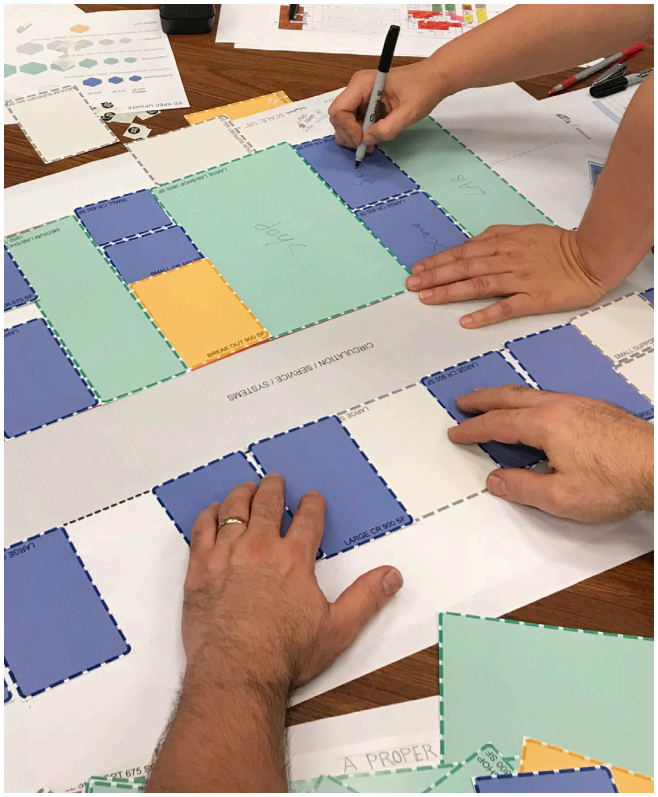
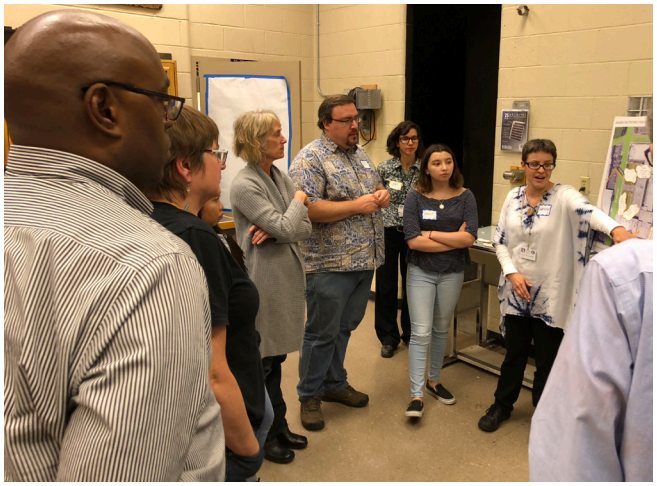
BENSON POLYTECHNIC HIGH SCHOOL

MASTER PLAN REPORT





DECEMBER 11, 2018

bassetti architects

PPS

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PROJECT BACKGROUND

CONTRIBUTING HIGH SIGNIFICANCE

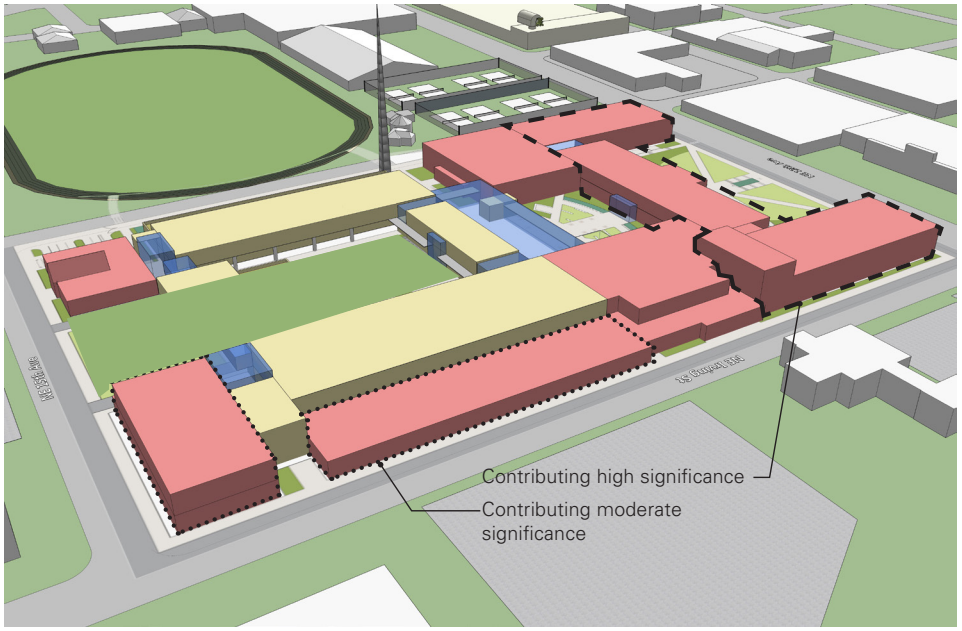
+ Building A, Main Building (1917)
+ Building B, Auditorium (1929)
+ Building C, Old Gymnasium (1925)

CONTRIBUTING MODERATE SIGNIFICANCE

+ Building G, North Shop Wing (1917)
+ Building J, South Shop Wing (1918)
+ Building K, Foundry Building (1917)

NON-CONTRIBUTING

+ Building D, Library Addition (1991)
+ Building E, Library Science Addition (1917/53/91)
+ Building F, Gymnasium (1964)
+ Building H, Aeronautics/Automotive Shops (1953)
+ Building L, KBPS (1991)



VIEW FROM NE

STUDENT DESIGN CAPACITY

1,700

PROPOSED BUILDING AREA

+/- 368,000 SF

The modernization of Benson Polytechnic will restore the historic 1916 Main Classroom building, the 1927 Old Gymnasium and the 1930 Auditorium Building, as well as the North Wing Shops and Foundry Building, both constructed in 1916. Renovation to include: 1960 Gym, Radio Building, and 1990s remodeled addition. The South Wing Shops Building may or may not be restored depending on function and cost.

The master plan approach places the Commons at the new heart of the school, serving multiple uses such as cafeteria, student and community gatherings, foyer for athletic events, informal studies and access to various exterior spaces.

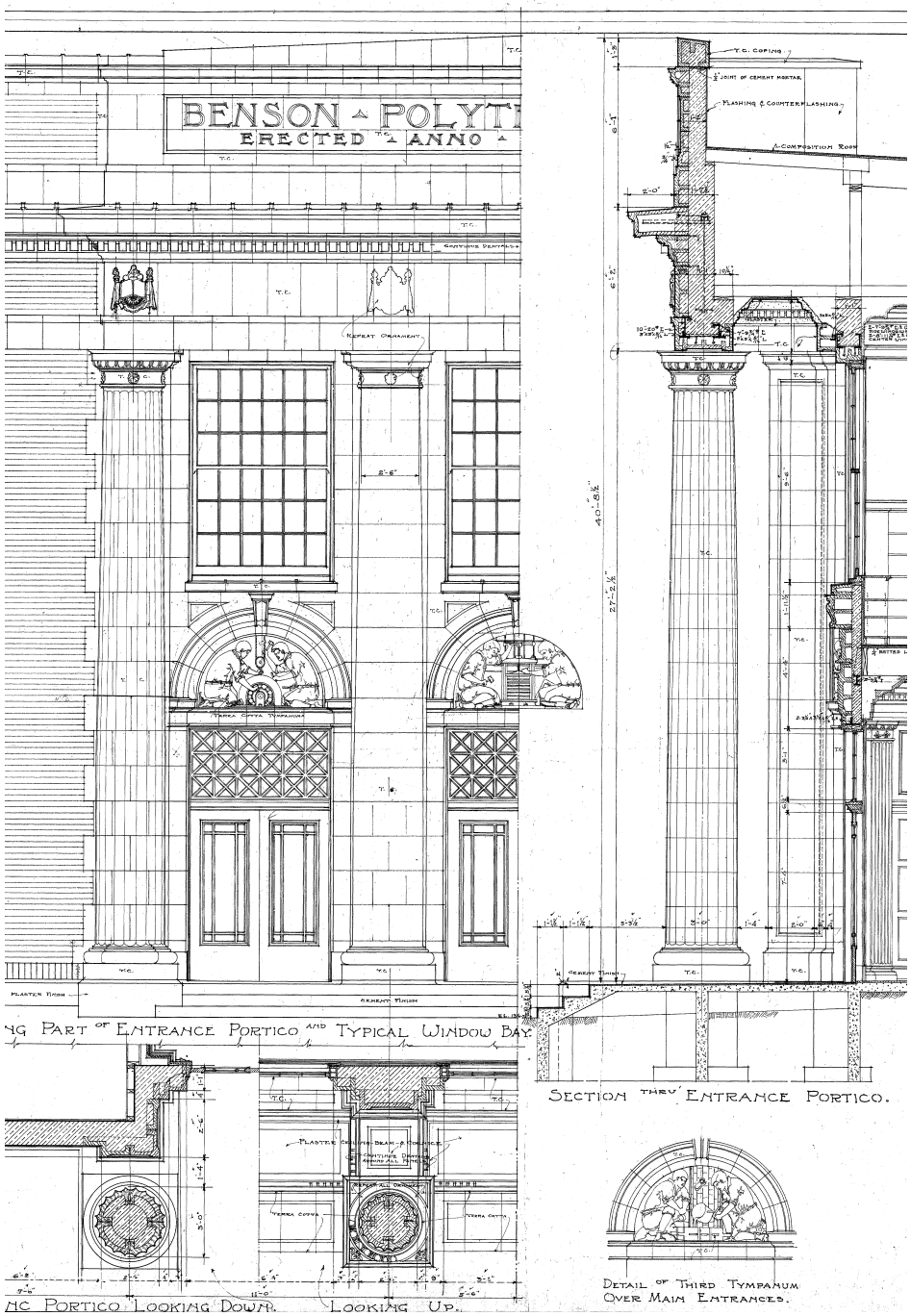
Four exterior spaces are also being introduced and enhanced in the master plan:

+ The existing west entry lawn with ADA access and entry gathering space
+ A new central social courtyard
+ A new east CTE work courtyard
+ A new south plaza

Internal layouts of core academic classrooms and CTE programs within the school restoration will provide a spatially adjacent arrangement of core academic, SPED, and CTE programs, that doesn't currently exist at the school. The design also looks to maximize opportunities for natural daylighting into all learning spaces, and a flexibility in building systems that will allow for accommodation of evolving educational programs. The design approach seeks to integrate all of these considerations in a manner that will propel Benson Polytechnic High School into the 21st Century as a reinvigorated national model for career learning educational institutions.

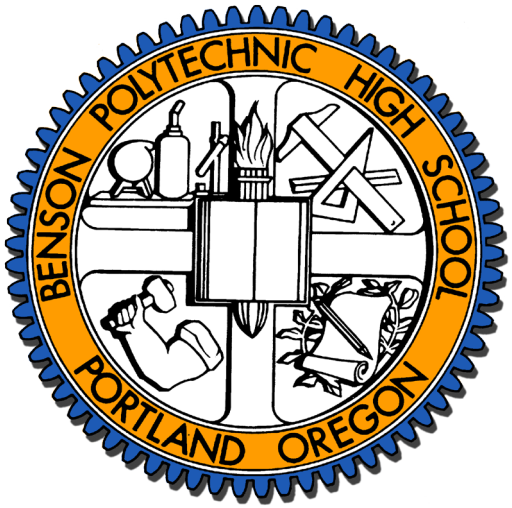
KEY PROJECT CHALLENGES

+ Historic landmark requires Portland Landmarks Commission review
+ Constrained urban site
+ Extensive health and safety upgrades required, including seismic upgrade of unreinforced masonry (URM) buildings and providing ADA and universal access throughout campus
+ Phased construction with student occupancy
+ Planning for CTE spaces, equipment and educational programming to continue during construction.



Main Building construction, circa. 1916

MASTER PLANNING GUIDING PRINCIPLES



1. Honor the unique history and culture of Benson Polytechnic High School.
2. Engage with the local business, government, and post-secondary partners to create strong connections between education and industry.
3. Provide hands-on, project-based learning opportunities that are imbued with rigor and relevancy.
4. Provide agile, flexible, and adaptable facilities that support changing educational needs.
5. Provide learning environments that inspire creativity and collaboration among students.
6. Support a comprehensive educational experience for students.
7. Celebrate diversity and provide a sense of inclusion and belonging among students and families.
8. Position Benson Polytechnic as a national model for STEAM and Career Technical Education (CTE).

