Delivering on the Promise of an Innovative Educational Environment

Use of Early Value Analysis

Implementing Tacoma Public Schools

**Building for Achievement Guiding Principles**

Tacoma Public Schools

– 3rd largest district in Washington State serving more than 30,000 children

– 35 elementary schools, 9 middle schools, 5 comprehensive high schools and 14 alternative learning site

– History of innovation - state's first-ever and only district-wide Innovation Zone for education

– $500 million 2013 – 2021 bond program

– 14 replacement and renovation projects; district-wide improvements

Guiding Principles Charette
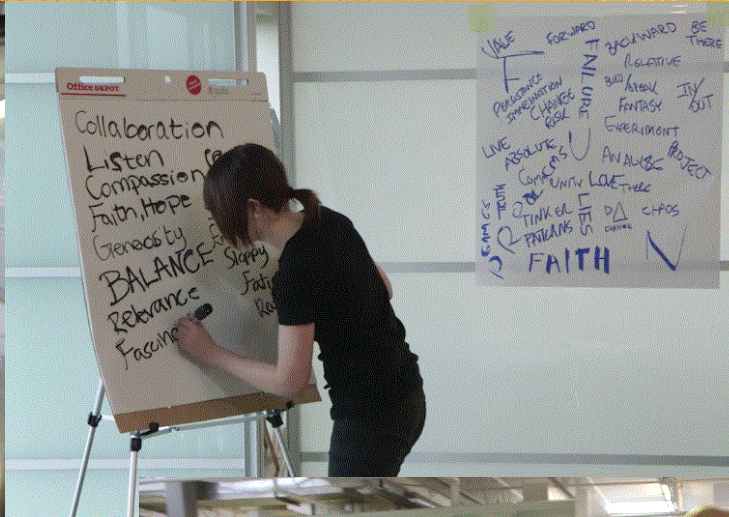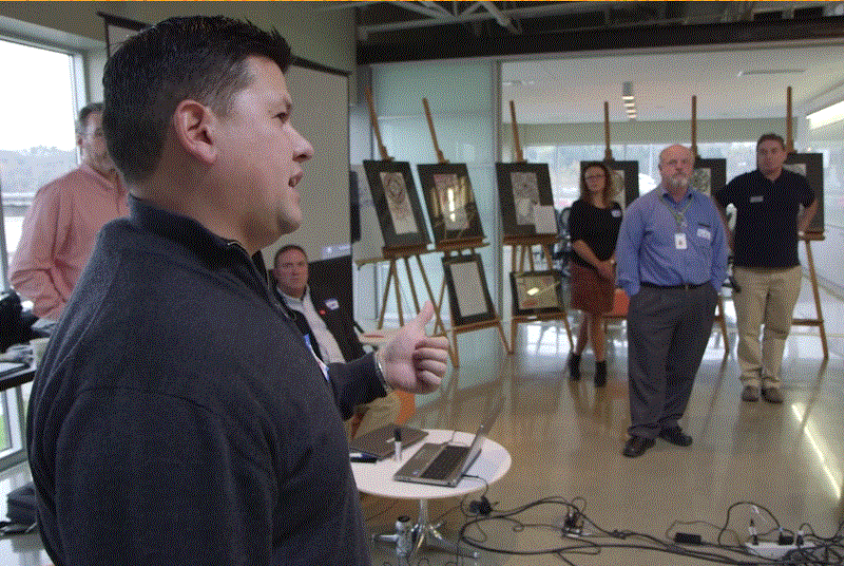
Guiding Principles

Projects identified in the 2013 Bond will be designed to:

instill the following **values**; foster the following

relationships; and support the following **methodologies**

for teaching & typologies of learning:

Guiding Principles
VALUES

The **Built Environment** Will:
Be responsive to human needs of light, air, sound & connection to natural environment exceeding acoustic standards in every classroom and space.

01

100%
Commitment To
The **District's**
Strategic Goals

BUILDING FOR
ACHIEVEMENT

02 Be Inspirational with **colors**, **natural day-lighting**, **artificial lighting**, **finishes** & **branding**, with areas for student work to be displayed and presented.

03 Embrace values such as **community** and **empathy** to establish a positive culture.

04 Be designed to meet student **physiological** needs to **provoke critical thinking**.

05 Promote safety & security – provided by clear hierarchy of **site** and **building organizations**.

06 Be an inquisitive learning environment.

07 Become a community asset, maximized to promote use by our **partners** and the **community** at large.

08 Be risk tolerant & implement innovation.

09 Be flexible & agile to allow for customizable space for a wide variety of **teaching** and **learning opportunities** both in terms of daily **change** & **facility convertibility**.

10 Support a professional learning **community** where **collaboration** is encouraged, through **team planning** areas and transparency for **promotion** of **best practices**.

11 Planned for the future.

Relationships
The **Built Environment** Will:

Be **learner-centered** and designed to **foster** and **support** life-long learners.

Support a learning model that is **interdisciplinary**, **experiential** & **intergenerational**.

Foster a **caring school community** that values **trust** and **respect** between adults & students.

Support **positive**, **cooperative** & **nurturing** **relationships**: adult to adult, adult to student, and student to student in both work and socialization.

Sized for **personalized learning**, collaboration, community facilitation and **stewardship** supporting contemplative space, small group, large group, **school-wide** and **community-wide**.

TACOMA
PUBLIC SCHOOLS

6.19.2015

TACOMA PUBLIC SCHOOLS

6.19.2015

Methodologies of **Teaching** & **Typologies** of Learning

The **Built Environment** Will:

Be conceptualized into **learning-scapes** with distinctions on the **types** and **modalities** of how we want to teach and have our students learn.

