

## **Appendix 4: Sensible Solution Design & Cost Estimations:**

This appendix is a detailed description of the Sensible Solution Design for the Additions and Alterations to the State College Area High School. It includes building schematics and comparative tables to facilitate the Design Descriptions and cost estimations. This Appendix is organized as follows:

- 1.0 Introduction
- 2.0 Comparison of Program Spaces
- 3.0 Design Description
  - 3.1 High School Campus Site Plan
  - 3.2 North High School Building
  - 3.3 South High School Building
- 4.0 Design Summary
- 5.0 Cost Estimation

### **1.0 Introduction:**

This appendix describes the Physical implementation of the Sensible Solution, and demonstrates an effective way to completely renew and expand the high school facilities while protecting and preserving the district's excellent performance. This district has demonstrated a 25-year successful record of outstanding educational performance thanks in part to a comprehensive curriculum offered in an age/grade appropriate two-culture, two building configuration.

This Sensible Solution is a superior match to modern education methods, more flexible to changes, and significantly less risky to the students and community than the one building proposal<sup>1</sup>.

### **2.0 Comparison of Program Spaces:**

The following table illustrates how the Sensible Solution delivers similar program spaces to the Kimball plan at 60% Design. Following the table are the schematics of the North and South buildings, and a description of these physical changes and how they meet the project goals.

Table 2.1 illustrates that the Two-building design: 1) Meets/exceeds the single-building design in total area, and 2) matches the single-building design for each of the program areas. The areas and support functions were distributed between the two buildings to maintain the full functionality of both buildings.

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<sup>1</sup> As discussed in main body of report.

## 2.1 Comparison Table

<b>Program Area</b> (SF = Square Feet)	<b>Existing Areas (SF)</b>	<b>Sensible Solution total, (SF)</b>	<b>Kimball plan Single Building total, (SF)</b>
Instructional Spaces	105,833	119,500	116,050
Educational Support	15,112	21,800	21,384
CTC and Tech Ed	28,035	41,300	41,103
Music & Theatre	24,643	33,000	35,480
Physical Education	73,338	86,900	86,862
Food Service	18,065	26,300	26,295
Building Admin / Support Spaces	15,083	18,500	18,476
Other	*36,889	41,000	21,900
<b>Total Program Space</b>	<b>316,999</b>	<b>388,300</b>	<b>367,550</b>

*\* The Kimball Plan includes "Other" as part of Program Space, but mistakenly did not account for any of existing "Other" spaces. According to Ed Poprick Director of State College Area School Facilities, Existing Other Spaces are over 40,000SF. All other Existing Areas and Kimball plan Areas as reported by Kimball in 30% Design Documents.*

The program areas for each building were kept approximately in the same relative relation as the existing two-buildings in order to preserve and be cognizant of the different cultural environments of the existing buildings South (grades 9,10) and North (grades 11,12). Keeping the areas distributed in this manner would permit the buildings to be easily converted if needed: South building into a third middle school, and North building into one of two high schools – be that in answer to future increased enrollments, or simply future desire to deliver secondary education differently.

## 3.0 Design Description

The physical layout of the project is described directly here by way of reference to the attached annotated schematics and in the context of the building areas based on physical locations and construction / renovation work planned.

Sensible Solution Site Plan	Illustration 1
Sensible Solution North Building Plan	Illustration 2
Sensible Solution South Building Plan	Illustration 3
Sensible Solution Pedestrian Bridge Detail	Conceptual Pedestrian Bridge

