locker Rooms	1	780	
Coach's Office	1	220	
Coach's Restroom / Dressing	1	150	
MDF	1	35	
Pool Storage	1	260	
Custodial Closet	1	100	
Men's RR / 4th Grade Program	1	305	
Women's RR / 4th Grade Program	1	360	
Total Net Program			
Adjusted Gross Square Footage (Building)			
Mechanical Mezzanine	1	2,800	

New Natatorium
Lamar Consolidated ISD
Proposed Program

2/14/2013

Proposed Program

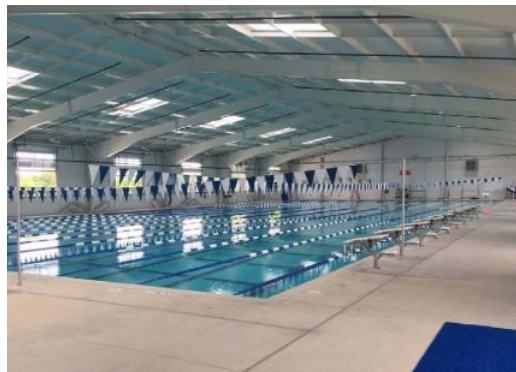
SPACE / FUNCTION	QUANTITY	NET UNIT AREA-SF	TOTAL NET AREA-SF	DESCRIPTION
NATATORIUM				
Seating for 600	1	9,000	9,000	
Pool Area	1	7,800	7,800	
Pool Deck	1	1,500	1,500	
Bleachers	1	720	720	
Lobby	1	200	200	
Concessions	1	215	215	
Men (4 WC, 2 Lav)	1	300	300	
Women (7 WC, 2 Lav)	1	70	70	
Family Restroom				
LOCKERS/CLASSROOM				
Classroom / Team Meeting	1	1,200	1,200	
Classroom Storage	1	115	115	
Boys Locker Rooms	2	410	820	
Girls Locker Rooms	2	410	820	
Shared Toilet/Shower		510	1,020	
OFFICE				
Front Office	1	190	190	
Coach's Office	1	610	610	
Scoring Office	1	200	200	
Coach's Dressing	2	135	270	
Life Guard Office/Training	1	330	330	
SUPPORT				
Equipment Storage	1	1,060	1,060	
Storage	1	600	600	
Pool Equipment and Chemical Storage	1	860	860	
Laundry	1	1,120	1,120	
subtotal			29,020	
net to gross factor			1.11	
total			32,212	

* Gross Includes Mechanical Mezzanine, Electrical, Janitor, Vestibule, Circulation, and Wall Thickness

POOL FACILITY TYPES



OPEN AIR POOL



PASSIVE AIR POOL



**CLIMATE
CONTROLLED POOL**

PROS + CONS

POOL CONSTRUCTION TYPES



**TRADITIONAL
CONCRETE POOL**



**STAINLESS STEEL
PANEL POOL**

POOL CATEGORIES



INSTRUCTIONAL

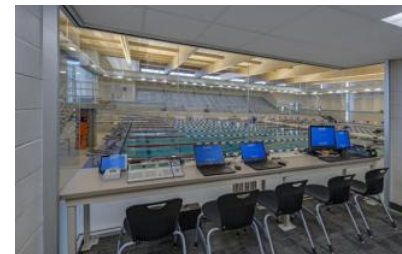
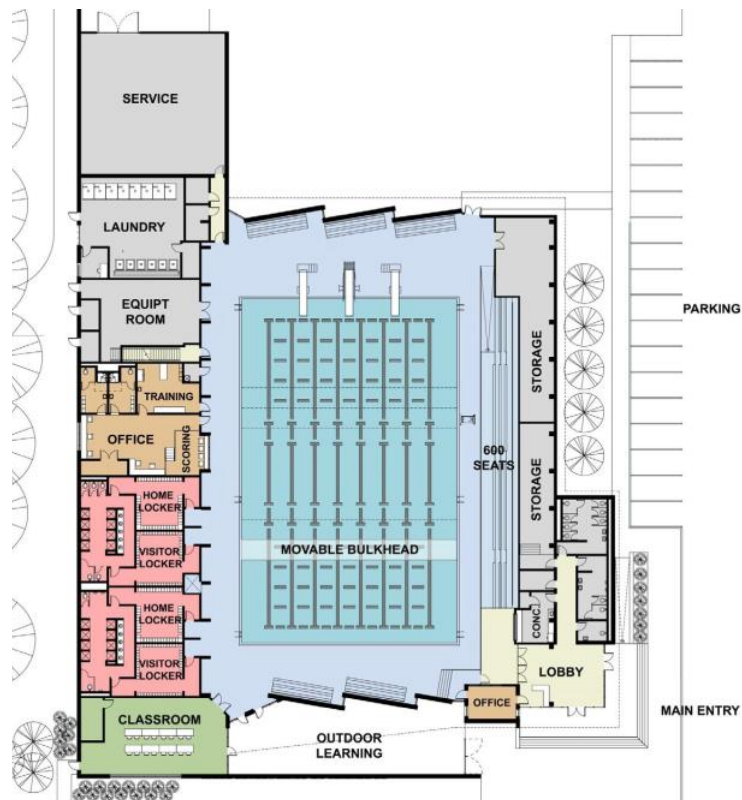


