

Montoursville Area School District



Facility Study Update

February 25, 2014



Crabtree, Rohrbaugh & Associates,
Architects

Agenda

- *Enrollment*
- *Capacity*
- *Room Size*
- *Educational Program*
- *Building Systems*

- *Improvement Ideas*

Enrollment Analysis

Montoursville Area School District		Enrollment History Analysis				
Loyalsock Valley ES	K	1	2	3	4	Totals
2013 - 2014	43	45	44	56	61	249
2012 - 2013	40	44	55	62	73	274
2011 - 2012	43	54	60	68	41	266
2010 - 2011	54	61	66	43	59	283
2009 - 2010	60	64	37	59	66	286
2008 - 2009	63	43	56	64	34	260
2007 - 2008	39	52	63	37	64	255
2006 - 2007	46	62	41	69	63	281
2005 - 2006	65	41	72	59	69	306
2004 - 2005	38	73	58	65	46	280
				Change in last 10 years		-31
				Percent change		-11%
				Average 10 year Enrollment		274
				Current Enrollment		249

Montoursville Area SHS	9	10	11	12	Totals
2013 - 2014	142	155	156	155	608
2012 - 2013	144	155	157	142	598
2012 - 2013	144	155	157	142	598
2011 - 2012	166	159	143	149	617
2010 - 2011	158	148	146	164	616
2009 - 2010	158	150	161	174	643
2008 - 2009	168	159	180	181	688
2007 - 2008	177	190	185	179	731
2006 - 2007	208	183	179	171	741
2005 - 2006	210	176	172	192	750
2004 - 2005	197	176	196	163	732
				Change in last 10 years	-124
				Percent change	-17%
				Average 10 year Enrollment	666
				Current Enrollment	608

Lyter ES	K	1	2	3	4	Totals
2013 - 2014	98	105	101	96	82	482
2012 - 2013	104	101	91	86	86	468
2011 - 2012	102	98	78	80	91	449
2010 - 2011	98	79	75	90	67	409
2009 - 2010	81	75	85	64	112	417
2008 - 2009	69	83	61	113	99	425
2007 - 2008	80	65	105	98	72	420
2006 - 2007	73	95	91	72	90	421
2005 - 2006	96	96	68	88	80	428
2004 - 2005	89	69	83	76	84	401
				Change in last 10 years		81
				Percent change		20%
				Average 10 year Enrollment		432
				Current Enrollment		482
C E McCall MS	5	6	7	8		Totals
2013 - 2014	161	148	137	178		624
2012 - 2013	139	133	175	142		589
2011 - 2012	133	180	143	152		608
2010 - 2011	185	148	149	166		648
2009 - 2010	138	144	161	146		589
2008 - 2009	145	154	147	156		602
2007 - 2008	159	142	153	152		606
2006 - 2007	143	147	150	169		609
2005 - 2006	130	145	158	200		633
2004 - 2005	140	148	191	194		673
				Change in last 10 years		-49
				Percent change		-7%
				Average 10 year Enrollment		618
				Current Enrollment		624

Lyter ES	K	1	2	3	4	Totals
2013 - 2014	98	105	101	96	82	482
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2011 - 2012	102	98	78	80	91	449
2010 - 2011	98	79	75	90	67	409
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2005 - 2006	96	96	68	88	80	428
2004 - 2005	89	69	83	76	84	401
Change in last 10 years						81
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2009 - 2010	138	144	161	146	589	
2008 - 2009	145	154	147	156	602	
2007 - 2008	159	142	153	152	606	
2006 - 2007	143	147	150	169	609	
2005 - 2006	130	145	158	200	633	
2004 - 2005	140	148	191	194	673	
Change in last 10 years						-49
Percent change						-7%
Average 10 year Enrollment						618
Current Enrollment						624

District Births source: PDE				
2006	112	actual		
2007	123	actual		
2008	108	actual		
2009	112	actual		
2010	111	actual		
2011	110	<i>projected</i>		
2012	109	<i>projected</i>		
2013	108	<i>projected</i>		
2014	107	<i>projected</i>		
2015	106	<i>projected</i>		
	111	Average all years		

PDE Enrolment Projections

Year 2020 – 2021 :

K-4 -3.9% -27 students

5-8 -2.0% -13 students

9-12 +8.3% +51 students

Capacity Analysis

Montoursville Area School District				Capacity Analysis
				Loyalsock Valley Elementary

This list identifies all existing rooms that provide capacity based on PDE methodology.

Room #	Function	Capacity Each	2013-14 Enrollment	
Kindergarten				
20	Classroom w/restroom	25		
15	Classroom w/restroom	25		
		50	43	86%
1st Grade				
13	Classroom w/restroom	25		
14	Classroom w/restroom	25		
18	Classroom w/restroom	25		
		75	45	60%
2nd Grade				
16	Classroom w/restroom	25		
5	Classroom w/restroom	25		
		50	44	88%
3rd Grade				
1	Classroom no restroom	25		
6	Classroom no restroom	25		
7	Classroom no restroom	25		
8	Classroom no restroom	25		
		100	56	56%
4th Grade				
2	Classroom no restroom	25		
3	Classroom no restroom	25		
4	Classroom w/restroom	25		
		75	61	81%

Total Classrooms	14		
Total Gross Capacity	350		100%
Total Net Capacity	315	students	90%
2013 - 2014 Enrollment	249		79%
Average 10 year Enrollment	274		87%

Montoursville Area School District

Capacity Analysis

High School

This list identifies all existing rooms that provide capacity based on PDE methodology.