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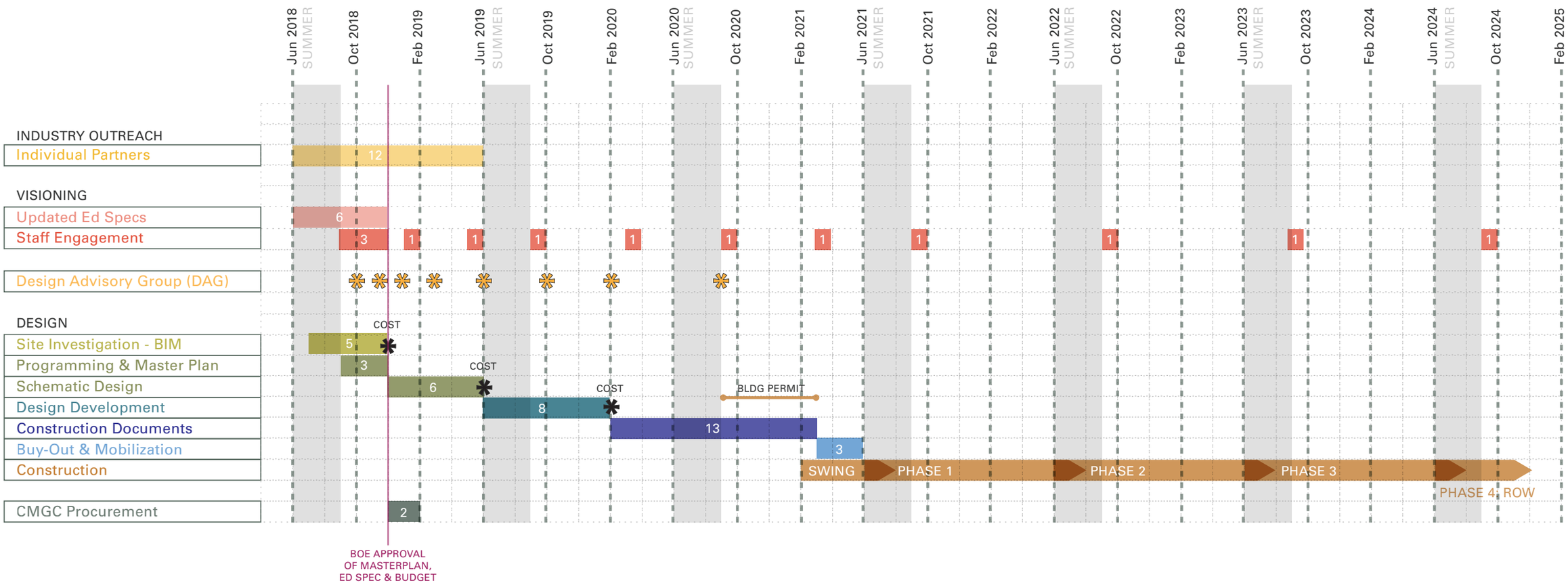
SCHEDULE


Jun 2018
SUMMER
Oct 2018
Feb 2019
Jun 2019
SUMMER
Oct 2019
Feb 2020
Jun 2020
SUMMER
Oct 2020
Feb 2021
Jun 2021
SUMMER
Oct 2021
Feb 2022
Jun 2022
SUMMER
Oct 2022
Feb 2023
Jun 2023
SUMMER
Oct 2023
Feb 2024
Jun 2024
SUMMER
Oct 2024
Feb 2025
INDUSTRY OUTREACH
Individual Partners
12
VISIONING
Updated Ed Specs
6
Staff Engagement
3
1
Design Advisory Group (DAG)
DESIGN
COST
Site Investigation - BIM
5
Programming & Master Plan
3
COST
Schematic Design
6
COST
Design Development
8
BLDG PERMIT
Construction Documents
13
Buy-Out & Mobilization
3
Construction
SWING
PHASE 1
PHASE 2
PHASE 3
PHASE 4, ROW
CMGC Procurement
2
BOE APPROVAL
OF MASTERPLAN,
ED SPEC & BUDGET

STAKEHOLDER ENGAGEMENT

MASTER PLANNING COMMITTEE
January 2016 - May 2018
+ 16 meetings
+ 6 school tours
+ 2 public workshops
+ 1 open house

DESIGN ADVISORY GROUP
Started October 2018.
Advisory; provide input; concerns and aspirations reflected in alternatives developed
+ Largest student and application response of any PPS Modernization project
+ 3 Meetings in Programming Phase

STEERING COMMITTEE
District leadership decision makers
+ Meeting monthly since May 2018
+ 6 meetings in Programming Phase

SCHOOL STAKEHOLDERS
Benson Tech administration, staff, CTE and Core department leads
+ Weekly meetings with Benson Admin
+ 3 Ed Spec work sessions with CTE and Core Dept. Leads
+ 25 Meetings with CTE, Academic Staff & School stakeholders including: Digital Media CTE, Radio CTE, Electrical CTE, Engineering CTE, World Language/Spanish/ Leadership, Counseling, Computer Engineering CTE, Architecture CTE, Geometry Tech, Language Arts/English, Construction CTE, Science, Robotics, Math, PE/Health, Athletics, Library, Automotive CTE, Applied Art CTE, Social Studies, Special Education, Manufacturing CTE, afterschool programs, November 2016 , February 2017, October 2018
+ All Staff Meeting Updates, Periodically 2016 -2018

SCHOOL COMMUNITY
+ 2 Public/Community Master Plan Design Workshops, Spring 2016
+ 1 Public/Community Open House, Spring 2016
+ Benson Tech Show, February 2017, March 2018
+ Benson Polytechnic Centennial Celebration, Oregon Historical Society, June 2017
+ Benson Tech Site Council Presentation, November 2017

STUDENTS
+ 13 student representatives on Design Advisory Group
+ Architecture class project, 2018
+ All-student survey, Spring 2017
+ Master Plan Lunch Chats, Spring 2017
+ Afterschool master plan activity, Spring 2016
+ Benson Tech Leadership class presentations, Spring 2016
+ Student representation on Master Planning Committee from 2016 -2018

DISTRICT STAKEHOLDERS
BESC Departments, Operations, and OTL
+ Meetings to review master plan & ed specs with PPS OTL/ CTE starting in April 2016 through 2018
+ Aviation HS Visit with CTE, September 2017
+ Industry Outreach Planning Meetings with CTE
+ Summer 2017-Spring 2018

INDUSTRY & POST SECONDARY OUTREACH
Site visits, facility tours, industry leader interviews

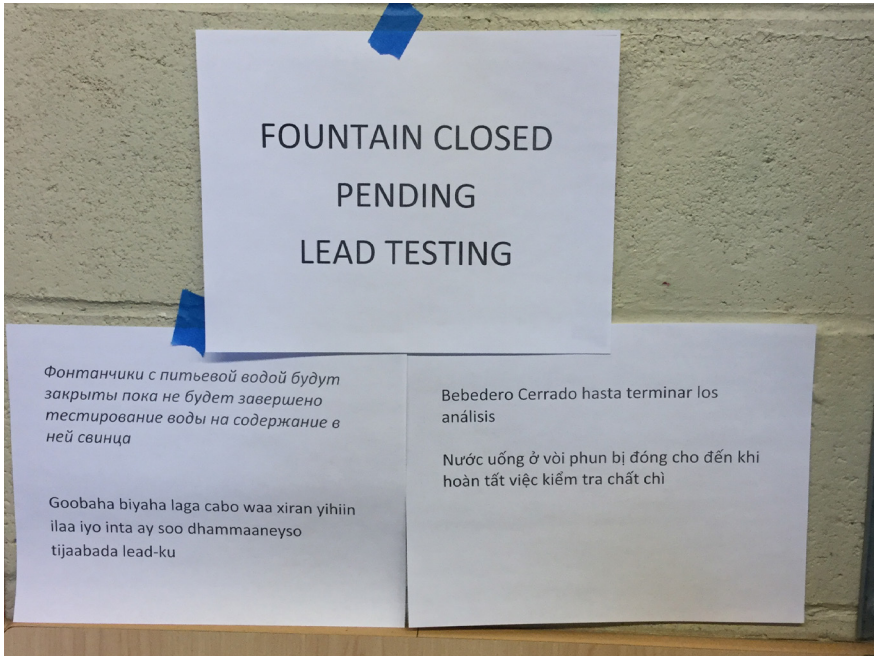
PUBLIC AGENCY
+ Bureau of Development Services Early assistance meeting, May 2016
+ Portland Landmarks Commission, May 2016, September 2017
+ State Historic Preservation Office, September 2017

UNIVERSAL DESIGN

+ Main entry at school front is accessible & welcoming to all visitors, students and staff.
+ New common spaces will be centrally located and universally accessible
+ Sped classrooms distributed throughout learning clusters of cte & core
+ Vertical visual & enhanced connectors between floors
+ Inaccessible learning spaces in existing building will be provided with new elevator access
+ Accessible & inclusive restrooms provided on each floor
+ Accessible & inclusive showers and dressing rooms will be provided

HEALTH & SAFETY

+ Water Quality: Modernization would include replacement of plumbing piping and fixtures.
+ Fire /Life Safety: Aged fire alarm and sprinkler systems will be upgraded for improved safety.
+ Asbestos: Abatement and removal.
+ Lead Paint: Abatement and removal.
+ Building Envelope: Modernization would upgrade exterior walls, windows and roof to repair damage, improve energy efficiency and increase durability.
+ ADA: Substantial upgrades to make all areas of the school universally accessible and compliant with current codes.
+ Seismic: URM buildings and other structures would receive a complete structural upgrade to meet current building codes. Commons and Gym to be designed to immediate occupancy classification.
+ Security Systems/Fencing: Secure entry and video surveillance system upgrades to control access. Exterior service access and central plazas to be fenced and secured during school hours.
+ Auditorium/Stage: Aging theatrical lighting and rigging systems to be updated for improved safety and maintainability.
+ Radon: Modernization would provide a new radon mitigation system below new foundations.



UPDATED ED SPEC AND MASTER PLAN PROCESS

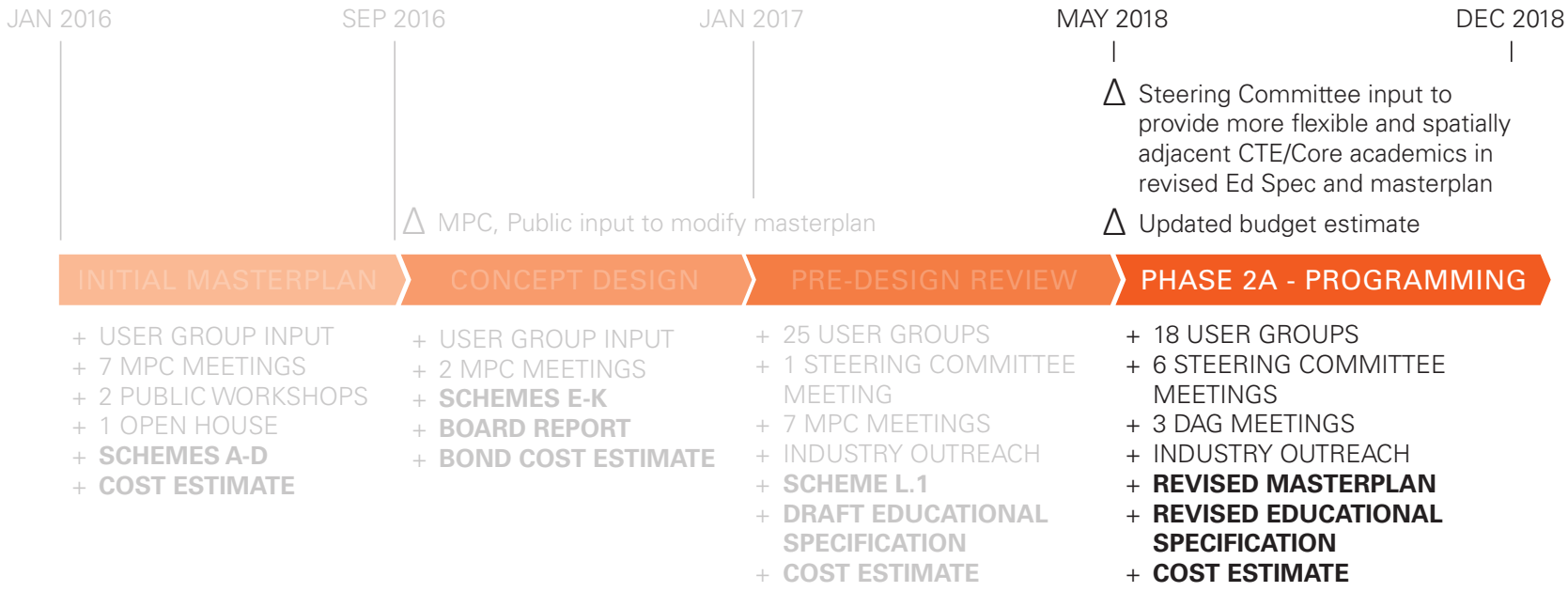
In June 2017, the design team completed a Pre-Diligence report and Focus Option Educational Specification to support the Benson Modernization. These documents were developed out of extensive investigation of existing conditions, input received from over 20 user groups and other various stakeholders, and the Master Planning Committee.

Key themes incorporated into the master plan scheme included:

+ New central Commons at the heart of the school.
+ Maintaining and modernizing historic buildings to the west and north and the KBPS building (located in the southeast corner of the site).
+ Providing a protected courtyard at the center and a shared work courtyard to the east.
+ Addressing service and delivery access from the east and south.
+ Integrating core academic classrooms and CTE shops within the school for better collaboration.
+ Enhancing daylighting, transparency, and natural ventilation.
+ Providing flexible and adaptable spaces that will meet the needs of Benson Tech now and in the future.
+ Balancing program, budget and phasing considerations.
+ Comprehensive site and building ADA access/universal design improvements

With the transition to the Programming phase, the design team expanded engagement to include new district leadership guidance and input in the form of a Steering Committee. Through this process, the design team received valuable input on new recommendations for rethinking the site specific educational specification and master plan.

Through subsequent input sessions and deeper outreach to industry partners and the formation of the Design Advisory Group, the team gathered information and references to inform a new updated Ed Spec and Master Plan, which are the subject of this report.



UPDATED ED SPEC OVERVIEW

Educational specifications are a set of building design characteristics that establish the ways the facilities support programs and curriculum.

COMPREHENSIVE HIGH SCHOOL ED SPEC

The comprehensive ed spec establishes a baseline of equitable facilities standards for school construction efforts across PPS.

BENSON TECH SITE SPECIFIC ED SPEC

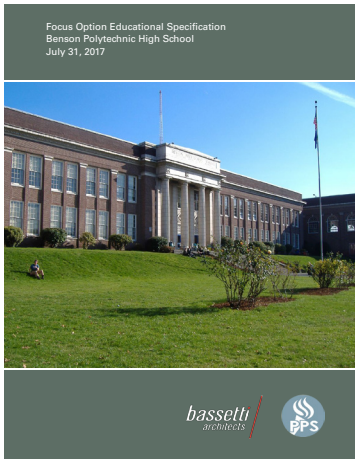
At Benson Polytechnic High School, an adapted site specific ed spec is required to define the unique needs of the Career Technical Education (CTE) and focus option aspects of the program, in addition to referencing the comprehensive ed spec for requirements of more general education support spaces.

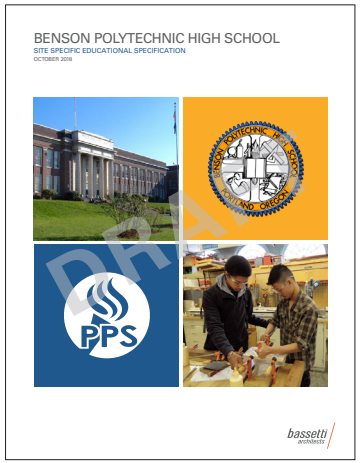
The ed spec developed in July 2017 was a reflection of in-depth meetings with staff from each of the programs at Benson Tech, including CTE, Core academics, PE/Athletics, SPED, Counseling, Library Resource, Administration, etc. Through this work, a program summary and ed spec document was created that reflected the pedagogy and needs of the existing school expanded to accommodate 1,700 students.

