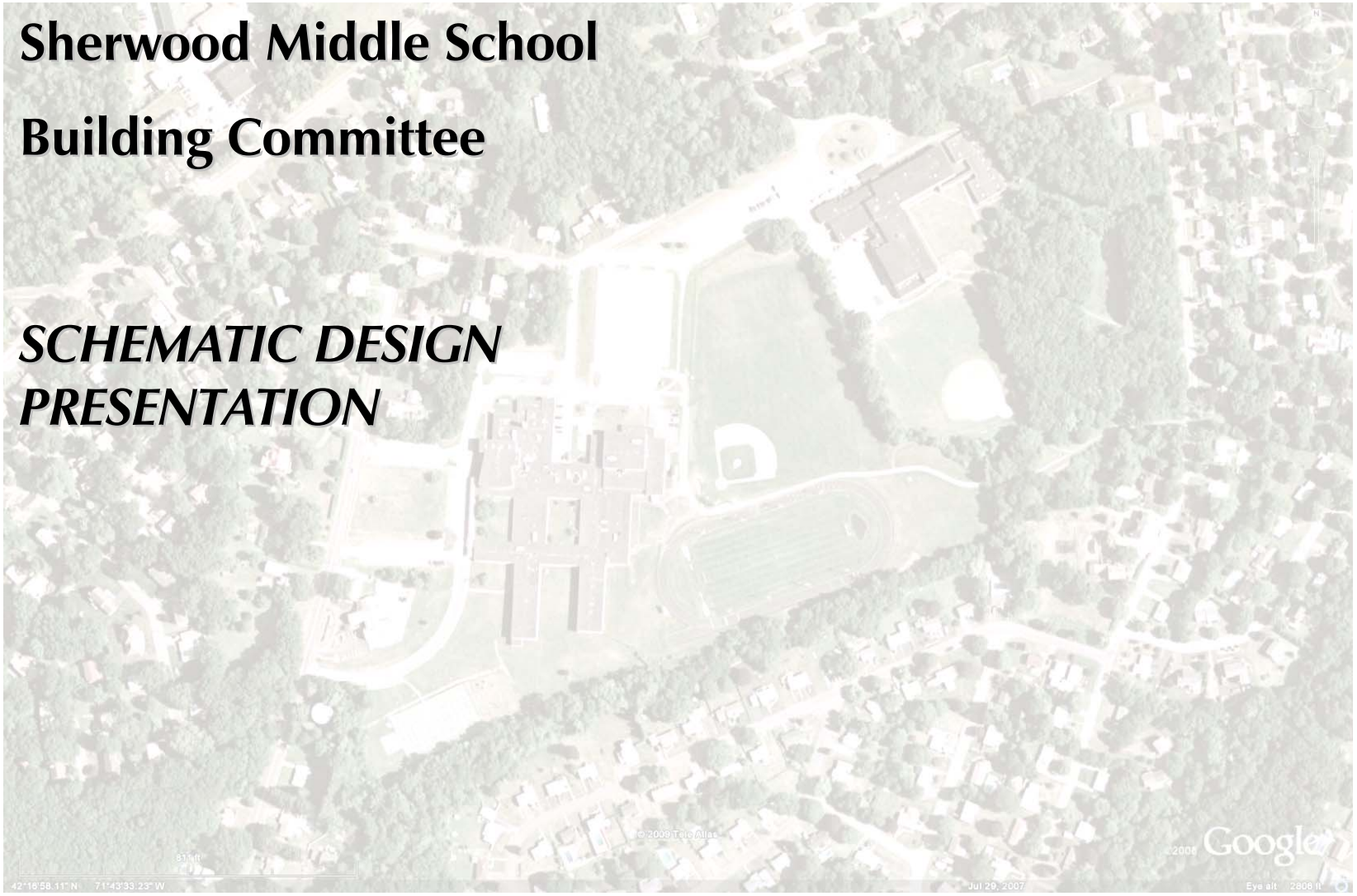
Sherwood Middle School

Building Committee

SCHEMATIC DESIGN PRESENTATION



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Existing Conditions

- **1960's Jr. High model outdated**
- Lack of SPED space
- Undersized classrooms
- Technology infrastructure problems

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Existing Conditions

- **Modular classrooms temporary solution**
- No plumbing
- No full foundation
- Core facilities undersized

