

PROJECT MINUTES

Project:	Peebles Elementary School Feasibility Study	Project No.:	15041
Prepared by:	Joel Seeley	Meeting Date:	1/5/2017
Re:	School Building Committee Meeting	Meeting No:	31
Location:	Bourne Veteran’s Memorial Community Center	Time:	6:30pm
Distribution:	School Building Committee Members, Attendees (MF)		

Attendees:

PRESENT	NAME	AFFILIATION	VOTING MEMBER
✓	James L. Potter	Chairman, School Building Committee	Voting Member
✓	Peter J. Meier	Board of Selectmen	Voting Member
✓	Christopher Hyldburg	Chairman, School Committee	Voting Member
✓	Natasha Scarpato	Member, School Committee	Voting Member
✓	Donna Buckley	Member at Large	Voting Member
	Richard A. Lavoie	Finance Committee	Voting Member
✓	William Meier	Building Trade Expert	Voting Member
		Member at Large	Voting Member
✓	Frederick H. Howe	Board of Health, Vice-Chairman School Building Committee	Voting Member
✓	Steven M. Lamarche	Superintendent of Schools, BPS	Voting Member
✓	Edward S. Donoghue	Director of Business Services, BPS	Non-Voting Member
	Thomas M. Guerino	Town Administrator	Non-Voting Member
		Local Official Responsible for Building Maintenance	Non-Voting Member
	Elizabeth A. Carpenito	Principal, BES	Non-Voting Member
✓	Kathy Anderson	Elementary/Special Education Secretary	Non-Voting Member
✓	Janey Norton	Principal, PES	
✓	Kent Kovacs	FAI, Architect	
✓	Bill Beatrice	FAI, Architect	
✓	Joel Seeley	SMMA, OPM	

Item #	Action	Discussion
31.1	Record	Call to Order, 6:30 PM, meeting opened.
31.2	Record	A motion was made by P. Meier and seconded by F. Howe to approve the 12/1/2016 School Building Committee meeting minutes. No discussion, motion passed unanimous by those attending.
31.3	Record	J. Seeley reviewed FAI Amendment No. 9, dated 1/5/17 for the Design Development thru Construction Administration Phase Services in the amount of \$2,726,037.00, attached. A motion was made by P. Meier and seconded by F. Howe to approve FAI Amendment No. 9, dated 1/5/17 and recommend signature by T. Guerino. No discussion, motion passed unanimous.
31.4	Record	J. Seeley reviewed SMMA Amendment No. 2, dated 1/5/17 for the Design Development thru Construction Administration Phase Services in the amount of \$1,044,863.00, attached. A motion was made by P. Meier and seconded by F. Howe to approve SMMA Amendment No. 2, dated 1/5/17 and recommend signature by T. Guerino. No discussion, motion passed unanimous.
31.5	Record	J. Seeley reviewed SMMA Amendment No. 3, dated 1/5/17 for the Independent Cost Estimating Services in the amount of \$41,745.00, attached. A motion was made by P. Meier and seconded by F. Howe to approve SMMA Amendment No. 3, dated 1/5/17 and recommend signature by T. Guerino. No discussion, motion passed unanimous.
31.6	Record	J. Seeley distributed and reviewed the Design Development Phase Meetings and Agenda schedule, attached.
31.7	Record	K. Kovacs distributed and reviewed the Design Meetings with School Administration/Staff and Agenda schedule, attached.
31.8	Record	J. Seeley distributed and reviewed FSA Budget Revision Request No. 2, attached, and that MSBA has determined the High School capacity study would not be considered a reimbursable expense since it did not contribute to the MSBA Board's approval of the PSR Phase.
31.9	Record	J. Seeley distributed and reviewed the executed MSBA Project Scope and Budget Agreement, attached.
31.10	K. Kovacs	K. Kovacs presented a Design Update Powerpoint, attached. Committee Discussion: <ol style="list-style-type: none"> 1. J. Potter asked if the parking lot plantings were reduced? <i>K. Kovacs indicated yes, the revised layout improves snow plowing and clearing.</i> 2. P. Meier asked if the parking lot paving is porous pavement? <i>K. Kovacs indicated no, the paving is standard asphalt paving.</i> 3. C. Hyldborg asked if a retaining wall is required between the loop road and School Road? <i>K. Kovacs indicated no, the grade change is accomplished by sloped berm.</i>

Item #	Action	Discussion
		<p>4. J. Norton asked where will the cars park/stage for early pick-up? <i>K. Kovacs will provide options for Committee review.</i></p> <p>5. E. Donoghue asked if a portable sloped platform can be provided at the loading dock to accommodate different truck heights? <i>K. Kovacs will provide options for Committee review.</i></p> <p>6. S. Lamarche asked if alternative pathway locations and size can be studied for the path leading from the link to the outdoor play area? <i>K. Kovacs will provide options for Committee review.</i></p> <p>7. K. Kovacs indicated the teachers and staff have asked to re-incorporate the connecting doors between the classrooms, and that he will provide options for Committee review.</p> <p>8. D. Buckley asked if the multi-stall toilet rooms have doors? <i>S. Lamarche indicated yes, to minimize disruption to surrounding teaching spaces.</i></p> <p>9. K. Kovacs indicated the teachers and staff have asked to re-incorporate the sinks in the classrooms, and that he will provide options for Committee review.</p> <p>10. J. Norton indicated the copy machine does not need to be enclosed in a closet in the Team Room.</p> <p>11. J. Potter asked if the stage has a front draw curtain? <i>K. Kovacs will review and provide the Committee direction.</i></p> <p>12. P. Meier asked where will the chair storage be for the cafetorium? <i>K. Kovacs will provide options for Committee review.</i></p> <p>13. D. Buckley asked can there be a more direct route from the gymnasium to the gym storage room? <i>K. Kovacs will provide options for Committee review.</i></p>
31.11	K. Kovacs	K. Kovacs to provide a listing of recently constructed schools that represent the materials and concepts shown, for the Committee to visit.
31.12	Record	J. Seeley distributed and reviewed the MSBA Transition Conference Call Agenda, attached and provided an overview of the MSBA's role during the design phase.
31.13	J. Potter P. Meier D. Buckley J. Seeley	<p>Old or New Business:</p> <ol style="list-style-type: none"> J. Potter indicated that four residents have expressed interest in filling the Member-at-Large vacancy, and that he will contact the Town Moderator for a status. P. Meier will contact the Town Administrator on the status of the Local Official Responsible for Building Maintenance vacancy. S. Lamarche indicated the Project Website needs to be updated. <i>D. Buckley will draft a thank you message from the Committee and J. Seeley to post and update the Project Website.</i>

Item #	Action	Discussion
		4. J. Potter asked if the Committee should apply for CPC funds to construct the Tennis Courts? <i>After discussion, the Committee decided to hold on requesting funds from the CPC.</i>
31.14	Record	Next SBC Meeting: January 19, 2017 at 6:30 pm at the Bourne Veteran's Memorial Community Center.
31.15	Record	A Motion was made by W. Meier and seconded by P. Meier to adjourn the meeting. No discussion, voted unanimously.

Attachments: Agenda, FAI Amendment No. 9, SMMA Amendment No. 2, SMMA Amendment No. 3, Design Development Phase Meetings and Agenda schedule, Design Meetings with School Administration/Staff and Agenda schedule, FSA Budget Revision Request No. 2, MSBA PS&B Agreement, MSBA Transition Conference Call Agenda, 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: Peebles Elementary School Feasibility Study Project No.: 15041
 Prepared by: Joel Seeley Meeting Date: 1/5/2017
 Re: School Building Committee Meeting Meeting No: 31
 Location: Veterans Memorial Community Center Time: 6:30pm

Distribution: Attendees, (MF)

SIGNATURE	ATTENDEES	EMAIL	AFFILIATION
	James L. Potter	onsetip@juno.com	Chairman, School Building Committee
	Peter J. Meier	pmeier@townofbourne.com	Bourne Board of Selectmen
	Christopher Hyldburg	chrish@alpha-1.com	Chairman, Bourne School Committee
	Natasha Scarpato	scarpato4@comcast.net	Bourne School Committee
	Donna Buckley	d.j.buckley23@gmail.com	Member-At-Large
	Richard A. Lavoie	RichL.Lavoie@gmail.com	Member, Bourne Finance Committee
	William Meier	Dusty22752@aol.com	Building Trade Expert
			Member-At-Large
	Frederick H. Howe	rickhowe9@gmail.com	Member-At-Large, Board of Health
	Steven M. Lamarche	slamarche@bourneps.org	Superintendent of Schools, BPS
	Edward S. Donoghue	EDonoghue@bourneps.org	Director of Business Services, BPS, MCPPO
	Thomas M. Guerino	tguerino@townofbourne.com	Town Administrator
	Elizabeth A. Carpenito	ecarpenito@bourneps.org	Director of Facilities, Town of Bourne
	Elizabeth A. Carpenito	ecarpenito@bourneps.org	Principal, BES
	Kathy Anderson	kanderson@bourneps.org	Elementary/Special Education Secretary
	Janey Norton	jnorton@bourneps.org	Principal, PES
	Kent Kovacs	kkovacs@flansburgh.com	Flansburgh Architects
	Betsy Farrell Garcia	bgarcia@flansburgh.com	Flansburgh Architects
	Joel Seeley	jseeley@smma.com	SMMA
	BILL BEATRICE	bbeatrice@flansburgh.com	FLANSBURGH ARCHITECTS

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AGENDA

Project:	Peebles Elementary School Feasibility Study	Project No.:	15041
Re:	School Building Committee Meeting	Meeting Date:	1/5/2017
Meeting Location:	Veterans Memorial Community Center	Meeting Time:	6:30 PM
Prepared by:	Joel Seeley	Meeting No.:	32
Distribution:	Committee Members (MF)		

1. Call to Order
2. Approval of Minutes
3. Approval of Invoices and Commitments
4. Review Design Development Phase Schedule and Deliverables
5. Review Overall Project Schedule
6. Review Administration and Teacher Meetings Schedule and Status
7. Review Updated Site and Floor Plans
8. Review Exterior Materials
9. Old or New Business
10. Public Comments
11. Next Meeting: January 19, 2017
12. Adjourn

**SCHOOL BUILDING COMMITTEE
PEEBLES ELEMENTARY SCHOOL**

All meetings held at
Veterans Memorial Community Center at 6:30 PM
unless otherwise noted

MEETINGS SCHEDULE AND AGENDAS

December 8, 2016 - revised January 5, 2017

DATE	AGENDA
<i>Design Development Phase</i>	
December 8, 2016	BUILDING COMMITTEE MEETING - Cancelled
January 5, 2017	BUILDING COMMITTEE MEETING Review Design Development Phase Schedule and Deliverables Review Overall Project Schedule Review Administration and Teacher Meetings Schedule and Status Review Updated Site and Floor Plans Review Exterior Materials
January 19, 2017	BUILDING COMMITTEE MEETING Update on Administration and Teacher Meetings Review Interior Design of Instructional and Community Spaces Review Updated Exterior Elevations Review Updated Exterior Materials Introduce Commissioning Agent
February 2, 2017	BUILDING COMMITTEE MEETING Review Updated Site and Floor Plans Review Construction Logistics Review Updated Interior Spaces Review Interior Materials Review MEP Systems Review LEED-S Scorecard, Energy Model and Daylighting Model
February 16, 2017	BUILDING COMMITTEE MEETING Review Updated Site Plan, Floor Plan and Exterior Elevations Review Preliminary Design Development Cost Estimates Value Engineering
March 2, 2017	BUILDING COMMITTEE MEETING Review Final Design Development Documents and Estimates Vote to Submit Design Development Package to MSBA
March 7, 2017	<i>SUBMIT DESIGN DEVELOPMENT PACKAGE TO MSBA</i>
	ADDITIONAL MEETINGS TO BE SCHEDULED

Peebles School Project (Grades 3-5)
DESIGN MEETINGS WITH SCHOOL ADMINISTRATION/STAFF
 All meetings held at District Office - 36 Sandwich Road at 9:00 AM - 12:00 AM

DRAFT Dec 12, 2016

Date	Agenda
Dec 14, 2016 (Wednesday @ 9am) <i>completed</i>	EDUCATIONAL DESIGN MEETING at Peebles • Design Development Module project requirements discussion • Interviews with Administration, Staff and Teachers
Dec 15, 2016 (Thursday @ 9am) <i>completed</i>	EDUCATIONAL DESIGN MEETING at Peebles • Interviews with Administration, Staff and Teachers
January 05, 2017 (Thursday @ 9am)	EDUCATIONAL DESIGN MEETING • Floor Plan and Site Plan review • Interior Design
January 26, 2017 (Thursday @ 9am)	EDUCATIONAL DESIGN MEETING • MEP discussion • Sustainable Design Features
February 09, 2017 (Thursday @ 9am)	EDUCATIONAL DESIGN MEETING • Landscape Design with Waterman • Floor Plan review
February 16, 2017 (Thursday @ 9am)	Design Update to Police Dept., Fire Dept., Emergency
February 23, 2017 (Thursday @ 9am)	EDUCATIONAL DESIGN MEETING • Final design development review
Additional meetings as needed	

TO: Director of Capital Planning

FROM: Mr. Steven Lamarche

Bourne Public Schools

Peebles Elementary School Project

MSBA Project ID Number: 201400360010

DATE: September 1, 2016

RE: Feasibility Study Agreement (FSA) Budget Revision Request, NUMBER: 2

Pursuant to the Feasibility Study Agreement between the TOWN OF BOURNE of Bourne, Massachusetts (the "District") and the MASSACHUSETTS SCHOOL BUILDING AUTHORITY (the "Authority"), the District hereby requests a revision to the Feasibility Study Budget, Exhibit A, dated February 6, 2015, for the James F. Peebles Elementary School Project. As required, the District has provided the information outlined in the table below to indicate the Feasibility Study Budget categories (line items) affected, the amounts needed and the reasons for the proposed revision.

The District acknowledges and agrees that it will not seek reimbursement from the Authority for any costs that exceed the already approved line item limits set forth in Exhibit A until after the Authority has accepted this Feasibility Study Budget Revision Request, and the Authority's ProPay system has been adjusted accordingly.

The District further acknowledges and agrees that in accordance with Section 3.3 of the Feasibility Study Agreement, any revisions to the Feasibility Study Budget will not result in an increase to the grant amount set forth in Section 2.1 of the Feasibility Study Agreement.

The District further acknowledges and agrees that the need for these revisions to the Feasibility Study Budget will be identified in the OPM monthly report as required pursuant to the Contract for Owner's Project Management Services between the District and the OPM.

The District further acknowledges and agrees that all of the information contained in this Feasibility Study Agreement Budget Revision Request has been reviewed and approved by the Town of Bourne and Bourne School Building Committee, and it further certifies and acknowledges that the funds to pay for the costs associated with these proposed revisions are available as indicated by the signatures noted below.

The Total Budget in the Current Feasibility Study Budget, Exhibit A of the FSA dated February 6, 2015 is \$750,000.00.

From Class' Code	From Classification Name	To Class' Code	To Classification Name	Budget Revision Amount	Reason for transfer (Attach all supporting documentation, e.g., executed contracts, amendments and or supporting invoices for reimbursable expenses)	Amount Remaining in Other	Ineligible/Cost/Scope Items excluded from the Total Facilities Grant
0004-0000	Other	0002-0000	A&E - Feasibility Study	\$19,125	Transfer from Other to A& E - Feasibility Study/Schematic Design as Designer has initiated Designer Amendment No. 7 for High School Capacity Study services.	\$90,202.87	\$0.00
							\$19,125

By signing this Total Project Budget Revision Request, I hereby certify that I have read and understand the terms of this Request and further certify that the information supplied by the District in the tables is true, accurate and complete.



By: Peter J. Meier
Title: Chief Executive Officer
Date: September 1, 2016

By signing this Total Project Budget Revision Request, I hereby certify that I have read and understand the terms of this Request and further certify that the information supplied by the District in the tables is true, accurate and complete.



By: Steven Damarche
Title: Superintendent of Schools
Date: September 1, 2016

By signing this Total Project Budget Revision Request, I hereby certify that I have read and understand the terms of this Request and further certify that the information supplied by the District in the tables is true, accurate and complete.