	Room #	Function	Capacity Each	Existing SF	Room #	Function	Capacity Each	Existing SF
1	2	Classroom	25	652	1	Science Classroom/Lab	20	1296
2	4	Classroom	25	711	3	Science Classroom/Lab	20	802
3	5	Classroom	25	709	10	Science Classroom/Lab	20	1089
4	6	Classroom	25	696	12	Science Classroom/Lab	20	1308
5	7	Classroom	25	765				
6	8	Classroom	25	1223	9	Special Ed	0	699
7	11	Classroom	25	1088	25	Special Ed	0	898
8	14	Classroom	25	741	26	Special Ed	0	701
9	15	Classroom	25	911	27	Special Ed	0	685
10	17	Classroom	25	921	56	Special Ed	0	791
11	18	Classroom	25	921				
12	19	Classroom	25	924	16	Computer Lab	20	1048
13	24	Classroom	25	699	20	Computer Lab	20	1416
14	34	Classroom	25	733	21	Computer Lab	20	1104
15	35	Classroom	25	701				
16	36	Classroom	25	739	28	Fam. and Con. Sci.	20	906
17	37	Classroom	25	911				
18	38	Classroom	25	880	22	Band	25	1949
19	39	Classroom	25	814	23	Choral	25	1281
20	40	Classroom	25	794				
21	41	Classroom	25	820		Gym	66	13542
22	42	Classroom	25	919				
23	43	Classroom	25	927	46	Ceramics	20	1794
24	44	Classroom	25	917	47	Drafting	20	1837
25	50	Classroom	25	678	48	2d Art	20	1458
26	51	Classroom	25	678	49	3D Art	20	1480
27	52	Classroom	25	922				
28	53	Classroom	25	897				
29	54	Classroom	25	1010	32	Wood Shop	20	2637
30	55	Classroom	25	806	33	Metal Shop	20	2283
31	56	Classroom	25	791	35	Vo-Ag Shop	25	2823

Montoursville Area School District					Capacity Analysis	
						High School

		Total Gross Capacity		1196
		90% Utilization		0.9
		Total Net Capacity		1076 students
			2013 - 2014 Enrollment	608
		Highest Projected Enrollment (year 2020-21)		667

Room Size Analysis

Montoursville Area School District

High School

Program

Room Size Analysis

CLASSROOMS - Core Subjects				
	Room #	Function	Existing SF	Planning Standard
1	2	Classroom	652	850
2	4	Classroom	711	850
3	5	Classroom	709	850
4	6	Classroom	696	850
5	7	Classroom	765	850
6	8	Classroom	1,223	850
7	11	Classroom	1,088	850
8	14	Classroom	741	850
9	15	Classroom	911	850
10	17	Classroom	921	850
11	18	Classroom	921	850
12	19	Classroom	924	850
13	24	Classroom	699	850
14	34	Classroom	733	850
15	35b	Classroom	701	850
16	36	Classroom	739	850
17	37	Classroom	911	850
18	38	Classroom	880	850
19	39	Classroom	814	850
20	40	Classroom	794	850
21	41	Classroom	820	850
22	42	Classroom	919	850
23	43	Classroom	927	850
24	44	Classroom	917	850
25	50	Classroom	678	850
26	51	Classroom	678	850
27	52	Classroom	922	850
28	53	Classroom	897	850
29	54	Classroom	1,010	850
30	55	Classroom	806	850
31	56	Classroom	791	850
			25,898	26,350

SCIENCE				
	Room #	Function	Existing SF	Planning Standard
	1	Science Classroom/Lab 1	1,296	1,400
	1a	Prep/Storage Room	184	300
	3	Science Classroom/Lab 2	802	1,400
	3a	Prep/Storage Room	116	300
	10	Science Classroom/Lab 3	1,089	1,400
	10a	Prep/Storage Room	422	300
	12	Science Classroom/Lab 4	1,308	1,400
	12a	Prep/Storage Room	189	300
			5,406	6,800

FAMILY and CONSUMER SCIENCE				
	Room #	Function	Existing SF	Planning Standard
	28	Fam. and Con. Science	906	
		Lab 1	-	1,000
		Lab 2	-	1,000
		Classroom	-	850
		Storage	-	500
		Utility Room	-	500
			906	3,850

Montoursville Area School District

High School

Program

Room Size Analysis

PERFORMING ARTS				
Room #	Function	Existing SF	Planning Standard	
	Auditorium	5,600	10,800	
	Stage	1,704	4,500	
	Stage level Storage	217		
	Stage level Storage	104		
	Stage level Storage	121		
	Projection/Control Room	252	400	
	Ticket Booth	30	75	
	<i>Black Box Theatre</i>	-	3,000	
	<i>Black Box Storage</i>	-	500	
	<i>Stage level Storage</i>	-	1,500	
	<i>Piano Storage</i>	-	100	
	<i>Scenery Shop</i>	-	1,500	
	<i>Dressing Room - male</i>	-	400	
	<i>Dressing Room - female</i>	-	400	
	<i>Drama Classroom</i>		850	
		8,028	24,025	

MUSIC					
Room #	Function	Existing SF	Planning Standard	<i>verify program</i>	
22	Band	1,949	3,500	<i>150 band members</i>	
23	Choral	1,281	2,500	<i>150 vocalists</i>	
	Practice Room	78	78		
	Practice Room	78	78		
	Practice Room	108	108		
	Practice Room	110	110		
	Practice Room	184	184		
	Instrument Storage	403	800		
	Music Library	338	300		
	Music Office	337	337		
	<i>Music Classroom</i>	-	900		
	<i>Uniform Storage</i>	-	500		
	Restrooms	380	380		

Montoursville Area School District

High School

Program

Room Size Analysis

PHYSICAL EDUCATION				
	Room #	Function	Existing SF	Planning Standard
		Main Gym	13,542	
		Locker Room - Boy's	1,740	
		Locker Room - Girl's	1,646	
		Team Lockers	549	
		Team Lockers	790	
	59b	Locker Room	1,524	
		Training Room	442	
		Coaches Room	523	
		Gym Storage	910	
		Fitness Center	3,165	
	68	Weight Room	2,314	

ART				
	Room #	Function	Existing SF	Planning Standard
	46	Ceramics	1,794	
	46a	Darkroom		
	47	Drafting	1,837	
	48	2D Art	1,458	
	48b	2D Storage	85	
	49	3D Art	1,480	
	49a	3D Storage	76	
	49b	Kiln Room	211	