Think - contemplation, critical thinking, assessment, research
Create - teamwork, collaboration, fabrication
Discover - experiment, idea application, hands-on, project-based
Impart - sharing, teaching, discourse
Exchange - social learning, exhibiting, presenting

Implementation

Guidelines for
building planning
& design

Table of Contents

http://www.tacoma.k12.wa.us/information/departments/planningconstruction/Documents/TPS_VisionForElementaryLearning.pdf

Implementation

- Planning
- Programming
- Public Involvement
- School Staff Education
- Design Advisory Committees
- Design
- Value Management

Wilson High School

Traditional Model

Modest Collaboration

Learning Studio

Exploration Gallery

Open Plan

CLOSED

FLEXIBLE

Aviation High School

Renton Secondary Learning Center

McKinstry Innovation Center

Truman High School

NAC ARCHITECTURE
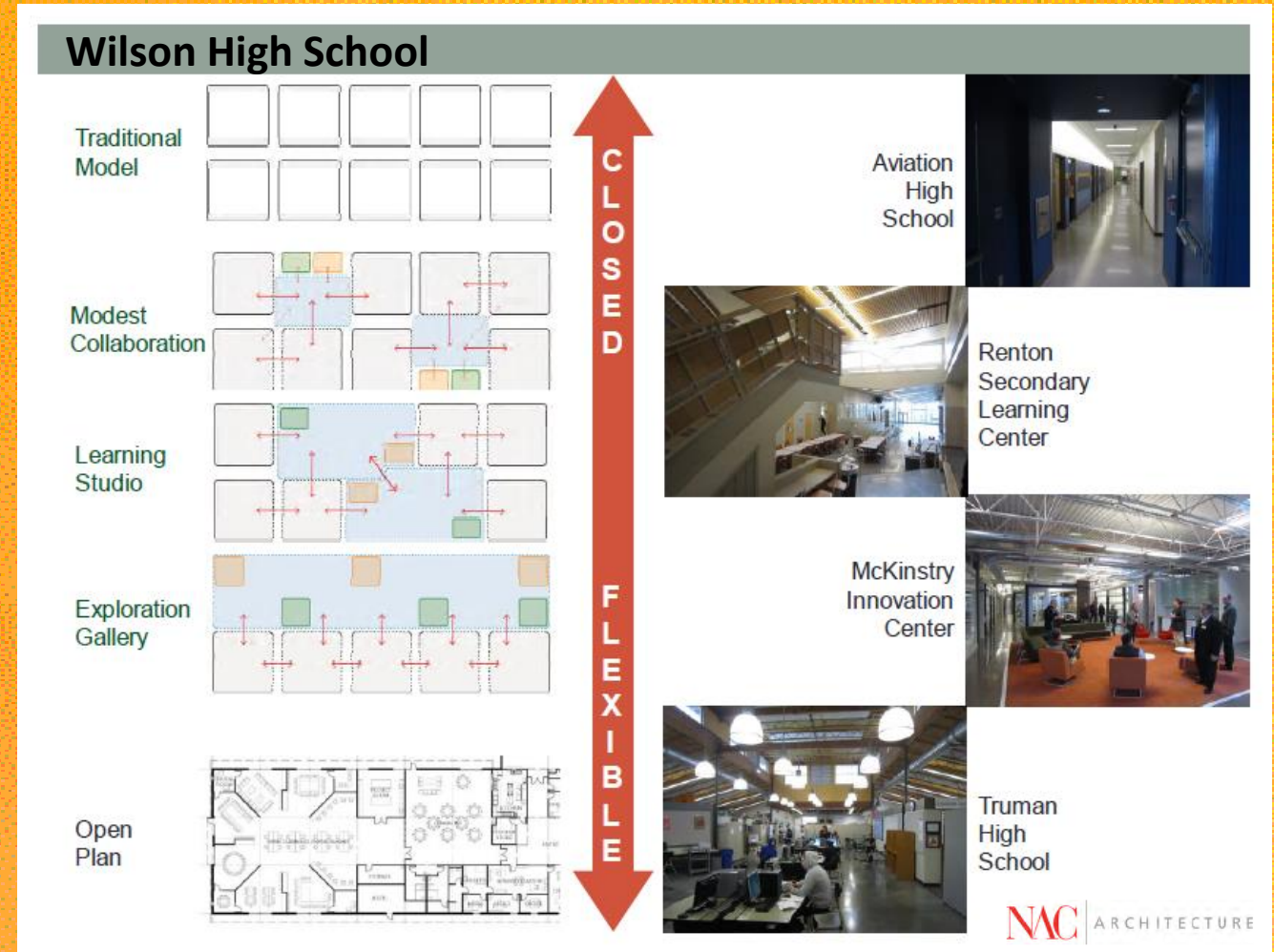
Value Management

Early Value Analysis Workshop – during concept development

followed by Value Engineering Study – during early design development

Value Analysis impetus – "let's get the program and design right before we're too far along and it is too late to do anything about it"

Value Analysis goal – early testing of design concepts and identification of value improvement alternatives

Value Analysis Workshop

WHY:

- Test design concepts against program and functional requirements, and fulfillment of the Guiding Principles
- Focus on big picture, not design details or cost
- Identify opportunities for improving the design or process

WHEN:

- Once one or more design concepts are documented

WHO:

- Educational consultant, educational facilities planner & facilitator
- Engagement of design team and District curriculum specialists, school staff, students, project staff & others