By: Anne-Marie Siroonian
Title: Chair of the School Committee
Date: September 1, 2016

MASSACHUSETTS SCHOOL BUILDING AUTHORITY



By: John J. Junpe
Title: Director of ~~Capital Planning~~ Project Management
Date: 12/30/16

MEMORANDUM

To: Peebles Elementary School Building Committee Date: 1/5/2017
 From: Joel G. Seeley, AIA Project No.: 15041
 Project: **New Peebles Elementary School**
 Re: **Designer Amendment No. 9: Design Development through Construction Administration Services**
 Distribution: (MF)

DESIGNER AMENDMENT NO. 9: DESIGN DEVELOPMENT THROUGH CONSTRUCTION ADMINISTRATION SERVICES

FEE: \$2,726,037.00

REASON: Provide Architecture and Engineering Services for the Design Development through Construction Administration Phases.

BUDGET AVAILABILITY: The Total Project Budget Form of the Scope and Budget Agreement includes a value of \$2,726,037.00 for these services.

ATTACHMENT F

CONTRACT FOR DESIGNER SERVICES

AMENDMENT NO. 9

WHEREAS, the Town of Bourne (“Owner”) and Flansburgh Associates, Inc., (the “Designer”) (collectively, the “Parties”) entered into a Contract for Designer Services for the Peebles Elementary School Project (Project Number 201400360010) at the Peebles Elementary School on September 22, 2015.
“Contract”; and

WHEREAS, effective as of January 5, 2017, the Parties wish to amend the Contract:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes the Designer to perform services for the Design Development Phase, the Construction Phases, and the Final Completion Phase of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.
2. For the performance of services required under the Contract, as amended, the Designer shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services:

	Original Contract	Prior Amendments	This Amendment	After this Amendment
Feasibility Study Phase	\$ 250,000.00	\$ 76,153.00		\$ 326,153.00
Schematic Design Phase	\$ 115,000.00	\$ 20,775.00		\$ 135,775.00
Design Development Phase	\$		\$ 530,000.00	\$ 530,000.00
Construction Document Phase	\$		\$ 1,060,000.00	\$ 1,060,000.00
Bidding Phase	\$		\$ 130,000.00	\$ 130,000.00
Construction Phase	\$		\$ 874,000.00	\$ 874,000.00
Completion Phase	\$		\$ 132,037.00	\$ 132,037.00
Total Fee	\$ 365,000.00	\$ 96,928.00	\$2,726,037.00	\$3,187,965.00

This Amendment is a result of: Providing Design Development through Construction Administration Phase Services

3. The Construction Budget shall be as follows:

Original Budget:	<u>\$30,910,366.00</u>
Amended Budget	<u>\$30,910,366.00</u>

4. The Project Schedule shall be as follows:

Original Schedule:	<u>Project Completion – November 29, 2019</u>
Amended Schedule	<u>Project Completion – November 29, 2019</u>

5. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Designer have caused this Amendment to be executed by their respective authorized officers.

OWNER

Thomas M. Guerino
(print name)
Town Administrator, Town of Bourne
(print title)

By _____
(signature)
Date _____

DESIGNER

Kent D. Kovacs, AIA LEED AP
(print name)
Vice President, Flansburgh, Associates, Inc.
(print title)

By _____
(signature)
Date _____

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Flansburgh Architects

December 19, 2016

Mr. Joel Seeley
Symmes Maini & McKee Associates, Inc
1000 Massachusetts Ave.
Cambridge, MA 02138

RE: Bourne Public Schools – Peebles Elementary School Project
Architecture and Engineer DD-CA Basic Service Fee

Dear Mr. Seeley,

Flansburgh Architects, Inc. is very pleased to submit this proposal for continued professional architectural and engineering services for the new 2–story, 72,680 square foot Peebles Elementary School in Bourne, Massachusetts. This proposal amends the original contract for the Feasibility and Schematic Design phases that are now complete.

Our scope of services includes the completion of the Design Development Phase, Construction Document Phase, Bidding Phase, Construction Administration Phase, and Close Out. This project will be utilizing the Design-Bid-Build construction delivery method. Please find attached the Designer Service Amendment for DDB.

The fee for the above listed phases under Basic Services is \$2,726,037.

Please prepare a Contract Amendment for our signature.

Sincerely,

FLANSBURGH ASSOCIATES, INC.



Kent Kovacs, AIA LEED AP
Vice President

7.5 Design Development Phase

- 7.5.1 Upon receipt of an Approval to proceed to the Design Development Phase, the Designer shall meet regularly and as necessary with the Owner, the OPM, and the Authority. This shall include meeting at least once every other week with the Owner and the OPM during this Phase.
- 7.5.2 The Designer shall update and refine items submitted during the Schematic Design Phase, and shall submit to the Owner and the Authority, on or before the date specified in the Project Schedule, and on the basis of the approved Schematic Design Phase Documents, the following deliverables as they are defined in this Article 7.5.2 and as they are further defined in Articles 7.5.3, 7.5.4, 7.5.5, 7.5.6 and 7.5.7:
- (a) a list of all filings and permits within Designer's scope of services and professional expertise required to implement the design and a schedule of target dates for the procurement of such permits, which list and schedule shall be regularly updated during the term of this Contract;
 - (b) information and documentation within the technical expertise of the Designer and that is necessary for the Owner to file local basic zoning and environmental permits. The Designer, as Extra Services, shall provide information and documentation for the Owner to file Environmental Notification Forms, Environmental Impact Reports, and any other filings for permits that must be filed during the design development phase;
 - (c) soils exploration data, geotechnical and geoenvironmental reports, showing exploratory locations relative to siting of proposed structures;
 - (d) complete design development drawings; outline specifications indicating any filed sub-bid sections and sub-sub trades based on the cost of the work and other documents necessary to specify the size and character of the Project as to siting, landscape, architectural, structural, fire protection, plumbing, heating, ventilating and air conditioning, electrical, ADA/MAAB, product requirements and other features;
 - (e) quality control documentation demonstrating, without limitation, coordination of: ceiling clearances, mechanical room size, and shaft sizes; specifications and drawings; filed sub-bid work or sections; scheduling; equipment and power; existing and new construction; and phasing;
 - (f) design development drawings which the Designer shall submit for review to the local building official;
 - (g) a life cycle cost analysis to determine which design decisions related to all energy and water consuming devices and overall building operation and maintenance are the most cost effective [M.G.L. c. 149, s. 44M];
 - (h) a construction cost estimate for the design in Unifomat II Level 3 format, with unit rates and quantities supporting each item and reconciled with the detailed construction cost estimate and any updated cost estimates in accordance with Article 7.5.6. The estimate cost shall be projected, to the mid point of the construction period;

- (i) a space measurement analysis for the design verifying that the sum of all program areas in the Project plus all other floor areas in the Project equals the gross floor area of the Project;
- (j) a written summary or summaries comparing the project design, as represented in the design development drawings, specifications and cost estimates with the Final Design Program requirements, and explaining any deviations in writing.

7.5.3 Design Development Drawing Requirements: The Design Development drawings shall illustrate and describe the refinement of the design of the Project to a level of detail that is customary and standard, establishing the scope, relationships, forms, size and appearance of the Project by means of plans, sections and elevations, typical construction details, and equipment layouts. Drawings shall delineate locations and elements of Work which may be proposed to be assigned to project construction phases and/or separate bidding packages. Documents shall include, but not be limited to, the following:

- (a) Site and utility drawings showing;
 - 1. Existing and proposed contours and locations of the proposed building or addition(s). Show entry level elevation and key exterior grades at perimeter. Indicate all retaining walls. Include benchmarks of site if survey is available.
 - 2. All utilities existing and proposed, indicating location, elevation, composition and size e.g., manholes, sewers, hydrants, light standards. Include work by others, e.g., gas and electric utility providers.
 - 3. Roads, laid out parking areas, walks, recreation areas, terraces and other site improvements.
 - 4. Building locations fixed and referenced from main survey baseline, if available.
 - 5. Plant materials with preliminary schedule.
- (b) Building drawings and other graphic and written requirements with floor plans showing: (minimum scale 1/8" = 1'0");
 - 1. building perimeter with exterior wall thicknesses and overall dimensions;
 - 2. structural grid;
 - 3. plan requirements of mechanical and electrical systems;
 - 4. building core; elevators, stairs, shafts, toilet rooms;
 - 5. interior partitions; appropriate thicknesses and dimensions to fix basic organizations; indicate fire separations, ratings;
 - 6. door swings;
 - 7. floor elevations;
 - 8. built-in furniture and equipment; and
 - 9. furniture layout concept drawings.
- (c) Roof plans showing;

1. proposed systems type;
 2. pitch and drainage patterns;
 3. roof drains, gutters and scuppers;
 4. skylights, stairs through roof, penthouses, major equipment, chimneys.
- (d) Building sections: One transverse and one longitudinal section. Indicate floor to ceiling heights and floor-to-floor heights. Label all spaces;
- (e) Building elevations showing;
1. full height elevations including roof structures, e.g., mechanical equipment, chimneys, and penthouses;
 2. floor elevations, floor-to-floor heights, and overall height related to benchmarks on site plans;
 3. all fenestration;
 4. column centerlines;
 5. principal finish materials indicating major control and expansion joints, and divisions of materials where required;
 6. louver and equipment enclosure systems; and
 7. exterior grades and topographical features in context.
- (f) Full height wall sections for main elevations and at special conditions. Show foundation and perimeter treatment, wall construction including insulation and supporting structure, fenestration and mechanical penetrations, and floor construction;
- (g) Interior elevations: Major spaces, e.g. library, lobby, and all typical spaces, e.g. classrooms;
- (h) Reflected ceiling plans: show prototypical structural, fire protection, mechanical and electrical information for classrooms and major spaces, including lighting layouts with ceiling heights and material changes;
- (i) Colored interior elevations and perspectives of major and typical spaces
- (j) Schedules;
1. finish schedule by room types;
 2. door schedule by room;
 3. window schedule;
 4. equipment schedules, e.g., food service, instructional media.
- (k) Structural Concepts;
1. Foundation plan showing sizes and locations of typical components.
 2. Framing plans: typical floor framing, roof framing, special framing, show framing at major openings and sizes of members.
 3. Column locations.

4. Preliminary details including floor and roof deck, statements as to methods of lateral bracing and how requirements of earthquake code will be met.
 5. Details for special and/or incidental structural features, e.g. tunnels, connecting bridges and unique architectural features.
 6. Connection to existing buildings at foundation and at key points at existing structure if applicable.
- (l) Fire Protection: floor plans indicating wet or dry type systems, hose racks or cabinets and fire department tie-ins. Indicate whether a fire pump will be required and, if so, show location within the building. Show typical sprinkler head layout;
- (m) Plumbing and sanitary systems: floor plans indicating locations of all plumbing fixtures and special features, and approximate location and size of all piping systems and principal items of equipment;
- (n) Heating, Ventilating and Air Conditioning Systems;
1. Show locations and approximate sizes of piping systems, air handling systems and principal items of equipment such as compressors or cooling towers.
 2. Indicate space requirements of major equipment and their location in mechanical rooms and fan rooms. Major shafts.
- (o) Electrical Systems;
1. All services including those for special purposes shall be located and indicated.
 2. Lighting shall be indicated as to type, location and intensities in foot-candles for each special and typical space.
 3. Switchgear and emergency generator.
 4. Fire alarm system drawings showing all initiation and signaling devices, control panels, annunciator panels, etc.
 5. Security system drawings.
 6. Communications drawings showing chases, major equipment locations and any special distribution requirements.
 7. CATV/CCTV drawings showing chases, major equipment locations and any special distribution requirements.
 8. Information Technology drawings showing chases, major equipment locations and any special distribution requirements.
- 7.5.4 Other Consultant's Drawings and Other Graphic and Written Requirements: For special consultants, e.g., kitchen, elevator, library, media room, equipment where appropriate, provide drawings that locate and define the scope of the work. Coordinate with other disciplines. Provide cuts of all major pieces of equipment.
- 7.5.5 Project Manual Requirements (Specifications):
- (a) Outline Specifications that are to accompany Design Development Drawings shall be prepared to a level of detail that is standard and customary and shall include,

but not be limited to, a comprehensive description of the Project and the materials proposed for use in the work. No detailed specifications of materials or workmanship procedures need be included; however, the general scope shall be indicated by CSI MasterFormat as applicable to proposed construction.

1. The Design Development Outline Specification shall also include a comprehensive "BASIS OF DESIGN." The "BASIS OF DESIGN" shall be a narrative description of the Project and shall include all applicable architectural, civil, structural, mechanical and electrical programs and/or systems. Identify all proposed filed sub-bid categories.
 2. Project Manual shall include a statement to define Work which is proposed to be included in separate construction phases and/or bid packages.
- (b) The following is a list of items that shall at a minimum be identified or outlined in this Phase:
1. Site work; clearing, drives, walks, parking areas, fences, excavation, backfill, planting.
 2. Footings; on earth, rock, piles, caissons, proposed bearing pressures, boring logs.
 3. Foundation walls; type of concrete, reinforcing, type and extent of waterproofing.
 4. Footing drains; type, disposal of drainage.
 5. Exterior walls: superstructure, type, materials, brick type, alternate cladding, back-up materials, dampproofing material and extent, special features.
 6. Roofs; types, vapor barrier, insulation, flashings, all materials.
 7. Flashings; general types, all materials, weights, where each type is to be used.
 8. Sheet metal; gutters, leaders, others uses, except flashings.
 9. Windows; general types, materials, sub-frames, finish, glazing, screens.
 10. Doors, exterior and interior; types.
 11. Steps, exterior; including platforms and landings' materials.
 12. Stairs, interior; including platforms, landings, walls, materials and finishes.
 13. Framing; wood, concrete or metal systems in accordance with general design.
 14. Partition construction related to room type.
 15. Cabinet and casework; types and materials.
 16. Food Service Equipment; types and materials.
 17. Furring; lathing, plastering, materials and locations.
 18. Insulation thermal; types, thicknesses, methods of application and locations.
 19. Acoustical treatments; types, thicknesses, methods of application and location.
 20. Interior finishes; materials for floors, walls, bases, wainscots, trim, ceilings, ceiling heights.

21. Fire Protection; standpipe systems, sprinkler systems, fire pumps and accessories.
22. Water supply; source; location of main to which connection will be made; type of pipe for service main; load requirements; load factors and pressures.
23. Sanitary sewers; sewage disposal system, pipe and other materials.
24. Storm sewers; storm drainage disposal system (institution or local facility), pipe and other materials.
25. Gas main; material, size, location. Interface with utility company.
26. Plumbing; systems such as wastes, vents, hot water, cold water, gas, air, oxygen, vacuum, main source of supply, materials for each, water heaters, pumps, thermal insulation fixture quality, all special features.
27. Heating, ventilating and air conditioning; type of heating and refrigeration plants, type and capacity of boilers and cooling equipment, fuel, type of burners, fuel storage, heaters, feed water pumps and heaters, thermal insulation, type of heating medium, supply and return piping, radiation, unit heaters, radiant heating, principal air conditioning equipment types, special features, supply, return and exhaust ductwork.
28. Electric work; service connection, location, institution or public utility, overhead or underground, transformers including type and location, types of conduit and wiring, types of fixtures, location of main switchboard, radio, fire alarm, telephone, public address, emergency lighting and wiring, emergency or other generators, special features, including Master TV, information retrieval and/or data processing system.
29. Elevators, dumbwaiters and platform lifts; capacities, speed, travel in feet, landings, operation, controls, platform sizes, machine type and location, car and entrance finishes, signals.
30. Other built-in equipment, types and materials.
31. Special features.

7.5.6 Construction Cost Estimate Requirements – The Designer shall provide a construction cost estimate in Unifomat II Level 3 format with aggregated unit rates and quantities supporting each item referenced in Article 7.5.5(b). The estimate cost shall be projected, to the mid point of the construction period.