**Illustration 1: Sensible Solution Site Plan**

*Note: See 11\*17 Hard Copy or PDF on Web Site*

**Illustration 2: Sensible Solution North Building Plan**

*Note: See 11\*17 Hard Copy or PDF on Web Site*

**Illustration 3: Sensible Solution South Building Plan**

*Note: See 11\*17 Hard Copy or PDF on Web Site*

**Conceptual Pedestrian Bridge: Sensible Solution Pedestrian Bridge Detail**

*Note: See 11\*17 Hard Copy or PDF on Web Site*

### **3.1 High School Campus**

Illustration 1 shows a full site view of the Sensible Solution High School Campus. Every square foot of every building is either fully renovated, or demolished and replaced with new construction. Additions are added appropriately to both North and South Buildings, and an enclosed pedestrian overpass connects both buildings, (shaded grey). All building deficiencies identified in the 2001 District Feasibility Report are considered project requirements, and are fully satisfied for all spaces at both the north and south buildings. All spaces, new construction and renovation, will include up-to-date Heating Ventilation and Air Conditioning (HVAC) systems. The flooding will be resolved promptly - as it should have been many years ago. As Kimball has stated, the flooding is a site problem, and can be solved completely exterior to the buildings. The Sensible Solution includes solving these and all building deficiencies including security and safety items. Security cameras are included, all non-controlled entry doors will be locked for emergency exit only and wired for triggering an alarm if opened etc. The Sensible Solution includes main offices relocated to the main entrances, and security offices located at secondary entrances. The cameras and controlled access doors can be implemented at once, regardless of the Additions and Alterations plans if desired by the district. Next the building additions and alterations are described, starting with the North Building first.

### **3.2 North High School Building**

#### **3.2.1 Area A - New Library, Music, Theatre, & Front Entrance Office:**

##### Area A Primary Project goals / principles

1) Controlled Access to the building, 2) Front Administration Office space, Guidance Counseling, and Administrative support adjacencies, 3) Open sense of flow within building and better connection between existing building sections, 4) Integrated Pedestrian overpass, 5) Additional new spaces needed for Music & Theatre with appropriate adjacencies, and 6) A new modern and expanded Library.

##### Area A Description

Area A is labeled and shaded on Illustration 2. This area includes new construction for a two-story addition where the Band wing is now. This new addition addresses increased spaces and better location / adjacencies for new Administration offices, a new library, and Music and Theatre programs. It does so in a manner that significantly increases the sense of flow within the North Building and between the North and South Buildings.

The old Band wing has been demolished, as have the miscellaneous rooms off the Old Lobby along side the Auditorium. The current Choral room is also demolished to make way for the new 2-story addition. Simply put, the existing Auditorium and Stage remain in place and everything around them is torn down and replaced new with an expanded two story Area A. The Auditorium and Stage are fully renovated in place. The new construction in Area A provides the desired scene shop directly behind the stage, and a new band room on the 1<sup>st</sup> floor. The theatre support spaces, dressing, costume, etc are

located in close proximity to the Stage on the first floor. Instrument and uniform support spaces are significantly increased as needed, and are also located on the first floor of this new section. A new Choral room is located upstairs behind the Stage, as are many of the small practice rooms, and Music department support spaces. Illustration 2 shows how new construction in this area greatly improves the flow and connectedness of the band wing with the rest of the building. One of the weaknesses of the current building addressed here is the series of steps adjacent to the auditorium. By demolishing and rebuilding this area, the sensible plan relocates support area stairs out of the main hallway and adds integrated ADA compliant ramps throughout.

The 1<sup>st</sup> floor of this Area A new construction also provides the new administration office, adjacent guidance counseling offices, and a new controlled access main front entrance. Administrative support offices are also positioned in close proximity to the new office. Bus drop off will remain in the front, as by keeping the entire South Building, the design has no need to disrupt Community Fields.

Labeled “Area ‘A’ 2<sup>nd</sup> Floor” and shown on Illustration 2, is the 2<sup>nd</sup> floor of Area A. This area is at the front of the building, closest to Westerly Parkway and includes the 2<sup>nd</sup> floor entrance into the building from the Pedestrian Bridge. Entering at the second floor level, the change in elevation from the front of the South Building is minimized, and the enclosed bridge is ADA compliant. As students enter from the Overpass on the second floor of Area A, they are at the location of the all new Library, and Choral Room. The new Library is more than twice the size of the existing Library. From this 2<sup>nd</sup> floor entrance, students can simply go to the right past the Library and access all the 2<sup>nd</sup> floor classrooms, or they can continue straight toward the new Student Center. Providing a grand open feel, the connection from this Area A to the existing main hall is accomplished with a high ceiling atrium that has replaced the small side lobby along side the Auditorium. A grand ramp brings the students down one half flight to the main hall level at the new Student Center, close to the new Main lobby in front of the Auditorium.

