

**FINAL DESIGN PROGRAM**  
**EDUCATIONAL SPACE SUMMARY W/ NARRATIVE**

**4.1.2 – 02a**

## 4.1.2-02a

### EDUCATIONAL SPACE SUMMARY NARRATIVE

These notes accompany the **Proposed Space Summary** dated June 30, 2021, for the Northeast Metropolitan Regional Vocational High School as part of the Schematic Design Report, to explain the changes from the previous Space Summary submitted to the MSBA as part of the Preferred Schematic Report.

Please note that, in general, only minor changes have been made to the Space Summary form, all of which result from either: minor design revisions, slight programmatic adjustments based upon further input from the District's administrators and faculty, or comments from the MSBA. These minor adjustments have resulted in a reduction of Gross Floor Area (GFA) by 1,620 square feet: from 388,250 sf to 386,630 sf. It should be noted that this variance includes a reduction of over 7,000 sf resulting from the removal of the proposed out-buildings (Garage, Concessions, Toilets, etc.) from the Space Summary form as directed by the MSBA in their review comments to the Preferred Schematic Report. The other variances are as noted below.

#### MODIFICATIONS TO THE MSBA STANDARD TEMPLATE

As per an earlier discussion with MSBA staff, certain modifications to the MSBA Guidelines column on the Space Summary template were made and submitted as part of the Preferred Schematic Report. Those modifications were highlighted and explained with the PSR submission. They consisted primarily of adjusting the guidelines based upon Full-Time Equivalent student enrollment and adjusting the Grossing Factor to be 1.50. These modifications were reviewed and accepted by the MSBA at that time. No further modifications have been made to the MSBA's Space Summary template for this project since that time.

#### VARIANCES from the previous PROPOSED SPACE SUMMARY dated 12/21/2020, submitted with the Preferred Schematic Report dated December 23, 2020:

Please note that, in general, significant variances (generally greater than 5%) in the "**PROPOSED**" column between this current version and the previous version of the Space Summary have been highlighted in **BOLD** and shaded in light gray on the form. Variances are noted in the following categories:

##### Core Academic Spaces

This category of space has increased by 1,570 square feet (3%) from a total of 50,420 square feet to 51,990 sf, primarily due to the inclusion of the Health Classroom (750 sf) in this category (versus the Health & Physical Education category) as directed by the MSBA, and other minor layout and design revisions.

**Line 4 Teacher Planning:** The total area of 3,600 sf has remained basically unchanged (3,575). Due to the revised configuration of Small Learning Communities and classroom clusters, the number of rooms has decreased from 4 rooms to 3 rooms. Square footage of each room has been redistributed to approximately 1,200 SF per room.

**Line 5 Small Group Seminar/ Collaborative space:** The total area of 2,000 sf has remained basically unchanged (1,990). Due to the revised configuration of Small Learning Communities and classroom clusters, the number of spaces has decreased from 8 rooms to 3. The Square footage of each room has been redistributed to 663 SF per room.

Line **7, Science Prep Room**: The total area of 1,600 sf has remained basically unchanged (1,700). Science Classrooms have been paired to allow classrooms to share Preparation Rooms. The number of rooms has decreased from 8 to 4 rooms. Square footage of each room has been redistributed to 425 SF per room.

Line **10, Health Classroom**: As noted above, this space was re-categorized from Health/ Physical Education to Core Academic at the request of MSBA. The size of the space has not changed.

### Special Education

This category of space has increased by 300 square feet (4%) from a total of 6,770 square feet to 7,070 sf due to inclusions of two Adjustment Counselors offices on Line 19. These two offices were previously listed with “Guidance” in the Administration and Guidance category, but upon review by the District’s administration and Special Education Director it was identified that since these two Counselors primarily serve the special needs students, it is more appropriate to list them in the Special Education category.

Otherwise, the remaining spaces in this category remain the same as shown in the Preferred Schematic Report.

### Art & Music

There has been no change to this category.

### Vocations & Technology

This category of space has been minimally increased by 1,548 sf (1%) from 126,207 square feet to 127,755. This is primarily due to minor layout and design revisions.