BUSINESS / INFORMATION TECHNOLOGY				
	Room #	Function	Existing SF	Planning Standard
	16	Computer Lab	1,048	1,000
	20	Computer Lab	1,416	1,000
	21	Computer Lab	1,104	1,000

LIBRARY / MEDIA CENTER				
	Room #	Function	Existing SF	Planning Standard
	73	Library	4,142	4,142
	73a	Study Room	450	450
	73b	Office	198	198
	73c	Resource Room	462	462
	73d	Periodicals	284	284
		<i>Library Classroom</i>		850

Montoursville Area School District		Program
Loyalsock Valley ES		Room Size Analysis

Media Center				
	Room #	Function	Existing SF	Planning Standard
	23	Library	1,154	2,880
	25	Conference	112	400
	26	Conference	174	200
		Office		100
		Storage		300
		Library Classroom		850

Food Service / Physical Education				
	Room #	Function	Existing SF	Planning Standard
	34	Cafeteria	1,718	2,000
	33	Stage	570	1,500
	34	Kitchen	1,100	2,000
	31	PE Office	348	250
		Gymnasium		7,500
		PE Storage		600
		Table/Chair Storage		500
		Stage Storage		500
		Stage access/ramp		250

Administration, Guidance, Nurse			
Room #	Function	Existing SF	Planning Standard
36	Admin. And Nurse	1,278	
37	Workroom	493	
23b	Guidance	235	
35	Supply Closet	143	
	<i>Reception/Waiting</i>		150
	<i>Admin Staff Area</i>		200
	<i>Conference Room</i>		250
	<i>Record Storage</i>		100
	<i>Supply Storage</i>		100
	<i>Workroom</i>		200
	<i>Principal Office</i>		200
	<i>General Office</i>		120
	<i>Intinerant Office</i>		120
	<i>Restroom - Men</i>		75
	<i>Restroom- Women</i>		75
			1,590
	<i>Guidance Waiting</i>		100
	<i>Guidance Office</i>		150
	<i>Intinerant Office</i>		120
	<i>Guidance Conference</i>		120
	<i>Testing Room</i>		80
	<i>Storage</i>		100
			670
	<i>Nurse Waiting</i>		80
	<i>Nurse Office</i>		120
	<i>Exam Room</i>		150
	<i>Secure Storage</i>		50
	<i>General Storage</i>		100
	<i>Restroom</i>		100
	<i>Cot area</i>		120
			720
	Totals	2,149	2,980
			831

Building Systems

Building Systems

Loyalsock Valley ES

E. HVAC

System

- The HVAC system is in poor condition overall. The spaces are served by floor mounted unit ventilators.



- Hot water is generated by two York Shipley boilers. They are oil-fuel fired. The boiler capacity is not adequate to heat the building and no redundancy is provided.



- Hot water is distributed by base-mounted pumps through copper and steel piping. Pumps are in fair condition. Piping is insulated and located above the ceiling.

Building Systems

Loyalsock Valley ES

Loyalsock Valley Elementary **Building Systems Summary**

1. **Replace the entire building heating, ventilating and cooling system.** In addition, the temperature control system will be replaced with new.
2. **Inspect the underground sanitary sewer system** to determine issue/deficiencies in the existing piping prior to a major renovation that could utilize this system.
3. **Inspect the domestic water piping system** to determine issue/deficiencies in the existing piping prior to a major renovation that could utilize this system.
4. **The well system needs to be upgraded** to provide adequate water supply to the building. This is anticipated to be a combination of additional well capacity and additional water storage.
5. **Replace the existing plumbing system** including fixtures and trim, domestic water heating equipment, and plumbing related equipment in the building.
6. **Upgrade/replace portions of the electrical systems** including the emergency generator, fire alarm system, security, power distribution, and data networking.

Building Systems High School

E. HVAC

System

- The HVAC system is in poor condition overall. It is a combination of rooftop units, floor and ceiling mounted unit ventilators, and air handling units.



- Steam is generated by three Hurst boilers. They are dual fuel fired. The boilers are three different capacities for stage operation but staff indicated that there is not enough capacity to operate the building during extreme cold conditions and there is no back-up capacity.



- Hot water is generated by steam to hot water converters.