### **3.2.2 Area B - North Building Core Student Areas:**

#### Area B Primary Project goals / principles

1) A new and enlarged Cafeteria, Kitchen, Serving and Holding spaces, 2) A renovated and enlarged Faculty Dining Area, 3) A more open Main Lobby area, tied nicely into the Cafeteria and Dedicated Student Center, 4) A new, appropriately-scaled and comfortable Student Center for multiple social and educational usages and available every class period of every day, and 5) an Exciting central location for the ROAR Store at the corner of two main hallways and two entry points to the Student Center.

#### Area B Description

Behind Area A from the Parkway, and in the central part of the North building is Area B – shaded and labeled “Area B” on Illustration 2.. In this core area, the flow between the Auditorium, Lobby, Student Center, and Cafeteria are significantly rejuvenated, in a manner that first improves the daily uses for the students and teachers, and secondly also



improves the community uses of these spaces with great flexibility. For community uses, the Lobby, Student Center and Cafeteria can all support one large function, or simultaneously support multiple smaller community use functions.

Area B as shown on Illustration 2 is a single floor replacement and expansion of the core North Building areas. Area B centers around the courtyard between the Main lobby, Cafeteria and old Library that is converted into a dedicated Student Center. This dedicated Student Center can be accessed from the Lobby or two of the main hallways. It will include the ROAR Store at the right side along the hallway to the right side of the Cafeteria. If desired, the ROAR Store can be configured to include an area for walk through traffic from the Student Center to the main hallway – much like modern mall shops in major cities, or airports. An open easy flow into and out of the Student Center not only ties much of the building core together, but strengthens the use and sense of student community spaces; Student Center, Lobby, Courtyard, and new Cafeteria.

The lobby is completely renovated and the area closest to the cafeteria replaced with new construction. The transition from the lobby to the Cafeteria is completely redone - opening up width, ceiling height, and flow to the Cafeteria entrance. This addresses the current deficiency – a sense that the stairs to the cafeteria are narrow and dark. Although the Lobby has a high ceiling and ample windows to the courtyard, as one goes up the steps to the cafeteria, the lack of courtyard windows at the steps and transition to a lower ceiling area make it dark and uninviting. The Sensible Solution addresses this by replacing this end of the lobby as well as the area outside the cafeteria with new construction, high ceilings and skylights. The expanded cafeteria entrance is now more open and inviting off the Main Lobby.

The new North Building cafeteria is also illustrated on Illustration 2. The sensible solution budgets to demolish all of the cafeteria, kitchen and serving areas as well as the adjacent rooms, 505, 512, 518 and rest rooms outside the cafeteria. This allows the optimal re-configuration of the kitchen, serving and dining areas. The faculty dining is enlarged and relocated to optimize the entire food service area. The Guidance Counseling offices are relocated out of rooms 505 & 512 and into new area A. The area where Guidance was now accommodates some of the desired increases to food service, with the rest of the expansion realized behind the current kitchen. The new cafeteria will also benefit from higher ceilings, skylights, modern technology, and food court style serving areas.

The Cafeteria is more than doubled its current size. The total increase to dining and serving is over 5000SF, and the kitchen areas are increased over 2700SF.

### **3.2.3 Area C - New Classrooms, and Security at Rear Entrance:**

#### Area C Primary Project goals / principles

1) Increase the Instructional Spaces, 2) Include adjacent flexible-use smaller spaces that can support multiple instructional needs, and 3) Educational Support Space needs. Also,

4) Indoor access to the existing CTC labs, and a security office controlled secondary building entrance off Logan Ave.