Value Analysis Workshop

- Information

- Analysis

- Creative Speculation

- Alternatives Development

- Results Presentation

- Implementation

Wilson HS

- Second Phase of a Master Plan

- New Academic Building

- Music Expansion

- Art, Gym, Cafeteria Renovation

- Commons

- Fields

Wilson HS

- Second Phase of a Master Plan

- New Academic Building

- Music Expansion

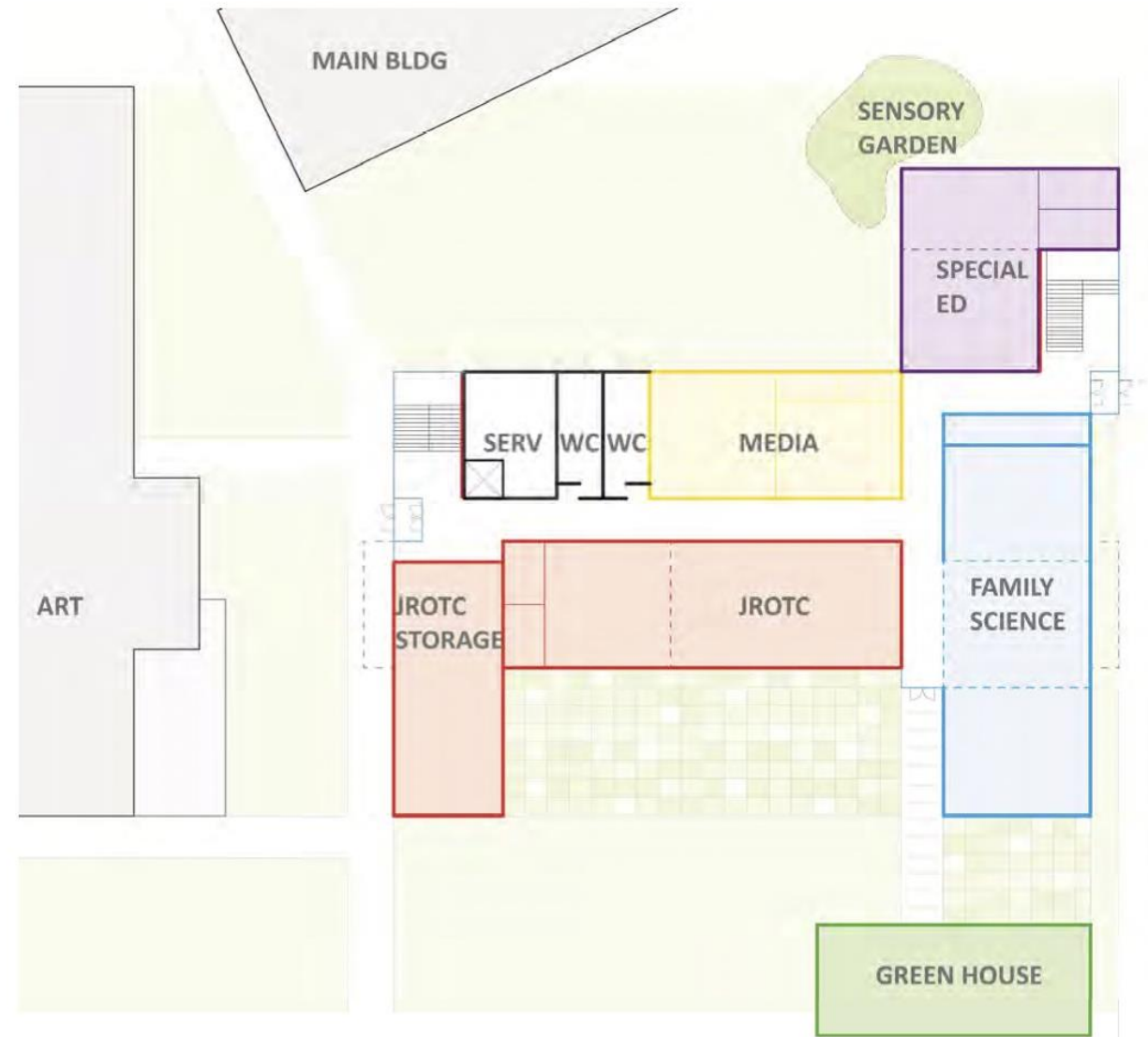- Art, Gym, Cafeteria Renovation

- Commons

- Fields

![Tacoma Public Schools logo]

Wilson HS

- Digital Media
- Family Science
- Special Education
- JROTC
- Greenhouse
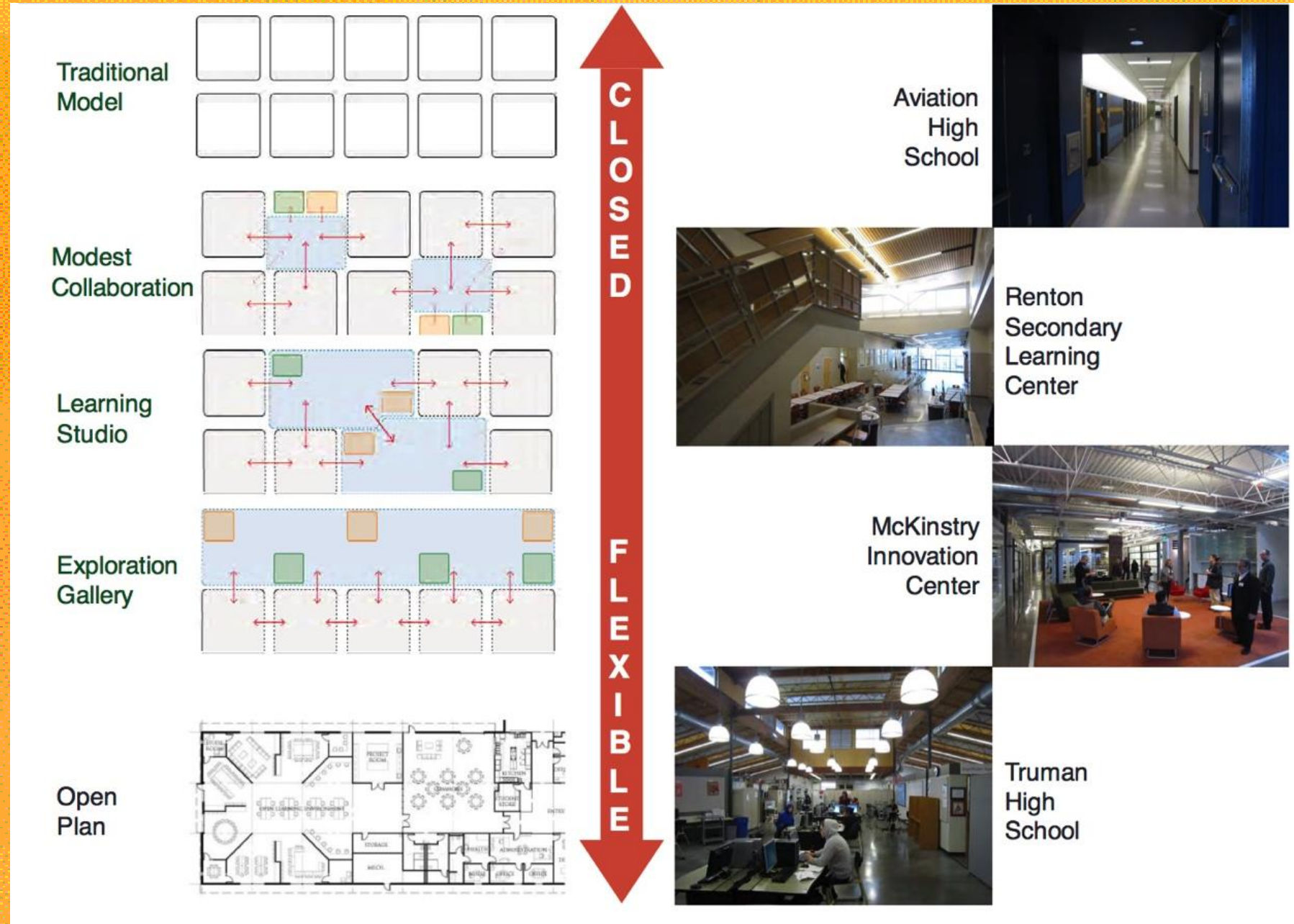
New Academic Building
First Floor

