

# ENVIRONMENTAL STEWARDSHIP ADVISORY COMMITTEE

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MARCH 21, 2018



# FEATURED PANEL: ACTIVE TRANSPORTATION & AIR QUALITY

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## **Anton Cox**

Air Quality Program

Capital Area Council of Governments



## **Katherine Gregor**

Active Transportation & Street Design Division

Austin Transportation Department, City of Austin



## **Christopher Stanton**

Founder & Executive Director

Ghisallo Cycling Initiative



# Helping People Choose To Bike for transportation in their busy daily lives





**Austin**  
**Biking Encouragement**  
**Project**



# Vision Statement

**The Austin Biking Encouragement Project** helps people enjoy the many **personal benefits** of travel by bicycle, creates **access to opportunity**, and makes Austin a more **sustainable, livable community**.

# “Turbo-Charging” Bikeway Investments

- **300 miles** of improved bikeways (on-street, protected, and trail) built since 2008.
- At **25%** build-out of “all ages and abilities” better biking network
- **\$20 million** in new bond funding for bikeways
- **\$27.5 million** for school connections
- **\$26 million** for urban trails
- Awesome biking network within next **6 years**

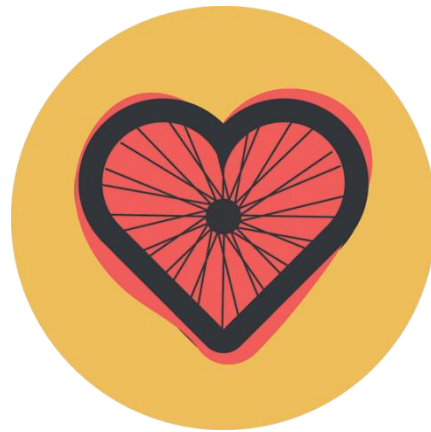
# 8-POINT PLAN TO GROW BIKE RIDERSHIP 2017-2020

1. **Love to Ride** | Biking encouragement program (digital, personal, teams)
2. **Biking Eco-System** | Holistically address people's needs and barriers
3. **Biking Ambassadors** | Personalized encouragement (Smart Trips)
4. **Bikeway Activations** | Encourage people to use high-comfort bikeways
5. **Bike-Friendly Destinations** | Bike-friendly business & district program
6. **Ladders of Opportunity** | Help people bike for affordable transportation
7. **Vision Zero** | Safety education program (for drivers and cyclists)
8. **Partner Pledges** | Community actions and support to increase bike trips



**Join the May Biking Challenge!**

**LOVE TO RIDE**



**[LoveToRide.net/Austin](http://LoveToRide.net/Austin)**

# Let's Get Personal: Overcoming Barriers

## WHAT'S KEEPING YOU FROM RIDING?



## ANNOUNCEMENTS

WINTERWHEELERS -  
AUSTIN



## WHAT MOTIVATES YOU?



7 Personal Motivations

**1 Register. It's free!**

**2 Ride for 10 minutes or more.**

**3 Recruit friends & colleagues.**

**4 Win Prizes!**



**LOVE TO RIDE**

# Smart Trips

- Neighborhood-based
- Personalized encouragement
- Toolkit delivered to door
- Fall 2018: Central East Austin





# Bikeway Activations

Encouraging people to use high-comfort bikeways



# Bike to Manor Road Day

Sat. March 31, 12-4 PM





# Earth Day Festival

## “World of Biking” April 21

### Huston-Tillotson Campus, 12 – 7 pm



# Bright Green Future Grants

## School-based Biking Encouragement

### Ghisallo Cycling Initiative (bike clubs)





# Vision Zero

Help Austin Reach Zero Traffic Deaths



# Safe Cycling Skills Classes

Safe Routes to School Program & More



Thank You!



# AISD SUSTAINABILITY UPDATES

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DARIEN CLARY



# EARTH WEEK APRIL 16-20

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**Earth Week 2018 Goal:  
Every AISD student will take a moment to think about  
how they can make the earth a better place and  
perform an action to do so.**

## **Earth Week Website (in development)**

- Daily PA Announcements
- Activity Ideas for Each Action Area
- Green Meme Contest Info
- Featured Activities
  - Tree Mapping @ Lanier
  - Farm Fresh Friday – AISD Nutrition & Food Services



2017 Logo Design Winner  
Najai Mckenzie-Robinson  
Crockett Student





# EARTH WEEK APRIL 16-20



Meme must be  
informative and  
spark a  
behavior that  
supports  
sustainability

Contest info will be posted on Earth Week website (in development)



# SUSTAINABILITY - PROFESSIONAL DEVELOPMENT



**North Carolina Department of Public Instruction (DPI) Outdoor Learning Environments Initiative**  
Comprehensive Projects, Current, Professional Development, Schools



