

An aerial photograph of a school campus. The central focus is a large, multi-winged school building with a flat roof. To the right of the building is a large, paved parking lot with several cars parked. To the left of the building is a baseball field and a smaller sports field. The campus is surrounded by lush green trees and a residential neighborhood with houses and swimming pools is visible in the background. A semi-transparent grey banner is overlaid across the bottom half of the image, containing the text 'ARROWHEAD FORWARD' and 'New Elementary School at Arrowhead'. The 'kcb Architects' logo is in the bottom right corner.

ARROWHEAD FORWARD

New Elementary School at Arrowhead

PROJECT PROCESS



CHALLENGE

- Anticipated growth in district
- Current state of existing school
- Integration of full day kindergarten

PROGRAMMING

- 5 classrooms per grade
- Community integration
- Collaborative areas outside of classroom

PROCESS

- Four collaborative meetings with the teachers, principals, and other integral staff
- Geotechnical investigation of site
- Meeting with Lower Providence Township

DESIGN

- Integration of program items as well as additional comments from staff

PROJECT PROCESS

Design team met with district administrators and EVERY teacher from Arrowhead Elementary School to survey their thoughts on the existing building.

Toured three new elementary schools in area school districts:

- Caley Elementary School (Upper Merion Area School District)
- Phoenixville Early Learning Center (Phoenixville Area School District)
- East Coventry Elementary School (Owen J Roberts School District)



SLIDE REMOVED FOR SAFETY REASONS

PROJECT PROCESS

Site Survey

SLIDE REMOVED FOR SAFETY REASONS

SLIDE REMOVED FOR SAFETY REASONS

Seth Bacon
Soil & Wetland Consulting
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Pottstown, PA 19465
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December 4, 2019

Nick Feola, P.E.
Bursich Associates, Inc.
2129 East High Street
Pottstown, PA 19464

RE: Arrowhead Elementary School - Wetlands: No Findings
232 Level Rd., Lower Providence Township, Montgomery Co., PA

Dear Nick:

I completed a wetland evaluation at the Arrowhead Elementary School at 232 Level Road in Lower Providence Township, Montgomery County, Pennsylvania. Fieldwork was conducted on November 21, 2019 to determine if wetlands or waters of the US and Commonwealth are present within the property. After reviewing and sampling the soils, vegetation and hydrology of the site, I determined that there are no wetlands or waters within the limits of this property. The entire site is considered uplands.

METHODS: I evaluated the site using the procedures of the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*, Version 2.0 (2012) and the *Corps of Engineers Wetlands Delineation Manual* (1987). The US Army Corps of Engineers and the Pennsylvania Department of Environmental Protection require use of these procedures for wetland evaluations within the Northern Piedmont Region (S-148) which includes this site. The manuals define an area as wetlands when under normal circumstances three criteria are present: 1) Hydric (wetland) soils, 2) A predominance of hydrophytic (wetland) vegetation, and 3) Wetland hydrology.

SITE: I began the investigation with a walkover to inspect the vegetation, topography and drainage characteristics of the site. The property is roughly rectangular and consists of +/- 12.5 acres of relatively level, open ground on the east side of Level Road directly across from the intersection with Lenape Drive. The property is surrounded by residential land uses.

The central and southwestern portions of the tract contain the school buildings and parking lots, while the northeastern portion of the property is primarily open space that is currently used for

PROJECT PROCESS
Wetlands Delineation


Nick Feola, P.E.
December 4, 2019
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Hydrology: The property was inspected for indications of wetland hydrology, such as standing water (inundation), shallow soil depths to free water or saturation, floating debris drift lines, water stained leaves, oxidized root channels, sediment deposits or topographic position. The majority of the property lacks the wetland hydrology indicators listed in the *Regional Supplement*.

SUMMARY: The Arrowhead Elementary School at 232 Level Road in Lower Providence Township, Montgomery County, Pennsylvania does not contain wetlands or waters of the US and Commonwealth. The property is composed of upland plant communities, hydrology, and soils.

Please call me if you have any questions concerning my field evaluation or this letter report.