Wilson HS

- Math

New Academic Building
Second Floor

SERV | WC | WC

MATH

GREEN HOUSE

Wilson HS

Traditional Model

Modest Collaboration

Learning Studio

Exploration Gallery

Open Plan

CLOSED

FLEXIBLE

Aviation High School

Renton Secondary Learning Center

McKinstry Innovation Center

Truman High School
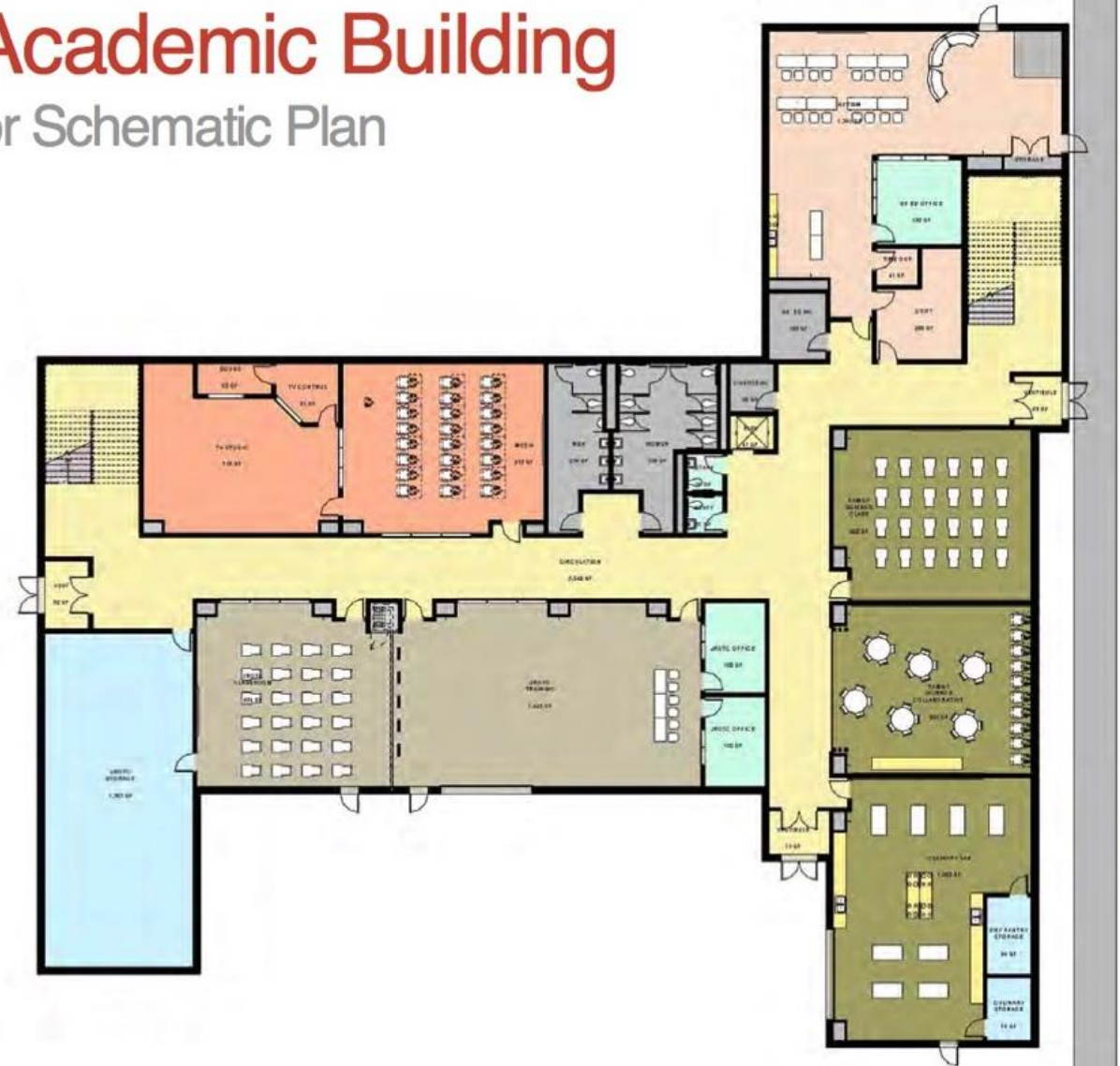
Wilson HS

Interactive Workshop
Math Department

Wilson HS

- Family Science

- Special Education

- JROTC

- Greenhouse

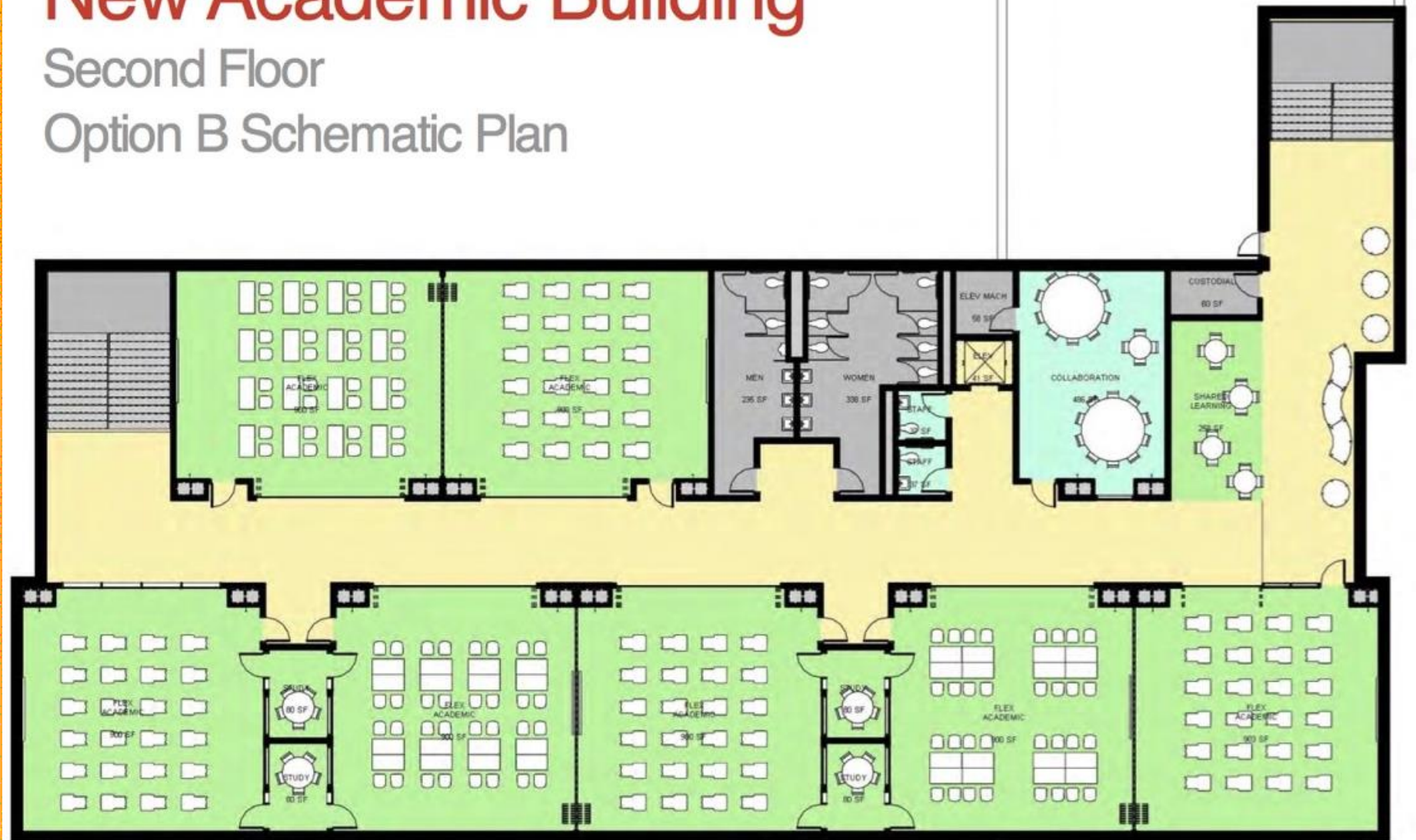**New Academic Building**
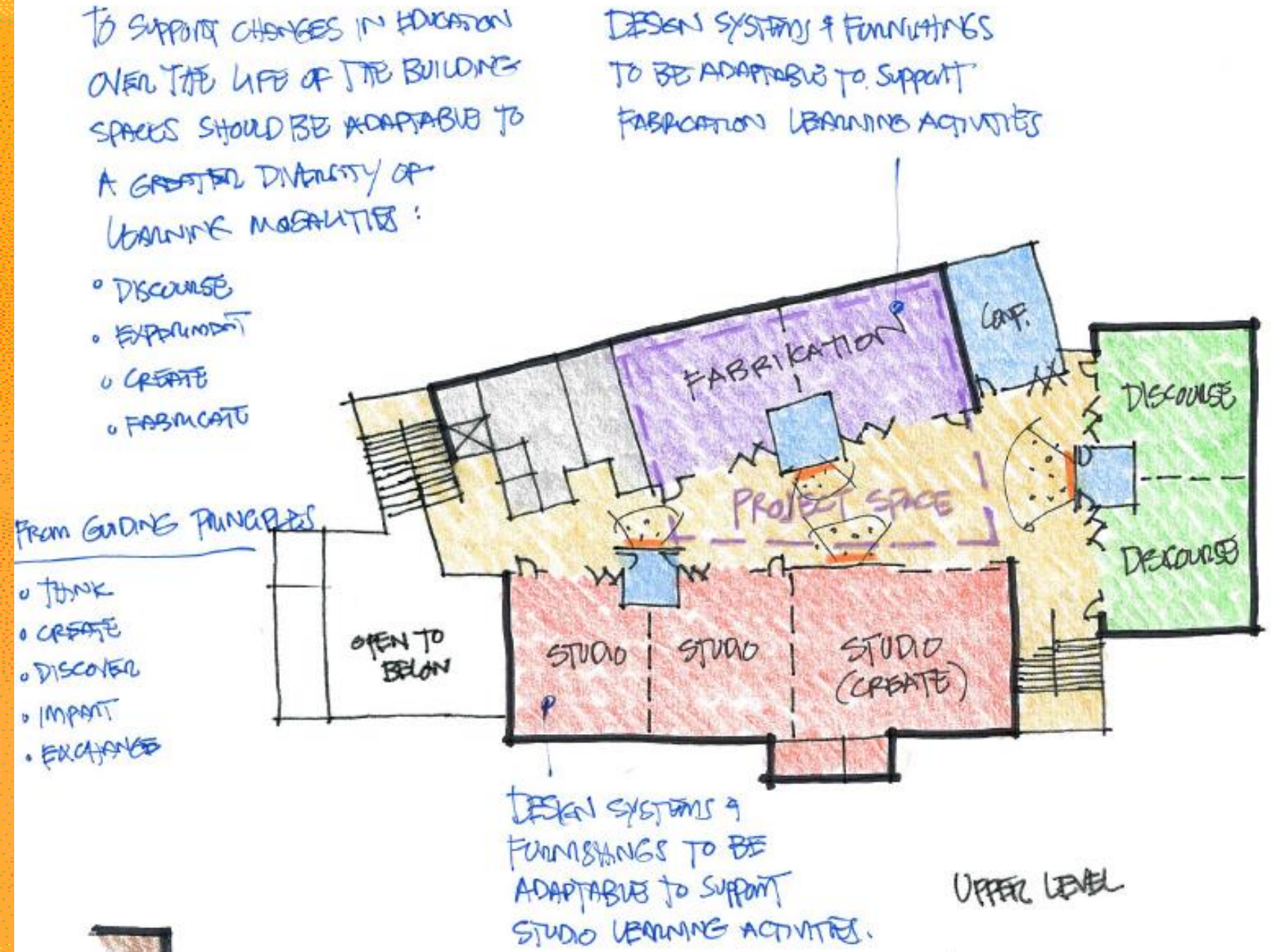First Floor Schematic Plan

Wilson HS

- Math

Wilson HS

- Split Classrooms Upper & Lower

- More Collaboration & Presentation Space

- Design for Adaptability

Wilson HS

- Split Classrooms Upper & Lower

- Provide More Diversity of Settings

- Discourse, Design, Experiment & Fabricate

- Openness to Center Collaborative Area

Wilson HS

Wilson HS

Wilson HS

Wilson HS

Wilson HS

- Hard to get buy in from all stakeholders in the planning and design process

- Sometimes an objective influence can change the dynamics of the process

- Involvement of District leaders is critical to "make the call" for this process to have impact

Wilson HS

- The value of this VA process was to involve an objective team to call out areas where forces in the school-based design review committee were taking the design in a direction that was inconsistent with the district vision.