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Existing Conditions

- **Antiquated systems require replacement**
- Inefficient wall & window systems
- Accessibility code issues
- Presence of hazmat

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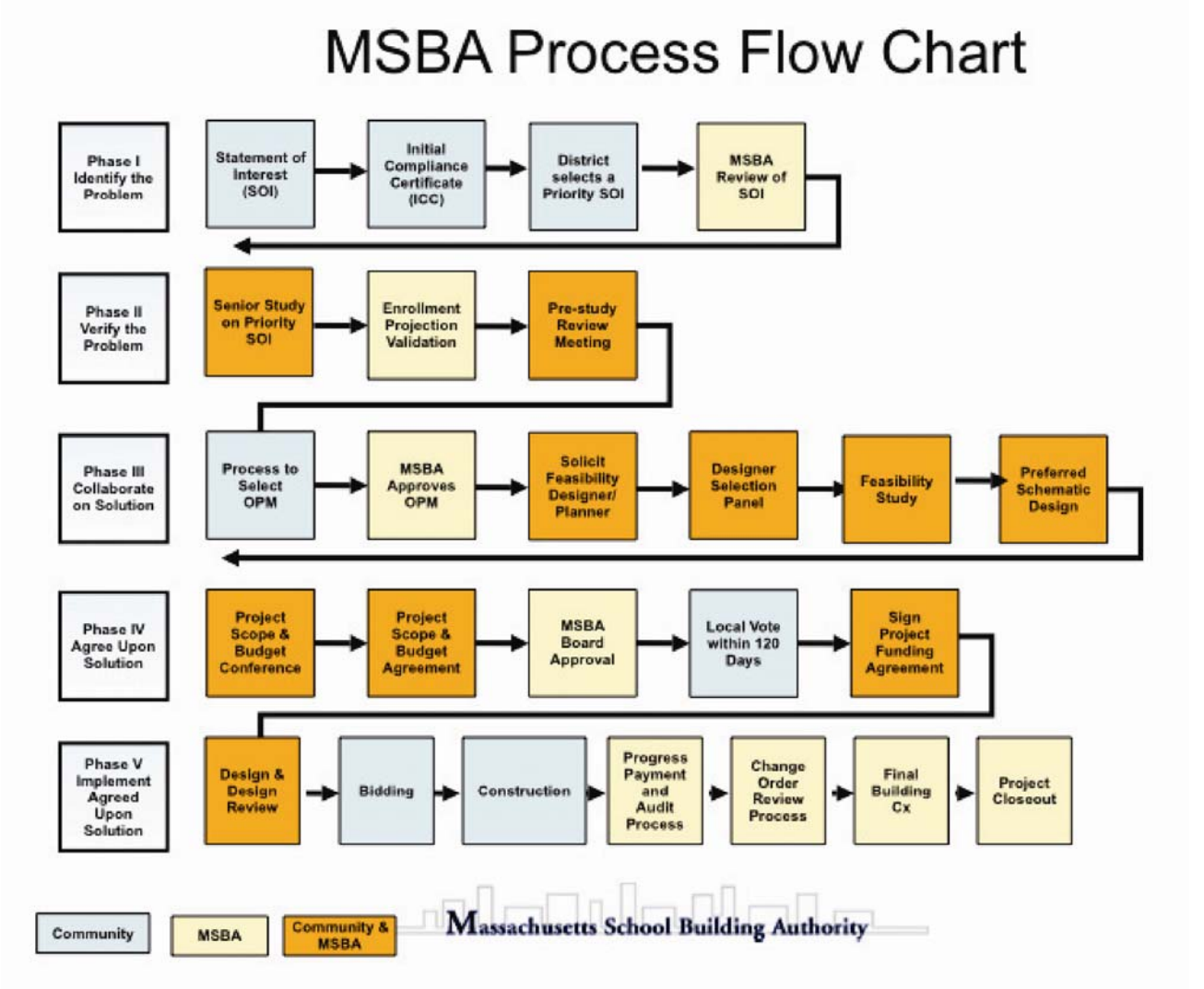
MSBA Process



MSBA Process Overview

- **Identify the Problem**

  Local District identifies perceived deficiencies in school facilities through the Statement of Interest process

- **Validate the Problem**

  MSBA and local District work together to validate deficiencies identified by the District