Sincerely,

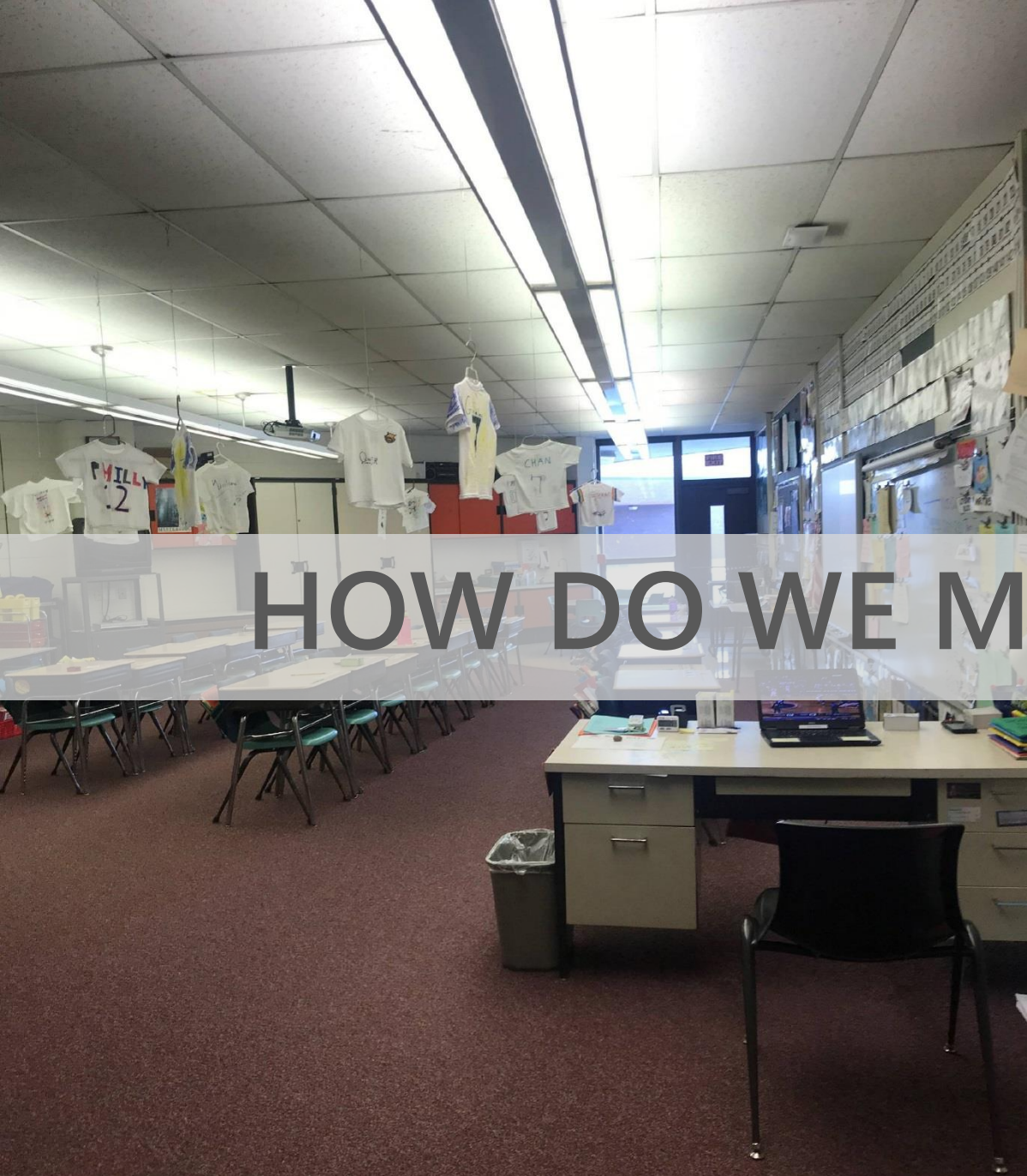

Seth Bacon, CPSS, PWS, SEO.
Soil Scientist, Wetlands Scientist



Enclosures

Cc: File 2836

NO WETLANDS



HOW DO WE MAKE THE CHANGE?

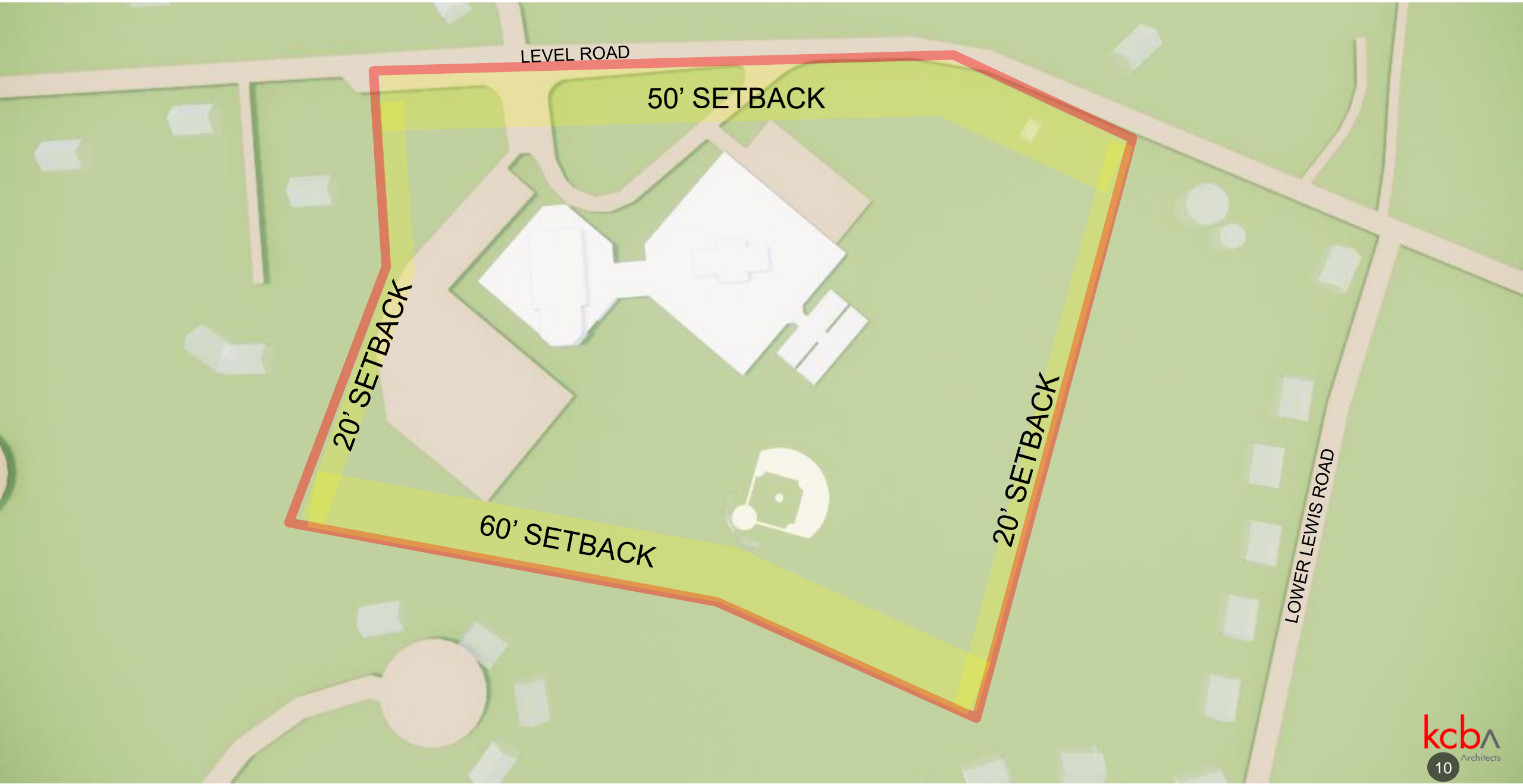


SITE STUDY

SITE DESIGN GOALS

1. Improve vehicular safety on site
 - Separate bus and car traffic
2. Keep play spaces away from Level Road
3. Maintain as much open space as possible
4. Provide outdoor learning space
5. Safe plan for construction of new school

EXISTING SITE & SETBACKS



SITE RESTRAINTS



SITE RESTRAINTS



SITE RESTRAINTS



PROPOSED SITE PLAN



LEVEL ROAD

LOWER LEWIS ROAD





PROPOSED BUILDING WALK-THROUGH



PROPOSED ARROWHEAD ELEMENTARY

K-4 ELEMENTARY

5 CLASSROOMS PER GRADE

TOTAL CAPACITY: 625

BASEMENT: 3,000

FIRST FLOOR: 53,000 SF

SECOND FLOOR: 28,000 SF

TOTAL: 84,000 SF

ACADEMIC:

15 CLASSROOMS, 900 SF, NO TOILETS

10 CLASSROOMS, 835 SF, SINGLE-USE TOILET IN CLASSROOM

8 SPECIAL EDUCATION, 660-900 SF

COLLABORATION:

LIBRARY, 2000 SF + STEM 1200 SF

5 SMALL GROUP INSTRUCTION ROOMS, 350 SF

2 INNOVATION SPACES, 850 SF

COMMUNITY:

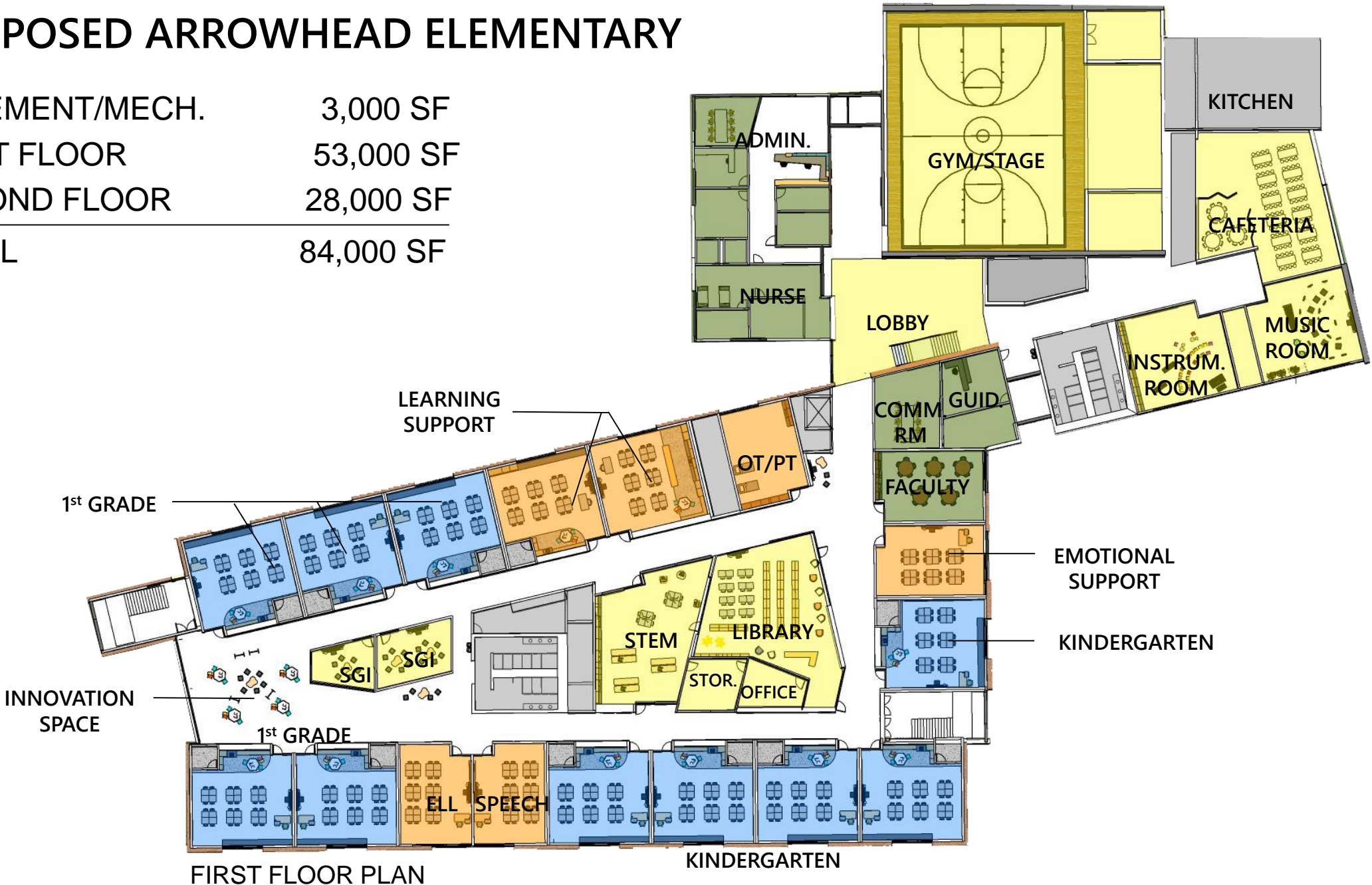
CAFETERIA 2000

GYM, 6500 SF

COMMUNITY CONF. ROOM 500

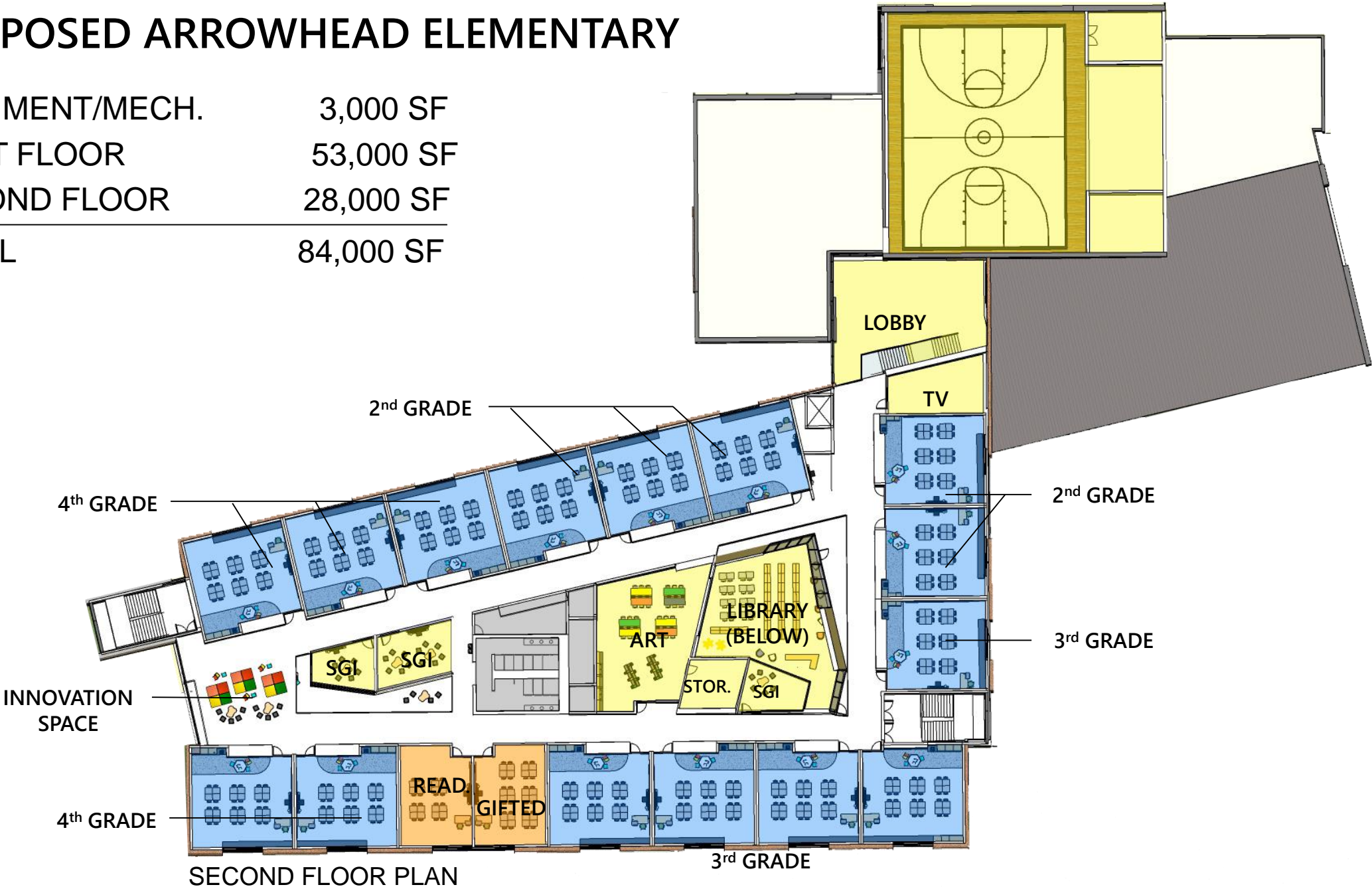
PROPOSED ARROWHEAD ELEMENTARY

BASEMENT/MECH.	3,000 SF
FIRST FLOOR	53,000 SF
SECOND FLOOR	28,000 SF
TOTAL	84,000 SF



PROPOSED ARROWHEAD ELEMENTARY

BASEMENT/MECH.	3,000 SF
FIRST FLOOR	53,000 SF
SECOND FLOOR	28,000 SF
TOTAL	84,000 SF





PROPOSED ARROWHEAD



PROPOSED ARROWHEAD





PROPOSED ARROWHEAD

Entry Vestibule



hilltop sits our proud
overlooking valley fair
g smiles and twinkling
orn by all who enter there
beckons we must answer
raveling learning trail
ers will lead our journey
ey will not let us fall
ve love Arrowhead!
proud of Arrowhead!
emories of school will
ays guide our days!
sing to Arrowhead!
honor Arrowhead!
ch us truth and honor
y step of the way!

