

# **“Rational Basis” Decision Making Overview**



# Decision Statement

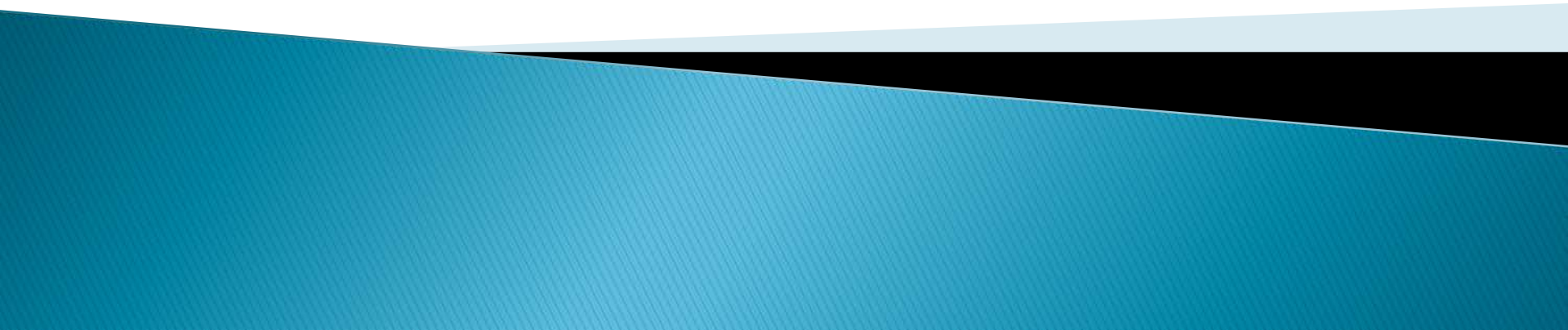
“How do we eliminate portable classrooms at Hadley? “

# Mandatory Criteria

- ▶ Definition: Outcomes which **MUST** be satisfied by the final solution

# Mandatory Criteria

Examples:



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- Portable Classrooms must disappear

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- Solution must fit within current site

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- Attendance boundaries will not change

# Mandatory Criteria

Examples:

- Portable Classrooms must disappear
- Solution must be fit within current site
- Attendance boundaries will not change
- No reduction in program capacity

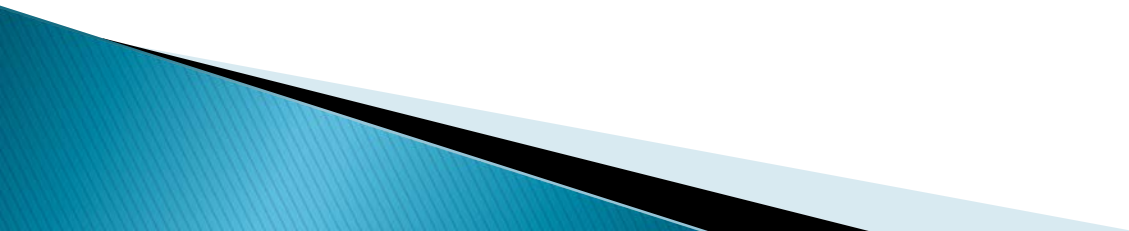


# Relevant Objectives

- ▶ Definition – Criteria that establish the relevant parameters of the solution

# Relevant Objectives

Examples:



# Relevant Objectives

Examples:

- ▶ Impact on Green Space

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- ▶ Impact on Green Space
- ▶ **Impact on Existing Building**

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- ▶ Impact on Green Space
- ▶ Impact on Existing Building
- ▶ **Implementation Timeline**

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Examples:

- ▶ Impact on Green Space
- ▶ Impact on Existing Building
- ▶ Implementation Timeline
- ▶ **First Cost Impact**

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- ▶ Impact on Green Space
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- ▶ Operating Cost Impacts – Energy, Maintenance, Capital

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- ▶ Operating Cost Impacts – Energy, Maintenance, Capital
- ▶ **Aesthetics**



# Relevant Objectives

Examples:

- ▶ Impact on Green Space
- ▶ Impact on Existing Building
- ▶ Implementation Timeline
- ▶ First Cost Impact
- ▶ Operating Cost Impacts – Energy, Maintenance, Capital
- ▶ Aesthetics
- ▶ **Building Disruption during Implementation**

# Relevant Objectives

Examples:

- ▶ Impact on Green Space
- ▶ Impact on Existing Building
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- ▶ First Cost Impact
- ▶ Operating Cost Impacts – Energy, Maintenance, Capital
- ▶ Aesthetics
- ▶ Building Disruption during Implementation
- ▶ **Property Tax Impacts**

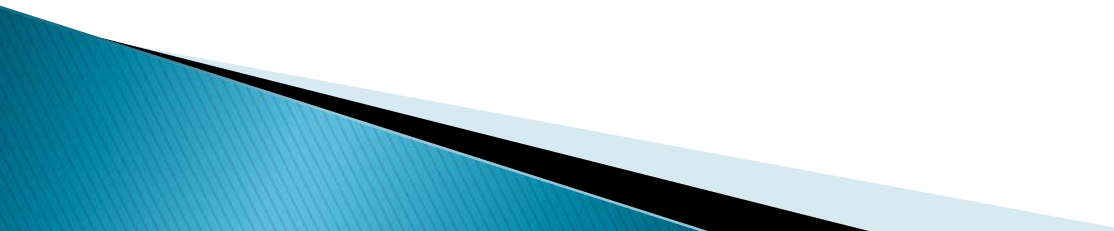
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Examples:

- ▶ Impact on Green Space
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  - ▶ Implementation Timeline
  - ▶ First Cost Impact
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  - ▶ Aesthetics
  - ▶ Building Disruption during Implementation
  - ▶ Property Tax Impacts
  - ▶ **Student Access During Construction**
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  - ▶ Student Access During Construction
  - ▶ **Future Program Flexibility**
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  - ▶ Student Access During Construction
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  - ▶ **Constructability**
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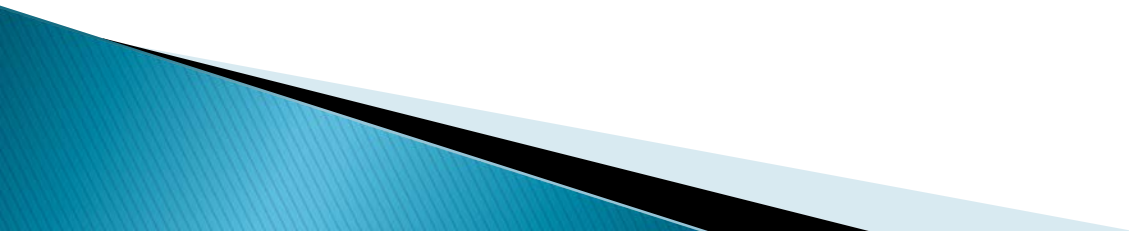
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- ▶ Student Access During Construction
- ▶ Future Program Flexibility
- ▶ Constructability
- ▶ **Operational Disruption**

# Solutions

Examples:



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Examples:

- ▶ Maintain Status Quo – Do Nothing



# Solutions

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- ▶ Maintain Status Quo – Do Nothing
- ▶ Build 10 New Classrooms on Grade

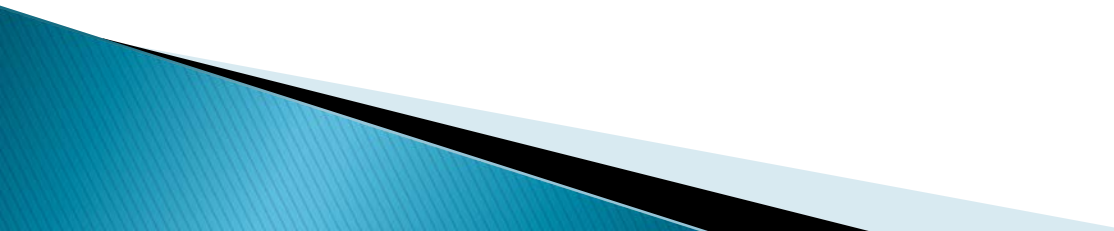
# Solutions

Examples:

- ▶ Maintain Status Quo – Do Nothing
- ▶ Build 10 New Classrooms on Grade
- ▶ **Build 10 New Classrooms above existing Classrooms**

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Examples:

- ▶ Maintain Status Quo – Do Nothing
  - ▶ Build 10 New Classrooms on Grade
  - ▶ Build 10 New Classrooms above existing Classrooms
  - ▶ **Reconfigure existing space to add 10 new classrooms**
- 

# Analysis

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- ▶ Solution must satisfy **ALL** mandatory criteria

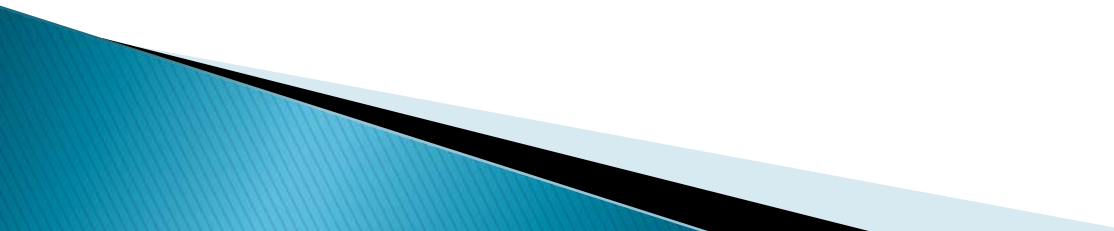
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- ▶ Solution does not satisfy mandatory criteria = DOA

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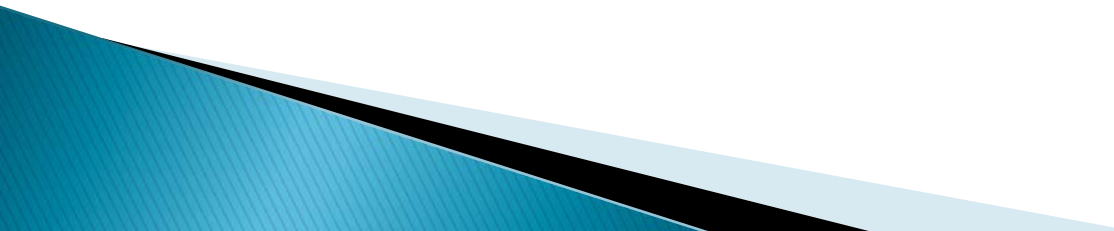
MANDATORY CRITERIA DECISION MATRIX					
PROPOSED SOLUTION	ELIMINATES PORTABLES	FITS ON CURRENT SITE	ATTENDANCE BOUNDARIES	EDUCATION PROGRAM CAPACITY UNCHANGED	GO/NO GO
Maintain Status Quo - Do Nothing	No	Yes	Yes	Yes	NO GO
Build 10 Classrooms on Grade	Yes	Yes	Yes	Yes	GO
Build 10 Classrooms above Existing	Yes	Yes	Yes	Yes	GO
Re-work Interior Space	Yes	Yes	Yes	Yes	GO

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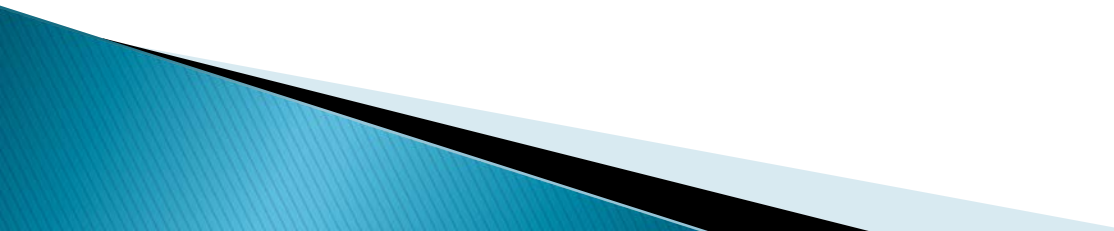
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  - ▶ **Analyze solutions v. relevant objectives**
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  - ▶ Solutions that satisfy mandatory criteria move to the next step
  - ▶ Analyze solutions v. relevant objectives
  - ▶ **Move on to Scoring Analysis**
- 