#### Area C Description

Area C, also shaded and labeled on Illustration 2 reveals how the Sensible Solution replaces the existing Main Office and curved hall with a new construction classroom wing from the main hall near the Student Center to the right side of the new Cafeteria. In this area C the Sensible Solution adds classrooms, new restrooms and a Security Office at the rear entrance to the school from Logan Ave. This design also fully encloses hallways to existing CTC classrooms that are currently accessed by covered outdoor walkways. This is important to the district's objective to improve security with controlled access entries. Demolishing and replacing the curved hallway and administration offices also affords improved construction access to the new Cafeteria work described in Area B.

As shown on Illustration 2, seven of the new classrooms are larger, (1100SF), than conventional, (800SF). Adjacent to them the Sensible Solution includes smaller 400SF rooms. These flexible smaller rooms are designed to meet instructional uses such as smaller group meeting areas, lab prep areas, or Educational Support Spaces such as department specific offices and storage. Alternately, they hold the space in the plan so that if the district prefers 1300SF or 1500SF sized classrooms that can be accomplished by taking up the flexible adjacent spaces. The Sensible Solution exceeds the SCASB's planned space increases for Instructional spaces to allow for more teacher / program input to determine exact needs.

The Primary Project goals / principles met by Area C are; Increase the Instructional Spaces, include adjacent flexible use smaller spaces, provide enclosed hallways to the CTC wing, and add a security office and controlled access rear entrance.

### **3.2.4 Area D - Physical Education and CTC additions:**

#### Area D Primary Project goals / principles

The Primary Project goals / principles met by Area D are; Additional CTC & Tech Ed program spaces and additional spaces for Physical Education and Community Use.

#### Area D Description

Area D, shaded and labeled on Illustration 2, shows the 20,000SF addition including 6000 SF of additional program space for Career Technical Center (CTC) & Tech Ed needs. This addition also includes an all purpose gymnasium suitable for Varsity Wrestling practice, an additional team room and several support spaces for CTC & Physical Education. This large addition is similar in location and use to that of the SCASB's High School plan, with the exception that the Sensible Solution addition here is smaller, and disturbs the steep hill to community field less since the Sensible Solution does not need to replace the two tertiary gymnasiums – as these gymnasiums are renovated at the South Building.

Also, because the Sensible Solution maintains a Fitness Center at the South Building, it is not necessary to provide as large a Fitness Center at the North building. The Sensible Solution implements two Fitness Centers, and the North Building Fitness Center conveniently fits well by renovating the existing Wrestling practice area to a Fitness Center. The wrestling program has requested increased space to fit a second wrestling mat in the practice area. While the Kimball plan increases the space for wrestling, the shape of the area in that plan still fails to fit a second mat. The Sensible Solution simply solves this. This example serves not to claim the Sensible Solution solves all stake holder needs better, but rather to highlight how numerous other missed opportunities to satisfy real uses are certainly not addressed<sup>2</sup>.

In addition to these four major renovation / new addition areas highlighted, every square foot of the North Building will be renovated or replaced. The extent, and budgeted cost per square foot are appropriate to the age and needs of each specific area. The Sensible Solution uses the exact same renovation cost model as the Kimball design.

### 3.3 South High School Building

#### **3.3.1 Area SA - Front Lobby/Main Office, Expanded Admin. Support:**

##### Area SA Primary Project goals / principles

1) Modernized Main Lobby Entrance, 2) Secure Main Office “check-in” area for main entrance, and 3) Adequate adjacent spaces for a variety of educational support and administrative needs.

##### Area SA Description

As can be seen on Illustration 3, the main feature of Area SA is to relocate the Administration Office to the front of the building to where room 100 is located now. The Sensible plan budgets to completely demolish room 100 and replace it with new construction that is optimized for this specific purpose and includes a controlled access vestibule for visitors to sign in at the main office.

Area SA also includes increased space allocation required for Guidance Counseling Offices, and other Administration related offices, such as Emotional Support, Psychologist, Speech Services, and Faculty Centers. The increased space is achieved by renovating the interior classrooms adjacent to where the Main Office and Nurse’s Office is now. This renovation is budgeted at the highest cost category, 6, and includes new HVAC systems, new technology infrastructure, new interior finishes, and skylights. All spaces, new and renovated will include up to date HVAC systems.