PROPOSED ARROWHEAD

Lobby

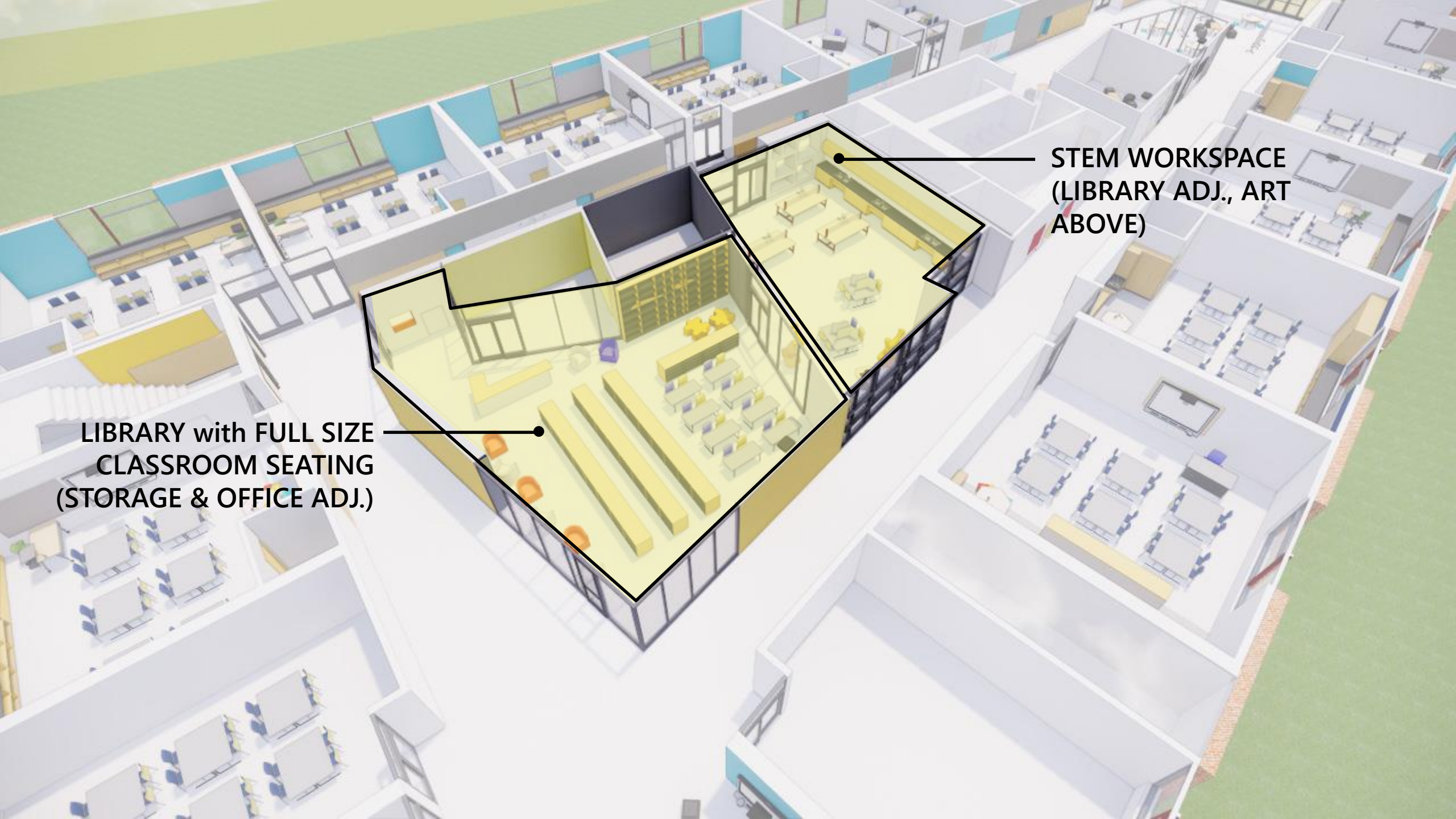




PROPOSED ARROWHEAD

1st Floor View into Library





**LIBRARY with FULL SIZE
CLASSROOM SEATING
(STORAGE & OFFICE ADJ.)**

**STEM WORKSPACE
(LIBRARY ADJ., ART
ABOVE)**

PROPOSED ARROWHEAD Library



PROPOSED ARROWHEAD

View of First Floor Corridor



PROPOSED ARROWHEAD

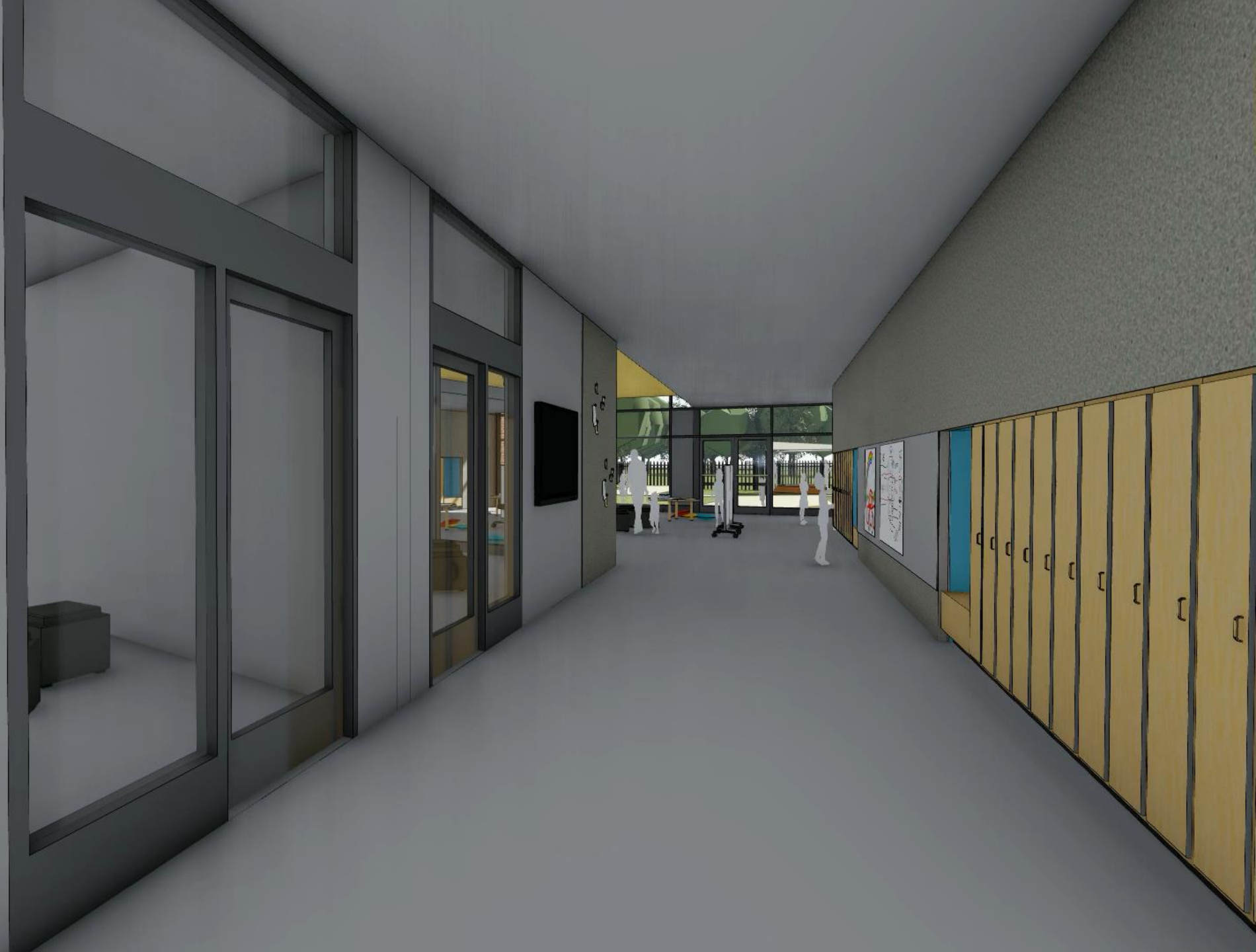
1st Floor Corridor



**SMALL GROUP
INSTRUCTION ROOMS
