Date	April 20, 2023
To	Town of Cumberland Planning Board
From	Carla Nixon, Town Planner
Subject	**Site Plan Review MSAD # 51 Amendment re: Portable Classrooms**

1. **REQUEST/PROJECT DESCRIPTION:**

   The applicant is MSAD # 51. Scott Poulin, Director of Finance, Human Resources and Operations for the MSAD, is the representative. The proposal is for the addition of two new portable classroom buildings, a shade structure, a small concession stand, the re-location of a third portable classroom building and the removal of five existing portable classroom buildings on the existing school campus. Minor reconfiguration of other existing ancillary site improvements will be required to accommodate the new building locations. All proposed work is within the existing developed area of the site and there will be no expansion of the previously established limits of disturbance. The changes will be implemented in three phases. Phase 1 will involve work at the MIW school and is slated for completion in fall, 2023. Phase 2 will be for the portable changes to be done at GMS in 2024. Phase 3 will be the addition of the concession stand at GMS in 2024.

   The parcel is shown on Cumberland Tax Assessor's Map U-11, Lot 1 and Lot 9.

   The use, classified as an Accessory Building to a Municipal Use, is a permitted use in the Medium Density Residential (MDR) zoning district. The minimum lot size is 1 acre. The parcel is 51.4 acres in size. Setback Overlay 2 applies.

   The design engineer is Andy Johnston, P.E. of Atlantic Resources Consultants. The representatives will be Patrick Carroll of Carroll Associates and Doug Breer of Stephen Blatt Architects. Dan Diffin, P.E., from Sevee and Maher Engineering has reviewed the plans for compliance with the Town of Cumberland's ordinances.

2. **DESCRIPTION:**

Proposed Use:	Portable Classrooms
Employees:	N/A
Parking:	N/A
Water and Sewer:	From adjacent school building
Floodplain:	Map # 230162 0015B - Designation: Zone C (area of minimal flooding)
Lighting:	No new lighting proposed. Existing lighting from school bldg. will suffice.
Fire Protection:	Hydrant on Main Street. Alarm system in portables.

3. **OUTSIDE AGENCY APPROVALS:** None required.

4. **SECTION 229-4: WAIVERS AND MODIFICATIONS:** *Where the Planning Board or Town Planner finds that there are special circumstances of a particular plan that make a particular submission requirement or standard inapplicable, a waiver may be granted, provided that such waiver will not have the effect of nullifying the intent and purpose of the Comprehensive Plan. The applicant shall submit, in writing, the reason for the requested waiver. In granting waivers or modifications, the Planning Board or Town Planner may require such conditions that will substantially secure the objectives of the standards so waived or modified.*

In support of the Site Plan Application submitted on behalf of MSAD 51, the Applicant requests the following Waivers to the Cumberland Site Plan Ordinance:

Section 229-10-C. – Stormwater Management and Erosion Control

Waiver Request:. Stormwater Management. The proposed portable classrooms and other site development improvements are proposed over currently developed portions of the site, and current existing drainage patterns will be maintained. No newly developed areas will be disturbed as part of this project. The temporary structures are to be installed on concrete piers over existing ground (either paved or playground) replacing existing classroom structures that were installed on the site in 2021. Two small permanent structures (snack shack and shade structure) will be installed adjacent to the temporary buildings, resulting in a small increase in flows but negligible impact on overall stormwater management. Permanent stormwater management improvements will include stone drip strips along the eave sides of the temporary buildings to collect and treat any roof runoff from the buildings. Given the size and scope of the project and limited changes to the existing developed and impervious areas, a full stormwater study of runoff and routing calculations is not warranted for this project and a waiver of this Standard is requested.

Waiver Request:. Erosion Control. Given the limited scope of this project, a full Erosion Control Narrative and Plan are unwarranted for this project. All disturbed areas of the site will be restored prior to completion and use of the facilities. We have included standard details for temporary erosion protection including Silt Fencing and Catch Basin Protection in the Application. A waiver to the Erosion Control Standards is requested for this project.

Section 229-10-D. – Water, sewer, and fire protection

Waiver Request: Water, Sewer, and Fire Protection The 2023 Portable Classroom Project is intended to serve existing student population at Mabel I Wilson and Greely Middle Schools. Both Schools are served by Public Water from the Portland Water Company. The temporary Structures provide a total of 9 restrooms, allowing student use in each classroom building without having to travel to the main school building for use. Given that the student population is currently in the schools, an Ability to Serve Letter from PWD is unwarranted and we request a waiver to this Standard.

Section 229-10-I. – Buffering and Landscaping

Waiver Request:. Buffering and Landscaping. Several existing trees will be removed as part of this project, necessary to locate the temporary structures close to the existing school and allow appropriate space for relocating the Tuttletown Playground. The proposed site is internal to the school campus and minimally visible from a public right of way. We would request a waiver from any landscape or buffer requirements for this project.

5. ENGINEERING REVIEW AND COMMENTS RESPONSES:

April 14, 2023

Ms. Carla Nixon, Planner
Cumberland Town Office
290 Tuttle Road
Cumberland, ME 04021

RE: MSAD 51 – Mabel I. Wilson Elementary School + Greeley Middle School
Modular Classroom Additions
Site Plan Review- Response to Peer Review Comments

Dear Carla,

On behalf of MSAD 51, we are pleased to provide the following responses to Peer Review comments by Dan Diffin of Sevee & Maher dated April 13, 2023:

Comments:
Chapter 229: Site Plan Review
Section 229.10.C Stormwater management and erosion control

1. Please provide details for the proposed water quality treatment measures including the roof drip strip filters and bioswales to demonstrate compliance with MEDEP Chapter 500.

Response: A detail for the roof drip strip filters is attached to this letter. We note that bioswales are not proposed for this project.

2. Please confirm that this project will not require an amendment to the existing Site Location of Development License for the school property. It appears that there will be more than 10,000 square feet of redevelopment resulting from this project and that the SLODA Exemption may not apply.

Response: The Campus has an existing SLODA Permit that was last amended in 2018 to include the Performing Arts Center. Attached are calculations that show improvements between 2018 and 2023 (current) created a total of 27,257 sf of impervious cover, and the proposed project will add another 15,880 sf of impervious area, totaling 43,137 sf over a five-year period. Site Law under Title 38, §488. Applicability – Section 27 provides an exemption for educational facilities where modifications do not exceed 40,000 sf in any calendar year, or a total of 80,000 sf. We believe that this project falls under that threshold and is eligible for the exemption.

Section 229-10-D. – Water, sewer, and fire protection

3. SME recommends the Applicant provide a letter from the Portland Water District to demonstrate adequate capacity to serve the increase in students included in the proposed expansion of classroom space.

Response: A letter has been forwarded to the MEANS GROUP at Portland Water District requesting a Letter of Capacity. We will forward their response to the Town when received. A copy of the request letter is included with this Response Letter.

General Comments.

1. The application form is not signed. Provide a signed application form.

Response: A signed copy of the Application is attached to this Response Letter.

Chapter 229 – SITE PLAN REVIEW

SECTION 10: APPROVAL STANDARDS AND CRITERIA

The following criteria shall be used by the Planning Board in reviewing applications for site plan review and shall serve as minimum requirements for approval of the application. The application shall be approved unless the Planning Board determines that the applicant has failed to meet one or more of these standards. In all instances, the burden of proof shall be on the applicant who must produce evidence sufficient to warrant a finding that all applicable criteria have been met.

Chapter 229 - Site Plan Review, Section 10: Approval Standards and Criteria

The following criteria shall be used by the Planning Board in reviewing applications for site plan review and shall serve as minimum requirements for approval of the application. The application shall be approved unless the Planning Board determines that the applicant has failed to meet one or more of these standards. In all instances, the burden of proof shall be on the applicant who must produce evidence sufficient to warrant a finding that all applicable criteria have been met.

A. Utilization of the Site: Utilization of the Site - The plan for the development, including buildings, lots, and support facilities, must reflect the natural capabilities of the site to support development. Environmentally sensitive areas, including but not limited to, wetlands, steep slopes, floodplains, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, and sand and gravel aquifers must be maintained and preserved to the maximum extent. The development must include appropriate measures for protecting these resources, including but not limited to, modification of the proposed design of the site, timing of construction, and limiting the extent of excavation.

The proposed portable classroom building at MIW and GMS will be located on existing developed areas with direct access to building support services. The existing Tuttle Town playground will be relocated to the outfield of the softball field and MIW and enlarged, along with the addition of a shade structure. The additional hard play area and Pre-K play area are also being located on areas previously developed adjacent to support services and building access. The proposed concession stand will be located at the west end of the football field adjacent to other associated buildings with similar needs with direct access to the access way through the campus.

Based on the above findings of fact, the Planning Board finds the standards of this section have been met.

B. Traffic, Circulation and Parking
(1) Traffic Access and Parking. Vehicular access to and from the development must be safe and convenient.
(a) Any driveway or proposed street must be designed so as to provide the minimum sight distance according to the Maine Department of Transportation standards, to the maximum extent possible.
(b) Points of access and egress must be located to avoid hazardous conflicts with existing turning movements and traffic flows.
(c) The grade of any proposed drive or street must be not more than + 3% for a minimum of two (2) car lengths, or forty (40) feet, from the intersection.
(d) The intersection of any access/egress drive or proposed street must function: (a) at a Level of Service D, or better, following development if the project will generate one thousand (1,000) or more vehicle trips per twenty-four (24) hour period; or (b) at a level which will allow safe access into and out of the project if less than one thousand (1,000) trips are generated.
(e) Where a lot has frontage on two (2) or more streets, the primary access to and egress from the lot must be provided from the street where there is less potential for traffic congestion and for traffic and pedestrians hazards. Access from other streets may be allowed if it is safe and does not promote short cutting through the site.

(f) Where it is necessary to safeguard against hazards to traffic and pedestrians and/ or to avoid traffic congestion, the applicant shall be responsible for providing turning lanes, traffic directional islands, and traffic controls within public streets.
(g) Access ways must be designed and have sufficient capacity to avoid queuing of entering vehicles on any public street.
(h) The following criteria must be used to limit the number of driveways serving a proposed project:
(1) No use which generates less than one hundred (100) vehicle trips per day shall have more than one (1) two-way driveway onto a single roadway. Such driveway must be no greater than thirty (30) feet wide.
(2) No use which generates one hundred (100) or more vehicle trips per day shall have more than two (2) points of entry from and two (2) points of egress to a single roadway. The combined width of all access ways must not exceed sixty (60) feet.
(2) Access way Location and Spacing
Access ways must meet the following standards:
(a) Private entrance / exits must be located at least fifty (50) feet from the closest un-signalized intersection and one hundred fifty (150) feet from the closest signalized intersection, as measured from the point of tangency for the corner to the point of tangency for the access way. This requirement may be reduced if the shape of the site does not allow conformance with this standard.
(b) Private access ways in or out of a development must be separated by a minimum of seventy-five (75) feet where possible.
(3) Internal Vehicular Circulation. The layout of the site must provide for the safe movement of passenger, service, and emergency vehicles through the site.
(a) Projects that will be served by delivery vehicles must provide a clear route for such vehicles with appropriate geometric design to allow turning and backing.
(b) Clear routes of access must be provided and maintained for emergency vehicles to and around buildings and must be posted with appropriate signage (fire lane - no parking).
(c) The layout and design of parking areas must provide for safe and convenient circulation of vehicles throughout the lot.
(d) All roadways must be designed to harmonize with the topographic and natural features of the site insofar as practical by minimizing filling, grading, excavation, or other similar activities which result in unstable soil conditions and soil erosion, by fitting the development to the natural contour of the land and avoiding substantial areas of excessive grade and tree removal, and by retaining existing vegetation during construction. The road network must provide for vehicular, pedestrian, and cyclist safety, all season emergency access, snow storage, and delivery and collection services.
(4) Parking Layout and Design. Off street parking must conform to the following standards:
(a) Parking areas with more than two (2) parking spaces must be arranged so that it is not necessary for vehicles to back into the street.
(b) All parking spaces, access drives, and impervious surfaces must be located at least fifteen (15) feet from any side or rear lot line, except where standards for buffer yards require a greater distance. No parking spaces or asphalt type surface shall be located within fifteen (15) feet of the front property line. Parking lots on adjoining lots may be connected by accessways not exceeding twenty-four (24) feet in width.
(c) Parking stalls and aisle layout must conform to the following standards.

Parking Angle	Stall Width	Skew Width	Stall Depth	Aisle Width
90°	9'-0"		18'-0"	24'-0" 2-way
60°	8'-6"	10'-6"	18'-0"	16'-0" 1-way
45°	8'-6"	12'-9"	17'-6"	12'-0" 1-way
30°	8'-6"	17'-0"	17'-0"	12'-0" 1 way

(d) In lots utilizing diagonal parking, the direction of proper traffic flow must be indicated by signs, pavement markings or other permanent indications and maintained as necessary.
(e) Parking areas must be designed to permit each motor vehicle to proceed to and from the parking space provided for it without requiring the moving of any other motor vehicles.

(f) Provisions must be made to restrict the "overhang" of parked vehicles when it might restrict traffic flow on adjacent through roads, restrict pedestrian or bicycle movement on adjacent walkways, or damage landscape materials.

(5) Building and Parking Placement

(a) The site design should avoid creating a building surrounded by a parking lot. Parking should be to the side and preferably in the back. In rural, uncongested areas buildings should be set well back from the road so as to conform to the rural character of the area. If the parking is in front, a generous, landscaped buffer between road and parking lot is to be provided. Unused areas should be kept natural, as field, forest, wetland, etc.

(b) Where two or more buildings are proposed, the buildings should be grouped and linked with sidewalks; tree planting should be used to provide shade and break up the scale of the site. Parking areas should be separated from the building by a minimum of five (5) to ten (10) feet. Plantings should be provided along the building edge, particularly where building facades consist of long or unbroken walls.

(6) Pedestrian Circulation: The site plan must provide for a system of pedestrian ways within the development appropriate to the type and scale of development. This system must connect the major building entrances/ exits with parking areas and with existing sidewalks, if they exist or are planned in the vicinity of the project. The pedestrian network may be located either in the street right-of-way or outside of the right-of-way in open space or recreation areas. The system must be designed to link the project with residential, recreational, and commercial facilities, schools, bus stops, and existing sidewalks in the neighborhood or, when appropriate, to connect the amenities such as parks or open space on or adjacent to the site.

There are no proposed changes to the existing site circulation, parking areas or pedestrian ways. All ramps and stairs from the new modular units will connect to existing paved walkways and hard surface areas.

Based on the above findings of fact, the Planning Board finds the standards of this section have been met.

C. Stormwater Management and Erosion Control

(1) Stormwater Management. Adequate provisions must be made for the collection and disposal of all stormwater that runs off proposed streets, parking areas, roofs, and other surfaces, through a stormwater drainage system and maintenance plan, which must not have adverse impacts on abutting or downstream properties.

(a) To the extent possible, the plan must retain stormwater on the site using the natural features of the site.

(b) Unless the discharge is directly to the ocean or major river segment, stormwater runoff systems must detain or retain water such that the rate of flow from the site after development does not exceed the predevelopment rate.

(c) The applicant must demonstrate that on - and off-site downstream channel or system capacity is sufficient to carry the flow without adverse effects, including but not limited to, flooding and erosion of shoreland areas, or that he / she will be responsible for whatever improvements are needed to provide the required increase in capacity and / or mitigation.

(d) All natural drainage ways must be preserved at their natural gradients and must not be filled or converted to a closed system unless approved as part of the site plan review.

(e) The design of the stormwater drainage system must provide for the disposal of stormwater without damage to streets, adjacent properties, downstream properties, soils, and vegetation.

(f) The design of the storm drainage systems must be fully cognizant of upstream runoff which must pass over or through the site to be developed and provide for this movement.

(g) The biological and chemical properties of the receiving waters must not be degraded by the stormwater runoff from the development site. The use of oil and grease traps in manholes, the use of on-site vegetated waterways, and vegetated buffer strips along waterways and drainage swales, and the reduction in use of deicing salts and fertilizers may be required, especially where the development stormwater discharges into a gravel aquifer area or other water supply source, or a great pond.

(2) Erosion Control

(a) All building, site, and roadway designs and layouts must harmonize with existing topography and conserve desirable natural surroundings to the fullest extent possible, such that filling, excavation and earth moving activity must be kept to a minimum. Parking lots on sloped sites must be terraced to avoid undue cut and fill, and / or the need for retaining walls. Natural vegetation must be preserved and protected wherever possible.
(b) Soil erosion and sedimentation of watercourses and water bodies must be minimized by an active program meeting the requirements of the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, dated March 1991, and as amended from time to time.

All existing drainage patterns will be maintained wherever possible. The temporary modular classroom buildings are installed on concrete piers/pads over existing grade which allows existing drainage to move under them with no disturbance of existing patterns. Four-foot wide drip edges along each long side of the new and related portables will be installed.

Erosion control measures including silt fence and silt sack catch basin inlet devices are proposed and detailed. The buildings will be placed over existing developed surfaces.

Based on the above findings of fact, the Planning Board finds the standards of this section have been met.

(D) Water, Sewer, and Fire Protection
(1) Water Supply Provisions: The development must be provided with a system of water supply that provides each use with an adequate supply of water. If the project is to be served by a public water supply, the applicant must secure and submit a written statement from the supplier that the proposed water supply system conforms with its design and construction standards, will not result in an undue burden on the source of distribution system, and will be installed in a manner adequate to provide needed domestic and fire protection flows.
(2) Sewage Disposal Provisions: The development must be provided with a method of disposing of sewage which is in compliance with the State Plumbing Code. If provisions are proposed for on-site waste disposal, all such systems must conform to the Subsurface Wastewater Disposal Rules.
(3) Utilities: The development must be provided with electrical, telephone, and telecommunication service adequate to meet the anticipated use of the project. New utility lines and facilities must be screened from view to the extent feasible. If the service in the street or on adjoining lots is underground, the new service must be placed underground.
(4) Fire Protection: The site design must comply with the Fire Protection Ordinance. The Fire Chief shall issue the applicant a "Certificate of Compliance" once the applicant has met the design requirement of the Town's Fire Protection Ordinance.

Public water and sewer connections will be made to each of the modular classroom buildings. A new sewer service will be required for the concession stand. Underground power and communication service will connect all modular classroom buildings with the existing school buildings. Power will be connected to the concession stand. A letter from the Portland Water District indicating capacity to serve is a proposed condition of approval.

All portable classrooms will be fully accessible by emergency vehicles and personnel. A minimum 20' clear zone has been maintained between the buildings and the existing school. Sprinkler service connections are proposed to each of the modular classroom buildings.

Based on the above findings of fact, and the proposed condition of approval, the Planning Board finds the standards of this standard have been met.

E. Water Protection

(1) Groundwater Protection: The proposed site development and use must not adversely impact either the quality or quantity of groundwater available to abutting properties or to the public water supply systems.

Applicants whose projects involve on-site water supply or sewage disposal systems with a capacity of two thousand (2,000) gallons per day or greater must demonstrate that the groundwater at the property line will comply, following development, with the standards for safe drinking water as established by the State of Maine.
(2) Water Quality: All aspects of the project must be designed so that:
(a) No person shall locate, store, discharge, or permit the discharge of any treated, untreated, or inadequately treated liquid, gaseous, or solid materials of such nature, quantity, obnoxious, toxicity, or temperature that may run off, seep, percolate, or wash into surface or groundwaters so as to contaminate, pollute, or harm such waters or cause nuisances, such as objectionable shore deposits, floating or submerged debris, oil or scum, color, odor, taste, or unsightliness or be harmful to human, animal, plant, or aquatic life.
(b) All storage facilities for fuel, chemicals, chemical or industrial wastes, and biodegradable raw materials, must meet the standards of the Maine Department of Environmental Protection and the State Fire Marshall's Office.

(3) Aquifer Protection: If the site is located within the Town Aquifer Protection Area, a positive finding by the Board that the proposed plan will not adversely affect the aquifer is required.

The modular classrooms are served by public water and sewer and will not impact any groundwater sources on adjacent properties. No hazardous materials are proposed to be used at this site. The site is not located within the Town Aquifer Protection Area.

Based on the above finding of fact, the Planning Board finds that the standards of this section have been met.

F. Floodplain Management: If any portion of the site is located within a special flood hazard area as identified by the Federal Emergency Management Agency, all use and development of that portion of the site must be consistent with the Town's Floodplain management provisions.

The project is not located within a special flood hazard area as identified in the latest FEMA flood maps.
Based on the above finding of fact, the Planning Board finds the standards of this section have been met.

G. Historic and Archaeological Resources: If any portion of the site has been identified as containing historic or archaeological resources, the development must include appropriate measures for protecting these resources, including but not limited to, modification of the proposed design of the site, timing of construction, and limiting the extent of excavation.

There are letters on file from previous site plan applications) stating that the Maine Historic Preservation Commission has not found there to be any historical or archaeological resources present on the site of the school campus.

Based on the above finding of fact, the Planning Board finds the standards of this section have been met.

H. Exterior Lighting:
The proposed development must have adequate exterior lighting to provide for its safe use during nighttime hours, if such use is contemplated. All exterior lighting must be designed and shielded to avoid undue glare, adverse impact on neighboring properties and rights - of way, and the unnecessary lighting of the night sky.

No new exterior lighting is proposed other than that provided by lights at either ends of the portables. School uses are proposed to occur during daytime hours. The existing school buildings have several wall mounted lights that provide security lighting for the hard surface play area and internal walkways.

Based on the above findings of fact, the Planning Board finds the standards of this section have been met.

I. Buffering and Landscaping

(1) Buffering of Adjacent Uses: The development must provide for the buffering of adjacent uses where there is a transition from one type of use to another use and for the screening of mechanical equipment and service and storage areas. The buffer may be provided by distance, landscaping, fencing, changes in grade, and / or a combination of these or other techniques.

(2) Landscaping: Landscaping must be provided as part of site design. The landscape plan for the entire site must use landscape materials to integrate the various elements on site, preserve and enhance the particular identity of the site, and create a pleasing site character. The landscaping should define street edges, break up parking areas, soften the appearance of the development, and protect abutting properties.

The proposed project site is within the interior of the campus and is limited visually from abutting properties. Given their temporary nature, the installation of landscaping to buffer the portables is not feasible.

Based on the above findings of fact, the Planning Board finds the standards of this section have

J. Noise: The development must control noise levels such that it will not create a nuisance for neighboring properties.

The portables will not generate noise that would affect neighboring properties.

Based on the above findings of fact, the Planning Board finds the standards of this section have been met.

K. Storage of Materials
(1) Exposed nonresidential storage areas, exposed machinery, and areas used for the storage or collection of discarded automobiles, auto parts, metals or other articles of salvage or refuse must have sufficient setbacks and screening (such as a stockade fence or a dense evergreen hedge) to provide a visual buffer sufficient to minimize their impact on abutting residential uses and users of public streets.
(2) All dumpsters or similar large collection receptacles for trash or other wastes must be located on level surfaces which are paved or graveled. Where the dumpster or receptacle is located in a yard which abuts a residential or institutional use or a public street, it must be screened by fencing or landscaping.
(3) Where a potential safety hazard to children is likely to arise, physical screening sufficient to deter small children from entering the premises must be provided and maintained in good condition.

The application states that an existing dumpster will be utilized, but it is not shown on the site plan. The plan shall be amended to show the location and details of the dumpster(s). This is a proposed condition of approval.

Based on the above findings of fact, the Planning Board finds the standards of this section have been met.

L. Capacity of the Applicant: The applicant must demonstrate that he / she has the financial and technical capacity to carry out the project in accordance with this ordinance and the approved plan.

Technical Ability: *The applicant has retained an architect, landscape architect, civil engineer and surveyor to assist in preparing the site plan.*

Financial Capacity: *The leasing of the portables will be paid for from the operating budget of the MSAD.*

Based on the above findings of fact, the Planning Board finds the standards of this section have been met.

M. Design and Performance Standards
(1) Route 100 Design Standards
(2) Route 1 Design Standards
(3) Town Center District Design and Performance Standards
(4) Village Mixed Use Performance Standards.

None of the above are applicable to this project.

VIII. STANDARD CONDITIONS OF APPROVAl:

This approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted by the applicant. Any variation from the plans, proposals and supporting documents, except deminimus changes as so determined by the Town Planner which do not affect approval standards, is subject to review and approval of the Planning Board prior to implementation.

IX. LIMITATION OF APPROVAL:

Construction of the improvements covered by any site plan approval must be substantially commenced within twelve (12) months of the date upon which the approval was granted. If construction has not been substantially commenced and substantially completed within the specified period, the approval shall be null and void. The applicant may request an extension of the approval deadline prior to expiration of the period. Such request must be in writing and must be made to the Planning Board. The Planning Board may grant up to two (2) 1 year extensions to the periods if the approved plan conforms to the ordinances in effect at the time the extension is granted and any and all federal and state approvals and permits are current.