It should also be noted that the “MSBA Guidelines” column for this category has also been slightly adjusted from 125,857 sf to 127,620 sf based upon the District’s updated Chapter 74 Viability Document submission. This submission updated and fine-tuned the expected enrollment distribution in each Ch.74 program based upon the projected total enrollment of 1,600 students. The previous Space Summary form used a pro-rata calculation of each shop’s enrollment based on a total of 1,722 students, and due to rounding the areas were slightly different. Also, for those Ch. 74 programs with low enrollments, their shop size was slightly affected by the size of the Freshmen Exploratory classes.

Line **37, Business Office Technology**: Has increased from 2,567 sf to 3,180 as it now includes the space for the Branch Bank, which is a part of their program.

Line **52, Marketing**: Has increased from 2,493 sf to 2,975 as it now includes the space for the School Store, which is a part of their program.

### Health & Physical Education

This category of space has increased by 590 sf (2%) from 25,160 square feet to 25,750 sf due to minor layout and design revisions and slight programmatic adjustments.

Line **59 Locker Rooms**: has been reduced by 575 sf from 6,290 sf to 5,715 square feet; while:

Line **60, Satellite Locker Rooms**: has been increased by 1,165 sf from 1,560 sf to 2,725 sf.

Line **63 Officials/ Trans Locker**: 80 square feet has been added to provide a space for visiting officials that could also be utilized as a gender neutral changing room.

#### Media Center

This category of space has increased by 255 sf (5%) from 5,200 square feet to 5,455 sf due to design revisions. The Library Media Center was shifted from the center of the school to the southeastern corner as part of the design revision to reduce the building's footprint, shift the main entrance, and increase the height from three to four stories.

This category has the same programmatic breakdown of spaces, with only minor area adjustments to each.

#### Auditorium / Drama

This category of space has increased by 105 sf (1%) from 10,400 square feet to 10,505 sf due to minor layout and design revisions. The seating capacity remains 750 seats.

#### Dining & Food Service

This category of space has been reduced by 120 sf (1%) from 13,300 square feet to 13,180 sf due to the elimination of a second dining area with a satellite kitchen and serving area. Therefore:

Line **83: Scramble Serving Area**: has increased from 600 sf to 1,025 square feet.

Line **84: Satellite Serving Area**: has decreased from 300 sf to 0 square feet.

Line **85: Kitchen**: has increased from 2,600 sf to 3,035 square feet.

Line **86: Satellite Kitchen**: has decreased from 600 sf to 0 square feet.

#### Medical

This category of space has been reduced by 70 sf (5%) from 1,410 square feet to 1,340 sf due to minor layout and design revisions.

Line **90, Nurses Office, Waiting Room**: has been reduced from 740 sf to 575 sf due to design revisions.

Line **92, Resting**: has been clarified as one space (with four beds) versus four spaces

#### Administration & Guidance

This category of space has been reduced by 125 sf (1%) from 8,780 square feet to 8,655 sf due to minor programmatic changes and layout revisions as follows:

Line **102: Assistant Principal's Offices et al:** The Co-Op Director's office has been added increasing this line by 170 square feet.

Line **107 Conference Rooms:** this line has increased from 900 sf to 970 sf and has been allocated to 3 conference rooms in lieu of 2.

Line **108: Guidance Offices:** this line has decreased from 1,500 sf to 1,260 sf reflecting the reduction from 10 counselors to 8. 2 Counselors were shifted to the Special Education category and more properly identified as Adjustment Counselors

Line **109: Guidance Waiting:** was deleted resulting in a decrease of 100 sf.

Line **110: Guidance Workroom:** has increased from 100 sf to 125 square feet.

#### Custodial & Maintenance

This category of space has increased by 200 sf (5%) from 3,950 square feet to 4,150 sf due to minor layout and design revisions. including:

Line **121: Custodian's Workshop:** has increased from 375 sf to 475 square feet.

Line **124: Receiving & General Supply:** has increased from 1,100 sf to 1,285 square feet and been allocated to 3 spaces in lieu of 2.

