

PROJECT MINUTES

Project: New W. Edward Balmer Elementary School Project No.: 17020 Prepared by: Joel Seeley Meeting Date: 10/1/19 School Building Committee Meeting Meeting No: Re: 52 Location: High School Media Center Time: 7:00pm

Distribution: School Building Committee Members, Attendees (MF)

Attendees:

PRESENT	NAME	AFFILIATION	VOTING MEMBER
✓	Joseph Strazzulla	Chairman, School Building Committee	Voting Member
✓	Melissa Walker	School Business Manager	Voting Member
✓	Alicia Cannon	Representative of the Board of Selectmen	Voting Member
	Michael LeBrasseur	Chairman, School Committee	Voting Member
✓	Paul Bedigian	Representative of the Building, Planning, Construction Committee	Voting Member
✓	Steven Gogolinski	Representative of the Finance Committee	Voting Member
✓	Jeffrey Tubbs	Community Member with building design and/or construction experience	Voting Member
✓	Peter L'Hommedieu	Community Member with building design and/or construction experience	Voting Member
✓	Jeff Lundquist	Community Member with building design and/or construction experience	Voting Member
	Andrew Chagnon	Community Member with building design and/or construction experience	Voting Member
✓	Spencer Pollock	Parent Representative	Voting Member
	Adam Gaudette	Town Manager	Non-Voting Member
✓	Amy McKinstry	Interim Superintendent of Schools	Non-Voting Member
✓	Richard Maglione	Director of Facilities	Non-Voting Member
✓	Karlene Ross	Principal, W. Edward Balmer Elementary School	Non-Voting Member
	Theresa Gould	Principal, Northbridge Elementary School	Non-Voting Member
	Gregory Rosenthal	Director of Pupil Personnel Services	Non-Voting Member
	Lee Dore	D & W, Architect	
✓	Thomas Hengelsberg	D & W, Architect	
	David Fontaine	Fontaine Bros, CM	
	David Fontaine, Jr	Fontaine Bros, CM	
	David Barksdale	Fontaine Bros, CM	
	Jim Mauer	Fontaine Bros, CM	
✓	Joel Kent	Fontaine Bros, CM	
√	Joel Seeley	SMMA, OPM	

PROVIDENCE, RHODE ISLAND

Project: New W. Edward Balmer Elementary School

Meeting Date: 10/1/19
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Item #	# Action Discussion					
52.1	Record	Call to Order, 6:30 PM, meeting opened.				
52.2	Record	J. Strazzulla announced the meeting will be video and audio recorded with live broadcast and future re-broadcast.				
52.3	Record	Public Comment - None				
52.4	Record	A motion was made by P. Bedigian and seconded by A. Cannon to approve the 9/17/19 School Building Committee meeting minutes. No Discussion, motion passed unanimous by those attending.				
52.5	J. Seeley	J. Seeley to add an estimated to complete and a projected final cost column to the Budget Tracking Form.				
52.6	T. Hengelsberg	T. Hengelsberg to provide a response to the CDM Balmer School Sanitary Flow Metering Study.				
52.7	J. Strazzulla	J. Strazzulla to review the location of the relocated Vail Memorial with the Trustees of Soldiers Memorials Committee.				
52.8	T. Hengelsberg	T. Hengelsberg to issue a formal response to the design review meeting with the Disability Commission held on 7/10/19.				
52.9	J. Strazzulla	J. Strazzulla will contact 254 Mason to confirm if they want to have the plantings adjacent to their property changed.				
52.10	Record	J. Seeley distributed and reviewed the updated Project Schedule and updated 100% Construction Documents Meetings and Agenda Schedule, attached.				
52.11	T. Hengelsberg J. Kent	T. Hengelsberg presented the request by 45-55 Crescent Street to remove the tree along the property line, attached.				
	J. Seeley	T. Hengelsberg, J. Kent and J. Seeley to review with the arborist and provide a recommendation at the next SBC meeting.				
52.12	J. Kent	T. Hengelsberg presented that the noise calculations by the acoustical engineer for the HVAC Rooftop Units took diversity into account and the Acoustic Mechanical Roof Screens are required, attached.				
		Committee Discussion				
		 J. Lundquist indicated concern that the acoustical engineer may be conservative and the acoustical screens will not be required and requests the HVAC units be installed, made operational and then have field tests performed prior to installing the acoustical screens. J. Kent to study the feasibility of making all the RTUs operational early enough so that sound tests can be made, and if failed, install the sound absorbing panels prior to Substantial Completion, or the time that they are needed to operate in earnest to make the building ready for finishes etc.(which could be earlier than Substantial Completion), factoring in lead times for panel fabrication and installation. 				
		 P. Bedigian asked if there would be a cost impact to delaying the installation of the acoustical panels? J. Kent to determine any cost impacts associated with delaying fabrication and installation of the panels. 				

Project: New W. Edward Balmer Elementary School

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Item #	Action	Discussion						
52.13	Record	J. Seeley distributed and reviewed the List of Prequalified Trade Contractors as recommended by the Trade Contractor Prequalification Committee, attached.						
		A motion was made by A. Cannon and seconded by P. Bedigian to approve the list of Prequalified Trade Contractors as recommended by the Trade Contractor Prequalification Committee. No Discussion, motion passed unanimous.						
52.14	T. Hengelsberg J. Seeley	J. Seeley distributed and reviewed the MSBA comments on the 90% Construction Documents Submission, attached.						
		T. Hengelsberg and J. Seeley to provide written response by 10/11/19.						
52.15	Record	J. Kent provided a Construction Update. Underground utilities are continuing in preparation for binder course paving of the access drive to the new building and foundations are anticipated to commence in the next 2 -3 weeks, attached.						
		J. Kent indicated some site sub-contractor dump trucks had been staging on Lake Street waiting for the construction gate to open during the blackout times. FBI has directed the sub-contractor to stop staging trucks on Lake Street during blackout times.						
		J. Strazzulla thanked FBI for their quick response on this issue.						
52.16	J. Strazzulla	Committee Questions						
	J. Seeley T. Hengelsberg	 M. Walker asked if the Committee can receive an update on the Bond borrowing status? J. Strazzulla will work with A. Gaudette and provide an update at the next Committee meeting. 						
		 J. Lundquist asked if calendar invites can be sent out for the SBC meetings after the 11/19/19 meeting. J. Seeley will send out the calendar invites. 						
		 J. Tubbs asked if the 100% Construction Documents can be made available to the Committee? T. Hengelsberg indicated yes and will post on the D&W FTP site. 						
52.17	Record	Old or New Business - none						
52.18	Record	Next SBC Meeting: 10/15/19 at 6:30pm at the High School Media Center.						
52.19	Record	A Motion was made by J. Lundquist and seconded by J. Tubbs to adjourn. No discussion, motion passed unanimous.						

Attachments: Agenda, Project Schedule, 100% Construction Documents Meetings and Agenda Schedule, List of Prequalified Trade Contractors, MSBA comments on the 90% Construction Documents Submission, PowerPoint

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes



PROJECT MEETING SIGN-IN SHEET

Project:

Re:

New W. Edward Balmer Elementary School

Prepared by:

Joel Seeley

Location:

School Building Committee Meeting

High School Media Center

427 Linwood Avenue, Whitinsville, MA

Distribution:

Attendees, (MF)

Project No.:

17020

Meeting Date:

10/1/2019

Meeting No:

52

Time:

6:00pm

	SIGNATURE	ATTENDEES	EMAIL	AFFILIATION
-	for Suppo	Joseph Strazzulla	istrazzulla@nps.org	Chairman, School Building Committee
	Mon	Melissa Walker	mwalker@nps.org	School Business Manager, MCPPO
4	alua Cannon	Alicia Cannon	cannonhome0927@gmail.com	Member, Board of Selectmen, CEO
	,	Michael LeBrasseur	mlebrasseur@nps.org	Chairman, School Committee
1	Boul gredience	Paul Bedigian	bedigianps@cdmsmith.com	Representative of the Building, Planning, Construction Committee
	In 1 Auch	Steven Gogolinski	steve@gogolinskicpa.com	Representative of the Finance Committee
1	800	Jeffrey Tubbs	itubbs@charter.net	Member of community with architecture, engineering and/or construction experience
	phylin	Peter L'Hommedieu	plhommedieu@shawmut.com	Member of community with architecture, engineering and/or construction experience
	MIKM	Jeff Lundquist	i_lundquist@charter.net.	Member of community with architecture, engineering and/or construction experience
	11100	Andrew Chagnon	achagnon@vertexeng.com	Member of community with architecture, engineering and/or construction experience
1	Summe	Spencer Pollock	spencerpollock22@gmail.com	Parent Representative
4		Adam Gaudette	agaudette@northbridgemass.org	Town Manager
	amy my instry	Amy McKinstry	amckinstry@nps.org	Superintendent of Schools
1	Self Mag Vi	Richard Maglione	rmaglione@nps.org	Building Maintenance Local Official
-	Karlen Case	Karlene Ross	kross@nps.org	Principal, W. Edward Balmer Elementary School
	/	Theresa Gould	tgould@nps.org	Principal, Northbridge Elementary School
		Gregory Rosenthal	grosenthal@nps.org	Director of Pupil Personnel Services
	Ω	Lee P. Dore	Ipdore@DoreandWhittier.com	Dore & Whittier Architects
\pm	The strong	Thomas Hengelsberg	thengelsberg@DoreandWhittier.com	Dore & Whittier Architects
	j	David Fontaine, Jr.	djr@fontainebros.com	Fontaine Bros., Inc.
		David Barksdale	dbarksdale@fontainebros.com	Fontaine Bros., Inc.
		Jim Mauer	jmauer@fontainebros.com	Fontaine Bros., Inc.
	J. Kl	Joel Kent	ikent@fontainebros.com	Fontaine Bros., Inc.
	(Also	Joel Seeley	iseeley@smma.com	SMMA

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Agenda

New W. Edward Balmer Elementary School Project: Re:

School Building Committee Meeting

17020

10/1/2019

6:30 PM

52

Project No.:

Meeting Date:

Meeting Time:

Meeting No.