Proposed Conditions of Approval:

1. All local permits such as building, plumbing and electrical shall be obtained from the CEO prior to the placement of the portables.
2. A letter from the Portland Water District stating capacity to serve is required prior to the issuance of a building permit.
3. A revised plan showing the location and details of the dumpster(s) is required prior to issuance of a building permit.

MABEL I. WILSON
ELEMENTARY SCHOOL
&
GREELEY MIDDLE SCHOOL

MODULAR CLASSROOM ADDITIONS

MSAD 51

Cumberland, Maine

APPLICATION FOR
SITE PLAN REVIEW

Prepared By:

Stephen Blatt Architects

5 South Street

Portland, ME 04101

and

Carroll Associates

217 Commercial Street

Portland, ME 04101

Submitted to Town of Cumberland

April 3, 2023

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1) cover letter

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

April 3, 2023

Ms. Carla Nixon, Planner
Cumberland Town Office
290 Tuttle Road
Cumberland, ME 04021

RE: MSAD 51 – Mabel I. Wilson Elementary School + Greeley Middle School
Modular Classroom Additions
Site Plan Review

Dear Carla,

On behalf of MSAD 51, we are pleased to submit the attached Site and Architectural Plans along with supporting documents for the proposed Modular Classroom Addition at the Mable I Wilson Elementary School (MIW) and at the Greely Middle School (GMS). The proposed addition is necessary to provide adequate classroom space for the ever-growing student body and staff. Interior renovations have maximized the amount of interior space that can be expanded for classroom space, and these temporary, modular classroom structures are necessary to meet the current demand.

The proposed project entails:

Mabel I Wilson Elementary School

1. Removal of the two existing 2-classroom modulars that are located on the infield of the softball field;
2. Relocation of the existing 10-classroom modular that is located between the existing Tuttle Town Playground and existing portables, to a new location over the existing Tuttle Town Playground;
3. Addition of a new 12-classroom modular building, to be located parallel to Campus Drive between the relocated 10-classroom and the pump house;
4. Relocation and expansion of the Tuttle Town Playground to the outfield of the softball field along with the installation of new equipment.
5. Addition of a shade structure (30'X50') adjacent to the relocated playground, similar to the existing shade structure at the Middle School.
6. Addition of a Pre-K play space and general use hard play area.

Greely Middle School

1. Removal of the three existing 2-classroom modulars that are located on the outfield of the softball field;
2. Addition of a new 10-classroom modular building, to be located in place of the existing 2-classroom modulars;
3. Addition of a new (18'x18') concessions stand.

The modular classroom buildings are approximately (68'wide x 148' long for the 10-classroom cluster and 68' wide x 180' long for the new 12-classroom cluster). The buildings are proposed to be sited on relatively level ground adjacent to convenient delivery access, on previously developed land, and adjacent to adequate utility infrastructure, for the most part. The modular classroom buildings are configured with a central, double loaded corridor with bathrooms and utilities in the middle, and an accessible ramp on one end/entry and egress steps out at the opposite end/entry. All modular classroom buildings will be

connected with underground power + telcoms, natural gas, domestic water and sprinkler systems and sewer. The location of the buildings has been determined based upon code restrictions (min. 20-foot separation), required maneuverability for their installation, and need to provide adequate fire protection around the school buildings. The classroom buildings are also located to minimize any visual impact from Tuttle Road or the School entrances. The modular classrooms are all to be leased to the District and their cost will be funded from ongoing yearly operating budgets.

No major changes to the overall School sites are anticipated. No new vehicular circulation or parking are required or proposed to support this project. The modular classroom buildings will be connected to the existing school, relocated Tuttle Town Playground, parking, fields, etc. by reuse of existing paved areas or by new walkways.

All existing drainage patterns will be maintained wherever and whenever possible. The temporary modular classroom buildings are installed on concrete piers/pads over existing grade, which allows existing drainage to move under them with no disturbance of existing patterns. As such, construction disturbance is minimal. We propose to install four-foot-wide drip edges along each long side of the new and re-located portables. These will be designed to Chapter 500 and provide underdrains that connect to the existing storm system. If any other impervious are added, we can grade these areas to drain to small bio-cells to provide treatment.

The existing school buildings have several wall-mounted lights that provide security lighting for the hard surface play area and internal walkways, and it is anticipated these lights will remain and provide adequate lighting for the core area. The modular classroom buildings have light at their ends for egress safety and at regular intervals along their lengths.

Finally at the Middle School an 18'x18' concessions stand is proposed to be located adjacent to the existing snack bar at the football field.

The proposed improvements described above will be phased in over the next two years. The anticipated phasing timeline is as follows:

1. Phase 1.0 (2023): MIW - Remove two existing 2-classroom portables, relocate 10-classroom portable and add 12-classroom portable. Relocate Tuttle Town playground and add shade structure.
2. Phase 1.1 (2024): GMS – Remove three existing 2-classroom portables and add 10-classroom portable.
3. Phase 1.2 (2024): GMS – Add concessions stand

We are requesting Site Plan Review with the Planning Board at the meeting on April 25th, with the requirement of securing approval in time to install the classroom buildings at MIW prior to the start of the 2023-2024 school year. This project embodies the commitment by MSAD 51 to provide safe educational facilities for all of its students and staff, and the District is excited about the opportunities that this will bring to students in the coming school year. Attached you will find a package of plans and support documents which illustrate the proposed buildings and site development. Please do not hesitate to contact me if you have any questions or need additional information.

Regards,
CARROLL ASSOCIATES

Patrick J. Carroll, Principal

Enc.
CC: Jeff Porter, MSAD 51
Scott Poulin, MSAD 51
Doug Breer, SBA
Andy Johnston, ARC

This submission consists of the following:

Exhibits: (1) paper copy and (1) pdf

1 Cover Letter
2 Application: Site Plan Review, Appendix C
3 Application: Submission Checklist
4 Letter of Authorization
5 Letter of Financial Capacity
5.1 Project Directory
6 Abutters Map
6.1 Abutters Addresses
7 Map: Overlay Zoning
8 Site Plan Standards Responses
9 Stormwater Management Narrative

Plans: (1) 24”x36” paper set of plans and (1) pdf

S-2.0 Survey

L-1.0 Existing Conditions Plan
L-2.0 Site Layout Plan: MIW
L-2.1 Site Layout Plan: GMS
L-3.0 Site Utility Plan: MIW
L-3.1 Site Utility Plan: GMS
L-4.0 Phasing
L-5.0 Site Details

A1.0 Stair, Ramp + Mounting Height Details
A10.1 10 Classroom Portable: Cover Sheet
A10.2 10 Classroom Portable: Floor Plan
A10.3 10 Classroom Portable: Cross Section
A10.4 10 Classroom Portable: Foundation
A12.1 12 Classroom Portable: Floor Plan
A12.2 12 Classroom Portable: Elevation

2) application

SITE PLAN REVIEW

229 Attachment 3

Town of Cumberland

Appendix C
Planning Board Site Plan Review Application
[Amended 7-26-2021; 10-24-2022]

Applicant's name **MSAD 51**

Applicant's address **357 Tuttle Road, Cumberland, Maine**

Cell phone _____ Home phone _____ Office phone **207-829-4800**

Project address **353 Tuttle Road, Cumberland**

Project name **MSAD 51 Modular Classroom Additions**

Describe project **See cover letter for details**

Number of employees **N/A**

Days and hours of operation **Mon-Fri : regular school hours**

Project review and notice fee **N/A**

Name of representative **Scott Poulin, Director of Finance**

Contact information: Cell: _____ Office: **207-829-4800**

What is the applicant's interest in the property?

Own **X** Lease _____ Purchase and sale agreement _____ (provide copy of document)

Boundary Survey
Submitted? Yes **X** No _____

Are there any deed restrictions or easements? Yes _____ No **X** If yes, provide information and show easement location on site plan.

Building Information
Are there existing buildings on the site? Yes **X** No _____ Number: **See Site Plans**
Will they be removed? Yes **X** No _____ (Note: A demolition permit is required 10 days prior to demolition.) **(2) ex modular classrooms @ MIW + (3) ex modular classrooms @ GMS**

Will a new structure(s) be built on the site? Yes **X** No _____
Describe: **(2) new portable classrooms (1 each @ MIW + GMS), concession stand @ GMS and shade structure at relcoated Tuttle Town playground @ MIW.**
Number of new buildings **X 4**
Square footage **See below**
Number of floor levels including basement **1 level (no basement)**

1 - 12 classroom building @ 68'W x 180'L = 12,240 sf (MIW)
1 - 10 classroom building @ 68'W x 148'L = 10,064 sf (GMS)
1 - concessions stand @ 18'W x 18'L = 324 sf (GMS)
1 - shade structure @ 30'W x 50' = 1,500 sf (MIW)

Parking
Number of existing parking spaces 188 PS
Number of new parking spaces No new parking is proposed
Number of handicapped spaces unknown

Entrance Each portable classroom will have at a min. one (1) fully accessible entrance and a total of two (2) end egress doors with stairs
Location:
Width _*__ Length __*_ * varies, see Site Plans and modular classroom plans
Is it paved? _____ Yes _____ No _____ If not, do you plan to pave it? Wood stairs and ramps will connect to existing paved areas
Where will snow storage for entrance and parking be located? Show on site plan. Adjacent lawn areas, see Site Plans

Utilities

Water: Public water X Well _____ (Show location on site plan.)

Sewer/septic: Public sewer X Private septic _____ Show location on site plan and submit HHE-200 septic design or location of passing test pit locations if new system is proposed. Also show any wells on abutting properties within 200 feet of the site.

Electric: On site? Yes X No _____
Show location of existing and proposed utilities on the site plan and indicate if they are above or below ground. See L-3.0 + L-3.1

Signs
Number: N/A
Size: _____
Material: _____
Submit sign design and completed sign application.
Will the sign be lighted? _____ Submit information on type and wattage of lights.
Show location of sign(s) on the site plan.

Natural Features
Show location of any of the following on the site plan:
River N/A Stream N/A Wetland N/A Pond N/A Lake N/A Stone walls N/A
Are there any other historic or natural features? NO

Lighting
Will there be any exterior lights? Yes X No _____ Show location on site plan (e.g., pole fixtures, wall packs on building) and provide fixture and lumen information. See Modular Classroom Plans

Trees
Show location of existing trees on the site plan and indicate if any are to be removed. See Site Plans

Landscaping
Is there existing landscaping on the site? Yes X No _____ Show type and location on site plan.

Is new landscaping proposed? (Note: if property has frontage on Route 100, a twenty-five-foot landscape easement to the Town is required.) A few trees will be removed for the modular classrooms. They are not proposed to be replaced at this time.

Buffering
Show any existing or proposed buffering measures for adjacent properties, e.g., plantings, fences. **See Site Plans**

Erosion Control
Has an erosion and sedimentation control plan been submitted in accordance with Chapter 242, Article III? Yes _____ No __X__ **Silt fence + silt sack sediment capture devices are proposed**

Stormwater Management Plan/Low Impact Development
Has stormwater information been submitted in accordance with Chapter 242, Article II, Post Construction Stormwater Management and Article IV, Low Impact Development?
Yes _____ No __X__ **Existing site drainage patterns to be maintained and drip edges are proposed**

Fire Protection
Location of nearest hydrant __X__ **Intersection of Campus Drive + MIW driveway** Sprinklers? Yes __X__ No _____
Do you plan to have an alarm system? Yes __X__ No _____ Please contact the Fire/EMS Department at 829-4573 to discuss any Town or state requirements.

Trash
Will trash be stored inside __X__ outside _____. If outside, will a dumpster be used?
Yes _____ No _____. Show location on site plan and show type of screening proposed (e.g., fencing, plantings).

Technical Capacity
List and provide contact information for all consultants who worked on the project, for example: licensed land surveyor, licensed soils evaluator, professional engineer, attorney, etc. _____ **See Exhibit 5.1**

Financial Capacity
Please indicate how project will be financed. If obtaining a bank loan, provide a letter from the bank _____ **See Exhibit 5, Financial Ability. Project will be funded through on-going capital budgets, no new financing will be required for this project**

- Zoning district: _**MDR . MSAD Campus** _____
- Minimum lot size: _**1 AC**_____
- Classification of proposed use: _**SCHOOL / INSTITUTIONAL**_____
- Parcel size: _**51.4 AC**_____
- Frontage: _**SEE BOUNDARY SURVEY**_____
- Setbacks: Front __*_____ Side __*_____ Rear __*_____ *** SEE SITE PLANS**
- Board of Appeals Required? __**NO**_____
- Tax Map _**U11**_____ Lot ___**9**_____ Deed book _____ Deed page _____
- Floodplain map number _____ Designation _____
- Vernal pool identified? __**NO**_____
- Is parcel in a subdivision? __**NO**_____
- Outside agency permits required:
  MDEP Tier 1 __**NO**_____ MDEP Tier 2 _____ Army Corps of Engineers _____
- MDEP general construction (stormwater) permit (for disturbance of 1 acre or more)
- MDOT entrance permit __**NO**_____
- MDOT traffic movement permit __**NO**_____
- Traffic study required ___**NO**_____
- Hydrogeologic evaluation __**NO**_____
- Market study __**NO**_____
- Route 1 Design Guidelines? ___**NO**_____
- Route 100, VMU or TCD Design Standards? ___**NO**_____

Please provide two paper copies of a complete application packet with full-size plan sets and one electronic application packet.

Applicant's signature _____

Submission date: APRIL 3, 2023

3) application checklist

PLANNING BOARD SITE PLAN REVIEW SUBMISSION CHECKLIST

FOR ALL PROJECTS:

Submission Requirement	**Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative**	**If requesting a waiver, indicate below:**
Example: Erosion Control	*Plan Sheet E-1*	
General Information:		
Completed Site Plan Application Form	TAB 2 - APPLICATION	
Names and addresses of all consultants	TAB 5 – PROJECT DIRECTORY	
Narrative describing existing conditions and the proposed project	TAB 1 – COVER LETTER	
Evidence of right, title or interest (deed, option, etc.)	S-2.0 SURVEY	
Names and Addresses of all property owners within 200 feet	TAB 6 – ABUTTERS MAP / LIST	
Boundaries of all contiguous property under control of owner	S-2.0 SURVEY	
Tax map and lot numbers	S-2.0 SURVEY	
Area of the parcel	S-2.0 SURVEY	
FEMA Floodplain designation & map #	'A' FLOOD ZONE	
Zoning classification	TAB 7 – ZONING & OVERLAY MAPS	
Evidence of technical and financial capability to carry out the project	TAB 5 – TECH + FINANICAL ABILITY	
Boundary survey	S-2.0 SURVEY	
List of waiver requests on separate sheet with reason for request.	TAB 1 - COVER LETTER	
Proposed solid waste disposal plan	CONTINUED USE OF EX DUMPSTERS	
	WASTE GOES TO ECO-MAINE	
Existing Conditions Plan showing:		
Name, registration number and seal of person who prepared plan	S-2.0 SURVEY	
North arrow, date, scale, legend	S-2.0 SURVEY	
Area of the parcel	S-2.0 SURVEY	
Setbacks and building envelope	L-2.0 SITE LAYOUT PLAN	
Utilities, including sewer & water, culverts & drains, on-site sewage	N/A	
Location of any septic systems	N/A	
Location, names, widths of existing public or private streets ROW's	S-2.0 SURVEY	

Location, dimension of ground floor elevation of all existing buildings	N/A	
Location, dimension of existing driveways, parking, loading, walkways	S-2.0 SURVEY L-2.0 SITE LAYOUT PLAN	
Location of intersecting roads & driveways within 200 feet of the site	S-2.0 SURVEY	
Wetland areas	N/A	
Natural and historic features such as water bodies, stands of trees, streams, graveyards, stonewalls, floodplains	N/A	
Direction of existing surface water drainage across the site & off site	S-2.0 SURVEY	
Location, front view, dimensions and lighting of existing signs	N/A	
Location and dimensions of existing easements & copies of documents	N/A	
Location of nearest fire hydrant or water supply for fire protection	L-2.0 SITE LAYOUT PLAN	
Proposed Development Site Plan showing:		
Name of development	ALL PLANS	
Date	ALL PLANS	
North arrow	ALL PLANS	
Scale	ALL PLANS	
Legend	N/A	
Landscape plan	N/A	
Stormwater management	TAB 9 SWM + SITE PLANS	
Wetland delineation	N/A	
Current & proposed stands of trees	N/A	
Erosion control plan	SITE PLANS	
Landscape plan	N/A	
Lighting/photometric plan	N/A	
Location and dimensions of all proposed buildings	L-2.0 + L-2.1	
Location and size of utilities, including sewer, water, culverts and drains	L-3.0 + L-3.1	
Location and dimension of proposed on-site septic system; test pit locations and nitrate plumes	N/A	
Location of wells on subject property and within 200’ of the site	N/A	
Location, names and widths of existing and proposed streets and ROW’s	S-2.0 SURVEY	

Location and dimensions of all accessways and loading and unloading facilities	L-2.0 + L-2.1	
Location and dimension of all existing and proposed pedestrian ways	L-2.0 + L-2.1	
Location, dimension and # of spaces of proposed parking areas, including handicapped spaces	N/A	
Total floor area and ground coverage of each proposed building and structure	Modular classroom plans and L-2.0 + L-2.1	
Proposed sign location and sign lighting	N/A	
Proposed lighting location and details	Modular classroom plans	
Covenants and deed restrictions proposed	N/A	
Snow storage location	L-2.0 + L-2.1	
Solid waste storage location and fencing/buffering	N/A	
Location of all fire protection	N/A	
Location of all temporary & permanent monuments	N/A	
Street plans and profiles	N/A	

ADDITIONAL REQUIREMENTS FOR MAJOR SITE PLAN PROJECTS:

Submission Requirement	**Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative**	**If requesting a waiver, indicate below:**
High intensity soils survey	N/A	
Hydro geologic evaluation	N/A	
Traffic Study	N/A	
Market Study	N/A	
Location of proposed recreation areas (parks, playgrounds, other public areas)	L-2.0 + L-2.1	
Location and type of outdoor furniture and features such as benches, fountains.	L-2.0 + L-2.1	

4) letter of authorization

MSAD #51

The Schools of Cumberland and North Yarmouth, Maine

Jeffrey Porter, *Superintendent of Schools*
Scott Poulin, *Director of Finance, Human Resources & Operations*
Julie Olsen, Ed.D, *Director of Instructional Support*
Susie Robbins, *Director of Academic Services*
Dirk Van Curan, *Director of Technology Services*

June 24, 2021

Town of Cumberland
290 Tuttle Road
Cumberland, ME 04021

RE: Letter of Authorization

To Whom It May Concern:

I hereby authorize Pat Carroll of Carroll Associates Landscape Architects and Doug Breer of Stephen Blatt Architects to act as agents on behalf of MSAD #51 in obtaining Cumberland Planning Board and Maine DEP approvals/permits for modular classroom additions.

Sincerely,

Scott D. Poulin
Director of Finance, Operations and Human Resources

5) letter of financial capacity

MSAD #51

The Schools of Cumberland and North Yarmouth, Maine

Jeffrey Porter, *Superintendent of Schools*
Scott Poulin, *Director of Finance, Human Resources & Operations*
Julie Olsen, Ed.D, *Director of Instructional Support*
Susie Robbins, *Director of Academic Services*
Dirk Van Curan, *Director of Technology Services*

June 24, 2021

Town of Cumberland
290 Tuttle Road
Cumberland, ME 04021

RE: Owner's Technical and Financial Capacity

To Whom It May Concern:

Please find attached a list of all consultants working on the modular classroom additions.

The project and portables will be funded out of the current budget.

Sincerely,

Scott D. Poulin
Director of Finance, Operations and Human Resources

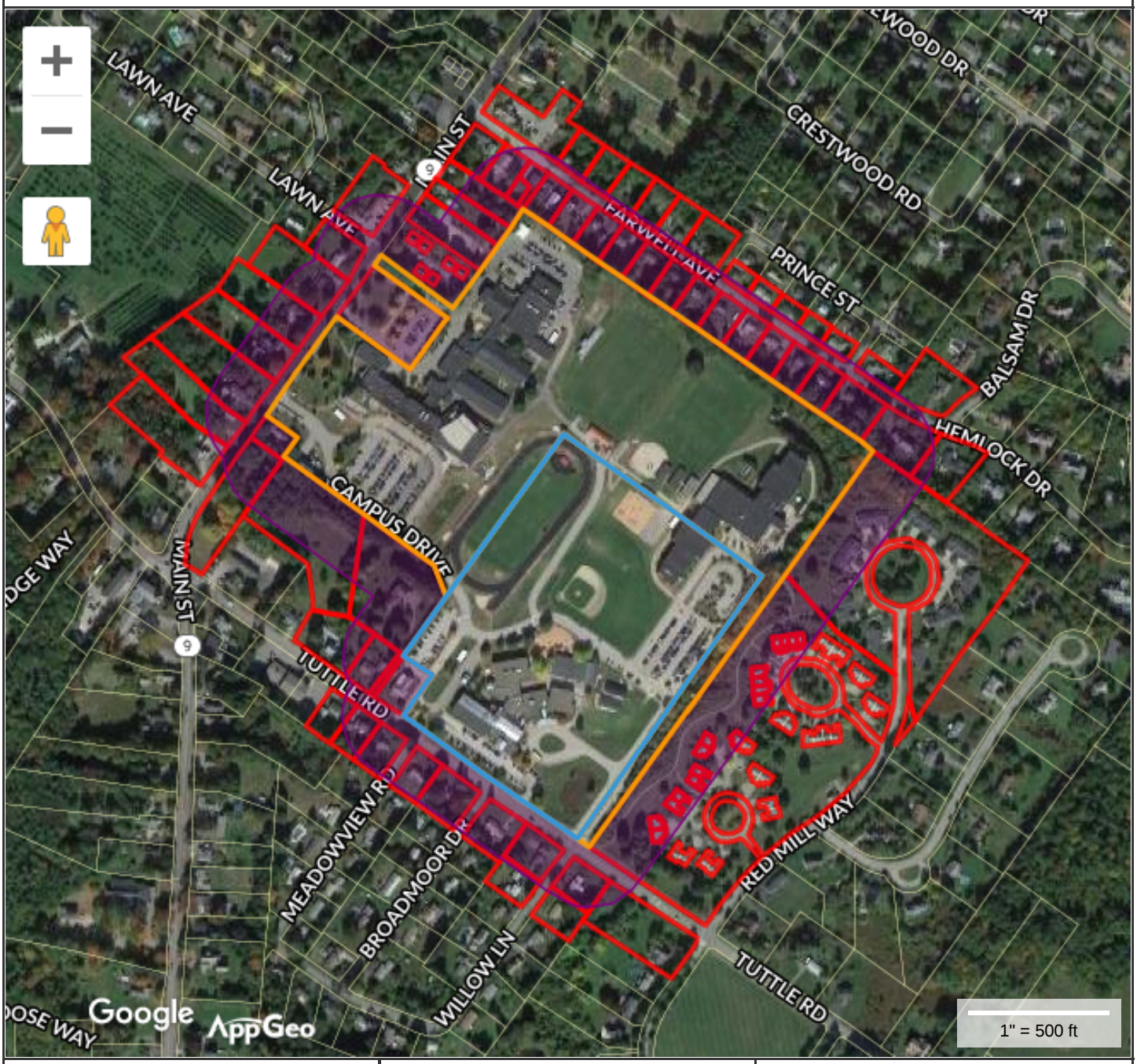
5.1) project directory

PROJECT DIRECTORY

ARCHITECT:	**Stephen Blatt Architects** 5 South Street Portland, ME 04103 Tel: (207) 761-5911 Doug Breer, Architect
LANDSCAPE ARCHITECT:	**Carroll Associates** 217 Commercial St., Suite 204 Portland, ME 04101 Tel: (207) 772-1552 Pat Carroll, Landscape Architect
CIVIL ENGINEER:	**Atlantic Resource Consultants** 541 US Route One Freeport, ME 04092 Tel: (207) 449-6616 Andy Johnston, Civil Engineer
SURVEYOR:	**Owen Haskell** 390 U.S. Route One, Unit 10 Falmouth, ME 04105 Tel: (207) 774-0424

6) abutters map

Abutters of MSAD 51 within 200 feet



Property Information

Property ID	0U11 0009 0000
Location	TUTTLE RD
Owner	MAINE SCHOOL ADMIN DIST 51

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

Town of Cumberland, ME makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 6/10/2020
Data updated monthly (see property record card)