After further review and feedback from the steering committee, industry and post-secondary outreach tours, and new leadership in Office of Teaching and Learning, input was provided that the ed spec and master plan should be updated to meet these additional criteria:

+ Utilize space efficiently and effectively to manage constraints and a changing industry.
+ Plan for future adaptations of CTE by providing less compartmentalization.
+ Design a flexible and adaptable building that can accommodate multiple scenarios.
+ Provide spatial adjacencies which enable greater collaboration between CTE and Core academic spaces.
+ Plan for growth by providing flexible options, not necessarily increasing size of existing CTE.

The updated ed spec document has been revised to increase spatial adjacencies in order to increase opportunities for collaboration.

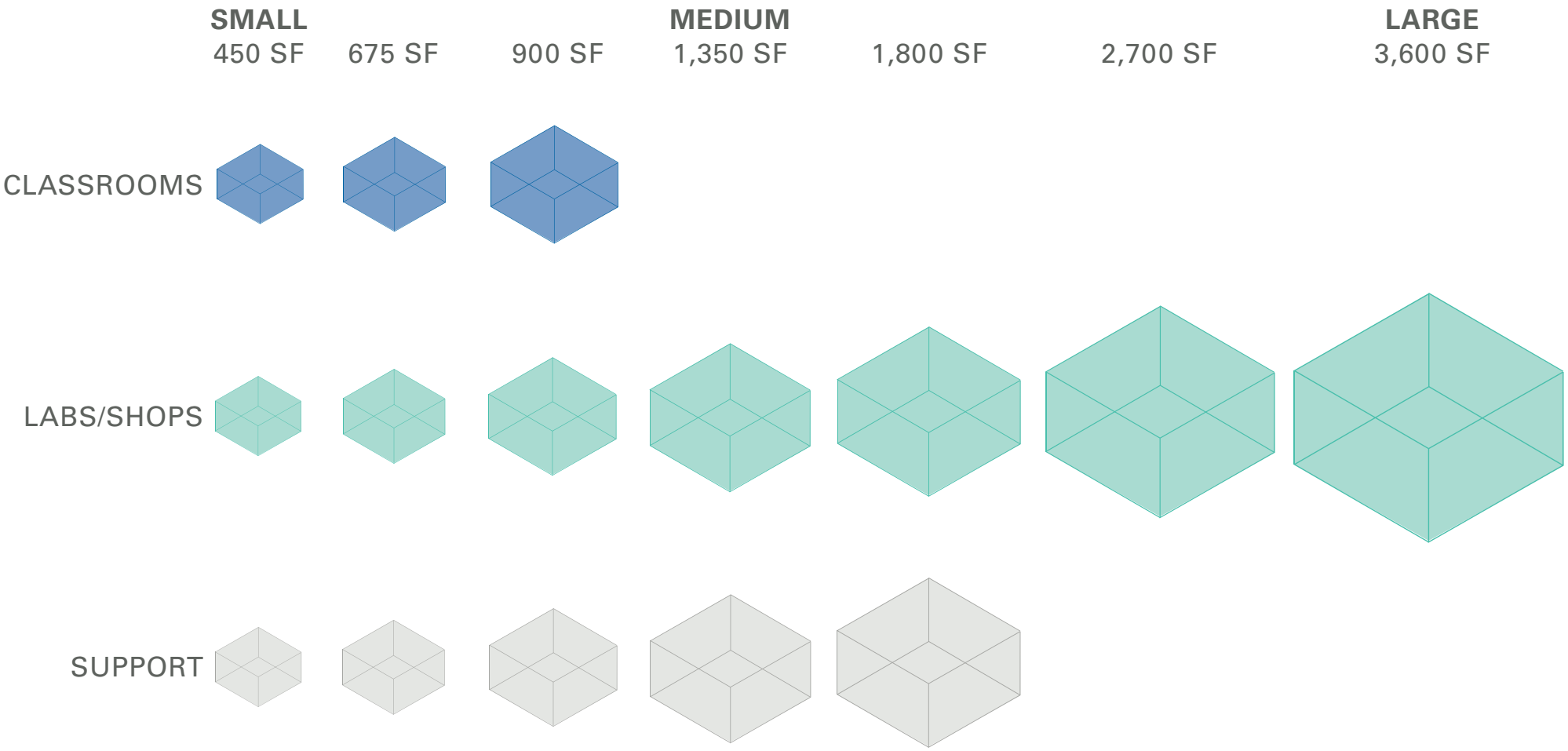




STEERING COMMITTEE ED SPEC INPUT

Utilize space efficiently and effectively to manage constraints and a changing industry.

UPDATED ED SPEC RESPONSE TO INPUT / PROGRAM COMPONENT SIZES

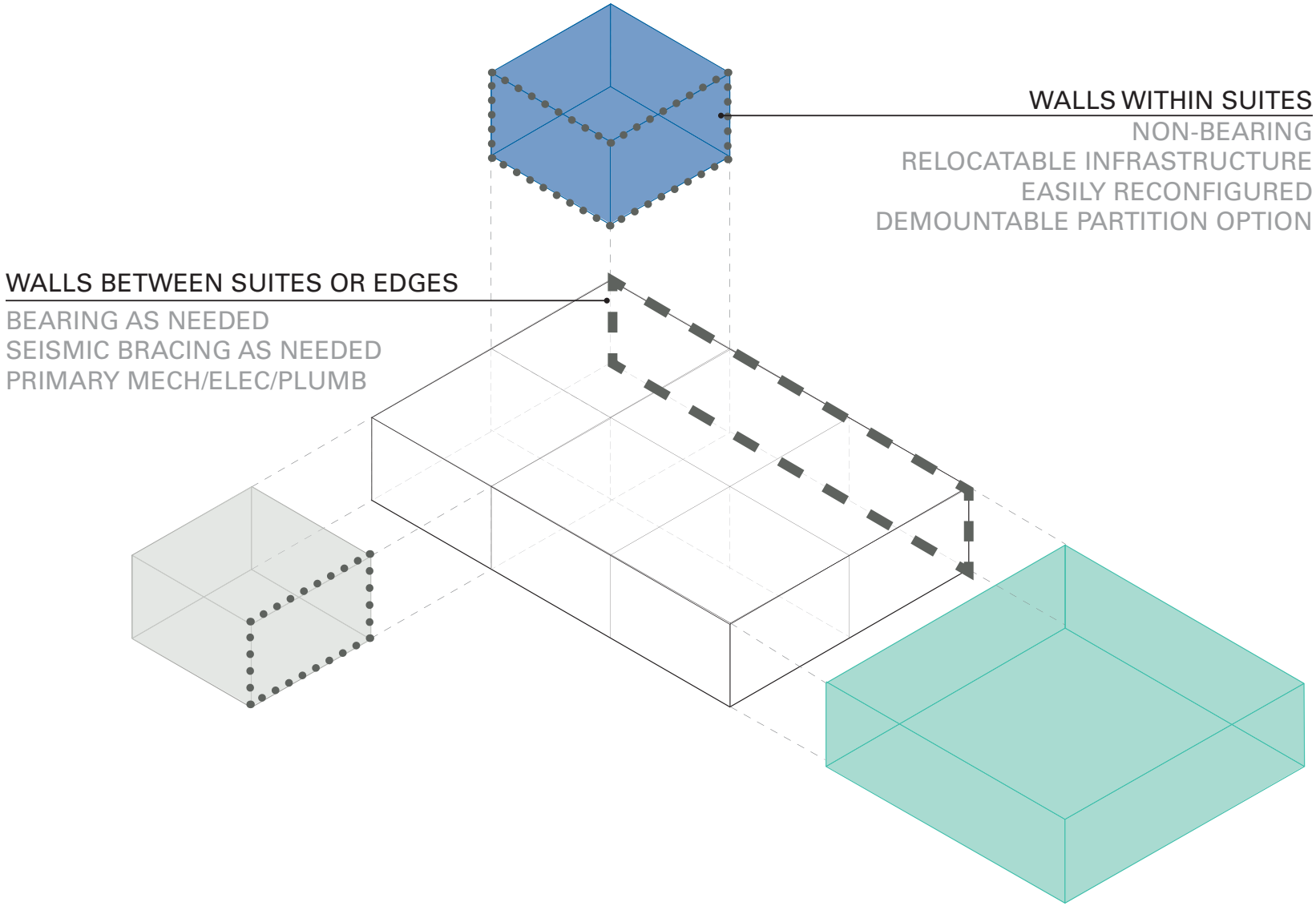


Space components have been sized appropriately in the program, using a modular format to provide consistency and regularity for efficient use of space. Components can be combined when needed for larger spaces.

STEERING COMMITTEE ED SPEC INPUT

Plan for future adaptations of CTE by providing **less compartmentalization.**

UPDATED ED SPEC RESPONSE TO INPUT / SUITE DEVELOPMENT



CTE programs will have greater flexibility and adaptability by being arranged in suites that are more open, with careful thought about where bearing elements and infrastructure are placed to maintain adaptable space.

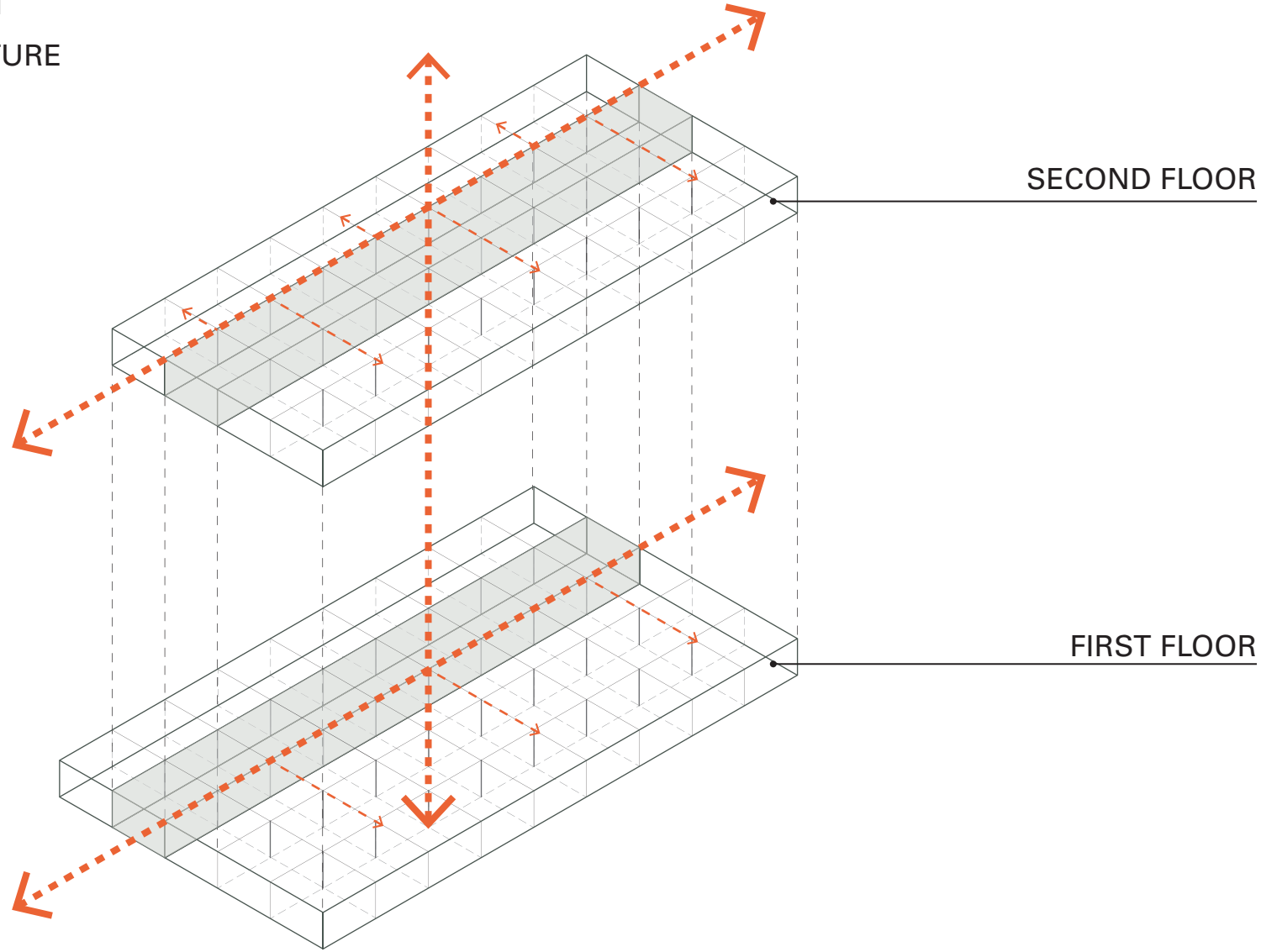
STEERING COMMITTEE ED SPEC INPUT

Design a **flexible and adaptable** building that can accommodate multiple scenarios.