- (a) The Designer shall review its construction cost estimate in comparison with the detailed construction cost estimate, and any updated cost estimates, provided by the OPM and shall work in good faith and in cooperation and coordination with the OPM to reconcile any differences between the construction cost estimates, to clarify assumptions upon which the cost estimates are based and to address any concerns or questions with the cost estimates that are raised by the Owner, the OPM, or the Authority. If the Designer is unable to reconcile all differences between the two construction cost estimates with the OPM, then the Designer shall provide a detailed explanation of the differences to the Owner. If, in any case, the agreed-upon, reconciled construction cost estimate exceeds the Project

Construction Budget, the Designer shall cooperate with the Owner and the OPM in identifying, specifying and recommending changes in, or additional specification of materials, equipment, component systems and types of construction, or other adjustments in the scope or quality of the Project, including contingencies or alternative bid items, so as to facilitate revision of the design of the Project to reduce the cost of construction so as to comply with the authorized Project Construction Budget.

(b) Cost estimate data shall be organized to identify elements of project work which may be proposed to be advanced under separate construction phases and/or separate bidding packages. When so proposed, estimates shall develop cost data relative to corresponding bidding and work execution dates established in project schedules.

7.5.7 Reports, drawings, specifications, cost estimates and other design development submittals shall be subject to the written approval of the Owner and the Authority. Unless a lesser number is requested by the Owner, the Designer shall submit to the Owner for approval six (6) copies of Design Development drawings, specifications, cost estimates, and other submittals. Two (2) copies shall be submitted to the Authority by the Designer.

7.5.8 The Designer shall present and explain the Design Development submittal to the Owner and the Authority and at a local public meeting scheduled by the Owner, if any such meeting is scheduled or in conference.

7.5.9 The Designer and its Subconsultants shall collaborate with the Authority's Commissioning Consultant to develop design criteria which will support the purposes of building commissioning and energy/resources conservation concepts as commonly understood and as prescribed by the Commissioning Consultant.

7.6 Construction Documents Phase: In addition to the requirements specified in the RFS (Attachment B), upon receipt of an Approval to proceed with the Construction Documents Phase of the Project from the Owner, the Designer shall do the following:

7.6.1 The Designer shall meet regularly and as necessary with the Owner, the Authority, the OPM, and the Commissioning Consultant. This shall include meeting at least twice per month (or more frequently if needed) with the Owner and the OPM during this Phase.

7.6.2 Based on the submittals approved in the Design Development Phase of the Project, the Designer shall update and refine the items previously submitted and shall submit the following on or before the date and time specified in the Project Schedule:

(a) Construction documents progress submittals as follows:

1. a 60% Construction Documents Submittal, with deliverables as defined in Article 7.6.3;
2. a 90% Construction Documents Submittal, with deliverables as defined in Article 7.6.4;

3. a Final Construction Documents Submittal, with deliverables as defined in Article 7.6.5;
 4. a Bid Documents Submittal, with deliverables as defined in Article 7.6.6
- (b) As a part of each of the submittals required under Articles 7.6.3, 7.6.4, and 7.6.5, an updated work plan and recommended updates for incorporation into the Project Schedule by the OPM;
- (c) As a part of each of the submittals required under Articles 7.6.3, 7.6.4, and 7.6.5, a report on the status of environmental, zoning, planning, building code, and ADA/MAAB approvals and permitting processes and a certified list of all required testing and all required permits identified in 7.5.2(a).
- (d) All submittals by the Designer shall be subject to the written approval of the Owner, which approval shall not be unreasonably delayed, withheld, conditioned, or denied. Unless a lesser number is requested by the Owner or is specifically provided hereinafter, the Designer shall furnish to the Owner for approval six (6) sets of the drawings, specifications, construction cost estimates and all other submittals. Unless a lesser number is specifically provided hereinafter, the Designer shall furnish two (2) sets of said drawings, specifications, construction cost estimates and all other submittals to the Authority. The Designer shall also furnish to the Owner and the Authority electronic media copies of the foregoing drawings and documents in such form as may be required by the Authority.

7.6.3 60 Percent Construction Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a 60 % Construction Documents Submittal (60% CD Submittal), which shall include:
1. Construction Documents and other deliverables, as defined in this Article 7.6.3 and as further defined in Articles 7.6.2, 7.6.7, 7.6.8, and 7.6.9, advanced to a level of intermediate (60 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 2. In instances where the Designer takes exception to the Authority's previous review comments on the Design Development submittal, a written statement explaining its position.
 3. The Basis of Design that accompanied the Outline Specifications in the Design Development Phase shall be updated and expanded to include all proposed architectural, structural, fire protection, plumbing, mechanical, electrical, civil, and landscape design concepts for the Project.
 4. A space summary, in the form and format prescribed by the Authority, that sets forth the current space calculations and totals and certifies that said space calculations and totals are in compliance with those previously authorized by the Authority in the Project Funding Agreement.

5. Keying of graphics shall be sufficient to allow a reviewer to make his or her way through the set.
 6. A list of all drawings related to the Project.
 7. A materials selection statement identifying typical interior and exterior surfaces and their materials.
 8. A color theory statement indicating proposed paint colors and material selections for typical and special spaces and why they have been selected and how these selections relate to surrounding materials and colors.
 9. Large scale plans of all mechanical and electrical spaces with major equipment indicated.
 10. Project Manual, including all sections to be included in final technical specifications, developed to include a list of all materials in the building with their manufacturers. Identify all specifications sections which need to be filed sub-bid.
 11. Identify all proposed bid alternates by inclusion in a project manual section to be titled "Alternates." Alternates shall be listed in sequence as approved by the Owner. Work required under bid alternates shall be described and/or drawn, as appropriate, to clearly define the design criteria and extent of work involved for implementation of the bid alternate. In each instance, the existing conditions and/or new design criteria for base bid work shall also be described and indicated in documents.
 12. Code analysis: Provide a building code analysis. Any deviation from methods of compliance described in earlier submittals shall be indicated. Code analysis shall identify its preparer, code edition referenced, and include a comprehensive description of operative building code provisions, with floor plans showing fire separation types, area calculations, egress capacity for exits and exitways, and any special features required to comply.
- (b) As a requirement of the 60% CD Submittal, and in accordance with the provisions of this paragraph and Article 7.6.9, the Designer shall provide a construction cost estimate prepared using the Unifomat II Classification to Level 3, the CSI MasterFormat 6-digit format to Level 3 and MGL c.149 §44F (filed sub-bid) format including quantities of all materials and unit prices of labor, equipment, and materials as well as a cost estimate for each item of work, for review by the Owner and the Authority. The Designer shall submit said construction cost estimate separately, as a supplement to the 60% CD Submittal, no later than twenty-one days after the submission of the 60% CD Submittal described in Article 7.6.3(a). The development of said construction cost estimate shall under no circumstances delay the timely submission of the remainder of the 60% CD Submittal.

7.6.4 90 Percent Construction Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a 90 % Construction Documents Submittal (90% CD Submittal), which shall include:
1. Construction documents and other deliverables as defined in this Article 7.6.4 and as further defined in Articles 7.6.2, 7.6.7, 7.6.8, and 7.6.9, advanced to a level of substantial (90 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 2. A space summary, in the form and format prescribed by the Authority, that sets forth the current space calculations and totals and certifies that said space calculations and totals are in compliance with those authorized by the Authority in the Project Funding Agreement.
 3. Interior Materials Color Boards, including samples of principal interior materials, labeled and mounted to indicate locations.
 4. Final structural and energy design calculations.
 5. A statement confirming that the Owner has been provided with structural design drawings, specifications, and calculations sufficient to enable execution of an independent structural peer review process, as defined in the Massachusetts Building Code, as amended (this requirement is applicable, to satisfy Authority requirements for all school construction projects having a floor area in excess of 10,000 square feet). The Designer shall have advised the Owner of this requirement in writing not less than sixty (60) days prior to delivery of the 90% CD Submittal in order for the Owner to arrange for the services of an Independent Structural Peer Reviewer. Upon reaching 90 percent completion of construction documents, Designer's structural engineering consultant shall have reached a level of 100 percent completion of its construction documents to enable advancement of the independent structural peer review.
 6. The Designer and its consultants shall fully cooperate with the Independent Structural Peer Reviewer in the process. The Designer shall obtain a copy of the Independent Structural Engineering Review report and submit same to the Owner and the Authority at the time of completion of the remainder of the construction documents at the level of final completion.
 7. In instances where the Designer takes exception to any of the Authority's 60% CD Submittal review comments, a written position statement explaining the Designer's position on its exceptions to said review comments.

7.6.5 Final Construction Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a Final Construction Documents Submittal, which shall include:
1. construction documents and other deliverables as defined in this Article 7.6.5 and as further defined in Articles 7.6.2, 7.6.7., 7.6.8, and 7.6.9, advanced to a level of final (100 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 2. a final construction cost estimate, in accordance with the provisions of this paragraph and Article 7.6.9, based on 90% Construction Documents, including cost estimates for general conditions, overhead and profit, insurance, bonds, and all other items expressed as percentage rates for design contingencies and construction contingencies and escalation to the bid date; and other mutually agreed upon contingencies. The final construction cost estimate shall be prepared in Unifomat II Elemental Classification to Level 3 (Sections A-G inclusive), the CSI MasterFormat to Level 3 and M.G.L. c.149, §44F (filed sub-bid) format and shall be complete with a single line description for each item with the detailed unit rate or item cost buildup provided in each case.
 3. complete construction drawings and specifications, certified by the Designer as having satisfied the firm's quality control review process as previously confirmed with the Owner, in sufficient detail to permit fixed-price bids in open competition for construction of the Project when documents have been approved for issuance for bidding.
 4. no later than at the 100% stage of completion of the final drawings and specifications, two sets of the final drawings and specifications that shall be provided to the local building official to be signed and stamped "Approved" by the local building official; two sets of plumbing drawings and specifications that shall be provided to the local plumbing inspector to be signed and stamped "Approved" by the local plumbing inspector; two sets of the fire protection, HVAC, and electrical construction documents that shall be provided to the local fire official to be signed and stamped "Approved" by the local fire official; two sets of the electrical construction documents that shall be provided to the local electrical inspector to be signed and stamped "Approved" by the local electrical inspector. Notwithstanding the foregoing, the Owner acknowledges that building officials, department inspectors, and fire officials have varying policies on approvals and submittal procedures, and the only obligation of the Designer in this regard is to promptly make the submittals described herein and assist the Owner in receiving the approvals to the extent available.
 5. at the 100 percent stage of completion of final drawings and specifications, a written summary comparing the final construction drawings and specifications and final estimated construction cost with the Final Design Program requirements and submittals made during the Design Development Phase and

earlier in the Construction Documents Phase, explaining any significant deviations.

6. In instances where the Designer takes exception to any of the Authority's 90% CD Submittal review comments, a written position statement explaining the Designer's position on its exceptions to said review comments.
7. The Independent Structural Engineering Peer Review Report obtained from the Independent Structural Engineering Peer Reviewer referenced in Article 7.6.4(e). The Designer shall include a certification statement from the project structural engineer designer of record to acknowledge receipt of the Report and to indicate response actions pursuant thereto. The Designer shall also forward a copy of said Report to the Building Inspector.
8. A certification that all applicable local, state and utility officials have been contacted by the Designer regarding each utility connection and that the persons responsible for permits or connection approval have agreed to the systems' use.

7.6.6 Bid Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a Bid Documents Submittal which shall include:
 1. Construction documents and other deliverables as defined in this Article 7.6.6 and as further defined in Articles 7.6.2, 7.6.7, and 7.6.8, incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 2. From the construction drawings and specifications approved by the Owner, incorporating such changes as the Owner or the Authority requires, a set of reproducible black and white drawings and original specifications on high quality white bond paper, single-sided, properly packaged, suitable for reproduction, stamped and signed by all disciplines, that shall be prepared by the Designer and transmitted to the Owner; which documents shall become the property of the Owner as provided under Article 16. Other suitable reproducible media, having the same content shall be substituted, when so directed or authorized by the Owner.
 3. Upon receipt of Owner authorization to advance to reproduction the approved documents for distribution to bidders and, upon reproduction thereof, the Designer shall promptly submit complete sets of bid documents to the Owner (two sets) and the Authority (one set - half size for Drawings). Any subsequent addenda shall be promptly submitted to the Owner and the Authority.

7.6.7 Drawing Requirements:

- (a) The documents prepared during the Construction Documents Phase shall set forth the requirements for construction of the Project to a level of detail that is customary and standard and shall include, but not be limited to:
1. General information showing drawing index, symbols, abbreviations, notes, locations map.
 2. Site drawings shall be complete to define the extent and detail of site work. Show the following:
 - a. Layout and location of all proposed work including buildings, structures, retaining walls, parking, walls and all other site improvements, with details.
 - b. Existing and proposed grades and contours including floor elevations, existing structures and topography, survey base line, bench marks and boring locations.
 - c. Landscaping and planting.
 - d. All utility service lines, systems and structures for electricity, gas, oil, water, steam, telephone, CATV, fire alarm, sanitary and storm drainage including size, composition, grades and directions of flow.
 - e. Contract Limit Line and Storage Area for construction materials.
 - f. All existing foundations, obstructions and other physical characteristics of the site which may affect the construction work.
 - g. Site survey.
 - h. Cuts of benches, light standards.
 3. Demolition drawings and temporary work required.
 4. Architectural drawings shall include at a minimum:
 - a. Floor plans of each floor, including basement and lofts or attic with room and corridor dimensions, wall thicknesses, column locations, floor elevations, mechanical and electrical openings, door and window designations, partition types, floor materials, built in furniture and equipment, keyed to other architectural drawings. All rooms numbered.
 - b. Large scale floor plans where required to illustrate detailed requirements of rooms.
 - c. Large scale plans showing key areas e.g. lobby, special spaces. Indicate surface materials. (minimum scale $\frac{1}{4}'' = 1' - 0''$)
 - d. Roof plans showing openings, drainage, slopes, expansion joints and all projections, including equipment.
 - e. Key plans on all floor plans and section drawings, where appropriate.
 - f. Building Sections as required to show spatial organization of building but no less than one longitudinal and one transverse.
 - g. Building elevations. All building elevations shall be fully developed, and hidden elevations shall be shown. Elevations shall be shown in a sequence as unfolded from a certain point.

- h. Full height wall sections indicating dimensions, flashing, anchorage, reinforcing, coursing, cladding, and all other conditions at wall, roof, foundation, interior floors.
 - i. Exterior details, for roofing, flashing, expansion control and construction joints, waterstops and other details showing all conditions both vertical and horizontal, including schedules.
 - j. Door, window, entrance, and storefront, schedules, and details.
 - k. Vertical circulation plans, sections and details including stairs, elevators, conveyors, dumbwaiters.
 - l. Interior elevations of all significant and typical spaces.
 - m. Interior details including casework, paneling surfacing and acoustical treatment.
 - n. Reflected ceiling plans coordinated with fire protection, mechanical and electrical drawings, and ceiling details.
 - o. Schedules (clearly define new or existing)
 - i. Doors
 - ii. Equipment, e.g. for services
 - iii. Partitions
 - iv. Finishes
5. Structural drawings shall indicate the following:
- a. Indicate or refer to location of geotechnical exploration data and reports related thereto.
 - b. 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.
 - c. Floor and roof plans of structural systems including framing, grades of finished floors and depressed areas, with locations and dimensions for all openings. Also indicate design floor loads.
 - d. Complete foundation wall elevation and typical sections, with reinforcing indicating location, dimensions and grades for all footings, steps and wall openings.
 - e. Complete details and sections with dimensions for all construction including expansion and construction joints, reinforcing and other embedded items.
 - f. Schedules (with dimensions) for all lintels, beams, joists, and columns.
 - g. Unless detailed on the Drawings, the following information shall appear in the general notes: 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; bendpoint, cutoff, and hook locations for all members, minimum beam and lintel bearing. Reinforcing steel fabrication shall be in accordance with most recent ACI, "Manual of Standard Practice for Detailing Reinforced Concrete." Structural steel fabrication shall be in accordance with the AISC "Manual of Steel Construction."

6. Fire protection drawings shall indicate standpipe systems, sprinkler systems, suppression systems, access panels, fire pumps, accessories, and piping. All piping, equipment, fixtures and devices shall be located and sized. Design criteria shall be provided on the drawings in accordance with NFPA requirements.
 - a. Fire protection work, other than site work, shall not be combined on the same sheets with the Plumbing, HVAC, Electrical, or other drawings except with the prior approval of the Owner.