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

6.1) abutters addresses

Site Address	Owner Name	Co-Owner Name	Owner Address	Owner City	Owner State	Owner Zip
1 CUMBERLAND COMMON	BLISS HENRY M	BLISS MELISSA H	1 CUMBERLAND COMMON	CUMBERLAND	ME	04021
299 MAIN ST	BUSH, NATHAN J	WILLIAMS, FLORENCE R	55 THIRLMERE AVE	SOUTH PORTLAND	ME	04106
293 MAIN ST	TOWN OF CUMBERLAND		290 TUTTLE RD.	CUMBERLAND	ME	04021-9321
TUTTLE RD	WYATT, WILLIAM		PO BOX 51493	PIEDMONT	SC	29673-2020
359 TUTTLE ROAD	CAMPBELL JOSEPH A		361 TUTTLE ROAD	CUMBERLAND	ME	04021
363 TUTTLE RD	STEPHENS, TONY	SMITH, COLEEN	363 TUTTLE RD	CUMBERLAND	ME	04021
361 TUTTLE ROAD	CAMPBELL JOSEPH A		361 TUTTLE ROAD	CUMBERLAND CTR	ME	04021
357 TUTTLE RD	MAINE SCHOOL ADMIN DIST 51	SWEETSER SCHOOL OFFICES	357 TUTTLE ROAD	CUMBERLAND	ME	04021
352 TUTTLE ROAD	HANSON SUSAN M	HANSON TERRY C	352 TUTTLE ROAD	CUMBERLAND	ME	04021
354 TUTTLE ROAD	LAMBERT DANIEL E		354 TUTTLE ROAD	CUMBERLAND	ME	04021
358 TUTTLE RD	KEATING KENNETH D & ELIZABETH A		358 TUTTLE RD	CUMBERLAND	ME	04021
360 TUTTLE ROAD	WATT ROBERT B	WATT CATHY R	360 TUTTLE ROAD	CUMBERLAND	ME	04021
362 TUTTLE RD	REILLY, JR, JAMES T		261 FORESIDE RD	FALMOUTH	ME	04105
348 TUTTLE RD	CORCIMIGLIA CARMEN T	CORCIMIGLIA DEBORAH D	348 TUTTLE ROAD	CUMBERLAND	ME	04021
1 WILLOW LN	KNUUTI, KEITH P	KNUUTI, IRENE W	1209 HONOKALIUA ST	HONOLULU	HI	96825
3 WILLOW LANE	DRESSEL KAREN L		3 WILLOW LANE	CUMBERLAND	ME	04021
4 WILLOW LANE	CLOUTIER, TODD		15 CIDER HILL LN	CUMBERLAND	ME	04021
2 WILLOW LN	TREMBLE, ELAINE		2 WILLOW LN	CUMBERLAND	ME	04021
1-18 LINDEN COURT						
HAWTHORNE CT	TOWN OF CUMBERLAND		290 TUTTLE RD	CUMBERLAND CTR	ME	04021-9321
6 LINDEN COURT	JONES, KATHLEEN A		46 FULLER RD	CUMBERLAND	ME	04021
7 LINDEN COURT	HIGGINS, JAMES A	HIGGINS, PATRICIA G	7 LINDEN CT	CUMBERLAND CTR	ME	04021
8 LINDEN CT	PROFIT PROPERTIES, LLC		22 HEDGEROW DR	CUMBERLAND	ME	04021
9 LINDEN COURT	MORSE, ANDREA R		9 LINDEN COURT	CUMBERLAND	ME	04021
10 LINDEN CT	CASEY, SUSAN E		10 LINDEN CT	CUMBERLAND	ME	04021
11 LINDEN COURT	WHITTUM, LINDA	WHITTUM, JEFFREY P	11 LINDEN CT	CUMBERLAND CTR	ME	04021
12 LINDEN CT	RPF REALTY TRUST		12 LINDEN CT	CUMBERLAND	ME	04021
13 LINDEN COURT	BICKFORD CHARLES L	BICKFORD JUDITH A	13 LINDEN COURT	CUMBERLAND	ME	04021
14 LINDEN COURT	WHITTUM OBAR SUSAN L	OBAR MICHAEL S	14 LINDEN COURT	CUMBERLAND	ME	04021
27 WINTERBERRY COURT	LEIGHTON THOMAS M		27 WINTERBERRY COURT	CUMBERLAND	ME	04021
28 WINTERBERRY CT	WILMOT, SUSAN J	LEVESQUE; DEWEESE, SCOTT; LINDSEY G; L	28 WINTERBERRY CT	CUMBERLAND	ME	04021
29 WINTERBERRY COURT	WILLIAMS RICHARD H	WILLIAMS HEIDI	29 WINTERBERRY COURT	CUMBERLAND	ME	04021
30 WINTERBERRY COURT	ADAMS, ELIZA J		30 WINTERBERRY COURT	CUMBERLAND	ME	04021
31 WINTERBERRY COURT	WAGNER, LYNN S		31 WINTERBERRY CT	CUMBERLAND	ME	04021
32 WINTERBERRY COURT	OLDS PATRICIA ANNE		32 WINTERBERRY COURT	CUMBERLAND CTR	ME	04021
33 WINTERBERRY COURT	MORSE JUDITH		33 WINTERBERRY COURT	CUMBERLAND	ME	04021
34 WINTERBERRY COURT	WALTON, SHANNON S.		34 WINTERBERRY CT	CUMBERLAND	ME	04021
296 MAIN STREET	CN BROWN COMPANY		PO BOX 200	SOUTH PARIS	ME	04281
300 MAIN STREET	LANDRY STEVEN G	HALL KAREN E	300 MAIN STREET	CUMBERLAND	ME	04021
302 MAIN STREET	GRASS RICHARD E	GRASS SHARON E	302 MAIN STREET	CUMBERLAND	ME	04021
306 MAIN ST	POWERS, PATRICIA M.	POWERS, THOMAS E.	306 MAIN STREET	CUMBERLAND CTR	ME	04021
310 MAIN STREET	HANKENS, KEVIN W	HANKENS, MELISSA L	310 MAIN ST	CUMBERLAND	ME	04021
312 MAIN STREET	DUGAS, DEBORAH J 2022 TRUST	DUGAS, DEBORAH J TRUSTEE	312 MAIN STREET	CUMBERLAND	ME	04021
327 MAIN STREET	CHASE'S FLOWER SHOP & GREENHSE	C/O ATLANTIC REGIONAL FED CU	PO BOX 188	BRUNSWICK	ME	04011
8 FARWELL AVENUE	WESSON ANNE ROELSE*		8 FARWELL AVENUE	CUMBERLAND	ME	04021
10 FARWELL AVENUE	WHITE JOHN D	WHITE CONSTANCE A	10 FARWELL AVE PO BOX 21A	CUMBERLAND	ME	04021
12 FARWELL AVENUE	TALBOT, DONALD E	TALBOT, CLAIRE M	PO BOX 181	CUMBERLAND	ME	04021
14 FARWELL AVENUE	MANGINI, GIOVANNINA M	KEELER, CHRISTOPHER B	14 FARWELL AVE	CUMBERLAND	ME	04021
16 FARWELL AV	THOMPSON, CHARLES K	CORNELIUS, JULIE R	16 FARWELL AVE	CUMBERLAND	ME	04021
18 FARWELL AVENUE	CLARK, MICHAEL S.	CLARK, ANGELA E.	18 FARWELL AVENUE	CUMBERLAND CTR	ME	04021
32 FARWELL AVE	SY VINCENT A		32 FARWELL AVENUE	CUMBERLAND	ME	04021

22 FARWELL AVENUE	B & H ENTERPRISES, LLC		9 THOMAS DR	WESTBROOK	ME	04092
24 FARWELL AVE	LANESE JOHN	LANESE MARY ANN	24 FARWELL AVENUE	CUMBERLAND	ME	04021
26 FARWELL AVE	BOHRMANN, MARGARET A	, WILLIAM GROVES	26 FARWELL AVE	CUMBERLAND	ME	04021
28 FARWELL AVE	MCKENNEY, REBECCA		28 FARWELL AVE	CUMBERLAND	ME	04021
30 FARWELL AVE	MCDONOUGH MICHAEL G	MCDONOUGH MARY L	30 FARWELL AVE PO BOX 94A	CUMBERLAND	ME	04021
31 FARWELL AVE	A&M WRIGHT, PROPERTIES LLC		4 PRESERVATION DR	FALMOUTH	ME	04105
29 FARWELL AVE	ZADAKIS, STACEY L		29 FARWELL AVE	CUMBERLAND	ME	04021
27 FARWELL AVE	MORRISON KARA K		27 FARWELL AVENUE	CUMBERLAND CTR	ME	04021
25 FARWELL AVE	TAYLOR ALBERT H	TAYLOR KATHLEEN B	25 FARWELL AVENUE	CUMBERLAND	ME	04021
23 FARWELL AVE	DEWS AMBER J	DEWS ADAM C	23 FARWELL AVENUE	CUMBERLAND	ME	04021
21 FARWELL AVENUE	MALLOY PATRICK J	PIKE DEANNA G	21 FARWELL AVENUE	CUMBERLAND CTR	ME	04021
19 FARWELL AVENUE	KAPLAN, JOSHUA		49 NEWELL RIDGE RD	CUMBERLAND	ME	04021
17 FARWELL AVENUE	MORGAN, MICHAEL P	THOMPSON, CAROLINE E	17 FARWELL AVE	CUMBERLAND CTR	ME	04021
15 FARWELL AVE	HAYES WENDY		15 FARWELL AVENUE	CUMBERLAND	ME	04021
13 FARWELL AVENUE	NOLIN MARK R	NOLIN MAURA C	13 FARWELL AVENUE	CUMBERLAND CTR	ME	04021
11 FARWELL AVENUE	JACOBS BARBARA J		11 FARWELL AVENUE	CUMBERLAND	ME	04021
9 FARWELL AVENUE	PANDOLFO, FRANK	PANDOLFO, MARIE	PO BOX 492	CUMBERLAND	ME	04021
7 FARWELL AVE	MULLIN KATHERINE G	MULLIN MICHAEL J	7 FARWELL AVENUE	CUMBERLAND CTR	ME	04021
5 FARWELL AVE	KIELY, ELISE P W	KIELY, NEIL J	161 WOODLANDS DR	FALMOUTH	ME	04105
5R FARWELL AVE	CUMBERLAND, COTTAGE LLC		PO BOX 66798	FALMOUTH	ME	04105
3 FARWELL AVE	HARFORD, MARILYN G		777 STEVENS AVE.,	PORTLAND	ME	04103-2686
325 MAIN STREET	BACA ANDREW S	GATTINE MELISSA A	325 MAIN STREET	CUMBERLAND CTR	ME	04021
323 MAIN STREET	FFD MAINE, LLC		323MAIN ST	CUMBERLAND	ME	04021
321 MAIN ST	CURRIE DOUGLAS A	CURRIE CAROLYN R	321 MAIN STREET	CUMBERLAND	ME	04021
319 MAIN STREET	FLASH ISLAND INC		C/O GINN REAL ESTATE	SOUTH PORTLAND	ME	04106
2 VILLAGE WAY	DAVIS JOHN		2 VILLAGE WAY	CUMBERLAND	ME	04021
4 VILLAGE WAY	ARNOLDO, THOMAS	ARNOLDO, CHRISTINE A.	4 VILLAGE WAY	CUMBERLAND	ME	04021
5 VILLAGE WAY	MALLAR, JAMES L	MALLAR, DEBORAH G	5 VILLAGE WAY	CUMBERLAND	ME	04021
7 VILLAGE WAY	RANGER JOHN S	RANGER CAROL B	7 VILLAGE WAY	CUMBERLAND CTR	ME	04021
8 VILLAGE WAY	LEGERE, LORI L		8 VILLAGE WAY	CUMBERLAND	ME	04021
10 VILLAGE WAY	BUFFINTON, LEE		10 VILLAGE WAY	CUMBERLAND	ME	04021
311 MAIN STREET	MAINE SCHOOL ADMIN DIST 51		311 MAIN STREET	CUMBERLAND	ME	04021
314 MAIN STREET	O'DWYER BABETTE*		314 MAIN STREET	CUMBERLAND	ME	04021
318 MAIN STREET	POISSON LISA D		108 MADELINE STREET	PORTLAND	ME	04103
20 HEMLOCK DRIVE	DEMONT, ROBERT D	DEMONT, PRISCILLA T	20 HEMLOCK DR	CUMBERLAND	ME	04021
22 HEMLOCK DR	BANTON CRAIG	BANTON VICKI	22 HEMLOCK DRIVE	CUMBERLAND	ME	04021
17 BALSAM DRIVE	RIOTTE, ELIZABETH		17 BALSAM DRIVE	CUMBERLAND CTR	ME	04021

7) overlay zoning map

Overlay Zoning Map
Cumberland, Maine

I certify this to be a true copy of the Official Zoning Map as amended by vote of the Town Council.

Town Clerk

Adopted: 01/25/1999
Amended: 01/15/2008
Amended: 06/22/2009
Amended: 04/11/2011
Amended: 10/10/2011
Amended: 04/17/2012
Amended: 06/17/2013
Amended: 01/14/2013
Amended: 04/14/2014
Amended: 09/15/2015
Amended: 07/24/2017
Amended: 12/10/2018
Amended: 01/14/2019
Amended: 01/24/2022

Shoreland Overlay Zones

- General Development
- Limited Residential
- Resource Protection
- Stream Protection
- Wetlands

Overlay Zones

- Route 100 Corridor Residential Overlay
- Office Commercial (South) Retail, Restaurant, Multiplex Dwelling, Mixed-Use Overlay
- Senior Housing Community (SHC)
- West Cumberland Housing
- Registered Caregiver (RC)
- Fairgrounds
- Val Halla Golf & Rec Center Overlay
- West Cumberland Field Rec Facility Overlay
- Setback Overlay 1
- Setback Overlay 2 (SB2)
- Manufactured Housing Overlay (MH)
- Mobile Home Park (MHP)
- Land Use Zones

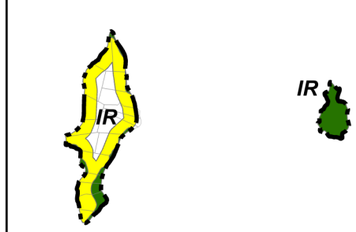
N W E S

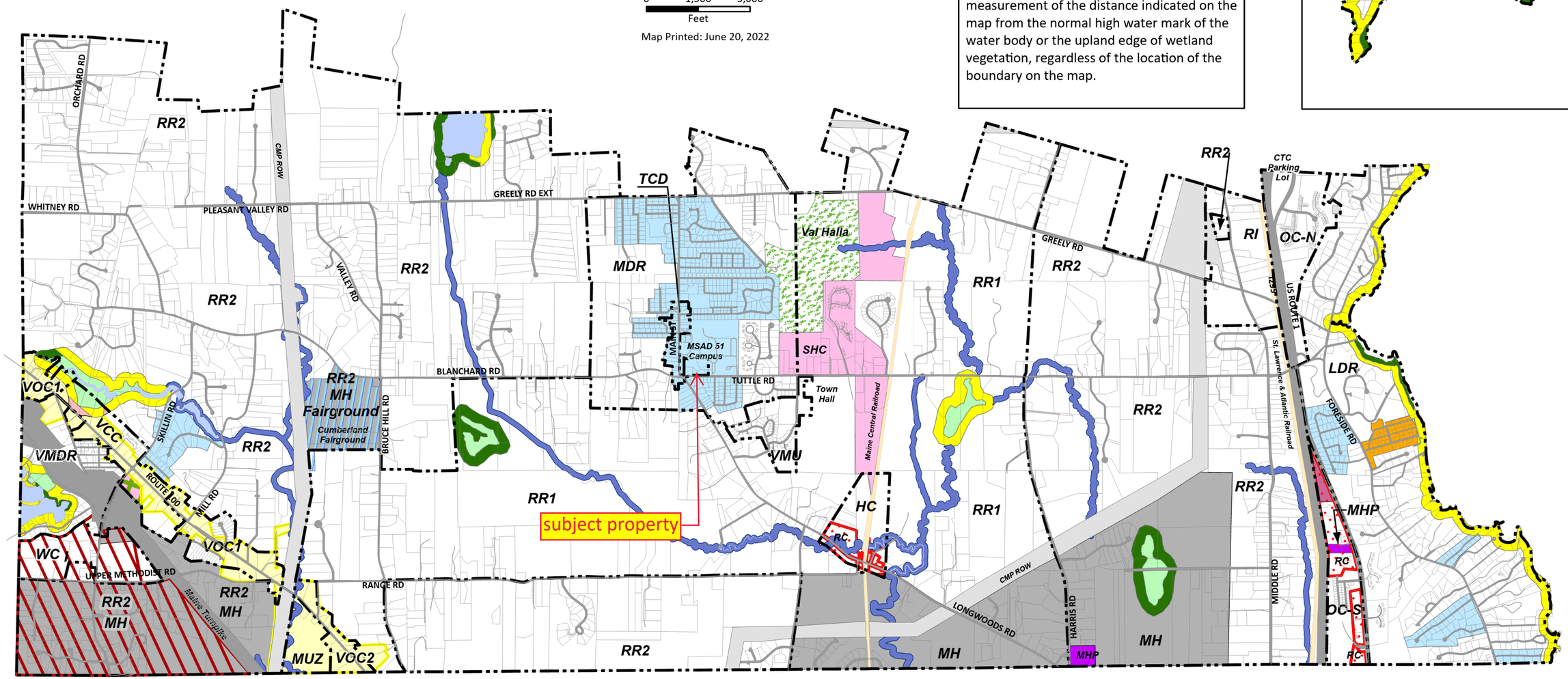
0 1,500 3,000
Feet

Map Printed: June 20, 2022

The depiction of the Shoreland Overlay districts on the Official Zoning Map for the Town of Cumberland is merely illustrative of their general location. The boundaries of these districts shall be determined by measurement of the distance indicated on the map from the normal high water mark of the water body or the upland edge of wetland vegetation, regardless of the location of the boundary on the map.

Inset: Sturdivant and Basket Islands





8) site plan standards responses

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

MSAD 51 Modular Classroom Additions - Site Plan Review Submittal
Response to SECTION 10 - APPROVAL STANDARDS & CRITERIA

10.1 Utilization of the site

Response: The proposed portable classroom buildings at MIW + GMS will be located on existing developed areas with direct access to building support services. These are the most practicable locations for the classroom buildings, providing a secure area for students and minimizing any visual impact of the buildings from the public right-of-way.

The existing Tuttle Town playground will be relocated to the outfield of the softball field at MIW and enlarged, along with the addition of a shade structure. Softball has move elsewhere since the original modulars were located here in 2020. The additional hard play area and Pre-K play area are also being located on areas previously developed adjacent to support services and building access.

The proposed concessions stand will be located at the west end of the football field adjacent to other associated buildings with similar needs with direct access to the access way through the campus.

The proposed project will not have any additional effect on the environment or existing conditions.

10.2. Traffic, Circulation and Parking

10.2.1 Traffic Access and Parking

Response: There are no new drives, streets, parking spaces, or new points of access proposed for this project. Access and drives will remain the same.

10.2.2 Access way Location and Spacing

Response: No new access ways are proposed.

10.2.3 Internal Vehicular Circulation

Response: The building locations provide a minimum 20-foot clearance between the portables and existing school buildings for any emergency access that might be required.

10.2.4 Parking Layout and Design

Response: No existing parking will be affected and no new off-street parking is proposed.

10.2.5 Building and Parking Placement

Response: See comments for 10.2.3 and 10.2.4.

10.2.6 Pedestrian Circulation

Response: The modular classroom buildings are configured with a central, double loaded corridor with bathrooms and utilities in the middle. The proposed site layout for the modular classroom buildings anticipates accessible routes to each building through a wooden accessible ramp on one end/entry and egress steps at both ends/entries. All ramps/stairs will connect to existing paved walkways and hard surface areas.

10.3 Stormwater Management and Erosion Control

10.3.1 Stormwater Management

Response: All existing drainage patterns will be maintained wherever possible. The temporary modular classroom buildings are installed on concrete piers/pads over existing grade, which allows existing drainage to move under them with no disturbance of existing patterns. As such, construction disturbance is minimal. We propose to install four-foot-wide drip edges along each long side of the new and re-located portables. These will be designed to Chapter 500 and provide underdrains that connect to the existing storm system. If any other impervious are added, we can grade these areas to drain to small bio-cells to provide treatment. See Exhibit 9 Stormwater.

10.3.2 Erosion Control

Response: The buildings will be placed over existing developed surfaces; minimal disturbance will be required except for piers/pads and underground utility connections. Both silt fence and silt sack catch basin inlet devices are proposed and detailed.

10.4 Water, Sewer, and Fire Protection

10.4.1 Water Supply Provisions

Response: Water service connections are proposed to each of the modular classroom buildings for both bathrooms and sprinkler systems as well as the concessions stand.

10.4.2 Sewage Disposal Provisions

Response: Sewer service connections are proposed to each of the modular classroom buildings at MIW + GMS. A new sewer service will be required for the concessions stand.

10.4.3 Utilities

Response: Underground power and communication service will connect all modular classroom buildings with the existing school buildings. Power will be connected to the concessions stand.

10.4.4 Fire Protection

Response: All portable classrooms will be fully accessible by emergency vehicles and personnel. A minimum 20- foot clear zone has been maintained between the buildings and the existing school. Sprinkler service connections are proposed to each of the modular classroom buildings.

10.5 Water protection

10.5.1 Groundwater Protection

Response: The modular classrooms are served by public water and sewer and will not impact any groundwater sources on adjacent properties.

10.5.2 Water Quality

Response: The modular classrooms are served by public sewer so no water quality issues. No hazardous materials are proposed to be used at this site.

10.5.3 Aquifer Protection

Response: Based on our review of the Town Aquifer Map, we believe the site is not located within the Town Aquifer Protection Area.

10.6 Floodplain Management

Response: The project site is not located within a special flood hazard area as identified in the latest FEMA flood maps.

10.7 Historic and Archaeological Resources

Response: The project was previously reviewed by the Maine Historic Preservation Commission as part of the DEP Site Location of Development Permit and no historic or archeological resources are known to exist.

10.8 Exterior Lighting

Response: School uses are proposed to occur during daytime hours. The existing school buildings has several wall-mounted lights that provide security lighting for the hard surface play area and internal walkway, and it is anticipated these lights will remain and provide adequate lighting for the core area. The modular classroom buildings have light at their ends for egress safety and at regular intervals along their lengths.

10.9 Buffering and Landscaping

10.9.1 Buffering of Adjacent Uses

Response: The proposed project site is well located withing the interior of the Campus, which is all compatible with the proposed use. No buffering is required for this use.

10.9.2 Landscaping

Response: No new plant material is proposed for this project.

10.10 Noise

Response: The classroom buildings will be located well within the project boundaries and will not generate any new noise that might be considered objectionable to neighboring properties.

10.11 Storage of Materials

Response: There are no additional storage or waste removal systems (dumpsters) proposed for this project.

10.12 Capacity of the Applicant

Response: A financial capacity letter, and list of Design Team members has been provided as part of the application submittal.

10.13 Design and Performance Standards

10.13.1 Route 100 Design Standards

Response: The project lies in the Town MDR zoning district and is not subject to the Route 100 Design Standards.

10.13.2 Route 1 Design Guidelines

Response: The project lies in the Town MDR zoning district and is not subject to the Route 1 Design Standards.

10.13.3 Town Center District Performance Standards

Response: The project lies in the Town MDR zoning district and is not subject to the Town Center District Performance Standards.

10.13.4 Village Mixed Use Performance Standards

Response: The project lies in the Town MDR zoning district and is not subject to the Village Mixed Use Performance Standards.

9) stormwater management narrative

GREELY CAMPUS TEMPORARY CLASSROOM ADDITIONS
STORMWATER MANAGEMENT NARRATIVE

Introduction - The project consists of the addition of two new portable classroom buildings, a shade structure, a small concession stand, the re-location of a third portable classroom building and the removal five existing portable classroom buildings on the existing school campus. Minor reconfiguration of other existing ancillary site improvements will be required to accommodate the new building locations. All proposed work is within the existing developed area of the site and there will be no expansion of the previously established limits of disturbance.

Existing Conditions – The new modular classroom buildings will be located at existing building locations, on existing playground, walkways and adjacent lawn areas at the site. The topography of the proposed building locations is generally flat, with gentle slopes (1-2%) away from the existing buildings. Soils in the area of the proposed improvements are identified by the Natural Resource Conservation Service (NRCS) Web Soil Survey as Nicholville series sandy loams and Windsor series loamy sands. Nicholville series soils are described as moderately well drained glaciomarine deposits. Depth to restrictive layer is generally greater than 80 inches, with seasonal high water table elevations between 18 and 30 inches below the surface. The saturated hydraulic conductivity (Ksat) is moderately low to moderately high with values of between 0.14in/hr and 1.42 in/hr typical. Windsor series soils are described as excessively drained outwash deposits. Depth to restrictive layer is generally greater than 80 inches, with seasonal high water table elevations greater than 80 inches below the surface. The saturated hydraulic conductivity (Ksat) is moderately high to very high with values of between 1.42in/hr and 99.90 in/hr typical.