UPDATED ED SPEC RESPONSE TO INPUT / DESIGNING FOR FLEXIBILITY

CIRCULATION / SUPPORT

SYSTEMS INFRASTRUCTURE



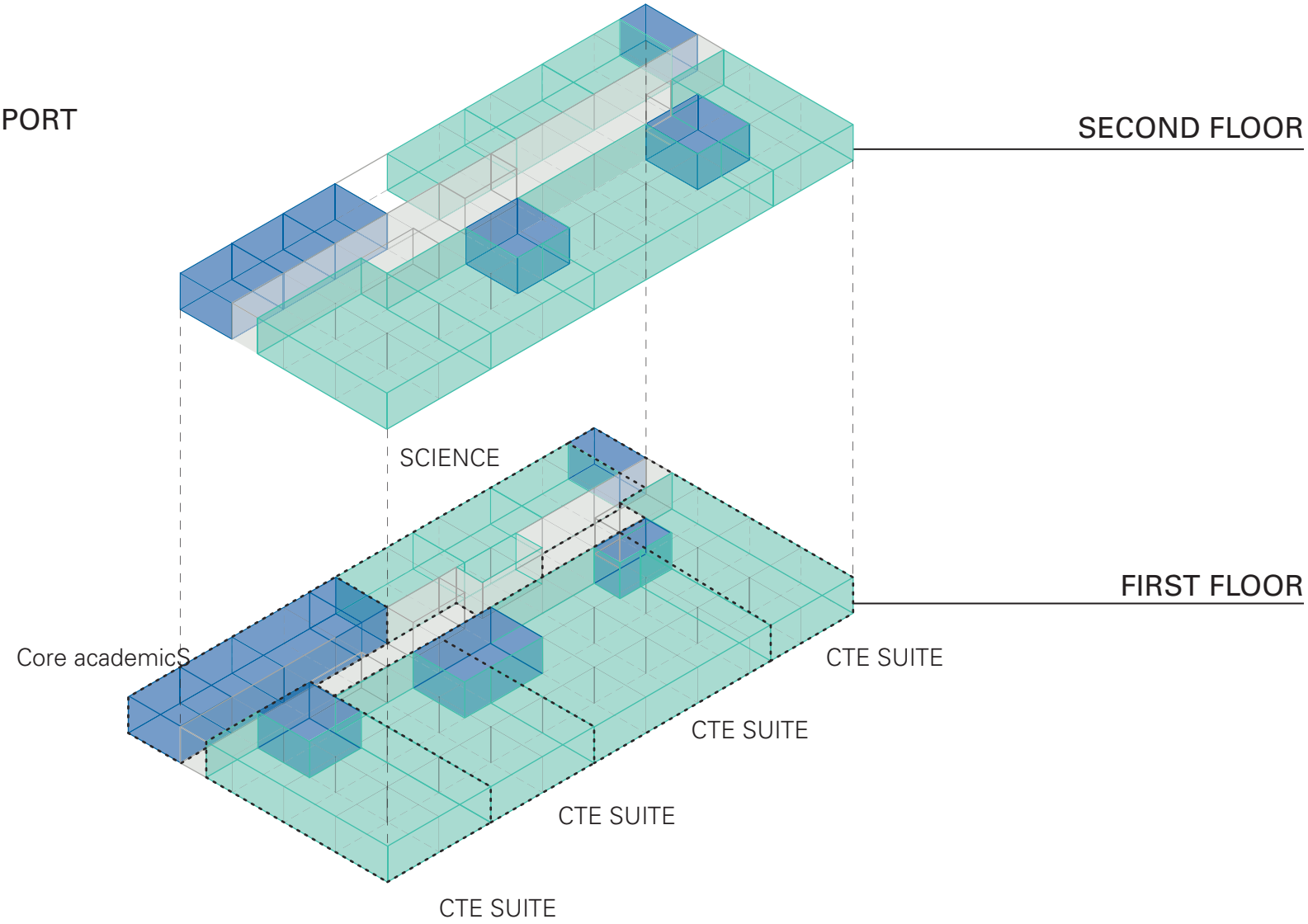
The building's structural grid and central systems will be laid out in an efficient modular format that maximizes flexibility while supporting a wide range of potential arrangements and scenarios.

STEERING COMMITTEE ED SPEC INPUT

Provide **spatial adjacencies** which **enable greater collaboration** between CTE and Core Academic spaces.

UPDATED ED SPEC RESPONSE TO INPUT / KEY ADJACENCIES

- CLASSROOMS
- LABS / SHOPS
- CIRCULATION / SUPPORT

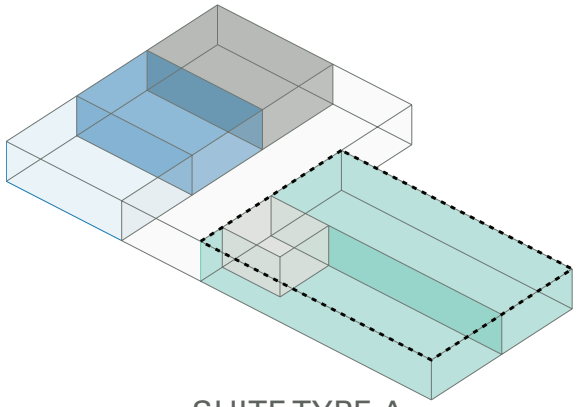


The building must be designed to support multiple scenarios, including arrangements that put Core Academics and CTE directly adjacent and across from each other.

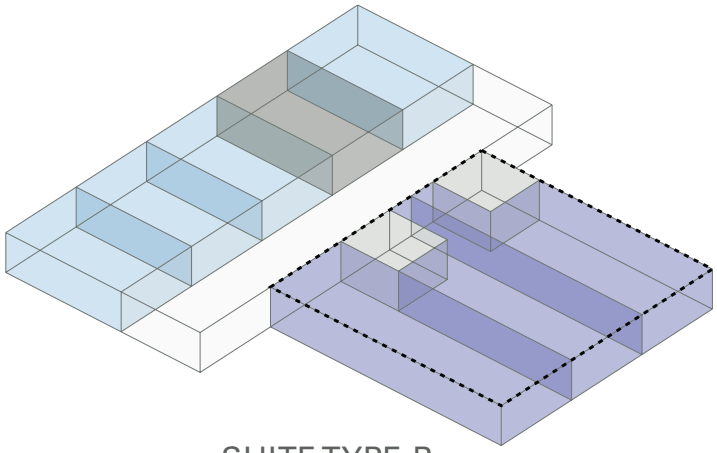
STEERING COMMITTEE ED SPEC INPUT

Plan for growth by providing flexible options, not necessarily increasing size of existing CTE.

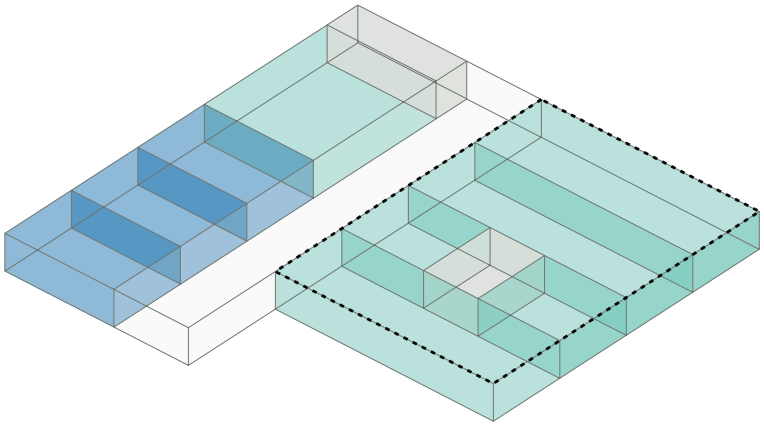
UPDATED ED SPEC RESPONSE TO INPUT / SUITE DEVELOPMENT



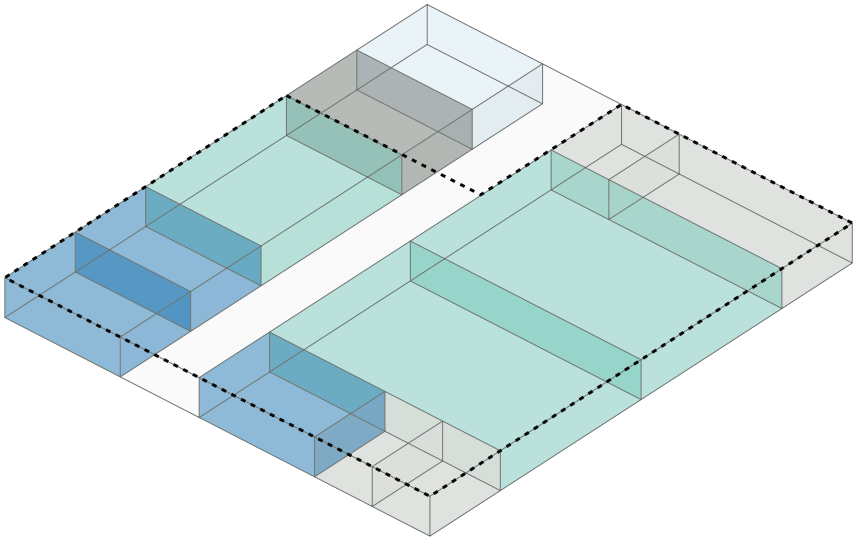
SUITE TYPE A
3,600 SF



SUITE TYPE B
5,400 SF



SUITE TYPE C
7,200 SF



SUITE TYPE D
14,400 SF

CTE programs are now organized within consistent suite types for greater parity between programs and to free up space for additional future programs that are yet to be determined. Un-programmed CTE Suite space has been reserved for potential new programs or current program growth, allowing flexibility in program development between now and opening day.

SUITE TYPE A / 3,600 SF

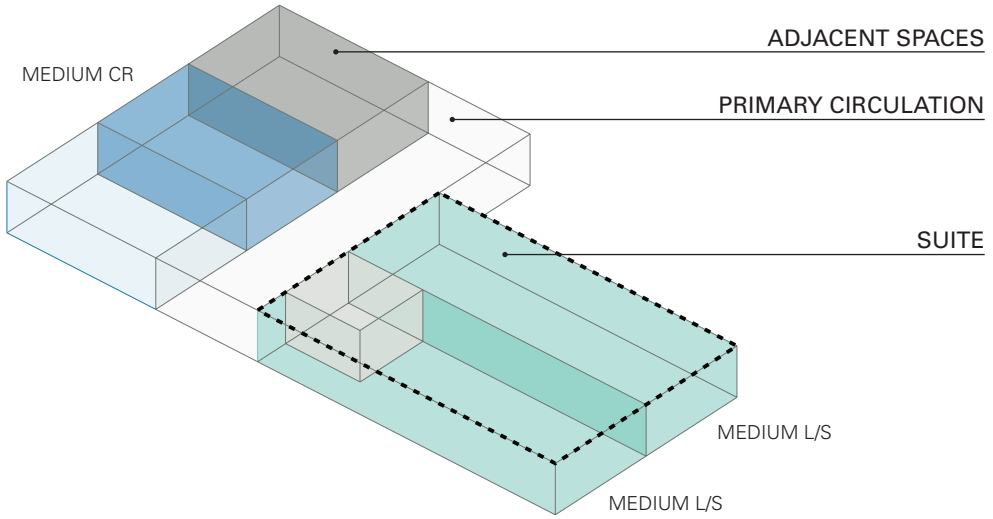
CURRENT CTE PROGRAMS:

+ Architecture
+ Design & Applied Arts
+ Engineering
+ Computer Engineering

OTHER EXAMPLE CTE PROGRAMS:

+ Business Management
+ Urban Planning

EXAMPLE LAYOUT:



LEGEND

- CLASSROOMS
- LABS / SHOPS
- COMPUTER LABS
- CIRCULATION / SUPPORT

SUITE TYPE B / 5,400 SF

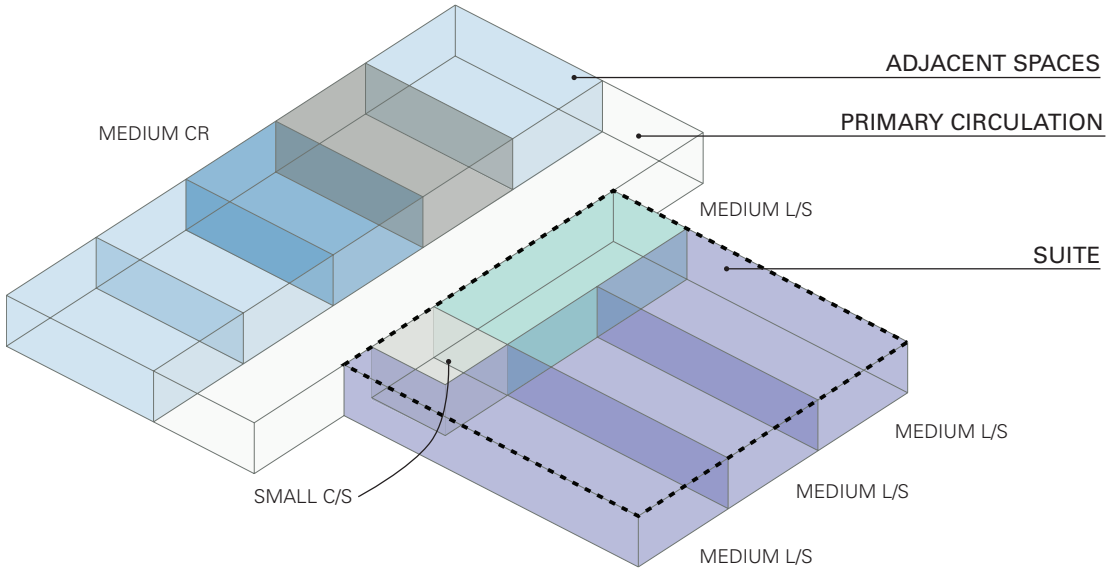
CURRENT CTE PROGRAMS:

+ Radio

OTHER EXAMPLE CTE PROGRAMS:

+ Education
+ Product Design
+ Aviation
+ Technical Theater

EXAMPLE LAYOUT:



LEGEND

- CLASSROOMS
- LABS / SHOPS
- COMPUTER LABS
- CIRCULATION / SUPPORT

SUITE TYPE C / 7,200 SF

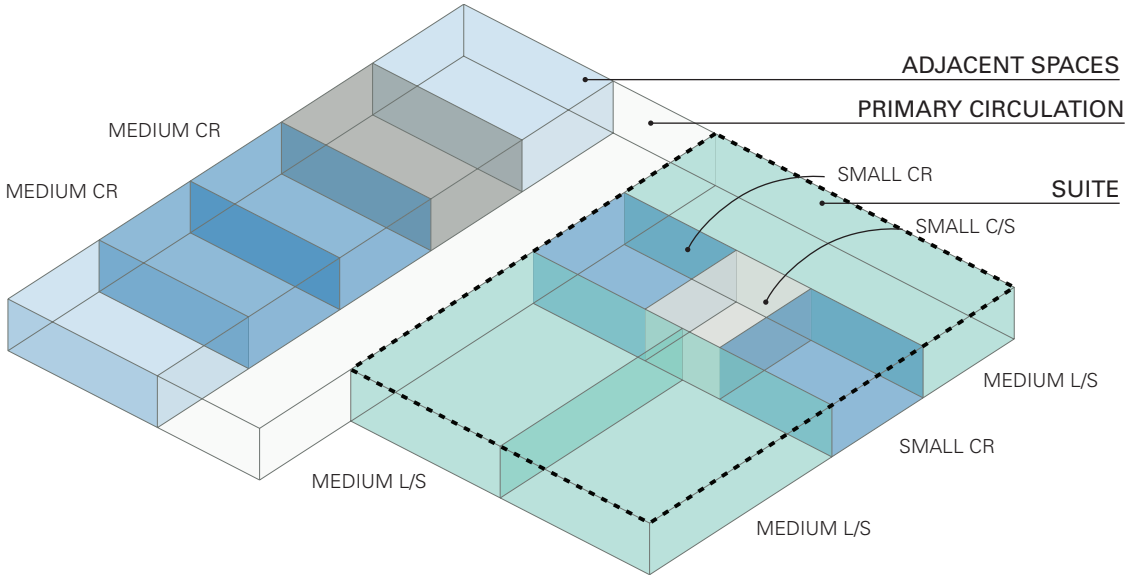
CURRENT CTE PROGRAMS:

+ Health Occupations
+ Electric
+ Digital Media

OTHER EXAMPLE CTE PROGRAMS:

+ Alternative Energy & Sustainability
+ Robotics

EXAMPLE LAYOUT:



LEGEND

- CLASSROOMS
- LABS / SHOPS
- COMPUTER LABS
- CIRCULATION / SUPPORT

SUITE TYPE D / 14,400 SF

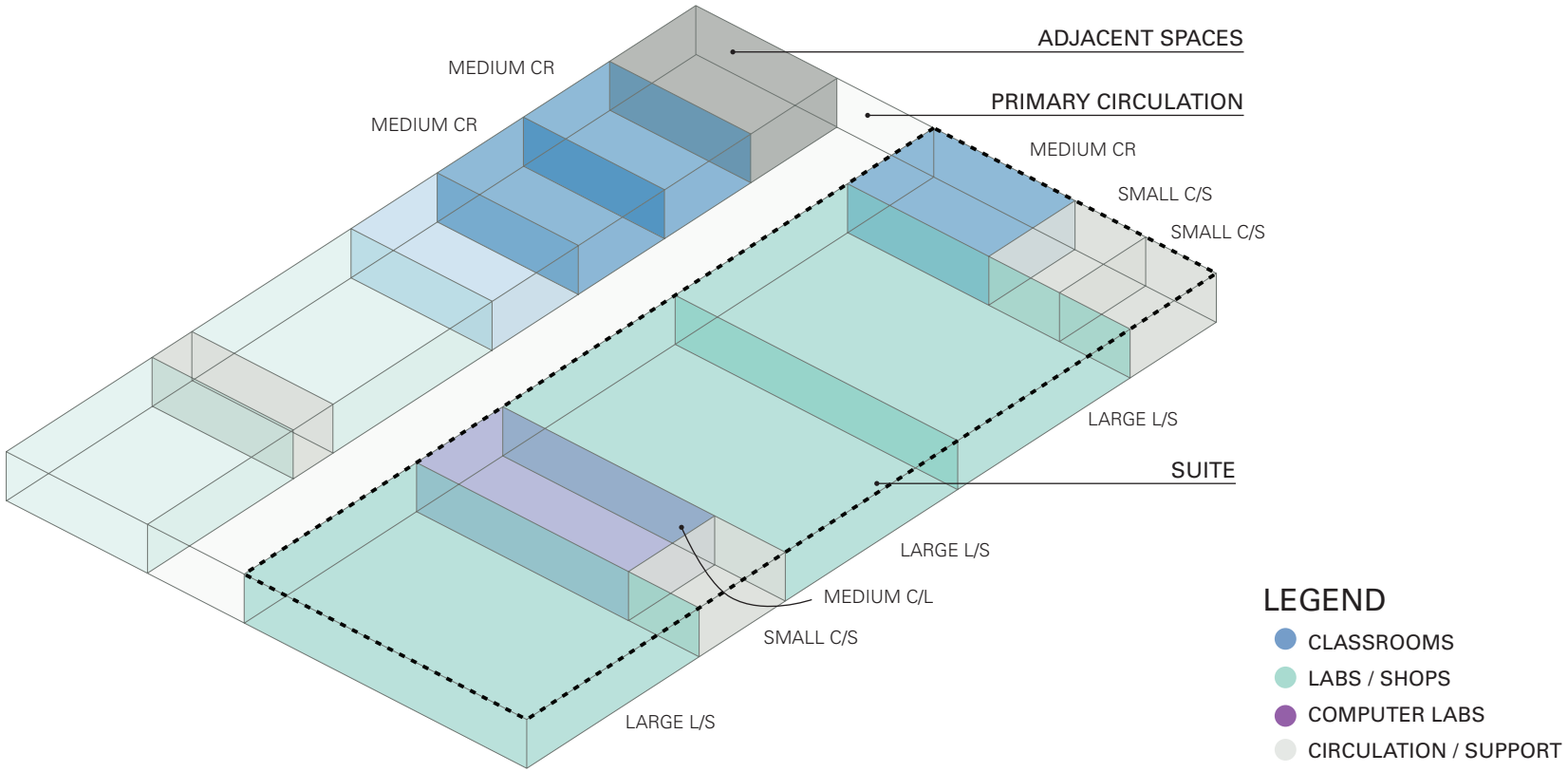
CURRENT CTE PROGRAMS:

+ Automotive
+ Construction
+ Manufacturing

OTHER EXAMPLE CTE PROGRAMS:

+ Hydraulics

EXAMPLE LAYOUT:



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BENSON TECH H.S. AREA PROGRAM SUMMARY / 1,700 STUDENT CAPACITY

PROGRAM COMPONENTS	AREA	QUANTITY	TOTAL	T/S	PPS COMP. HS ED SPEC T/S	PPS COMP. HS ED SPEC AREA
Suite Type A	3,600 SF	4	14,400 SF	8		
Suite Type B	5,400 SF	1	5,400 SF	3		
Suite Type C	7,200 SF	3	21,600 SF	11		
Suite Type D	14,400 SF	3	43,200 SF	11		
Un-Programmed Suite Types[d]	11,500 - 15,000 SF[a]		11,500 - 15,000 SF	6[a]		
CTE SUITES TOTAL		11+	96,100 - 99,600 SF	39	3	4,800 SF
MAKERS LAB	1,800 SF	1	1,800 SF			1,200 SF
GENERAL CLASSROOMS	900 SF	33	29,700 SF	33	51	45,180 SF[b]
SCIENCE LABS & PREP	1,700 SF	9	15,300 SF	9	11	17,480 SF
SPED & ELL CLASSROOMS			5,700 SF	9	1[c]	6,100 SF
FLEX / BREAKOUT SPACES			9,000 SF			8,000 SF[b]
TEACHER PLANNING / COLLABORATION			5,250 SF			9,800 SF[b]
EDUCATION SUPPORT			50,220 SF			55,480 SF
PE / ATHLETICS			42,695 SF	3	3	35,580 SF
BAND/ORCHESTRA/CHOIR			0 SF		2	5,170 SF[b]
FINE & VISUAL ARTS			INCL. IN CTE		2	3,080 SF
MULTI-PURPOSE / LARGE MEETING ROOM			3,500 SF			1,500 SF[b]
THEATER & SUPPORT			15,129 SF		1	14,600 SF
WRAP-AROUND SERVICES			5,315 SF			5,150 SF
SPACE TOTALS			279,709 - 283,209 SF			213,120 SF
NET TO GROSS RATIO (29 - 36%)			81,115 - 101,955 SF			76,723 SF
GRAND TOTAL RANGE			360,824 - 385,164 SF	93	74	289,843 SF

Notes:

a. Assumed amount. Final number will be determined when program is assigned.
b. Includes preferred/optional space(s). See Opening Day Area Program for specific details.
c. Comprehensive HS Ed spec updates yet to be incorporated include SPED spaces will be counted as teaching stations at lower student ranges.
d. Un-programmed space may include multi-purpose/large meeting room and/or potential auditorium balcony conversion to un-programmed CTE suites.

COMP. H.S. ED SPEC UTILIZATION TABLES / 1,700 STUDENT CAPACITY

Ed Spec (1,700 Students)											
	Total SF	÷	SF/TS	=	TS	*	Util	*	Students per Classroom Range	=	Stud - low	Stud - high
General Classroom	34,300		980		35		95%		20 30		665	998
Science	16,500		1,500		11		95%		20 30		209	314
Specialized Instruction			*varies*		18		90%		20 30		324	486
PE/Athletics			*varies*		4		75%		20 30		60	90
Special Education			*varies*		2		70%		20 30		28	42
Small Instructional	5,000		500		10		70%		20 30		140	210
Total	**281,370**				**80**						**1,426**	**2,139**

Proposed Program at 85% (1,700 Students)											
	Total SF	÷	SF/TS	=	TS	*	Util	*	Students per Classroom Range	=	Stud - low	Stud - high
General Classroom	33,750		850		40		85%		20 30		675	1,013
Science	16,800		1,500		11		85%		20 30		190	286
Specialized Instruction			*varies*		20		75%		20 30		300	450
PE/Athletics			*varies*		5		50%		20 30		50	75
Special Education			*varies*		3		70%		20 30		42	63
Small Instructional	5,000		500		10		0%		20 30		0	0
Total	**281,370**				**89**						**1,257**	**1,886**

Proposed Program at 75% (1,700 Students)											
	Total SF	÷	SF/TS	=	TS	*	Util	*	Students per Classroom Range	=	Stud - low	Stud - high
General Classroom	33,750		850		40		75%		20 30		596	893
Science	16,800		1,500		11		75%		20 30		168	252
Specialized Instruction			*varies*		20		75%		20 30		300	450
PE/Athletics			*varies*		5		50%		20 30		50	75
Special Education			*varies*		3		70%		20 30		42	63
Small Instructional	5,000		500		10		0%		20 30		0	0
Total	**281,370**				**89**						**1,156**	**1,733**

Yellow cells denotes variables

BENSON TECH H.S. UTILIZATION TABLES / 1,700 STUDENT CAPACITY

	BPHS Proposed Program @ 1,700 Student Design Capacity with Academic Teacher Planning (95% CR Utilization)											
	Total SF	÷	TS	=	TS	*	Util	*	Students per Classroom Range		=	Stud - low	Stud - high
General Classrooms	31,500		900		33		95%		20	30		627	941
Science Labs	15,300		1,700		9		95%		20	30		171	257
Career Technical Ed (CTE) Suites			*varies*		39		75%		15	25		439	731
PE/Athletics			*varies*		3		75%		20	30		45	68
Special Education & ELL	5,700		*varies*		9		70%		5	15		32	95
Small Instruction					0		70%		20	30		0	0
Total	**368,000**				**93**							**1,313**	**2,090**

	BPHS Proposed Program @ 1,700 Student Design Capacity with Academic Teacher Planning (85% CR Utilization)											
	Total SF	÷	TS	=	TS	*	Util	*	Students per Classroom Range		=	Stud - low	Stud - high
General Classrooms	31,500		900		33		85%		20	30		561	842
Science Labs	15,300		1,700		9		85%		20	30		153	230
Career Technical Ed (CTE) Suites			*varies*		39		75%		15	25		439	731
PE/Athletics			*varies*		3		50%		20	30		30	45
Special Education & ELL	5,700		*varies*		9		70%		5	15		32	95
Small Instruction					0		0%		20	30		0	0
Total	**368,000**				**93**							**1,214**	**1,942**

	BPHS Proposed Program @ 1,700 Student Design Capacity with Academic Teacher Planning (75% CR Utilization)											
	Total SF	÷	TS	=	TS	*	Util	*	Students per Classroom Range		=	Stud - low	Stud - high
General Classrooms	31,500		900		33		75%		20	30		495	743
Science Labs	15,300		1,700		9		75%		20	30		135	203
Career Technical Ed (CTE) Suites			*varies*		39		75%		15	25		439	731
PE/Athletics			*varies*		3		50%		20	30		30	45
Special Education & ELL	5,700		*varies*		9		70%		5	15		32	95
Small Instruction					0		0%		20	30		0	0
Total	**368,000**				**93**							**1,130**	**1,816**

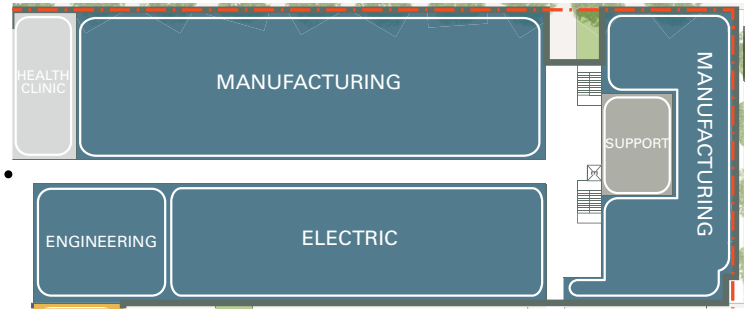
Note: CTE Suites include Un-Programmed CTE Suite teaching stations.

UPDATED MASTER PLAN OVERVIEW

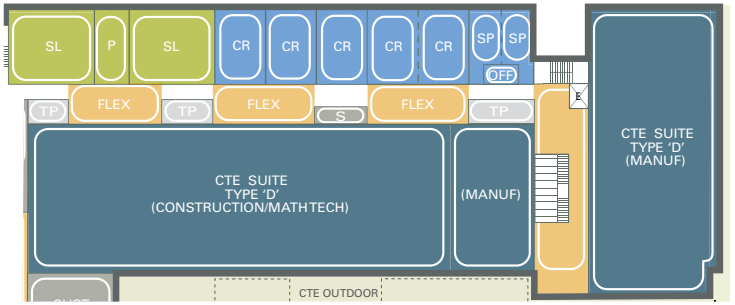
As the updated ed spec reflects an intensified spatially adjacent CTE & Core Academic pedagogy in response to input from OTL and the Steering Committee, the original master plan has also been updated to support this approach.