**The Montessori School of Winston-Salem, NC**  
Design Assistance, Montessori Schools, Schools



**Montessori Children's School, Jacksonville, NC**  
Design Assistance, Montessori Schools, Schools



**Professor Robin C. Moore,**  
Natural Learning Initiative  
[www.naturalearning.org](http://www.naturalearning.org)



**The Elizabeth Ann Clune Montessori School of Ithaca**  
Design Assistance, Montessori Schools, Schools



**Blanchie Carter Discovery Park**  
Design Assistance, Parks and Recreation, Schools



# PRACTICAL APPLICATIONS OF SUSTAINABILITY IN THE 2017 BOND PROGRAM

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CONVERSATION FACILITATED BY MATTHEW NELSON  
GUEST: AECOM



## BOND PROGRAM

ESAC Meeting – 3/21/18

# Agenda

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- Bond Projects Started and Status
- Campus Architectural Teams (CATs)
- Ed Specs
- Project Sustainability Goals

# Bond Projects Started and Status

- Design Build Projects
  - in Schematic Design
    - TA Brown ES
    - Govalle ES
    - Menchaca ES
    - Doss ES & Murchison MS



**DRAFT**

# Bond Projects Started and Status

- CMR Projects
  - Ann Richards – Finishing Master Planning
  - Eastside at ALC - Finishing Master Planning
  - New SW ES – Starting Schematic Design
  - Blazier Relief – Starting Master Planning



Kathlyn Joy Gilliam Collegiate Academy – Dallas ISD

# Bond Projects Started and Status

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- Bowie HS – A/E & CMR in procurement
- Rosedale – Bridging document effort planned to start in April





# CATs (Campus Architectural Teams)



- Teams include 9-10 members:
  - School Principal
  - Instructional Staff
  - Administration Staff
  - Students (for middle school and high school projects)
  - Parents (including one representative from the Campus Advisory Council)
  - Community Members
- Also Included on the team:
  - Architect
  - AISD Facility Planning, Design and Construction Staff
  - AISD Teaching and Learning Staff
  - AISD Maintenance/Service Center Staff

# Community Engagement Requirements

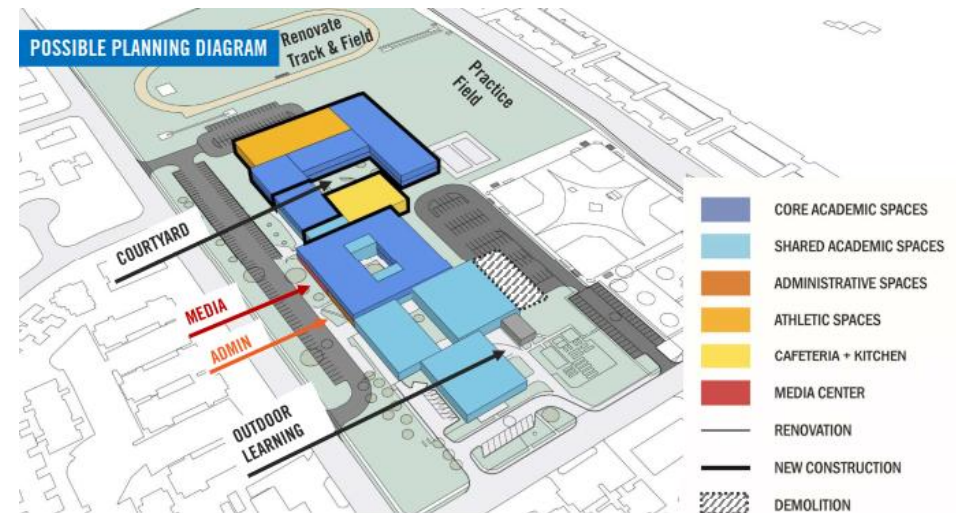
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- Schematic Design Phase
  - Purpose is to inform stakeholder on:
    - the project parameters
    - how the building relates to the site
    - anticipated traffic flow
    - building orientation, etc.
- Design Development Phase
  - Purpose is for stakeholders receive information and provide feedback about:
    - the interior organization of the building
    - exterior appearance
    - parking, etc.
- Construction Phase
  - Prior to the start of construction, the community will be invited to meet a final time to:
    - discuss construction schedule
    - receive the plan for housing students in an alternative location (if needed)
    - provide contact information for the community should issues arise during construction.

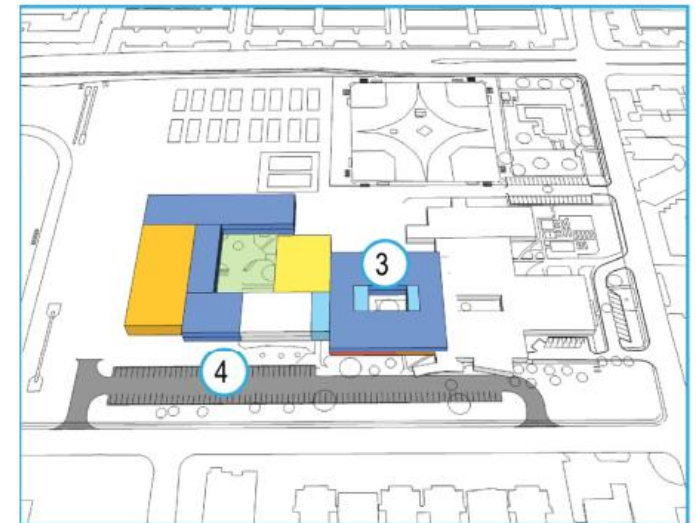
# Campus Master Planning Phase (approximately 1-3 months)