- In other projects, the refinements may be more minor, other viewpoints may improve the concept or the process may be primarily to improve a promising concept

- This is just one example…

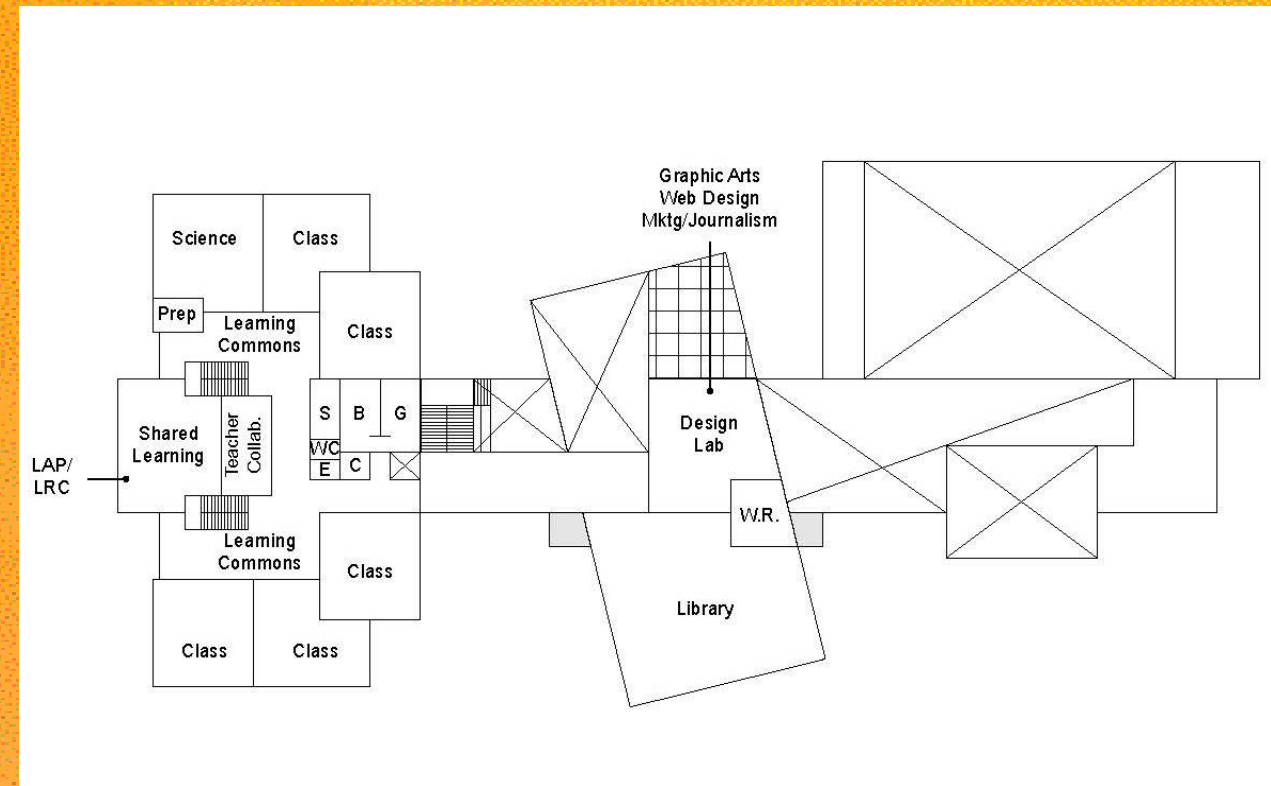- Intermediate School (grades 4-8)
- 450 students
- Design: August 2014
- *Design Value Analysis: September 2014*
- Construction: May 2015
- Opens: September 2016

FLOOR PLANS FOR OPTION 1.A
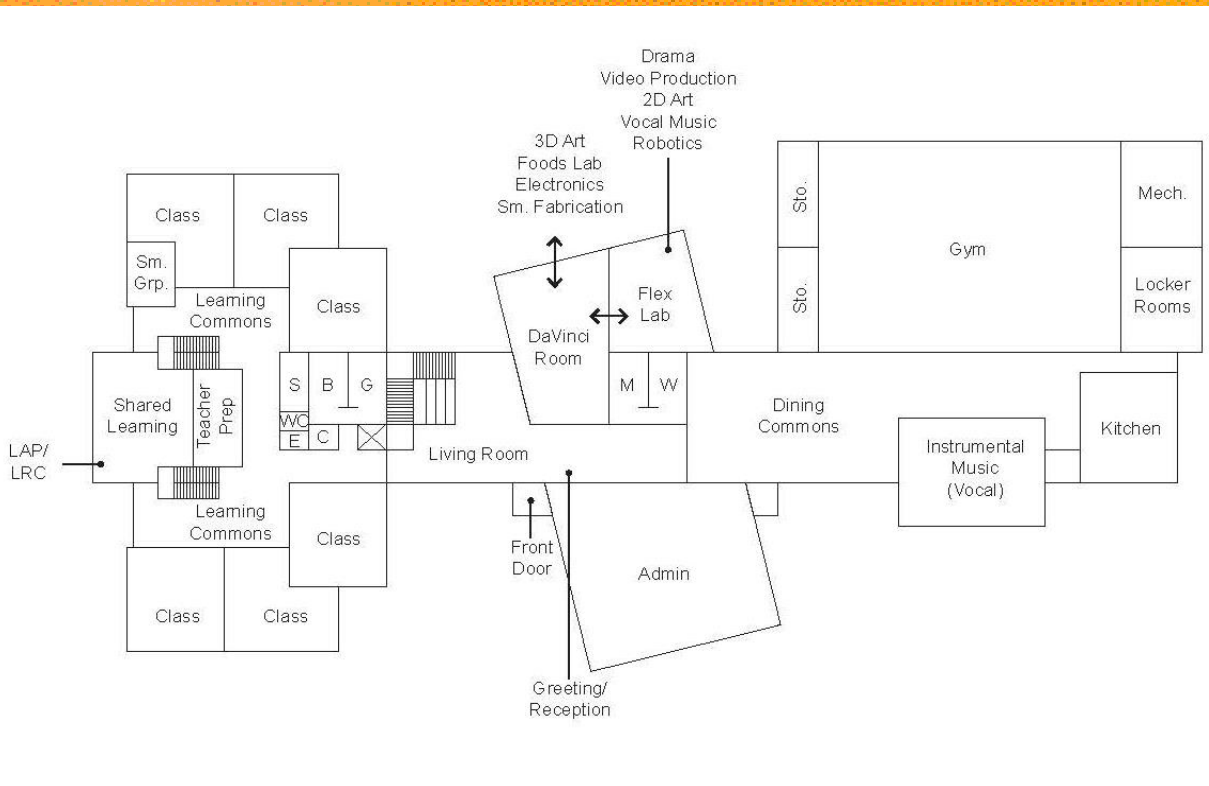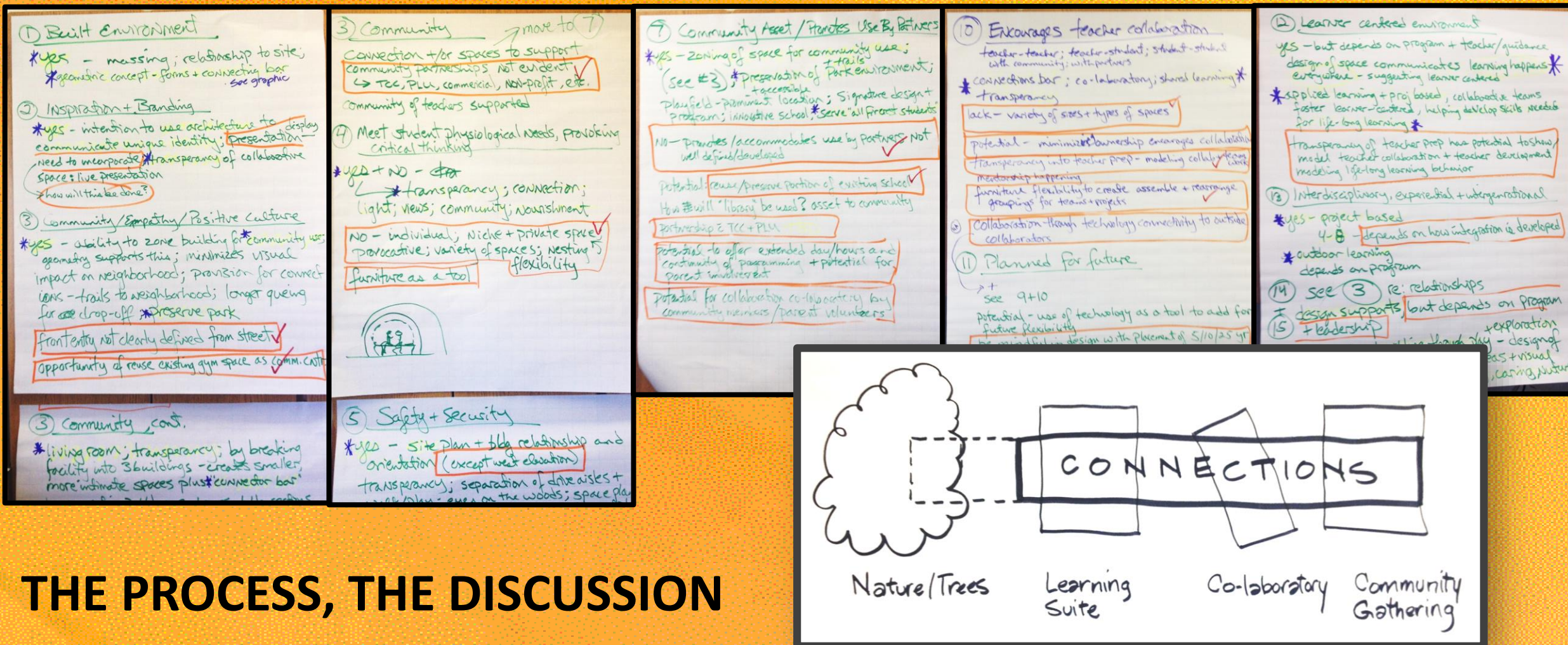