(5-8 STUDENTS)**

**INNOVATION SPACE
(25-50 STUDENTS,
FLEXIBLE FURNITURE
ARRANGMENT)**

K
O
P
U
Z



PROPOSED ARROWHEAD

1st Floor Innovation Space





PROPOSED ARROWHEAD

2nd Floor View to Library



PROPOSED ARROWHEAD

2nd Floor Corridor





PROPOSED ARROWHEAD

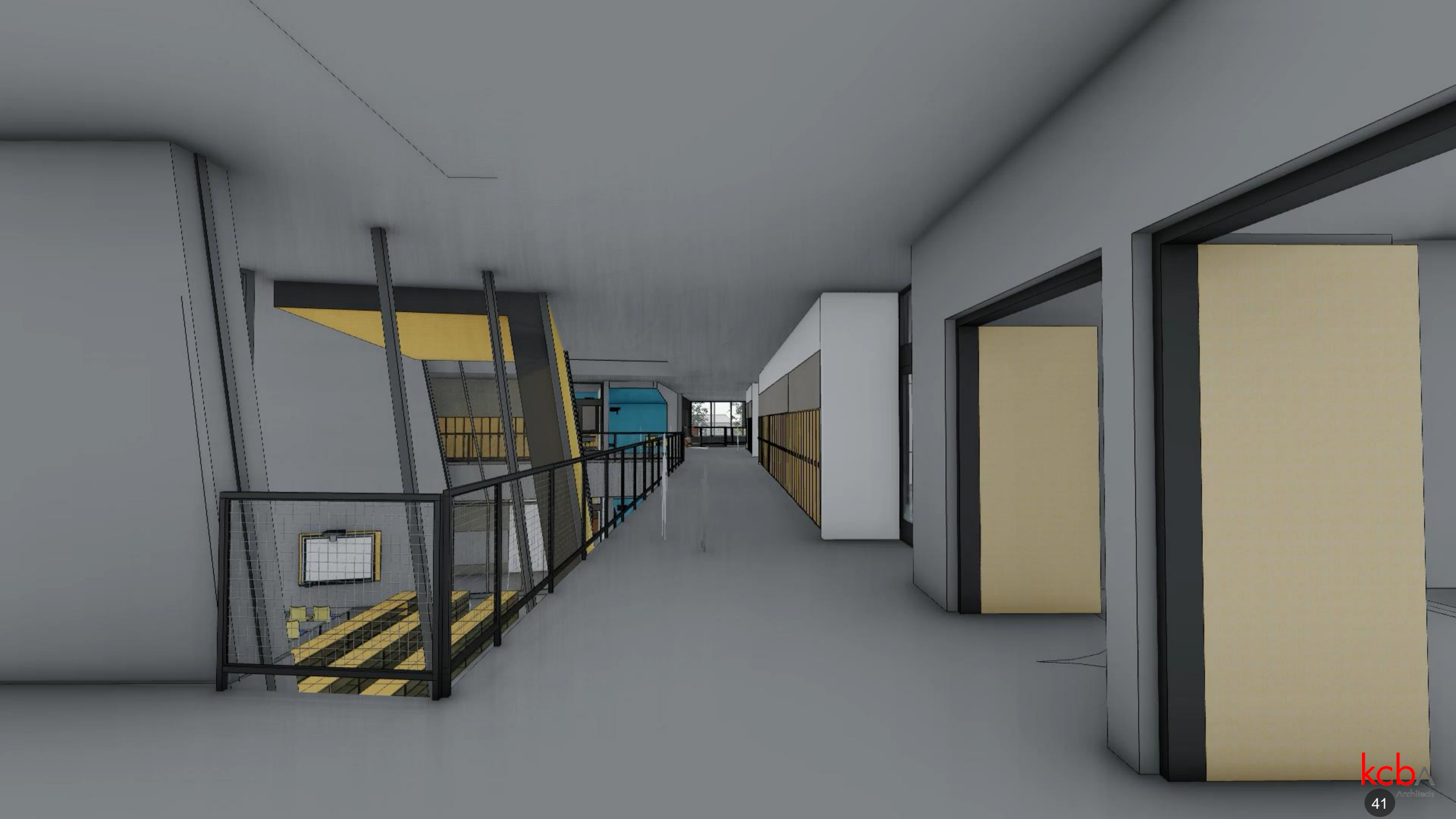
2nd Floor Innovation Space



PROPOSED ARROWHEAD

Art Suite





PROPOSED ARROWHEAD

View of 2nd Floor TV Studio





COLLABORATION STUDY