- Plan for modernization of entire campus over time
- Account for future growth
  - Population and programming
- Construction sequencing and phasing considered
- Role of CAT:
  - Collaborate and come to a consensus on the long-term strategic goals of the campus
- Finalizing the masterplan allows us to move into design



## POTENTIAL CONSTRUCTION SEQUENCING

- 3) Begin Renovation of Existing Building in the 2-Story Courtyard Area (Summer)
- 4) Begin Construction of New Front Drive (Summer)



# Concept Development and Schematic Phase (approximately 1-5 months)

- In general, this process starts with the Design Charrette
  - A one or two- day collaborative work session involving the CAT, DT, AISD staff, and other stakeholders
- Site Plans, Building Footprint, Adjacencies
- Role of CAT:
  - Review, refine and verify the approved building program and schematic design

## Menchaca ES Preliminary Layout:



# Campus Advisory Team (CAT) Roadmap



# CAT Membership Agreement

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- Participate in Scheduled Meetings
  - If you have to miss one, appoint an alternate
- Be Involved For The Duration of The Project
- Maintain Project Scope, Schedule, and Budget
- Work Collaboratively
- Be Respectful and Considerate Of Other's Ideas

## OUR VISION: REINVENT URBAN ED



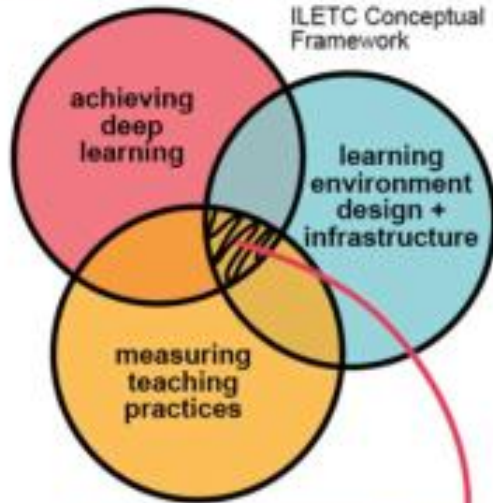
### **AISD Power Skills for 21<sup>st</sup> Century Learning—6 Cs**

- Collaboration
- Communication
- Connection
- Cultural Proficiency
- Creativity
- Critical Thinking

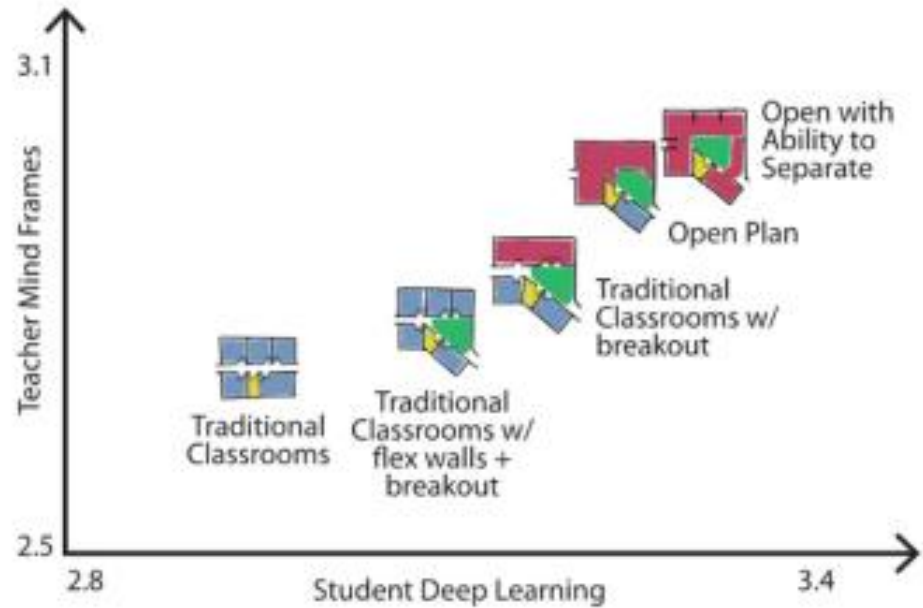


## What does the research say?

### Innovative Learning Environments + Teacher Change (ILETC)



*“Can altering teacher mindframes unlock the potential of innovative learning environments?”*



Graph adapted from Imms, Mahat, Byers, & Murphy (2017)



Imms, W., Mahat, M., Byers, T., & Murphy, D. (2017). *Type and Use of Innovative Learning Environments in Australasian Schools ILETC Survey No. 1*. Melbourne: University of Melbourne, LEARN, Retrieved <http://www.iletc.com.au/publications/reports/>.