High School Media Center Meeting Location:

427 Linwood Avenue, Whitinsville, MA

Prepared by: Joel G. Seeley

Distribution: Committee Members (MF)

- 1. Call to Order
- 2. Public Comments
- 3. Approval of Minutes
- 4. Approval of Invoices and Commitments
- 5. Design Update
- 6. DPW Sanitary Systems Study Review
- 7. Neighborhood Meeting Follow-up
- 8. Vote to Approve Trade Contractor Prequalifications
- 9. Review MSBA 90% Construction Documents Submission Comments
- 10. Construction Update
- 11. New or Old Business
- 12. Committee Questions
- 13. Next Meeting: October 15, 2019
- 14. Executive Session Not to Return to Open Session
 - M.G.L. c.30A, Sec. 21 #3 To discuss strategy with respect to collective bargaining or litigation if an open meeting may have a detrimental effect on the bargaining or litigating position of the Town.

SCHOOL BUILDING COMMITTEE W. EDWARD BALMER ELEMENTARY SCHOOL

All meetings held at the

High School Media Center at 6:30 PM

unless otherwise noted

MEETINGS SCHEDULE AND AGENDAS

July 2, 2019 Updated September 23, 2019

DATE	AGENDA
100% Construction Docu	uments Phase
September 17, 2019	BUILDING COMMITTEE MEETING
	Review Overall Construction Document Phase Schedule
	Review 100% Construction Document Schedule
	Review Design Refinements
	Award Early Concrete and Steel
September 24, 2019	TRADE CONTRACTOR QUALIFICATION COMMITTEE MEETING - 6:00 PM
	Review of Trade Contractor Statements of Qualifications
October 1, 2019	BUILDING COMMITTEE MEETING
	Vote to Approve Trade Contractor Prequalifications
	Review MSBA 90% Construction Documents Submission Comments
October 15, 2019	BUILDING COMMITTEE MEETING
	Process Payment Requisitions
November 19, 2019	BUILDING COMMITTEE MEETING
	Vote to Approve Trade Contractor Bids
	ADDITIONAL MEETINGS TO BE SCHEDULED



November 26, 2018 New W. Edward Balmer Elementary School **SMMA** Updated: September 10, 2019 **Project Schedule** PROJECT MANAGEMENT ID Task Name Duration Start Finish 2014 2019 MSBA PREREQUISITES 4 **RETAIN OPM** 45 days 1/30/2017 4/3/2017 10 161 davs 20 FEASIBILITY STUDY (FS) 6/27/2017 2/14/2018 35 SCHEMATIC DESIGN (SD) 139 days 42 PROJECT SCOPE AND BUDGE 5/22/2019 12/6/2018 50 DESIGN DEVELOPMENT 119 days 11/8/2018 4/26/2019 59 SITE PERMITTING 170 days 11/7/2018 7/8/2019 89 BUILDING PERMITTING CONSTRUCTION DOCUMENTS 94 95 Incorporate MSBA DD Comments 11 days 4/29/2019 5/13/2019 4/8/2019 96 30 days 5/17/2019 Develop 60% Contract Documents to Estimator 97 Early Site Enabling, and Preparation Package No. 1 51 days 3/8/2019 5/17/2019 98 5/17/2019 6/4/2019 OPM and Cx Review 13 days 13 days 5/17/2019 6/4/2019 99 60% Construction Documents Cost Estimate 100 6/18/2019 6/18/2019 6/18/2019 60% Construction Documents 60% Construction Documents Submission to MSBA 0 days 16 days 101 6/19/2019 7/11/2019 MSBA Review of 60% CD Submission 102 11 davs 7/10/2019 7/24/2019 Incorporate MSBA 60% CD Comments П 103 Develop 90% Contract Documents to Estimator 30 days 6/18/2019 7/30/2019 11 104 30 days 6/18/2019 7/30/2019 Early Foundation and Structural Package No. 2 П 105 Structural Peer Review of Early Foundation and Structural Package 16 days 7/30/2019 8/20/2019 106 90% Construction Documents Cost Estimate 16 days 7/30/2019 8/20/2019 107 90% Construction Documents Submission to MSBA 0 days 9/4/2019 9/4/2019 9/4/2019 • 90% Construction Documents 108 MSBA Review of 90% CD Submission 16 days 9/4/2019 9/25/2019 9/25/2019 109 Incorporate MSBA 90% CD Comments 11 days 10/9/2019 10/9/2019 10/9/2019 10/9/2019 ♦ Construction Documents Con 110 0 days Construction Documents Complete Package No. 3 9 days 10/9/2019 10/21/2019 111 LEED-S Design Submission 112 514 days 12/6/2017 12/9/2019 PROCUREMENT 113 73 days 12/6/2017 3/21/2018 П CM Selection 53 days 4/22/2019 7/3/2019 120 Prequalification - Package No. 2 Trade Contractors П 71 days 6/24/2019 128 Pregualification - Package No. 3 Trade Contractors 10/2/2019 П 129 21 days 6/24/2019 7/23/2019 130 0 days 7/23/2019 7/23/2019 7/23/2019 Submit Advertisement to Centr Submit Advertisement to Central Register and Local Newspaper 131 Notice in Central Register 0 days 7/31/2019 7/31/2019 7/31/2019 Notice in Central Register 132 0 days 8/28/2019 8/28/2019 8/28/2019 • Submit SOQs Submit SOQs 133 Review SOOs 19 days 8/28/2019 9/24/2019 10/1/2019 134 0 days 10/1/2019 10/1/2019 A Recommend Prequalified Tra Recommend Pregualified Trade Contractors to SBC 10/2/2019 10/2/2019 ♦ Issue Notification Letters to F 135 Issue Notification Letters to Prequalified Trade Contractors 0 days 10/2/2019 10/1/2019 136 48 days 12/9/2019 100% Construction Documents Package No. 3 п 10/1/2019 10/1/2019 137 Submit Advertisement to Central Register and Newspaper 0 days 10/1/2019 10/9/2019 10/9/2019 10/9/2019
Notice in Central Register 138 Notice in Central Register 0 days 10/9/2019 139 0 days 10/9/2019 10/9/2019 Bid Package Issued 140 0 days 10/15/2019 10/15/2019 10/15/2019 • Pre-Bid Meeting Pre-Bid Meeting 141 11/6/2019 11/6/2019 11/6/2019 Trade Contractor Bids Due Trade Contractor Bids Due 0 days 142 CM Develop GMP 21 days 11/8/2019 12/9/2019 143 0 days 12/9/2019 12/9/2019 12/9/2019 • GMP Approval GMP Approval 144 ARLY PACKAGES PROCUREMENT 85 days 5/17/2019 9/17/2019 П 18 davs 5/17/2019 6/12/2019 145 Early Site Package No. 1 149 Early Foundation, Steel and Elevator Structural Package No. 2 44 days 7/16/2019 9/17/2019 9/17/2019 Tarly Foundation, Steel and E 158 ONSTRUCTION 159 Notice to Proceed 0 days 6/11/2019 6/11/2019 6/11/2019 Notice to Proceed 160 0 days 6/18/2019 6/18/2019 6/18/2019
Site Mobilization Site Mobilization 161 Substantial Completion - Phase 1 "Enabling Work" 43 days 6/18/2019 8/16/2019 162 50% DCAMM Evaluation 0 days 8/15/2020 8/15/2020 8/15/2020 • 50% DCAMM Evaluation 4/15/2021 A Punch List Start 4/15/2021 4/15/2021 163 Punch List Start 0 days 6/15/2021 6/15/2021 6/15/2021 • Punch List Com 164 Punch List Complete 0 days 165 6/15/2021 6/15/2021 6/15/2021
Substantial Com Substantial Completion - Phase 2 "Building Construction" 0 days 34 days 166 6/15/2021 7/30/2021 Final Completion, Closeout and Commissioning 34 days 6/15/2021 7/30/2021 167 FFE/Technology Installation 21 days 8/2/2021 8/30/2021 168 Teacher/Staff Move-In 169 8/30/2021 8/30/2021 8/30/2021 • Occupancy 0 days Occupancy 66 days 170 7/3/2021 10/4/2021 Demolish Existing School 171 Parking Lot and Playfield Construction 55 days 10/4/2021 12/20/2021 172 CM Request for Final Payment 0 days 12/20/2021 12/20/2021 12/20/2021 CM Request 173 0 days 12/20/2021 12/20/2021 12/20/2021
Substantial Substantial Completion - Phase 3 "Demolition and Site Work" 174 Closeout 46 days 12/20/2021 2/21/2022 12/20/2021 175 46 days 2/21/2022 Final Completion 2/21/2022 2/21/2022 2/21/2022 • 100% DCAN 176 100% DCAMM Evaluation 0 days 177 LEED-S Construction Submission 46 days 12/20/2021 2/21/2022 178 3/1/2022 3/1/2022 3/1/2022 MSBA Fina MSBA Final Payment Reimbusement Request 0 days 4/15/2022 4/15/2022 4/15/2022 Commissi 179 Commissioning Agent 10-month Inspection 0 days 4/15/2022 4/15/2022 **Ommissi** 180 Commissioning Agent Final Report Submission to MSBA 0 days 4/15/2022 0 days 181 4/15/2022 4/15/2022 4/15/2022 Commissi Commissioning Agent Submission of Certification 4/21/2022 • USGBC Is: 182 4/21/2022 4/21/2022 USGBC Issuance of Certification 0 days