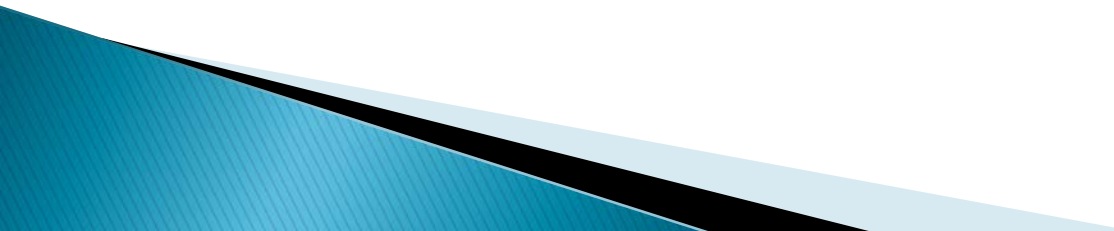
# Scoring Analysis

- ▶ Objectives assigned a “Weighting Factor”

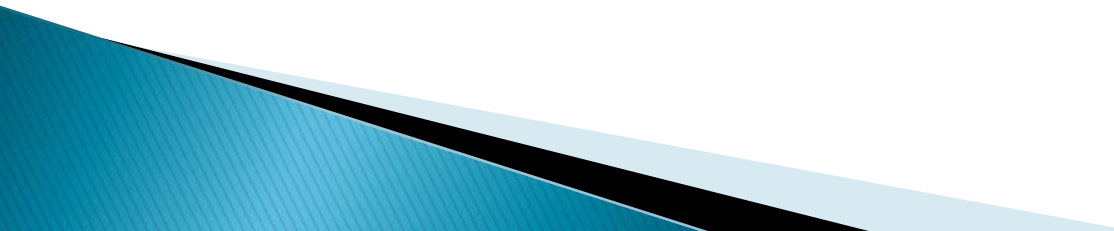
# Scoring Analysis

- ▶ Objectives assigned a “Weighting Factor”
- ▶ “Weighting factor” is an assessment of the relative importance of each objective

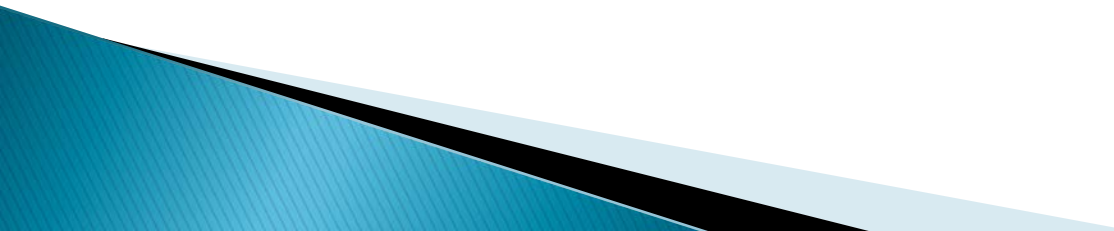
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  - ▶ Each solution is analyzed and rated from 1 – 10 versus objectives
  - ▶ “Weighting Factor” times rating = Final Score
  - ▶ Final scores added to give Total score
- 