The Greely campus is in the watershed of the East Branch Piscataqua River, a tributary to the Presumpscot River. The site is served by a stormwater management system that includes ponds to the south of the Mabel Wilson school and to the northwest of the Greely Middle School

Proposed Improvements – Adjacent to the Mabel I Wilson School the existing 10 classroom portable will be re-located to the east, over the existing playground, and a new 12 classroom portable will be installed parallel with the access drive and parking area on the northeast side of the main school building. The two existing 2 classroom portables located on the east side of the school will be removed and the existing playground will be re-located to this area. A shade structure is proposed adjacent to the relocated playground similar to the existing shade structure at Greely Middle School.

Adjacent to the Greely Middle School the three 2 classroom portables will be removed and replaced by a single 10 classroom portable in approximately the same location. A small concessions building will be located between the track and the football field.

The Stormwater Management Plan for the new classroom additions aims to supplement the existing stormwater system by capturing and treating runoff from the roof areas of the new buildings in filtering drip strips, before allowing it to drain to the existing site infrastructure. This will effectively disconnect runoff from the new impervious area associated with the new buildings, providing localized treatment and detention, while maintaining existing site drainage patterns.

Filtering Drip Strip Sizing - The treatment storage area of the filtering drip strips have been sized to accept and treat the runoff from a one-inch storm event over the contributing roof area. Each half of the roof is 34 feet wide. The runoff volume per linear foot of roof is as follows:

34ft x 1/12 = 2.83 cu.ft per linear foot

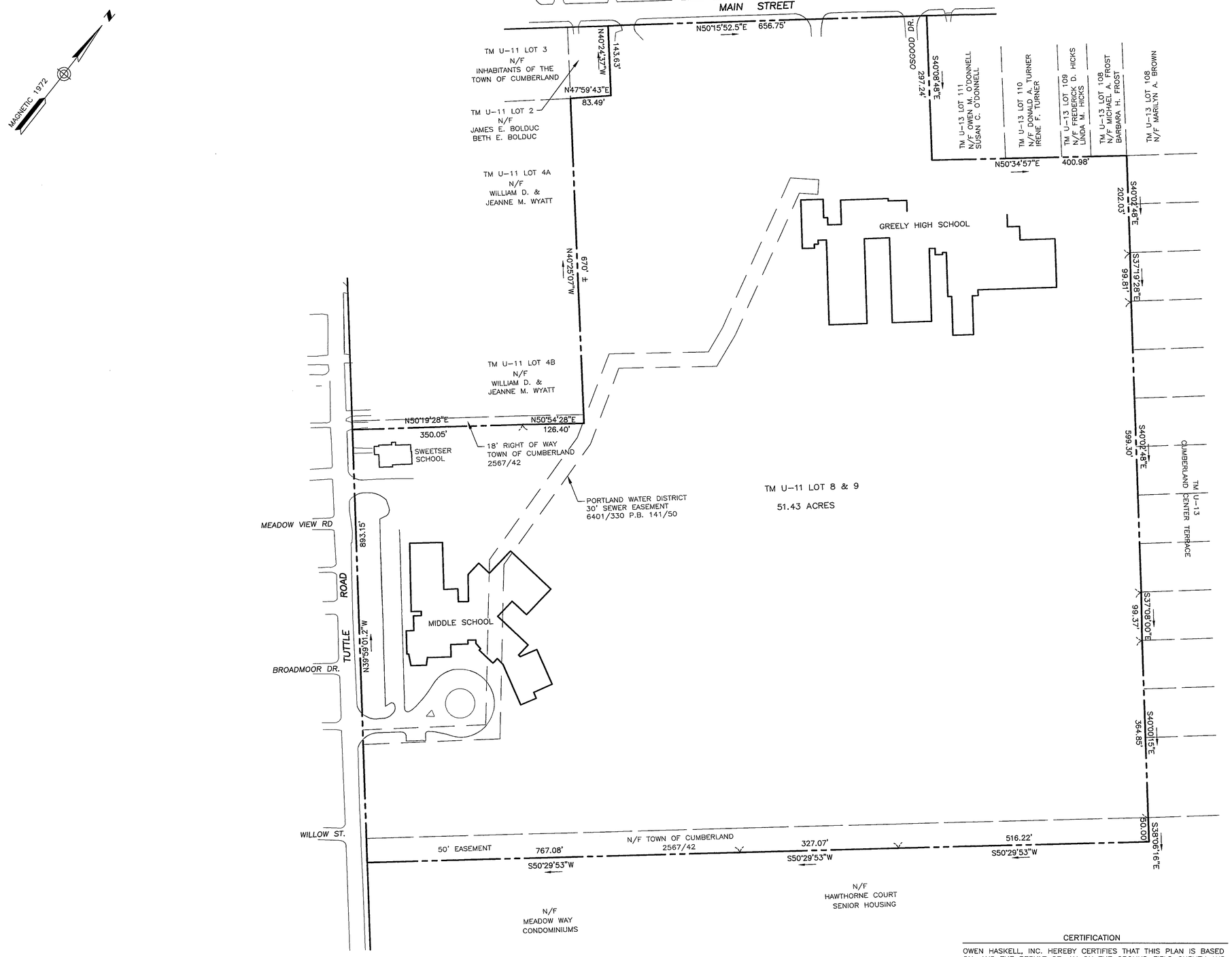
Assuming a void ratio of 40% in open graded stone, a four-foot wide strip, two feet deep provides the following:

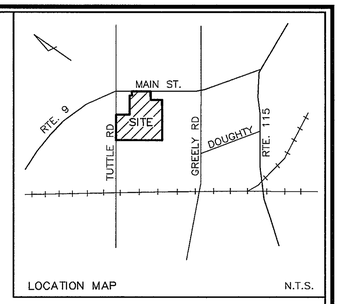
4 x 2 x 0.4 = 3.2 cu.ft per linear foot

Therefore, a drip strip with a storage area four feet wide and two feet deep provides sufficient treatment storage to treat the first one inch of roof runoff (the 90 percentile annual storm). The storage layer of the drip edge filter will be underlain by a one foot deep filtering sand layer. During normal storm events the filtering drip strips will drain by infiltration to the underlying soils at an estimated rate of between 0.5in/hr and 1in/hr. The fine sandy loam soils will effectively filter and treat the roof runoff and allow beneficial groundwater recharge. Excess rainfall entering the drip strips during large storms will be evenly distributed to surrounding soils, or drain via sheet flow across the surface to existing drain inlets.

The size and scope of this project, and the limited changes to the existing developed and impervious areas does not warrant runoff and routing calculations as any impact on overall runoff rates from the site will be negligible. It is our opinion that the additional storage provided by the drip strips, and the infiltration capacity of the underlying soils will adequately compensate for the minor increase in runoff due to the additional impervious area.

The drip strips will need to be maintained on a regular basis to ensure their continued function. Basic maintenance will include quarterly inspection and removal of debris from the stone surface. If surface ponding on the strip is evident after rainfall events, the stone surface layer will need to be removed and replaced.





PLAN REFERENCES

1. PLAN OF PROPERTY IN CUMBERLAND, MAINE MADE FOR THE MEADOWS STANDARD BOUNDARY SURVEY DATED 29 AUGUST 1986 BY H.I. & E.C. JORDAN.
2. STANDARD BOUNDARY SURVEY AND TOPOGRAPHIC PLAN TUTTLE ROAD, CUMBERLAND, MAINE MADE FOR S.A.D. #51 DATED JAN. 4, 1993 DRAWING NO. L-0.1 BY OWEN HASKELL, INC.
3. MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP STATE HIGHWAY "138" CUMBERLAND FEDERAL AID PROJECT NO. RS-STP-138S(1) D.O.T. FILE NO. 3-397 SHEETS 1, 2, 3 AND 4 OF 12 DATED APRIL 1992.

NOTES

1. OWNER OF RECORD: TOWN OF CUMBERLAND, DEED BOOK 933 PAGE 65; BOOK 2277 PAGE 1; BOOK 2257 PAGE 225; BOOK 2567 PAGE 42; BOOK 2567 PAGE 40; GREELY INSTITUTE BOOK 932 PAGE 457; S.A.D. #51 BOOK 2960 PAGE 426; BOOK 2980 PAGE 80; BOOK 2986 PAGE 584.
2. BEARINGS ARE BASED ON MARKERS FOUND. AS SHOWN ON PLAN REFERENCE 3.
3. REFERENCE IS MADE TO EXISTING CONDITIONS PLAN MSAD #51 MIDDLE SCHOOL, TUTTLE ROAD, CUMBERLAND MAINE DATED JAN. 23, 2002 BY OWEN HASKELL, INC. FOR SITE IMPROVEMENTS.

CERTIFICATION

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

4/8/02
DATE

JOHN W. SWAN, PLS #1039

STATE OF MAINE
JOHN W. SWAN
NO. 1039
PROFESSIONAL
LAND SURVEYOR

GRAPHIC SCALE
0 50' 100' 200' 400'

SHEET
S-2.0

REV. 1	04-08-02	D.O.T. BASIS OF BEARINGS

STANDARD BOUNDARY SURVEY
MSAD #51
SCHOOL COMPLEX
TUTTLE ROAD
CUMBERLAND, MAINE

OWEN HASKELL, INC.
16 CASCO ST., PORTLAND, ME 04101 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drwn By	JLW	Date	Job No.
Trace By	RWC/JLW	MARCH 8, 2002	2001-246C
Check By	JWS	Scale	Drwg. No.
Book No.	–	1" = 100'	2

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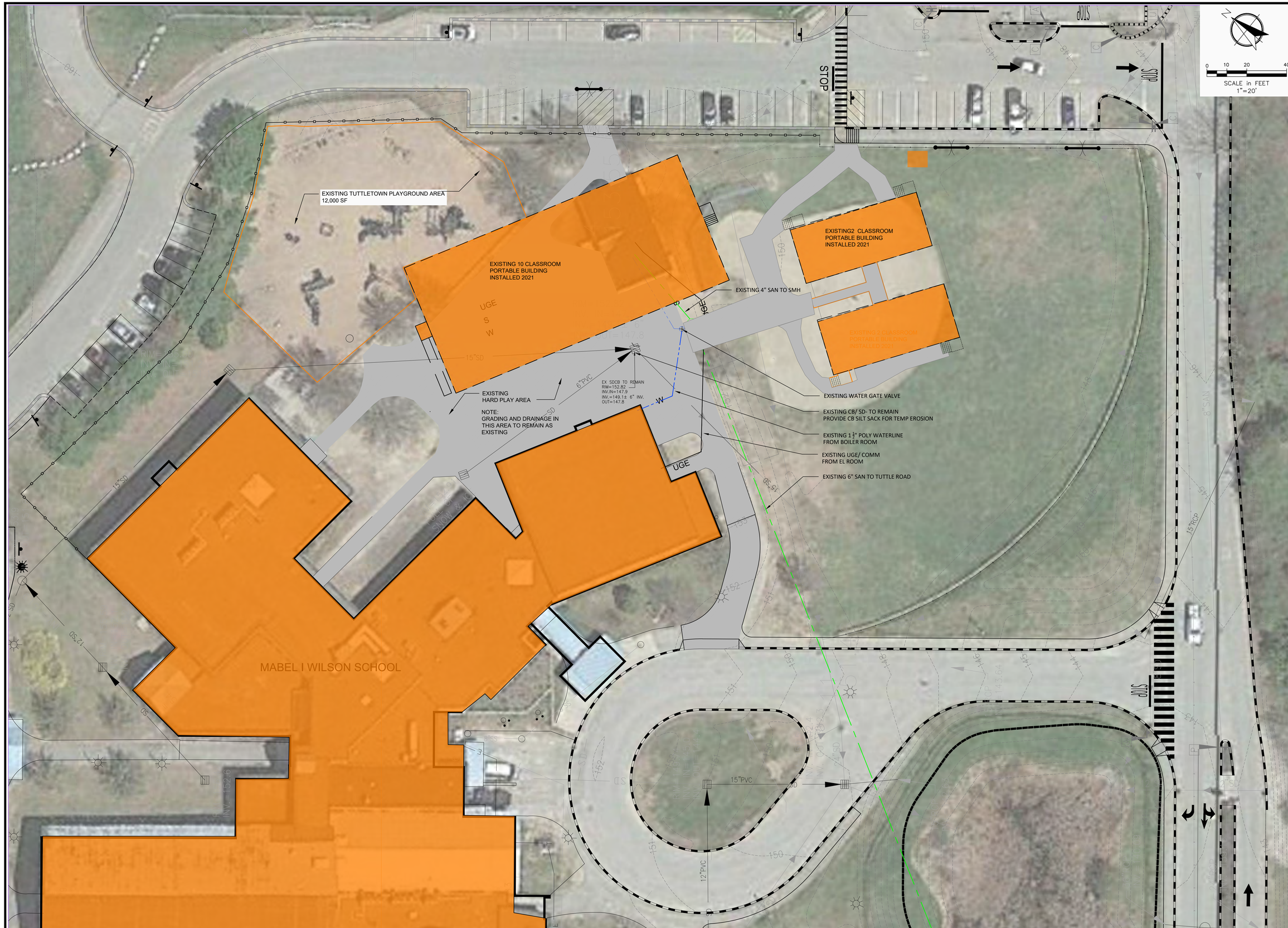


OWNER:

MSAD #51
Cumerland, Maine

Project:
MSAD 51
MODULAR CLASSROOM
ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

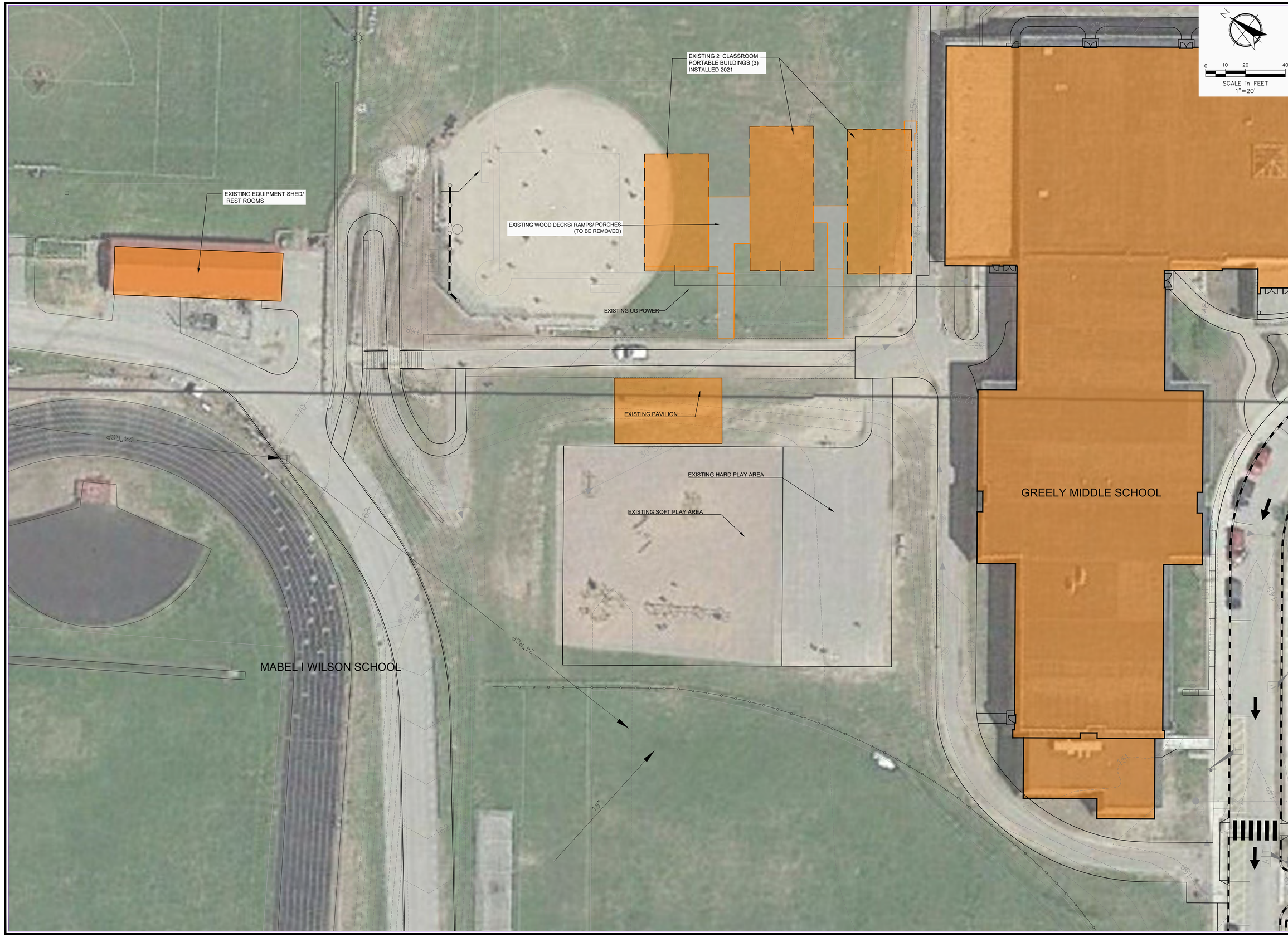
EXISTING
CONDITIONS
PLAN- MIW

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
MARCH 31, 2023

Sheet No:
L-1.0



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Cumerland, Maine

Project:
MSAD 51
MODULAR CLASSROOM
ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

EXISTING
CONDITIONS
PLAN- GMS

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
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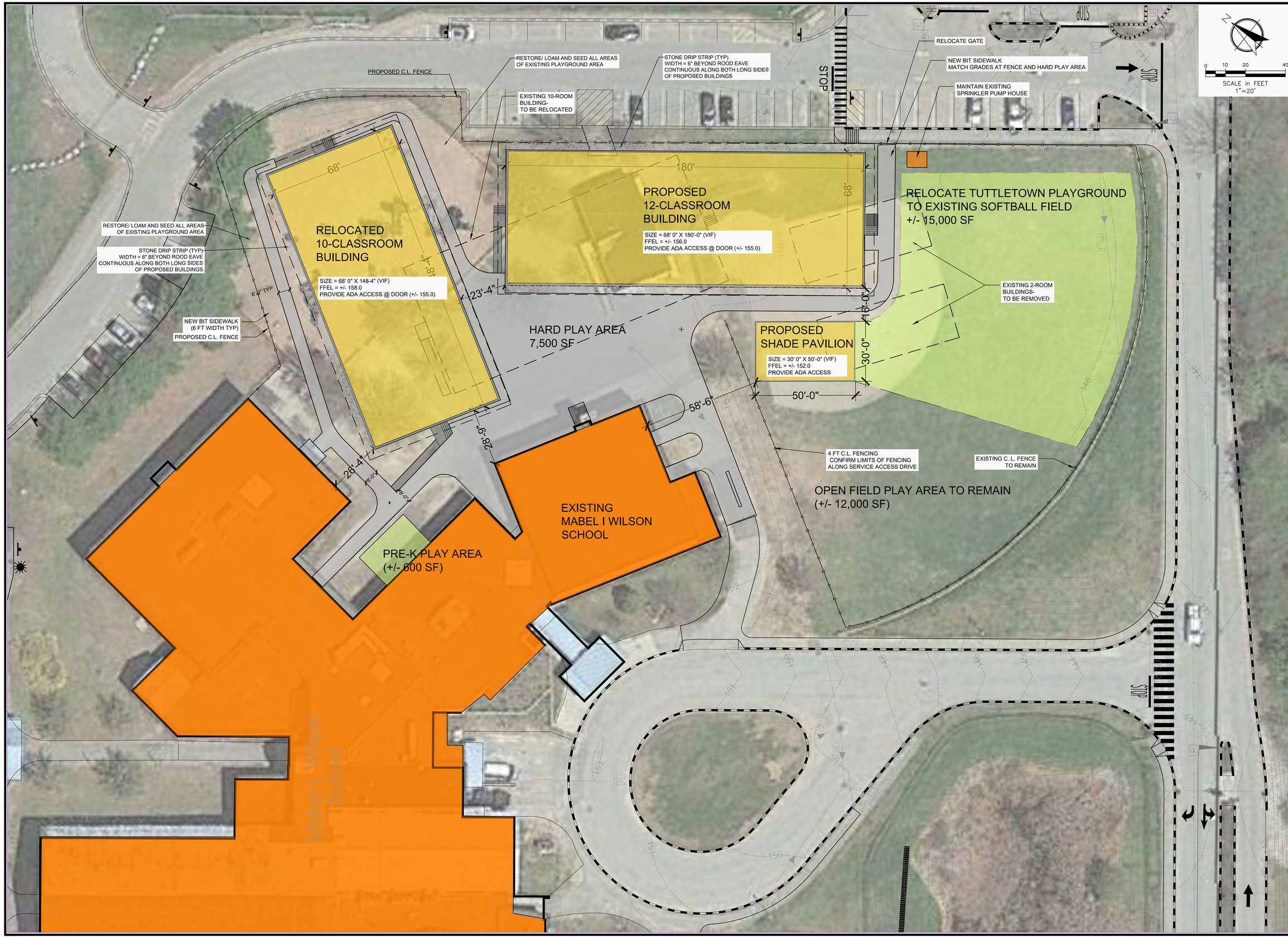

OWNER:

MSAD #51
Cumberland, Maine

Project:
MSAD 51 MODULAR CLASSROOM ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

SITE LAYOUT PLAN- MIW

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
MARCH 31, 2023

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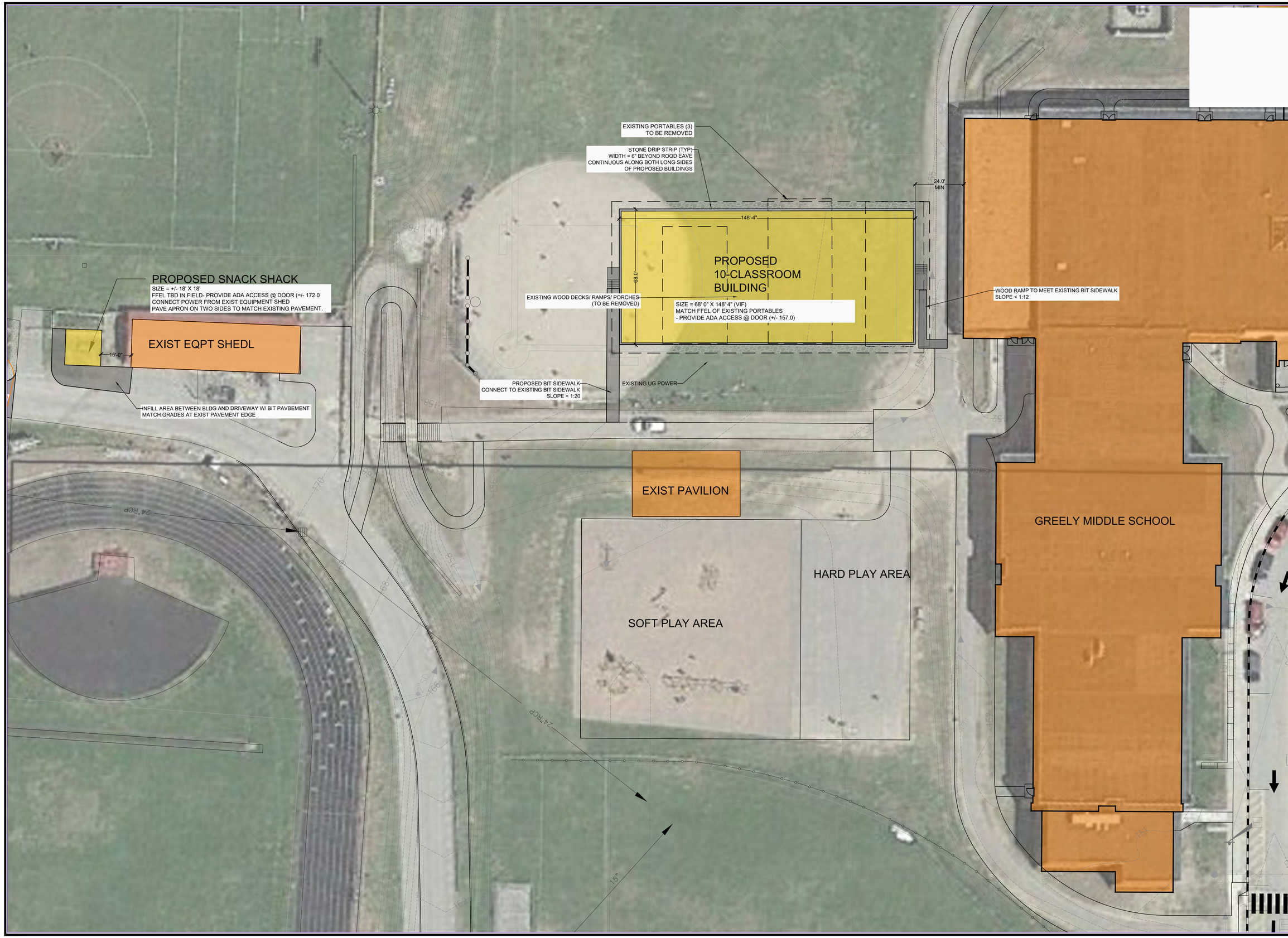