New W. Edward Balmer Elementary School List of Prequalified Trade Contractors 100% Construction Documents Package September 24, 2019

Trade	Company		
	Costa Brothers Masonry		
	Empire Masonry Corp.		
Masonry	Fernandes Masonry		
	Lighthouse Masonry, Inc.		
	Marmelo Bros. Construction		
	The Berlin Steel Construction Company		
	Quinn Bros. of Essex, Inc.		
Miscellaneous & Ornamental Iron	SMJ Metal Co., Inc. dba Ralph's Blacksmith		
	United Steel, Inc.		
	V&G Iron Works, Inc.		
	Armani Restoration, Inc.		
	Beacon Waterproofing & Restoration Inc.		
	Folan Waterproofing & Construction Co., Inc.		
Waterproofing, Dampproofing & Caulking	Gleeson Powers, Inc.		
	P.J. Spillane Co., Inc.		
	Superior Caulking & Waterproofing Co., Inc.		
	The Waterproofing Company, LLC		
	Capeway Roofing Systems, Inc.		
Doofing 9 Floobing	Feeley McAnespie, Inc.		
Roofing & Flashing	Gibson Roofs, Inc.		
	Greenwood Industries, Inc.		

New W. Edward Balmer Elementary School, Whitinsville, Massachusetts Trade Contractor Prequalification Committee

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Trade	Company	
	J.D. Rivet & Co., Inc.	
	John F. Shea Co., Inc.	
Doofing 9 Flocking	Rockwell Roofing, Inc.	
Roofing & Flashing	Silktown Roofing, Inc.	
	Stanley Roofing Co., Inc.	
	Titan Roofing, Inc.	
	A & A Window Products, Inc.	
	Chandler Architectural Products, Inc.	
	Cherry Hill Glass Co., Inc.	
Metal Windows	G.V.W., Inc.	
	Kapiloff's Glass, Inc.	
	Lizotte Glass, Inc.	
	Lockheed Window Corp.	
	R&R Window Contractors, Inc.	
	A & A Window Products, Inc.	
	Aluminum & Glass Concepts, Inc.	
	Chandler Architectural Products, Inc.	
	Cherry Hill Glass Co., Inc.	
Glass & Glazing	Greenfield Glass Company, Inc.	
	G.V.W., Inc.	
	Kapiloff's Glass, Inc.	
	Lizotte Glass, Inc.	
	R&R Window Contractors, Inc.	

New W. Edward Balmer Elementary School, Whitinsville, Massachusetts Trade Contractor Prequalification Committee

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Trade	Company
	Ayotte & King for Tile, Inc.
	Capital Carpet & Flooring Specialist, Inc.
Tile	Joseph Cohn & Sons Tile & Terrazzo, LLC
	M. Frank Higgins & Co., Inc.
	Pavilion Floors, Inc.
	Roman Tile Company, Inc.
	Central Ceilings, Inc.
Acoustical Ceiling Tile	H. Carr & Sons, Inc.
	K&K Acoustical Ceilings, Inc.
	The Cheviot Corporation
	Ayotte & King for Tile, Inc.
	Capital Carpet & Flooring Specialist, Inc.
Resilient Floors	CJM Services, Inc.
	M. Frank Higgins & Co., Inc.
	Pavilion Floors, Inc.
	Bello Painting Co., Inc.
	Color Concepts, Inc.
Painting	Dandis Contracting, Inc.
	Homer Painting
	King Painting, Inc.
	Carlysle Engineering, Inc.
Eiro Drotastian	Cogswell Sprinkler Co., Inc.
Fire Protection	Covenant Fire Protection
	Hampshire Fire Protection Co., Inc.

New W. Edward Balmer Elementary School, Whitinsville, Massachusetts Trade Contractor Prequalification Committee

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Trade	Company
	Rustic Fire Protection
Fire Protection	SRI Fire Sprinkler, LLC
	Yankee Sprinkler Co.
	Araujo Bros. Plumbing and Heating, Inc.
	B-G Mechanical Contractors, Inc.
	Charles M. Moran Plumbing and Heating, Inc.
Plumbing	Grasseschi Plumbing & Heating, Inc.
	Harold Brothers
	KMD Mechanical Corp.
	N.B. Kenney Company, Inc.
	William F. Lynch Co., Inc.
	B-G Mechanical Contractors, Inc.
	CAM HVAC & Construction, Inc.
	General Mechanical Contractors, Inc.
HVAC	Harold Brothers
	KMD Mechanical Corp.
	N.B. Kenney Company, Inc.
	William F. Lynch Co., Inc.
	Annese Electrical Services, Inc.
Planting	M.L. Schmitt, Inc.
Electrical	Systems Contracting, Inc.
	Wayne J. Griffin Electric, Inc.

Massachusetts School Building Authority

Deborah B. Goldberg

James A. MacDonald

John K. McCarthy
Executive Director / Deputy CEO

Chairman, State Treasurer

Chief Executive Officer

September 27, 2019

Ms. Alicia Cannon Northbridge Board of Selectmen Northbridge Town Hall 7 Main Street Whitinsville, MA 01588

Re: Town of Northbridge, W. Edward Balmer Elementary School

Dear Ms. Cannon:

The Massachusetts School Building Authority (the "MSBA") is forwarding review comments of the 90% Construction Documents submission for the W. Edward Balmer Elementary School Project in the Town of Northbridge, received by the MSBA on September 6, 2019.

Responses to the attached comments shall be forwarded to Brian Lynch (Brian.Lynch@MassSchoolBuildings.org) through the Owner's Project Manager. Please review and return responses within 14 days of receipt of this letter.

If you have any questions or comments, please do not hesitate to contact Kevin Sullivan (Kevin.Sullivan@MassSchoolBuildings.org).

Sincerely.

Karl Brown, AIA Design Director

Attachment: 90% Construction Documents Review Comments

Cc: Legislative Delegation

Adam Gaudette, Northbridge Town Manager

James J. Athanas, Chair, Northbridge Board of Selectmen Michael LeBrasseur, Chair, Northbridge School Committee

Amy McKinstry, Superintendent, Northbridge Public Schools

Melissa Walker, Director of Business and Finance, Northbridge Public Schools

Page 2 September 27, 2019 Northbridge 90% Submission Review Comments

> Joseph Strazzula, Chair, Northbridge School Building Committee Joel G. Seeley, Owner's Project Manager, Symmes Maini & McKee Associates, Inc. Lee P. Dore, Designer, Dore & Whitter Architects, Inc. File: 10.2 Letters (Region 2)

APPENDIX 6C MODULE 6 – 90% CONSTRUCTION DOCUMENTS REVIEW COMMENTS

District: Town of Northbridge

School: West Balmer Elementary School Owner's Project Manager: SMMA

Designer Firm: Dore & Whittier Architects, Inc. **Submittal Received Date**: September 6, 2019

Review Date: September 9—27, 2019

Reviewed by: Gienapp Architects, K. Brown, K. Sullivan, R. Hudson

MSBA REVIEW COMMENTS

The following comments¹ on the 90% construction documents submittal are issued pursuant to a review of the project submittal document for the new construction of the proposed project and presented as a 90% construction documents submission in accordance with the MSBA Module 6 Guidelines.

6C.1 Summary Comments

- Basic Project Information.
 - Enrollment: Grades K-5 with an enrollment of 1,030 students, plus Pre-K (90 students)
 - o PFA GSF: 167,352
 - Project Type: New construction
 - Construction Delivery Method: Construction Manager at Risk (Fontaine Brothers Inc.)
- Budget comments:
 - The total project budget per the PFA is \$100,968,194, and the information provided in the 90% CD Updated Total Project Budget indicates \$100,968,194.
 - The construction cost estimates are \$79,401,426 (CMR's estimate by Fontaine Bros., Inc.) and \$79,181,034 (Designer's estimate by PM&C).
 - The construction budget per the PFA is \$79,492,663, and the information provided in the Updated Total Project Budget confirms that the construction cost of \$79,401,426 is within budget.