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<sup>2</sup> The Sensible Solution team was quite surprised that the district did not even have the simplest of design process documents such as instructional plans, educational methodologies - use cases or even stake holder interview summaries.

### **3.3.2 Area SB – Flexible Educational Spaces, & Secure Entrance:**

#### Area SB Primary Project goals / principles

1) Provides desired flexible instructional support spaces - a centrally-located Student Learning Center for use by all departments, 2) Is part of the overall goal to have natural light in every instructional area, and 3) Provides for totally updated classrooms and facilities throughout, and also 4) Provides for a Security Office to monitor traffic into the building from the pedestrian bridge.

#### Area SB Description

The main classroom wing on the lower – front South Building site is labeled Area SB on Illustration 3. This area is renovated with the highest cost category, renovation area 6 per Kimball plan definition. This area includes an added Security Office located near the right side front door where the students will enter from the North Building pedestrian overpass. Shaded and labeled on Illustration 3 the main feature of this area is converting all the interior classrooms to other non-traditional instructional uses. These rooms will receive skylights for natural light, and are best suited for flexible instructional support rooms. Based on modern educational trends, these spaces will be best utilized for special student team project work, where at select times students can use these for break out work in small teams, out side of the nearby primary class rooms. For example, one of these rooms could be configured w/ cubical partitions, creating six small breakout areas, with tables and chairs in each cubicle area. Think of this as a Student Learning Center use. These are flexible spaces, and could also be assigned for multiple support functions – project based learning, lab prep, etc, leveraging their close proximity to the other classrooms in area SB. Replacing the interior classrooms with all new, provides great Instructional flexibility now in this wing. These interior classrooms are replaced in a new 2-story classroom addition that replaces the ramp, (Area SC). Flexible - while the Sensible Solution assigns these renovated interior classrooms to non-primary instructional use, if at a future time, more classrooms are needed for a short bubble in enrollment, these four rooms could be temporarily used again as classrooms.

### **3.3.3 Area SC - New 2-Story Classrooms replace Ramp:**

#### Area SC Primary Project goals / principles

1) Provide additional Instructional spaces with natural light, 2) Add one larger group instruction room, and 3) Improve ADA accessibility at right side of the South Building.

#### Area SC Description

Area SC as shown on Illustration 3 is an all-new classroom wing that replaces the ramp. This 2-story addition includes a wide-open stairway and elevator to provide access from the upper South Building wing to the lower South Building wing at the right side of the schematic. This suggested implementation provides 13 new (1000 SF) classrooms, and 1 larger (1500 SF) classroom. It also provides 2 pair of rest rooms, an office space, and 3 flexible use adjacent support spaces. The existing ramp is considered a weakness of the current school for two reasons; its width and height feels restrictive, and the slope is too

steep for ADA accessibility - both resolved with the Sensible Solution. The design width of this new classroom addition can be increased to accommodate larger size classrooms if desired. 800SF is the standard, so a 1000SF size is used for the Sensible Solution proposal and cost estimates. Worth noting, the site provides adequate space for more additions on the 2<sup>nd</sup>-floor of this new wing by building further South toward the Track if more space is desired. One suggested feature for that space could be a large field house for athletics and community use. This is outside the scope of this project, and cost analysis.

### **3.3.4 Area SD - Converting Interior Classrooms to Physical Education:**

#### Area SD Primary Project goals / principles

1) Best utilizing the physical assets currently held (the gymnasium with high ceiling and gymnasium flooring is best used as a gymnasium - for example!), 2) Reducing the need for students to cross the street for Physical Education and Fitness Center needs, 3) Converting windowless classrooms into a new fitness center and adding natural light to this area.