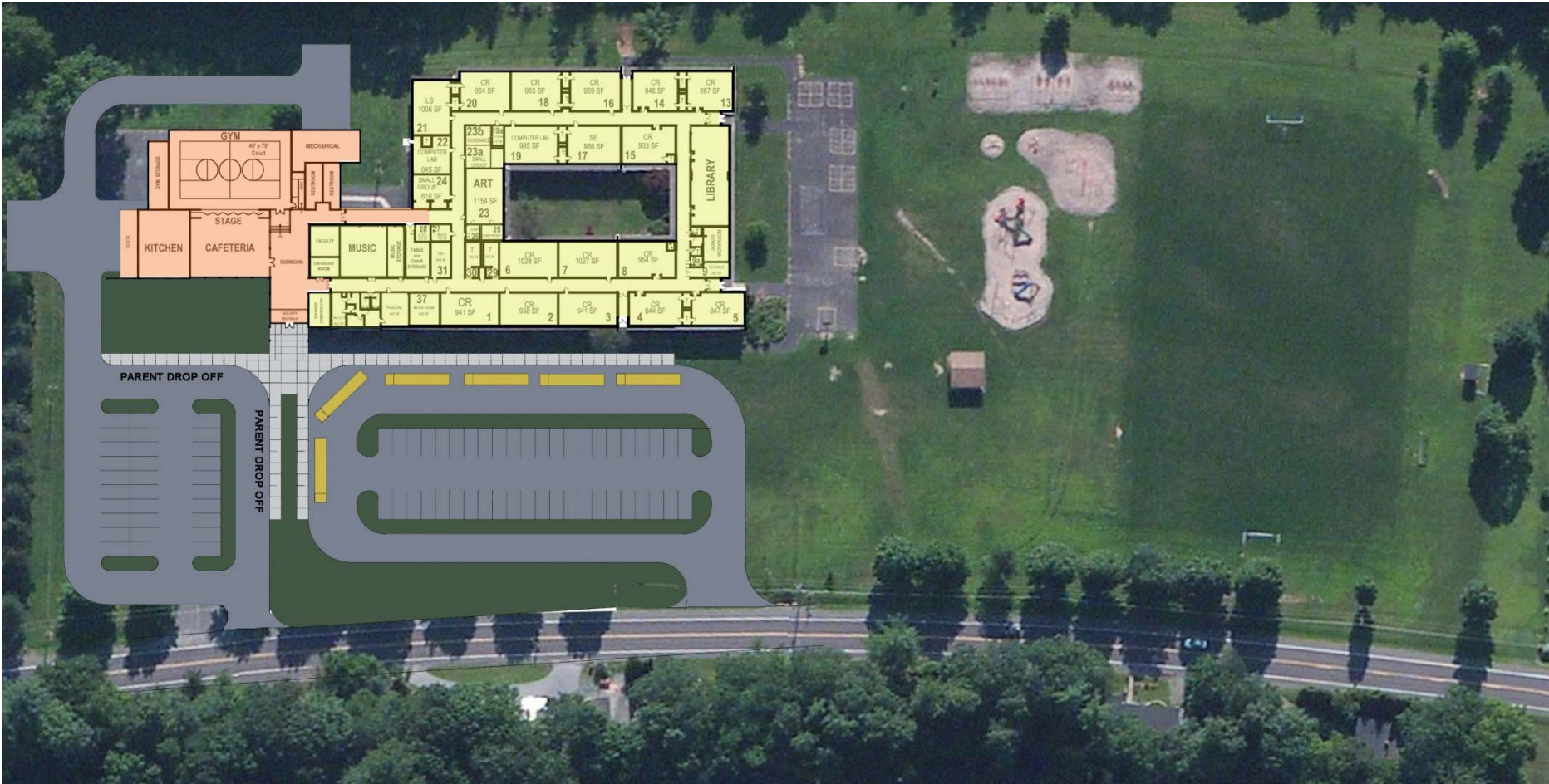
Building Systems **High School**

High School **Building Systems Summary**

1. **Replace the entire building heating, ventilating and cooling system.** In addition, the temperature control system will be replaced with new.
2. **Inspect the underground sanitary sewer system** to determine issue/deficiencies in the existing piping prior to a major renovation that could utilize this system.
3. **Inspect the domestic water piping system** to determine issue/deficiencies in the existing piping prior to a major renovation that could utilize this system.
4. **Replace the existing plumbing system** including fixtures and trim, domestic water heating equipment, grease interceptor, and plumbing related equipment in the building.
5. **Upgrade/replace portions of the electrical systems** including the emergency generator, fire alarm system, security, power distribution, and data networking.

Educational Program

LOYALSOCK VALLEY ELEMENTARY SCHOOL ADDITIONS AND RENOVATIONS



LOYALSOCK VALLEY ELEMENTARY SCHOOL ADDITIONS AND RENOVATIONS



LOYALSOCK VALLEY ELEMENTARY SCHOOL ADDITIONS AND RENOVATIONS

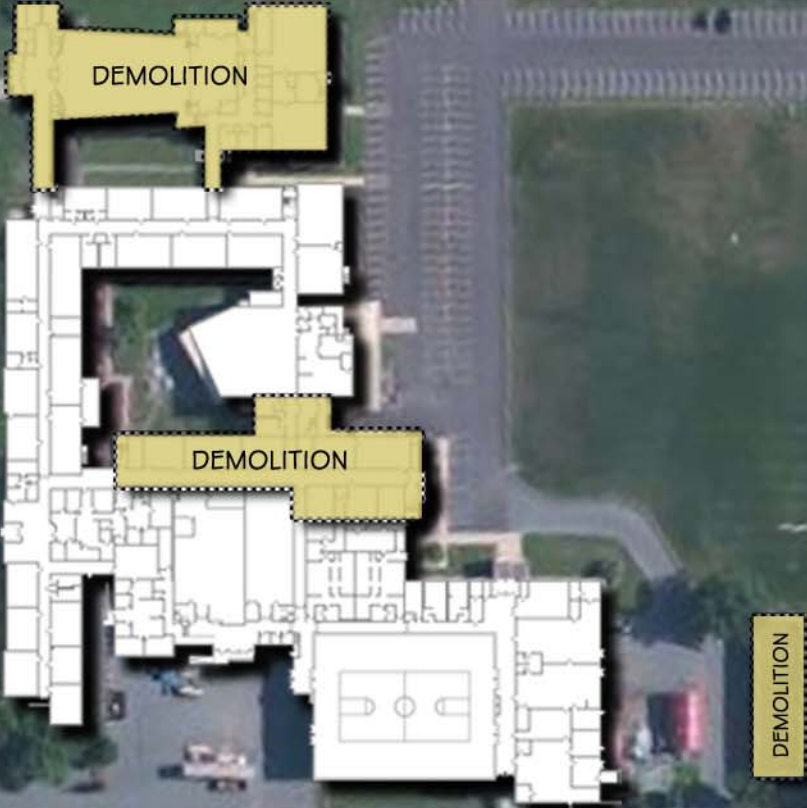


Option Characteristics

Loyalsock Valley ES

Additions and Renovations

- 1. New main entrance improves safety*
- 2. Expanded Administration increases efficiency and service to community*
- 3. New Lobby accommodates community events*
- 4. Separation of bus and parent drop off areas increases safety*
- 5. Separate Cafeteria and Gym spaces increases operational efficiency*
- 6. Cafeteria can function as a stage, eliminates need for separate stage*
- 7. Adequately sized public/student restrooms serve cafeteria and gym*
- 8. Art, Music, and Library are relocated to adequately sized spaces*
- 9. New: Kitchen, mechanical room, storage*
- 10. Improved well/water storage system and new septic system.*