**COMPETITION/
PRACTICE**

POOL CONFIGURATIONS/DEPTHS



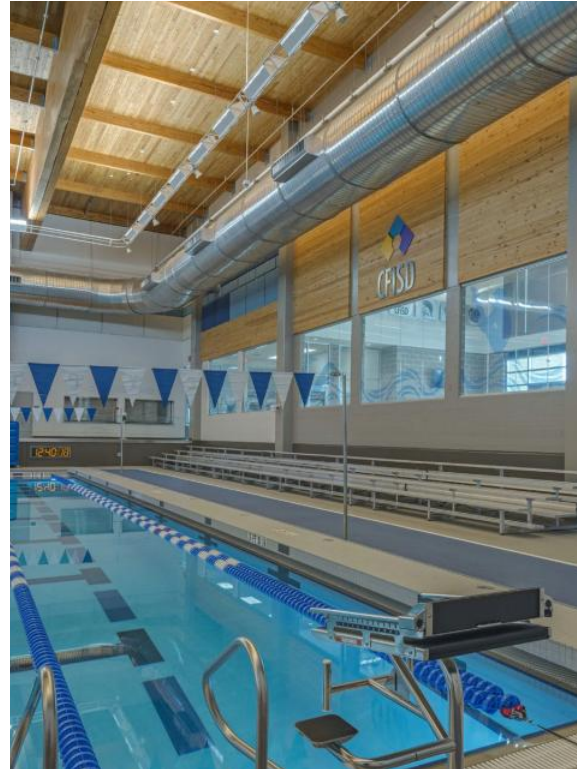
PLANNING CONSIDERATIONS



MECHANICAL SYSTEMS/HVAC



NATURAL + ARTIFICIAL LIGHT