7. Plumbing drawings shall indicate the following:
 - a. All work done by the Plumbing Subcontractor, which includes all water, gas, air, vacuum, medical gases, sanitary and storm wastes, and accessories. Include foundation drain lines unless established as the work of the General Contractor and shall not be indicated on the Plumbing Drawings. Site utilities shall be indicated on the utility drawings.
 - b. Plumbing work, other than site work, shall not be combined on the same sheets with the Fire Protection, HVAC, Electrical, or other drawings except with the prior approval of the Owner.
 - c. Trapping and venting of all plumbing fixtures including floor drains.
 - d. Water and gas supply sources, storm and sanitary discharge mains.
 - e. All piping shall be carefully sized and all sizes shall be indicated on drawings and riser diagrams. Indicate all directions of flow and pitch on piping.
 - f. All accessories, valves, fixtures including all drinking fountains, grease traps for kitchen waste and all necessary panels, identified as to type and size.
 - g. All piping and connections required for other trades (e.g., kitchen equipment, HVAC make-up water, etc.).
 - h. Acid waste, vents and neutralization systems for laboratories.
 - i. Plumbing Legend and/or graphical symbols on the first sheet of the Plumbing Drawings in accordance with the American National Standards Institute (ANSI).
 - j. Plumbing riser diagrams for structures two or more stories in height above the ground level.
 - k. Domestic water booster pumps, boiler feed water, meter location, hose bibbs, and wall hydrants.
 - l. Domestic hot water: storage tanks, piping material, hanger details.
 - m. All required access panels shall be indicated.
 - n. Backflow preventors and cleanouts. Verify that access and clearance provisions for periodically inspected devices, including backflow prevention, are adequate to satisfy requirements of inspecting agencies.

8. Heating, Ventilating and Air Conditioning Drawings shall indicate the following:

- a. HVAC work, other than site work, shall not be combined on the same sheets with Fire Protection, Plumbing, Electrical, or other drawings except with the prior approval of the Owner.
- b. All piping and ductwork systems shall be located and sized. All ductwork shall be shown double line.
- c. All systems shall be sized at all reductions and riser diagrams of piping and duct systems shall be indicated.
- d. All directions of flow and pitch on piping, and direction of flow, volumes for duct systems shall be indicated.
- e. All equipment shall have sufficient servicing and/or replacement space indicated on drawings.
- f. All equipment, accessories, valves and dampers with all necessary access panels, identified as to type and size. Access panels, where required for access to valves and dampers shall be indicated on drawings.
- g. 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.
- h. Cooling tower design 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.
- i. All fire and smoke dampers, access panels and doors.
- j. Mechanical room designs:
 - i. Vent pipes for safety valves, relief valves, back pressure valves and tanks shall be extended above flat roofs in accordance with all governing authorities.
 - ii. In all designs for boiler and refrigeration plants, include a complete floor plan indicating location of all major mechanical equipment and sufficient service space.
 - iii. 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.

9. Electrical Drawings shall indicate the following:

- a. Site utilities shall be indicated on separate electrical site drawings, unless ample space is available on common site for utility drawings.
- b. Electrical work, other than site work, shall not be combined on the same sheets with Fire Protection, Plumbing, HVAC, or other drawings except with the prior approval of the Owner.
- c. General arrangement: Outline layout of each floor. Typical sections through the structure shall be indicated when necessary to define requirements, floor and ceiling heights, elevations, and type construction, including concrete pads shall be indicated. Indicate interface with other systems. Identify any work by general contractor or other trades.
- d. 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.

- e. 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.
- f. Fire Alarm, Data, Communications, CATV/CCTV Systems: Locations and types of all devices, outlets and equipment, service connections, wiring diagrams, all other essential details.
- g. 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.
- h. 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.
- i. 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. All underground chambers, including manholes and pull-boxes, shall be constructed of cast in place or one piece pre-cast concrete.
- j. Pole line work: if required as contract work, indicate 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.
- k. Exterior lighting: Location, size, and type of transformers, luminary, poles, light standards, cables, ducts, and manholes, details of control equipment and connection diagrams.
- l. Emergency system details including transfer switch, type of fuel.
- m. 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.
- n. Riser diagrams for all systems.

7.6.8 Project Manual Requirements:

- (a) The format for the Project Manual, including its technical specifications, shall be in accordance with the current CSI MasterFormat with separate sections for each of class of work required by M.G.L. c. 149 §44F.

(b) The following general information applies to the development of final Specifications:

1. 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.
2. 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 M.G.L. c.30, § 39M.
3. Specify materials mined or manufactured in Massachusetts first and the United States of America second whenever possible.
4. Do not use general clauses intended to be all-inclusive in lieu of complete descriptions.
5. Do not duplicate standard requirements that are contained in the contract form.
6. Use consistency throughout. The word “will” shall be used to designate what the Owner, Authority, Owner’s Project Manager, Commissioning Consultant, 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.
7. Use the same term throughout for the same subject and the term shall be the same as that used on the drawings.
8. Do not use the term “etc.”
9. Avoid such terms as “to the satisfaction of the Designer,” “as directed by the Designer,” “as approved,” and “as required”.
10. Specify work in appropriate Sections according to local trade jurisdiction.
11. Avoid the use of the following symbols:

<u>Symbol</u>	<u>Use Instead</u>
#	number, no., or pounds
%	percent
"	inch or in.
x	by
'	feet or ft.
o	degree
/	per or at

12. 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 the like.

13. 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.
14. 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.
15. Do not specify that a product or system shall require prequalification or advance approval for use prior to bidding.
16. Established unit price items shall be used for work categories which cannot be ascertained for exact quantities in bid documents (e.g. earthwork removal and/or replacement items). In such cases, the Designer shall establish ranges of quantities with associated unit price values for each range. Unit price values shall be established for added work, for deleted work, for base bid quantities when conditions so-suggest. Unit price values shall be ascertained through consultation with cost estimators, be current, equitable, and well defined as to elements of work, overhead, like issues to be encompassed. Established unit prices shall be published within the applicable technical specification sections, and referenced from general conditions as being operative as the basis for determining values to be used for payment or recovery for change order work.
17. Staging, scaffolding, cutting and patching, refuse collection and disposal, demolition work and cleaning task, allocation policy and proposed language shall be carefully assigned to avoid duplication or omission.
18. A final draft of Project Advertisement, Notice to Bidders, Instructions to Bidders, Contract Forms, General Conditions, Supplementary General Conditions, and other “front end” documents shall be included in the 90% construction documents submittal, along with a final version of all text to appear in Division 1, General Requirements. The Designer may defer insertion of final advertising / bid dates and wage rates, understanding that they are to be established and inserted immediately prior to release of documents for bidding.

7.6.9 Construction Cost Estimate Requirements

The Designer shall provide the construction cost estimates described in Articles 7.6.3 and 7.6.5 in accordance with the following provisions:

- (a) The Designer shall review its construction cost estimate in comparison with the detailed construction cost estimate, and any update cost estimates, provided by the OPM and shall work in good faith and in cooperation and coordination with the OPM to reconcile any differences between the cost estimates, to clarify assumptions upon which the cost estimates are based and to address any concerns or questions with the cost estimates that are raised by the Owner, the OPM, or the Authority. If the Designer is unable to reconcile all differences between the two construction cost estimates with the OPM, then the Designer shall provide a detailed explanation of the differences to the Owner and the Authority. If, in any

case, the agreed-upon, reconciled construction cost estimate exceeds the Project Construction Budget, the Designer shall cooperate with the Owner and the OPM in identifying, specifying and recommending changes in materials, equipment, component systems and types of construction, or other adjustments in the scope or materials selections for the Project, including contingencies or alternative bid items, so as to facilitate revision of the design of the Project to reduce the cost of construction so as to comply with the Project Construction Budget.

(b) Cost estimate data shall be organized to identify elements of project work which may be proposed to be advanced under separate construction phases and/or separate bidding packages. When so proposed, estimates shall develop cost data relative to corresponding bidding and work execution dates established in project schedules.

(c) Cost estimates shall be projected to the mid point of the construction period.

(d) The summary sheets shall contain the following:

1. The date that the estimate was prepared. (Value Date).
2. The anticipated bid date.
3. The project and contract number.
4. The title and location of the project.
5. The name of the Designer.
6. The name of the Estimator.
7. The site work cost (including all utilities).
8. The building cost (including fixed equipment).
9. The estimated construction cost of each Phase of the work, totaled.

7.6.10 The Designer shall participate in a final review of the Construction Documents with the Owner, the OPM, and the Commissioning Consultant, and the Designer shall incorporate such changes as are necessary to satisfy the Owner's review comments.

7.7 Bidding Phase

7.7.1 The Designer shall, when authorized by the Owner, prepare for reproduction and distribution the construction bid documents, including advertisements, for receipt of proposals from construction contractors, and for execution of the Owner-Contractor Agreement. The Designer shall prepare all addenda (to include bidder questions and Designer responses), subject to the Approval of the Owner and the Authority. The Designer shall attend the pre-bid conference if one is scheduled, taking note of all questions asked. Relevant questions submitted in writing shall be answered by the

- Designer by means of written addenda to the bid documents as required. The Designer shall attend each bid opening and, with the assistance of the Owner's Project Manager, conduct a review of the qualifications of the low filed sub-bidders and general bidder (and of other bidders if necessary) and shall, within five working days of the respective bid opening dates, advise the Owner in writing of the Designer's opinions as to the sub-bidders' bids and as to which general bidder is the responsible and eligible bidder that has submitted the lowest bid.
- 7.7.2 The Designer shall assist the Owner in the prequalification of prime contractors and subcontractors in the filed sub-bidder or trade contractor scopes of work pursuant to M.G.L. c. 149, §§44D½ and 44D¾ including participation as a member of the Owner's Prequalification Committee.
- 7.7.3 The Designer shall receive all inquiries relating to the bid documents and, when necessary, answer questions by preparing and issuing written addenda. The Owner shall review and approve all such addenda prior to issuance to bidders.
- 7.7.4 When sub-bids are required:
- (a) Attend sub-bid openings.
 - (b) Assist in reviewing sub-bids with the Owner for completeness and accuracy.
 - (c) Assess sub-bid amounts relative to cost estimates.
 - (d) Assist in checking references of sub-bidders and make written recommendations as to their qualifications, only required for projects in which pre-qualification has not occurred.
 - (e) Issue a letter of recommendation to Owner upon acceptance of sub-bids, identify any categories to be re-bid and reason(s) therefor.
 - (f) Prepare and distribute the filed sub-bid tabulation to all prospective bidders. The tabulation shall be reviewed and approved by the Owner prior to its issuance to bidders.
- 7.7.5 Unless otherwise directed by the Owner, attend and conduct the general bid opening.
- 7.7.6 Review with the Owner and the Owner's Project Manager general bids for completeness and accuracy.
- 7.7.7 Review bidder responses for alternates and make written recommendations as to their acceptance.
- 7.7.8 If the Project has to be re-bid because of a defect in the bid documents prepared by the Designer or in procedures proposed by the Designer, the Designer shall correct the defect and take the necessary actions for re-bidding the Project on proper bid documents without any additional compensation to the Designer.
- 7.7.9 If within three (3) months after approval of Construction Contract Documents, in final form, the bids of the lowest responsible and eligible bidders or negotiated proposals exceed the approved Project Construction Budget, the provisions of Article 4.10 shall apply.

7.7.10 If the Owner awards a construction contract for an amount that exceeds the amount established in the Project Construction Budget, such an award will not affect the Fee for Basic Services.

7.8 Construction Administration Phase - Obligations During Construction: Following the execution of the Owner-Contractor Agreement, the Designer shall undertake certain of the obligations of administering the Owner-Contractor Agreement on behalf of the Owner, provided that Designer shall not be subject to provisions of the Owner-Contractor Agreement that would have the effect of expanding Designer's responsibilities or liabilities under this Contract without Designer's written consent. Services during this phase include, but are not necessarily limited to:

7.8.1 Upon commencement of construction activities for the Work or early bid packages or at times established in Project schedules, the Designer shall:

- (a) Furnish the General Contractor with information for establishing lines and grades and such supplemental drawings as are reasonably needed to implement the intent of the Construction Contract Documents;
- (b) With reasonable promptness and in accordance with schedules agreed upon by the Designer and Contractor, observe testing when required under this Contract, and review and act upon samples, schedules, shop drawings and other submissions from the General Contractor;
- (c) Prepare, maintain and update logs for all submittals;
- (d) Visit the site at intervals appropriate to the stage of construction, weekly or as otherwise agreed to by the parties, and observe the progress of the Work, issue written progress reports, and attend job meetings, and review and respond to meeting minutes prepared by the Owner's Project Manager, and to determine in general if the Work observed is being built in a manner indicating the Work when completed will be in accordance with approved Construction Contract Documents;
- (e) Collaborate with the on-site Project Representative of the OPM to identify and monitor issues of concern relative to the progress of the Work, and establish communications processes to help assure that matters of mutual concern are exchanged on a timely basis with one another, the OPM, Commissioning Consultant, and Owner;
- (f) On a weekly basis, make specific recommendations on rejection of any Work observed by the Designer that fails to conform to the Construction Contract Documents, and observe corrected Work;
- (g) Require each Subconsultant engaged in accordance with Article 5 to make visits weekly or as otherwise agreed to by the parties during the progress of any work to which that Subconsultant's services relate, and to report upon it in writing to the Designer;
- (h) Recommend actions to be taken which may include condemnation or rejection of any work that the Designer determines fails to conform to the Owner-Contractor Agreement;

- (i) Review and recommend appropriate action for proposed requests for changes and where required by the Owner, prepare documents associated with requests for a change in any Construction Contract Documents. Compensation for change order work by the Designer shall be determined in accordance with Article 10;
- (j) Conduct semi-final and final inspections of the Project and report the results of such inspections in writing to the Owner;
- (k) In association with the Commissioning Consultant, review the report by such Commissioning Consultant on the balancing of air and water circulation systems;
- (l) In association with the Commissioning Consultant, review the report by such Commissioning Consultant on the setting and adjustment of automatic controls;
- (m) In a timely manner, decide all questions regarding interpretation of, or compliance with, the Construction Contract Documents, except as the Owner may in writing otherwise determine;
- (n) In association with the Commissioning Consultant, review the recommendations of such Consultant for requirements upon operating and maintenance documents and building user training events and instructional media as established in the Construction Contract Documents; such Consultant or OPM shall coordinate involvement of contracting parties, the Designer, and Owner;
- (o) Furnish the Record Drawings as submitted by the General Contractor in accordance with 7.8.3, and other required documents;
- (p) Assist the Owner in providing the written Contractor Evaluations required of the Owner pursuant to M.G.L. c.149 §44D(7) at the completion of approximately 50% of the Construction Phase on forms prescribed by M.G.L. c.149 §44D(16);
- (q) Perform inspections of the work as necessary to prepare a punch list identifying each incomplete or deficient Work item and performing re-inspections to authorize removal of satisfactorily completed Work items from the punch list, or to determine that the Project is complete. In association with the OPM, a cost shall be assigned to each incomplete or deficient Work item when it has been determined that the Project has reached Substantial Completion; and
- (r) Receive from the General Contractor all maintenance and operating manuals, occupancy permits, guarantees and other similar relevant materials.

7.8.2 The Designer shall submit to the Owner's Project Manager within 48 hours all requisitions for payment submitted by the General Contractor in the form required by the Owner. The Designer may establish procedures with the Contractor for advance notification of requisition and/or draft version processing. With respect to each such requisition, the Designer shall certify to the best of its knowledge that the percentage of Work included in the requisition is accurate and that the work performed is in accordance with the Construction Contract Documents. In the event the Designer does not approve the requisition exactly as submitted by the General Contractor, the Designer shall forward it for payment to the Owner's Project Manager dated and signed with corrections and with an accompanying letter of explanation setting forth the Designer's objections and recommended changes. The Designer shall coordinate

the required visits of its own staff and those of its Subconsultants, to the construction site so as to enable it to submit to the Owner's Project Manager the General Contractor's monthly requisition for payment. Timely payments to the Contractor are required by M.G.L. c. 30, § 39K. Therefore, the Designer shall establish procedures to help assure either immediate mail or messenger delivery of the requisition for payment to the Owner's Project Manager, and shall process requisitions for payment within five business days after receipt of the same, provided the Contractor has submitted a full and complete requisition for payment in the correct form.