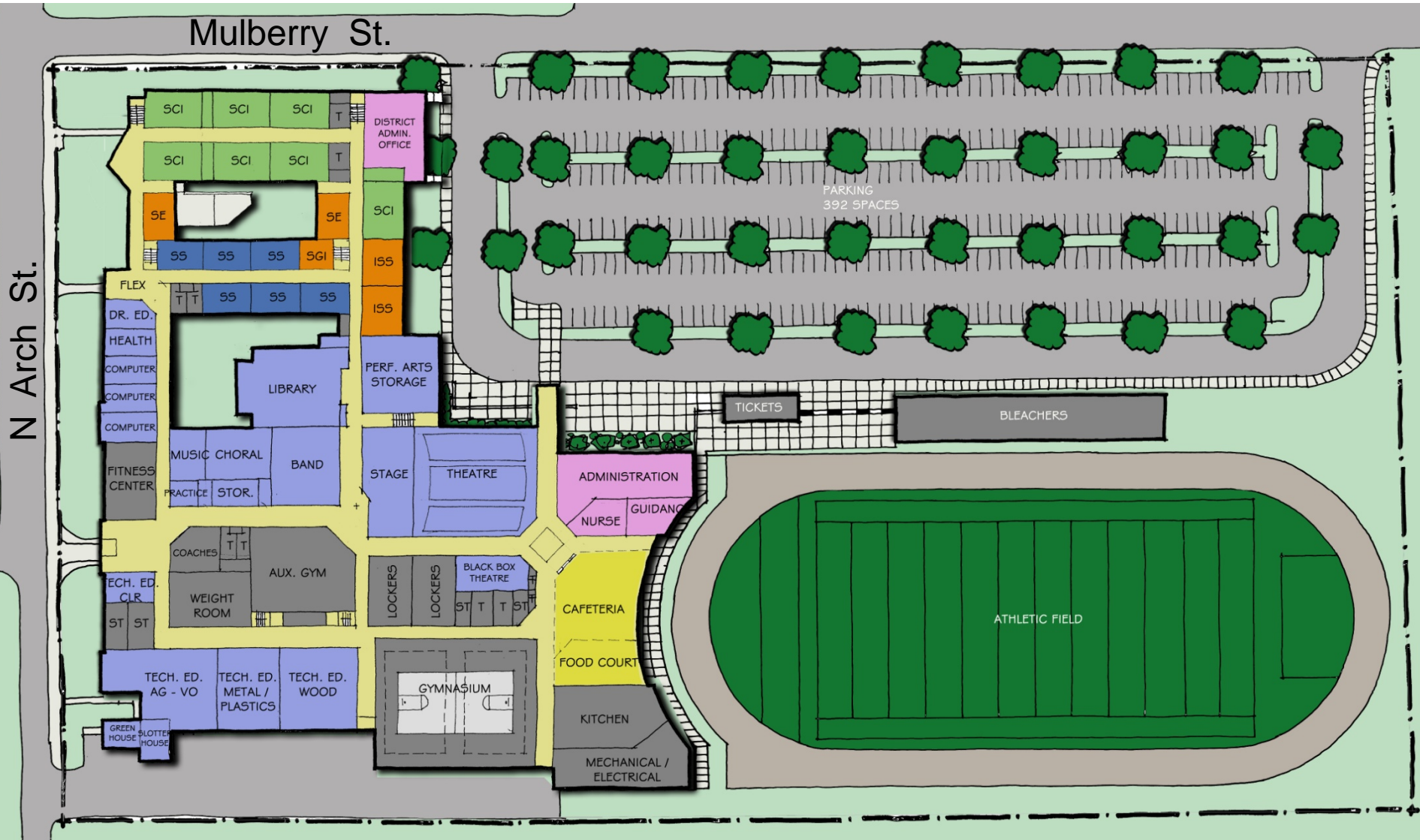


OPTION 1: Demolition Plan

ZONING ANALYSIS	
Situate:	Montoursville Borough
Zoning:	RT – Residential Town District
Use:	Schools – Conditional Use
Building Coverage:	Maximum of 30% of Lot Area
Impervious Coverage:	Maximum of 40% of Lot Area
Building Height:	35 FT Maximum
Front Yard Setback:	Average of Front Yards in the Block
Side Yard Setback:	8 FT
Rear Yard Setback:	40 FT
Parking Requirements:	High School – 1 space for each 4 seats of Auditorium or Gym whichever is greater. Gym: 1756 seats / 4 = 439 Parking Spaces
Parking Spaces:	10 FT x 20 FT
Parking Setbacks:	15 FT from Street Right of Way
Off Street Loading Berth:	700 SQ FT – Two Required

