

ADDENDUM NO. 4

March 11, 2016

**Re: Sanford High School and Technical Center
12-067-00**

To: Bidders and All Others to Whom Bidding Documents have been issued.

All items in this Addendum shall supersede or clarify the Bidding Documents as originally issued. The cost of the Work of all trades affected by the changes in this Addendum shall be included in the Base Bid or Alternates, on the Proposal Form, as applicable. Failure to do so may subject the Bidder to disqualification. This Addendum forms a part of the Contract Documents. It supplements and/or modifies them as follows:

Item No. 4.1 Reference Addendum 3.58. : Item No. 3.58 should read: Reference Specification 22 13 00, 2.02 A-H. Substitution Request S-29 by Triton by NDS shall not be an acceptable substitution for the specified SC 740 by ADS Stormtech.

Item No. 4.2 Reference Specification 12 34 00 and Drawing J7/A7.17. : Question: Please clarify if the reference to spec section 123400 for the plam faced panel is correct on detail J7 on drawing A7.13. Section 123400 is for Plam Casework and does not seem correct for this location.

Answer: Delete detail J7 on A7.13.

Item No. 4.3 Reference Drawing T3.02: Question: The A1 and A2 denotations for teacher work stations and associated interactive smart boards have a detail on drawing T3.02, this detail shows that each of these device boxes contain data drops within the same enclosure. The field drawings show each of these items with a 2 port data drop adjacent to the A1 and A2 stations. Are the additional data drops separate from the work stations with additional cabling required? Please see attached mark-up as a visual reference.

Answer: Design intent is shown in detail on T3.02 for those locations. The 2D shown shall be incorporated in the plate with AV connections.

Item No. 4.4 Reference Drawing E2.18. : Question: There are 2 type A4 floorboxes on the E2.18 but only 1 on T1.18. Should we provide voice/data/TV to both locations?

Answer: Yes

Item No. 4.5 Reference Drawing E0.01. : Question: On E0.01, Under the Audiovisual Legend, there is a note to “refer to the High Output drawings for more information.” Are these drawings available? Addendum 2 indicates High Output will be performing Theater Equipment installation. Please confirm our scope of work regarding Theater Equipment?

Answer: Drawings are still being completed and are unavailable at this time. Theater Equipment shall be by the Owners Consultant. Scope of work by Contractor clearly shown in drawings and specifications.

Addendum #4

Item No. 4.6 Reference Addendum 2. : Question: Addendum 2 indicates that light poles bases are by Civil and clarified that concrete (ductbank) encasement is by Civil. Please clarify if Electrical is still responsible for providing the manholes and transformer pads?

Answer: Transformer pads clarified in Addendum 3 as provided by GC.

Item No. 4.7 Reference Electrical Drawings : Question: Please confirm that Div 26 Electrical is NOT responsible for installation of projectors, video/TV screens: reference 016000-3.02-C?

The installation of owner's equipment listed as owner provided/contractor installed would be the responsibility of the GC.

Item No. 4.8 Reference Drawing E0.06 : Question: Special Receptacle Schedule on E0.06: The USB is indicated with an "L" (twistlock) in NEMA?

Answer: "L" removed in Special Receptacle Schedule on USB device.

Item No. 4.9 Reference Drawing T1.13: Question: How many total data drops are required in the band room (B142) on the wall with the white board?

Answer: 4D for AV rack, 2D in A1 plate, 2D in A2 plate.

Item No. 4.10 Reference Fire Alarm Systems : Question: Since the fire alarm wiring is specified to be installed in conduit, is there a preferred type of wire to be installed within the raceway (THHN, FPL, non-plenum, etc.)?

Answer: Provide FPL cabling as required by NFPA & NEC.

Item No. 4.11 Reference Addendum 2, item 2.82 : This previous addendum response was incorrect. Corresponding door numbers should be provided at the interior of the exterior doors as well. The interior numbers shall be a 4.74" x 4.75" plastic sign with 2" tall numbers and braille. Refer to 10 14 24.

Item No. 4.12 Reference Specification 26 76 00, 2.01 Substitution Request systems meeting the specification manufactured by Telecor shall be an acceptable substitution for the specified Intercom System. All other aspects of the specifications and drawings shall be met.