## **New Concepts and Ways of Thinking**

Flexible learning spaces

State-of-the-art technology

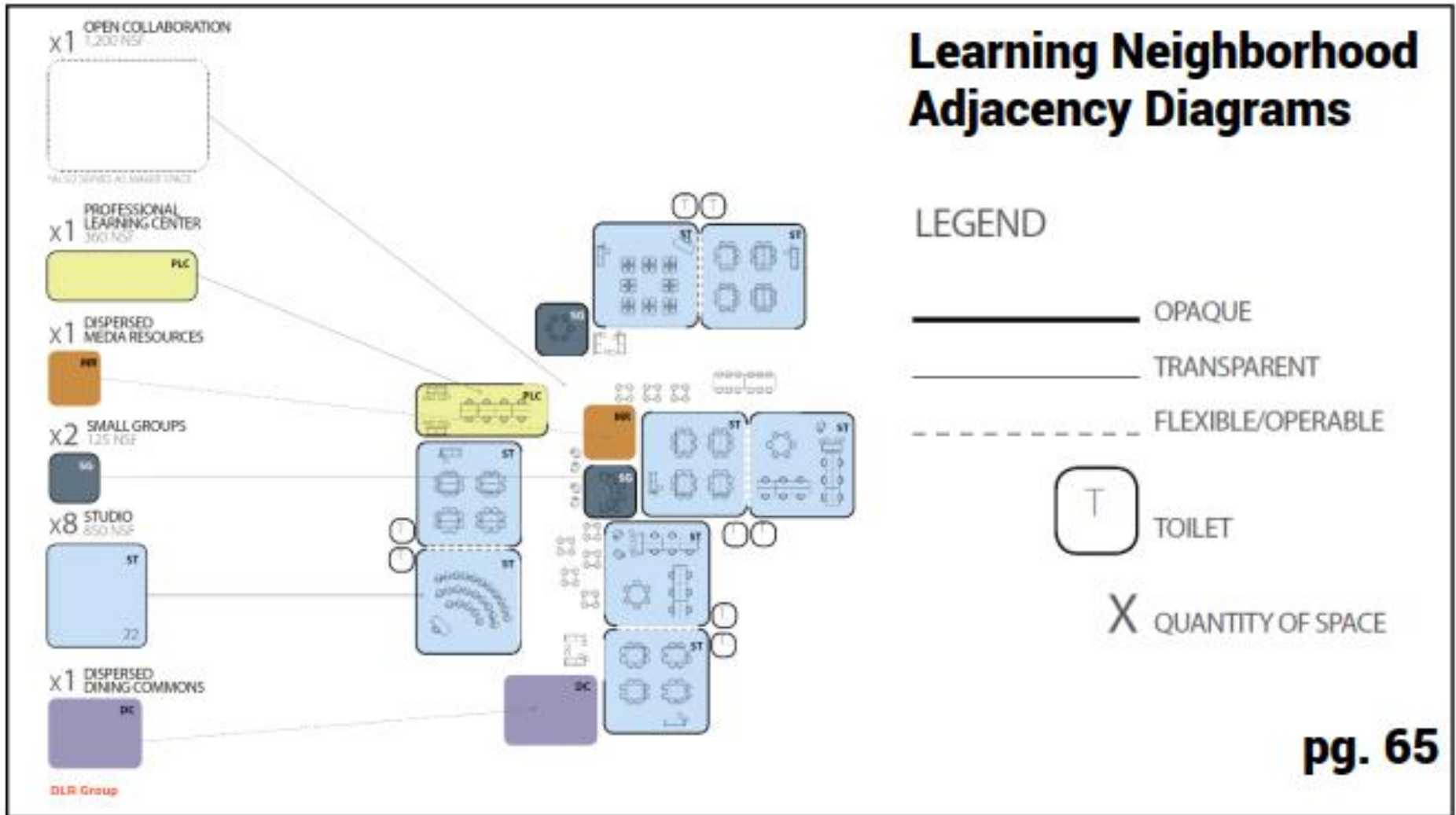
Community Spaces

**pg. 17**



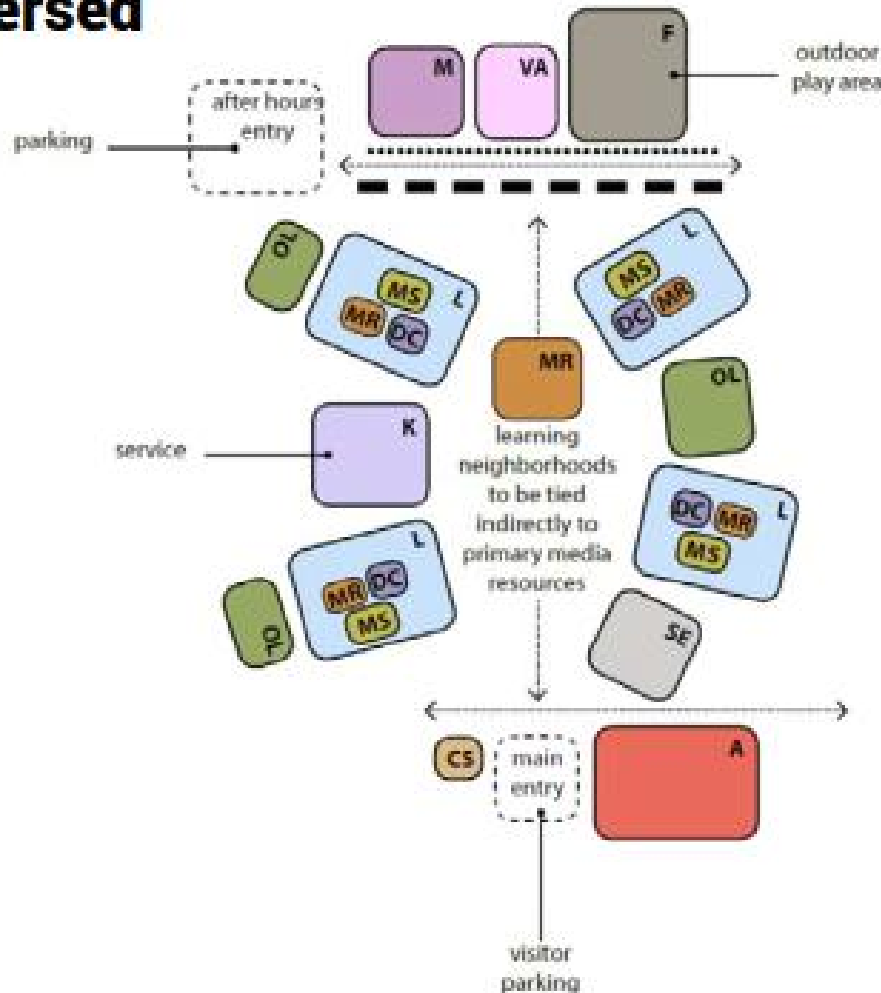
DLR Group

# Ed Specs



# Ed Specs

## dispersed



## Space Types Adjacency Diagrams

- CS community space
- A administration
- F fitness space
- DC dining commons
- K kitchen
- MR media resources
- L learning neighborhood
- MS maker space
- M music
- VA visual arts
- SE special education
- OL outdoor learning

- PRIMARY CIRCULATION
- EXTERIOR ACCESS
- AFTER HOURS ACCESS ZONING
- INCREASED ACOUSTIC SEPARATION

**pg. 104-105**

## MEASURES OF SUCCESS - COMMUNITY :

-  **LEARNER-DRIVEN PROJECTS** – promote learner-driven project both on campuses and through community opportunities such as internships
-  **PARTNERSHIP MINDSET** – foster partnerships when designing new facilities, developing curriculums, training staff, and supporting internships
-  **ROBUST LEARNING EXPERIENCE** – provide neighborhoods and communities safe and secure access to schools to support student and community enrichment
-  **WRAP-AROUND SERVICES** – provide hubs of support FOR wrap-around services in academic locations
-  **OUTDOOR SPACES** – design outdoor spaces to accommodate student and community learning

# Project Sustainability Goals

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- Kick-Offs With All Project Teams
  - Include ACR and AISD Sustainability
- Discussing Goals
  - Most project aiming for pursuing LEED Silver
  - LEED v4 Schools
  - Draft LEED v4 Schools Scorecards
- Coordinating with Austin Energy Green Building program