#### Area SD Description

Shown on Illustration 3 the shaded SD Area indicates where interior classrooms are converted to a 3000 SF Fitness center and two Team Rooms that double as locker rooms for the Fitness Center. These interior classrooms are replaced in the new Classroom wing, Area SC. The existing Fitness Center is converted back into a Gymnasium to meet the district's extra gymnasium goal, and also satisfy Phys Ed needs of the 9<sup>th</sup> & 10<sup>th</sup> graders in a way that reduces street crossing. The Fitness Center is one of two Fitness Centers, one at the North, and one at the South Buildings. Noteworthy, the additional 3 interior classrooms shaded in light orange, are also replaced in the new classroom wing (Area SC). These total 2,200SF and we have budgeted the highest renovation cost category 6 for their renewal. We have cost accounted for renovating this space, but have not assigned it to any specific program use, allowing for any flexible use the faculty /staff determines best.

### **3.3.5 Area SE - Expansion of Culinary Arts:**

#### Area SE Primary Project goals / principles

1) Increased space for and upgrade the Culinary Arts and District Kitchen areas.

#### Area SE Description

Also in the upper wing of the South Building, to the left in Illustration 3, Area SE addresses the desired Culinary Arts expansion quite simply. Part of the SCASB's plan is to decrease the number of Computer Labs now that they are using mobile computer carts with wireless access, ergo; the Sensible Solution expands Culinary Arts into the adjacent computer lab and room 232. In addition to renovating, the plan budgets additional funds to address the reconfiguring of both the Culinary Arts and District Kitchens co-located in this area.

## **4.0 Design Summary Remarks**

The greatest strength of the Sensible Solution is that it preserves and protects this district's 25 year record of outstanding educational performance – affording a comprehensive curriculum in a two culture, two building system that is age / grade appropriate. The Sensible Solution demonstrates a feasible and less risky way to match the quality of buildings and quantity of program spaces of the current SCASB's plan. The Sensible Solution used the district's documented requirements, needs and wants to direct the design and allocation of spaces. Where no documentation existed to define the space requirements, such as the added 3200SF of food serving area, the team allocated to match the Kimball space allowance, except where specifically noted. The cost model for the Sensible Solution is detailed in the next section.

In addition to these major renovation / new addition areas highlighted, every square foot of both the North and South Buildings will be renovated or replaced. The extent, and budgeted cost per square foot are appropriate to the age and needs of each specific area. The Sensible Solution uses the exact same renovation cost model as the Kimball design. Like Kimball, the 1956 wing is budgeted for the greatest renovation spending per square foot, and the 1999 additions, the least cost per square foot. As one would expect the Sensible Solution renovation costs are higher but the new construction costs are significantly lower. Simply, the SCASB's plan needs to build **358,000** SF new, and while the sensible solution builds **132,000** SF new. These details are further documented in following cost tables.

## **5.0 Cost Estimation**

This Final Section describes the Sensible Solution cost estimation process. The Sensible Solution utilized the same cost estimating factors used by the Kimball team for the One-building design. While the Sensible team did not entirely agree with some of the estimation factors used by Kimball, the team agreed that using the same factors would yield the best apples to apples fair comparison. The rigor of the cost estimations exceeds all reasonable standards for a conceptual design of this maturity. Table 5.1.1 shows the summary cost comparison of the Sensible Solution and the 1-building design at 30%.