¹ The written comments provided by the MSBA are solely for purposes of determining whether the submittal documents, analysis process, proposed planning concept and any other design documents submitted for MSBA review appear consistent with the MSBA's guidelines and requirements, and are not for the purpose of determining whether the proposed design and its process may meet any legal requirements imposed by federal, state or local law, including, but not limited to, zoning ordinances and bylaws, environmental regulations, building codes, sanitary codes, safety codes and public procurement laws or for the purpose of determining whether the proposed design and process meet any applicable professional standard of care or any other standard of care. Project designers are obligated to implement detailed planning and technical review procedures to effect coordination of design criteria, buildability, and technical adequacy of project concepts. Each city, town and regional school district shall be solely responsible for ensuring that its project development concepts comply with all applicable provisions of federal, state, and local law. The MSBA recommends that each city, town and regional school district have its legal counsel review its development process and subsequent bid documents to ensure that it is in compliance with all provisions of federal, state and local law, prior to bidding. The MSBA shall not be responsible for any legal fees or costs of any kind that may be incurred by a city, town or regional school district in relation to MSBA requirements or the preparation and review of the project's planning process or plans and specifications.

Additional comments:

The technical attributes of the exterior wall sections and details require additional Designer review. These are noted in the specification and drawing notes below. The concerns are primarily related to potential breaches in the continuity of insulation, the limitations in the workability of materials (e.g. rigid insulation and mineral wool) and the limited construction tolerances accommodated by the details. The details should be reviewed and consideration should be given to a final quality control review and updating of the details before being issued to bid to avoid the necessity to issue revisions during construction.

6C.2 OPM Deliverables: Unless specifically stated otherwise, the OPM deliverables are included in the submission with no response from MSBA required.

6C.2.1 Submittal Review & Coordination

- Review Designer submissions; make recommendations to Owner. Address each of the following items individually, and describe how each was evaluated.
- Coordinate design; include written recommendations to the Owner.
 - o Technical accuracy, coordination & clarity.
 - Efficiency & cost effectiveness.
 - Operability.
 - o Constructability.
 - Phasing.
 - o Bid-ability.
 - o Site access during construction.
- Coordinate the commissioning consultant's review.
 - Include Cx review & District response.
 - o Incorporate Cx recommendations.
- Coordinate the District response to MSBA comments of previous submittal.
 - o Include MSBA review & District response.
 - Comments addressed / comment resolution outstanding.

6C.2.2 Project Schedule: All schedules should be presented in calendar days.

Update project schedule: As a minimum, the schedule update should provide the same level of detail as was included in Exhibit C of the Project Funding Agreement, expanded and updated to include milestones for Design Development, Bidding, Construction, and Closeout. The updated schedule should include proposed critical path and construction milestone information. In addition to the construction milestones, the schedule must also include the following information as listed in MSBA Module 7, Schedule Activities:

- Punch list start and end dates.
- Date of Project Registration with the US Green Building Council ("USGBC") or Collaboration for High Performance Schools ("CHPS").

- Provisional/Design package submittal date to USGBC or CHPS.
- Submittal date of 50% DCAMM Notification and 100% DCAMM Notification.
- General Contractor/Construction Manager request for final payment.
- Commissioning Consultant inspection (substantial completion plus approximately 10 months).
- Submittal date of Final Commissioning Report to MSBA.
- Submittal date of Final Construction package including but not limited to Final Commissioning Report to USGBC or CHPS.
- Anticipated issuance date of final Green School Program Certification letter from USGBC or CHPS.
- Submittal date to MSBA of Commissioning Certificate of Completion
- Submittal date to MSBA of final reimbursement request.
- o Indicate submission dates for the following approvals. In addition, provide dates for any other state or federal approval not listed below (the following list is not a comprehensive itemization of required state approvals; other requirements may apply, and some of the items listed below may not be applicable to this project). Indicate "Not Applicable" where appropriate:
 - DESE Special Education approval by Department of Elementary and Secondary Education.
 - MHC Project Notification Form and approvals by MA Historical Commission.
 - OIG Construction Manager at Risk approval by the Office of Inspector General.
 - Executive Office of Energy and Environmental Affairs / EEA:
 - MEPA MA Environmental Policy Act by Energy & Environmental Affairs:
 - ENF Environmental Notification Form.
 The submission indicates this is not applicable.
 - EIR Environmental Impact Report. *The submission indicates this is not applicable.*
 - Article 97 Land Disposition Policy approval by Energy & Environmental Affairs. The submission indicates this is not applicable.
 - MA DEP Massachusetts Department of Environmental Protection. The submission indicates this is not applicable.
 - MA DOT Massachusetts Department of Transportation. The submission indicates this is not applicable.
 - MA DPH Massachusetts Department of Public Health. The submission indicates this is not applicable.
 - EPA –NPDES National Pollutant Discharge Elimination System Notice of Intent approval by the US Environmental Protection Agency.
 - MAAB Accessibility variances by MA Architectural Access Board. The submission indicates this is not applicable.

- Any state reviews or approvals which remain incomplete at the time of the 90% CD submission render the submission out of compliance with Section 4.12 of the PFA, and may result in suspension of reimbursement requests to the District until such time as all required state reviews or approvals are obtained.
- If there are outstanding reviews or approvals, provide revisions to the construction bid schedule.
- The schedule is to be updated and submitted to MSBA as often as is required to reflect any changes, including any changes to milestone dates, but must be submitted with each design submittal (DD, 60% CD, 90% CD).
- The schedule is to incorporate 21 calendar day required duration for MSBA review of each submission, and a minimum of 14 calendar days for project team incorporation of MSBA review comments as well as all others into the project documents prior to the due date of the next submission or finalizing project documents for bidding. 35 calendar days for each submission is the minimum acceptable duration; if the project team believes additional time is required for any or all of the submissions the durations for these activities are to be increased accordingly.

6C.2.3 Scope and Budget

- Update project scope and budget:
 - Reconciled construction cost estimate including Designer/OPM comparison chart:
 - Prepare independent construction cost estimates pursuant to Section 8.1.2.2 of the Contract for Project Management Services, with escalation to the mid-point of construction, for comparison with the Designer's cost estimate, based upon design development progress documents. Included, however, the comparison spreadsheet does not include escalation to mid-point of construction. This should be reviewed, updated, and provided with the response to these comments.
 - o CMR (if applicable).
 - If Owner has not yet contracted with a Construction Manager (CM), the OPM must develop a construction cost estimate for comparison with the Designer's cost estimate.
 - If the Owner has given the CM a Notice to Proceed, the OPM must review cost estimates provided by the Designer and CM and provide a detailed line by line reconciliation of the Designer's and CM's construction cost estimates.
 - Updated project budget in the total project budget format, based on the reconciled construction cost estimate. If the reconciled estimate is not used for the updated project budget, provide an explanation.
 - Value Engineering recommendations. The submission indicates these are not required.

- For any Value Engineering recommendations which have been accepted, provide a copy of the Committee vote. See previous note.
- Provide a letter confirming that prequalification requirements for the General Contractor and subcontractors have been completed.

6C.3 Designer Deliverables: Unless specifically stated otherwise, the Designer deliverables are included in the submission with no response from MSBA required.

6C.3.1 General Requirements

- Submit updated work plan. The work plan is dated June 18, 2019, so it is unclear whether it is the most current/updated iteration. Clarify in the response to these comments.
- Updated and expanded Basis of Design narrative description for all disciplines. Included, however, the majority of narratives do not have dates, making it difficult to verify how current they may be. The Architectural Narrative is dated August 15, 2019, and is labelled "draft." Please clarify if the version provided to MSBA is indeed the most current Basis of Design narrative, and if not, provide the most recent version.
- Updated building code analysis. *Included, however, the code analysis is not dated and thus it is unclear how recent it is. Please clarify if the version provided to MSBA is indeed the most current code analysis, and if not, provide the most recent version.*
- Provide an final list identifying all proposed proprietary items (if any) with an
 affidavit which shall indicate that an elected body of the district (school
 committee, city or town council, or selectmen, -but not ad-hoc building
 committee) has been presented with proposals for proprietary requirements
 approval action, has had an opportunity to investigate, or to require staff or
 consultant investigation upon each item so proposed, and has majority voted
 in an open public session that it is in the public interest to do so. Provide
 MSBA with a certified copy of the vote of the elected body.
- Updated interior color theory statement describing proposed paint and material selections and colors for typical and special spaces, why they have been selected and how these selections relate to exterior materials and colors. Confirm that color and material selections have been presented to and approved by the District.
- Updated independent structural design review in compliance with the current edition of The Massachusetts State Building Code (an MSBA requirement for all projects with new construction over 10,000 sf). MSBA requires submission of a structural engineering peer review as part of the Final (100%) Construction Documents submission, to include documentation of resolution of any issues identified by the Peer Reviewer. Confirm that scheduling was arranged to allow final structural design drawings and calculations to be submitted to the peer reviewer at the time of completion of the 90% Construction Documents submittal, in order to incorporate structural peer review comments and response action reporting in the final construction documents in order to avoid delays. The submission indicates that a peer

review was completed by RSV Associates on July 16, 2019, and that the review comments were incorporated into the project's Early Release Package #2. Confirm in the response to this review and provide a copy of the peer review as part of the response to these review comments.