- **Evaluation of Potential Solutions**

  MSBA and local District work in collaboration to identify potential solutions

- **Confirm the Solution**

  MSBA and local District agree on solution and appropriate course of action

- **Implement the Agreed Upon Solution**

  MSBA and local District continue collaboration through design and construction

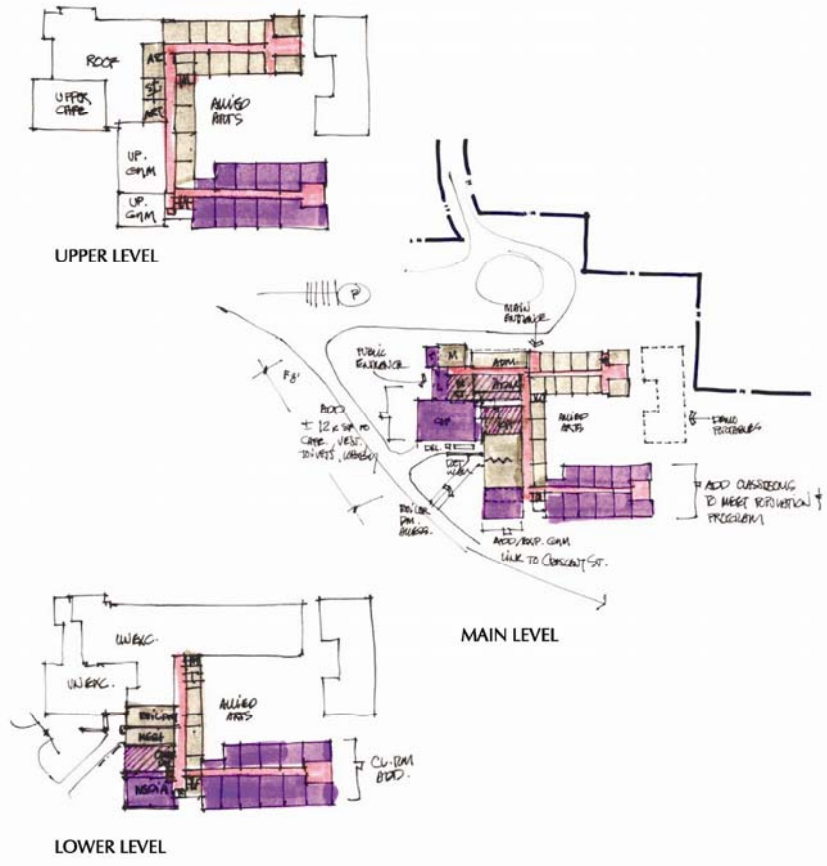
Feasibility Study

Sherwood Middle School
Sherwood Avenue, Shrewsbury, MA 01545

1.09 DEVELOPMENT OF ALTERNATIVES
B. Addition-Renovation Alternative

FEASIBILITY STUDY

Addition / Renovation Concept 1



Sherwood Middle School
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1.09 DEVELOPMENT OF ALTERNATIVES
B. Addition-Renovation Alternative

FEASIBILITY STUDY

Addition / Renovation Concept 2

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Feasibility Study

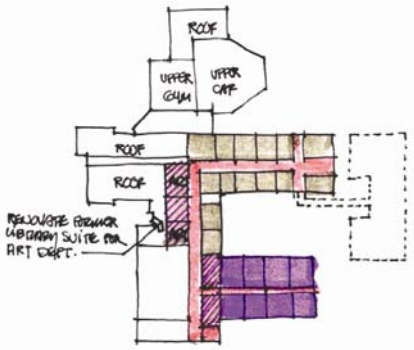
Sherwood Middle School
Sherwood Avenue, Shrewsbury, MA 01545