OWNER:

MSAD #51
Cumerland, Maine

Project:

MSAD 51
MODULAR CLASSROOM
ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

SITE LAYOUT
PLAN- GMS

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
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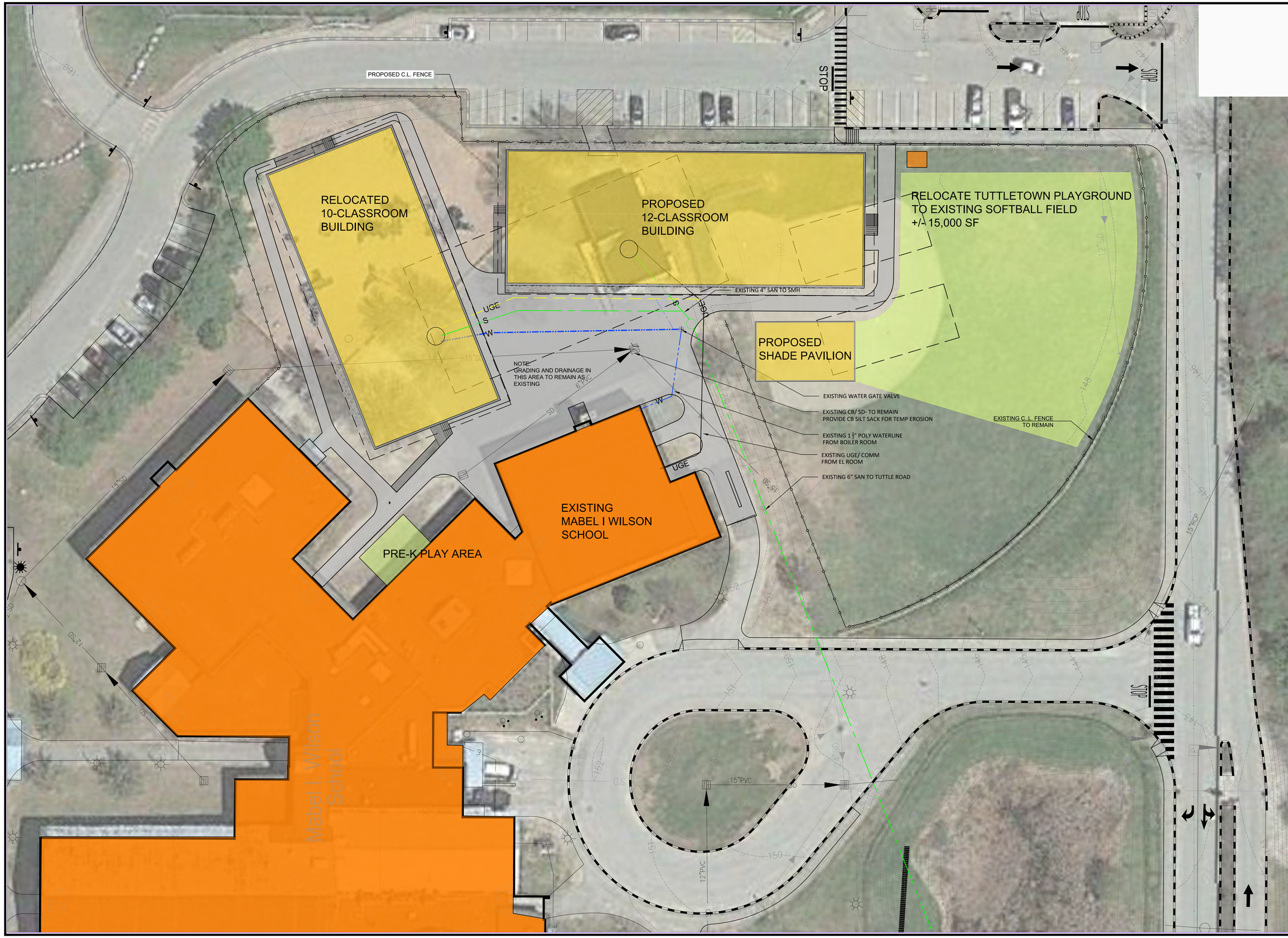

OWNER:

MSAD #51
Cumerland, Maine

Project:

MSAD 51
MODULAR CLASSROOM
ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

SITE UTILITY
PLAN- MIW

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
MARCH 31, 2023

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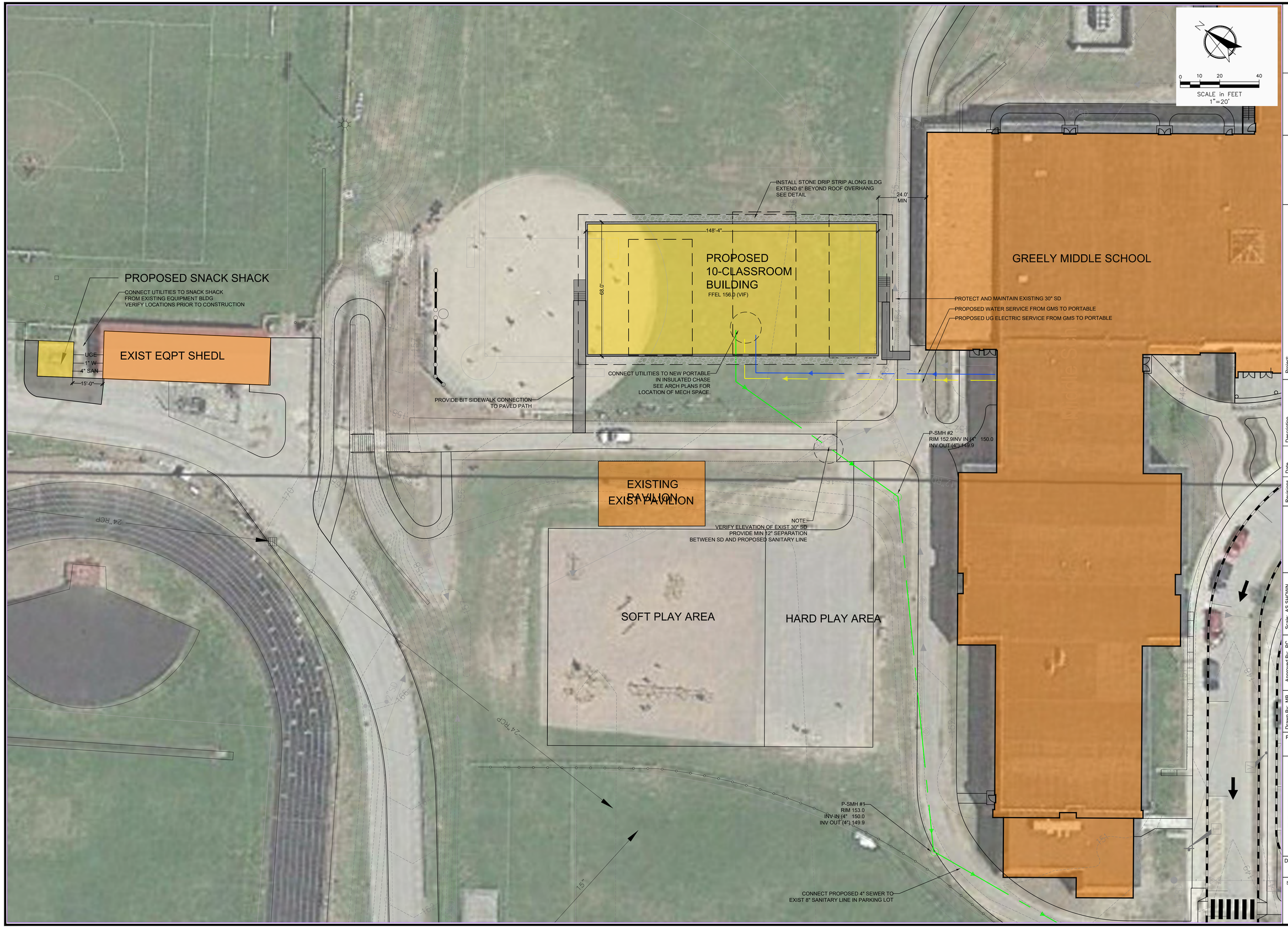

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Cumerland, Maine

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MODULAR CLASSROOM
ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

SITE UTILITY
PLAN- GMS

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
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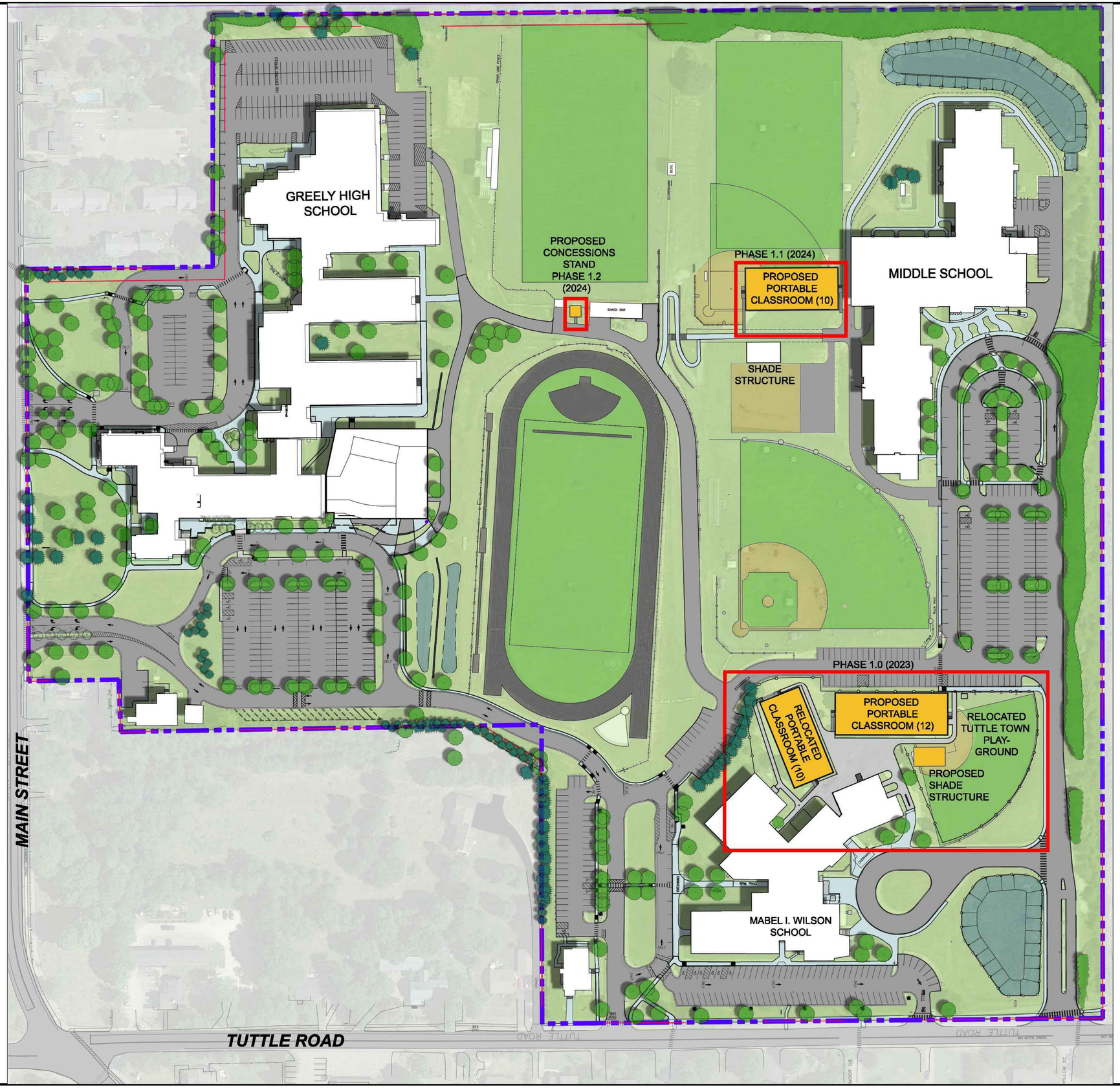

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SCALE in FEET
1"=80'

OWNER:
MSAD #51
Cumerland, Maine

Project:
MSAD 51
MODULAR CLASSROOM
ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

PHASING

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
MARCH 31, 2023

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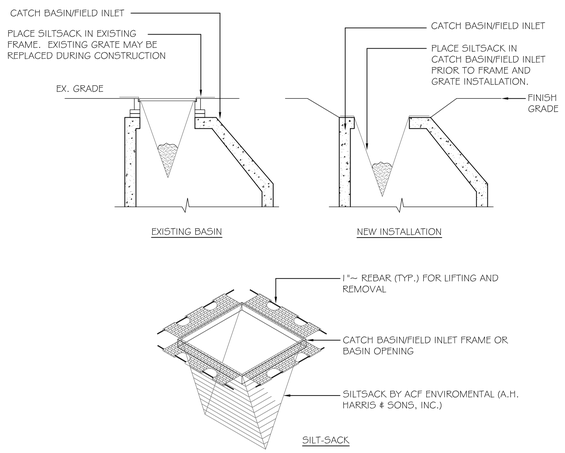
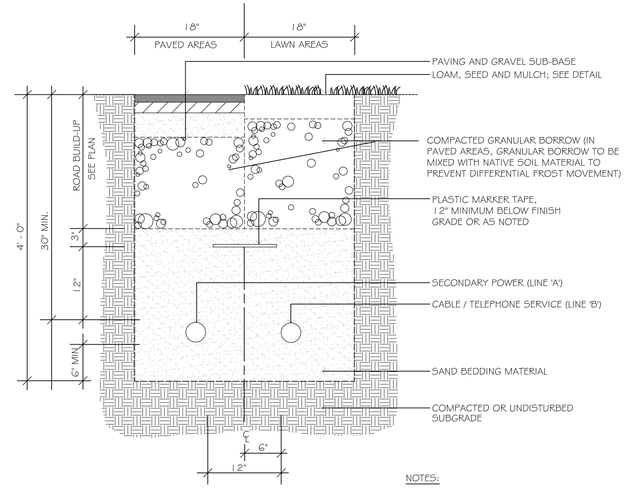


NOTES:

1. INSTALLATION PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
2. EMPTY AND REMOVE SEDIMENT FROM SILTSACK WHEN RESTRAINT CORD IS NO LONGER VISIBLE. CLEAN, RINSE AND REPLACE AS NEEDED.
3. CONTRACTOR SHALL INSPECT CATCH BASIN PROTECTION AFTER EACH MAJOR STORM EVENT AND CLEAN SILT AS NEEDED.
4. CIRCULAR UNITS SHALL BE USED FOR CIRCULAR CATCH BASIN GRATES.

1 CATCH BASIN PROTECTION
SCALE: NTS

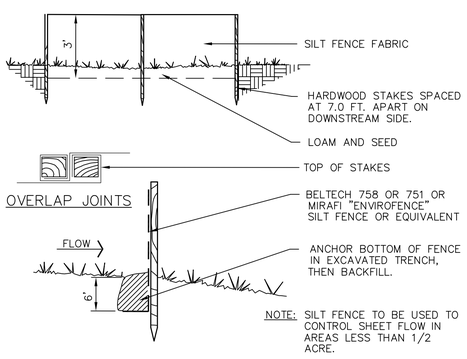


SERVICE	CONDUIT SIZE*	CONDUIT TYPE	UTILITY
'A'	4"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	SECONDARY POWER
'B'	4"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	TELEPHONE / CATV

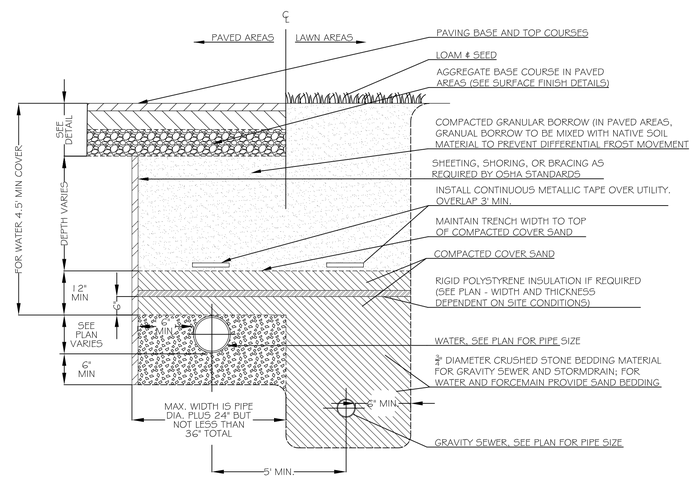
NOTES:

1. ALL WORK SHALL COMPLY WITH THE RESPECTIVE UTILITY COMPANY STANDARDS.
2. SEE UTILITIES PLANS FOR CONDUIT LOCATIONS.
3. CONTRACTOR TO PROVIDE 1/4" POLYPROPYLENE PULL ROPES IN ALL CONDUITS.
4. CONTRACTOR SHALL VERIFY CONDUIT SIZE WITH APPLICABLE UTILITY COMPANIES.

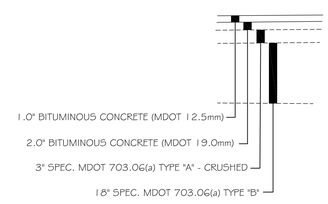
3 ELECTRICAL + TELCOMS TRENCH
SCALE: NTS



2 SILT FENCE
SCALE: NTS



4 PIPE TRENCH
SCALE: NTS



5 PAVEMENT TRENCH REPAIR
SCALE: NTS

OWNER:

MSAD #51
Cumerland, Maine

Project: MSAD 51 MODULAR CLASSROOM ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

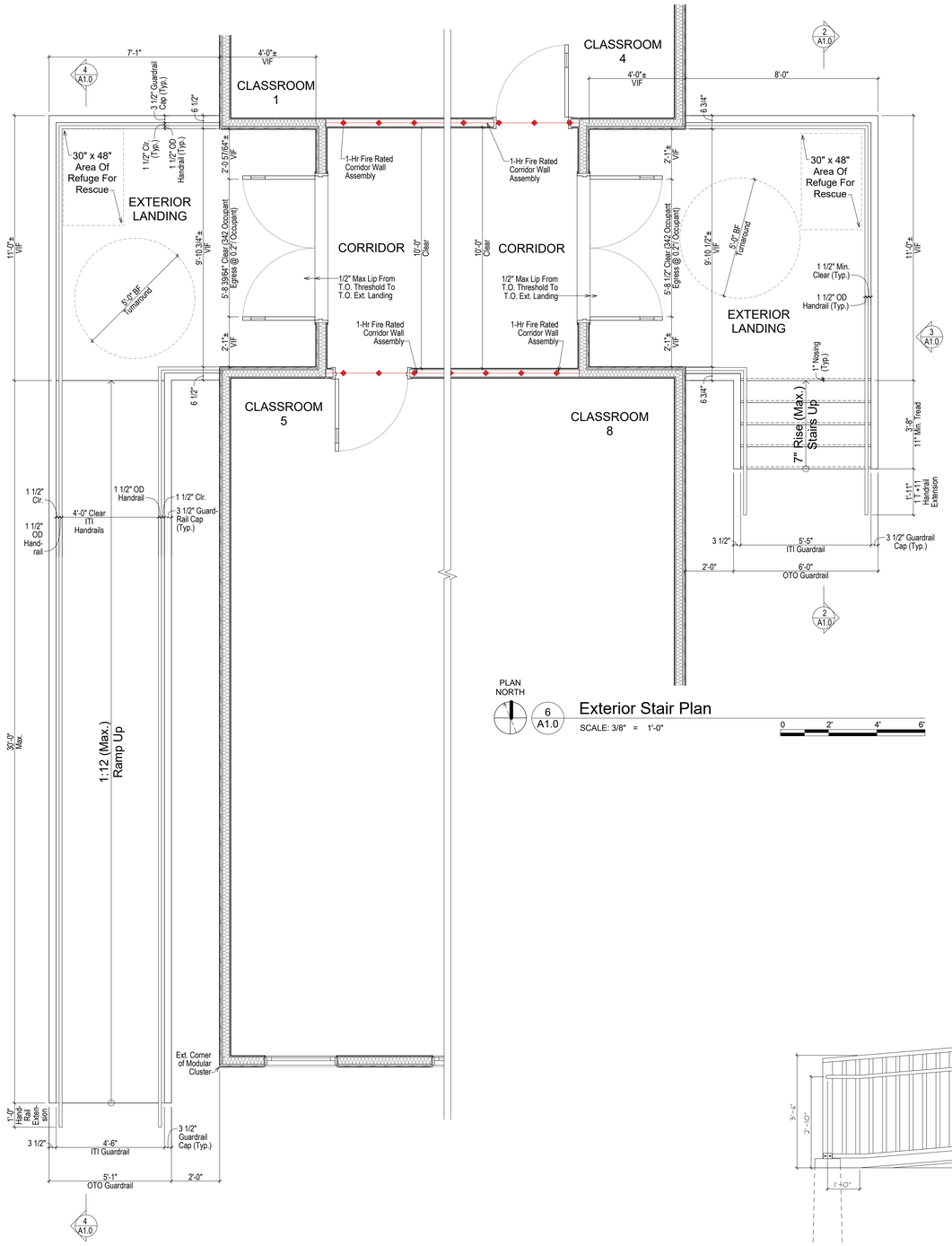
SITE DETAILS

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
MARCH 28, 2023

Sheet No:
L-5.0



6 A1.0 Exterior Stair Plan

SCALE: 3/8" = 1'-0"

5 A1.0 Exterior Ramp Plan

SCALE: 3/8" = 1'-0"

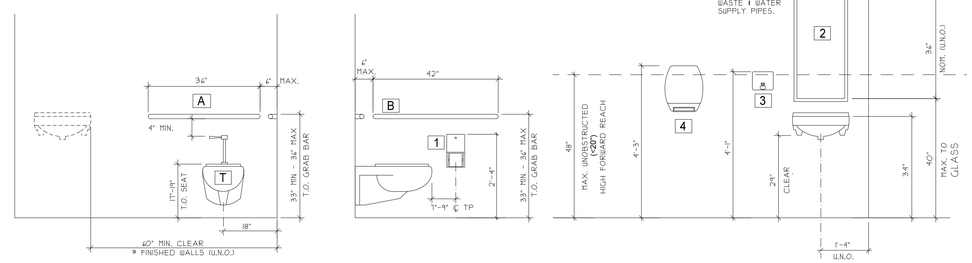
TOILET ACCESSORIES KEY (N.T.S)

- A — 36" HORIZONTAL GRAB BAR
- B — 42" HORIZONTAL GRAB BAR
- T — TOILET (ADA HEIGHT)
- 1 — SURFACE MOUNTED TOILET TISSUE DISPENSER (N.I.C.) (SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR)
- 2 — WALL HUNG SINK W/ 18" X 34" NOM. MIRROR
- 3 — WALL MOUNTED SOAP DISPENSER (N.I.C.) (SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR)
- 4 — AUTOMATIC ROLL PAPER TOWEL DISPENSER (N.I.C.) (SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR)

NOTES

1. MIRRORS (18" X 34" NOM.) TO BE CENTERED OVER SINKS, U.N.O.
2. PROVIDE APPROPRIATE BLOCKING IN WALLS BEHIND ALL FIXTURES, PARTITIONS, EQUIPMENT, AND ACCESSORIES.
3. PROVIDE MOP AND BROOM HOLDER AT ALL JANITOR ROOMS.
4. SEE FLOOR PLANS FOR PARTITION TYPES.