Line **125: Storeroom:** has decreased from 1,350 sf to 1,305 square feet and been allocated to 4 spaces in lieu of 1.

#### Other

This category of space has been significantly reduced by 5,335 sf (74%) from 7,235 square feet to 1,900 sf due to the removal of the District's proposed out-buildings from this category. This includes:

Line **136: Maintenance Garage:** reduced from 1,800 sf to 0 sf

Line **137: Field Maintenance Garage/ Satellite Locker Room:** reduced from 1,560 sf to 0 sf

Line **138: Concessions/ Public Toilets:** reduced from 1,400 sf to 0 sf

Also, the Branch Bank and School Store were more properly classified with their vocational programs, Business and Marketing, resulting in:

Line **129: Bank:** reduced from 300 sf to 0 sf

Line **130: School Store:** reduced from 300 sf to 0 sf

#### **Total Building Net Floor Area**

The Total Building Net Floor Area (NFA) has decreased from 258,832 square feet to 257,750 sf as a result of the above revisions.

#### **Proposed Student Capacity/Enrollment**

The Proposed Student Capacity/Enrollment remains at 1,600 total students, with a Full-Time Equivalent enrollment of 848 as agreed upon by the MSBA.

#### **Non-Programmed Spaces**

These areas have now been added to the Space Summary Form as required for the Schematic Design Submittal.

#### **Total Building Gross Floor Area**

The Total Building Gross Floor Area (GFA) has decreased by 1,620 sf (0.4%) from 388,248 square feet to 386,630 sf as a result of the above revisions.

The grossing factor remains unchanged at 1.50.

Northeast Metro Tech	Existing Conditions		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals
CORE ACADEMIC SPACES			29,600
(List classrooms of different sizes separately)			
Classroom - General	797	26	20,710
Teacher Planning/ Workrooms-- 136, 136A, 210	253	3	760
Small Group Seminar/ Collaborative Space			
Science Classroom / Lab	1,340	1	1,340
Prep Room	280	1	280
Science Classrooms incl STEM	814	8	6,510
Central Chemical Storage Rm	0	0	0
Health CR/ Team Meeting Room			
Language Lab/ Distance Learning	0	0	0
SPECIAL EDUCATION			2,900
(List classrooms of different sizes separately)			
Self-Contained SPED			
Self-Contained SPED Toilet			
Resource Room - 124E,127C Learning Center	115	2	230
Small Group Room - 124D Academic Support			
Reading, Speech, ELL	160	1	160
Tutorial/ Assessment, Psychologist			
Adjustment Counselors			
SpEd Office - 124A,124B,124C, 126B,127B Dir+2 asst.	206	5	1,030
SpEd Conference Room			
SpEd Classrooms - 126A,127A	740	2	1,480
ART & MUSIC			0
Art Classroom - 25 seats			
Art Workroom w/ Storage & kiln			
Band - 50 - 100 seats			
Chorus - 50 - 100 seats			
Ensemble			
Music Practice			
Music Storage			
VOCATIONS & TECHNOLOGY			94,540
Technology/Engineering Rooms- PLTW			
Automotive Collision Repair (incl. Rel CR, typ.)			9,190
Automotive Technology			10,090
Business Office Technology (2200sf min; incl Bank )			4,240
Carpentry			8,520
Cosmetology			3,920
Culinary Arts			5,120
Dental Assisting			1,620
Design & Visual Communications			7,170
Drafting & Design			4,460
Early Childhood Education (1500sf min)			2,800
Electrical Technology			7,790
Health Assisting			4,160
HVAC Technology			6,120
Metal Fabrication			7,120
Plumbing & Pipefitting			8,160
Robotics & Automation			4,060
new-Biotechnology			
new-Marketing (2200sf min; incl Store )			
new-Medical Assisting			
HEALTH & PHYSICAL EDUCATION			14,150
Gymnasium - 174	8,110	1	8,110
PE Alternatives - 171 Fitness Center & Weights	1,140	1	1,140
Gym Storeroom - 170C	120	1	120
Locker Rooms - Boys / Girls w/ Toilets	3,940	1	3,940