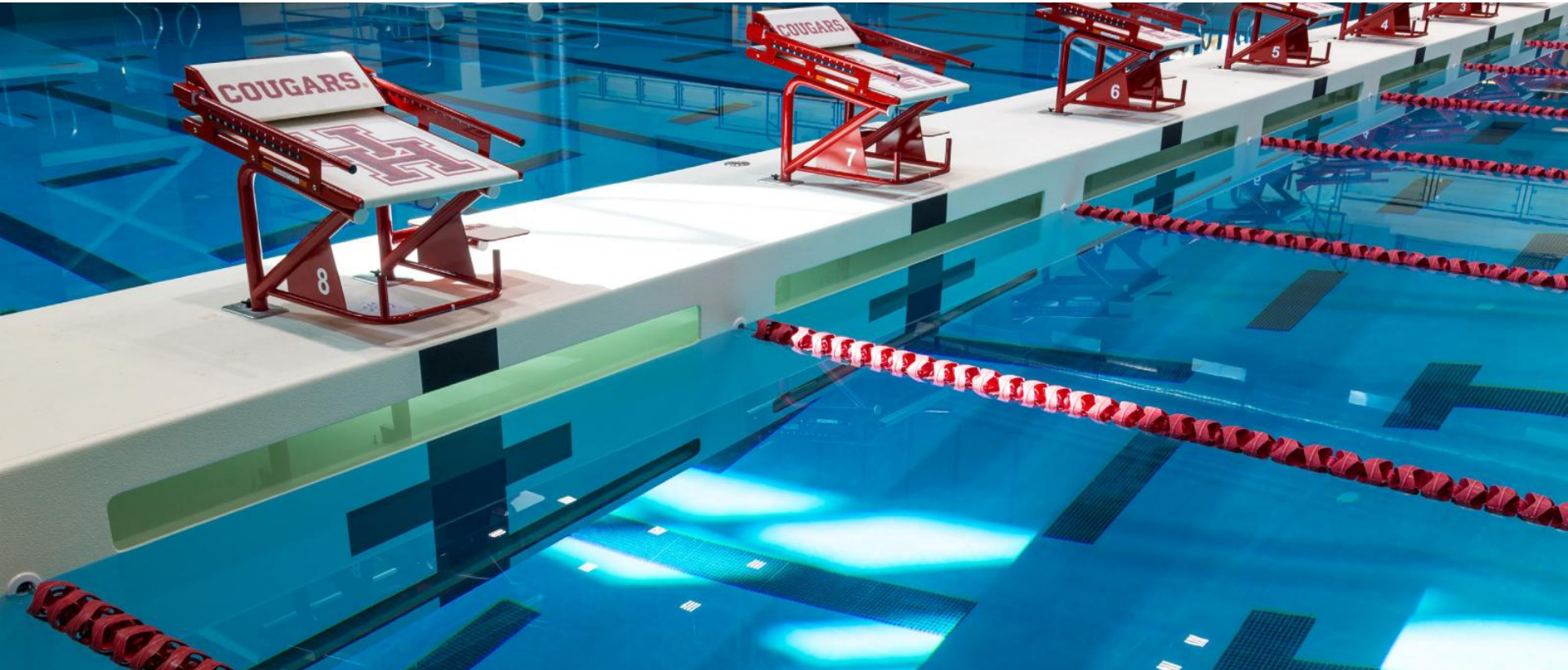
TIMING SYSTEMS



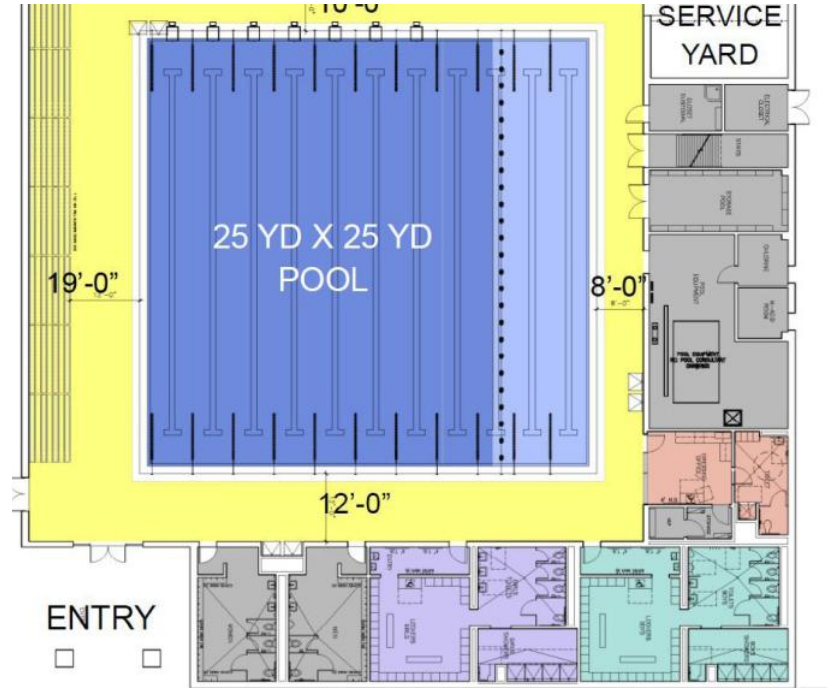
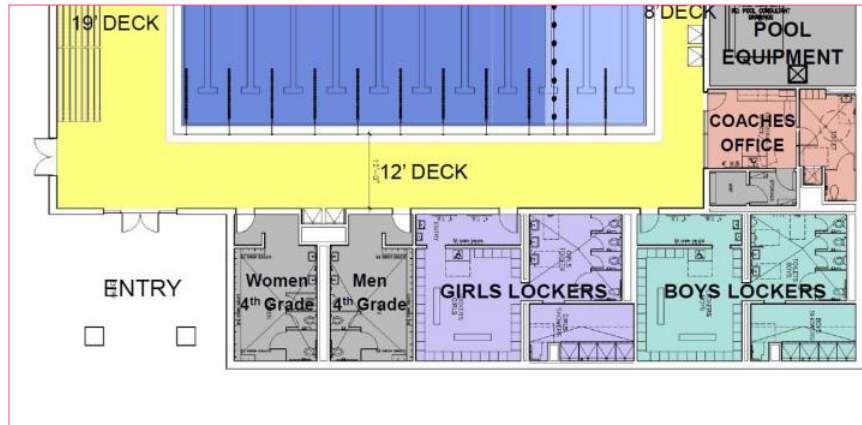
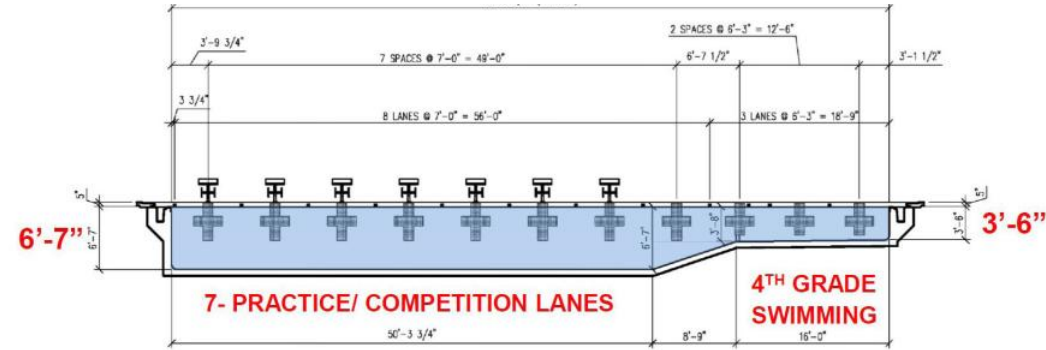
SCOREBOARD