# Draft Scorecard for Menchaca ES



## LEED v4 for BD+C: Schools Project Checklist

Y ? N

1	1	Credit	Integrative Process energy+water-related systems inform CPR/BOD	1
3	2	10	<b>Location and Transportation</b>	15
1		Credit	LEED for Neighborhood Development Location	15
1		Credit	Sensitive Land Protection previously developed site	1
2		Credit	High Priority Site previously remediated or without development area 7/01-03-25-27-33-34-36-38-39-40-49	2
2	3	Credit	Surrounding Density and Diverse Uses exclude athletic fields; playgrounds/PE bldg from density calc; 2pts please use option TBD	5
4		Credit	Access to Quality Transit-% ES students with <3/4 mile walk distance - no transit available	4
1		Credit	Bicycle Facilities dedicated bike lanes on campus; <1/200yd of bike network covered block/strg; no access to site meter	1
1		Credit	Reduced Parking Footprint - car spaces min pkg per code 5%; preferred pkg > 25 spaces/acre @ 400-215	1
1		Credit	Green Vehicles-% preferred pkg green vehicles + EV charging 2% pkg or lo-emitting buses	1
7	4	1	<b>Sustainable Sites</b>	12
Y		Prereq	Construction Activity Pollution Prevention	Required
Y		Prereq	Environmental Site Assessment phase 1 envt assessment; remediate as required; statement survey on track	Required
1		Credit	Site Assessment site survey assessment	1
2		Credit	Site Development - Protect or Restore Habitat may exclude athletic fields	2
1		Credit	Open Space >30% total site area; min 25% must be vegetated	1
2	1	Credit	Rainwater Management with permeable base; 100% or 2pts OR storage onsite increase runoff volume pre-pool storage	3
1	1	Credit	Heat Island Reduction combine roof/non-roof measures OR >75% parking undercover	2
1		Credit	Light Pollution Reduction BUG rating	1
1		Credit	Site Master Plan address current+future construction; include min 4 LVS; 500-1,4,5,6	1
1		Credit	Joint Use of Facilities space open to public w/toilet access; OR shared uses public/private; providing community room + access gym, cafeteria, auditorium	1
3	3	6	<b>Water Efficiency</b>	12
Y		Prereq	Outdoor Water Use Reduction >30% reduction; athletic/playgrounds may be excluded	Required
Y		Prereq	Indoor Water Use Reduction >20% reduction	Required
Y		Prereq	Building-Level Water Metering read permanent meters measure potable water use bldg/grounds; share data <5yrs	Required
1	1	Credit	Outdoor Water Use Reduction-% reduction 1pt 100% red+2 pts athletic/playgrounds may be excluded	2
1	2	4	Indoor Water Use Reduction 20% red 2pts 20% red 4pts 40% red 6pts 60% red 8pts 80% red 10pts 100% red	7
1		Credit	Cooling Tower Water Use cooling towers/wet chillers condenser 1 + potable water analysis; adjust cycle space	2
1		Credit	Water Metering install >2 meters for water subsystems (e.g. irrigation; indoor fixtures)	1
12	10	9	<b>Energy and Atmosphere</b>	31
Y		Prereq	Fundamental Commissioning and Verification	Required
Y		Prereq	Minimum Energy Performance 00.1-2010; >5%NC; 3% renov	Required
Y		Prereq	Building-Level Energy Metering meter total bldg energy consumption; share data <5 yrs	Required
Y		Prereq	Fundamental Refrigerant Management no CFCs in HVAC/R systems; +3 lb refrigerant exempt	Required
4	2	Credit	Enhanced Commissioning 3 pts=basic envelope CX; 1 pt measurement; 2pts envelope CX TBD	6
6	4	6	Optimize Energy Performance per ASHRAE 90.1-2010 10%+ 15%+ 20%+ 25%+ 30%+ 35%+ 40%+ 45%+ 50%+ 55%+ 60%+ 65%+ 70%+ 75%+ 80%+ 85%+ 90%+ 95%+ 100%	16
1		Credit	Advanced Energy Metering permanent meter whole bldg energy monitor+total energy and usage 10% total bldg cost	1
1	1	Credit	Demand Response PEC doesn't offer DR; consider 1 pt DR 'ready' option	2
1	2	Credit	Renewable Energy Production 1% = 1pt - req'd to design 'solar ready'	3
1		Credit	Enhanced Refrigerant Management balances ODP/GWP <100 - record w/wholen consultant	1
2		Credit	Green Power and Carbon Offsets min 5yrs @50%-1 pt 100% 2 pts; PEC 100% @ +\$0.00043/yr	2

credits potentially required for AISD projects, thresholds to be determined  
credits changed from prior checklist

Project Name: AISD Menchaca ES  
12120 Manchaca Rd., Austin, TX 78748  
Date: 9 March 2018

2	6	5	<b>Materials and Resources</b>	13
Y		Prereq	Storage and Collection of Recyclables	Required
Y		Prereq	Construction and Demolition Waste Management Planning	Required
5		Credit	Building Life-Cycle Impact Reduction Opt4 whole bldg LCA (3pts)	5
2		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations >20 EPDs from >5 manufacturers	2
2		Credit	Building Product Disclosure+Optimization-Sourcing of Raw Materials	2
2		Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2		Credit	Construction and Demolition Waste Management 2 pts = 75% diversion	2
12	4	0	<b>Indoor Environmental Quality</b>	16
Y		Prereq	Minimum Indoor Air Quality Performance - ASHRAE 62.1-2010	Required
Y		Prereq	Environmental Tobacco Smoke Control	Required
Y		Prereq	Minimum Acoustic Performance - confirmed have acoustician on team	Required
2		Credit	Enhanced IAQ Strategies-cryolux systems; color-codes prevention WDR/13 (1 pt)+6000 monitoring 1pt	2
3		Credit	Low-Emitting Mats paint adhesives/bedliners; flooring; carpets/area carpeting; walls; insulation; furniture; etc. 2pts	3
1		Credit	Construction IAQ Management Plan SHAN/IA control measures; WDR/13 4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100	2
2		Credit	Indoor Air Quality Assessment 1 pt flush-out; 2 pts air testing	2
1		Credit	Thermal Comfort ASHRAE 55-2010 individual thermal controls >50% occupant spaces	1
2		Credit	Interior Ling Optm'g controls 90% indiv occupant spaces w/3 level control/individual 1pt +GRQpm 2 pt quality 1pt	2
1	2	Credit	Daylight simulation/measurement options with point options dependent on % 55% 70% uptr 1; 75% 90% uptr 2	3
1		Credit	Quality Views direct sight line 75% req occupied area w/2 types views 50% apart floor-to-ceiling; movement aspects	1
1		Credit	Acoustic Performance control background noise; sound transmission	1
5	1	0	<b>Innovation</b>	6
4	1	Credit	Innovation: Green Housekeeping, IPM, Public Education + TBD (WELL?) + 1 pilot	5
1		Credit	LEED Accredited Professional	1
1	2	1	<b>Regional Priority</b>	4
1		Credit	Regional Priority: Renewable energy production; min point threshold - 2	1
1		Credit	Regional Priority: Optimize energy performance; min point threshold - 10	1
1		Credit	Regional Priority: Reduced parking footprint; min point threshold - 1	1
1		Credit	Regional Priority: Rainwater management; min point threshold - 2	1
1		Credit	Regional Priority: Outdoor water use reduction; min point threshold - 2 (=50% reduction)	1
1		Credit	Regional Priority: Indoor water use reduction; min point threshold - 4 (=60% reduction)	1
46	32	32	<b>TOTALS</b>	Possible Points: 110
Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110				