1.09 DEVELOPMENT OF ALTERNATIVES

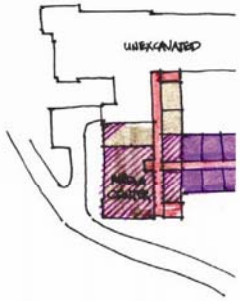
FEASIBILITY STUDY

B. Addition-Renovation Alternative

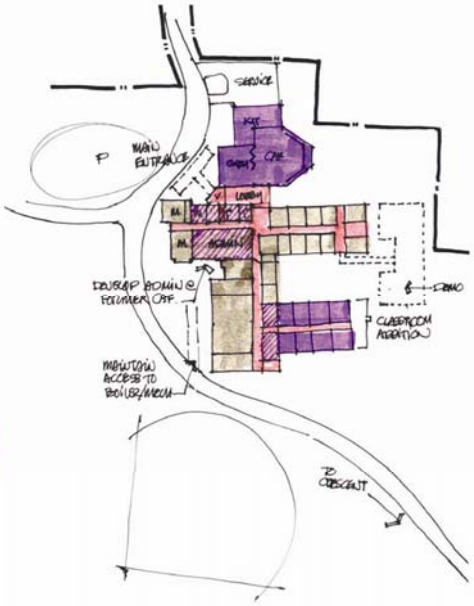
Addition / Renovation Concept 3



UPPER LEVEL



LOWER LEVEL



MAIN LEVEL

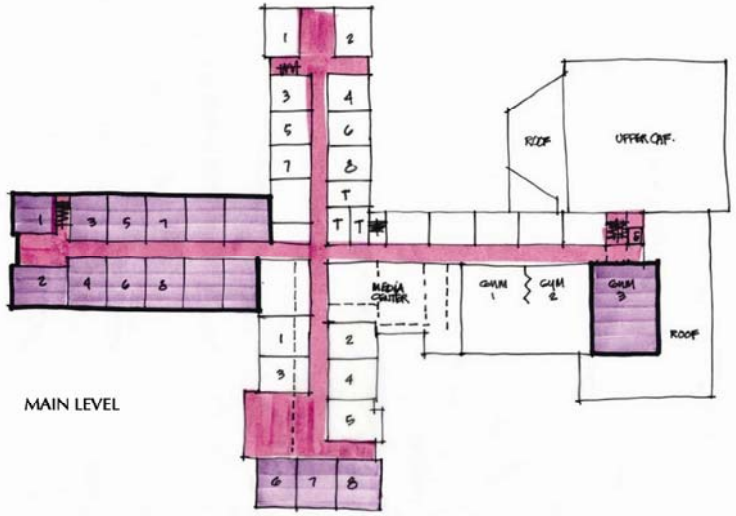
Sherwood Middle School
Sherwood Avenue, Shrewsbury, MA 01545

1.09 DEVELOPMENT OF ALTERNATIVES

FEASIBILITY STUDY

B. Addition-Renovation Alternative

Addition / Renovation Concept 4



MAIN LEVEL

LOWER LEVEL

UPPER LEVEL

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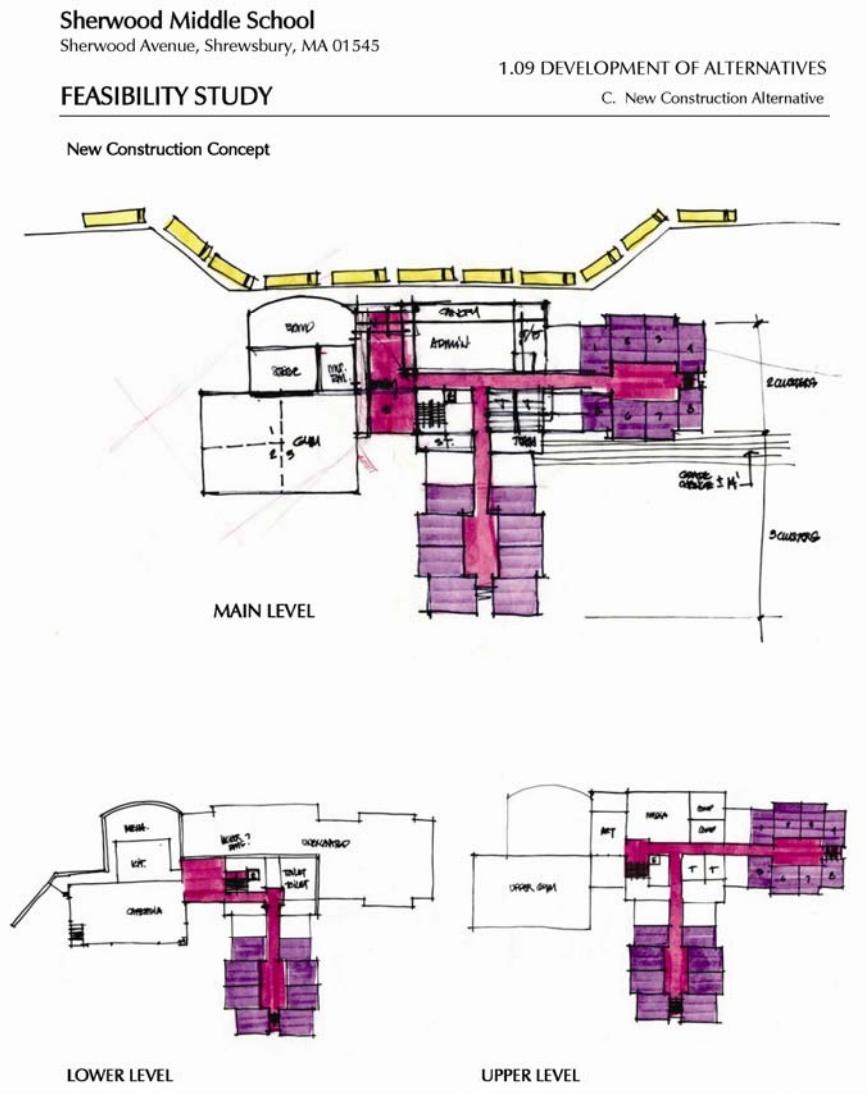
Feasibility Study