CALEY ELEMENTARY - COLLABORATIVE



EXISTING ARROWHEAD - COLLABORATIVE



EXISTING WOODLAND ELEMENTARY

LOBBY 2,900 SF

STUDENT
COLLABORATION
SPACES 0 SF

SLIDE REMOVED FOR SAFETY REASONS

PROPOSED ARROWHEAD ELEMENTARY

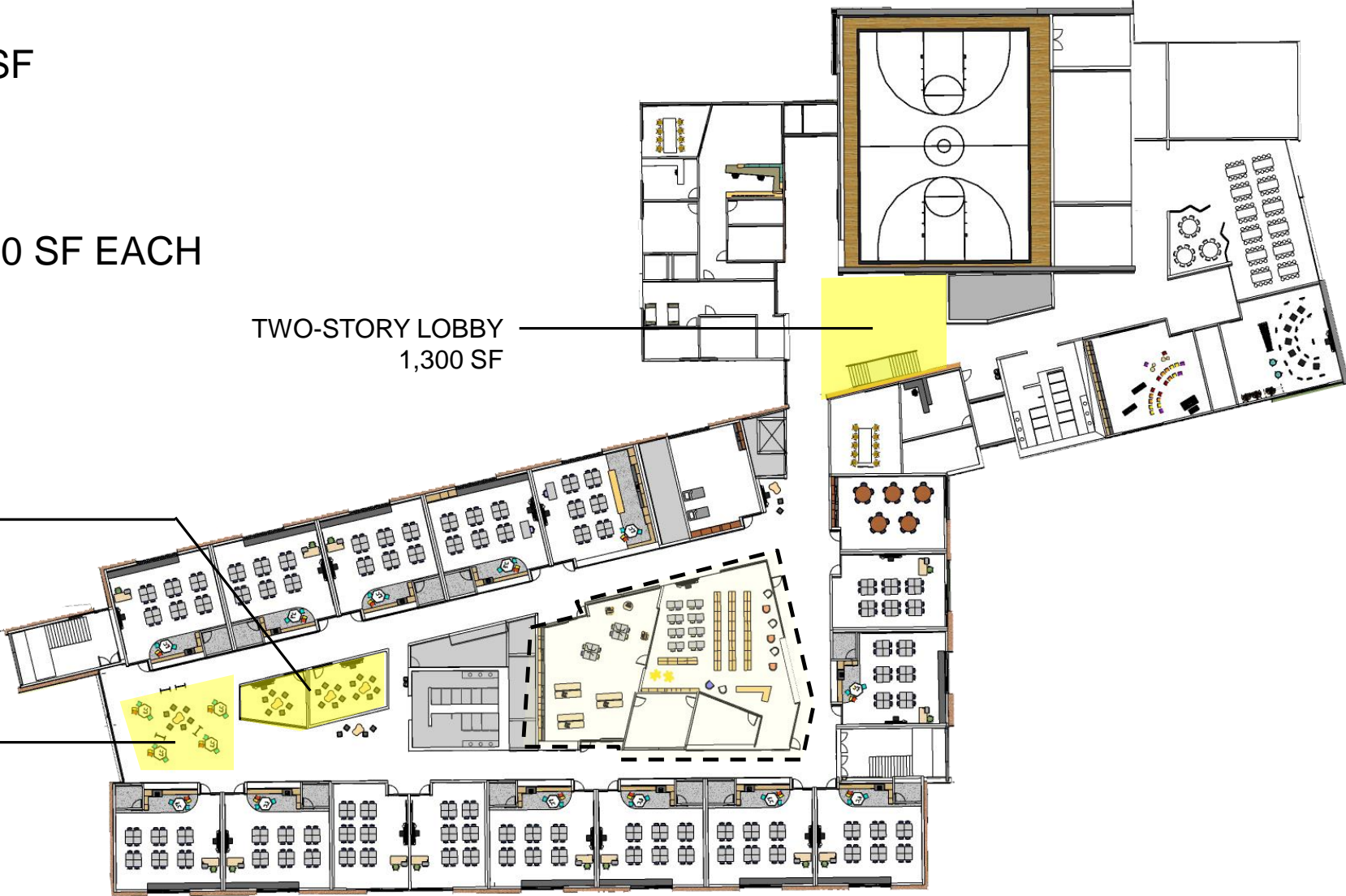
LOBBY 1,300 SF

STUDENT COLLABORATION SPACES 2 @ 850 SF EACH

TWO-STORY LOBBY 1,300 SF

SGI @ 250 SF
SGI @ 380 SF
(EACH FLOOR)

INNOVATION SPACE @ 850 SF (EACH FLOOR)