Item No. 4.13 Reference Specification 26 73 10, 2.01 Substitution Request systems meeting the specification manufactured by Sapling shall be an acceptable substitution for the specified Primex System. All other aspects of the specifications and drawings shall be met

Item No. 4.14 Reference Specification 26 71 70, 2.01B Substitution Request systems meeting the specification manufactured by Hikvision shall be an acceptable substitution for the specified IP Cameras. All other aspects of the specifications and drawings shall be met.

Item No. 4.15 Reference Specification 13 12 60 2.01 Question: 131260-2.01 and A8.04. Is the intent to have the Stadium Electrical Building prewired with lighting and devices or should the electrical contractor include fit-up as per ES2.06?

Addendum #4

The stadium electric building will be provided as a shell, and fit up with all electrical equipment and circuitry as shown on Drawing ES2.06.

Item No. 4.16 Reference Drawing/Specification XXXX: Question: A8.51 and 101426: There appears to be a programmable LED sign at the main entrance with a conduit in the precast. The ES drawings do not indicate any power, communication, or conduit work for this sign. Please advise if the electrical contractor should provide anything for this sign?

Answer: Electrical and telecommunications requirements are updated on re-issued ES drawings as part of previous addenda.

Item No. 4.17 Reference Drawing/Specification XXXX: Question: A7.11 (details H11, J11, F1, F5) indicate receptacles set into the counter top. However, E2.13 & 2.16 & E2.17 indicate a Type A1 floorbox at these islands. Please advise if the EC should provide anything other than the floorbox as shown on E dwgs?

Answer: The electrical boxes shall be counter-set per architectural drawings.

Item No. 4.18 Reference Specification 26 56 68, 1.04-I This specification section (issued via Addendum 1) shall have the following changes: Section 1.04.I, Delete the words "Equipment price and total life-cycle cost shall be entered separately on bid form." The life cycle cost should be submitted via the submittal process post bid.

Item No. 4.19 Reference Addendum 3: Question: Addendum 3, Item 3.49: the new ES dwgs do include 120V to the blue light phones. However they still do NOT indicate 120V to the 2 light poles with mounted cameras. Please advise as to the source and size and routing of this feed?

Answer: Electrical and telecommunications requirements are updated on re-issued ES drawings.

Item No. 4.20 Reference Knox Boxes: Question: Which section supplies and installs the knox boxes?

Answer: The General Contractor shall supply and install knox boxes. They must coordinate with multiple trades.

Item No. 4.21 Reference Drawing/Specification XXXX: Plan C-29 shows porous pavement starting at 41 +/-20 while C-9 refers to the "ROADWAY PAVING SECTION" around Sta 43 +/-8. Please provide start & stop stations for the porous pavement.

Answer: Disregard the "roadway paving section" note on C-13 (not C-9). The porous pavement is from station 41+21 to station 54+24.1+/- . Coordinate with Offsite improvements for transition at end of access road.

Item No. 4.22 Reference Specification 07 53 00: See attached revised specification for roofing. Changes were made to sections 2.01A, 2.02A, 2.03A, 2.03A-1, and 2.05A-1. Deleted language is shown with a strike-through. Added language is shown in bold/italic/underlined font to be clear.

Item No. 4.23 Reference Specification 08 62 23, 2.01 Substitution Request systems meeting the specification manufactured by Velux America shall be an acceptable substitution for the specified Solatube tubular skylight system. Velux System shall be 22" with TTC diffuser with 10" minimum height curb. It should be noted that the Skylight manufacturer (Velux) does not manufacture the entire curb, therefore, the contractor would need to provide this for these skylights. All other aspects of the specifications and drawings shall be met.