STANDARD ADULT & H.C. ACCESSIBLE
(VERIFY ADA MOUNTING HEIGHTS WITH MANUFACTURER'S INSTRUCTIONS)

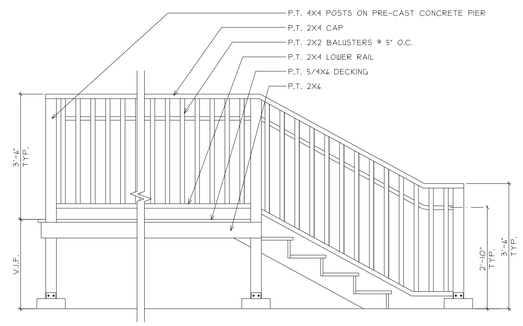


1 A1.0 Interior Elevations - Typical Mounting Heights

SCALE: 1/2" = 1'-0"

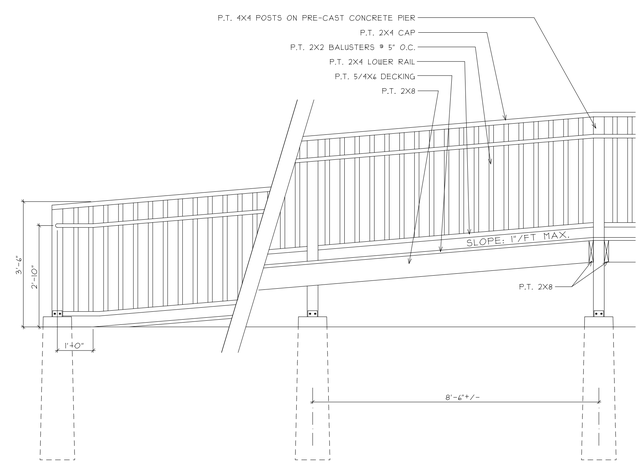
Notes:

1. Please see Sheet 2 of 3 For Fire Alarm, Smoke Alarm, and Emergency Lighting Locations. Smoke detectors Shall Be ***Combination*** Smoke / **CO** Detectors.
2. Exterior Landings Are ***Both*** Sized For Area Of Refuge For Rescue.



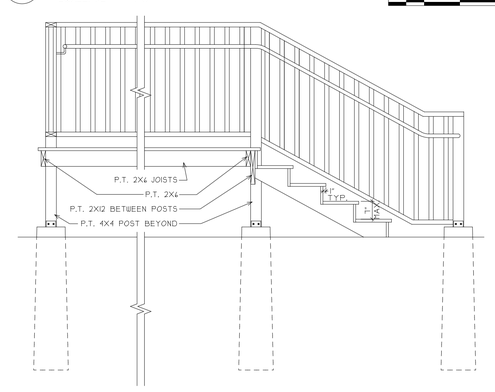
3 A1.0 Elevation - Exterior Stair

SCALE: 1/2" = 1'-0"



4 A1.0 Section - Exterior Ramp

SCALE: 1/2" = 1'-0"



2 A1.0 Section - Exterior Ramp

SCALE: 1/2" = 1'-0"

MSAD 51 Mabel I. Wilson Elementary Portable Cluster

353 Tuttle Rd.
Cumberland Center, ME 04021

Revisions

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REGISTERED ARCHITECT STEPHEN J. BLATT No. 858 STATE OF MAINE

Consultants

Structural Engineer:
Nader Tomasbi, P.E.

KEY

Job No.:	20.06
Date:	5/1/2020
Scale:	As Noted
Drawn by:	spr
Checked by:	

Drawing Title:
Stair, Ramp, & Mounting Height Details

A1.0

P:\MSAD 51 MIW Portable Cluster\Drawings\MIW_2006_Portables_Cluster.pln

GENERAL NOTES:

1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION APPROVAL. THE PRIMARY ENTRANCE MUST BE ACCESSIBLE.
2. ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
3. ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
4. ALL STEEL STRAPS REFERENCED ON FLOOR PLAN SHALL BE 1.5 INCH x 26 GA. WITH 7 – 15 GA. x 7/16 INCH GROWN x 1 INCH STAPLES EACH END OF STRAP OR EQUIVALENT FROM RIDGE BEAM TO COLUMN, AND COLUMN TO FLOOR.
5. PORTABLE FIRE EXTINGUISHER PER N.F.P.A. – 10 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION.
6. PROVISIONS FOR EXIT DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE BUILDING OWNER AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
7. WHEN LOW SIDES OF ROOF PROVIDE LESS THAN 6" OF OVERHANG, GUTTERS AND DOWN SPOUTS SHALL BE SITE INSTALLED, DESIGNED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
8. IN WIND–BORNE DEBRIS REGIONS, EXTERIOR GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT RESISTANT COVERING MEETING THE REQUIREMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM E1996. WIND–BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE IBC.
9. WINDOWS AND DOORS MUST BE CERTIFIED FOR COMPLIANCE WITH THE WIND DESIGN PRESSURE FOR COMPONENTS AND CLADDING.
10. A FIRE ALARM MUST BE SITE INSTALLED BY OTHERS, SUBJECT TO APPROVAL BY AUTHORITY HAVING JURISDICTION.

NOTE:
THE INCORPORATION OF THESE TWO MODULES INTO THE EXISTING BUILDING IS SUBJECT TO REVIEW AND APPROVAL BY AUTHURITY HAVING JURISDICTION.

PLUMBING NOTES:

1. WHEN RESTROOM FACILITIES AND/OR PLUMBING FIXTURES REQUIRED PER IPC/NCPC SECTION 403 ARE NOT PROVIDED WITHIN THE BUILDING, A HANDICAPPED ACCESSIBLE FACILITY MUST BE PROVIDED ON SITE WITHIN THE ALLOWABLE DISTANCE PER CODE. THE REQUIRED FACILITY SHALL BE THE RESPONSIBILITY OF THE BUILDING OWNER AND IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THIS NOTE SHALL BE INDICATED ON THE DATA PLATE

WINDOW & DOOR SPECIFICATIONS

1. DBL. PANE WINDOWS ARE REQUIRED FOR ALL CLIMATE ZONES. SEE THE COMCHECK ENERGY CALCULATIONS FOR THE MAXIMUM ALLOWED U–FACTOR AND SHGC.
2. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR WINDOWS IS 0.3 CFM PER SQUARE FEET OF WINDOW AREA.
3. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR EXTERIOR DOORS IS 0.3 CFM PER SQUARE FEET OF DOOR AREA.

ELECTRICAL NOTES:

1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "CLOSET STORAGE SPACE" AS DEFINED BY NEC ARTICLE 410.8.
3. WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
4. HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS WITH NO POLE IN THE GROUNDED CIRCUIT CONDUCTOR MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
5. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERWINDING MATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE W/ARTICLES 110.8 & 110.10 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
6. THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, ON CABLE CONNECTORS.
8. ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF, "WHEN IN USE" COVERS, RECEPTACLES SHALL BE RATED FOR USE WHEN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED. THE RECEPT ITSELF SHALL ALSO BE LISTED FOR DAMP AND WET LOCATIONS AS PER NEC.
9. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.
10. THE BUILDINGS FIRE ALARM SYSTEM (PROTECTIVE SIGNALING SYSTEMS, FIRE DETECTION SYSTEMS, ETC.) SHALL BE DESIRNED IN ACCORDANCE WITH NFPA 101 AND NFPA 72 AND SITE INSTALLED BY OTHERS SUBJECT TO LOCAL BUILDING OFFICIAL REVIEW AND APPROVAL. THE FIRE ALARM CONTROL PANEL MUST BE INSTALLED IN A HIGHLY VISIBLE LOCATION ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION. (THE FACP CANNOT BE INSTALLED IN A CLOSET OR BATHROOM).
11. TAMPER RESISTANT RECEPTS TO BE PROVIDED IN EDUCATION BUILDING SERVING ELEMENTARY, PRE–SCHOOL AND YOUNGER.

MECHANICAL NOTES:

1. ALL SUPPLY AIR REGISTERS SHALL BE 14 INCHES x 14 INCHES ADJUSTABLE WITH 8 INCHES x 18 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS SHALL BE INSULATED PER THE REQUIRMENTS OF THE APPLICABLE ENERGY CODES
2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AR RETURN AND/OR AS NOTED ON FLOOR PLAN (FOR UNRATED DOORS)
3. HVAC EQUIPMENT SHALL BE EQUIPPED W/OUTSIDE FRESH AIR INTAKES PROVIDING 10 CFM PER PERSON & 0.12 CFM PER S/F. BLDG. AREA PER SECTION 403.3 OF IMC.
4. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
5. THERMOSTATS MUST BE PROGRAMMABLE
6. EXHAUST FANS SHALL PROVIDE A MINIMUM OF 70 CFM FOR EACH WATER CLOSET AND URINAL.

ATTENTION LOCAL INSPECTIONS DEPARTMENT

SITE INSTALLED ITEMS

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY THE MANUFACTURER, HAVE NOT BEEN INSPECTED BY EMC AND ARE NOT CERTIFIED BY THE STATE MODULAR LABEL. NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIAL THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL. CODE COMPLIANCE MUST BE DETERMINED AT THE LOCAL LEVEL.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
3. PORTABLE FIRE EXTINGUISHER(S).
4. SPRINKLER SYSTEM (WHEN 2018 NFPA 101 IS APPLICABLE AS REQUIRED BY AHJ)
5. ELECTRICAL SERVICE HOOK–UP (INCLUDING FEEDERS) TO THE BUILDING.
6. THE MAIN ELECTRICAL PANEL AND SUB–FEEDERS
7. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATE(LINES) – (MULE–LINES ONLY).
8. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI–UNITS ONLY).
9. FIRE INSPECTION
10. FIRE ALARM/SPRINKLER PROTECTION (SEE GENERAL NOTE NO. 8)
11. TRAP PRIMERS
12. GAS METER
13. GAS PIPING
14. GAS HOOK–UP
15. DIAPER CHANGING TABLES

STRUCTURAL LOAD LIMITATIONS

BUILDING RISK CATEGORY: II

FLOOR LIVE LOAD:
A. 40 PSF; 100 PSF CORRIDOR
B. 1000 LB. CONCENTRATED LOAD OVER 30 INCH x 30 INCH AREA LOCATED ANYWHERE ON FLOOR

ROOF LIVE LOAD:
A. 30 PSF

ROOF SNOW LOAD:
A. Pg = 100 PSF — GROUND SNOW LOAD
B. Pf = 77 PSF — FLAT ROOF SNOW LOAD
C. Ce = 1.0 — SNOW EXPOSURE FACTOR
D. Is = 1.1 — SNOW IMPORTANCE FACTOR
E. Ct = 1.1 — SNOW THERMAL FACTOR

WIND LOAD: — ASCE 7–10
A. 140 MPH Vult — WIND SPEED
B. 109 mph Vasd — WIND SPEED
C. Iw = 1.0 — WIND IMPORTANCE FACTOR
D. — WIND EXPOSURE CATEGORY.
E. Cg/pi= 0.18 — INTERNAL PRESSURE COEFFICIENT
F. ROOF ZONE 1: P = 14.8 PSF (Psad = –23.5 PSF)
ROOF ZONE 2: P = 14.8 PSF (Psad = –40.9 PSF)
ROOF ZONE 3: P = 14.8 PSF (Psad = –60.4 PSF)
ROOF ZONE 4: P = 23.5 PSF (Psad = –25.4 PSF)
ROOF ZONE 5: P = 23.5 PSF (Psad = –31.3 PSF)

OH EXTERIOR ZONE: P = 51.7 PSF
OH CORNER ZONE: P = 84.3 PSF

G. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.

SEISMIC LOAD:
A. Ip = 1.25 — SEISMIC IMPORTANCE FACTOR
B. D — SITE CLASS
C. A15 — SEISMIC FORCE RESISTING SYSTEM.
D. B — SEISMIC DESIGN CATEGORY
E. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE
F. Ss = ≤ .537 — MAPPED SPECTRAL RESPONSE COEF.
G. S1 = ≤ .192 — MAPPED SPECTRAL RESPONSE COEF.
H. Sds = ≤ .69 — SPECTRAL RESPONSE COEFFICIENT
I. Sd1 = ≤ .19 — SPECTRAL RESPONSE COEFFICIENT
J. V = 5049 LB — DESIGN BASE SHEAR
K. R = 6.5 — RESPONSE MODIFICATION COEFFICIENT
L. Cs = 0.09 — SEISMIC RESPONSE COEFFICIENT

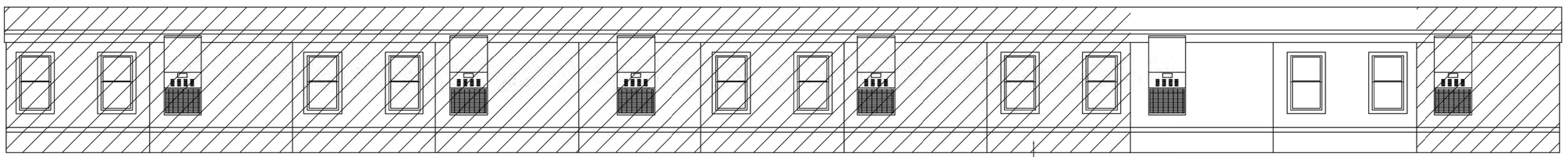
FLOOD LOAD:
THIS BUILDING IS NOT DESIGNED TO BE LOCATED IN A FLOOD HAZARD AREA.

ACCESSIBILITY NOTES:

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE ALLOWABLE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
2. ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY BENDING.
3. WHERE STORAGE FACILITIES SUCH AS CUPBOARDS, SHELVES, CLOSETS AND DRAWERS ARE PROVIDED (AT LEAST ONE ONE OF EACH PROVIDED SHALL CONFORM TO THE FOLLOWING: THE OPERABLE PARTS OF THE STORAGE FACILITY SHALL BE ACCESSIBLE. TOUCH LATCHES, U–SHAPED HANDLES, ETC. SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH. CLOTHES RODS OR COAT HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM ONEH DISTANCE FROM WHEEL CHAIR. IS ROD EXCEEDS 10 INCHES. LAVALIER IN KITCHENS, MAY BE MOUNTED AT 54 INCHES. SHELVES SHALL BE MOUNTED NO HIGHER THAN 54 INCHES ABOVE THE FLOOR.
4. CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NOT HIGHER THAN 48 INCHES ABOVE THE FLOOR. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
5. WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGHOUT BUILDING, RECREATIONAL AREA PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING,WHICH–EVER IS LOWER.
6. ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 60 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM. THE MAXIMUM FORCE REQUIRED FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR HINGED DOORS.
7. FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP–RESISTANT. CHANGES IN LEVEL BET–WEEN ADJACENT FLOOR SURFACES SHALL BE ACCOMPLISHED WITH SLOPES NOT STEEPER. CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
8. ACCESSIBLE WATER CLOSETS SHALL BE 17 INCHES TO 19 INCHES, MEASURED FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG, MINIMUM WHEN LOCATED BEHIND WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG SIDE OF WATER CLOSET, AND 36 INCHES MINIMUM TO 38 INCHES MAXIMUM ABOVE THE FLOOR. ASSISTANCE CLEARANCE SHALL BE 48 INCHES MINIMUM. THE SEAT SHALL BE MOUNTED ON THE SIDEWALL WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39 AND 41 INCHES ABOVE THE FLOOR, AND WITH THE CENTER LINE OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES FROM THE REAR WALL.
9. ACCESSIBLE URINALS SHALL BE STALL–TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.
10. ACCESSIBLE LAVATORIES AND SINKS SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR. ADEQUATE KNEE AND TOE CLEARANCE SHALL BE PROVIDED (AT LEAST 27 INCHES HIGH MUST BE PROVIDED WITH A MINIMUM DEPTH OF 8 INCHES BENEATH THE FIXTURE, AND 9 INCHES HIGH MINIMUM WITH A MINIMUM DEPTH OF 11 INCHES BENEATH THE FIXTURE. THE KNEE SPACE MUST BE AT LEAST 30 INCHES WIDE.
11. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR PROTECTION MATERIALS MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.
12. ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (I.E. LEVER–OPERATED, PUSH TYPE, ELECTRONICALLY CONTROLLED).
13. MIRRORS LOCATED ABOVE LAVATORIES, SINKS OR COUNTERS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE A MAXIMUM OF 40 INCHES ABOVE THE FLOOR. OTHER MIRRORS IN TOILET ROOMS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FLOOR.
14. GRAB BARS HAVING A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1.25 INCHES MINIMUM AND 2.0 INCHES MAXIMUM. THE SPACE BETWEEN THE GRAB BAR AND THE WALL SHALL BE 1.5 INCHES.
15. WATER CLOSET FLUSH CONTROL SHALL BE INSTALLED A MAXIMUM OF 36 INCHES ABOVE THE FLOOR AND SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
16. DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (I.E. LEVER – OPERATED, PUSHTYPE, U–SHAPED) MOUNTED WITH OPERABLE PARTS BETWEEN 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.
17. TOILET STALL DOORS SHALL BE THE SELF–CLOSING TYPE.
18. A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVTORIES.

SPECIAL CONDITIONS AND REQUIRMENTS

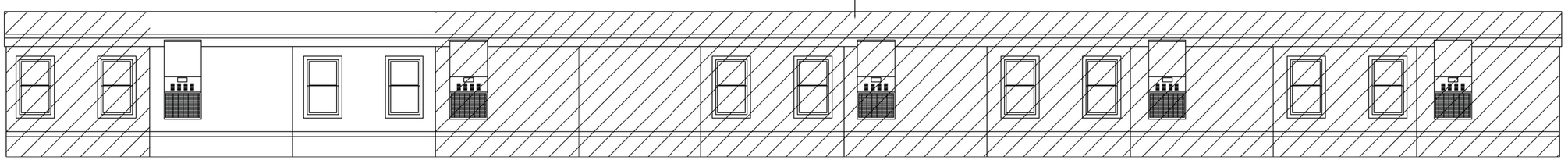
- ANY SITE ADDED STRUCTURES MUST BE INDEPENDENT OF THE FACTORY BUILDING UNLESS THE ENTIRE BUILDING IS REVALUATED BY THE SITE ENGINEER.
- TYPICAL FOUNDATION LAYOUT SHOWN IN THIS PACKAGE IS TO AID THE SITE ENGINEER/ARCHITECT FOR LOCATIONS OF REQUIRED SUPPORTS. ACTUAL FOUNDATION MUST BE DESIGNED TO SITE CONDITIONS FOR ALL APPLICABLE LOADS. THIS INCLUDES BUT IS NOT LIMITED TO CONSTRUCTION OF THE FOUNDATION, SEISMIC DESIGN AND ATTACHING THE BUILDING TO THE FOUNDATION. ALONG WITH THE RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNWARD FORCES IN BOTH DIRECTIONS. REFER TO BRACING PAGE FOR APPLICABLE BRACING/SEISMIC LOADS FOR ATTACHING THE BUILDING TO FOUNDATIONS.
- ENGINEER SEAL APPLIES ONLY TO FACTORY MANUFACTURED STRUCTURAL PORTION OF THE BUILDING. SEAL DOES NOT APPLY TO SITE INSTALLED ELEMENTS OR PORTIONS BUILT ON SITE SUCH AS, BUT NOT LIMITED TO: FOUNDATION, BRACING TIE DOWN TO FOUNDATION, EXTERIOR STEPS, OR OTHER SITE WORKS. SITE WORK MUST BE DESIGNED BY OTHERS FOR SITE CONDITIONS, UNDER LOCAL JURISDICATION.



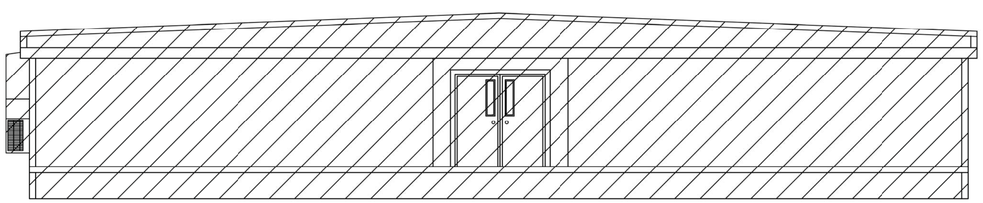
RIGHT ELEVATION

NOTE:
HATCH INDICATES EXISTING MODULAR BUILDING

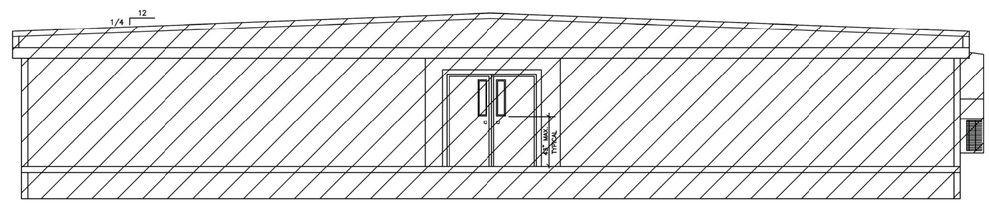
OVERHANG:
ENDWALLS: 8"



LEFT ELEVATION



REAR ELEVATION



FRONT ELEVATION

SIDE ELEVATIONS/PROFILE OF NEW BUILDING SHALL BE THE SAME AS THE EXISTING BUILDING

ELEVATION NOTES: TYPICAL

SEE–CROSS SECTION FOR METHOD OF ROOF VENTILATION

ACCESSIBLE RAMP(S), STAIR(S), AND HANDRAILS ARE SITE INSTALLED, DESIGNED BY OTHERS, AND SUBJECT TO LOCAL JURISDICTION.

FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150TH OF THE FLOOR AREA, AND AN 18" X 24" MINIMUM CRAWL SPACE ACCESS, SITE INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.

ELEVATIONS SHOWN ON THIS PAGE REPRESENT BASIC COMPONENTS & ARE NOT INTENDED TO BE ALL INCLUSIVE NOR DO THESE ELEVATIONS DETAIL EVERY CODE REQUIRED ASPECT OF THIS BLDG.. SITE BUILT STOOPS, STEPS, DECKS, PORCHES, HANDRAILS AND/OR SIMILAR ITEMS MUST BE PROVIDED BY OTHERS ON SITE FOR COMPLIANCE WITH APPLICABLE CODES. COMPLIANCE WITH ALL APPLICABLE CODES PER LOCAL AUTHORITY HAVING JURISDICTION, WHETHER DETAILED IN THIS SET OR NOT, MUST BE MET

NOTE:
THIS PLAN IS FOR 2 NEW MODULES THAT WILL INSERETED INTO AN EXISTING BUILDING. THE INCORPORATION OF THESE TWO MODULES INTO THE EXISTING BUILDING SHALL BE DESIGNED BY A LICENSED ENGINEER AND BE SUBJECT TO REVIEW AND APPROVAL BY AUTHURITY HAVING JURISDICTION.

BUILDING DESIGN PARAMETERS

1. USE/OCCUPANCY: EDUCATION
2. CONSTRUCTION TYPE: VB
3. SPRINKLER SYSTEM: NO **
4. BUILDING AREA:
   EXISTING: 8228 S.F.
   ADDITION: 1859 S.F.
5. BUILDING HEIGHT: ≤ 15 FEET
6. NUMBER OF STORIES: 1
7. NUMBER OF MODULES:
   EXISTING: 9 MODULES
   ADDITION: 2 MODULES
8. OCCUPANT LOAD USING 20 NET SF/PERSON IN CLASSROOMS
   EXISTING: 298 OCCUPANTS
   ADDITION: 74 OCCUPANTS
9. EXTERIOR WALL FIRE RATING: NOT RATED
10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY IBC 602 AND SECTION 705.5.
11. TOTAL BUILDING COMPLIANCE SHALL BE COMPLETED BY THE DESIGNER OF THE ENTIRE BUILDING PER APPROVAL OF AUTHORITY HAVING JURISDICTION.
12. MANUFACTURER'S DATA PLATE, STATE LABELS AND EMC LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

NOTE:
- ** SPRINKLER SYSTEM IS TO BE PROVIDED IF INSTALLED IN MAINE PER LOCAL JURISDICTION REQUIRMENT.
- THIS PLAN IS FOR 2 NEW MODULES THAT WILL BE INSERTED INTO AN EXISTING BUILDING.