PROPOSED ARROWHEAD

1st Floor Innovation Space



PROPOSED ARROWHEAD

2nd Floor Innovation Space





PROPOSED ARROWHEAD

Exterior Learning Space





ARROWHEAD SUMMARY

EXISTING ARROWHEAD ELEMENTARY

SCHOOL WITHOUT MODS 53,000 SF

SLIDE REMOVED FOR SAFETY REASONS

FIRST FLOOR PLAN

EXISTING ARROWHEAD ELEMENTARY

FIRST FLOOR, 53,000 SF

TOTAL 53,000 SF

ADMIN/GUIDANCE/NURSE, 1,600 SF

18 CLASSROOMS, 850 SF

11 SPECIAL EDUCATION, 200-950 SF

LIBRARY, 1880 SF

0 SMALL GROUP INSTRUCTION ROOMS

1 INSTRUMENTAL ROOM, 309 SF

1 MUSIC CLASSROOM, 1041 SF

STORAGE, 200 SF

GYM, 2383 SF

CAFETERIA, 2192 SF

PROPOSED ARROWHEAD ELEMENTARY

FIRST FLOOR, 53,000 SF

SECOND FLOOR, 28,000 SF

TOTAL 81,000 SF

ADMIN/GUIDANCE/NURSE, 3,000 SF

15 CLASSROOMS, 900 SF

10 CLASSROOMS, 835 SF

8 SPECIAL EDUCATION, 660-900 SF

LIBRARY, 2000 SF + STEM 1200 SF

4 SMALL GROUP INSTRUCTION ROOMS, 350 SF

2 INNOVATION SPACES, 850 SF

1 INSTRUMENTAL ROOM, 900 SF

1 MUSIC CLASSROOM, 900 SF

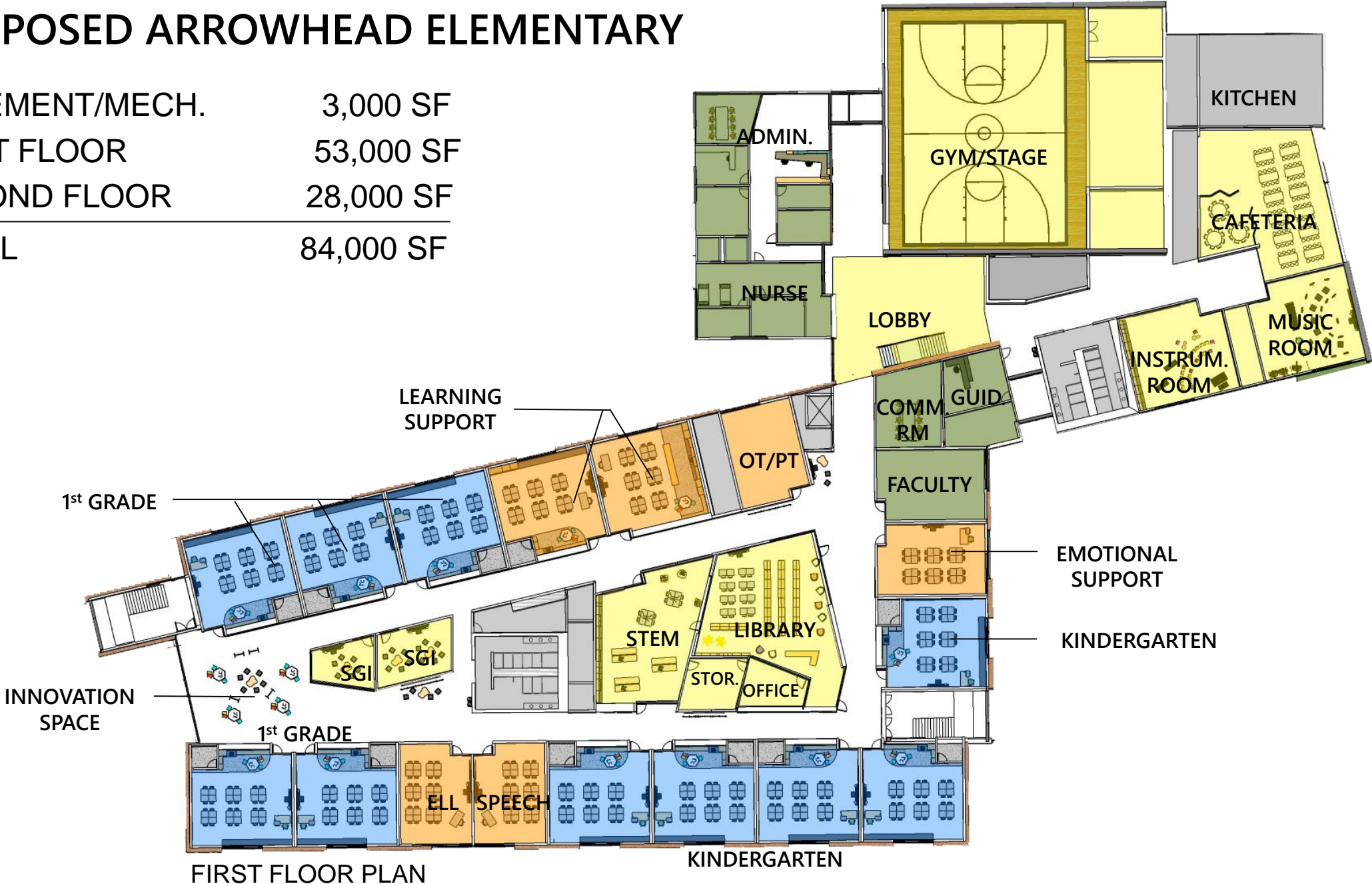
STORAGE, 200 SF

GYM, 6500 SF

CAFETERIA, 2000 SF

PROPOSED ARROWHEAD ELEMENTARY

BASEMENT/MECH.	3,000 SF
FIRST FLOOR	53,000 SF
SECOND FLOOR	28,000 SF
TOTAL	84,000 SF

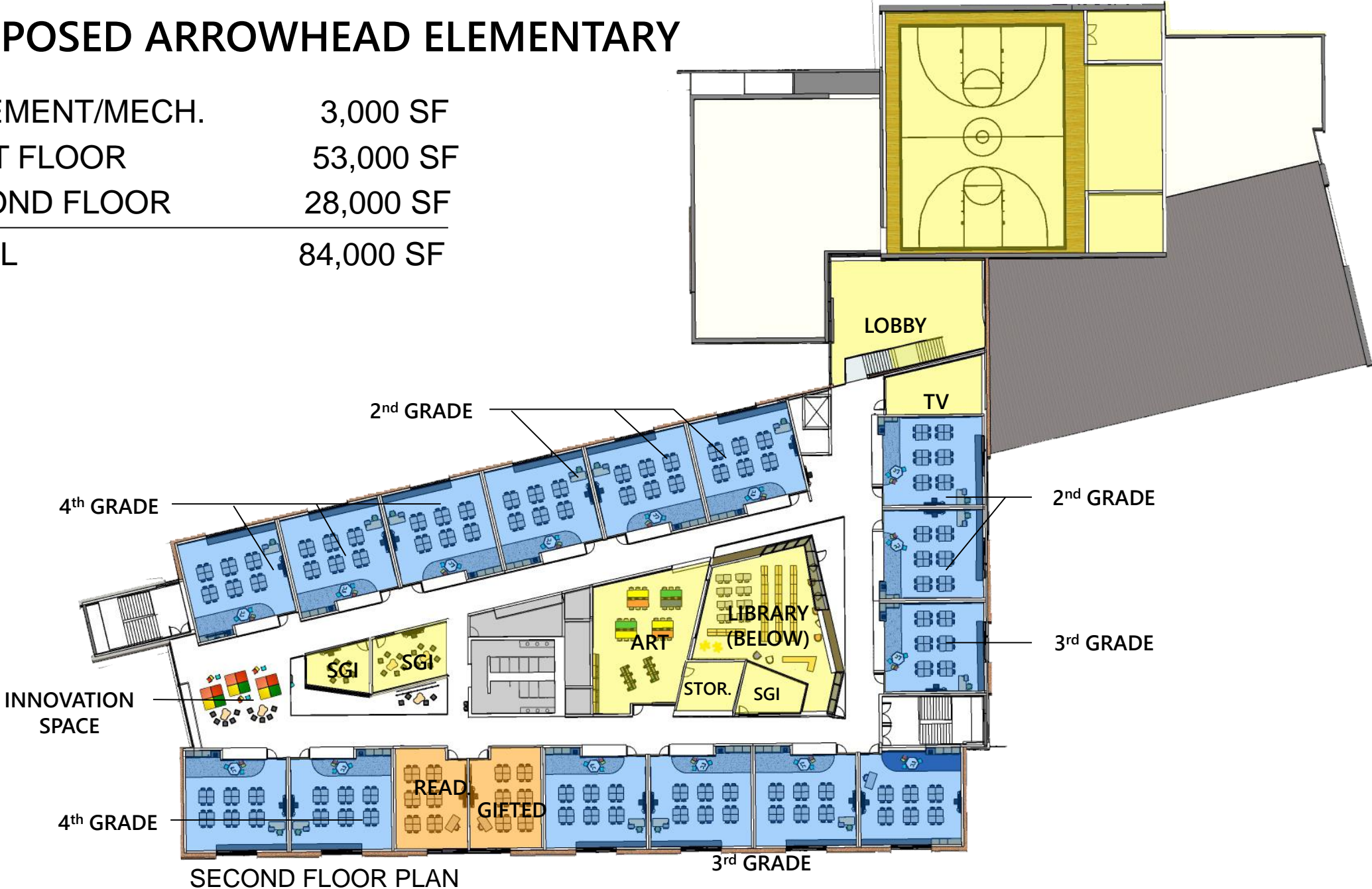