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals
		0			51,990			51,990
		0	858	36	30,870		36	30,870
		0	1,192	3	3,575		3	3,575
		0	663	3	1,990		3	1,990
		0	1,494	8	11,955		8	11,955
		0	425	4	1,700		4	1,700
		0						
			210	1	210		1	210
			750	1	750		1	750
			940	1	940		1	940
		0			7,070			7,070
		0	950	0	0		0	0
		0	60	0	0		0	0
		0	850	4	3,400		4	3,400
		0	500	4	2,000		4	2,000
			150	4	600		4	600
			150	2	300		2	300
			150	3	450		3	450
			320	1	320		1	320
		0			0			0
		0		0	0		0	0
		0		0	0		0	0
		0		0	0		0	0
		0		0	0		0	0
		0		0	0		0	0
		0		0	0		0	0
		0		0	0		0	0
		0						
		0			127,755			127,755
		0	1,435	1	1,435		1	1,435
			7,580	1	7,580		1	7,580
			12,615	1	12,615		1	12,615
			3,180	1	3,180		1	3,180
			10,280	1	10,280		1	10,280
			5,890	1	5,890		1	5,890
			6,000	1	6,000		1	6,000
			6,500	1	6,500		1	6,500
			5,240	1	5,240		1	5,240
			4,580	1	4,580		1	4,580
			2,060	1	2,060		1	2,060
			12,335	1	12,335		1	12,335
			5,790	1	5,790		1	5,790
			9,140	1	9,140		1	9,140
			7,400	1	7,400		1	7,400
			8,665	1	8,665		1	8,665
			5,175	1	5,175		1	5,175
			5,135	1	5,135		1	5,135
			2,975	1	2,975		1	2,975
			5,780	1	5,780		1	5,780
		0			25,750			25,750
		0	12,375	1	12,375		1	12,375
		0	1,493	2	2,985		2	2,985
		0	495	1	495		1	495
		0	2,858	2	5,715		2	5,715

Difference to MSBA Guidelines		
ROOM NFA1	# OF RMS	area totals
		5,320
	3	2,820
	-30	275
	-1	(10)
	0	435
	-4	100
	0	-
	0	10
	1	750
	1	940
		-1,990
	-6	(5,700)
	-6	(360)
	1	1,900
	1	500
		-6,700
	-2	(2,400)
	-2	(300)
	-1	(1,500)
	-1	(1,500)
	-1	(200)
	-4	(300)
	-1	(500)
		135
	0	(5)
	0	60
	0	(35)
	0	(10)
	0	(70)
	0	140
	0	250
	0	-
	0	(40)
	0	(40)
	0	35
	0	(40)
	0	(85)
	0	(60)
	0	-
	0	115
	0	5
	0	(35)
	0	45
	0	(95)
		590
	0	375
	1	(15)
	0	195
	1	(3,245)

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines) see also accompanying Notes to Space Summary for highlighted revisions			
ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
		46,670	
850	33	28,050	825 SF min - 950 SF max
100	33	3,300	
500	4	2,000	
1,440	8	11,520	3 x85% ut=20 Seats-1 per /day/student
200	8	1,600	
200	1	200	
		9,060	
950	6	5,700	825-950 SF equal to surrounding classrooms
60	6	360	
500	3	1,500	1/2 size Genl. Clrm.
500	3	1,500	1/2 size Genl. Clrm.
		6,700	
1,200	2	2,400	Assumed use - 25% Population - 5 times/week
150	2	300	
1,500	1	1,500	Assumed use - 25% Population - 5 times/week
1,500	1	1,500	
200	1	200	
75	4	300	
500	1	500	
		127,620	
1,440	1	1,440	Assumed use - 100% Population - 5 times/week, 825 SF - 2,000 SF
7,520	1	7,520	
12,650	1	12,650	
3,190	1	3,190	
10,350	1	10,350	
5,750	1	5,750	
5,750	1	5,750	
6,500	1	6,500	
5,280	1	5,280	
4,620	1	4,620	
2,025	1	2,025	
12,375	1	12,375	
5,875	1	5,875	
9,200	1	9,200	
7,400	1	7,400	
8,550	1	8,550	
5,170	1	5,170	
5,170	1	5,170	
2,930	1	2,930	
5,875	1	5,875	
		25,160	<a href="#">Excess PE Spaces Policy</a>
12,000	1	12,000	
3,000	1	3,000	
300	1	300	
8,960	1	8,960	5.6 sf/student total