EMC — APPROVED 05 07 2021

CODE SUMMARY:

STATE	BUILDING	ELECTRICAL	MECHANICAL	PLUMBING	ACCESSIBILTY	ENERGY CODE
VERMONT	2015 IBC W/AMEND 2015 UFC 2015 NFPA 101 W/ AMEND, 2015 NFPA 101 W/AMEND FIRE CODE 2015 VT FIRE CODE BLDG SAFETY CODE	2017 VT ELECTRICAL SAFETY RULES 2017 NEC W/AMEND	2015 VT FIRE & BLD. SAFETY CODE/2015 NFPA NFPA 90A	2017 VT PLUMB. RULES 2018 IPC W/AMEND	2012 VT ACCESSIBILTY RULES 2010 ADA	VT 2020 COMMERCIAL BLD. ENERGY STD.(CBES) 2018 IECC W/AMENDS
MAINE	2015 MUBEC (2015 IBC) FIRE CODE 2006 NFPA 1 LIFE SAFETY 2018 NFPA 101	2017 NEC	2013 62.1 ASHRAE	MAINE PLUMBING CODE (2015 UPC)	2009 ICC/ ANSI A117.1	2015 MUBEC (2009 IECC) OR 2013 ASHRAE
NEW HAMPSHIRE	2015 IBC W/AMEND SAF–C 6000 2015 NFPA 101 W/ AMEND, 2015 NFPA1 W/AMEND	2017 NEC W/AMENDS	2015 IMC W/AMENDS	2015 IPC W/AMENDS	2009 ICC ANSI A177.1 FHA/UFAS AS APPLICABLE	2015 IECC W/AMENDS

CONSULTING ENGINEER: NADER TOMASBI, P.E. – 58665 GLENRIVER DRIVE – GOSHEN, IN. 46528 – 574–370–3419

STATE OF VERMONT — NADER TOMASBI — NO. 8614 Structural — LICENSED PROFESSIONAL ENGINEER — 05/07/2021

STATE OF MAINE — Nader Tomasbi 10835 — REGISTERED PROFESSIONAL ENGINEER — 05/07/2021

STATE OF NEW HAMPSHIRE — NADER TOMASBI No. 11586 — LICENSED PROFESSIONAL ENGINEER — 05/07/2021

DIAMOND BUILDERS INC.
P.O. BOX 2200 DOUGLASS, GEORGIA 31534
440 THOMPSON DR. (912) 384–7080

DATE: 5–6–21	REVISIONS:	
SCALE : 3/16"=1'–0"		
CODES: SEE NOTES		
STATES: N.H.		BY: N.T.
REFERENCE: 8194		
DBI9329 A/B 27'–4" x 66'–0" EDUCATION		SHEET 1 OF 3
COVER SHEET	DESTINATION: CUMBERLAND, ME.	

NEW MODULAR INSERTS BETWEEN H/I

ELECTRICAL SCHEDULE 'B'			
CIRCUIT	NOMENCLATURE	BREAKER (AMPS) MAX.	WIRE (CU.) #=#G GRND.
1, 3	HVAC	50 A (2P) MAX.	8-2 #8 GRND.
4, 6	RECEPTACLES/FAN	20 A	12-2 NM
2	LIGHTING & SMOKE DETECTORS	15 A	14-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'B'	KVA
.0030 KW/SF X 738 SF X 1.25=		2.8
9 RECEPTS AT 180VA/1000=		1.6
WATER HEATER 4.5 KW x 1.25=		–
11 FANS @ .3 KW X 1.25=		4
HVAC		8.0

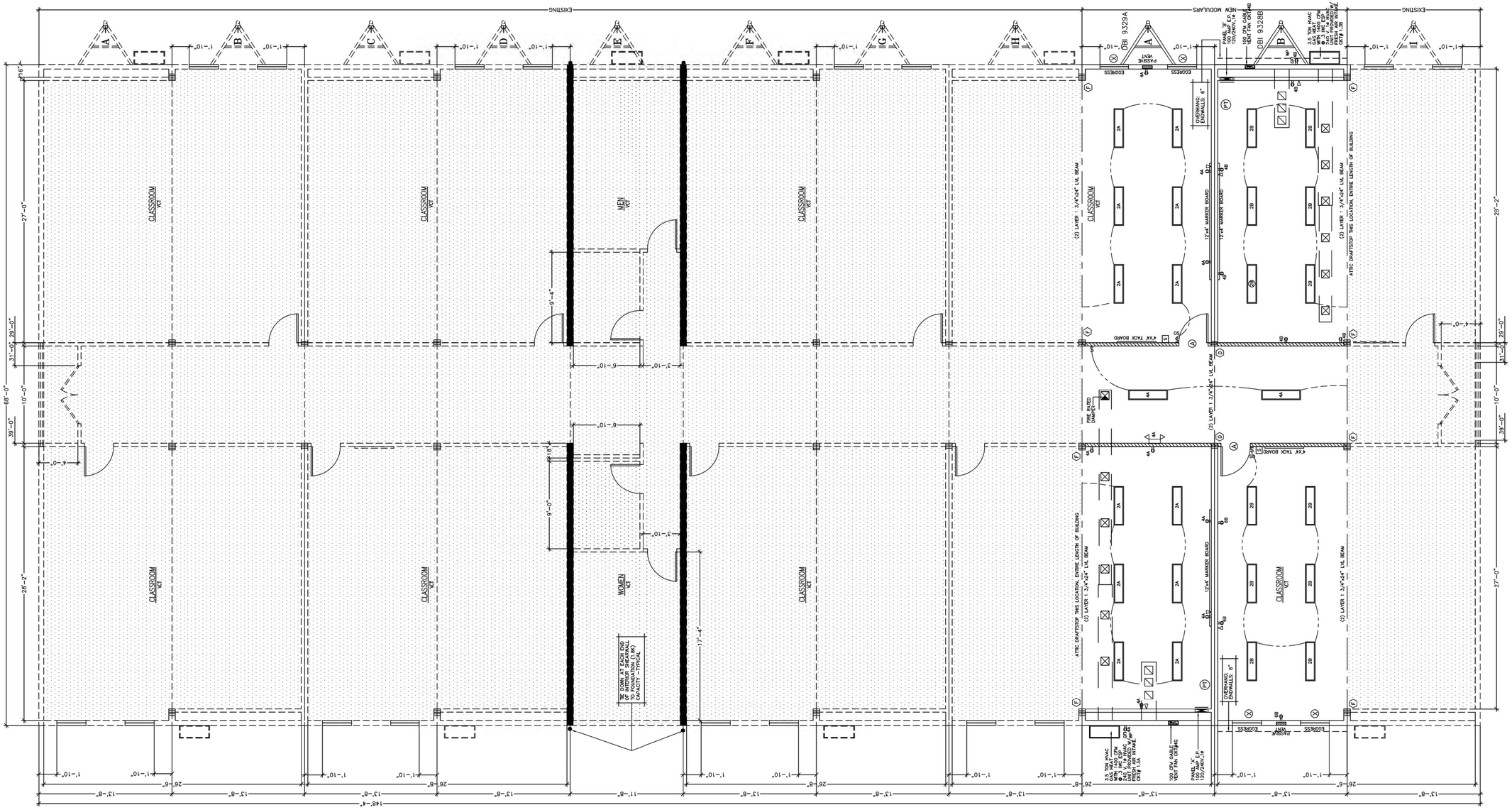
TOTAL 12.8 KW
TOTAL/240 X 1000= 54 AMPS
INSTALL 150 AMP PANEL
120/240 V 1Ø

ELECTRICAL SCHEDULE 'A'			
CIRCUIT	NOMENCLATURE	BREAKER (AMPS) MAX.	WIRE (CU.) #=#G GRND.
1, 3	HVAC	50 A (2P) MAX.	8-2 #8 GRND.
4	RECEPTACLES/FAN	20 A	12-2 NM
2	LIGHTING & SMOKE DETECTORS	15 A	14-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'A'	KVA
.0030 KW/SF X 738 SF X 1.25=		2.8
9 RECEPTS AT 180VA/1000=		1.6
WATER HEATER 4.5 KW x 1.25=		–
11 FANS @ .3 KW X 1.25=		4
HVAC		8.0

TOTAL 12.7 KW
TOTAL/240 X 1000= 54 AMPS
INSTALL 150 AMP PANEL
120/240 V 1Ø



SYMBOL	DOOR SCHEDULE	TOTAL
A	36"X80" 20 MINUTE, IMPERIAL OAK WITH 4"x24 VIEW BLOCK, SAFETY GLASS	2

SYMBOL	WINDOW SCHEDULE	TOTAL
X	36"X60" VERTICAL SLIDE, INSULATED BRONZE/TINTED	4

NOTE:
ALL SHADED AREAS WITH HIDDEN LINES INDICATES "EXISTING BUILDING"

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05 07 2021

SYMBOLS

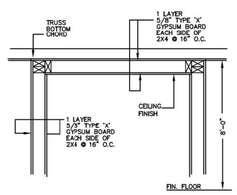
J-BOXES ONLY

- F — FIRE ALARM PULL STATION 44" AFF
- H — FIRE ALARM HORN/STROBE 80" AFF
- S — FIRE ALARM STROBE LIGHT 80" AFF
- JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN)
- CLG. MT. J-BOX
- SD — SMOKE DETECTOR
- DUPLEX RECEPTACLE 120 V.
- SINGLE RECEPTACLE 240 V.
- INCANDESCENT LIGHT WITH 1– 60 W. BULB
- COMPACT FLOURESENT LIGHT 1–60 W. BULB
- COMPACT FLUOR. WALL PACK
- CLG. MT. POWERED J–BOX
- VENT FAN
- COMB. VENT FAN & LIGHT
- SUPPLY AIR REGISTER
- RETURN AIR REGISTER
- FLOOD LIGHT 2–150W BULBS
- T — THERMOSTAT
- FLUORESCENT FIXTURE WITH 2–32W TUBES
- EXIT/EMERGENCY COMBO W/REMOTE HEAD W/BATTERY BACKUP
- EXIT — EXIT/EMERGENCY COMBO W/BATTERY BACKUP
- EXIT SIGN W/BATTERY BACKUP
- EMERGENCY LIGHT WITH BATTERY BACKUP
- TELEPHONE JACK
- $ — SWITCH & 3 WAY SWITCH
- OS — OCCUPANCY SENSOR SWITCH
- FE — FIRE EXTINGUISHER

COLUMN STRAPPING SCHEDULE:

- (A) (2) 2x4 SPF #2 THIS HALF.
- (B) (2) 2x4 SPF #2 EACH HALF
- (C) (3) 2x4 SPF #2 THIS HALF.
- (D) (3) 2x4 SPF #2 EACH HALF.
- (E) (4) 2x4 SPF #2 THIS HALF.
- (F) (4) 2x4 SPF #2 EACH HALF.
- (G) (5) 2x4 SPF #2 THIS HALF.
- (H) (2) 2x6 SPF #2 EACH HALF.
- ● WITH RIDGE BEAM BEARING STIFFENER

NOTES:
1. ALL COLUMN STUDS SHALL BE GLUE/NAILED TOGETHER. PVA GLUE WITH 100% COVERAGE SHALL BE USED.
2. INSTALL TWO STEEL STRAPS AT EACH STUD OF EACH COLUMN.
3. COLUMN STUDS SHALL NOT BE NOTCHED OR BORED.



ONE HOUR CONSTRUCTION

PENETRATION OF FIRE RESISTANT WALLS AND CEILING:

1. COMBUSTIBLE CABLES AND WIRES, COMBUSTIBLE PIPES, TUBES, AND NON-METALLIC CONDUITS MEETING REQUIREMENTS OF ASTM E119 AS PART OF THE FIRE RESISTANT ASSEMBLY OR SHALL HAVE THROUGH-PENETRATION FIRESTOP SYSTEMS LISTED AND TESTED AS PER ASTM E814 AND BE TESTED AT A POSITIVE PRESSURE DIFFERENTIAL BETWEEN THE EXPOSED AND UNEXPOSED SURFACES OF NOT LESS THAN 01 INCH OF WATER FOR A TIME PERIOD EQUIVALENT TO AT LEAST 1 HOUR BUT NOT LESS THAN THE RATING OF THE ASSEMBLY.
2. CABLES AND WIRES WITHOUT COMBUSTIBLE INSULATIONS AND NONCOMBUSTIBLE PIPES, TUBES, AND CONDUITS SHALL BE PROTECTED AS DESCRIBED ABOVE OR SHALL HAVE THE ANNULAR SPACE FILLED WITH A MATERIAL MEETING THE REQUIREMENT OF ASTM E119 TESTED UNDER A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF .01 INCH OF WATER FOR A TIME PERIOD EQUIVALENT TO THE RATING OF THE ASSEMBLY.
3. ELECTRICAL BOXES SHALL BE METAL OR LISTED FOR USE IN FIRE RESISTANT ASSEMBLIES AND SHALL NOT EXCEED 16 SQUARE INCHES. BOXES ON OPPOSITE SIDES OF FIRE RESISTANT WALLS SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.
4. ALL CEILING FIXTURES SHALL BE SURFACE MOUNTED.
5. DUCTS PENETRATING FIRE RESISTANT CEILINGS SHALL HAVE AN ACCESSIBLE LISTED FIRE DAMPER LOCATED AT THE CEILING LINE.
6. ALL FIRE RATED DOORS SHALL HAVE LISTED DOOR, FRAME, AND HARDWARE NO LESS THAN THE TIME RATING SPECIFIED ON THE FLOOR PLAN. IN ADDITION FIRE RATED DOORS SHALL BE EQUIPPED WITH SELF CLOSERS AND POSITIVE LATCHING HARDWARE

WOOD STUD WALLS: 1 HOUR PER GA FILE NO. WP3520/WP3605
1 LAYER 5/8" TYPE 'X' GYPSUM EACH SIDE OF WALL

DROP CEILING: 1 HOUR PER GA FILE NO. WP3605

7. CORRIDOR DAMPERS MUST BE FIRE AND SMOKE DAMPERS IN ACCORDANCE W/2015 IBC, SECTION 717.5.4.1 FOR ALL LOCATIONS THAT ADOPT THE 2015 IBC

NOTE:
FIRE PANELS IN 20 MIN. RATED DOORS MUST COMPLY WITH THE FOLLOWING REQUIREMENTS:
A. THE GLAZING MUST BE SAFETY GLAZED
B. THE GLAZING MUST BE 20 MINUTE RATED
C. THE BOTTOM OF THE GLAZED PANEL MUST BE A MAXIMUM OF 43 INCHES ABOVE FINISHED FLOOR.

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STATE OF NEW HAMPSHIRE — NADER TOMASBI — No. 11588 — LICENSED PROFESSIONAL ENGINEER — 05/07/2021

DIAMOND BUILDERS INC.
P.O. BOX 2200 DOUGLASS, GEORGIA 31534
440 THOMPSON DR. (912) 384–7080

DATE: 5–6–21	REVISIONS:	
SCALE : 3/16"=1'–0"		
CODES: SEE NOTES		
STATES: N.H.		BY: N. T.
REFERENCE: 8194	DBI9329 A/B 27'–4" x 66'–0" EDUCATION	SHEET 2 OF 3
FLOOR PLAN		DESTINATION: CUMBERLAND, ME.

10 CLASSROOM A10.2

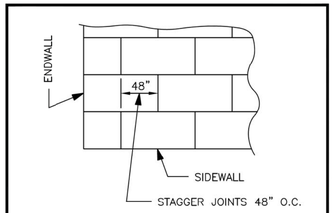
GENERAL CROSS-SECTION NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL STEEL MUST COMPLY W/ ASTM A36, YIELD STRENGTH = 36 KSI.
2. ALL LAG SCREWS MUST COMPLY W/ ANSI/ ASME B18.2.1. F_{YB} = 60 KSI MINIMUM.
3. SEE FOUNDATION PLAN FOR PIER AND TIE-DOWN STRAPPING LOCATIONS, ORIENTATIONS, AND SPECIFICATIONS.

EXTERIOR FINISH MATERIAL:

ROOF – MULE-HIDE 45 MIL (BLACK) EPDM (ESR-1463) FULLY ADHERED TO 7/16" OSB OR 1/2" PLYWOOD WITH MULE-HIDE FR ADHESIVE IN ACCORDANCE WITH INTERTEK REPORT CCRR-1078 (CLASS C ROOF)

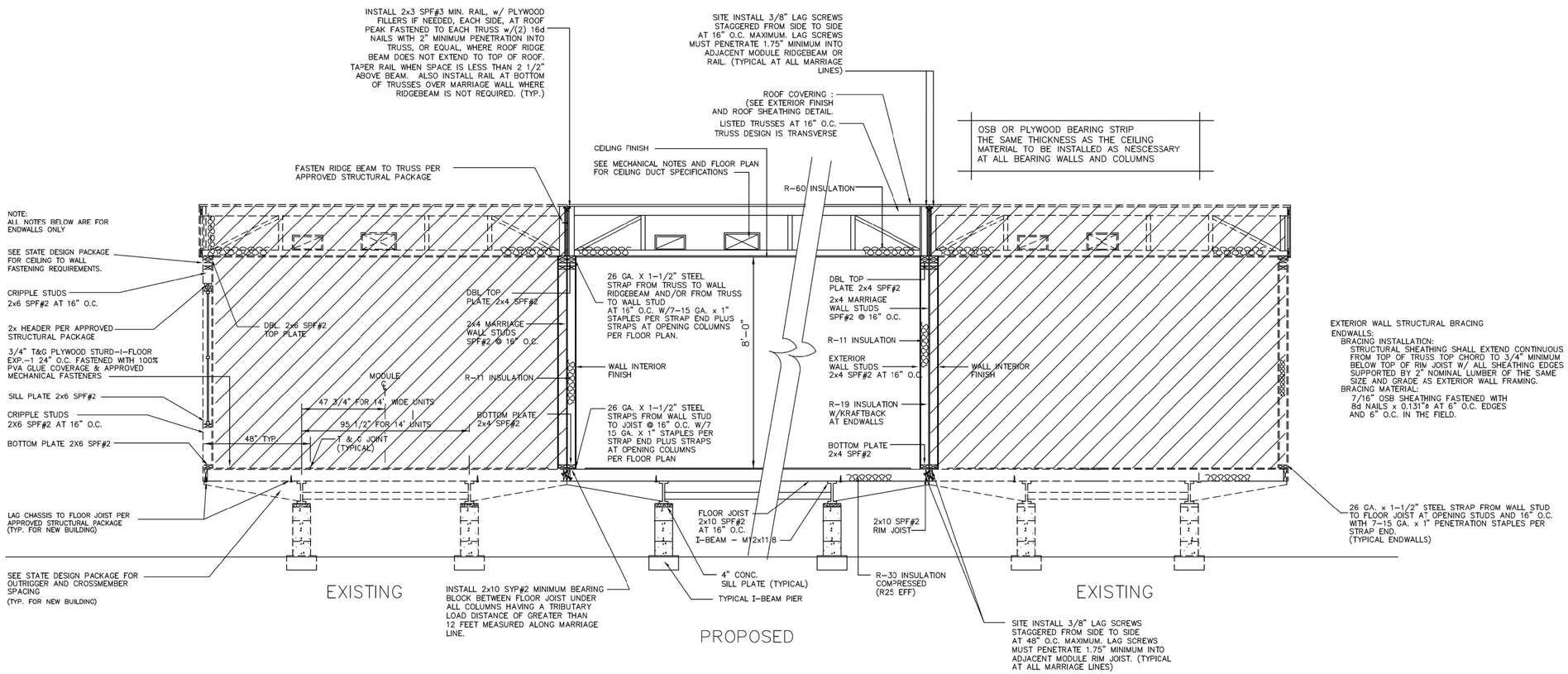
WALL – VINYL LAP SIDING OVER 7/16" OSB SHEATHING APPROVED MOISTURE BARRIER INSTALLED PER MANUFACTURERS SPECIFICATIONS



ROOF SHEATHING FASTENED TO TRUSSES W/0.131"ø x 2.5" NAILS @ 6" O.C. ON EDGES AND 6" O.C. IN THE FIELD ON ALL ZONES

ROOF SHEATHING DETAIL

APPROVED TRUSS DESIGN:
TRUSS MANUFACTURER: SOUTHEREN WOOD COMPONENTS
TRUSS DRAWING. # SWF1011



- TYPICAL FOUNDATION LAYOUT SHOWN IS TO AID THE SITE ENGINEER/ARCHITECT FOR ENGINEER/ARCHITECT FOR LOCATIONS OF REQUIRED SUPPORTS. ACTUAL FOUNDATION MUST BE DESIGNED TO SITE CONDITIONS FOR ALL APPLICABLE LOADS. THIS INCLUDES BUT IS NOT LIMITED TO CONSTRUCTION OF THE FOUNDATION, SEISMIC DESIGN AND ATTACHING THE BUILDING TO THE FOUNDATION, ALONG WITH THE RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNWARD FORCES IN BOTH DIRECTIONS.

NOTE:
ALL SHADED AREAS WITH HIDDEN LINES INDICATES "EXISTING BUILDING"

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INTERIOR FINISH MATERIAL:

CEILING – 1/2" GYP. BOARD INSTALLED PER MANUFACTURERS SPECIFICATIONS, SEASPRAY FINISH

WALLS – 1/2" GYPSUM BOARD (VCC THROUGH OUT) INSTALLED PER MANUFACTURERS SPECIFICATIONS

FLOOR – AS NOTED ON FLOOR PLAN

NOTE:
INTERIOR WALL AND CEILING FINISH SHALL BE CLASS B OR BETTER IN IN CORRIDORS AND CLASS C OR BETTER IN ROOMS AND ENCLOSED SPACES. FLOOR FINISHES SHALL BE CLASS II OR BETTER.

RIDGE BEAM CONSTRUCTION:

(SEE FLOOR PLAN) 3/4" PLYWOOD, RATED SHEATHING, EXP.-1, STRUCT.-1, 5 PLY/5 LAYER, 48/24 EACH HALF CONTINUOUS ENTIRE LENGTH OF CLEARSPAN.

NOTES:

1. PLYWOOD FACE GRAIN MUST BE PARALLEL TO THE RIDGE BEAM SPAN.
2. ALL PLYWOOD BUTT JOINTS MUST BE STAGGERED 24" MINIMUM.
3. ALL RIDGE BEAM PLYWOOD LAMINATIONS MUST BE THE SAME DEPTH, THICKNESS, AND GRADE OF PLYWOOD. NO LUMBER OR PLYWOOD FLANGES ARE PERMITTED.
4. PLYWOOD MUST BE MANUFACTURED IN ACCORDANCE W/ PS 1-95.
5. PLYWOOD LAMINATIONS IN EACH HALF OF THE UNITS MUST BE GLUE NAILED TO ADJACENT LAYERS IN ACCORDANCE W/PDS SUPPLEMENT #5, W/ AN ADHESIVE COMPLYING W/ASTM D2559 (SEE APPROVED PACKAGE FOR MECHANICAL FASTENER SPECIFICATIONS & SPACING REQUIRMENTS
6. PLYWOOD MUST NOT BE TREATED W/ A FIRE RETARDANT PROCESS.
7. MOISTURE CONTENT MUST BE LESS THAN 16%.
8. BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
9. INSTALL (2X4) X 20" SPF#3 RIDGE BEAM BEARING STIFFENER OVER SUPPORT COLUMNS, WHEN SPECIFIED ON FLOOR PLAN; FASTEN THE FACE OF THE STIFFENER TO THE RIDGE BEAM W/ 100% GLUE COVERAGE AND (6) 16 GA. X 2-1/2" STAPLES.

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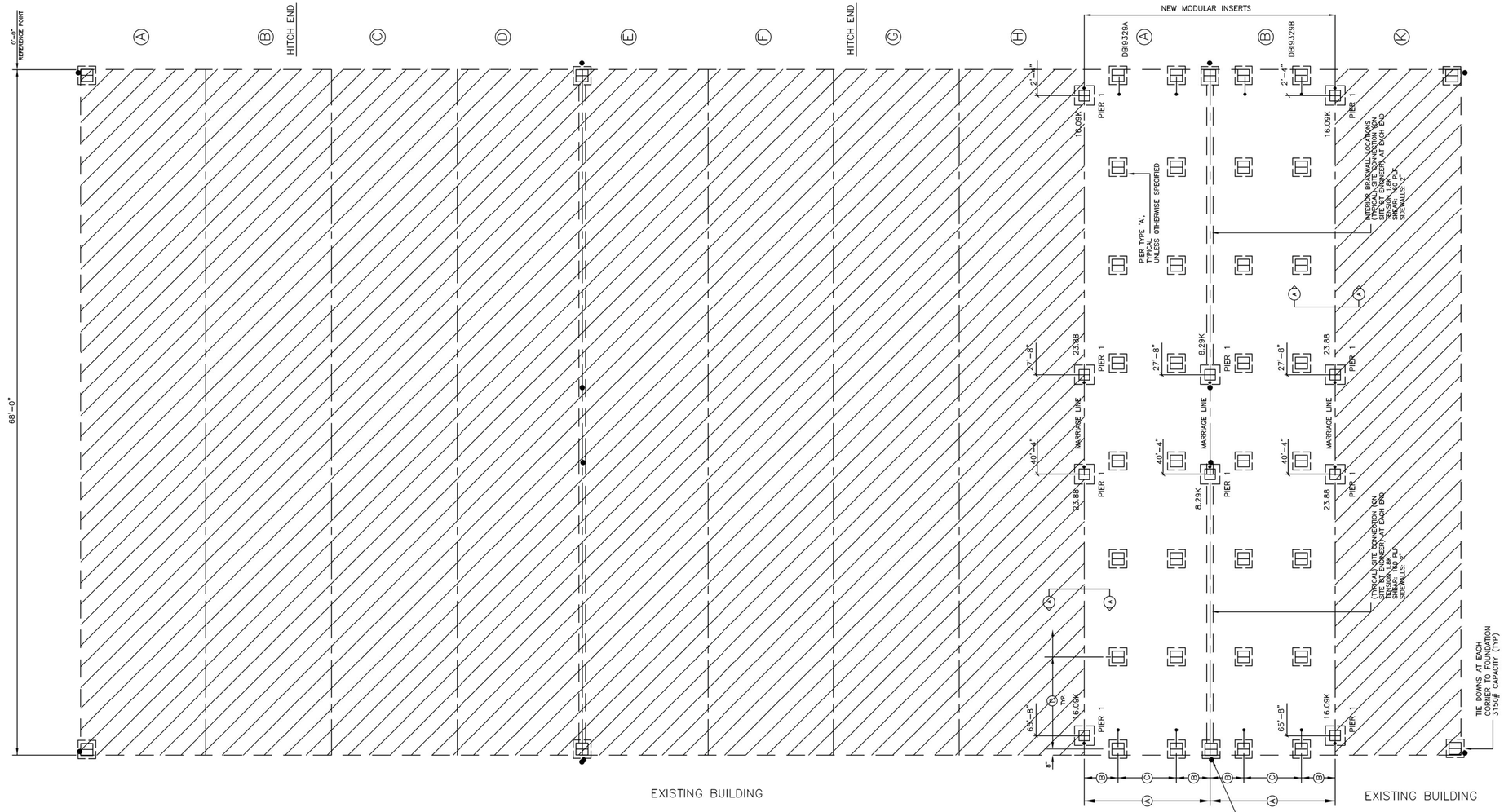
CROSS SECTION	DESTINATION: CUMBERLAND, ME.	