The original master plan provided spatially adjacent CTE and Core Academics by locating learning communities on the second floor, directly above the CTE shops on the ground floor. This was a great improvement from the existing plan, which has all core academic classrooms and science labs on the west side of campus, with all CTE on the east side. The updated approach pulls more of the general classrooms and science to the ground floor, and stacks them on the outside edges so that CTE can maintain proximity to the central CTE courtyard. This arrangement also takes advantage of the modular structural grid and a wide corridor/support space zone between them, to provide both an acoustical buffer and in-between collaboration spaces.

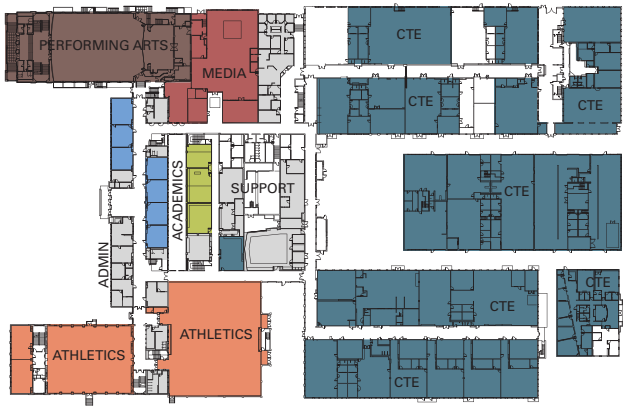
While the plan has been updated, the essence of the original master plan remains intact, and continues to support the original common themes and goals.



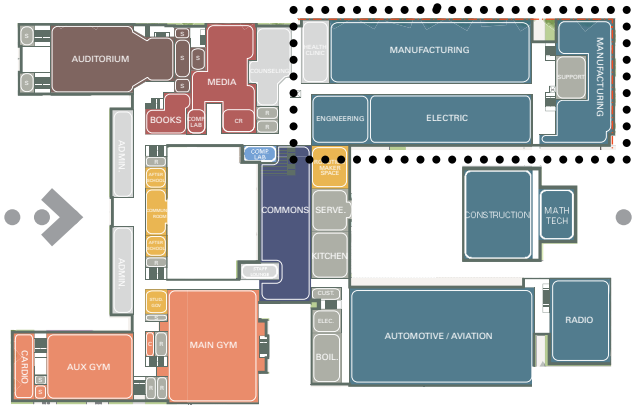
NE WING OF ORIGINAL MASTER PLAN



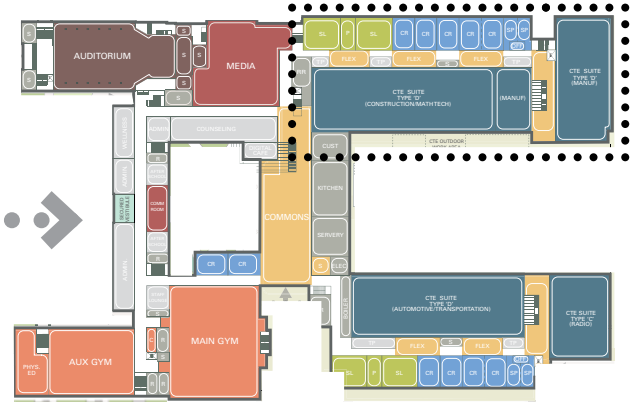
NE WING OF UPDATED MASTER PLAN



EXISTING GROUND FLOOR



ORIGINAL MASTER PLAN GROUND FLOOR



UPDATED MASTER PLAN GROUND FLOOR

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PPS

UPDATES SINCE NOVEMBER MASTER PLAN REPORT:

The Benson Tech Programming phase was completed at the end of November. This pre-design process included programming and master plan review meetings with school staff & district stakeholders to review the master plan and resulted in the following updates:

+ Health Clinic relocated to main floor from the lower level auditorium
+ Wrap around services including Teen parent childcare & food/ clothes closet relocated from auditorium building to gym building
+ Media and Counseling areas are reconfigured
+ CTE Un-programmed areas re-located to auditorium building
+ Revisions of proportions and/or adjacencies of CTE programs including: Computer engineering, Digital Media, Manufacturing, Architecture, Engineering, and Arts
+ Increased # of Core academic classrooms to ensure adequate capacity for 1700, based on Benson Administration feedback
+ Reconfigure SPED, to smaller paired rooms and increased total from 6 to 8.

MASTER PLAN DESIGN REFINEMENT INCLUDES:

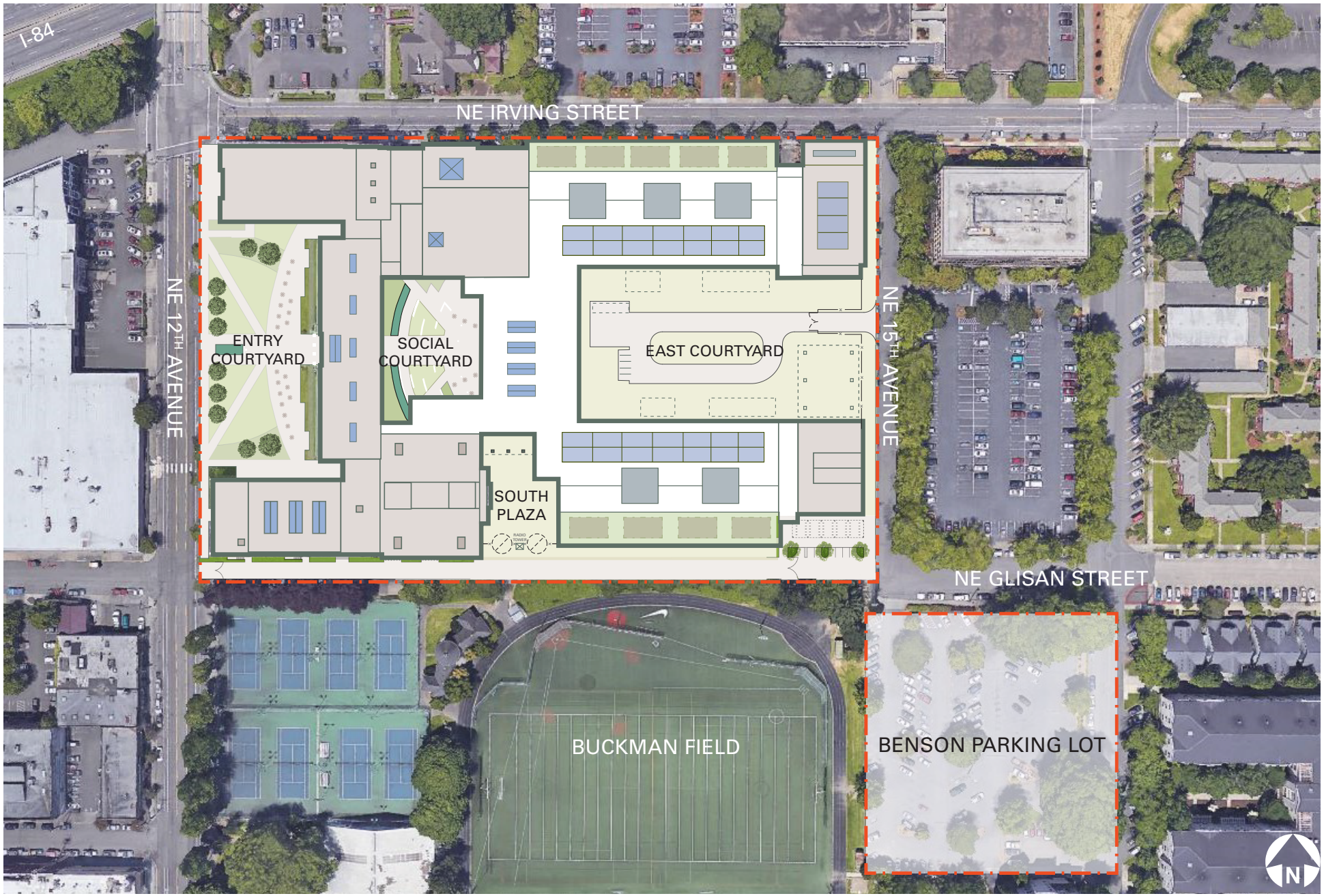
+ Teacher Planning reconfiguration for closer proximity to both core academic and CTE, as well as spread out for more visibility to corridors and flex areas.
+ Flex area reconfiguration
+ Net to Gross (Circulation & Walls)– Reconciled net to gross ratio to confirm within range. We are currently within 1.2% of assumption and will continue to refine as we develop plans in more detail in SD.

"The lower level is not a preferred location for the Wellness Clinic."

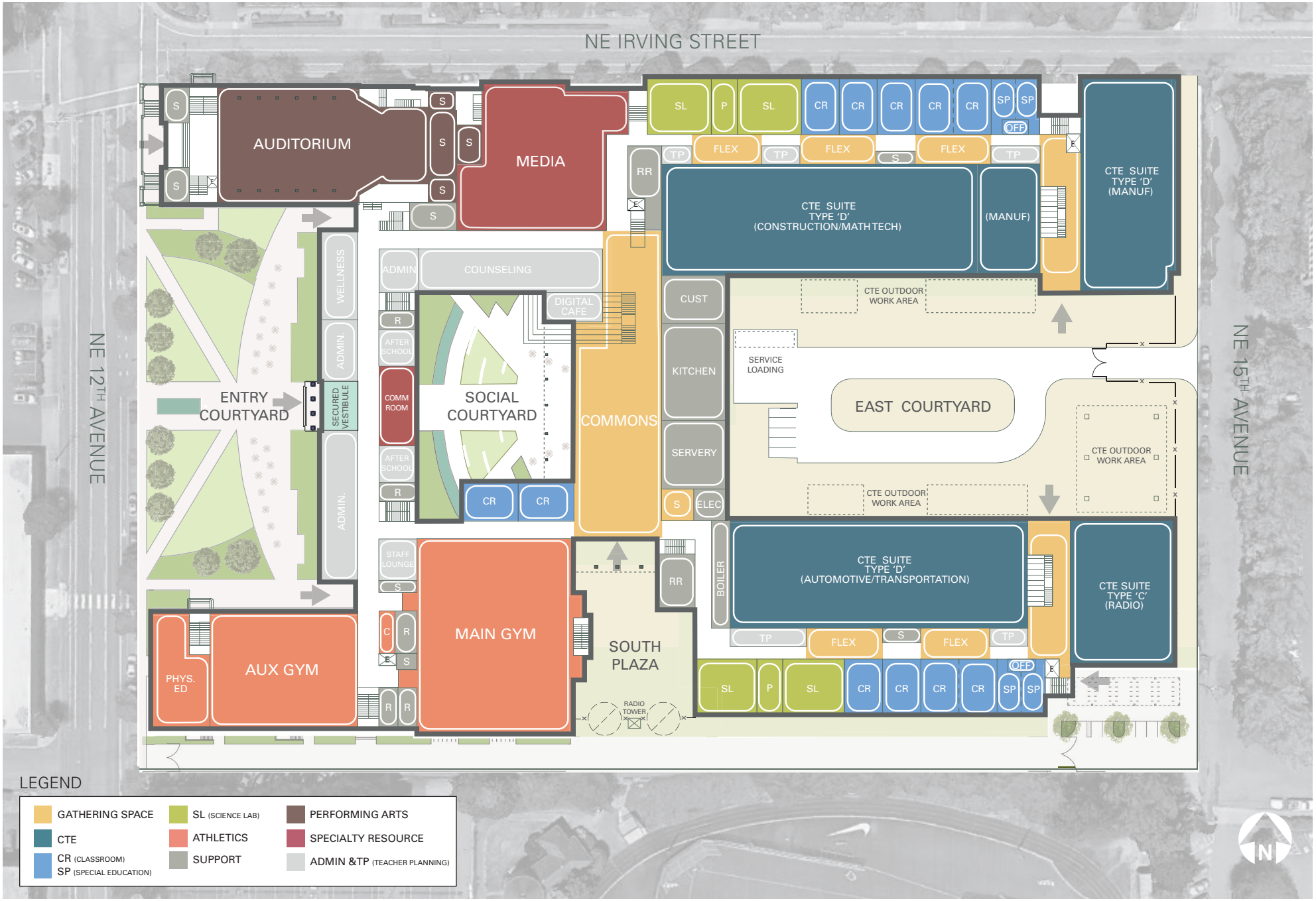
"Love the learning stairs and social courtyard!"

"Clear lines of sight in the hallways are important for supervision."