Northeast Metro Tech	Existing Conditions		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals
<b>Satelite Locker Rooms</b>			
Phys. Ed. Storage & Closets - 172G,172H, 172N,	115	2	230
Athletic Director's Office - 172C	140	1	140
<b>Officials/ Trans Locker Rm w/ Shower &amp; Toilet</b>			
PE Instructor & Coach Offices w/ Shower & Toilet	115	2	230
Health CR/ Team Mtg. Rm (see Core Academic)			
Trainer 172I	240	1	240
<b>MEDIA CENTER</b>			<b>2,910</b>
Media Center / Reading Room 174A	2,150	1	2,150
Workroom 174C	400	1	400
Office, Conf.,printer- 174B,174D, 174E	120	3	360
<b>Small Group Rooms</b>			
Project Room/ TV studio/ Storage			
<b>AUDITORIUM / DRAMA</b>			<b>1,630</b>
(Auditorium) Presentation/ Performance Space			
Stage - 119B	1,510	1	1,510
Auditorium Storage - 119T	120	1	120
Make-up / Dressing/ Green Rooms			
Controls / Lighting / Projection			
<b>DINING &amp; FOOD SERVICE</b>			<b>12,280</b>
Cafeteria / Student Lounge / Break-out - 119A	7,440	1	7,440
Chair / Table Storage - 119S,119U, 119V	300	1	300
Scramble Serving Area - 119P	420	1	420
<b>Satelite Serving Area</b>			
Kitchen - 119C, 119D, 119E, 119F, 119G, 119H,	4,120	1	4,120
<b>Satelite Kitchen</b>			
Staff Lunch Room		0	
<b>MEDICAL</b>			<b>800</b>
Medical Suite Toilets - 178D, 178E	45	2	90
Nurses' Office / Waiting Room 178A, 178B	650	1	650
Interview/ Exam Room	0	0	0
Resting	30	2	60
<b>ADMINISTRATION &amp; GUIDANCE</b>			<b>7,410</b>
General Office / Waiting / Tlt 175,175A,175H, 129	870	1	870
Teachers' Mail and Time Room 175K ??	240	1	240
Duplicating Room			
Records Room (Vault) 175E	190	1	190
Principal's Office w/ Conf. Area & Tlt - 175F, 175G	360	1	360
Principal's Secretary / Waiting - 175M	70	1	70
Assistant Principal's Office - AP1 - 101,101B	470	1	470
Assistant Principal's Offices - Voc.Deans, Academic Prog. Coordinator, Co-Op 175R,	123	3	370
Supervisory & Paraprofessional Offices; incl: Attendance, Reception 175B, 175C, 175D, 183	155	4	620
Department Head Offices 163B, 187A, 187B, 187C,188, 189, 201A	134	7	940
Safety Resource Officer	100	1	100
In-House Suspension 139	340	1	340
Conference Rooms - 175N, 180	440	2	880
Guidance/ Adj, Diversity Offices - 175O,175Q,175	126	8	1,010
Guidance Waiting Room - 175P	280	1	280
Guidance Storeroom	0	0	0
Career Center/ Classroom - 112	670	1	670
Records Room			
Teachers' Work Rm, Dig.Lrn'g Mgr(w/ Media Ctr)			
<b>CUSTODIAL &amp; MAINTENANCE</b>			<b>9,950</b>
Custodian's Office - 137G, 019FB	230	2	460
Custodian's Workshop & Toilet - 137, 137G	2,240	1	2,240
Custodian's Storage - 194A,194B,194C,192C,192	35	12	420