Option 1 : Additions & Renovations

Site Plan / First Floor Plan



Option 1: Additions & Renovations

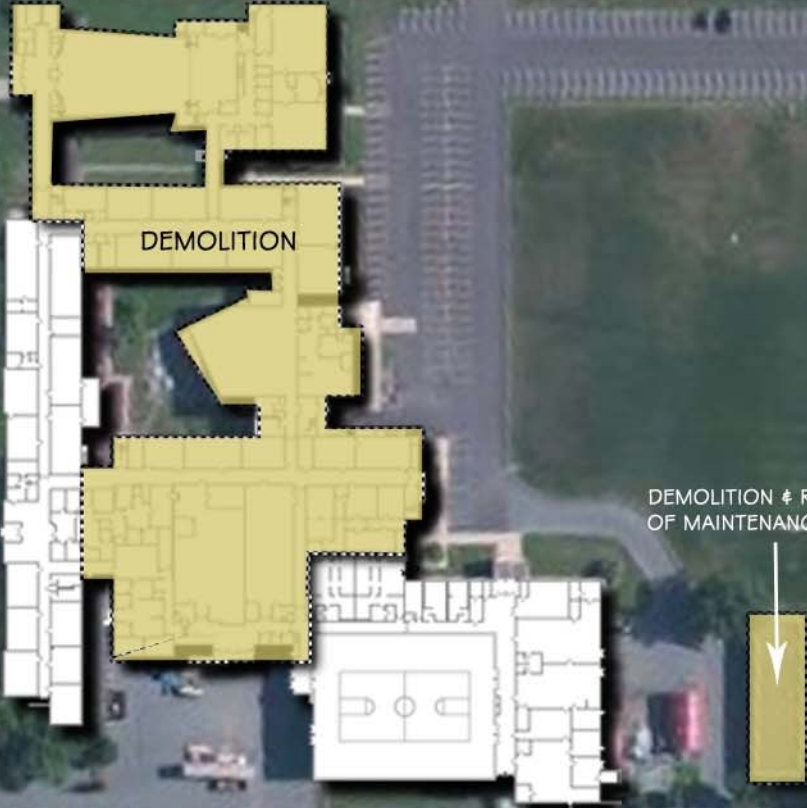
Basement & Second Floor Plans



Option Characteristics

High School Option 1

- 1. Uses existing site***
- 2. Retains majority of existing building***
- 3. Retains original High School building***
- 4. Parking for 400 +/- vehicles***
- 5. Parking adjacent to stadium, DAO, and High School Main Entrance***
- 6. Tight site, moderately challenging construction***
- 7. Moderate disruption to students during construction***
- 8. No District Maintenance building on site***
- 9. Variance from ZHB for parking and lot coverage required***
- 10. New 8 lane track and synthetic turf field allows 24/7 use***

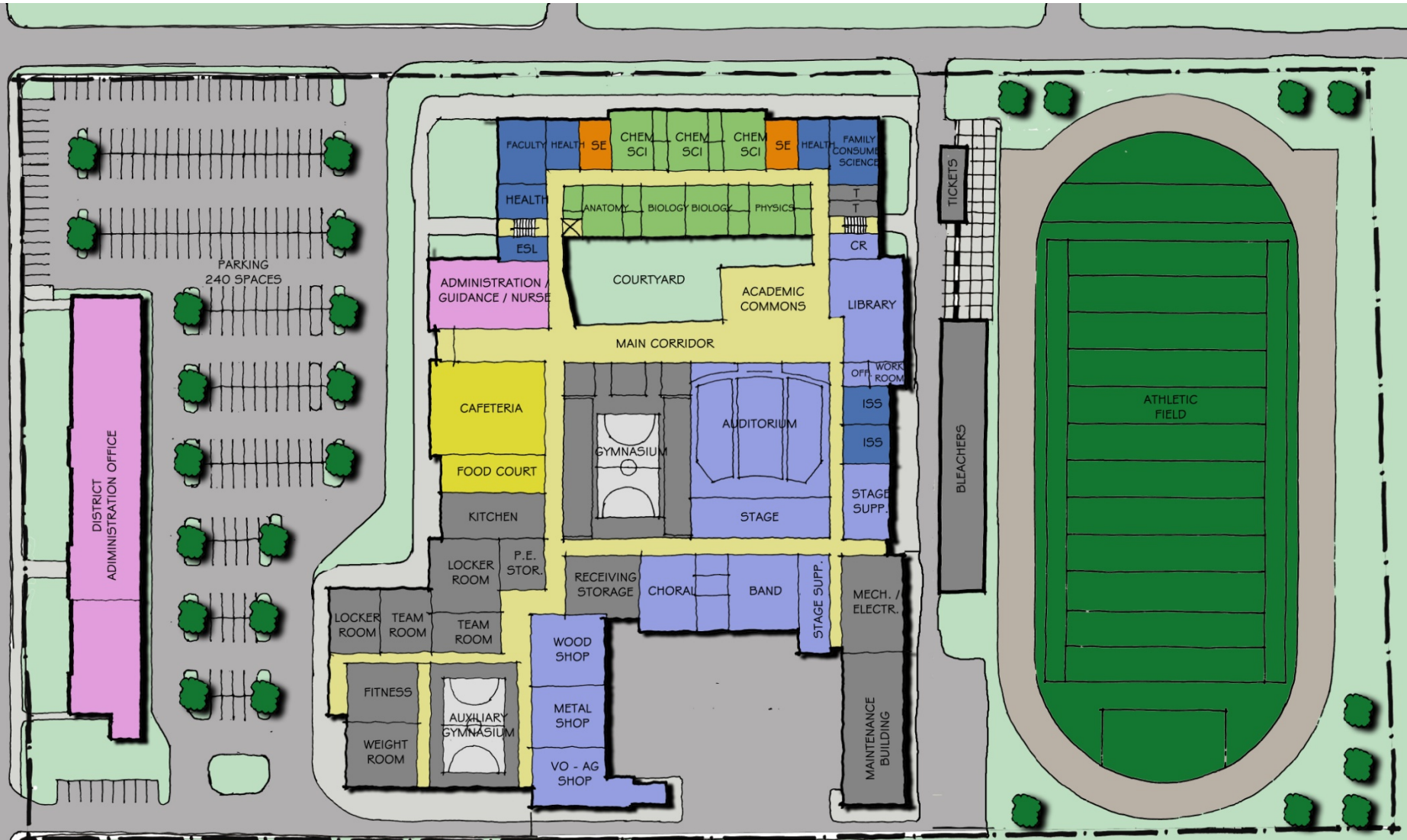


OPTION 2: Demolition Plan

ZONING ANALYSIS	
Situate:	Montoursville Borough
Zoning:	RT – Residential Town District
Use:	Schools – Conditional Use
Building Coverage:	Maximum of 30% of Lot Area
Impervious Coverage:	Maximum of 40% of Lot Area
Building Height:	35 FT Maximum
Front Yard Setback:	Average of Front Yards in the Block
Side Yard Setback:	8 FT
Rear Yard Setback:	40 FT
Parking Requirements:	High School – 1 space for each 4 seats of Auditorium or Gym whichever is greater. Gym: 1756 seats / 4 = 439 Parking Spaces
Parking Spaces:	10 FT x 20 FT
Parking Setbacks:	15 FT from Street Right of Way
Off Street Loading Berth:	700 SQ FT – Two Required