Addendum #4

Item No. 4.24 Reference Civil Drawings and Specification and 01 00 00: See attached permit from Maine DEP. GC and Sub Bidders under section F (site Package) shall comply with requirements and conditions listed within. Starting on page 15 there are several number conditions which should be clarified. The responsibility of these are as follows:

- Item 1 – all parties to be aware
- Item 2 – erosion control shall be the responsibility of the Contractor under Filed Sub Bid Package F
- Item 3 - all parties to be aware
- Item 4 – the client shall pay the \$175,503 fee directly to the State
- Item 5 – the client shall retain a third party inspector under separate contract. The GC and Sitework Contractor shall coordinate with this inspector to allow for the required inspections listed.
- Item 6 -- all parties to be aware and take part in this
- Item 7 – the client shall retain a design engineer under separate contract. The GC and Sitework Contractor shall coordinate with this engineer to allow for the required reviews listed.
- Item 8 – The maintenance activities shall be the responsibility of the Contractor under Filed Sub Bid Package F
- Item 9 – the deed executions shall be the responsibility of the client
- Item 10 - Buffer Marking shall be the responsibility Owner
- Item 11 – maintaining, monitoring, and replacing plantings shall be the responsibility of the Contractor under Filed Sub Bid Package F
- Item 12 – Owners Responsibility
- Item 13 - Marking shall be the responsibility of the Owner
- Item 14 – the deed executions shall be the responsibility of the client
- Item 15– The SPCC Plan shall be the responsibility of the client and the Civil Engineer
- Item 16 - Blasting Plans shall be the responsibility of the Contractor under Filed Sub Bid Package F
- Item 17 - Crusher licensing shall be the responsibility of the Contractor under Filed Sub Bid Package F

All other conditions and requirements within the permit should be reviewed by the Site Contractor and General contractor and complied with throughout construction.

Item No. 4.25 Reference Specification 04 20 00: Question: Section 04 20 00 Unit Masonry makes reference to a section 04 23 00 Reinforced Unit Masonry: please see 04 20 00 page 1 article 1.02.C and page 8 article 2.04.A. However we do not find that section in the specification book. Please provide.

Answer: Remove all references to 04 23 00. Information often found in this section was integrated into 04 20 00.

Item No. 4.26 Reference Drawing/Specification 12 34 00 2.05: Question: Please clarify what type of Fume Hood is to be provided. Spec section 123400-2.05-D calls for a “thin Wall” fume hood. This is also what is shown on casework elevation F1 on drawing A6.20. However, spec section 123400-2.05-D-12 calls for AMS model EH-111-72 as Basis of Design. This model is not a thin wall hood.

Answer: The listed Basis of Design should switch to the EH-311-72 Thin wall model. Other listed manufacturers should provide thin wall fume hoods.

Addendum #4

Item No. 4.27 Reference Addendum Item 2.11, Specification 31 51 00 Eliminate 31 51 00 section 8.02 as written and replace with the following "8.02 Basis of Bid: The quantities of piers accepted in the installers design submittal will be included as part of the General Contractors bid consistent with the requirements within the specifications and drawings for these systems. This shall include (but not be limited to) the preparation of plans, specifications, submittals, testing, measurement, mobilization, and all labor, equipment, and materials supplied to install rammed aggregate pier elements as noted within the specifications and drawings." Note that this change therefore eliminates the need for unit pricing associated with Rammed Aggregate Piers.

Item No. 4.28 Reference Windows Shades Question: On window type W3, W3b, W4 and W4b: should there be one shade per opening or two?
Window types W3, W3b, W4 and W4b should have two shades per opening.

Item No. 4.29 Reference Windows Shades Question: Please clarify if storefront types S8, S8a, S9 and S10 should have multiple window shades or one continuous shade.
Storefront types S8, S8a, S9 and S10 should have multiple shades per opening.

Item No. 4.30 Reference Drawing A8.10 Question: Drawing A8.10 calls for an exterior mock-up and does not appear to include any structural steel or miscellaneous metals. Please confirm that these scopes are not required in mock-up.
Answer: The mock-up is intended as a temporary structure and structural steel is not required. Lateral and seismic bracing may be provided using 05 40 00 Cold-Formed Metal Framing

Item No. 4.31 Reference Specification 09 51 00 and 09 54 23 Question: Section 095100 part 3.03 A.1 indicates a seismic design category C. Section 095423 part 3.03 A.1 indicates a seismic design category D. Please clarify.
Answer: Seismic Design Category C.