7.8.3 Prior to issuance of the Certificate of Substantial Completion, the Designer shall obtain from the General Contractor as-built drawings, including drawings showing the actual installation of the site utilities, plumbing, heating, ventilating and electrical work under the Owner-Contractor Agreement, and recording all changes. The Designer shall ascertain that changes authorized by change orders are shown on the General Contractor's as-built drawings, but Designer shall be entitled to rely upon the accuracy and completeness of the Contractor's as-built information, and shall forward such to the Owner as Record Drawings.

7.8.4 Issue the Certificate of Substantial Completion of Construction.

7.8.5 The Designer shall meet with the Owner monthly during this Phase.

7.9 Completion Phase: Upon acceptance of the Certificate of Substantial Completion of Construction by the Owner, the Designer shall thereafter provide the following services:

7.9.1 With respect to a completed Project, preparing a Certificate of Final Completion.

7.9.2 With respect to a punch list, re-inspecting the work up to three times in order to determine that the punch list work is satisfactorily completed.

7.9.3 Reviewing and certifying the Contractor's Application(s) and Certificate(s) for Payment as necessary.

7.9.4 Attending meetings as reasonably necessary in the opinion of the Owner's Project Manager, unless such meetings involve continued discussions of incomplete or deficient work and the Basic Services punch list site visits have been expended. In such instance, the meetings shall be paid for as Extra Services.

7.9.5 Using the as-built information maintained by the General Contractor during construction referred to in Article 7.8.3, and revising the applicable original reproducible drawings and electronic media drawings on the basis of the as-built drawings, provided that Designer shall be entitled to rely upon the accuracy and completeness of the Contractor's as-built information. Upon completion of the required drafting and editing, provide one set of mylar reproducibles, two sets of prints and two (2) electronic version copies to the Owner which shall become the property of the Owner. The cost for printing the mylar reproducibles and two sets of prints are Reimbursable Expenses.

7.9.6 Ten (10) months after the date of substantial completion, performing one (1) site inspection and preparing a list of construction warranty deficiencies. The Designer shall consult with the Commissioning Consultant upon the acceptability of warranty compliance requirements and response actions.

- 7.9.7 Informing the Owner in writing, through the Owner's Project Manager, of all such warranty deficiencies that should be addressed.
- 7.9.8 Performing one (1) site inspection within a further sixty (60) days to see that all such warranty deficiencies have been corrected.
- 7.9.9 Evaluation of Contractor: The Designer shall assist the Owner with providing the written Contractor Evaluations required of the Owner pursuant to M.G.L. c.149 § 44D(7) within 70 days of the date of Substantial Completion for construction, on forms prescribed by M.G.L. c.149 § 44D(16).
- 7.9.10 Two (2) suitably bound legible copies of all original design and quantity calculations including those pertinent to change orders and shop drawings if applicable shall be furnished by the Designer to the Owner at the conclusion of the Owner-Contractor Agreement.

ATTACHMENT A

PAYMENT SCHEDULE

Payments shall be made in accordance with the provisions outlined in the Contract and with the following schedule:

Basic Services

Feasibility Study Phase	\$250,000 “completed”
Schematic Design Phase.....	\$115,000 “completed”
Design Development Phase.....	\$530,000
Construction Documents Phase.....	\$1,060,000
Bidding Phase	\$130,000
Construction Administration Phase	\$874,000
Close Out	\$132,037
TOTAL	\$3,091,037

Extra Services

Extra Services provided pursuant to Article 8 shall be compensated as determined by the Owner (a) by a lump sum fee agreed upon in advance in writing by the Owner and the Designer, or (b) on an hourly basis in accordance with the lesser of \$150 per hour or the rate schedule set forth below for time expended, or (c) on an hourly basis in accordance with the lesser of \$150 per hour or a multiple of 2.5 times the direct personnel expense (without benefits) of the Designers or Subconsultants personnel including principals.

Hourly Rates:

2017 Schedule of billing rates:

President/ Principals	\$150/ hr
Sr Associates/ Associates	\$130 - \$150/ hr
Project Architects/ Designers	\$100 - \$145/ hr
Technical Professionals/ Draftpersons	\$88 - \$135/ hr
Administrative staff	\$50 - \$125/ hr

ATTACHMENT C

PARTICIPATION SCHEDULE FOR DESIGNER CONTRACTS BY SOMWBA CERTIFIED MINORITY/WOMEN BUSINESS ENTERPRISES

This form shall be submitted to the Owner by the Designer upon execution of the Contract for Designer Services attached hereto.

Owner Town of Bourne – Peebles Elementary

Project No: 1514.00

<u>Name of Company</u>	<u>Description of Work</u>	<u>M/WBE</u>	<u>Dollar Value Participation</u>
1. Nitsch Enginerring	Civil & Permitting	WBE	\$ <u>128,600</u>
2. Garcia, Galuska, DeSousa	HVAC, Elec, Plumb, FP	MBE	\$ <u>401,954</u>
3. Tavares Design Assoc.	Kitchen, Lab, FF&E	MBE	\$ <u>106,500</u>
4. _____	_____	_____	\$ _____
5. _____	_____	_____	\$ _____
6. _____	_____	_____	\$ _____

Dollar Value of MBE Commitment: \$ 508,454

Dollar Value of WBE Commitment: \$ 128,600

Total Dollar Value Commitment: \$ 637,054

Original Fee for Basic Services Amount \$ 3,091,037

DESIGNER CERTIFICATION

The undersigned certifies under the penalties of perjury that (1) it intends to subcontract with the above listed firms for the identified work and dollar amounts and (2) certifies that he/she has read the terms and conditions of the Designer Contract with regards to MBE/WBE participation and is authorized to bind the Designer to the commitment set forth above.

Date: December 19, 2016

*Original Contract Date: **September 21, 2015**

Flansburgh Associates Inc
77 N Washington Street
Boston, MA 01890



Kent D. Kovacs AIA LEED AP

January 5, 2017

Mr. Edward Donoghue
Director of Business Services
Bourne Public Schools
24 Perry Avenue
Buzzards Bay, Massachusetts 02532-3441

Re: Peebles Elementary School

Bourne, Massachusetts

Amendment No. 2: Design Development through Construction Administration
Phase Services Proposal

SMMA No. 15041

Dear Mr. Donoghue:

We are pleased to submit our proposal for Owner's Project Manager Services for the Design Development thru Construction Administration Phases for the new Peebles Elementary School Project. We will perform the services in accordance with our Contract for Owner's Project Manager Services, dated April 17, 2015, as amended to include Article 8 for a Design-Bid-Build delivery process, attached herein.

Our fee for basic services shall be a lump sum fee of One Million Forty-Four Thousand Eight Hundred Sixty-Three Dollars (\$1,044,863.00) as defined in the Total Project Budget form of the Scope and Budget Agreement. The fee per each phase is as defined in the Attachment B of the Contract, attached hereto.

The construction phase services shall commence with the issuance of the notice to proceed to the contractor and shall terminate on the issuance of final payment to the contractor or 60 days after the scheduled date of substantial completion.

I will call you to review.

Very truly yours,

SMMA | Symmes Maini & McKee Associates



Joel G. Seeley
Project Director

cc: Contract File (MF)

enclosures: DBB Article 8 of the Contract for Owner's Project Manager Services, Attachment B – Amendment No. 2

JGS/sat /P:\2015\15041\00-INFO\0.3 Contract\OPM Agreement\OPM Contract Amendments\Amendment No. 2\L_Edonoghue_BPS_Bourne_DD_CA.Doc

ATTACHMENT B

**CONTRACT FOR PROJECT MANAGEMENT SERVICES
AMENDMENT NO. 2**

WHEREAS, the Town of Bourne (“Owner”) and Symmes Maini & McKee Associates (SMMA), (the “Owner’s Project Manager”) (collectively, the “Parties”) entered into a Contract for Project Management Services for the Peebles Elementary School Project (Project Number 201400360010) at the Peebles Elementary School on April 17, 2015 “Contract”; and

WHEREAS, effective as of January 5, 2017, the Parties wish to amend the Contract, as amended:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes the Owner’s Project Manager to perform services for the Design Development Phase, the Construction Phases, and the Final Completion Phase of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.
2. For the performance of services required under the Contract, as amended, the Owner’s Project Manager shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services:	Original Contract	Prior Amendments	This Amendment	After this Amendment
Feasibility Study Phase	\$ 68,000.00			\$ 68,000.00
Schematic Design Phase	\$ 37,000.00	\$ 12,100.00		\$ 49,100.00
Design Development Phase	\$		\$ 50,000.00	\$ 50,000.00
Construction Document Phase	\$		\$ 90,000.00	\$ 90,000.00
Bidding Phase	\$		\$ 50,000.00	\$ 50,000.00
Construction Phase	\$		\$ 800,000.00	\$ 800,000.00
Completion Phase	\$		\$ 54,863.00	\$ 54,863.00
Total Fee	\$ 105,000.00	\$ 12,100.00	\$1,044,863.00	\$ 1,161,963.00

This Amendment is a result of: Design Development through Construction Administration Services

3. The Construction Budget shall be as follows:

Original Budget:	<u>\$30,910,366.00</u>
Amended Budget	<u>\$30,910,366.00</u>

4. The Project Schedule shall be as follows:

Original Schedule:	<u>Project Completion: November 29, 2019</u>
Amended Schedule	<u>Project Completion: November 29, 2019</u>

5. The Authority's standard OPM Contract Amendment for DBB, which is attached hereto and incorporated by reference herein, is made a part of the Contract in its entirety.

6. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract, as amended. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract, as amended, shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract, as amended, remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Owner's Project Manager have caused this Amendment to be executed by their respective authorized officers.

OWNER

Thomas M. Guerino
(print name)
Town Administrator, Town of Bourne
(print title)

By _____
(signature)

Date _____

OWNER'S PROJECT MANAGER

Joel G. Seeley
(print name)
Project Director, Symmes Maini & McKee Associates, Inc.
(print title)

By _____
(signature)

Date _____

THE SCOPE OF SERVICES ADDED BY THIS AMENDMENT IS FOR A DESIGN-BID-BUILD (DBB) PROJECT ONLY. THE SCOPE OF SERVICES SPECIFIED BELOW INCLUDES ARTICLES 8.1, 8.3, 8.4, 8.5, 8.6, AND 8.7. THE SERVICES SPECIFIED IN ARTICLE 8.1 HEREIN ARE INTENDED TO SUPPLEMENT (OR BE ADDITIVE) AND NOT SUPERCEDE ARTICLE 8.1 IN THE ORIGINAL STANDARD CONTRACT BETWEEN THE PARTIES.

ARTICLE 8: BASIC SERVICES

In addition to those Basic Services included in the original Contract between the Parties, the Owner's Project Manager shall perform the following Basic Services during the Design Development/Construction Documents/Bidding/Construction/Completion Phases:

8.1 Project Management

8.1.1 A draft of the communication plan shall be submitted to the Owner for approval within 30 days of the Approval to proceed to Design Development/Construction Documents/Bidding Phase and be further updated (a) as needed to include the award of a construction contract and (b) no later than 30 days after Approval to Proceed to the Construction Phase. The Owner's Project Manager shall include the Designer in its distribution of the Project Budget, Schedule, Monthly Progress Report and other reports as appropriate and as outlined in the Communications Plan.

8.1.1.2 The Owner's Project Manager shall assist the Owner in the preparation of all information, material, documentation, and reports that may be required or requested by the Authority, including without limitation, documentation related to incentive reimbursement percentage points that may be awarded to the Owner by the Authority, requests for reimbursement, and audit materials.

8.1.1.3 The Owner's Project Manager shall prepare agendas for and attend school building committee meetings, attend meetings with other representatives of the Owner, municipal administration and the school department, and attend neighborhood meetings relating to the Project, and participate as a member of the Owner's Prequalification Committee as applicable. The Owner's Project Manager shall take minutes of all of the above-referenced meetings and promptly distribute minutes of these meetings to the Owner.

8.1.1.4 The Owner's Project Manager shall review all applications for payments, requisitions and invoices relating to the Project as submitted by the Designer, General Contractor, equipment vendors and all other prime contractors and suppliers and make recommendations to the Owner relative to amounts due.

8.1.2 Project Control

During the Design Development/Construction Documents/Bidding Phase, the Owner's Project Manager shall monitor and report to the Owner and the Authority any changes to the Project Budget and Schedule established in the Owner-Authority Project Scope and Budget Agreement.

8.1.2.1 Project Budget

The Owner's Project Manager will use the baseline Project Budget as the Project control against which all Designer estimates, contractor bids and other cost information will be

measured. The Owner's Project Manager shall maintain and update the Project Budget throughout the term of this Contract. The Owner's Project Manager shall report any variances to the baseline Project Budget as part of the Monthly Progress Report.

The Owner's Project Manager shall prepare revisions to the Project Budget, as needed, and submit them to the Owner for approval.

8.1.2.2 Cost Estimating

The Owner's Project Manager shall prepare detailed independent cost estimates as specified in each Design phase (design development and construction documents). The Owner's Project Manager shall record and track the cost estimates at each Design phase and submit this information with each design submittal due to the Authority using the Authority's Cost Estimate Comparison Spreadsheet. The Owner's Project Manager shall compare its cost estimate to that prepared by the Designer to identify and notify the Owner of any variances.

In the event that the cost as estimated by the Designer exceeds the construction cost in the Project Budget at any of the Design phases, the Owner's Project Manager shall consult with the Designer and recommend to the Owner appropriate revisions to the scope of work.

The Owner's Project Manager shall provide cost estimating services, as may be required, to develop cash flows.

During the design development Phase, the Owner's Project Manager shall prepare a construction cost estimate for the design in Unifomat II Level 3 format, with unit rates and quantities supporting each item. The estimated cost shall be projected, to the mid point of the construction period.

At the 60% stage of completion of the final drawings and specifications, the Owner's Project Manager shall prepare a construction cost estimate using the Unifomat II Classification to Level 3, the CSI MasterFormat 6-digit format to Level 3 and MGL c.149 §44F (filed sub-bid) format including quantities of all materials and unit prices of labor, equipment, and materials as well as a cost estimate for each item of work.

The Owner's Project Manager shall prepare a final construction cost estimate in Unifomat II Elemental Classification to Level 3 (Sections A-G inclusive), the CSI MasterSpec format to Level 3 and M.G.L. c. 149, §44F (filed sub-bid) format, complete with 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.

8.1.2.3 Project Schedule

The Owner's Project Manager shall submit this detailed baseline Project Schedule from the Project Scope and Budget Agreement to the Owner and the Authority within 30 days of Approval to proceed to the Design Development/Construction Documents/Bidding Phase. The Owner's Project Manager shall maintain and update the Project Schedule throughout the term of this Contract. The Owner's Project Manager shall assess the actual progress of the Project relative to the baseline Project Schedule and report any variances from the baseline Project Schedule as part of the Monthly Progress Report.

In the event that actual progress of the Project varies from the baseline Project Schedule, the Owner's Project Manager shall consult with the Designer and the Contractor and make appropriate recommendations to the Owner relative to actions that should be taken by the Designer or the Contractor to achieve the baseline Project Schedule and/or recommend revisions to the Project Schedule. The Owner's Project Manager shall not be responsible for delays caused by the Designer, Contractor or Subcontractors, or the employees, agents or subconsultants of the Designer, Contractor or Subcontractors.

The Owner's Project Manager shall prepare revisions to the Project Schedule, as needed, and submit them to the Owner for approval.

8.1.2.4 Construction Schedule

The Contractor shall be responsible for preparing and updating its construction schedule on a monthly basis. The Owner's Project Manager shall meet once each month with the Contractor and Designer to review and update its schedule, develop the monthly progress information to support the Contractor's payment estimate, and monitor the Contractor's performance for compliance with its contract.

The Owner's Project Manager shall notify the Owner of and include in its Monthly Progress Report any significant changes or delays to the construction schedule. The Owner's Project Manager shall make appropriate recommendations to the Owner relative to the actions that should be taken by the Contractor and/or advise the Owner when liquidated damages, if included in the construction contract, are anticipated to be incurred.