<b>Difference to MSBA Guidelines</b>		
<b>ROOM NFA1</b>	<b># OF RMS</b>	<b>area totals</b>
	0	(225)
	0	20
	1	80
	3	490
		<b>255</b>
	0	(1,050)
	0	320
	1	160
	3	350
	1	475
		<b>105</b>
	0	(25)
	0	10
	0	80
	0	5
	0	35
		<b>480</b>
	0	(10)
	0	(50)
	0	425
	0	-
	0	135
	0	-
	0	(20)
		<b>-70</b>
	1	85
	2	325
	-1	(40)
	-6	(440)
		<b>2,860</b>
	3	(120)
	0	-
	0	40
	0	-
	0	(120)
	0	5
	1	155
	2	320
	3	365
	7	840
	1	120
	1	340
	2	520
	0	60
	-1	(100)
	0	-
	0	435
	0	-
	0	-
		<b>1,325</b>
	0	(10)
	0	225
	0	(45)

MSBA Guidelines			
(refer to MSBA Educational Program & Space Standard Guidelines)			
see also accompanying Notes to Space Summary for highlighted revisions			
ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
500	1	500	
150	1	150	
250	1	250	
		5,200	
5,200	1	5,200	
		10,400	Excess Auditorium Spaces Policy
7,500	1	7,500	2/3 Enrollment @ 10 SF/Seat - 750 seats MAX
1,600	1	1,600	
500	1	500	
300	2	600	
200	1	200	
		12,700	
8,000	1	8,000	3 seatings - 15SF per seat
550	1	550	
600	1	600	
2,900	1	2,900	1600 SF for first 300 + 1 SF/student Add'l
650	1	650	20 SF/Occupant
		1,410	
60	1	60	
250	1	250	
100	4	400	
100	7	700	
		5,795	
800	1	800	
100	1	100	
200	1	200	
200	1	200	
375	1	375	
125	1	125	
150	1	150	
150	2	300	
120	1	120	
450	1	450	
150	8	1,200	
100	1	100	
100	1	100	
550	1	550	
225	1	225	
800	1	800	
		2,825	
150	1	150	
250	1	250	
375	1	375	



Date: 2/12/2021 Schematic Design

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals
		0	360	1	360		1	360
		0	428	3	1,285		3	1,285
		0	326	4	1,305		4	1,305
		0	200	1	255		1	255
		0	0	0	0			
		0			1,900			1,900
		0	600	0	0		0	0
			300	0	0		0	0
			455	1	455		1	455
			260	1	260		1	260
			125	1	125		1	125
			151	7	1,060		7	1,060
			1,800	0	0		0	0
			2,725	0	0		0	0
			1,400	0	0		0	0
			0	0	0		0	0
		0			257,750			257,750
	% of GFA	0		% of GFA	128,880		% of GFA	128,880
	#DIV/0!			0%			0%	0
	#DIV/0!			0%			0%	0
	#DIV/0!			1%	2,560		1%	2,560
	#DIV/0!			0%			0%	0
	#DIV/0!			3%	10,280		3%	10,280
	#DIV/0!			0%	725		0%	725
	#DIV/0!			1%	4,375		1%	4,375
	#DIV/0!			20%	77,430		20%	77,430
	#DIV/0!	0		9%	33,510		9%	33,510
		0			386,630			386,630
	-				1.50			1.50

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines) see also accompanying Notes to Space Summary for highlighted revisions			
ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
400	1	400	
550	1	550	
900	1	900	
200	1	200	
		0	
		253,540	
Equivalent Academic students:		848	162
Total students		1,600	225
			Non-Programmed space areas are required to be included in the following submittals:
			Schematic Design Submittal
			Design Development Submittal
			60% Construction Documents
			90% Construction Documents
			Final Construction Documents
		380,310	360,000
		1.50	1.50

**3 Remaining** Includes exterior walls, interior partitions, chases, and other areas not listed above. Do not calculate this area, it is assumed to equal the difference between the Total Building Gross Floor Area and area not accounted for above.

## High School Space Summary