FIRST LEVEL

SECOND LEVEL

LEARNING SUITE OPTIONS

ARRANGEMENT A

*ARRANGEMENT B*

ARRANGEMENT C
Interdisciplinary & Experimental

Wainwright Intermediate School

THE PROCESS, THE DISCUSSION

Wainwright Intermediate School

**WAINWRIGHT INTERMEDIATE – VA Recommendations per Guiding Principles**

RECOMMENDATIONS:	Values											Relationships					T/L
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Broad / Overall:																	
Guiding Principles to be used throughout the process as a checklist by the entire project team, district and educational team to test decisions, define expectations and communicate project intent. Ideally used through post occupancy and for all future educators. Relate w/5-D curriculum.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Design is at the junction of beginning schematic. DAC needs to make decision regarding nature of curriculum; how multi-grade/age integration is to happen; whether STEM content, STEM methodology, or both; etc. The intent is not to constrain possibilities but to added progression of opening day approach.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
DAC needs to decide how far to push cultural change and new educational model through the design. This will provide direction to design team.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Encourage DAC to take advantage of a unique and ideal opportunity to take risk in innovating a new educational model and supporting school facility.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Clearly define and use site specific project goals.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Leading with the story. All members of the project team and DAC need to know the story of this project and understand the importance of telling the story, being able to articulate the narrative in words, pictures, organized project goals and Guiding Principles – being expressed and embodied through the design. • Important for manifesting and creating the design • For communicating the meaning and rationale behind the design and program • For remembering and preserving the Guiding Principles of the design as the design evolves through design development, construction documents, budgeting, construction and post occupancy • For telling the story and promoting it in the community	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Specific	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Clearly define entry through the use of materials, structure, placement or moving building north (idea: move building east to accommodate lost parking when move north)		X	X		X												
Improve visual and spatial bottle neck between and through the Connections Bar and Learning Suite (see graphic)	X		X		X	X			X						X		
Addressing a concern with the exterior space between the Co-laboratory and Gym (safety, connectivity), relocate storage on the south side of the gym and increase transparency between the spaces.		X	X		X												
To help insure a strong level of activity and interest improve the west side interior and exterior connection	X	X	X	X	X	X			X		X		X		X	X		X
Emphasize the importance of where the three buildings (Learning Suite, Co-laboratory, Community/Gathering) intersect with the Connections Bar.	X	X	X			X											
Relocate the toilet on the 1st floor of the Co-laboratory – don't want it to be one of the most prominent spaces when walking in building.		X	X		X												
Furniture need to be aggressively thought of for this project and at this time. Can be use as foundation for other projects. • flexibility of spaces • tool for collaboration • physiology needs of age range • student ownership and mobility • educator ownership and mobility • storage • budget		X	X	X	X		X	X	X	X	X	X			X	X		X
Need for 1-3 person spaces.		X	X		X	X	X	X				X		X		X		X
To help insure outdoor connections on all three levels of Learning Suite, relocate stairs next to the woods (south side) and provide some type of transparency. Opportunity to provide more 1-3 person spaces.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Add a gateway to identify the park (signage, arch, etc.)		X					X										
Need to prioritize levels of transparency both internal and external for budgetary needs. Solutions do not have to be limited to the "glass" approach.	X	X	X	X	X	X		X	X			X	X	X	X		
Explore and identify community partners, their possible activities and the spatial accommodations for those partners – both on and off campus.		X			X	X	X		X			X	X	X	X		X
Consider having different space configuration for each level of Learning Suite to personalize learning environments and encourage innovation (i.e., Scheme B on 1st on 2nd level; Scheme C on 3rd level to echo a vertical progression of grades approach)		X	X		X		X	X	X	X		X	X	X	X		X
Need to identify presentation opportunities through the school -- technology collaboration, student display, educator instruction support element – for all size of groupings, including individuals.		X			X		X			X							
Reinforce transparency of staff planning.		X					X		X					X			
Consider re-purposing or preserving a portion of the existing Wainwright Elementary school gym/multipurpose for the community.		X	X			X											
Minimize individual ownership of space to foster collaboration and encourage overall school ownership and culture.		X			X		X	X	X			X	X	X			X