DRAFT

Prepared by: Center for Maximum Potential Building Systems for EWS-AISD - 16 March 2018 rev 1

# Draft Scorecard for Menchaca ES

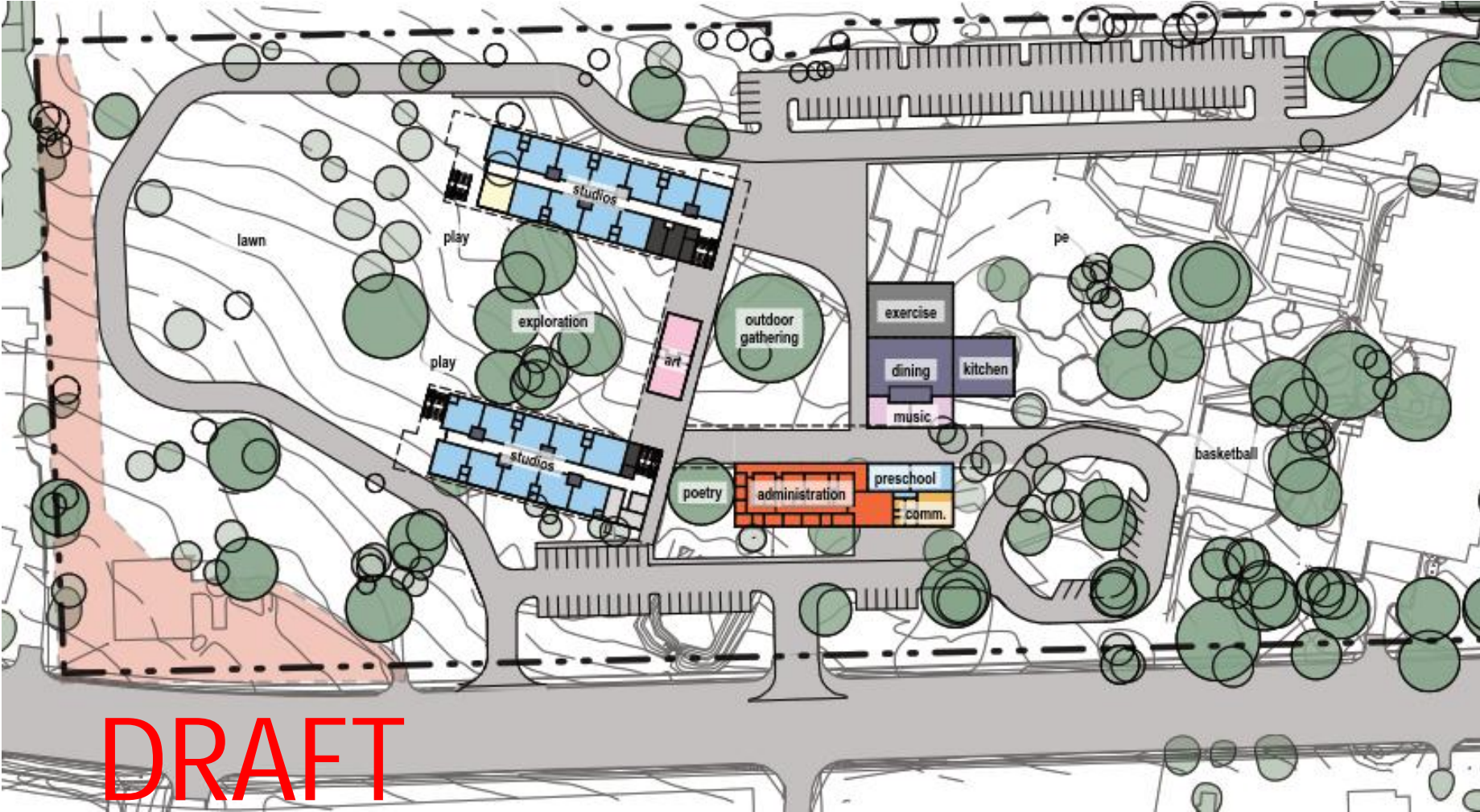


3	2	10	Location and Transportation		15
			Credit	LEED for Neighborhood Development Location	15
1			Credit	Sensitive Land Protection <b>previously developed site</b>	1
		2	Credit	High Priority Site <b>brownfield remediation or 'difficult development area'</b> 78701,-03,-25,-32,-33,-34,-36,-38,-39,-46,-49	2
	2	3	Credit	Surrounding Density and Diverse Uses <b>exclude athletic fields, playgrounds/PE bldgs from density calcs; 2pts diverse uses option TBD</b>	5
		4	Credit	Access to Quality Transit-% ES <b>students w/in ≤3/4 mile walk distance - no transit available</b>	4
		1	Credit	Bicycle Facilities <b>dedicated bike lanes on campus; w/in 200yd of bike network; covered bike storage; no access to bike network</b>	1
1			Credit	Reduced Parking Footprint <b>not exceed min pkg per code; 5% preferred pkg; ≤.25 spaces/student @ 860=215</b>	1
1			Credit	<b>Green Vehicles 5% preferred pkg green vehicles + EV charging 2% pkg or lo-emitting buses</b>	1