03 Construction Practice



PROTOTYPING



ACOUSTICS/LIGHTING/STRUCTURE



MATERIALS + FINISHES



MECHANICAL SYSTEMS + POOL FILTRATION



CONSTRUCTION SCHEDULE / CHALLENGES



04 Lamar CISD Aquatics Master Plan



AQUATICS MASTER PLAN

LAMARCISD
A PROUD TRADITION | A BRIGHT FUTURE

DISTRICT MAP

Elementary, Middle, Junior High, High School and Special Sites
3911 Avenue I • Rosenberg, Texas 77471 • 832-223-0000 (main) • www.lcisid.org

COMMUNITY SITES

- A Fort Bend County Fairgrounds
- B George Memorial Public Library
- C Oak Bend Medical Center
- D Rosenberg Civic Center

SECONDARY CAMPUSES

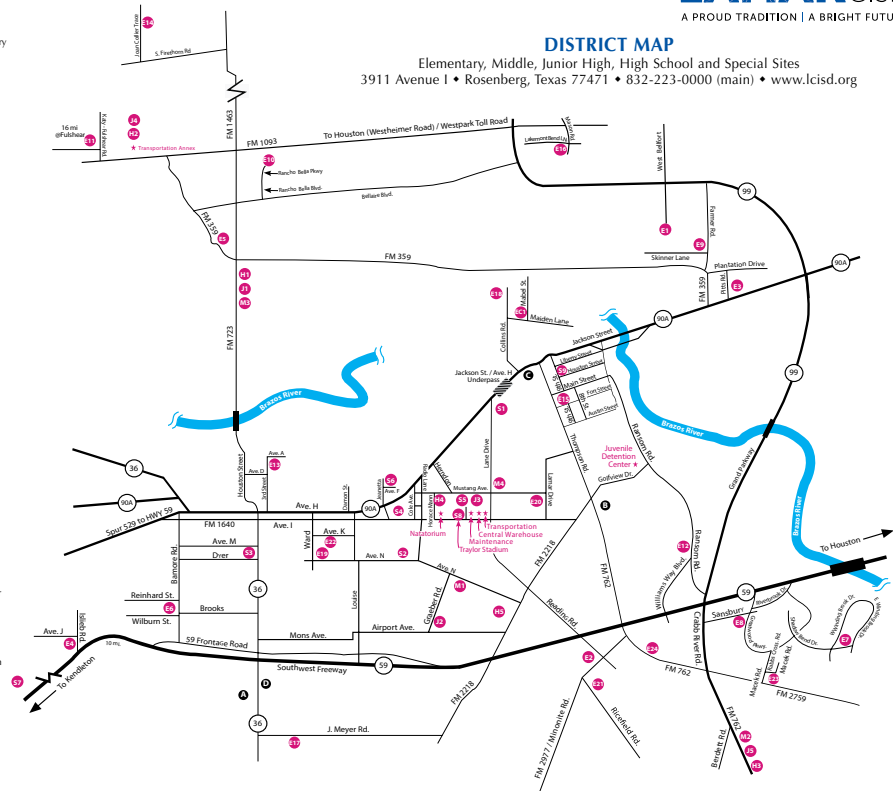
- H1 Foster HS
- H2 Fulkhear HS
- H3 George Ranch HS
- H4 Lamar Consolidated HS
- H5 Terry HS
- J1 Briscoe JH
- J2 George JH
- J3 Lamar JH
- J4 Leaman JH
- J5 Reading JH
- M1 Navaro MS
- M2 Ryan MS
- M3 Wertheimer MS
- M4 Wessendorff MS