- Updated quality Control documents demonstrating:
 - Ceiling clearances.
 - o Mechanical room and shaft sizes.
 - o Coordinate specifications and drawings.
 - o Filed sub-bid work.
 - o Scheduling.
 - o Equipment and power.
 - o Existing and new construction.
 - o Phasing.

6C.3.2 Space Summary

 Updated space summary and signed certification that reflects the current design. Based on the space summary provided, the MSBA notes the following:

<u>Spaces</u>	PFA Space Summary	DD Space Summary	60% CD Space Summary	90% CD Space Summary	Difference to PFA	Comments
Core Academic Spaces	62,850	62,850	62,850	62,850	1	This category has not changed since the PFA.
Special Education	13,530	13,530	13,530	13,530	-	This category has not changed since the PFA.
Art and Music	5,150	5,150	5,150	5,150	-	This category has not changed since the PFA.
Health and Physical Education	6,298	6,298	6,298	6,298	-	This category has not changed since the PFA.
Media Center	5,305	5,305	5,305	5,305	-	This category has not changed since the PFA.
Dining and Food Service	11,955	11,955	11,955	11,955	-	This category has not changed since the PFA.
Medical	810	810	810	810	-	This category has not changed since the PFA.
Administration and Guidance	3,040	3,040	3,040	3,040	-	This category has not changed since the PFA.
Custodial and Maintenance	2,630	2,630	2,630	2,630	-	This category has not changed since the PFA.
Other					-	

Total Building Net	111,568	111,568	111,568	111,568	-	This category has not changed since the PFA.
Non Programmed						
Other Occupied Rooms						
IT Office/Repair	150	150	338	150		This category aligns with the PFA.
Unoccupied MEP/FP	2,125	2,008	1,824	2,006	(119)	This category has decreased by 119 nsf since the PFA.
Unoccupied Closets, Supply Rooms & Storage	641	646	625	629	(12)	This category has decreased by 12 nsf since the PFA.
Toilet Rooms	3,955	3,937	3,943	3,991	36	This category has increased by 36 nsf since the PFA.
Circulation	29,396	31,893	30,580	31,421	2,025	This category has increased by 2,025 nsf since the PFA.
Remaining	19,517	17,150	18,474	17,587	(1,930)	This category has decreased by 1,930 nsf since the PFA.
Total Gross	167,352	167,352	167,352	167,352	-	
Grossing Factor	1.50	1.50	1.50	1.50	-	

- Comparison of the current design with the final educational program, and confirmation that there are no variations. If there are variations, the written summary must address the following:
 - Explanation of deviations within the space summary from the Project Funding Agreement.
 - Regarding DESE approved SPED spaces No changes to DESE approved SPED spaces are proposed.
 - Regarding DESE approved Public Day Education spaces; Not Applicable per the submission.
 - Regarding DESE pre-approved Chapter 74 Program spaces; Not Applicable per the submission.

6C.3.3 Project Approvals

- Describe the status of the following approvals. In addition, provide the status
 of any other state or federal approval not listed below (the following list is
 not a comprehensive itemization of required state approvals; other
 requirements may apply, and some of the items listed below may not be
 applicable to this project). Provide a copy of the appropriate application
 forms and/or approval letters where applicable. Indicate "Not Applicable"
 where appropriate:
 - DESE Special Education approval by Department of Elementary and Secondary Education. The submission indicates that this approval has been obtained. However, no approval letter or application form is

- included in the submission. This should be provided with the response to these comments.
- MHC Project Notification Form and approvals by MA Historical Commission. The submission indicates that this approval has been obtained. However, no approval letter or application form is included in the submission. This should be provided with the response to these comments.
- OIG Construction Manager at Risk approval by the Office of Inspector General. The submission indicates that this approval has been obtained. However, no approval letter or application form is included in the submission. This should be provided with the response to these comments.
- Executive Office of Energy and Environmental Affairs / EEA:
 - MEPA MA Environmental Policy Act by Energy & Environmental Affairs:
 - ENF Environmental Notification Form. The submission indicates this is not applicable.
 - EIR Environmental Impact Report. The submission indicates this is not applicable.
 - Article 97 Land Disposition Policy approval by Energy & Environmental Affairs. The submission indicates this is not applicable.
- MA DEP Massachusetts Department of Environmental Protection. The submission indicates this is not applicable.
- MA DOT Massachusetts Department of Transportation. The submission indicates this is not applicable.
- MA DPH Massachusetts Department of Public Health. The submission indicates this is not applicable.
- EPA –NPDES National Pollutant Discharge Elimination System Notice of Intent approval by the US Environmental Protection Agency. The submission indicates that this approval has been obtained. However, no approval letter or application form is included in the submission. This should be provided with the response to these comments.
- MAAB Accessibility variances by MA Architectural Access Board. The submission indicates this is not applicable.
- Confirmation that the Project has undergone review and obtained all necessary approvals by any departments or agencies of the Commonwealth required by law to review the Project, including but not limited to the approvals listed above. Attach such letter of documentation evidencing such reviews and approvals. Confirmed, however, no documentation letter is provided for relevant reviews and approvals. This should be provided with the response to these comments.
- In accordance with Section 4.12 of the Project Funding Agreement (the "PFA"), the District must obtain such reviews or approvals prior to the solicitation of construction bids. Any state reviews or approvals which remain incomplete at the time of the 90% CD submission render the submission out of compliance with Section 4.12 of the PFA, and may result in suspension of

- reimbursement requests to the District until such time as all required state reviews or approvals are obtained.
- List and target dates for all local zoning approvals, testing and permits.
- Provide a certification that all applicable utility officials have been contacted by the Designer regarding each basic design, and utility connections. The submission states that the Designer has contacted gas and electric utilities, but no further confirmation is provided. Confirmation that other utilities have been contacted should be provided with the response to these comments.

6C.3.4 Cost Estimate

- Provide a final construction cost estimate, based on the 90% Construction Documents, including cost estimates for general conditions, overhead and profit, insurance, bonds, and all other items; and allowances expressed as percentage rates for construction contingencies and escalation to the midpoint of the construction period; and other mutually agreed upon contingencies. Prepare the construction cost estimate in the CSI MasterSpec format to Level 3 and M.G.L. c.149, §44F (filed sub-bid) format including a single line outline specification description for each item with the detailed unit rate or item cost buildup provided as a backup in each case. The Designer's final cost estimate does not include escalation to the mid-point of construction. This should be updated and provided with the response to these comments.
- The date of the estimate should be no earlier than the date of 90%
 Construction Documents. The cost estimates are dated prior to the 90%
 Construction Documents September 4, 2019 date. Confirm the estimate is
 based on the design as submitted to the MSBA.
- Provide a summary sheet including the following: Provide an updated summary sheet that includes the following missing dates:
 - Date that the estimate was prepared (value date). *Included; however, see comment above.*
 - o Anticipated bid date. *Not included.*
 - o Project and contract number. *Not included.*
 - Title and location of the project.
 - Name of the Designer.
 - Name of the Estimator.
 - Site cost (including all utilities).
 - Building cost (including fixed equipment).
 - Estimated construction cost of each Phase of the work, totaled. Not included.
 - Costs of Item 1 and Item 2 work, as distinguished in the General Contractor's bid forms, individually totaled. Not included.

6C.3.5 Drawings (developed to 90% CD progress level)

 Cover sheet showing a list of all drawings, symbols, abbreviations, notes, locations map (the project title should be visible when the drawings are rolled). The symbols and abbreviations are not included on the cover sheet; however, they are included elsewhere in the set. The legends do not appear to be all inclusive. For example, the material legend on AG0.01 does not include mineral wool insulation. On some details, it is clearly identified; however, it is not clearly identified on others and may be mistaken as rigid insulation. This should be reviewed and clarified and updated, as needed, in the bid documents.