END PRODUCT

- Discussion
- Final Recommendations
- Final Report

Wainwright Intermediate School
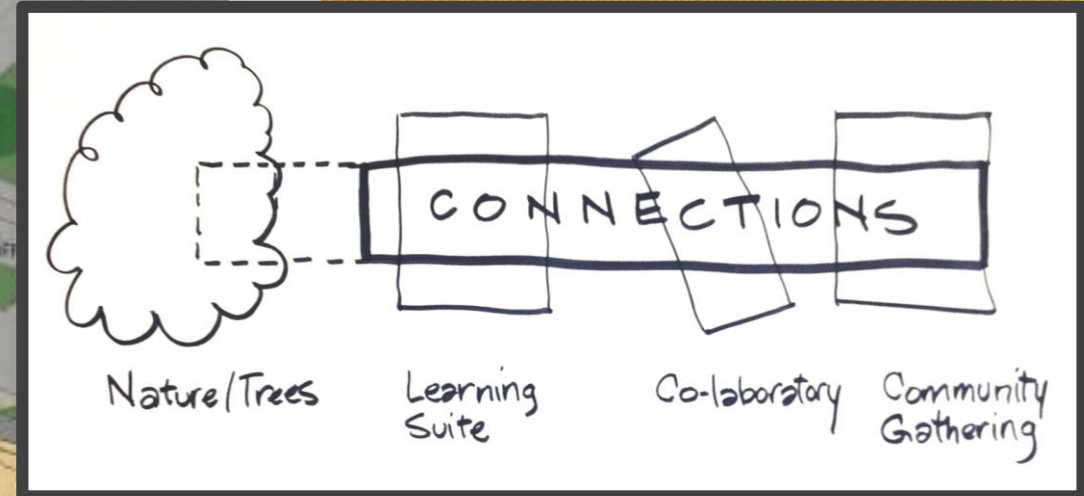
Wainwright Intermediate School
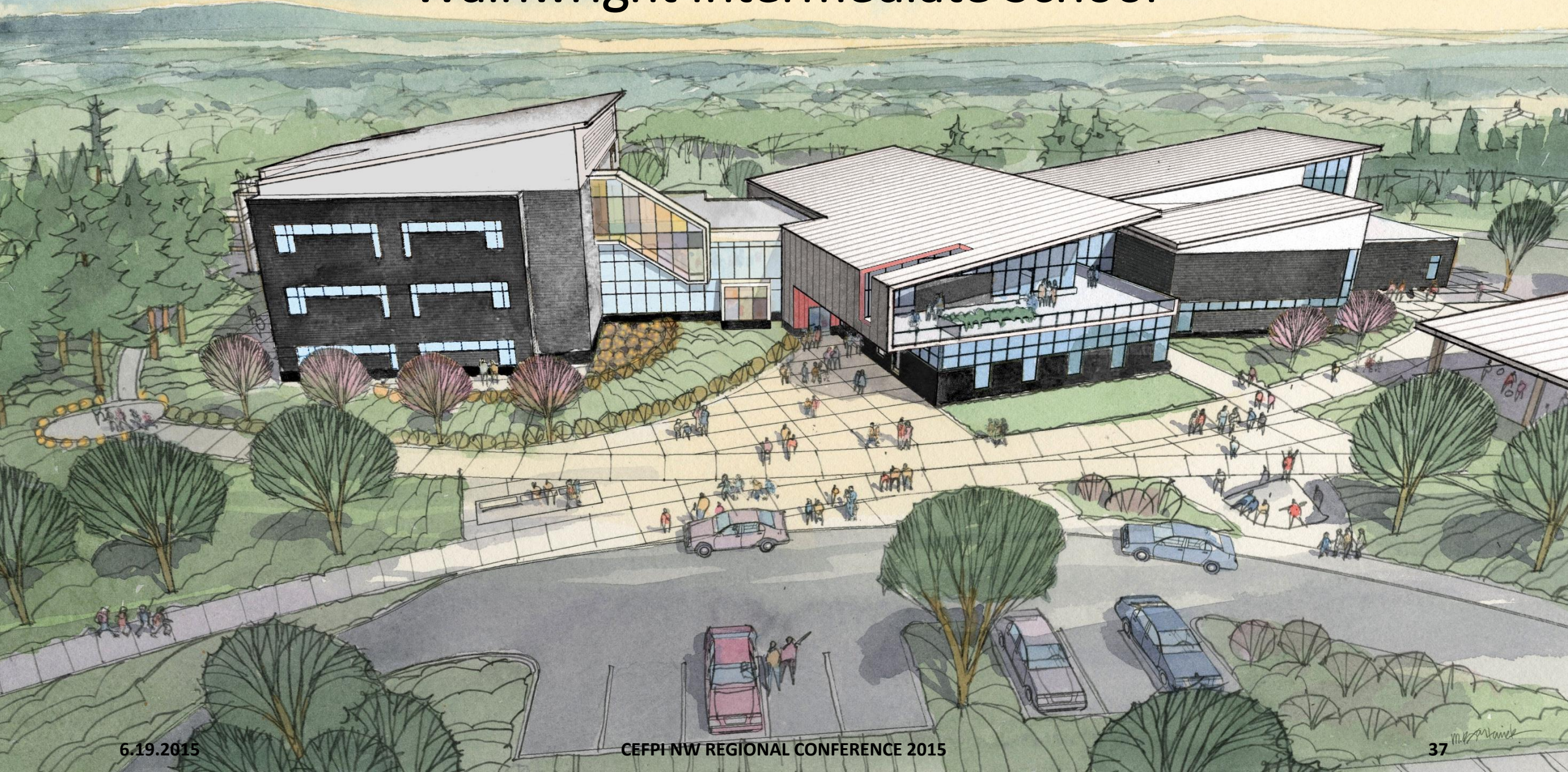
Lessons Learned

- Hold Value Analysis workshop mid concept design

- Allow 2-3 days for the workshop

- Tailor the team expertise to the specific project

- Team member collaboration is key, especially with design team and District leaders

- Involve key stakeholders in the discussion

- Understand the culture and politics of the project school

- Process needs to be structured but adaptable and responsive to the project

- Decide beforehand final decision maker(s)

- Have the design guidelines or principles well defined as they are filters

Q & A

Discussion

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