8.1.3 Monthly Progress Report

The Owner's Project Manager shall submit to the Owner and the Authority no later than the twelfth day of each calendar month a written Monthly Progress Report summarizing activity during the preceding calendar month. The Monthly Progress Report shall be submitted in a format acceptable to the Authority and shall describe work performed by all project participants (OPM, Designer, Contractor) during the reporting period and work planned for the next reporting period. The report shall also address matters of schedule adherence (Project Schedule as well as individual completion percentages for design and construction), costs to date (updated Project Budget and actual expenses incurred), change orders and potential change orders, cash flow projections, Contractor's safety performance, Designer's QA/QC, Contractor's environmental compliance, community issues, Designer and Contractor MBE/WBE activities, any issues that could result in additional time and/or additional costs and any anticipated problems/concerns together with recommended solutions.

8.1.4 Change Order and Claims Administration

The Owner's Project Manager shall review and coordinate its review with the Designer and make specific document and processing recommendations to the Owner, consistent with the General Laws and the construction contract documents, which minimize change order and claims processing costs and time. Services provided by the Owner's Project Manager shall include:

8.1.4.1 Change Order Administration

- 8.1.4.1.1 Review all Contractor proposals for change orders and supporting schedules for time extension requests. For change orders in excess of \$100,000, prepare independent cost estimate analysis with associated schedule impact.
- 8.1.4.1.2 Initiate, conduct, and document negotiations through a memorandum of negotiations with the Contractor.
- 8.1.4.1.3 For all change order requests by the Contractor, make recommendations to the Owner for their acceptance or rejection.
- 8.1.4.1.4 Prepare and finalize any documentation required for processing change orders including a summary of the Owner's Project Manager's review of the reasonableness of the costs and documentation to support or reject the change.
- 8.1.4.1.5 Maintain a status report system for logging and tracking change orders, claims, and disputes to resolution. At a minimum, monthly reports shall include contract number, description of change order or claim, reason for change, date initiated, magnitude of estimated cost, actions required (identification of action parties and response dates) and status. This report shall be included in the Monthly Progress Report.

8.1.4.2 Claims and Disputes Management

- 8.1.4.2.1 Implement a claims management procedure consistent with the construction contract documents.
- 8.1.4.2.2 Analyze Contractor claims and propose recommendations to the Owner in support of the Owner's obligations under the claims article of the construction contract documents. Prepare responsive positions in coordination with the Owner, and obtain appropriate input from the Designer and/or Contractor.
- 8.1.4.2.3 In the event that a dispute arises between the Contractor, and/or any Subcontractors, and/or the Designer, including, but not necessarily limited to, disputes regarding the performance, quality, acceptability, fitness and rate of progress of the Project or the requirements of the Designer's contract or the Contractors' construction contract(s), the Owner's Project Manager shall report any such claims, disputes or other matters in question relating to the performance by the Contractor, Subcontractor, Designer or vendor to the Owner and the Authority in writing as soon as reasonably possible.
- 8.1.4.2.4 The Owner's Project Manager shall take all reasonable efforts designed to resolve any such claims, disputes, or other matters in question.

8.2 INTENTIONALLY LEFT BLANK

Design Development/Construction Documents/Bidding Phase

8.3 Design Development

- 8.3.1 The Owner's Project Manager shall continue to oversee the activities and responsibilities of the Designer in the further development of the scope, schedule and budget including a general review of the Designer's detailed scaled plans, elevations and sections of all aspects of the design. The Owner's Project Manager shall:
- a. Prepare independent construction cost estimates pursuant to Section 8.1.2.2 of this Contract, for comparison with the Designer's cost estimates. (One Estimate during Task 8.3)
 - b. Work with the Owner and Designer to update the Project Budget and Schedule.
- 8.3.2 The Owner's Project Manager shall monitor and coordinate the schedule, technical accuracy, efficiency, coordination, and constructability of the Project and cost-effectiveness of all designs, drawings, reports, estimates and other work furnished by the Designer, and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the Designer's contract with the Owner are not being fulfilled.
- 8.3.3 The Owner's Project Manager shall promptly review all Designer submissions and shall meet with the Designer to discuss those submissions. Upon completion of its review, the Owner's Project Manager shall recommend that the Owner: 1) approve the submission as made; 2) approve that part of the submission that is acceptable and reject the remainder; 3) reject the submission; or 4) require the Designer to submit additional information or details in support of its submission.
- 8.3.4 The Owner's Project Manager shall coordinate the timely review of the design between the Designer and the Commissioning Consultant. The Owner's Project Manager shall be responsible for providing the necessary documents to the Commissioning Consultant for its review, distributing review comments made to the Designer, Owner and the Authority and coordinate the timely resolution and incorporation of the Commissioning Consultant's recommendations. The Owner's Project Manager shall not be responsible for the Commissioning Consultant's performance, but if the Owner's Project Manager becomes aware of any performance or lack of performance issues with the Commissioning Consultant, the Owner's Project Manager shall immediately notify the Owner and the Authority of such issues.

8.4 Construction Documents

- 8.4.1 The Owner's Project Manager shall review the construction documents for quality, cost, and schedule improvements, conciseness and clarity. The Owner's Project Manager shall:
- a. Prepare independent construction cost estimates pursuant to Section 8.1.2.2 of this Contract, for comparison with the Designer's cost estimates. (Two estimates during Task 8.4)
 - b. Provide advice, consultation and guidance to the Owner relative to value engineering recommendations.
 - c. Work with the Owner and Designer to update the construction budget and schedule.

- 8.4.2 The Owner's Project Manager shall provide advice, consultation and guidance to the Owner and the Designer relative to general contractor and subcontractor prequalification requirements pursuant to M.G.L. c. 149 § 44D½ and § 44D¾ as applicable, including participation as a member of the Owner's Prequalification Committee.
- 8.4.3 The Owner's Project Manager shall review the construction documents in line with the Project Scope and Budget Agreement. The review shall include constructability, operability and bid-ability as well as document clarity and coordination between drawings and to identify conflicts between drawings and specification. The constructability review will identify potential conflicts, make recommendations specific to any phasing issues, recommend appropriate milestones, constraints and liquidated damages and a review of the project specific requirements in the General Requirements.
- 8.4.4 The Owner's Project Manager's review of the construction documents shall also include, but not be limited to, any concerns of the Owner's Project Manager and/or the Owner relative to access, usable area, parking, utilities, anticipated noise sources during construction and identification of field offices, facilities, supplies and equipment.
- 8.4.5 The Owner's Project Manager shall coordinate the timely review of the construction documents by the Commissioning Consultant to determine that plans and specifications include the recommendations made during design development in regard to materials selection, installation and testing criteria in regard to commissioning and start-up and provide adequate information and allow sufficient time for functional and system testing.
- 8.4.6 The Owner's Project Manager shall monitor the schedule of the Designer, provide review and comment of Designer's work product and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the Designer's contract with the Owner are not being fulfilled.

8.5 Bidding Phase

- 8.5.1 The Owner's Project Manager shall monitor the activities and responsibilities of the Designer in the advertisement, distribution of bidding documents and solicitation of public bids in accordance with M.G.L. c. 149 §§ 44A through 44J and other public construction-related statutes. The Owner's Project Manager shall:
- a. Administer general contractor and subcontractor prequalification requirements pursuant to M.G.L. c. 149 § 44D½ and § 44D¾ as applicable, including participation as a member of the Owner's Prequalification Committee.
 - b. Attend, and assist the Owner with, all pre-bid conferences and meetings and, assist, if directed by the Owner.
 - c. Attend, and assist the Owner with, all sub-bid and general bid openings and, assist, if directed by the Owner.
 - d. Review all sub-bids and general bids in conjunction with Designer's determination of responsiveness, bidder eligibility, completeness, accuracy and price. Provide technical guidance to the Owner relative to its acceptance of bids and determination of bidder responsibility.
 - e. Review alternates and make written recommendations as to their acceptance.
 - f. If the bid of the lowest eligible and responsible general bidder exceeds the construction budget, the Owner's Project Manager shall consult with the Designer and make recommendations to the Owner in regard to maintaining the Project Budget which may

include, consistent with Massachusetts public construction laws, reviewing and recommending acceptance of alternates, re-bidding or seeking additional funding from the City/Town/Regional District.

- 8.5.2 The Owner's Project Manager shall make recommendations to the Owner relative to the award of a construction contract.
- 8.5.3 The Owner's Project Manager shall assist the Owner in the preparation and execution of the Owner-Contractor Agreement and shall obtain from the Contractor performance and payment bonds, insurance certificates, and all other documents and certificates required for contract execution.
- 8.5.4 The Owner's Project Manager shall assist the Owner and the Designer in preparing and sending the Notice to Proceed to the Contractor.
- 8.5.5 The Owner's Project Manager shall provide the Contractor, Designer, Owner and the Authority with required copies of executed construction contract documents.

Construction Phase

8.6 Construction

The Owner's Project Manager shall provide supervisory staff for each of the following activities, from Notice to Proceed of the construction contract to contract close-out.

- 8.6.1 The Owner's Project Manager shall monitor the Designer's administration of the Owner-Contractor Agreement including the processing of submittals, issuance of timely decisions and directives and consultant's or subconsultants' visits to the Project as necessary during the time that construction is occurring on the portions of the work to which the consultant's services relate.
- 8.6.2 The Owner's Project Manager shall provide a full-time (40 hours per week minimum) on-site Project Representative, who shall be dedicated exclusively to the Project, either as an employee of the Owner's Project Manager or as a subconsultant to the Owner's Project Manager.
 - 8.6.2.1 The Project Representative shall be subject to the approval of the Owner and the Owner reserves the right to require the Owner's Project Manager to replace the Project Representative at any time during the course of the Project.
 - 8.6.2.2 The Project Representative shall have at least five years experience in on-site supervision of projects similar in size and complexity to the Project.
 - 8.6.2.3 Unless otherwise directed, the Project Representative shall be present at all times when the Contractor is conducting operations at the site starting from issuance by the Owner of a Notice to Proceed to the Contractor and continuing until issuance to the Contractor of a Certificate of Substantial Completion by the Owner and thereafter on an, as needed basis, until issuance to the Contractor of a Certificate of Final Completion by the Owner.

- 8.6.3 The Owner's Project Manager shall review the Contractor's schedule of values to determine if it represents a reasonably balanced payment schedule for work to be performed with no items front-end loaded or artificially inflated. The schedule of values shall include line items for all deliverables, testing requirements and specified operations and maintenance materials. The Owner's Project Manager shall submit recommendations for the Contractor's schedule of values to the Owner within forty-five days of the Owner's Notice to Proceed to the Contractor.
- 8.6.4 The Owner's Project Manager shall review the Contractor's submitted baseline schedule. The Owner's Project Manager shall be responsible for monitoring the timeliness of these submittals and enforcing compliance with schedule submittal requirements of the construction documents. The Owner's Project Manager shall evaluate the Contractor's planning for the execution of the work, evaluate the reasonableness of the proposed schedule and determine if the submitted schedule meets the requirements of the construction documents.
- 8.6.5 The Owner's Project Manager shall provide daily observation and monitoring of construction activities such that all shifts and work activities are observed and documented. Responsibilities shall include:
- 8.6.5.1 The Owner's Project Manager shall keep a daily log containing a record of weather, the Contractor's work on site, number of workers, visitors to the site, safety status of the Project, equipment and equipment utilization, material and equipment deliveries, non-compliance with safety procedures and issuance of any safety violation notifications, accidents, general description of work performed and quality of work, visits of code enforcement officials and any resulting reports or orders, verbal instruction to interpretations given to the Contractor, pay items, and any observed delays, deficiencies and field problems.
 - 8.6.5.2 The Owner's Project Manager shall prepare weekly progress reports for submittal to the Designer and the Owner that summarize the progress achieved, provide a concise description of problems and include a copy of the daily log.
 - 8.6.5.3 The Owner's Project Manager shall assist the Designer in determining if construction and construction related activities are performed in accordance with plans and specifications and the approved shop drawings and are consistent with Massachusetts public construction laws.
 - 8.6.5.4 The Owner's Project Manager shall monitor on a daily basis Time and Materials work on change orders for less than \$50,000, including work installed, volume measurements, time sheets, crew sizes and mixes, and equipment utilized.
 - 8.6.5.5 The Owner's Project Manager shall evaluate actual quantities and classification of Unit Price work performed by Contractors.
 - 8.6.5.6 The Owner's Project Manager shall evaluate field problems, using the proper channels for solution and communication of the information to the Designer and the Owner.
 - 8.6.5.7 The Owner's Project Manager shall coordinate and track requests for clarification on drawings/specifications, design changes and proposed change orders.

- 8.6.5.8 The Owner's Project Manager shall prepare responses to Contractor correspondence for the Owner.
- 8.6.5.9 The Owner's Project Manager shall monitor and coordinate the scheduling and activities of independent materials testing functions at the site, including distribution of reports and any necessary actions resulting.
- 8.6.5.10 The Owner's Project Manager shall maintain at the Project site, on a current basis, a record copy of Construction Contract Documents, including, but not necessarily limited to, drawings, specifications, addenda, change orders, and directives as well as all approved shop drawings, product data, samples, submittals, operations and maintenance manuals and all other relevant documents relating to the construction of the Project.
- 8.6.5.11 The Owner's Project Manager shall monitor the Contractor's compliance with Massachusetts prevailing wage requirements pursuant to M.G.L. c. 149 §§ 26 to 27H inclusive including assisting the Owner in cataloging and filing payroll affidavits.
- 8.6.5.12 The Owner's Project Manager shall shoot and maintain Project progress photographs showing construction progress at a frequency sufficient to document major activities or to document safety incidents, differing site conditions and quality issues. The Owner's Project Manager shall maintain a descriptive log and captioning of the photographs on CD.
- 8.6.6 The Owner's Project Manager shall monitor the Contractor's compliance with the construction schedule, identify potential problems, include problem identification on the Monthly Progress Report and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the Contractor in the Owner-Contractor Agreement are not being fulfilled.
- 8.6.7 The Owner's Project Manager shall schedule, conduct and prepare minutes of weekly job meetings on progress, coordination and problem resolution and negotiations. The Owner's Project Manager shall prepare and submit minutes to the Owner within three business days of the meeting.
- 8.6.8 The Owner's Project Manager shall schedule the Authority's Commissioning Consultant, as required to support the construction schedule, to provide commissioning services and reports as required.
- 8.6.9 The Owner's Project Manager shall monitor, review and analyze proposed change orders, and claims recommending appropriate action and resolution to the Owner in accordance with Article 8.1.4.
- 8.6.10 The Owner's Project Manager shall review and coordinate its review with the Designer to recommend approval of the General Contractor's monthly payment requisitions. The Owner's Project Manager shall review the Designer's certification that the percentage of work included in the requisition is accurate and the work performed conforms to the construction contract.

- 8.6.11 The Owner's Project Manager shall oversee and monitor the procurement of furniture, fixtures, equipment and technology that is not included in the construction contract.
- 8.6.12 The Owner's Project Manager shall verify substantial completion of work; assist the Designer in the Designer's final inspection and receipt of documents, manuals, receipts, certifications, and all other materials required for final closeout as described in the construction contract. The Owner's Project Manager shall coordinate the detailed punchlist with the Designer, including a subsequent walk-through with the Designer and the Authority's Commissioning Consultant. The Owner's Project Manager and the Designer shall then coordinate a walk-through with the Owner to finalize the punchlist. The Owner's Project Manager shall then be responsible for tracking and confirming the completion of the punchlist items.

8.7 Completion Phase

- 8.7.1 The Owner's Project Manager shall monitor the activities and responsibilities of the Designer and the Contractor in the close-out and commissioning of the Project.
- 8.7.2 The Owner's Project Manager shall assist in securing and reviewing and recommending approval of all project completion forms and documentation necessary for occupancy and full operation of the facility including, but not necessarily limited to, inspection certificates of local building authorities, Certificate of Substantial Completion, Certificate of Final Completion, Occupancy Permit, shop drawings, as-built drawings, operations and maintenance manuals, warranties, guarantees and any and all documentation as required by the contract documents and the Authority.
- 8.7.3 The Owner's Project Manager shall assist the Owner in completing the written evaluation of the Designer(s) pursuant to M.G. L. c. 7 § 38E and prepare, sign and provide to the Owner for its signature the written evaluation of the Contractor(s) and Trade Subcontractors pursuant to M.G.L. c. 149 § 44D.