Item No. 4.32 Reference Roof Drawings, Specification 07 72 00 and Filed Sub Bid Package F Question: Roof plans call for a "Lamb's Tongue" at various locations. Should those be roof anchors specified in 077200?
Answer: No. These are mis-labeled. They are radon vents. Replace these notes with "33 46 10 Radon Vents". The piping associated with the Radon System should be part of the General Contractors responsibility (reference drawing R1.00), and excluded from Filed Sub-Bid Packages F. All notes in R1.00 pointing towards section 32 21 12 should actually point towards 33 26 10.

Item No. 4.33 Reference Drawing A1.11 and A0.50 Question: Reference area A3 on Level 1. Please clarify if Door C101C is an overhead door and if so which type.
Answer: Door C101C is Overhead Door Type OH-1

Item No. 4.34 Reference Specification 22 45 00 2.02 Substitution Request: SPH model manufacturer by Cemline shall be an acceptable substitution for the specified 900 L 300 A TRPF system manufactured by PVI. All other aspects of the specifications and drawings shall be met.

Item No. 4.35 Reference Specification 26 71 70 2.01A Substitution Request: Salient Complete View system manufacturer by Salient shall be an acceptable substitution for the specified Exacvision system by Tyco. All other aspects of the specifications and drawings shall be met.

Addendum #4

Item No. 4.36 Reference Specification 23 29 00: Question: Specification section 232900 subparagraph 3.03 calls for concealed and exposed return air duct work to be insulated but only 10' of exhaust air duct work requires insulation. There are multiple locations on plans where the labels for the ductwork associated with the DHU's swaps back and forth between return air and exhaust air. Is it your intent to insulate all duct work associated with DHU's?
Answer: Return/exhaust air ductwork associated with the DHU's (ductwork transporting air back to the dehumidification unit) is not required to be externally insulated. This does not alleviate the requirement for double-wall ductwork where shown on Drawings

Item No. 4.37 Reference Specification 23 54 00: Question: For Specification section 23 54 00, HVAC Pumps, 2.03. F – it asks for Each pump to be hydraulically tested. Is this requiring EACH pump, or each pump MODEL/Series?
Answer: Factory testing of pumps prior to shipment is not required provided certified performance curves are submitted.

Item No. 4.38 Reference Electrical Drawings See Updated Electrical Drawings. Electrical one-line drawing E0.02 was re-issued as a part of this addendum with notes on the generator circuit breakers and enclosures.

Drawing E0.02 ELECTRICAL ONE-LINE DIAGRAM - Replace Existing with Attached.

Drawing E0.06 ELECTRICAL SCHEDULES - Replace Existing with Attached.

Drawing ES1.01 ELECTRICAL SITE PLAN - Replace Existing with Attached.

Drawing ES1.02 ELECTRICAL SITE PLAN- Replace Existing with Attached.

Drawing ES1.03 ELECTRICAL SITE PLAN- Replace Existing with Attached.

Drawing ES1.04 ELECTRICAL SITE PLAN- Replace Existing with Attached.

Drawing ES1.07 ELECTRICAL SITE PLAN- Replace Existing with Attached.

Drawing T1.18 FIRST FLOOR TELECOMMUNICATIONS PLAN - AREA F1- Replace Existing with Attached.

Item No. 4.39 Reference Drawing/Specification 21 32 50: Question: There are (2) pre-action valves/systems on the project. (1) Valve/system is located in FACS Storage protects IT Server/Data (reference FP1.12). The valve is specified as a prepackaged valve assembly per Specification Section 21 32 50 - 2.18. The other Valve/system is located in Video Storage B150A and protects Server B107A (reference FP1.13). It appears that this is a conventional field assembled pre-action valve. Please clarify that the intent is to provide (1) prepackaged valve and (1) field assembled valve and not (2) prepackaged valves.

Answer: It is the design intent to have (1) pre-packaged valve and (1) field assembled valve as identified. The field assembled valve will be located in an architectural enclosure.

Item No. 4.40 Reference Drawing/Specification XXXX: Question: There are (4) dry valves/systems on the project. The valves are not specified in Specification Section 21 32 50.

(1) Valve is located in Horticulture D150. It is shown to be a prepackaged valve assembly (reference FP1.16).