# Scoring Analysis

RELEVANT OBJECTIVES EVALUATION MATRIX				
RELEVANT OBJECTIVES	WEIGHTING FACTOR	PROPOSED SOLUTIONS		
		BUILD 10 CLASSROOMS ON GRADE	BUILD 10 CLASSROOMS ABOVE EXISTING	REWORK INTERIOR SPACE
Green Space Impact	3	3	10	10
		<b>9</b>	<b>30</b>	<b>30</b>
Existing Building Impact	3	9	5	2
		<b>27</b>	<b>15</b>	<b>6</b>
Implementation Timeline	2	3	5	8
		<b>6</b>	<b>10</b>	<b>16</b>
First cost Impact	4	6	7	8
		<b>24</b>	<b>28</b>	<b>32</b>
Operating cost Impact	7	5	7	9
		<b>35</b>	<b>49</b>	<b>63</b>
Aesthetics	2	8	8	10
		<b>16</b>	<b>16</b>	<b>20</b>
Building Disruption	5	9	5	2
		<b>45</b>	<b>25</b>	<b>10</b>
Property Tax Impact	8	5	7	9
		<b>40</b>	<b>56</b>	<b>72</b>
Student Access	5	10	5	2
		<b>50</b>	<b>25</b>	<b>10</b>
Future Program Flexibility	8	10	10	7
		<b>80</b>	<b>80</b>	<b>56</b>
Constructability	3	9	5	7
		<b>27</b>	<b>15</b>	<b>21</b>
Operational Disruption	5	9	7	5
		<b>45</b>	<b>35</b>	<b>25</b>
TOTAL SCORE		<b>404</b>	<b>384</b>	<b>361</b>



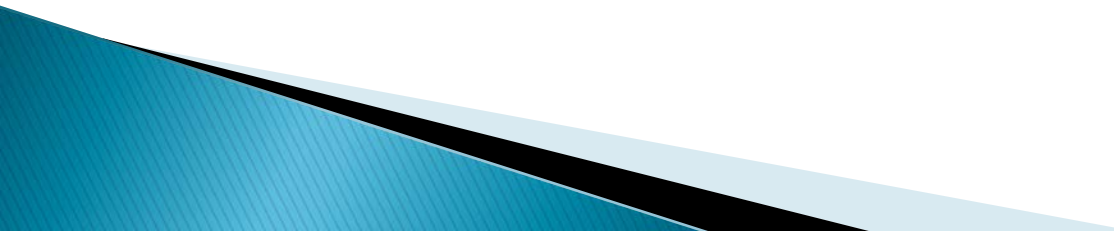
# Risk Assessment

- ▶ Highest scoring solutions subjected to risk assessment process

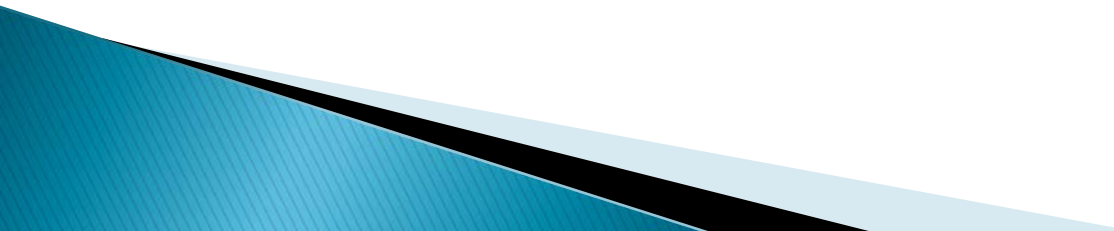
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  - ▶ **Examples:**
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- ▶ Example

**Referendum fails**



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- ▶ Example
  - Referendum fails
  - Major enrollment swings**

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- ▶ Example
  - Referendum fails
  - Major enrollment swings
  - Zoning Modification**

# Risk Assessment

RISK ASSESSMENT MATRIX				
PROPOSED SOLUTION		FAILED REFERENDUM	MAJOR ENROLLMENT CHANGE	ZONING MODIFICATION
Build 10 Classrooms on Grade	PROBABILITY	High	Low	Low
	SERIOUSNESS	High	Low	High
Build 10 Classrooms above Existing	PROBABILITY	High	Low	Low
	SERIOUSNESS	High	Low	Medium
Rework Interior Space	PROBABILITY	Low	Low	Low
	SERIOUSNESS	Low	Low	Low



# Final Recommendation

- ▶ At the conclusion of the process, the committee presents their final recommendation solution to the Board of Education