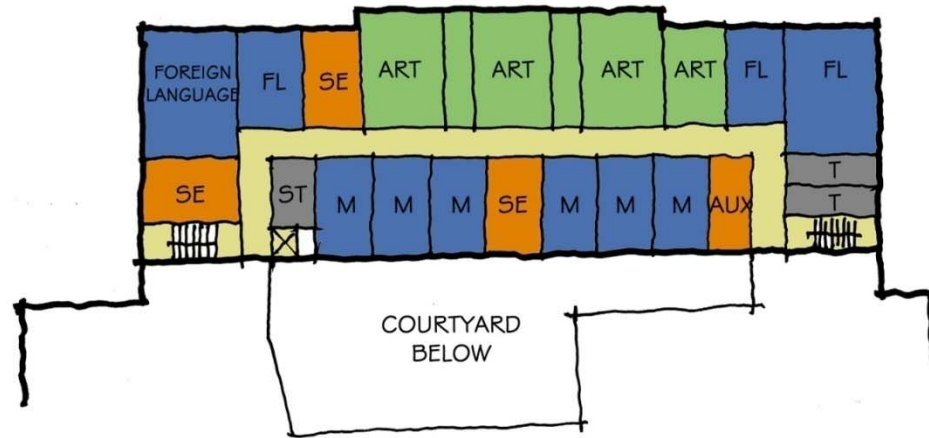
Option 2: Additions & Renovations

Site Plan / First Floor Plan

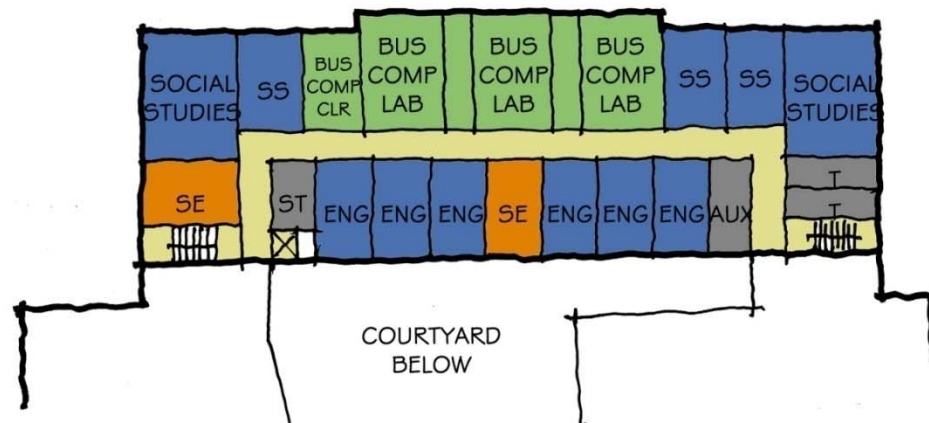


Option 2: Additions & Renovations

Second & Third Floor Plans



SECOND FLOOR PLAN



Option Characteristics

High School Option 2

- 1. Uses existing site**
- 2. Retains smaller portion of existing building**
- 3. Retains original High School building**
- 4. Parking for 240 +/- vehicles**
- 5. Parking remote from stadium,**
- 6. Parking close to DAO, and High School Main Entrance**
- 7. Tight site, but less challenging construction than Option 1**
- 8. Minimizes disruption to students during construction**
- 9. Provides new District Maintenance building on site**
- 10. Variance from ZHB for parking and lot coverage required**
- 11. Retains existing stadium**