10 CLASSROOM A10.3



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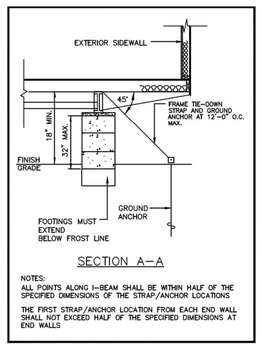
NOTICE TO FOUNDATION CONTRACTOR:

ALL DIMENSIONS, DETAILS AND NOTES ON THIS FOUNDATION PLAN MUST BE REVIEWED AND VERIFIED BY THE FOUNDATION CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE FOUNDATION. ANY APPARENT CONFLICTS, ERRORS OR OMISSIONS MUST BE BROUGHT TO THE ATTENTION OF THE DESIGN PROFESSIONAL FOR RESOLUTION PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR MUST OBTAIN APPROVAL OF THE FOUNDATION PLAN FROM THE LOCAL BUILDING DEPARTMENT PRIOR TO COMMENCING CONSTRUCTION AND MUST COMPLY WITH ALL STATE AND LOCAL CODE, APPROVAL AND AND INSPECTION REQUIREMENTS. EMC IS NOT THE DESIGNER OF THE BUILDING OR THE FOUNDATION AND IS NOT RESPONSIBLE OR LIABLE FOR ANY CONFLICTS, ERRORS, OMMISSIONS OR FAILURES TO COMPLY WITH STATE OR LOCAL CODES.

FOUNDATION NOTES:

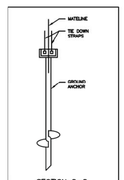
1. ALL FOUNDATION CONSTRUCTION, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
2. TIE-DOWN STRAPS TO BE 1-1/4"x .035" TYPE-1, FINISH B, GRADE 1 ZINC COATED STEEL STRAPPING CERTIFIED BY A REGISTERED ENGINEER OR ARCHITECT AS CONFORMING WITH ASTM D3953-91. TIE DOWN STRAPS AND CONNECTING HARDWARE SHALL HAVE 3150# MINIMUM WORKING CAPACITY.
3. EACH GROUND ANCHOR SHALL HAVE A WORKING CAPACITY NO LESS THAN THE SUM OF THE REQUIRED WORKING CAPACITIES OF ALL TIE DOWN STRAPS CONNECTED TO THE GROUND ANCHOR, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DESIGN OF GROUND ANCHOR, INCLUDING SHAFT LENGTH, NUMBER AND DIAMETER OF HELIXES, ETC., TO BE AS SPECIFIED BY THE GROUND ANCHOR MANUFACTURER FOR THE ACTUAL SOIL TYPE ENCOUNTERED. IF THE HOLDING OR PULLOUT CAPACITIES OF GROUND ANCHORS ARE BELOW THE ASSUMED DESIGN VALUES, THE ARCHITECT/ENGINEER MUST RE CONSULTED FOR AN ALTERNATE ANCHORAGE DESIGN.
4. THE FIRST TIE-DOWN STRAP FROM ENDWALLS SHALL NOT EXCEED 1/2 THE MAXIMUM SPACING INDICATED.
5. ALL PIERS SHALL BE CONSTRUCTED OF CONCRETE MASONRY UNITS CONFORMING TO ASTM C90. MASONRY UNITS SHALL BE LAID IN TYPE M OR S MORTAR OR COVERED WITH SURFACE BONDING CEMENT INSTALLED IN ACCORDANCE WITH ITS LISTING. PIER FOOTINGS SHALL BE AS DESCRIBED ABOVE.
6. MINIMUM CONCRETE FOOTING COMPRESSIVE STRENGTH 2,500 PSI AT 28 DAYS.
7. ALL REINFORCEMENT BARS SHALL COMPLY WITH ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL BE EQUALLY SPACED AND PLACED WITH 3" CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING.
8. SEE SHEET 1 OF 3 FOR BUILDING DESIGN LOADS.
9. I-BEAM SUPPORT PIERS MAY BE INSTALLED LATERALLY (90° FROM THE ORIENTATION SHOWN ON THE FOUNDATION PLAN). CENTERLINE OF EACH PIER MUST BE LOCATED DIRECTLY BELOW THE I-BEAM CENTERLINE.
10. SOIL BEARING CAPACITY SHOWN ON THIS PLAN IS ASSUMED. IF THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN 2,000 PSF, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR ALTERNATE FOUNDATION DESIGN. FOOTINGS SHALL BE PLACED ON NON-EXPANSIVE SOILS ONLY.
11. INSTALL BLOCK PIER ON EACH SIDE OF ALL EXTERIOR DOOR OPENINGS. (MANUFACTURER'S RECOMMENDATION ONLY – OPTIONAL WHEN NOT SHOWN) SLIGHT ADJUSTMENT MAY BE REQUIRED TO INSURE OPENABILITY AFTER INSTALLATION OF BUILDING IS COMPLETE.
12. THE FOUNDATION DIMENSIONS SHOWN ON THE ABOVE LAYOUT ARE NOMINAL DIMENSIONS OF THE FACTORY BUILT MODULARS AND DO NOT ACCOUNT FOR GAPS BETWEEN MODULES THAT MAY OCCUR DURING INSTALLATION.. THE FOUNDATION DESIGNER, FOUNDATION CONTRACTOR AND MODULAR BUILDING INSTALLER MUST CONSULT TO DETERMINE IF ADJUSTMENTS TO PIER LOCATIONS ARE NEEDED TO ACCOUNT FOR TOLERANCES NEEDED DURING INSTALLATION OF THE BUILDING MODULES
13. THE AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.



SECTION A–A

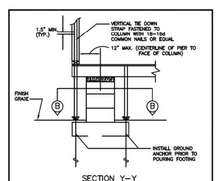
NOTES:
ALL POINTS ALONG I-BEAM SHALL BE WITHIN HALF OF THE SPECIFIED DIMENSIONS OF THE STRAP/ANCHOR LOCATIONS

THE FIRST STRAP/ANCHOR LOCATION FROM EACH END WALL SHALL NOT EXCEED HALF OF THE SPECIFIED DIMENSIONS AT END WALLS

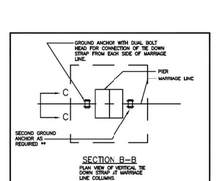


SECTION C–C
DUAL HEAD GROUND ANCHOR DETAIL

FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150TH OF THE FLOOR AREA, AND AN 18" X 24" MINIMUM CRAWL SPACE ACCESS. SITE INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.

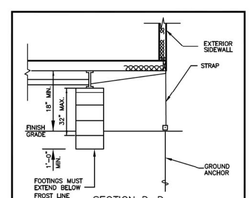


SECTION Y–Y
VERTICAL TIE DOWN STRAP DETAIL AT COLUMNS

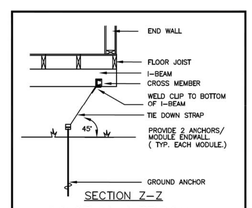


SECTION B–B
PLAN VIEW OF VERTICAL TIE DOWN STRAP AT MARRIAGE LINE COLUMNS

** SOME COLUMNS REQUIRE ONLY ONE GROUND ANCHOR. SEE PLAN AND MARRIAGE WALL PIER REQUIREMENTS FOR DETAILS.



SECTION D–D
VERTICAL TIE DOWN STRAPS AT BUILDING CORNERS



SECTION Z–Z
LONGITUDINAL TIE DOWN DETAIL AT ENDWALLS

MARRIAGE WALL PIER REQUIREMENTS

PIER NUMBER	MINIMUM SOIL BEARING CAPACITY	PIER TYPE	NUMBER OF VERTICAL TIE DOWN STRAPS REQ'D (EACH MODULE)
1	2000 PSF	D	1
	3000 PSF	C	1
	2000 PSF		
	3000 PSF		

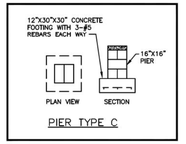
NOTE:
THE NUMBER OF PIERS SHOWN ON THIS FOUNDATION PLAN IS NO INDICATION OF THE AMOUNT OF PIERS REQUIRED AND NEEDED FOR THIS BUILDING. SEE MAXIMUM PIER SPACING CHART TO THE RIGHT FOR THE CORRECT NUMBER OF PIERS REQUIRED FOR EACH SOIL BEARING CAPACITY.

NOTE:
THIS FOUNDATION PLAN IS PROVIDED FOR REFERENCE AS A TYPICAL STANDARD. ACTUAL FOUNDATION CONDITIONS MUST BE EVALUATED FOR APPLICABILITY IF THIS PLAN IS TO BE USED. ALTERNATE FOUNDATION PLANS MAY BE DESIGNED BY OTHERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY.

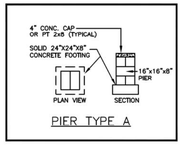
FOUNDATION DIMENSIONS

A MODULE WIDTH	B PIER TO MODULE EDGE	C STEEL BEAM SPACING
13'-8"	34 1/4"	95 1/2"

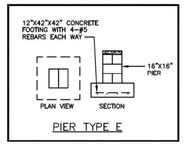
D MAXIMUM PIER SPACING	MINIMUM SOIL BEARING CAPACITY	KIPP LOADS
6'-6"	2000 PSF	6.93K
6'-6"	3000 PSF	6.93K



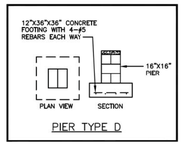
PIER TYPE C



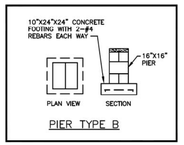
PIER TYPE A



PIER TYPE E



PIER TYPE D



PIER TYPE B

EMC APPROVED 05 07 2021

STATE OF VERMONT — NADER TOMASBI — NO. 8614 Structural I — LICENSED PROFESSIONAL ENGINEER — 05.07.2021

STATE OF MAINE — Nader Tomasbi 10835 — REGISTERED PROFESSIONAL ENGINEER — 05.07.2021

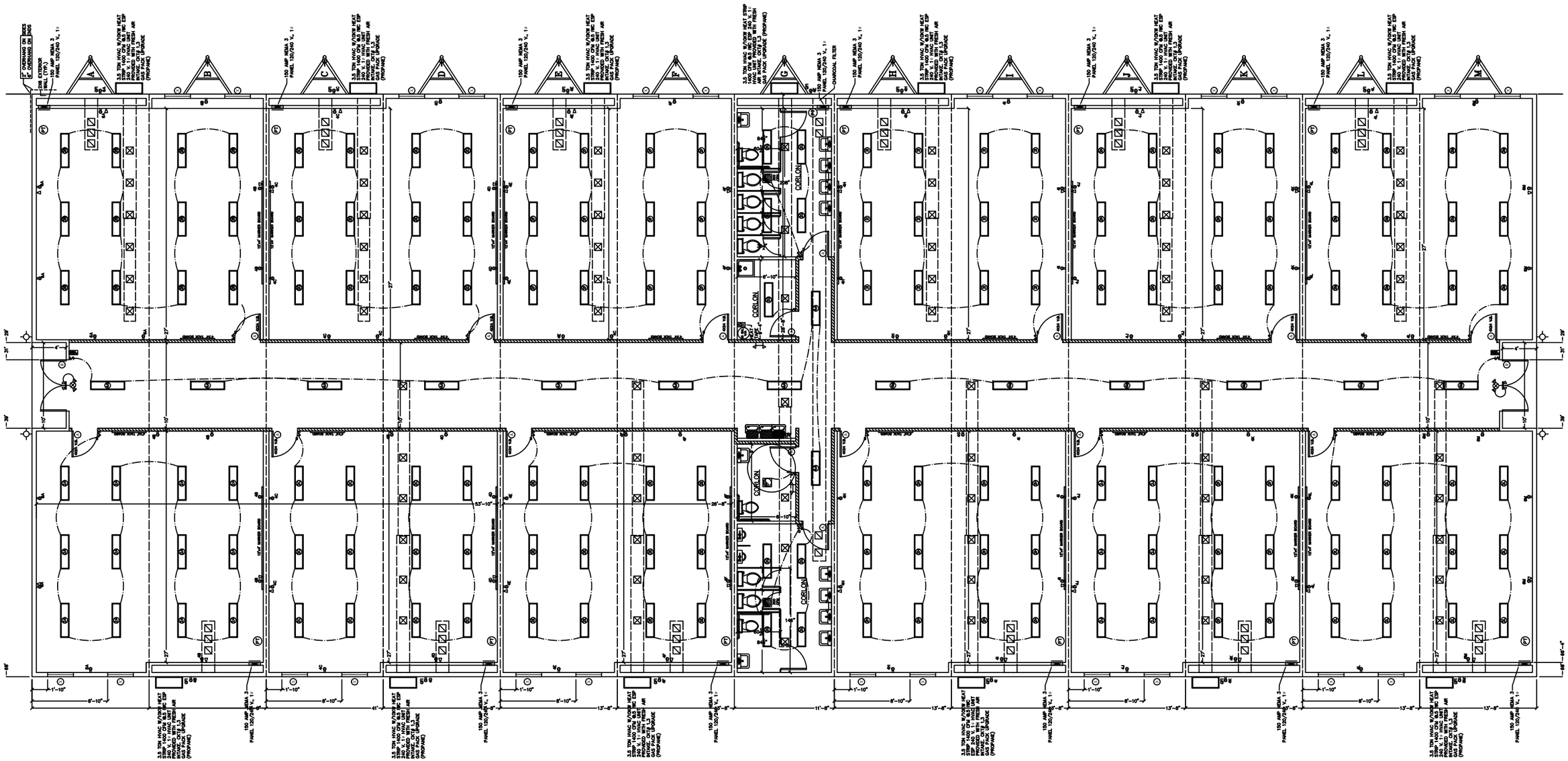
STATE OF NEW HAMPSHIRE — NADER TOMASBI No. 11586 — LICENSED PROFESSIONAL ENGINEER — 05.07.2021

CONSULTING ENGINEER: NADER TOMASBI, P.E. – 58665 GLENRIVER DRIVE – GOSHEN, IN. 46528 – 574-370-3419

DIAMOND BUILDERS INC.
P.O. BOX 2201 DOUGLASEL, GEORGIA 31534
440 THOMPSON DR. (912) 384-7080

DATE: SCALE 6-21	REVISIONS:	
SCALE :		
CODES: SEE NOTES		BY:
STATES: N.H.		N.T.
REFERENCE: 8194	DBI9329 A/B 27'-4" x 66'-0" EDUCATION	SHEET 1 OF 1
FOUNDATION	DESTINATION: CUMBERLAND, ME.	

10 CLASSROOM A10.4


A
B
C
D
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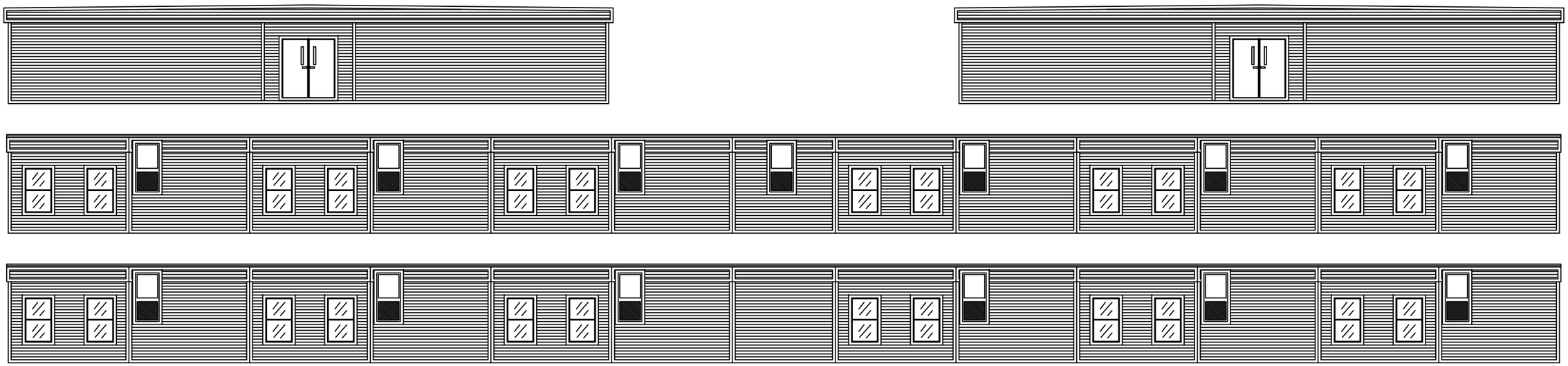
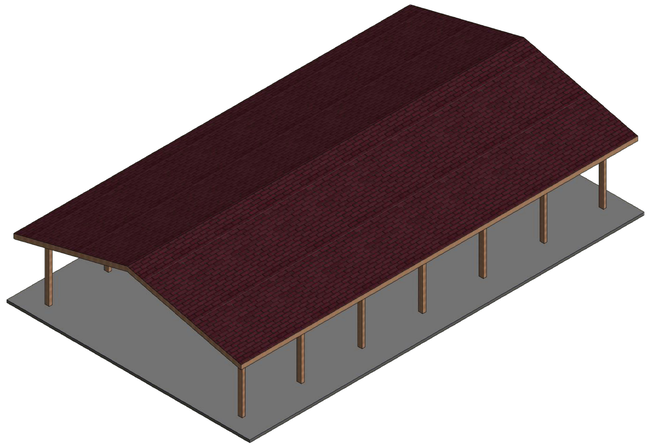
M
CORLON
CORLON
CORLON
CORLON
150 AMP HEMA 3 PANEL 120/240 V, 1 Ø
3.5 TON HVAC W/DOW HEAT STRIP 1400 CFM 6.8 MC ESP 240 V, 1 Ø HVAC UNIT PROVIDED WITH FRESH AIR INTAKE, OTB 1.3 GAS PACK UPGRADE (PROPANE)
CHARCOAL FILTER
5'-0" OVERHANG ON BOXES
6" OVERHANG ON BOXES
DBL EXTERIOR DOOR (TYP)
17'-0" WAINER BOARD
CLAY TILE WAINER BOARD
CLAY TILE WAINER BOARD
CLAY TILE



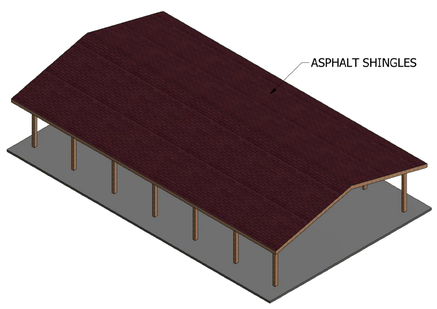
DIAMOND BUILDERS, INC. 440 THOMPSON DRIVE, DOUGLAS, GA. 31535 PHONE: (912)384-7080 FAX: (912)384-5721	SCHIAVI LEASING	SALESMAN: WESLEY SPIVEY SIZE: 180X68 OCCUPANCY: EDUCATION	STATE LABEL(S) ME, VT, NH	SNOW LOAD: 100 WIND LOAD: 140 QUOTE#: 15815	DATE: 2/23/2023 10:47 AM DRAWN BY: BM SERIAL#: DBI 10628	AUTHORIZED SIGNATURE:

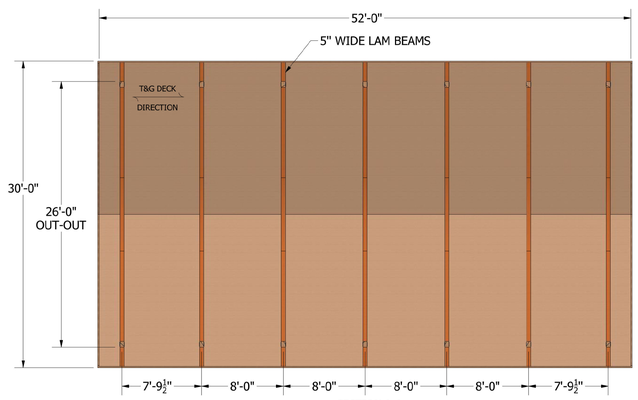
12 CLASSROOM

A12.2

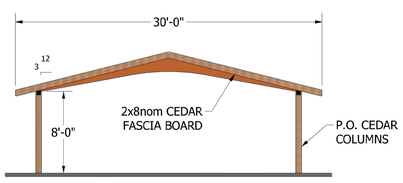


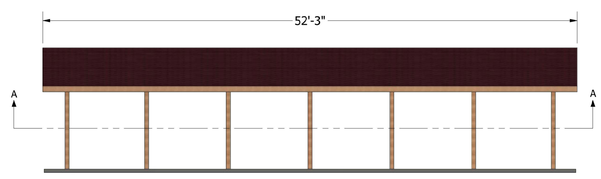
DESCRIPTION:
30x52 Lam Beam Gable





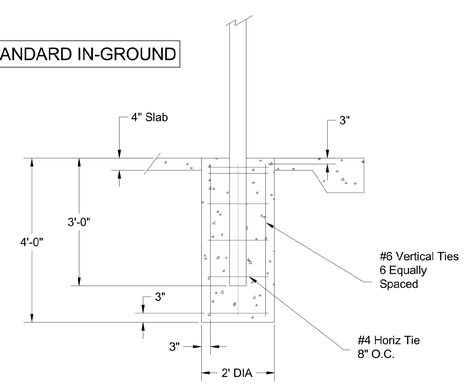
SECTION A-A





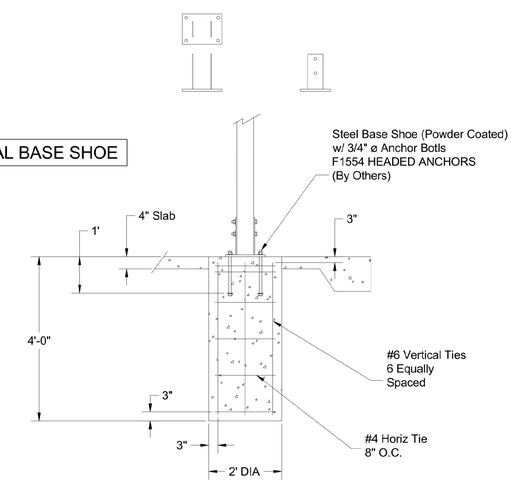
DESCRIPTION:
30x52 Lam Beam Gable

STANDARD IN-GROUND



Column/Footing Detail
Final Size TBD
Concrete Pier By Others

OPTIONAL BASE SHOE



Column/Footing Detail
Final Size TBD
Concrete Pier By Others

DESCRIPTION:
30x52 Lam Beam Gable

OWNER:

MSAD #51
Cumerland, Maine

Project:

MSAD 51
MODULAR CLASSROOM
ADDITIONS

Revisions	Date	Description

Drawn By: MB | Approved By: PC | Scale: AS SHOWN

SHADE CANOPY
PLAN

Phase:
PERMITTING

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
MARCH 31, 2023

Sheet No:
S1.0