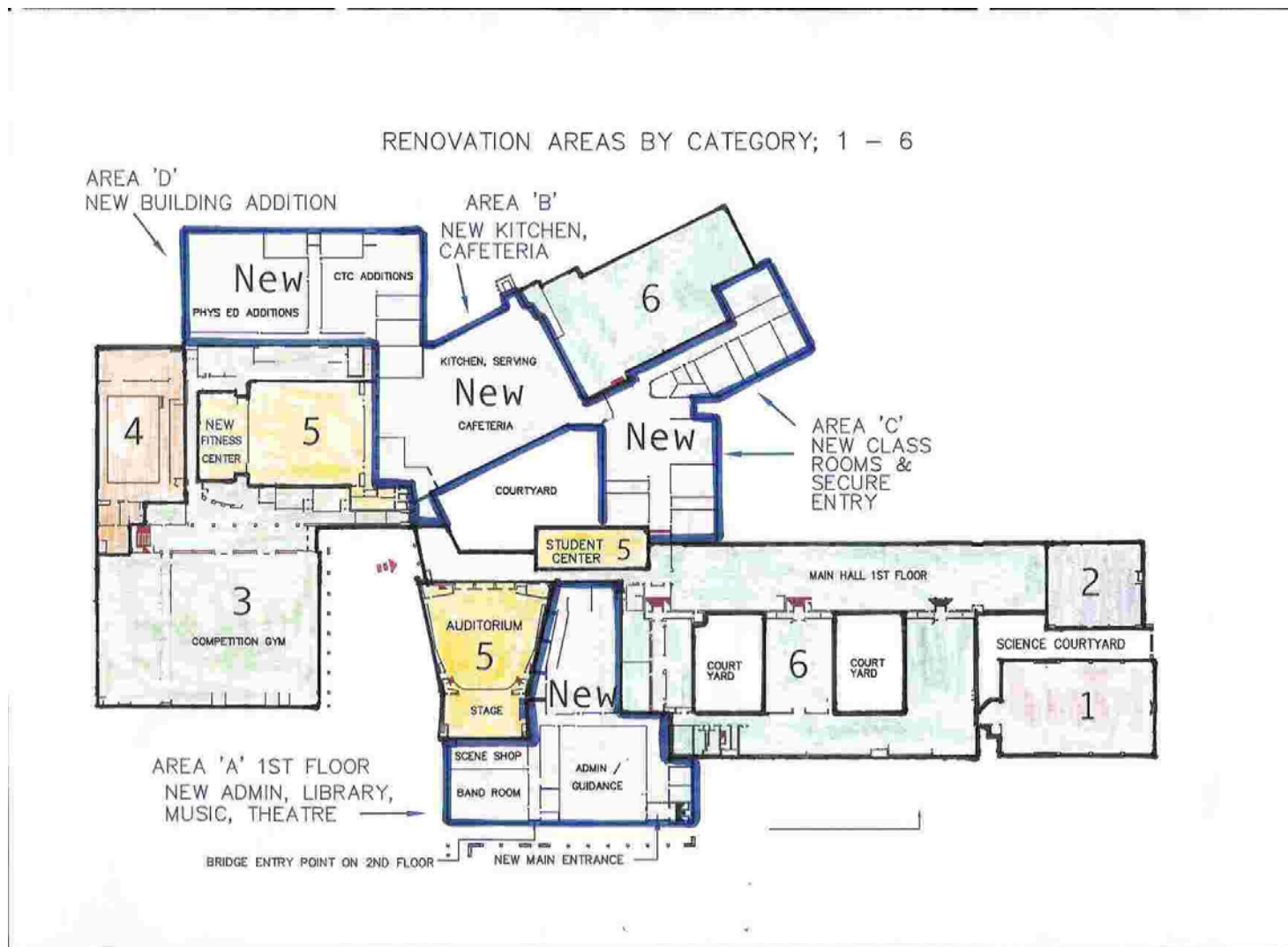
Renovation costs are categorized in six categories; Category 1 the least costly and Category 6 the most costly. The complete description of exactly what is included in each of the six categories is outlined in the Kimball 30% design documents. In the case of the North buildings, the team utilized the exact same category assignments by area as the Kimball plan. In a few areas where the Sensible Solution calls for remodeling and the Kimball plan demolishes, the Sensible Solution appropriately used the two highest cost renovation categories. Table 5.1.2 illustrates the cost category assignments for the North Building.

**Table 5.1.1 Estimated Summary Cost Comparison**

	<b>Sensible Solution</b>		unit cost
	area	cost range	
Total Reno	407,928	\$26,750,000	\$63 /SF
Additions	131,685	\$18,962,640	144 /SF
<b>BUILDING</b>	539,613	\$45,712,640	
<b>DEMOLITION</b>	32,506	\$188,175	
<b>SITE</b> acres	8	\$1,294,720	
Temporary Facilities		\$150,000	
Design Contingency	5%	\$2,382,272	
<b>HARD COSTS</b>		\$50,027,720	
<b>SOFT COSTS</b>		\$10,667,378	
Construction Contingency	5%	\$2,501,386	
<b>TOTAL</b>		<b>\$62,896,571</b>	