Option 3: Existing Site



Option 3: New High School

Site and First Floor Plan



Option Characteristics

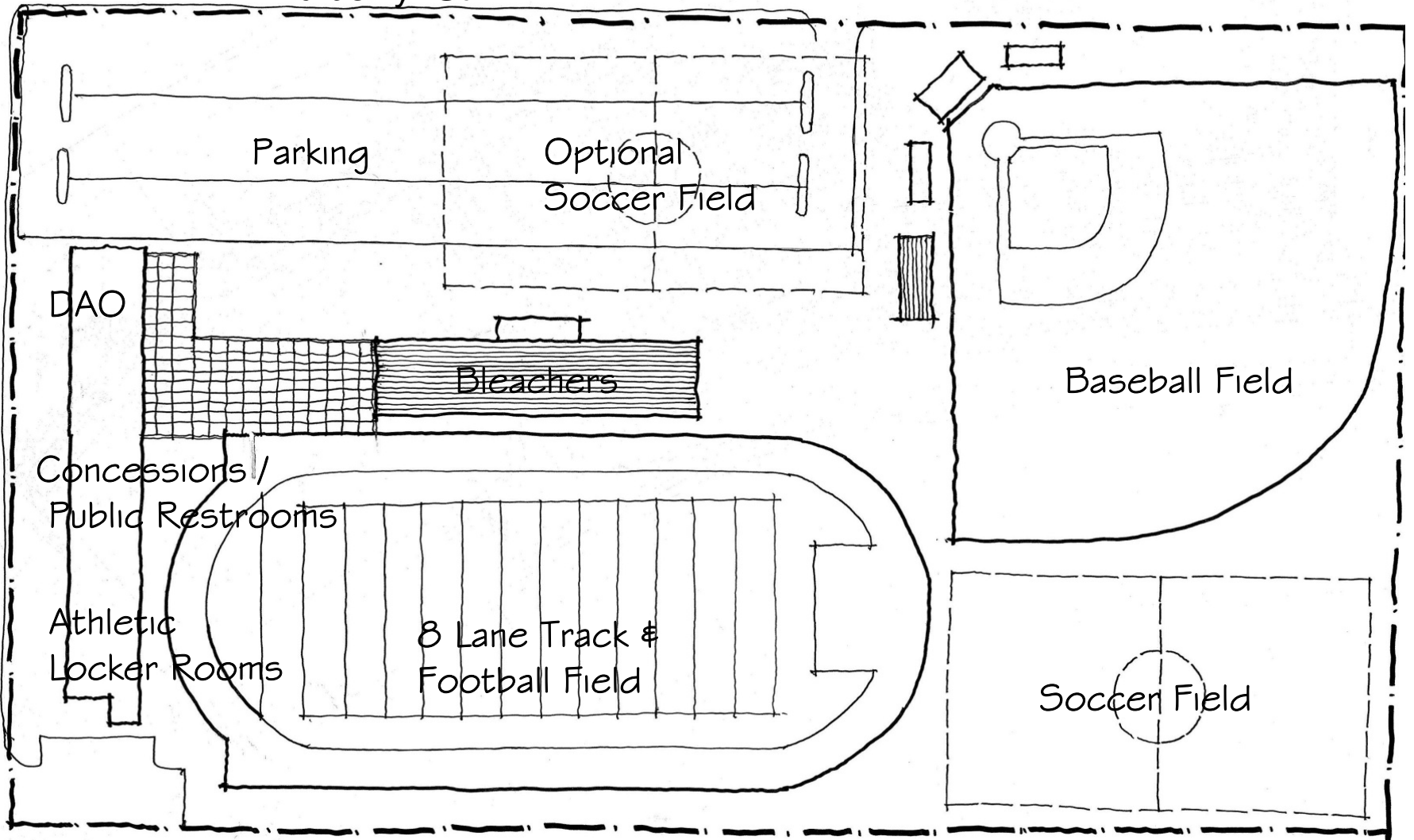
High School Option 3

- 1. All new building adjacent to Middle School*
- 2. No disruption to students during construction*
- 3. All new athletic field complex on existing High School Site*
- 4. Remote athletic fields increases transportation costs*
- 5. Variance from ZHB for parking and lot coverage required*
- 6. Highest cost option*

Option 1: Athletic Fields

Mulberry St.

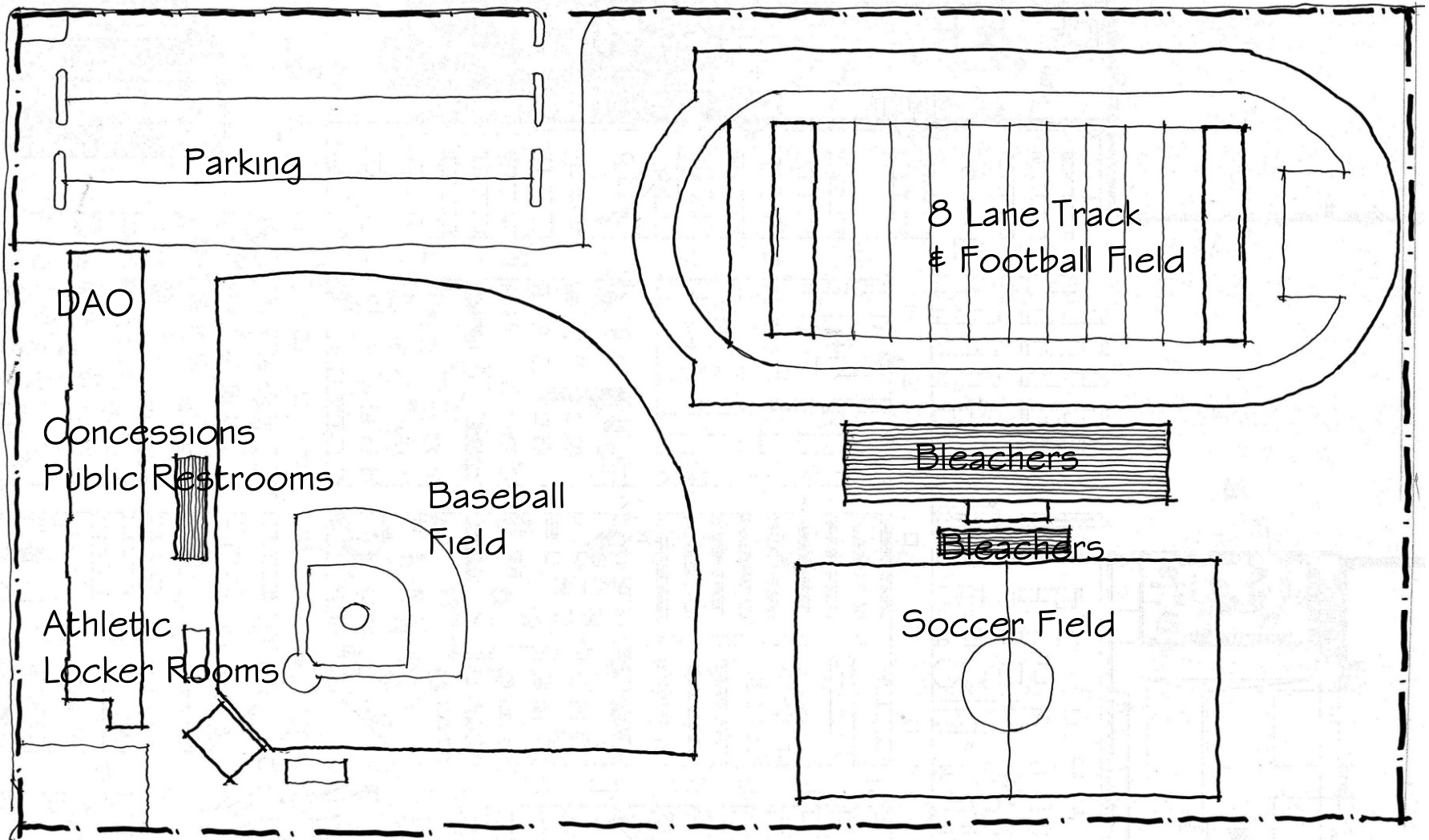
N Arch St.



Option 2: Athletic Fields

Mulberry St.

N Arch St.



Option 3: Athletic Fields

Mulberry St.

N Arch St.