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Proposed Sherwood Middle School

Existing / Proposed Program Comparison

Sherwood Middle School
Sherwood Avenue, Shrewsbury, Massachusetts

PROGRAM COMPARISON – Existing Space/Program Space — 31 August 2009

Existing Building			Proposed Program		
#	Space	Sq. Feet	#	Space	Sq. Feet
	GENERAL CLASSROOMS			GENERAL CLASSROOMS	
29	General Classrooms @ 833sf ave.	24,180	41	General Classrooms @ 900sf	36,900
10	Modular Classrooms @ 787sf ave.	7,872			
				(5) Prep Room @ 150sf	750
				(3)Small Group Seminar @ 500sf	1,500
39	Sub Total	32,052	41	Sub Total	39,150
	SPECIAL EDUCATION			SPECIAL EDUCATION	
1	Self Contained SPED @ 914sf	914	2	Self Contained SPED and toilets	2,020
1	Modular SPED @841sf	841		@ 1010 ea	
5	Small Group SPED @715sf ave	3,575	5	Small Group SPED @ 500sf ea.	2,500
3	SPED Resource @ 715sf ave.	2,145	5	SPED Resource @ 500sf	2,500
10	Sub Total	7,482	12	Sub-Total	7,020
	ART & MUSIC			ART & MUSIC	
1	Art Classroom @ 1,604sf	1,604	2	Art Classrooms @ 1,200sf	2,400
				(2) Art Storage @ 150sf	300
1	Music Classrooms @ 1,262sf	1,262	1	Music Classroom @ 1,200sf	1,200
			1	Band/ Chorus @ 2,000	2,000
	Practice Room @ 98sf	98			
	Music Storage Rooms @ 112sf	112			
	Music Office @150sf	150			
1	Stage Classroom @ 568sf	568	1	Stage/Music Classroom	1,600
3	SubTotal	3,794	5	SubTotal	7,500
	TECHNOLOGY			TECHNOLOGY	
2	Technology Classrooms @ 933sf ave.	1,867	2	Technology Classrooms @ 1,200sf	2,400
2	SubTotal	1,867	2	SubTotal	2,400