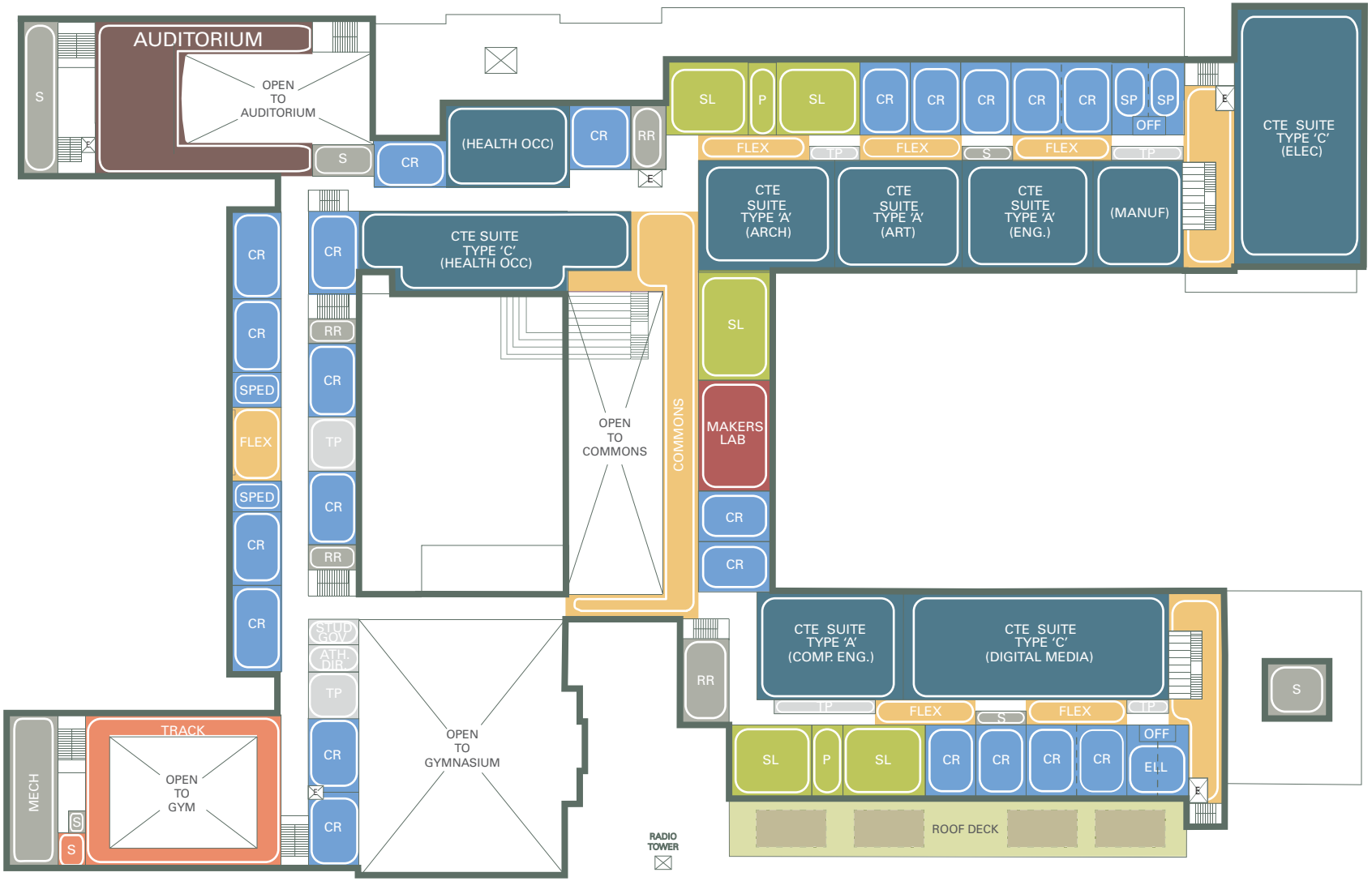
SITE PLAN


I-84
NE IRVING STREET
NE 12TH AVENUE
NE 15TH AVENUE
NE GLISAN STREET
ENTRY COURTYARD
SOCIAL COURTYARD
EAST COURTYARD
SOUTH PLAZA
BUCKMAN FIELD
BENSON PARKING LOT
N

MASTER PLAN / MAIN LEVEL



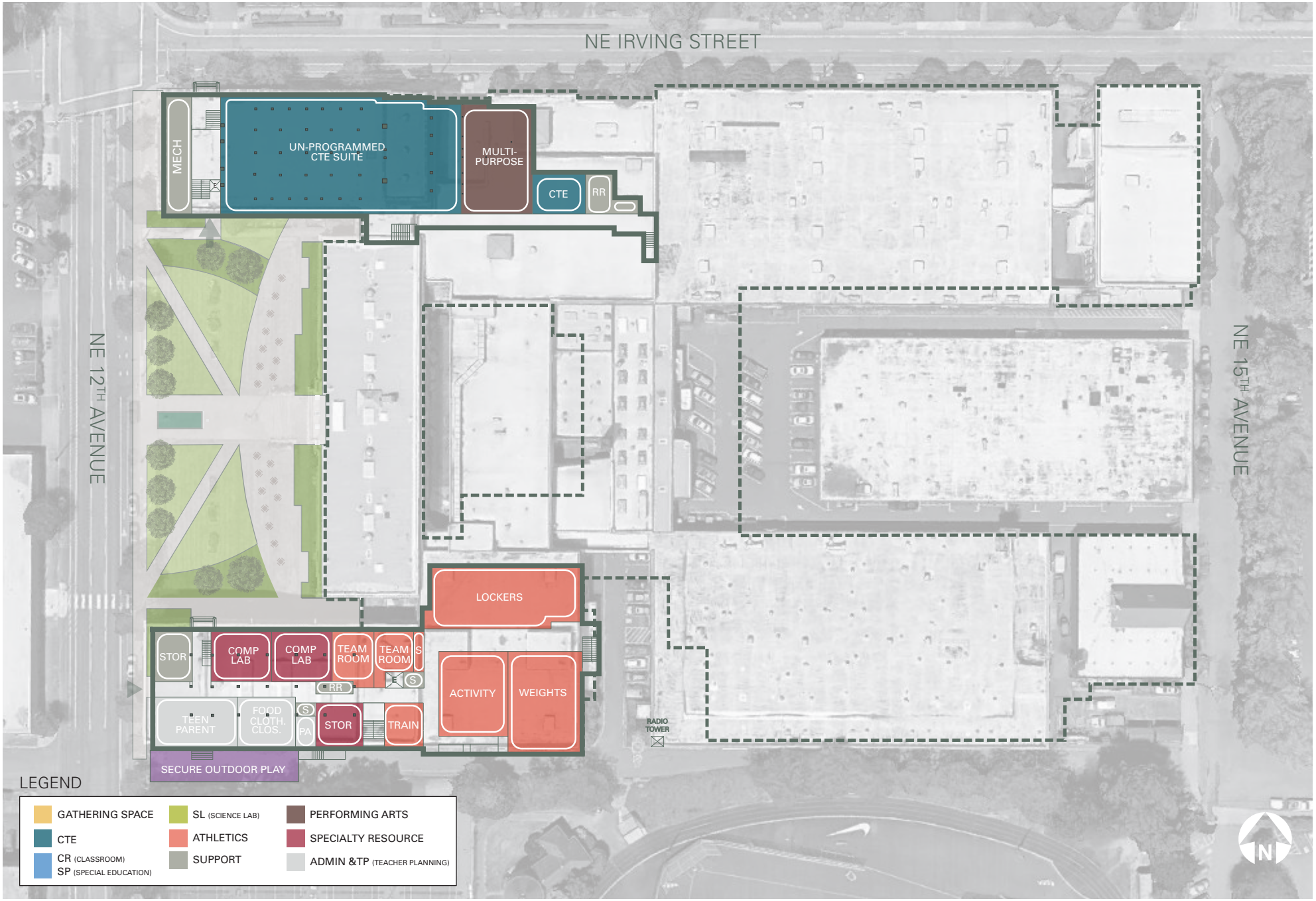
MASTER PLAN / UPPER LEVEL



LEGEND

- GATHERING SPACE
- CTE
- CR (CLASSROOM)
- SP (SPECIAL EDUCATION)
- SL (SCIENCE LAB)
- ATHLETICS
- SUPPORT
- PERFORMING ARTS
- SPECIALTY RESOURCE
- ADMIN &TP (TEACHER PLANNING)

MASTER PLAN / LOWER LEVEL



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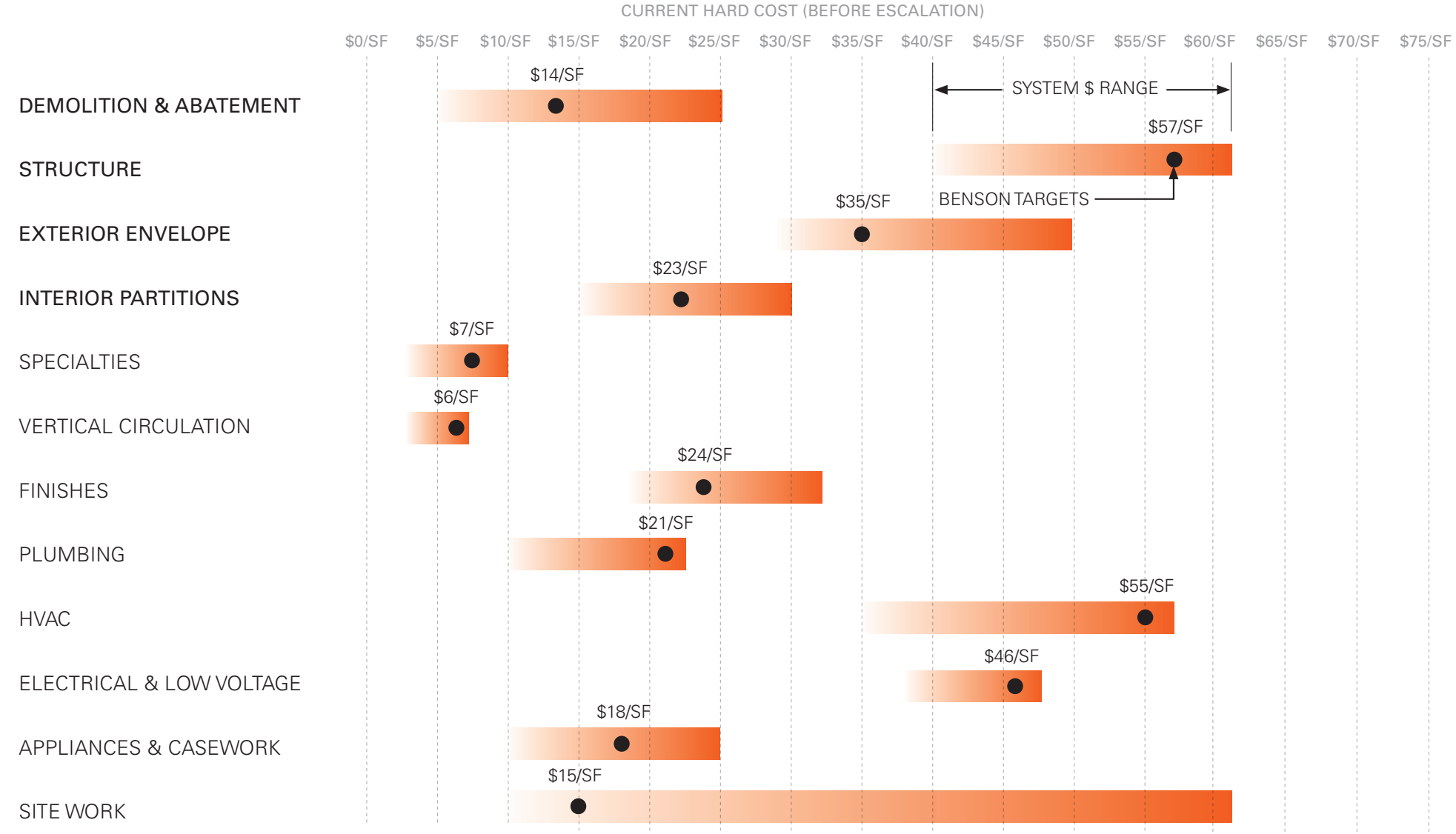
PPS

BUDGET APPROACH / COST MODEL BY SYSTEMS

Due to the fact that the Benson Modernization project is in Programming and Master Planning phase, more conceptual models of cost estimating have been used. To more accurately test cost assumptions, the team is using a system based cost model approach for deriving appropriate targets based on current cost rrends in each category. The table below illustrates the low to high ranges for various systems, and where the design team has targeted the Benson Tech project based on current information and understanding of the program needs.

For example, structural systems are on the highest end of the range due to the extensive seismic upgrades needed for the historic URM buildings, as well as increased structural capacity to support weight for CTE shops. As the project moves forward into schematic design, these targets will continue to be referenced as design targets to help stay within budget throughout the project.



BUDGET DETAIL

BENSON POLYTECH HIGH SCHOOL
SUMMARY OF PROBABLE COST

1/2

	QTY	UNIT	$/UNIT	TOTAL $
Building	368,000	SF		
Demolition			9.31	3,425,231
Abatement			4.00	1,472,000
Slab & Foundations			14.00	5,152,000
Vertical Structure			43.00	15,824,000
Exterior Walls			12.88	4,738,000
Exterior Doors & Windows			3.61	1,328,889
Roofing & Appurtenances			18.00	6,624,000
Interior Framing			12.44	4,579,556
Interior Doors & Windows			9.56	3,516,444
Specialties			5.67	2,085,333
Stairs			3.00	1,104,000
Wall Finishes			8.56	3,148,444
Floor Finishes			4.78	1,758,222
Ceiling Finishes			8.00	2,944,000
Painting			2.50	920,000
Conveying System			2.30	846,400
Fire Sprinklers			3.67	1,349,333
Plumbing			17.00	6,256,000
HVAC			55.00	20,240,000
Electrical & Low Voltage			46.22	17,009,778
Equip (incl. AV), Appliances & Fixed Furnishings			14.78	5,438,222
Casework			3.25	1,196,000
Site: Earthwork & Erosion control			2.00	736,000
Building Hardcost:				111,691,853
Site				
Site Hardscape			4.14	1,523,489
Site Furnishings & Appurtenances			1.44	530,350
Site Landscaping			2.00	736,000
Site Stormwater Management			2.05	754,947
Site Utilities			2.50	920,000
Site Hardcost:				4,464,785
Historical & Seismic				
Historic Exterior Allowance				3,500,000
Seismic upgrade of Commons, Main Gym and Aux Gym				905,220
Seismic upgrade of radio tower				200,000
Historical & Seismic Hardcost:				4,605,220