	<b>Kimball Estimate (30% Schematic)</b>		unit cost
	area	cost	
Total Reno	179,200	\$10,700,000	\$60 /SF
Additions	358,052	\$51,684,178	\$144 /SF
<b>BUILDING</b>	537,252	\$62,380,000	\$116 /SF
<b>DEMOLITION</b>	280,994	\$1,280,000	\$5 /SF
<b>SITE</b> % of Building		\$10,380,000	
Temporary Facilities		\$350,000	
Design Contingency	5%	\$3,720,000	
<b>HARD COSTS</b>		\$78,100,000	
<b>SOFT COSTS</b>		\$16,260,000	
Construction Contingency	5%	\$3,910,000	
<b>TOTAL</b>		<b>\$98,300,000</b>	

**Table 5.1.2 Sensible Solution Renovation Category Assignments, North Building**





Likewise, the same renovation categories were used appropriately for the South Building cost estimations. Table 5.1.3 shows the renovation costs compiled by category.

**Table 5.1.3 Hard Cost Detail**

<b>RENOVATION</b>				<b>DEMOLITION</b>				
	area	subtotal	unit cost		area	subtotal	unit cost	
Renovation Area 1	26,025	\$460,122	18 /SF	17.68	North Building	29,850	\$141,489	5 /SF
Renovation Area 2	11,523	\$281,034	24 /SF	24.39	South Building	2,656	\$11,686	4 /SF
Renovation Area 3	64,816	\$1,659,944	26 /SF	25.61	Subtotal	32,506	\$153,175	
Renovation Area 4	25,496	\$1,014,241	40 /SF	39.78	General Conditions	35,000	\$0 /SF	
Renovation Area 5	60,510	\$3,697,130	61 /SF	61.10	Demolition Total	\$188,175		
Renovation Area 6	219,559	\$18,462,695	84 /SF	84.09				
<b>Subtotal</b>	407,928	\$25,575,167	63 /SF					
General Conditions		\$1,174,833	3 /SF	2.88				
<b>Renovation Total</b>		<b>\$26,750,000</b>						

<b>SITE</b>			
	disturbed area	subtotal	unit cost
North Site	6.0	928,728	\$154788 /ACRE
South Site	2.0	365,992	\$182996 /ACRE
<b>Subtotal</b>	8.0	1,291,720	
General Conditions		83,920	\$8392 /ACRE
<b>Site Total</b>		1,375,640	

**Table 5.1.3 Soft Costs**

At this level of design maturity the Sensible Solution applies the same soft cost factors.

**5.0 Conclusion**

The Sensible Solution design is straightforward and less complex. Additions and Alterations spread across both buildings is an easier task - significantly less constrained than placing almost three times as much new construction in half the area

Renovating a larger percentage of the buildings reduces the amount of new construction required – and reduces total cost.

By utilizing both North and South Buildings, placement of added spaces is less constrained and allows more optimal locations to be utilized.

The cost estimation utilizes the cost estimating factors used by the Kimball Model for a fair comparison, and as such does not necessarily reflect the team’s expected real cost.

<b>SOFT COSTS</b>		
		Subtotal
Furnishings & Equipment	6%	\$3,001,663
Asbestos Removal		\$140,000
Design Fee - Fixed		\$622,000
Design Fee - Percentage	5.50%	\$2,751,525
Civil Permitting Fee - Percentage		\$50,000
CM Fee - Percentage	2.90%	\$1,450,804
Expenses / Printing Allowance		\$50,000
Testing, Survey, Geotech, Fees		\$100,000
Escalation	3%	\$1,500,832
Financing	2%	\$1,000,554
<b>Soft Cost Total</b>		<b>\$10,667,378</b>

The Sensible Solution is first and foremost about the strategic direction that ought to advise the physical design. That is, two buildings with two distinct age appropriate cultures is a better method of educational delivery for the State College Area School District. It is by no means a reflection on the quality of the one-building design. The one building design is a professional, and complete proposal for achieving the space requirements all on the North side of the Campus.