ELEMENTARY CAMPUSES

- E1 Adolphus ES
- E2 Arredondo ES
- E3 Austin ES
- E4 Beasley ES
- E5 Bentley ES
- E6 Bowie ES
- E7 Campbell ES
- E8 Dickinson ES
- E9 Froat ES
- E10 Hubenak ES
- E11 Huggins ES
- E12 Hutchison ES
- E13 Jackson ES
- E14 Lindsey ES
- E15 Long ES
- E16 McNeill ES
- E17 Meyer ES
- E18 Pink ES
- E19 Ray ES
- E20 Smith ES
- E21 Thomas ES
- E22 Travis ES
- E23 Velasquez ES
- E24 Williams ES

SPECIAL SITES

- S1 1621 Place
- S2 Administrative Annex
- S3 Alternative Learning Center
- S4 Brazos Crossing Administration Building
- S5 Development Center
- S6 Fort Bend Alternative School
- S7 Powell Point
- S8 Athletics/Taylor Stadium
- S9 Special Needs Center



THE STORY

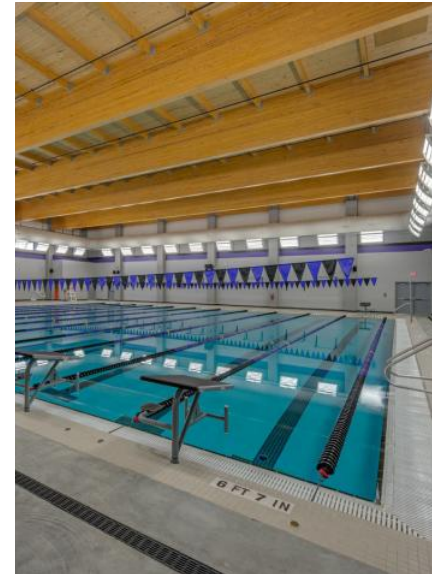


The Beginning of the Fourth Grade Learn to Swim Program

LCISD AQUATICS PROGRAMS



PROTOTYPE FACILITIES



VENDOR/MAINTENANCE ITEMS



COMMUNITY/CLUB USAGE



SPECIALIZED STAFF



05 Aquatic Facility Trends



TRENDS

ADAPTIVE
AQUATICS



DRYLAND TRAINING



INTERACTIVE
COACHING



SPORTS MEDICINE
AND NUTRITION



BRANDING &
WAYFINDING



ACCESS CONTROL



REHABILITATION



COMMUNITY
LOUNGE



TRENDS

AIR FLOW
DISTRIBUTION



POOL FILTRATION
AND CIRCULATION



ADAPTABILITY
AND FLEXIBILITY



HIGH PERFORMANCE
HVAC SYSTEM AND MATERIALS



POOL AND AIR
TEMPERATURE



DIVING



SCOREBOARDS/TIMING
AND ACOUSTICS



NATURAL & ARTIFICIAL
LIGHTING





THANK YOU

PRK
Sports