END OF ARTICLE 8 OF BASE OPM CONTRACT AMENDMENT FOR DBB

January 5, 2017

Mr. Edward Donoghue
Director of Business Services
Bourne Public Schools
24 Perry Avenue
Buzzards Bay, Massachusetts 02532-3441

Re: Peebles Elementary School

Bourne, Massachusetts

Amendment No. 3: Independent Cost Estimates Proposal

SMMA No. 15041

Dear Mr. Donoghue:

We are pleased to submit this proposal for the independent cost estimate services for the new Peebles Elementary School Project.

The Total Project Budget form of the Scope and Budget Agreement includes a value of Fifty Thousand Dollars (\$50,000.00) for the independent cost estimate.

AM Fogarty, our cost estimating consultant, will provide the cost estimating services, in accordance with their proposal, dated December 12, 2016 attached. Their fee will be \$37,950.00. The cost for AM Fogarty's services will be billed at our cost plus 10% in accordance with Article 10 of our Contract for a total fee of \$41,745.00. The fee per each phase is as defined in the Attachment B of the Contract, attached hereto.

I will call you to review.

Very truly yours,

SMMA | Symmes Maini & McKee Associates



Joel G. Seeley
Project Director

cc: Contract File (MF)

enclosures: AM Fogarty Proposal, Attachment B – Amendment No. 3

JGS/sat /P:\2015\15041\00-INFO\0.3 Contract\OPM Agreement\OPM Contract Amendments\Amendment No. 3\L_Edonoghue_BPS_Bourne_DD_CA Estimate.Doc

ATTACHMENT B

**CONTRACT FOR PROJECT MANAGEMENT SERVICES
AMENDMENT NO. 3**

WHEREAS, the Town of Bourne (“Owner”) and Symmes Maini & McKee Associates (SMMA), (the “Owner’s Project Manager”) (collectively, the “Parties”) entered into a Contract for Project Management Services for the Peebles Elementary School Project (Project Number 201400360010) at the Peebles Elementary School on April 17, 2015 “Contract”; and

WHEREAS, effective as of January 5, 2017, the Parties wish to amend the Contract, as amended:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes the Owner’s Project Manager to perform services for the Design Development Phase, the Construction Phases, and the Final Completion Phase of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.
2. For the performance of services required under the Contract, as amended, the Owner’s Project Manager shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services:	Original Contract	Prior Amendments	This Amendment	After this Amendment
Feasibility Study Phase	\$ 68,000.00			\$ 68,000.00
Schematic Design Phase	\$ 37,000.00	\$ 12,100.00		\$ 49,100.00
Design Development Phase		\$ 50,000.00	\$ 16,775.00	\$ 66,775.00
Construction Document Phase		\$ 90,000.00	\$ 24,970.00	\$ 114,970.00
Bidding Phase		\$ 50,000.00		\$ 50,000.00
Construction Phase		\$ 800,000.00		\$ 800,000.00
Completion Phase		\$ 54,863.00		\$ 54,863.00
Total Fee	\$ 105,000.00	\$1,056,963.00	\$ 41,745.00	\$ 1,203,708.00

This Amendment is a result of: Cost Estimating Services for Design Development and Construction Document Phases

3. The Construction Budget shall be as follows:

Original Budget:	<u>\$30,910,366.00</u>
Amended Budget	<u>\$30,910,366.00</u>

4. The Project Schedule shall be as follows:

Original Schedule:	<u>Project Completion: November 29, 2019</u>
Amended Schedule	<u>Project Completion: November 29, 2019</u>

5. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract, as amended. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract, as amended, shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract, as amended, remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Owner's Project Manager have caused this Amendment to be executed by their respective authorized officers.

OWNER

Thomas M. Guerino
(print name)
Town Administrator, Town of Bourne
(print title)

By _____
(signature)

Date _____

OWNER'S PROJECT MANAGER

Joel G. Seeley
(print name)
Project Director, Symmes Maini & McKee Associates, Inc.
(print title)

By _____
(signature)

Date _____

December 12, 2016

Joel Seeley
Symmes Mainie & McKee Associates
1000 Massachusetts Avenue
Cambridge, MA 02138

RE: Bourne Pebbles Elementary School

Dear Joel:

A.M. Fogarty and Associates proposes to provide cost estimating services for the above referenced project as follows:

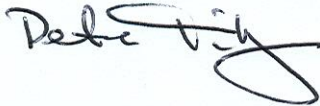
FEE SCHEDULE:

Design Development	\$ 15,250
60% Construction Document	\$ 13,500
90% Construction Document	\$ 9,200

Our work will entail providing quantity surveys and pricing for all civil, architectural, structural, mechanical and electrical work. We will provide an estimate in **Uni Format** including sub-totals by division.

If this proposal is acceptable, please sign below and return to our office.

Sincerely,



Peter T. Timothy
President

PTT/bkr

Accepted By: _____
Symmes Mainie & McKee Associates

Date: _____

School Building Committee
January 05, 2017

Peebles Elementary School Design Development Update



PROJECT MANAGEMENT **SMMA**
Massachusetts School Building Authority

Flansburgh Architects

Site Plan

Trowbridge Road



Car Pick Up/Drop Off

PEEBLES ELEMENTARY SCHOOL

Main Entry

Play Area

New School

Main Parking
(90 Spaces)

(22 Spaces)

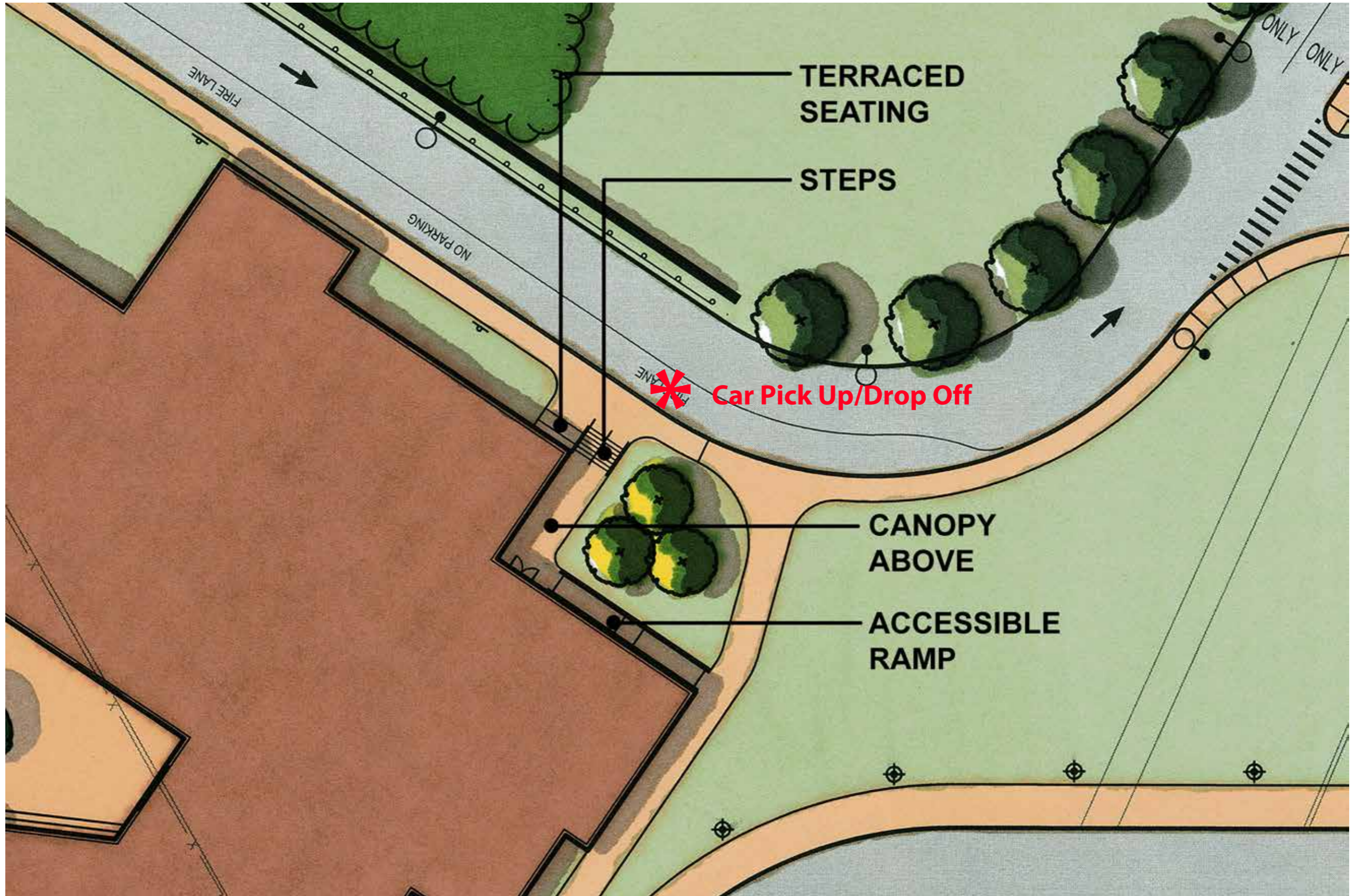
Service

(8 Spaces)