ARCH: Bassetti
DWG DATE: 4/26/17
DESIGN LEVEL: Cncpt

CONSTRUCTION FOCUS, INC.
541-686-2031
EUGENE, OREGON

ESTIMATE DATE: Oct. 22, 2018
REVISION #: 3
CONST. START: 2 QTR_2023

BENSON POLYTECH HIGH SCHOOL
SUMMARY OF PROBABLE COST

2/2

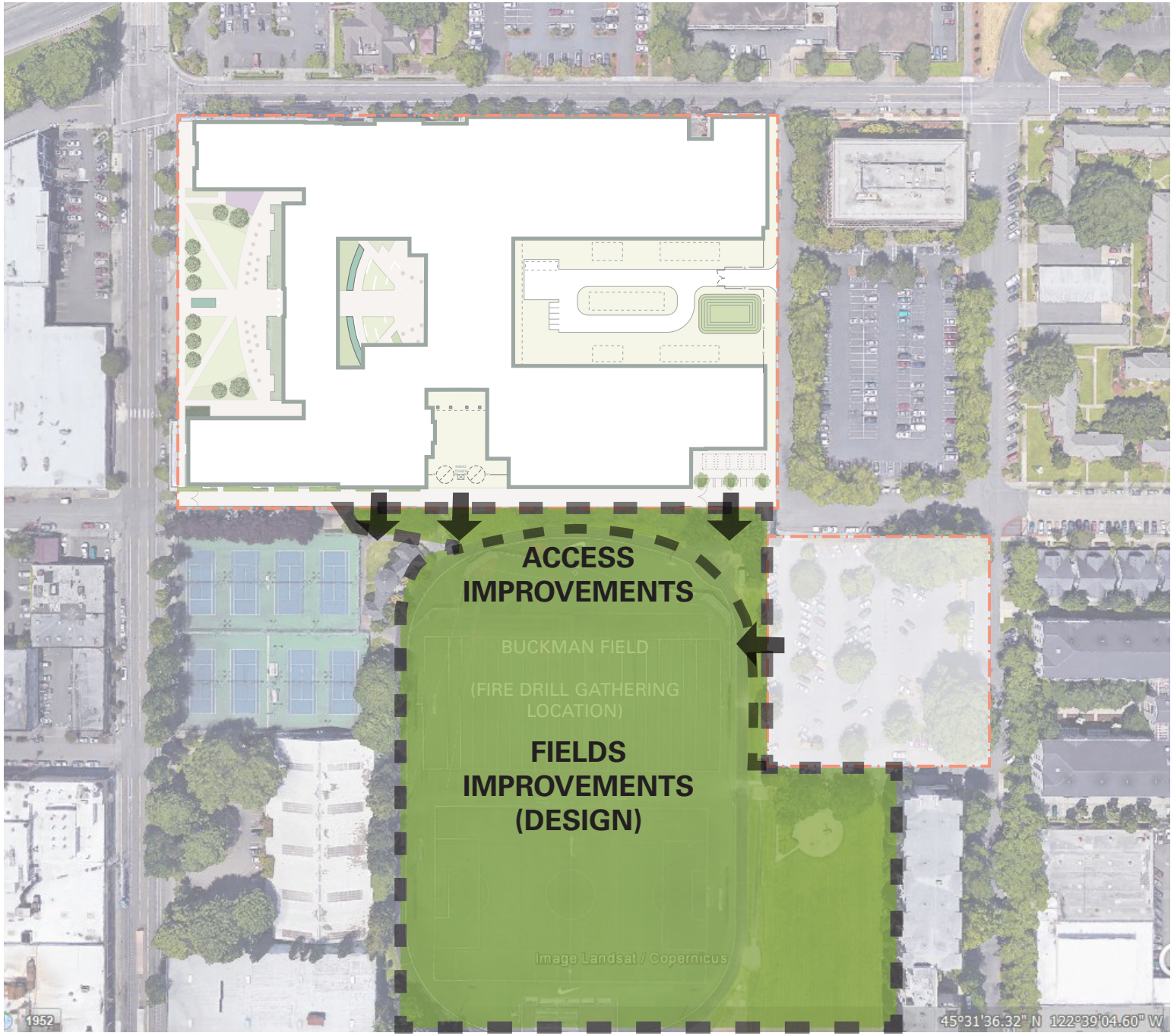
	QTY	UNIT	$/UNIT	TOTAL $
Markups				
CMGC Contingency	per district		5.00%	6,197,581
Design & Estimating Contingency	per district		15.00%	20,213,164
Temp/Phasing			4.00%	6,198,704
General Conditions			6.00%	9,669,978
Bond & Insurances			2.40%	4,100,071
Overhead and Profit			4.50%	7,872,136
1.5% Solar Requirement			1.50%	2,742,127
Escalation			25.00%	46,387,652
Markups Hardcost:				103,381,413
Swing & Temporary Spaces				
Swing Space Allowance				2,787,500
Temporary Structure Allowance				2,055,600
Escalation for Swing/Temp				726,465
Swing & Temporary Spaces Hardcost:				5,569,565
TOTAL BUDGET:				229,712,837

ARCH: Bassetti
DWG DATE: 4/26/17
DESIGN LEVEL: Cncpt

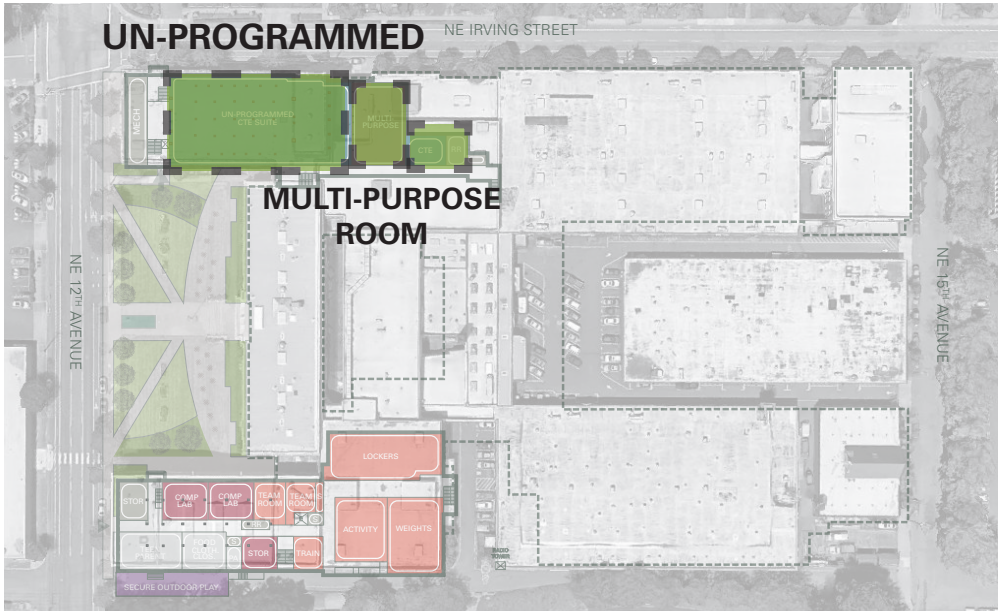
CONSTRUCTION FOCUS, INC.
541-686-2031
EUGENE, OREGON

ESTIMATE DATE: Oct. 22, 2018
REVISION #: 3
CONST. START: 2 QTR_2023

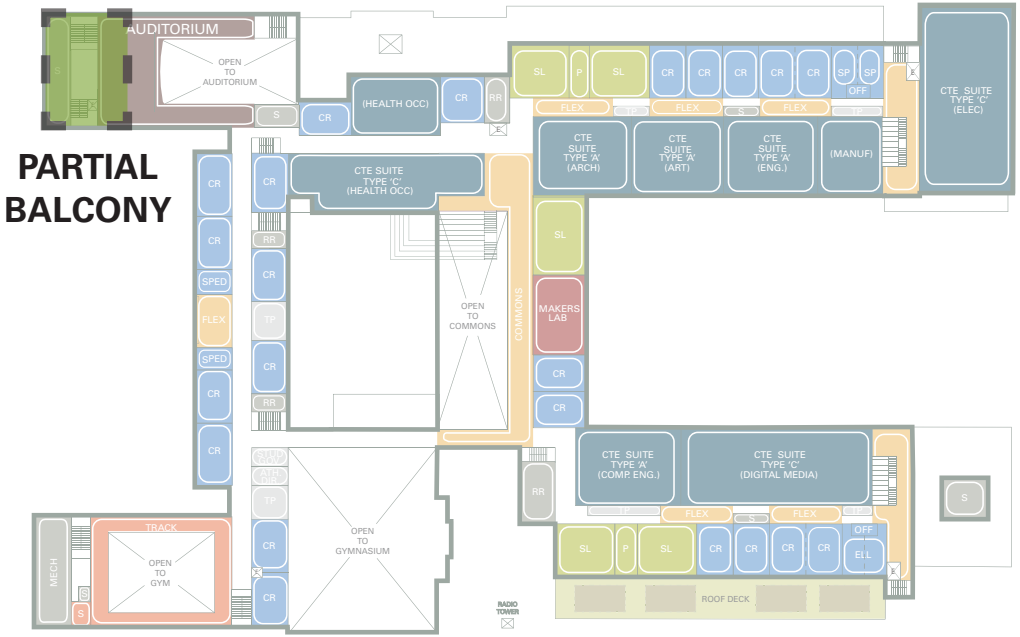
SITE PLAN / SCOPE ADJUSTMENTS



MASTER PLAN / UN-PROGRAMMED SPACE SUMMARY



LOWER LEVEL



UPPER LEVEL

UN-PROGRAMMED OPTIONS

+ CTE SUITE(S)
+ BAND/CHOIR/MUSIC ARTS
+ MULTIPLE PATHWAYS TO GRADUATION

UN-PROGRAMMED SUMMARY

11,500 SF	LOWER LEVEL
3,500 SF	MULTI-PURPOSE
15,000 SF	TOTAL

OTHER POTENTIAL SPACES

3,000 SF	PARTIAL BALCONY CONVERSION TO PROGRAM SPACE

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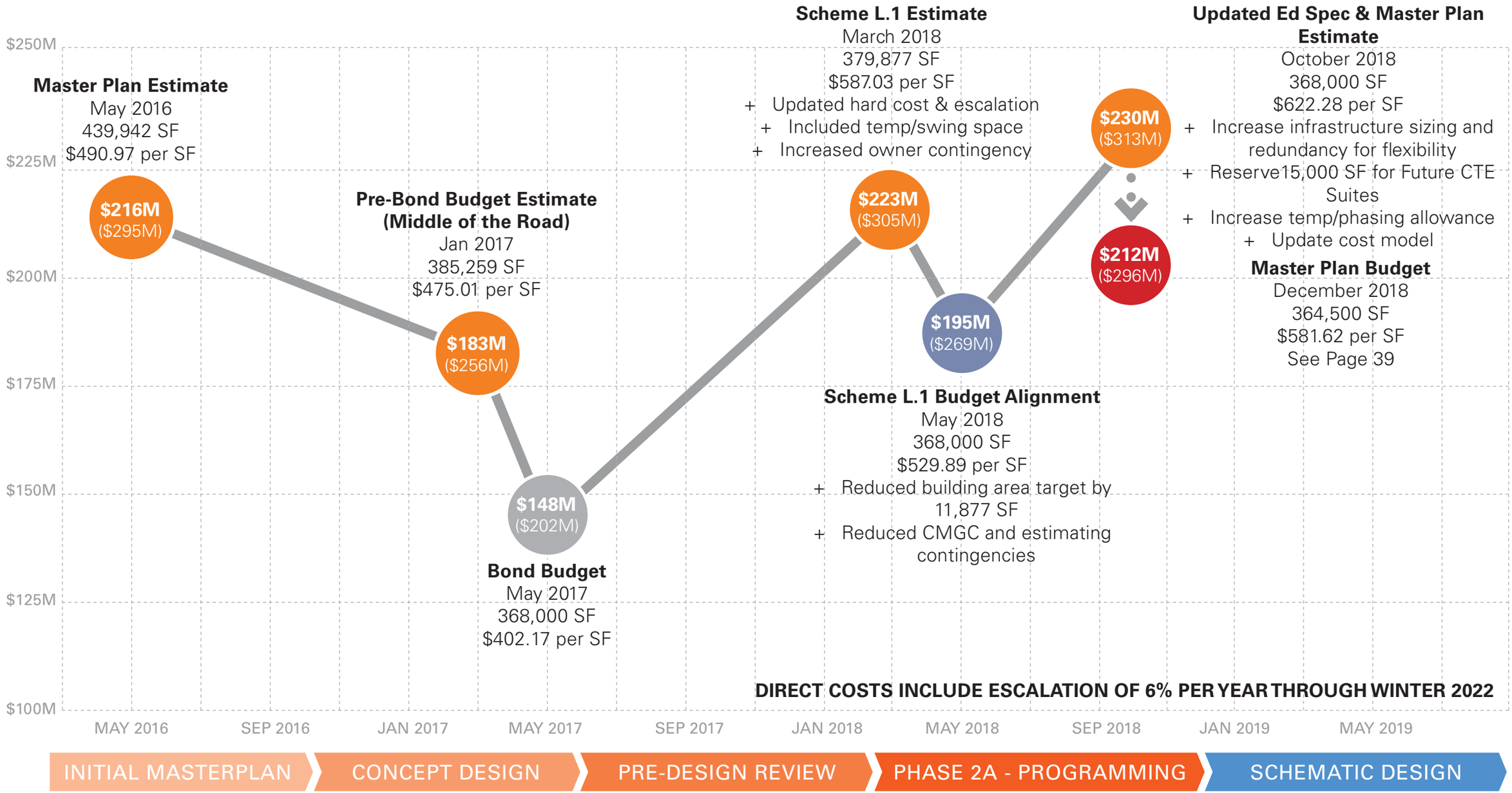
BUDGET PROGRESSION / DIRECT CONSTRUCTION COST TIME LINE



BUDGET UPDATE

TARGET AREA

Renovation	231,200 SF
New Construction	136,800 SF
Total	368,000 SF
Reduction	(3,500 SF)
New Total	364,500 SF

PREVAILING ASSUMPTIONS

+ 1,700 student capacity based on Board resolution
+ Multiple Pathways to Graduation programs not included in current design based on Board resolution
+ 3-year construction project on occupied site, construction starting in 2021

ITEM	COMMENTS	CURRENT ESTIMATE
HARD COST	Renovated building and site work	$220,652,000
SWING /TEMP FACILITIES	Interior TI and potential modular building	$5,570,000
1.5% GREEN ENERGY	Required by State of Oregon	$2,648,000
OFF-SITE / PUBLIC WORKS	Allowance	$700,000
TOTAL HARD COSTS		$229,570,000
SOFT COSTS	Permit fees, consultants	$34,437,000
FF&E	CTE Equipment and furnishings	$15,000,000
CONTINGENCY	15% of total cost	$34,437,000
ESCALATION	6% per year included in Hard Costs	INC. ABOVE
PROJECT TOTAL		$313,444,000
Reduced D/E Contingency	From 15% to 12% for Design/Estimating	($8,000,000)
Value Engineering	Target 2.5% of Hard Costs	($7,444,000)
Reduce Area by 3,500 SF	Incorporate Teen Parent, Food/Clothes Closet	($3,000,000)
Add Field ADA Access	For PE/Athletics, Fire Drill	$1,000,000
MASTER PLAN BUDGET		$296,000,000

APPENDIX

Via Electronic Link:

Steering Committee Notes
Design Advisory Group Notes
Master Planning Committee Process and Documents
Industry Outreach Tour Notes
Pre-Design Diligence Report, June 2017
Focus Option Educational Specification, Benson Polytechnic High School, July 2017
Benson Polytechnic High School, Site Specific Educational Specification, December 4, 2018

THANK YOU.

Bassetti Architects / 721 NW 9th Ave. Suite 350 / Portland, OR 97209 / 503 224 9162