Page 1

Sherwood Middle School
Sherwood Avenue, Shrewsbury, Massachusetts

PROGRAM COMPARISON – Existing Space/Program Space — 31 August 2009

	PHYSICAL EDUCATION				
2	Teaching Stations @ 3,143sf ea.	6,286	3	Teaching Stations @ 2,833sf ea.	8,500
	(2) Gym Storage @ 189sf ave.	378		(1) Gym Storage @ 150sf	150
	(1) Gym Office @ 157sf	157sf		(1) Gym Office @ 100sf	100
	(2) Locker Rms. @ 1,331sf ave.	2,663sf		(2) Changing Rooms @1000sf ea.	2,000
2	Sub Total	9,484	3	Sub Total	10,750
	MEDIA CENTER			MEDIA CENTER	
	Reading Room @ 1,509sf	1,509		Reading Room @ 3,000sf	3,000sf
	Office @ 182sf	182			
	Storage @ 182sf	182			
	Meeting@ 130sf	130			
	Sub Total	2,133		Sub Total	3,000
	DINING & FOOD SERVICE			DINING & FOOD SERVICE	
	Cafeteria (4 seatings) @ 4,014sf	4,014		Cafetorium (3 seatings/assembly) @ 5,500sf	5,500
	Kitchen @ 1,934sf	1,934		Kitchen @ 2,500sf	2,500
	Staff Lunch @ 272sf	272		Staff Lunch @ 325sf	325
				Chair Storage @ 500sf	500
	Sub Total	6,220		SubTotal	8,825
	ADMINISTRATION	3,354		ADMINISTRATION	4,560
	CUSTODIAL MAINTENANCE	830		CUSTODIAL MAINTENANCE	2,375

Page 2

Merits and Limitations

Sherwood Middle School
Sherwood Avenue, Shrewsbury, Massachusetts

Alternatives Merits and Limitations
Reduced Scope
3 September 2009

No Build
100,000 sf
$19m
2 – 5 year construction schedule

Merits:	Limitations:
• Replacement/upgrade of existing HVAC/electrical/fire suppression systems	• Does not meet program - Maintains undersized classrooms - Does not meet gym program - Does not address site deficiencies • Lack of phasing opportunities means students must be relocated or prolonged construction schedule • Does not strengthen connection to Oak Middle School • Continued maintenance requirements of aging 45 year old building • Leaves existing uninsulated walls in place • Classroom plumbing not improved • Existing low floor to floor dim. limits options for new systems integration • Relies on AAB code relief • Limited green design opportunities • MSBA will not support for reimbursement

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Sherwood Middle School
Sherwood Avenue, Shrewsbury, Massachusetts

Alternatives Merits and Limitations
Reduced Scope
3 September 2009

Addition/Renovation
132,500sf
$37.55m
3 year phased construction while occupied

Merits:	Limitations:
• Replacement/upgrade of existing HVAC/electrical/fire suppression systems • Additional plumbing to classrooms • Meets program with some compromise • Addresses site deficiencies • Design allows for control of construction phasing and continuous occupancy during school year • Moderate level of green design opportunities	• Close to cost of new construction • Existing inefficiencies of bldg. result in greatest building area • Program compromises - Maintains 20 undersized classrooms - Does not meet gym program - Classroom clusters are not consistent • Potential hazards of occupied construction • Does not strengthen connection to Oak Middle School for shared facilities • New main entrance most effective with Crescent St. access • Continued maintenance requirements of aging 45 year old building • Existing low floor to floor dim. limits options for new systems integration • High ratio of building envelope to volume will result in less energy efficient facility • Leaves existing uninsulated walls in place • Relies on AAB code relief

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Sherwood Middle School
Sherwood Avenue, Shrewsbury, Massachusetts

Alternatives Merits and Limitations
Reduced Scope
3 September 2009

New Construction
130,000sf
$40.4m
2 year construction schedule

Merits:	Limitations:
• Can be designed to include the most advanced building and technology systems • Meets all plumbing program requirements • Can be designed to integrate systems appropriately • Meets program most fully - Most efficient plan - Satisfies program sizes - Gym meets program • Addresses site deficiencies • Allows for existing Sherwood to remain in operation during construction without significantly impacting educational experience • Strengthens connection to Oak Middle School for shared facility opportunities • Shortest construction period • Compact building design will provide greatest opportunities for energy efficiency • Satisfies all current code requirements • Highest level of green design opportunities	• Potential site circulation congestion will present a design challenge

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Existing Conditions | During Construction | Proposed Construction

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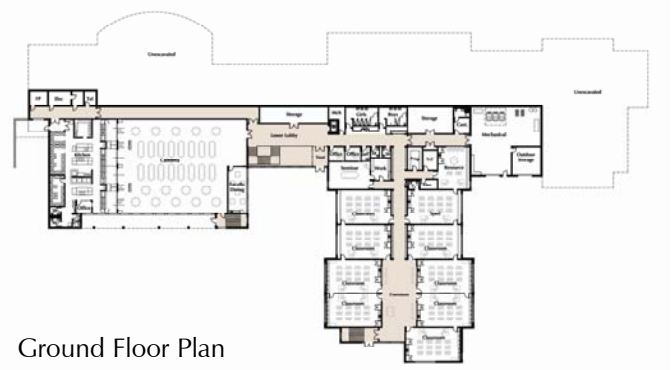
Proposed Sherwood Middle School