- Site drawings showing the following:
 - Layout and location of all proposed work with details.
 - Existing and proposed contours including floor elevations showing drainage away from the building.
 - Bench marks and boring locations.
 - Landscaping and planting.
 - All utility service lines, systems and structures for electricity, gas, oil, water, steam, telephone, CATV, fire alarm, sanitary and storm drainage.
 - Contract limit line and storage area for construction materials. The drawings do not identify a construction materials storage area. Please review and update, as needed, in the bid documents.
 - Site survey which includes, but is not limited to, all existing foundations, obstructions and other physical characteristics of the site.
 - Coordinate light pole bases, concrete pads & landscape enclosure walls with other disciplines. There is no light pole bases detail. Please review and update, as needed, in the bid documents.
 - Verify accessibility compliance at paved areas and building approaches.
 - Coordinate landscape patching with civil utility & plumbing work.
 - Exterior benches, flag poles, signage. There are no bench details or flag poles. Please review and update, as needed, in the bid documents.
- Demolition drawings and temporary work required. There are no existing building demolition drawings. Please address the demolition of the existing building, as needed, in the bid documents.
- Architectural drawings showing the following:
 - o Phasing, temporary trailers, storage & fences, gates & parking.
 - Floor plans of each floor, with dimensions, column locations, floor elevations, door and window designations, partition types, built in furniture and equipment, keyed to other architectural drawings. The floor elevations are not included in the plans. Please review and update, as needed, in the bid documents.
 - Large scale floor plans where required. The Pre-K to grade 3 students
 accessibility requirements are not included. Please review and update, as
 needed, in the bid documents.
 - Knox box & fire alarm control panel locations. Knox Box and FACP locations have not been identified on the plans. Please review and update, as needed, in the bid documents.
 - Roof plans including equipment, coordinated with MEP/FP drawings.
 - Roof ladders, hatches, pads, PV support, and lightning protection.
 - Coordinate downspout leader locations with civil & plumbing drawings.

- Key plans / overall plans where required.
- Project sign (verify content).
- o Building Sections.
- Building elevations. All building elevations, including hidden elevations, fully developed including MEP/FP and security systems, showing context and relation to exterior sloping grade around the building.
- Wall sections indicating dimensions, flashing, anchorage, reinforcing, coursing, cladding, and all other conditions at wall, roof, foundation, interior floors. *Included; however, it does not appear that they are fully coordinated. See comments under Exterior Details below for more information.*
- Coordinated wall sections with grade elevations. The finish grades are not included in the wall sections. Please review and update, as needed, in the bid documents.
- Exterior details, for roofing, flashing and other details showing all conditions. *Included; however, it does not appear that they are fully* coordinated.

The weatherability at the water table transition from the phenolic panel such as shown in detail T22 should be reviewed. This detail is dependent upon an accurate and consistent mitered cut of rigid insulation, a very rigid flashing (which would need to be an extrusion) and very tight tolerances of the location of the precast profile. At a minimum the flashing should be sealed on the underside. The detail is more questionable when the distance from the precast to the backup is increased such as in detail N27/A6.60 Mid-wall Brick to MCM Panel. This detail should be reviewed and updated, as needed, in the bid documents. Please comment in the response to this review.

There are several exterior details, such as G22/A6.60 Mid-wall Storefront Wall that seem to depend on unrealistic craftsmanship and workability of materials. In this detail, rigid insulation is shown to be tightly cut to varying and thin dimensions around blocking. The enlarged detail R18/A8.80 further illustrates the condition and appears to also show an outer bead of sealant that will prevent the storefront from weeping at the subsill and flashing. In addition, there does not appear to be a sound method to attach blocking in this configuration; it may be necessary to provide bolts through the lower blocking.

All exterior details should be reviewed for constructability and updated as needed in the bid documents. Please comment in the response to this review.

- Interior and exterior expansion joints, control joints, construction joints, and waterstops, detailed and coordinated with structural drawings.
- Doors, windows, entrances, and storefront; schedules and details.
- Vertical circulation plans, sections and details including ramps, stairs, lifts and elevators.
- Elevator venting, hoist beam, thresholds, ladder, sump, wall penetrations, waterproofing.
- Guardrails and handrails including details.

- o Interior elevations of all significant and typical spaces.
- Interior details including casework, paneling surfacing and acoustical treatment.
- Flooring & wall material patterns.
- Interior glazing elevations and details. There are no elevations or details of interior glazing included. Please review and update, as needed, in the bid documents.
- Reflected ceiling plans coordinated with fire protection, mechanical and electrical drawings.
- Ceiling details.
- Access panels, where required for access, shall be indicated on the drawings and coordinated with the MEP/FP requirements. Access panels are not included. Please review and update, as needed, in the bid documents.
- Schedules (clearly define new or existing):
 - Doors.
 - Equipment, e.g. for services.
 - Partitions.
 - Finishes.
- Structural drawings showing the following:
 - Legend and/or graphical symbols on the first sheet of the structural drawings. A symbols legend is not included on the first sheet; however, various items are included on different structural sheets. Confirm that this is acceptable.
 - Foundation plans with bottom grades showing layout of all footings, walls, slabs on grade including reinforcing, grade beams, and columns; include design soil bearing pressures and live loads for each area. The bottom grades of the footings are not included in the plans. Please review and update, as needed, in the bid documents.
 - Floor and roof plans of structural systems including framing, grades of finished floors and depressed areas, with locations and dimensions for all openings. The finish floors grades are not included. Please review and update, as needed, in the bid documents.
 - Complete foundation wall elevation and typical sections, with reinforcing indicating location, dimensions and grades for all footings, steps and wall openings.
 - Complete details and section with dimensions for all construction including expansion and construction joints, reinforcing and other embedded items. Coordinate construction and expansion joint details with specified materials including caulking and sealant. Expansion joints details are not included in the structural drawings. Please review and update, as needed, in the bid documents.
 - Schedules (with dimensions) for all lintels, beams, joists, and columns.
 Coordinate dimensions of all elements listed in the schedules with dimensions depicted on the plans. There are no schedules for the beams

- and joists; however, this information appears to be provided in other ways. Confirm that this is acceptable for bidding and construction.
- All structural supports required for mechanical equipment.
- General notes including the following information: class and 28-day strength of concrete for each portion, structural steel and concrete reinforcing design stresses for each type of structural member, concrete cover for each type of structural member, shrinkage and temperature steel requirements, reinforcing laps for main reinforcing and temperature steel; bend point, cutoff, and hook locations for all members, minimum beam and lintel bearing. The minimum reinforcing laps, and minimum beam bearing are not included in the general notes. Please review and update, as needed, in the bid documents.
- Fire protection drawings showing the following:
 - Legend and/or graphical symbols on the first sheet of the fire protection drawings.
 - Standpipe systems, sprinkler systems, suppression systems, fire pumps, accessories, and piping.
 - All piping, equipment, fixtures, valves and devices shall be located and sized.
 - Design criteria shall be provided on the drawings in accordance with NFPA requirements.
 - All required access panel locations and sizes coordinated with the architectural drawings. Access panels are not included. Please review and update, as needed, in the bid documents.
- Plumbing drawings showing the following:
 - Legend and/or graphical symbols on the first sheet of the plumbing drawings.
 - All work done by the plumbing subcontractor, which includes all water, gas, air, vacuum, medical gases, sanitary and storm wastes, and accessories.
 - Accessibility requirements for PK- grade 3 fixtures (where required). The Pre-K to grade 3 students accessibility requirements are not included. Please review and update, as needed, in the bid documents.
 - Trapping and venting of all plumbing fixtures including floor drains.
 Provide location dimensions for floor drains in coordination with the structural plans. There is no detail showing the floor drains trapping.
 Please review and update, as needed, in the bid documents.
 - Water and gas supply sources, storm and sanitary discharge mains.
 - All piping sizes shall be indicated on drawings and riser diagrams.
 Indicate all directions of flow and pitch on piping. The flow direction is not included on the pipes. Please review and update, as needed, in the bid documents.
 - All accessories, valves, fixtures including all drinking fountains and grease traps for kitchen waste.
 - All piping and connections required for other trades (e.g., kitchen equipment, HVAC make-up water, etc.). The plumbing plans do not show

- the make-up lines going to the boilers. Please review and update, as needed, in the bid documents.
- Acid waste (where required), vents and neutralization systems for laboratories.
- Plumbing riser diagrams.
- Domestic water booster pumps, boiler feed water, meter location, hose bibs. The boiler feed water is not shown on the plumbing plans. Please review and update, as needed, in the bid documents.
- Domestic hot water: storage tanks, piping material, hanger details. Please review, and update the hanger detail as needed in the bid documents.
- All required access panel locations and sizes coordinated with the architectural drawings. There are no access panels included. Please review and update, as needed, in the bid documents.
- o Backflow preventers and cleanouts.
- Heating, ventilating and air conditioning drawings showing the following:
 - Legend and/or graphical symbols on the first sheet of the mechanical drawings.
 - Large scale plans of all mechanical & electrical spaces showing equipment to scale. There is no large-scale plan of the electrical rooms in the HVAC drawings. Please review and update, as needed, in the bid documents.
 - All piping and ductwork systems shall be located and sized. All ductwork shall be shown double line and drawn to scale.
 - All systems shall be sized at all reductions and riser diagrams of piping and duct systems shall be indicated.
 - All directions of flow and pitch on piping, and direction of flow, volumes for duct systems shall be indicated. The flow direction has not been included on the pipes. Please review and update, as needed, in the bid documents.
 - All equipment shall have sufficient servicing and/or replacement space indicated on drawings. The replacement space has not been indicated on the drawings. Please review and update, as needed, in the bid documents.
 - All equipment, accessories, valves and dampers.
 - All required access panel locations and sizes coordinated with the architectural drawings. Access panels not included. Please review and update, as needed, in the bid documents.
 - Cooling system pumps, chillers, cooling towers, air handling units, ductwork system and dampers, fan details, temperature control system, air and hydronic balancing equipment, and schedules shall be indicated.
 - Cooling tower (where required) shall be indicated on the drawings showing site location, elevations and floor plan of equipment layout and typical flow diagram as related to the total HVAC system. *Not applicable*.
 - All fire and smoke dampers.
 - Mechanical room designs:

- Vent pipes for safety valves, relief valves, back pressure valves and tanks shall be extended above flat roofs in accordance with all governing authorities.
- In all designs for boiler and refrigeration plants, include a complete floor plan indicating location of all major mechanical equipment and sufficient service space.
- In designs of new and/or replacement boiler and refrigeration plants, provide a flow diagram detailing steam or hot water distribution systems, return systems, including all existing equipment and their function, as well as any proposed expansions with all necessary instrumentation and controls.
- Electrical Drawings showing the following:
 - Legend and/or graphical symbols on the first sheet of the electrical drawings.
 - General arrangement: Outline layout of each floor, floor and ceiling heights and elevations, and type construction, including concrete pads shall be indicated. Indicate interface with other systems. Identify any work by general contractor or other trades. The floor and ceiling heights are not included on the plans. Please review and update, as needed, in the bid documents.
 - Interior lighting system: Light fixture schedules, circuiting location and mounting heights of all fixtures, receptacle and switch outlets, sizes and types of all lamps, conduits, all other accessories and riser diagrams shall be indicated on drawings. Indicate details and method of supporting electrical fixtures and conduits. Designer shall specify that all electrical lighting fixtures be supported from the building structure, and shall be independent of ducts, pipes, ceilings and their supporting members. Comply with seismic design criteria. Fixture mounting heights are not indicated. Please review and update, as needed, in the bid documents.
 - Power system: Locations, types and method of control for all motors, heaters, appliances, controllers, starters, branch circuits, feeder conductors and conduits. Indicate riser diagrams. Show details and indicate method of supporting electrical conduit. For larger projects, thermostats and control wiring are normally covered under the HVAC sub-contract, assure coordination.
 - Fire Alarm, Data, Communications, CATV/CCTV Systems: Locations and types of all devices, outlets and equipment, service connections, wiring diagrams, all other essential details.
 - Services: Location and details of all services, whether overhead or underground, feeder sizes, plans and elevations of switchgear and transformers, metering and service switchboard arrangements, wiring and ground fault diagram and bus ducts.
 - General and sub-stations: Location, size, method of connection and protection of all generators, transformers, exciters, motor generators, switch gear, and associated equipment, current characteristics and equipment capacities. Indicate equipment connections by means of one line and/on wiring diagrams and schedule all major items of equipment and all instruments.

- Underground work: The size and locations of manholes and types of cables, number, size, and location of ducts, locations, sizes and types of cable supports, fireproofing, duct line profile, and one-line diagram of connections.
- Pole line work: Location, length, treatment and class of poles, guying, cross arms, insulators, circuiting, transformers, protective and switching devices, lightning arresters, special structures, diagrams, current characteristics and grounding.
- Exterior lighting: Location, size, and type of transformers, luminary, poles, light standards, cables, ducts, and manholes, details of control equipment and connection diagrams.
- Emergency system (where provided) details including transfer switch, type of fuel.
- One-line diagram indicating load KVA, and available short circuit amperes at each transformer, switchboard, distribution panel board, branch circuit panel board, and at major pieces of equipment.
- Riser diagrams for all systems.

6C.3.6 Project Manual (developed to 90% CD progress level)

- The format for the technical specifications shall be CSI Master Format (current version) with separate sections for each of class of work required by M.G.L. c. 149 §44F.
- For each item of material or equipment, the specifications shall provide for a minimum of three named brands of material or equipment and the words "or equal" or a description of material or equipment which can be met by a minimum of three manufacturers or producers, and the words "or equal". Proprietary products shall not be specified except as provided by M.G.L. c. 30, § 39M; however, when they are specified, proprietary specifications are subject to the "or equal" provisions of c. 30, § 39M. Some specification sections comply; however, many specification sections do not identify three manufacturers. For example, some of these sections, such as 10 2800 Toilet, Bath and Laundry Accessories, describe performance characteristics and identify one manufacturer and state 'or equal'. A full performance specification is required, and the Designer needs to confirm three manufacturers can meet the specification.

Fire Protection 210000, for instance, only identifies one brand for many component parts (e.g. 2.08.E, Upright and pendant sprinkler heads; 2.11.A.4 Fire Department Valve Cabinet) and some do not indicate 'or equal' for many items (e.g. 2.08.L specifies a specific product for flexible sprinkler heads and states no substitution is allowed for this item, however, it does not appear to be approved as a proprietary product).

The Plumbing section 220010 is written similar to Fire Protection and does not provide the required three products or the full description.

All sections should be reviewed and updated as needed to satisfy the requirements before being issued to bid.

 Do not specify that a product or system shall require prequalification for use prior to bidding.

- Include a copy of the geotechnical report, including locations and dates of test boring holes and results of soil investigation, including water levels, allowable solid bearing pressure and bottom grades of footing and slabs.
- List all required filed sub-bids specification sections.
- Each filed sub-bid section shall detail all labor and materials required by the
 particular sub-trade and list, by number, those drawings (and only those
 drawings) indicating work of that sub-trade. In addition, list drawings
 indicating work of a particular trade that appears on drawings that are not
 customarily included in the work of the trade, when applicable. The drawings
 list is not provided for all sections, (e.g. 040001, Masonry Trade Bid
 Summary; 080001 Metal Windows Trade Bid Summary). Please review all
 filed sub-bid sections and update, as needed, in the bid documents.
- Staging, scaffolding, coring, drilling, cutting, patching, refuse collection and disposal, demolition work and cleaning task, allocation policy and proposed language shall be carefully assigned to avoid duplication or omission, and coordinated with all filed sub-bid sections. This appears to be generally coordinated and is written to require each trade to perform all cutting and coring required for their work. There are instances, such as 260010 Electrical, 3.12.E that appear to be edited from earlier text/copy that required coring be coordinated or performed by others. As it is left in its edited state it does not appear to be clear, as Part 1 requires all coring by the trade section. This should be reviewed and updated, as needed, in the bid documents.
- Describe the extent of the work, the materials and workmanship, and include the work under the proper section. If any portion of the work included in a section of the specifications is to be performed by a trade covered by another section, there shall be clear and distinct cross-referencing between the sections. Merely to state "by others" is not acceptable. Appears to generally comply. It appears the intent is that concrete paving is provided by 323116 Concrete Paving. However, as 033000 Cast-in-Place Concrete 1.01.A is currently written it also would include exterior concrete paving. Review all sections and update as needed in the bid documents. Many wall section details, such as those on A6.60, indicate Pre-finished Through-Wall Flashing. Although it is not stated, it appears it is intended this be provided by 076200 Sheet Metal Flashing and Trim. However, a throughwall flashing is not specified in that section (Roof Edge Flashings are specified. There is also a stainless steel sheet material specified but it is not stated any fabrication of this item or its proposed use.). Review and confirm if this flashing is specified in a section and clarify in the response to these review comments which section is to provide it. Specify work in appropriate sections according to local trade jurisdiction.
- In sections for which filed sub-bids are required, refrain from using such terms as "the contractor," the "heating contractor," or "the plumbing contractor," but where necessary for clarity refer to the "HVAC subcontractor," the "general contractor" and so on.
- Alternates, if approved in writing by the owner, shall be properly described and cross-referenced in the project manual and drawings. An alternate proposal sheet shall be prepared by the Designer for insertion into the contract form. No alternate section is included in the specification. If any

- Alternates are intended one needs to be provided. There are spaces on the bid form, which is typical, even if not required. Coordinate as required.
- Allowances are prohibited pursuant to M.G.L. c. 149, § 44G (A).
- Unit price items, if permitted or ordered by the Owner, shall be properly described in the Specifications.
- Indicate goals for compliance with USGBC LEED-s or NE-CHPS standards.
- Do not use general clauses intended to be all-inclusive in lieu of complete descriptions.
- Do not duplicate standard requirements that are contained in the contract form.
- Use consistency throughout. The word "will" shall be used to designate what the owner, authority, owner's project manager, or the Designer can be expected to do, and the word "shall" shall be used to designate what is mandatory for the contractor or subcontractors to do.
- Use the same term throughout for the same subject and the term shall be
 the same as that used on the drawings. The terms used for fill materials are
 not consistent between the specifications and drawings. Section 312300
 Excavation and Fill for Utilities and Pavement specifies many different
 materials with specific names. However, the terms used on some of the civil
 details, such as C7.04 Site Drainage Details are vague (e.g. Setting Bed) that
 cannot be matched to the specifications. This should be reviewed and
 coordinated before being issued to bid.
 - In a similar way, the terms used in 312000 Earthmoving cannot be directly related to the structural details, such as on S0.02 Typical Details. Many of the structural details state to refer to the architectural details. Based on the details on A6.50 Base of Wall Details and Wall Section Details, it appears this coordination/correction may have been at least somewhat addressed by Revision 5. However, there are additional details, including on A6.51 where there are not materials indicated. Review and confirm the materials are clear; this may have been addressed in early release packages.
- Do not use the term "etc."
- Avoid such terms as "to the satisfaction of the Designer", "as directed by the Designer", "as approved" and "as required."
- Avoid the use of symbols.
- Do not give numbers both in words and figures. Numbers less than 10 shall be written in words, 10 and higher numbers shall be written in figures. In expressing dimensions, figures such as 2 in., 16 in., 7 ft., 6 in., shall be used.
- Specify materials mined or manufactured in Massachusetts first and the United States of America second whenever possible. This does not appear to be included in the specifications and should be added before being issued to bid.
- The 321726 Tactile Warning Surfacing footer is incorrect.