FIRST FLOOR PLAN

KINDERGARTEN

PROPOSED ARROWHEAD ELEMENTARY

BASEMENT/MECH.	3,000 SF
FIRST FLOOR	53,000 SF
SECOND FLOOR	28,000 SF
TOTAL	84,000 SF



NEW SCHOOL OPTION – CAPACITY 625

Proposed New Construction (84,000sf* @ \$270/sf)		\$22,680,000
Site work required for new construction (18%)		\$4,082,400
Demo of existing school building (52,534sf @ \$8/sf)		\$420,272
Design/Bidding Contingency - 3%		\$815,480
TOTAL CONSTRUCTION COST		\$27,998,152
Construction Contingency - 5%		\$1,399,908
Soft Costs - 13% (Fees, Permits, etc.)		\$3,639,760
Budget: FF&E Allowance (\$1200/student)		<u>\$750,000</u>
TOTAL PROJECT COST		\$33,787,820

*REDUCED SOFT COSTS FROM 15% TO 13%

NEXT STEPS



- BOARD APPROVAL TO MOVE TO DESIGN DEVELOPMENT PHASE
- PARENT & PUBLIC MEETINGS
- DEVELOP DETAILED COST ESTIMATE FOR ALL BUILDING TRADES
- ACT 34 HEARING
- FIRST SUBMITTAL TO TOWNSHIP FOR PLANNING APPROVAL
- FIRST SUBMITTAL TO STATE FOR ENVIRONMENTAL APPROVAL

Timeline.....



- **JANUARY – APRIL TO COMPLETE DESIGN DEVELOPMENT**
- **BOARD PRESENTATION MAY**
 - **APPROVAL TO COMPLETE CONSTRUCTION DOCUMENTATION**
- **OUT TO BID AUGUST 2020**
- **START CONSTRUCTION NOV. '20**
- **OPEN SCHOOL SUMMER 2022**

DISCUSSION