12	4	0	Indoor Environmental Quality		16
Y			Prereq	Minimum Indoor Air Quality Performance - <b>ASHRAE 62.1-2010</b>	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
Y			Prereq	Minimum Acoustic Performance - <b>confirmed have acoustician on team</b>	Required
2			Credit	<b>Enhanced IAQ Strategies entryway systems, cross-contam prevention MERV13 (1 pt) +/- CO2 monitoring (1pt)</b>	2
3			Credit	<b>Low-Emitting Mats paints; adhesives/sealants; flooring; composite wood; ceiling, walls, insulation; furniture; ext. prod</b>	3
1			Credit	<b>Construction IAQ Management Plan SMACNA control measures; MERV 8 filtration during construction</b>	1
2			Credit	<b>Indoor Air Quality Assessment 1 pt flush-out; 2 pts air testing</b>	2
	1		Credit	Thermal Comfort <b>ASHRAE 55-2010 + individual thermal controls ≥50% occupant spaces</b>	1
2			Credit	Interior Ltng <b>Opfn 1: lgt control 90% indiv occupant spaces w/3 level on/off/midlevel 1pt +/OR Opfn 2 lgt quality 1pt</b>	2
1	2		Credit	Daylight <b>simulation/measurement options with point options dependent on % 55%, 75% opt'n 1; 75%, 90% opt'n 2</b>	3
			it	Quality Views <b>direct sight line 75% reg occup'd area w/2+ types views: 90° apart; flora/fauna/sky; movement; objects</b>	1
			it	<b>Acoustic Performance control background noise, sound transmission</b>	1

DRAFT

# Menchaca Site Concept





# Menchaca ES

- Registered with National Wildlife Federation for Eco-Schools program
- Teachers and students monitor and report data about their gardens and butterfly gardens



# SUSTAINABILITY ACTION AREA UPDATES

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SUBCOMMITTEE LEADERS

# SUSTAINABILITY ACTION AREA UPDATES: ENERGY & WATER

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RICHARD SHEARMAN



# ENERGY AND WATER

- Community engagement – Austin Energy Regional Science Festival, February 24



About 145 people provided input



# ENERGY AND WATER

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- AISD Performing Arts Center has been nominated by Austin Water staff for its for an Excellence in Water Conservation Award at AW's annual awards ceremony on April 27
- The City of Austin (Watershed Protection Department and Austin Water) are working with AISD's Construction Management Department to setup two, "Lunch & Learns" in April.
  1. Using rainwater at new construction projects to reduce potable water demand and reduce localized erosion issues
  2. Retrofits with passive cisterns and rain gardens



# ENERGY AND WATER

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## Energy and Water Webpage

<https://www.austinisd.org/sustainability/energy-water>

### Ongoing - Monitoring of utilities

- Solar PV monitoring
- Water monitoring
  - <https://bludashboard.cloud/>
  - Investigating alternative options and irrigation controllers

# SUSTAINABILITY ACTION AREA UPDATES: TRANSPORTATION & AIR QUALITY

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ROB BOROWSKI

# SUSTAINABILITY ACTION AREA UPDATES: WASTE & PROCUREMENT

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AMANDA MORTL



# SUSTAINABILITY ACTION AREA UPDATES: FOOD & NATURE

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ANNE MULLER



# NATURE

- AISD Schoolyard Improvement Application  
<https://www.austinisd.org/schoolyard-improvements-projects>
- Girls Outside
- Schoolyard Features Spreadsheet
- Community Engagement
- District staff trainings: nature based play, cisterns, rain gardens, and outdoor learning spaces





# NUTRITION & FOOD SERVICES

- Johnson's Backyard Garden radish sampling at all campuses the week of April 16 for Earth Week
- Harvest of the Month (all Texas farmers): Leaf Lettuce
- Farm Fresh Fridays: Johnson's Backyard Garden Carrots
- Recyclable trays delayed due to production issues



# SUSTAINABILITY ACTION AREA UPDATES: COMMUNITY ENGAGEMENT

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MONICA LOPEZ MAGEE



# Mark your Calendar! **FY17-18 Meeting Dates:** 5:30-7:30pm, Board Auditorium, Carruth Administration Center, 1111 W. 6th

<b>September 27, 2017</b>
Food & Nature
<b>November 29, 2017</b>
Waste & Procurement
<b>January 24, 2018</b>
Water & Energy
<b>March 21, 2018</b>
Transportation & Air Quality
<b>May 23, 2018</b>
Elections!



# CONGRATULATIONS!



Join us for the

## **Barrington Green School Park Dedication Celebration**

Saturday, March 24, 2018

9:00 AM

This is an outdoor park event, please dress comfortably.



The City of Austin is proud to comply with the Americans with Disabilities Act. If you require assistance for participation in our programs or use of our facilities, please call (512) 974-3914.