6C.3.7 Project Coordination

- Verify all details are accurately cross-referenced to the correct plan sheet.
 The details are not cross referenced to the plans. Please review and update, as needed, in the bid documents.
- Verify that the structural, mechanical, or other disciplines, do not conflict with architectural plans or specifications.
- Structural dimensions match architectural drawings.
- Column orientation matches architectural drawings.
- Column grid lines match architectural drawings.
- Column and bearing wall locations match architectural drawings.
- o Column locations coordinated with all other disciplines.
- Seismic detailing coordinates with architectural drawings. There are conflicts between the brace frames and doors and windows. Please review and update, as needed, in the bid documents.
- Beams and columns protruding horizontally and vertically into stairwells, and other interior spaces.
- The finish grade elevations coordinated between all disciplines.
- Mechanical equipment power requirements and physical locations, including special information as to who mounts, connects, tests, etc.
- Verification of potential spatial conflicts in mechanical equipment.
- Room wall/floor/ceiling construction coordinated with the finish schedule.
 There are walls with ceramic tile in the finish schedule, but there are no partition types with backer board and tile among the partition types. Please review and update, as needed, in the bid documents.
- Civil earthwork grading and excavation plans are coordinated with architectural and landscape plans.
- All room numbers are coordinated between all disciplines.
- Equipment plan coordinates with architectural plans.
- All kitchen equipment connected to utility systems.



The Northbridge Public Schools Town of Northbridge

87 Linwood Avenue, Whitinsville, Massachusetts 01588 (508) 234-8156 FAX (508) 234-8469 www.nps.org

Amy McKinstry, Superintendent Jill Healy, Director of Curriculum Melissa Walker, Director of Business and Finance Greg Rosenthal, Director of Pupil Personnel Services

REVISED August 15, 2019

Ms. Jennifer Flynn, Project Coordinator Massachusetts School Building Authority 40 Broad Street, 5th Floor Boston, Massachusetts 02109

Dear Ms. Flynn:

In accordance with 963 CMR 2.00, attached for your review and approval is the membership of the School Building Committee for the W. Edward Balmer Elementary School located in the Town of Northbridge. The Committee was formed in accordance with the provisions of all applicable statutes, local charters, by-laws and agreements of the Town of Northbridge. Committee Members include the following:

Designation	Name and Title	Address	Email Address and Phone Number	Voting Member?	
CHAIR OF SCHOOL BUILDING COMMITTEE	Joseph Strazzulla, Chair	170 Rebecca Rd. Whitinsville, MA 01588	jstrazzulla@nps.org 508-942-9930	Yes	
SBC member who is MCPPO certified*	Melissa Walker School Business Manager	87 Linwood Ave. Whitinsville, MA 01588	mwalker@nps.org 508-234-8156	Yes	
Local Chief Executive Officer Representative of Office authorized by law to	Alicia Cannon Board of Selectmen	271 Marston Rd. Whitinsville, MA 01588	acdc0927@gmail.com 857-939-5275	Yes	
Administrator or Manager ^{i*}	Adam Gaudette Town Manager	7 Main St. Whitinsville, MA	agaudette@northbridgemass.org 508-234-2095	No	
School Committee Member	Michael LeBrasseur	295 Hillerest Rd. Whitinsville, MA 01588	mlebrasseur@nps.org 508-353-9345	Yes	
Superintendent of Schools	Amy McKinstry Superintendent	87 Linwood Ave. Whitinsville, MA 01588	amckinstry@nps.org 508-234-8156	No	
Local Official responsible for Building Maintenance	Richard Maglione	87 Linwood Ave. Whitinsville, MA 01588	rmaglione@nps.org 508-234-8156	No	

Members of community with architecture, engineering and/or construction experience	Paul Bedigian, Representative of the Building, Planning, Construction Committee	25 June St. Northbridge, MA 01534	bedigianps@cdmsmith.com 508-234-0264	Yes
School Principal	Karlene Ross W. Edward Balmer Elementary	21 Crescent St. Whitinsville, MA 01588	kross@nps.org 508-234-8161	No
School Principal	Theresa Gould Northbridge Elementary School	30 Cross St. Whitinsville, MA 01588	tgould@nps.org 508-234-6346	No
Local budget official or member of local finance Committee	Steven Gogolinski Representative of the Finance Committee	442 Douglas Rd. Whitinsville, MA 01588	steve@gogolinskicpa.com 508-344-0909	Yes
Member Knowledgeable in educational mission and function of facility	Greg Rosenthal	87 Linwood Ave. Whitinsville, MA 01588	grosenthal@nps.org 508-234-8156	No
Members of community with architecture, engineering and/or construction experience	Jeffrey Tubbs	244 Brookway Dr. Northbridge MA 01534	jtubbs@charter.net 617-851-7960	Yes
Members of community with architecture, engineering and/or construction experience	Peter L'Hommedieu	112 Rumonoski Dr. Northbridge, MA 01534	PLHommedieu@shawmut.com 617-719-2744	Yes
Members of community with architecture, engineering and/or construction experience	Jeff Lundquist	20 Hastings Dr. Whitinsville, MA 01588	jlundquist@therichmondgroup.com 774-278-1592	Yes
Members of community with architecture, engineering and/or construction experience	Andrew Chagnon	85 Green Meadow Ct. Whitinsville, MA 01588	achagnon@vertexeng.com 774-280-0163	Yes
Parent Representative	Spencer Pollock	328 Rebecca Rd. Whitinsville, MA 01588	spencerpollock22@gmail.com 508-367-6123	Yes

Listed below is the past performance of the school building committee, the building committee (temporary or permanent), or any other committee responsible for oversight, management, or administration of the construction of public buildings and its individual members:

When the 2001 Northbridge High School was constructed, a school building committee had been in place, however, upon completion of that project, the committee was disbanded.

The Town of Northbridge has a standing Building, Planning and Construction Committee. The Building, Planning and Construction Committee is responsible for surveying the growth needs of the Town, the needs of the community and the physical condition of all municipal buildings and other facilities. The Committee shall meet from time to time with representatives of all municipal agencies to determine the need for additions or renovations to any existing buildings or for the

construction of new buildings or any other facilities for the Town, and to determine the appropriate sites for such buildings and facilities. A representative of the Building, Planning, and Construction Committee is named above as a voting member of the School Building Committee.

After approval of this committee by the Authority, the Town of Northbridge will notify the Authority in writing within 20 calendar days of any changes to the membership or the duties of said committee.

Sincerely,

Alicia Cannon

Local Chief Executive Officer

Representative of Office Authorized by Law to Construct School Buildings

Approved by MSBA Date

"Administrator or Manager" refers to a Town Administrator, Town Manager, or to an equivalent position.

¹ Please attach the certification from the Office of the Inspector General demonstrating completion of the MCPPO Program.



SCHOOL BUILDING COMMITTEE

OCTOBER 1, 2019











AGENDA

- Oak Tree at SE property corner
- Building Refinements
- Project Construction Update

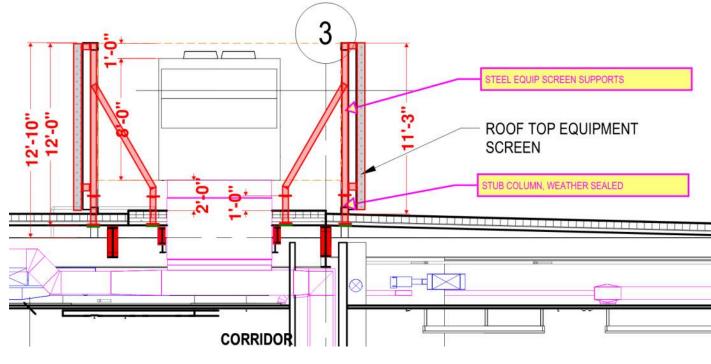


EXISTING OAK AT SE CORNER





ROOFTOP MECHANICAL SCREENS



Emailed with Acoustical Consultant:

- Study assumed mech units not running at full power (noise) at night –
 "diversity" concept
- Units modeled at 44dB at property line threshold is 40dB
- Consultant is "very sure" the full acoustically-absorptive screens will be needed on all rooftop units

