TOWN OF SHREWSBURY MASSACHUSETTS

Proposed Floor Plans

Second Floor Plan

First Floor Plan



Ground Floor Plan

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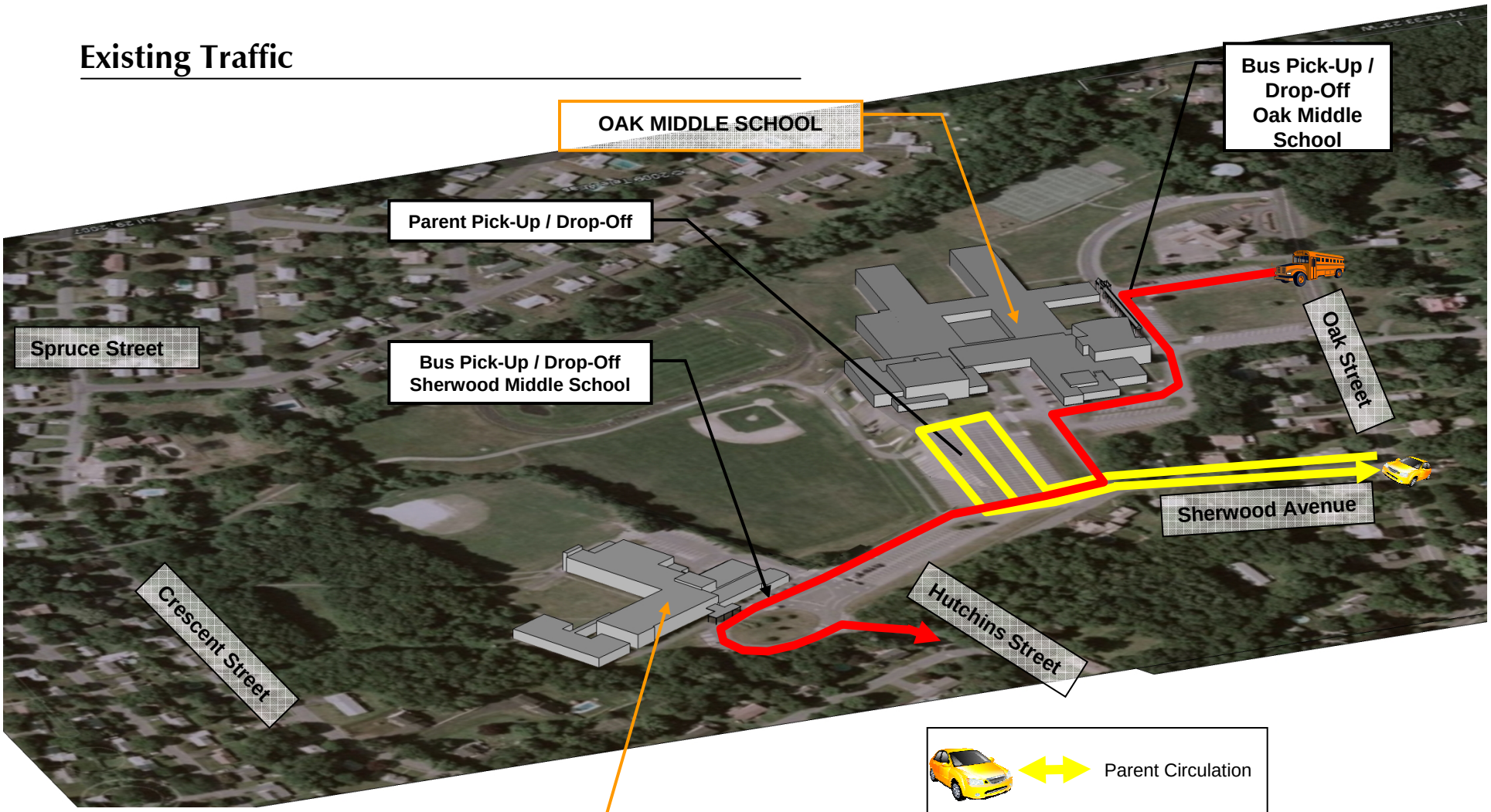
Existing Traffic