Tennis Courts

SCHOOL ROAD

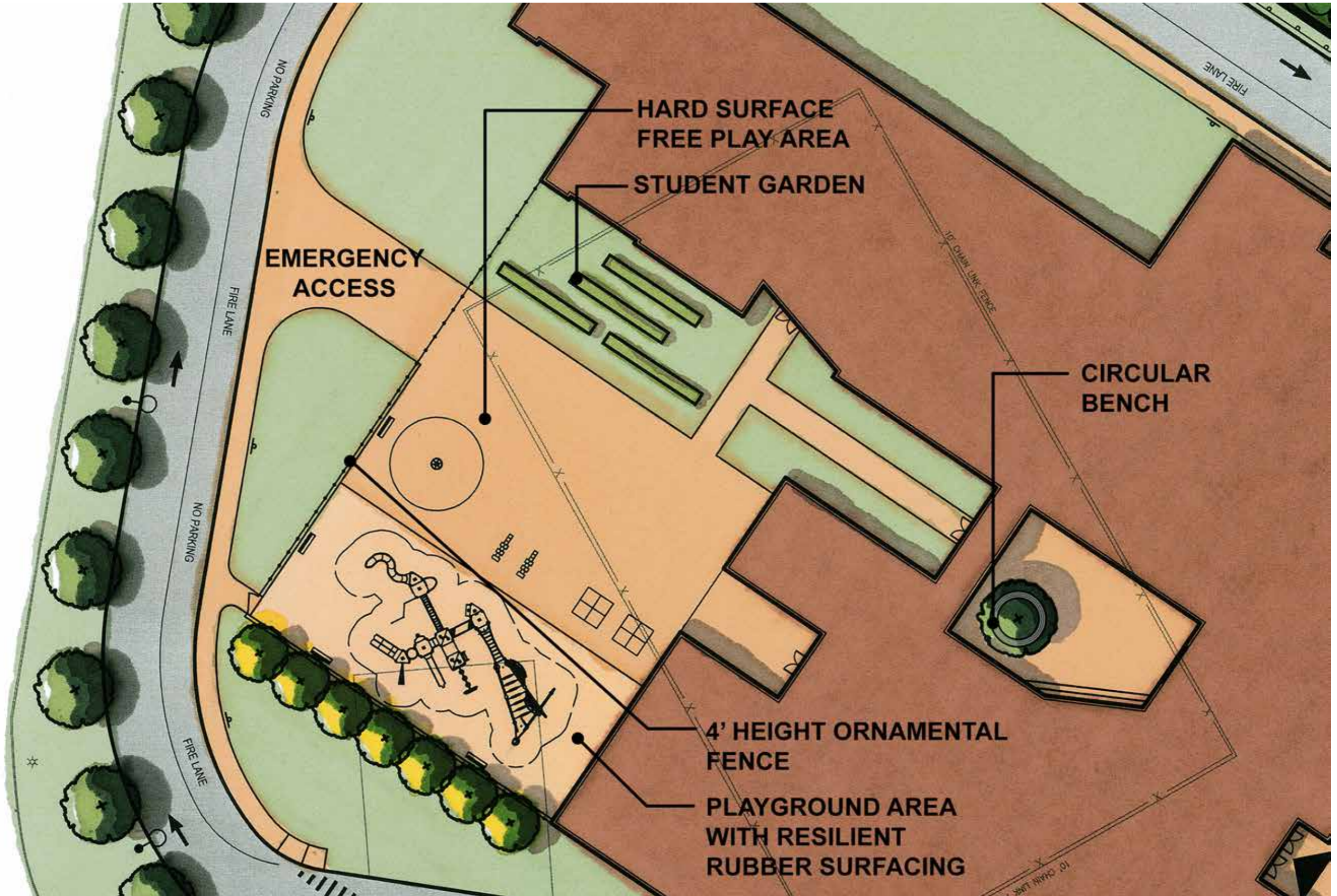
Drop Off Area



Loading Dock Area



Playground & Gardens



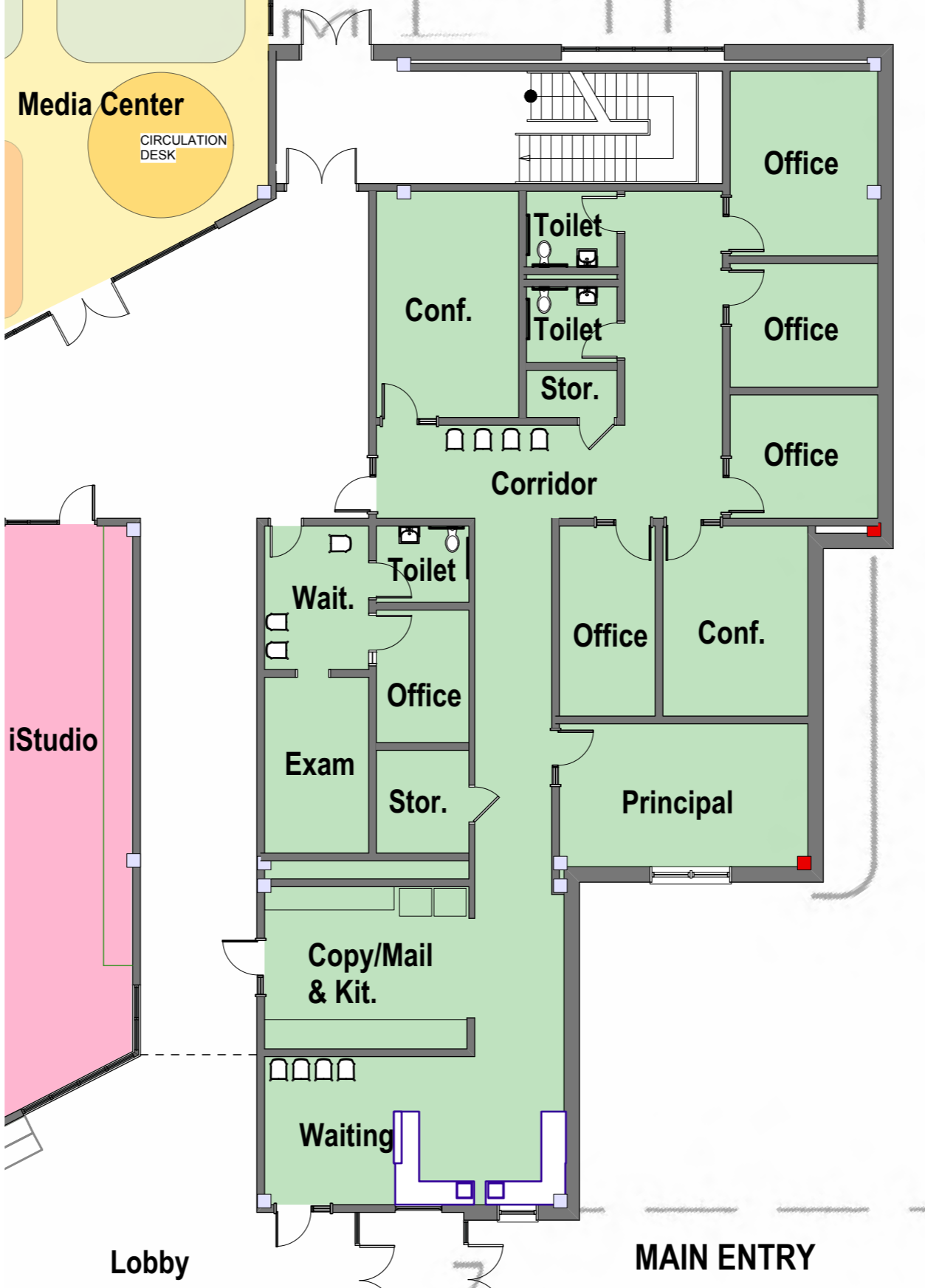
First Floor Plan



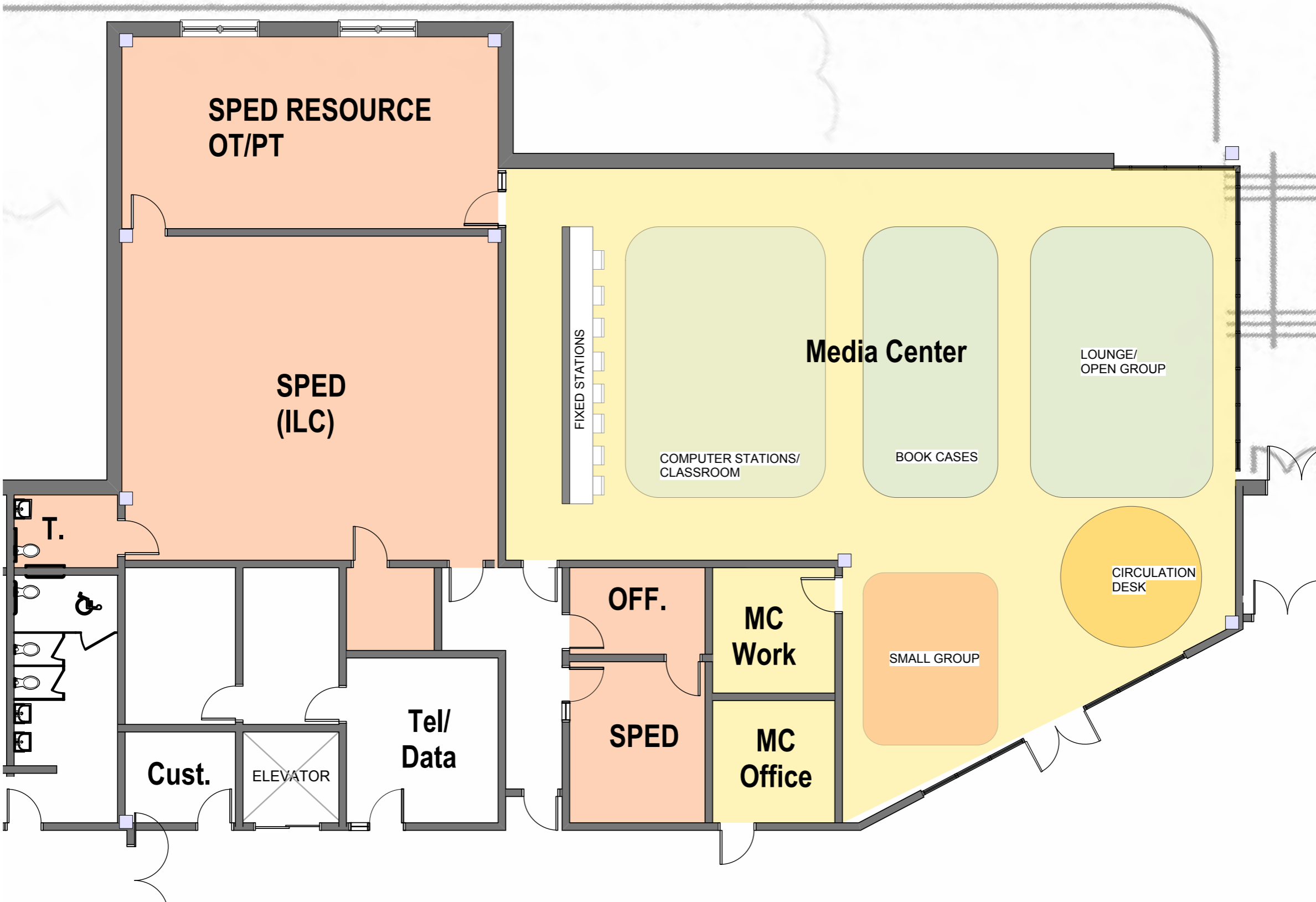
Second Floor Plan



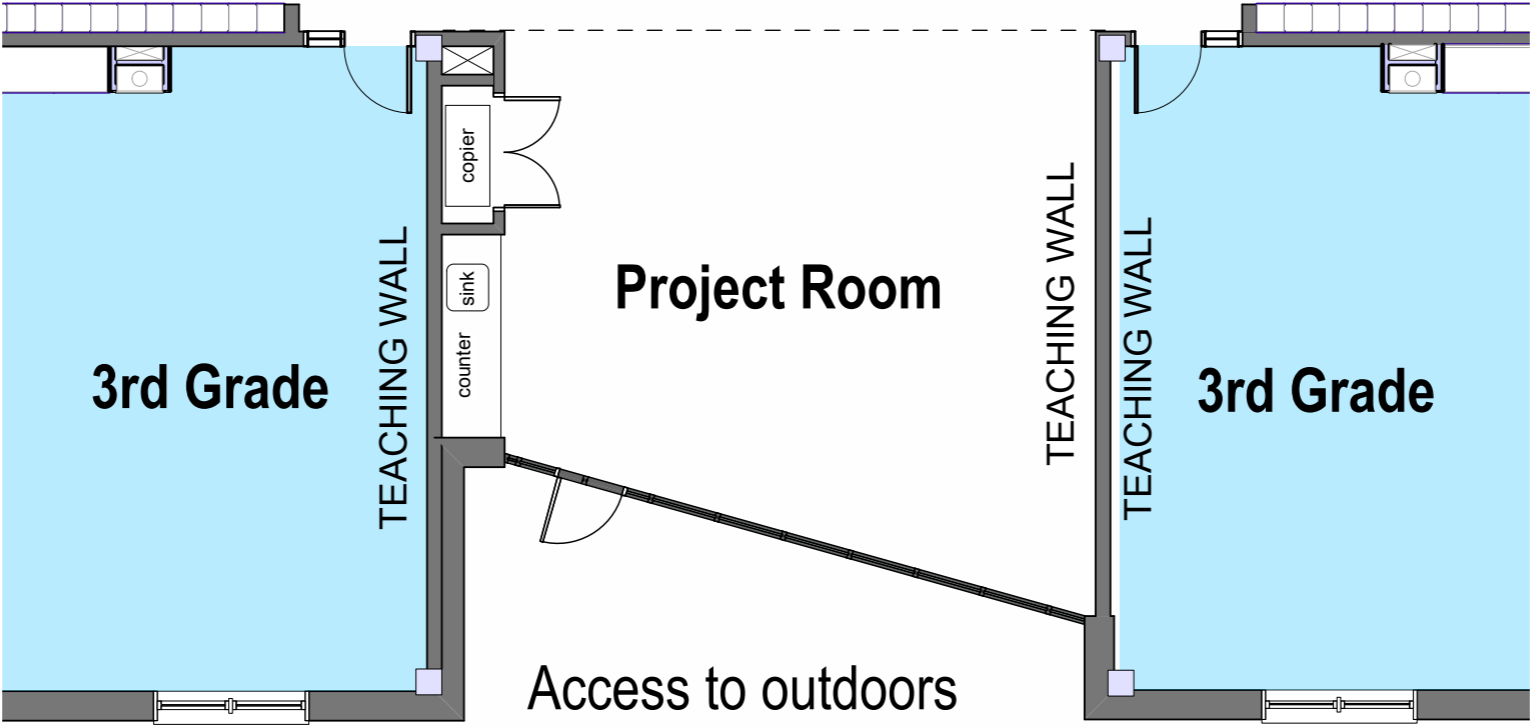
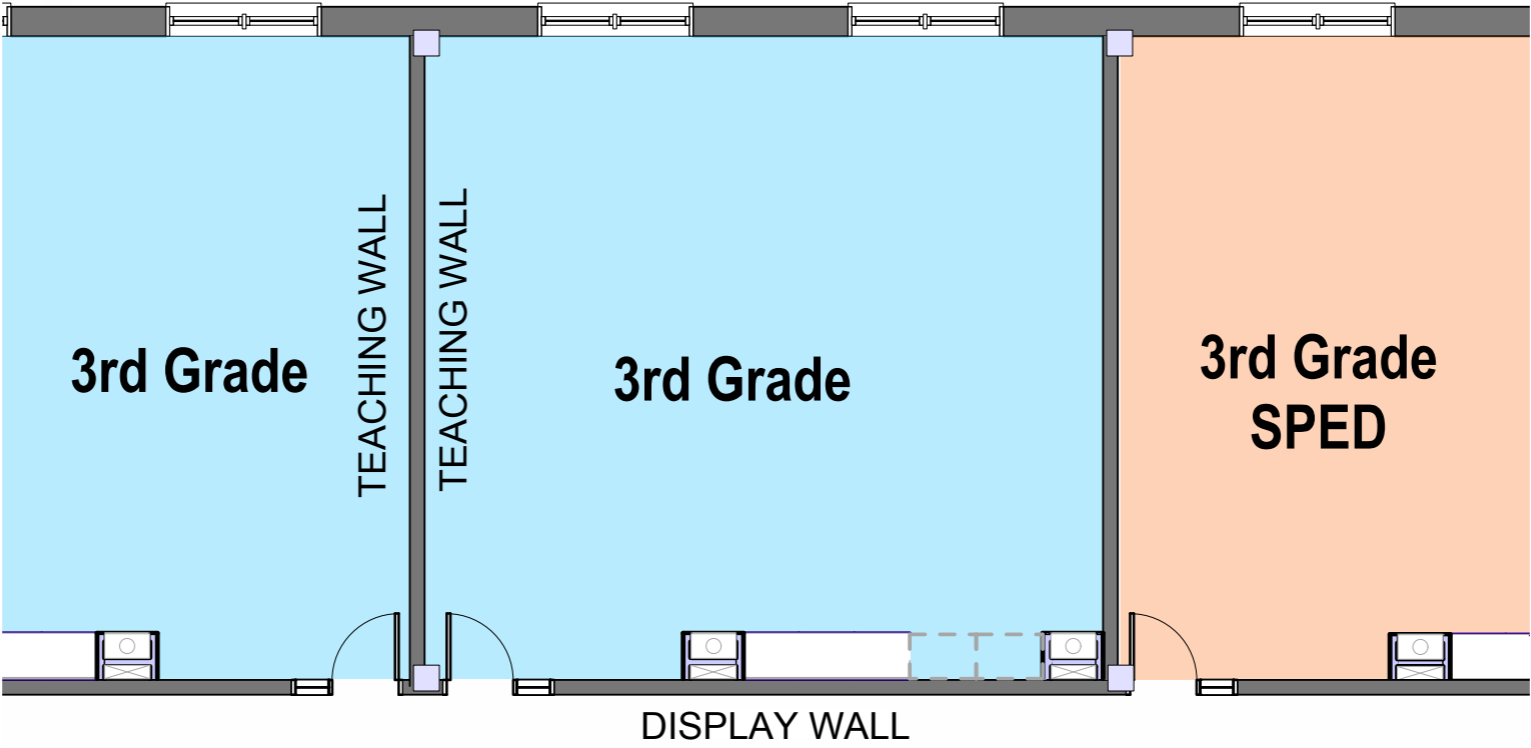
Administration Suite



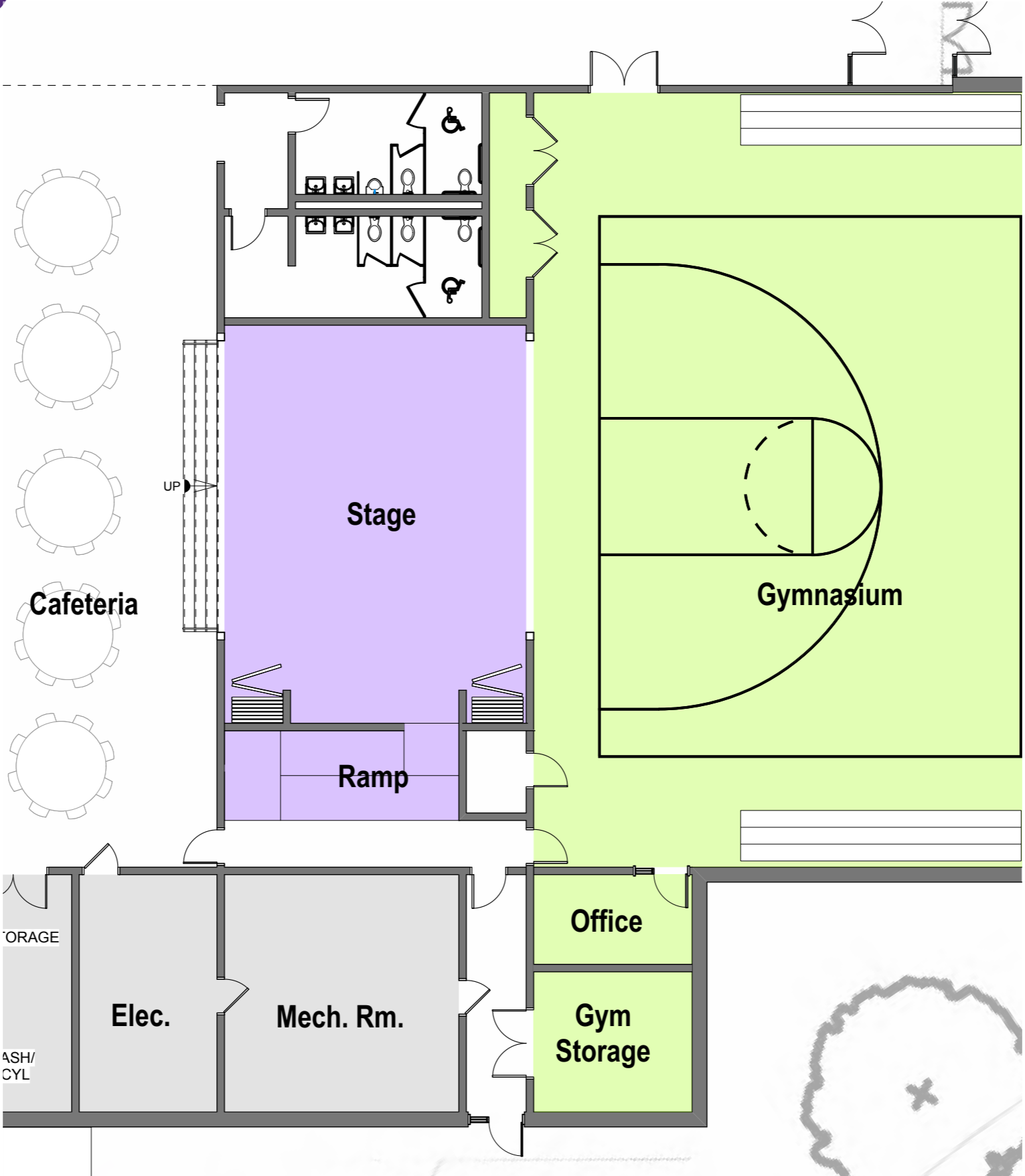
Media Center & SPED



Project Room



Stage & Gymnasium



Entry Perspective (Update)



Play Area & Garden Perspective (Update)



Building Elevations



East Elevation

BRICK

GLASS WALL SYSTEM

METAL PANEL CANOPY

WOOD RESIN PANEL

BRICK



West Elevation

Building Elevations

North Elevation



**WOOD RESIN
PANEL**

**GLASS WALL
SYSTEM**

BRICK

BRICK

PVC ROOF