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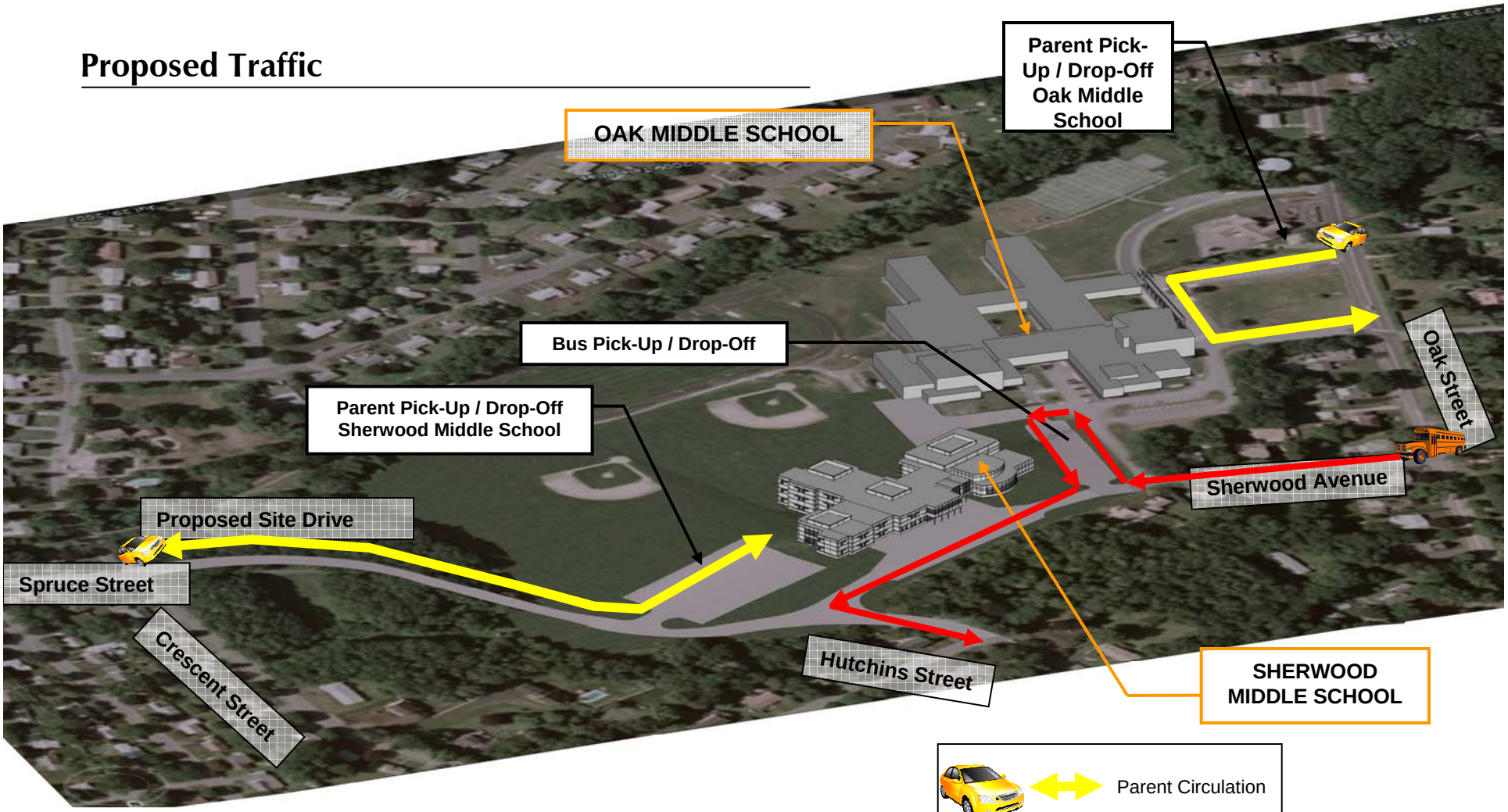
Proposed Sherwood Middle School

TOWN OF SHREWSBURY MASSACHUSETTS

Proposed Traffic



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Proposed Sherwood Middle School

TOWN OF SHREWSBURY MASSACHUSETTS

Future Steps

- MSBA approval
- Project Scope & Budget Agreement
- Town Meeting Special Election
- 2011: Construction Starts
- 2013: Occupancy