Addendum #4

(2) Valves are located in Custodial C115A. They are shown to be conventional field assembled valves (reference FP1.14).

(1) Valve is located in Fire Instruction E142. Valve is shown as a conventional field assembled valve (reference FP1.17).

Please clarify that there are to be (1) prepackaged valve and (3) field assembled valves and not (4) prepackaged valves.

Answer: Please refer to specification 213250 Section 2.02 (c) for dry-pipe alarm valve. It is the design intent to provide (1) pre-packaged valve and (3) field assembled valves as identified.

Item No. 4.41 Reference Drawing Fp2.02: Question: Fire Protection Plan FP2.02 shows details that spell out the protection requirements for the Building Trades spray booth and the Automotive Spray booth. The details are not to scale and do not represent the actual booths to be provided. The document set does not contain drawings or details for these spray booths. Please clarify how we are to accurately bid protection for these booths without drawings

Answer: Please refer to the architectural drawings for scaled layout of the spray booths.

Item No. 4.42 Reference Specification 21 32 50 2.15: Question: Reference Fire Protection Specification 21 32 50 – 2.15 – specifying a wall post indicator valve. The Wall post is not shown on the fire protection drawings. Is the wall post to be included?

Answer: Yes. The Sanford Fire Department has requested the installation of a post indicator valve on the fire service

Item No. 4.43 Reference Specification 21 32 50 2.20: Question: Reference Fire protection Specification 21 32 50 – 2.20 – specifying a Guardian III kitchen hood system. Kitchen hood system is not shown on the fire protection drawings. Is the Kitchen hood system to be included? If so, where?

Answer: Refer to drawing FP1.23 Life Skills Apartment B215 for location of hood suppression system.

Item No. 4.44 Reference Specification 26 76 00 2.02: Question: 2.02 under part M and N mention call buttons. There are no call buttons noted on the prints. Are we to provide Call Buttons or is every classroom going to have a phone system phone?

Answer: There are phones in each classroom

Item No. 4.45 Reference Specification 23 55 89 Substitution Request: Benchmark Boilers manufacturer by Aerco shall not be an acceptable substitution for the specified Clearfire by Cleaver Brooks.

Item No. 4.46 Reference Specification 26 73 10, 2.01 Substitution Request Wireless Clock System SSQMSTR-10N6GE manufacturer by American Time and Signal shall be an acceptable substitution for the specified Wireless Clock System XR01EM by Primex. All other aspects of the specifications and drawings shall be met.

Item No. 4.47 Reference Addendum 3 Corrections:

- Section 13 12 55 Heavy Duty All-Aluminum Frame Bleacher was issued in response to item 3.32. However, the bottom right footnote identifies it as Grandstand Seating System Section 13 12 50. This should read 13 12 55.
- Addendum #3, item 3.4 – this should reference Specification **01 50 00**
- Addendum #3, item 3.21 – this should reference **Drawings** A0.38, A0.39, A0.45
- Addendum #3, item 3.26 – the answer should be **Filed** Sub Bid Package E

Item No. 4.48 Reference Addendum 2 Corrections:

- Addendum #2, item 2.36 – this should reference Specification 13 **34** 12
- Addendum #2, item 2.48 – this should reference Addendum item **2.9**
- Addendum #2, item 2.79 – this should reference Specification 10 14 **26**

END OF ADDENDA #4



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

March 2016

City of Sanford School Department
C/o David Theoharides, Superintendent
917 Main Street, Suite 200
Sanford, ME 04073

RE: Site Location of Development Act and Natural Resources Protection Act Applications
Sanford, DEP #L-26744-22-A-N/L-26744-TG-B-N/L-26744-2F-C-N

Dear Mr. Theoharides:

Please find enclosed a signed copy of your Department of Environmental Protection land use permit. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please take several moments to read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. You will also find attached some materials that describe the Department's appeal procedures for your information.

If you have any questions about the permit or thoughts on how the Department processed this application please get in touch with me directly. I can be reached at (207) 822-6300 or at robert.green@maine.gov.

Sincerely,

Robert L. Green, Jr., Project Manager
Bureau of Land Resources

pc: File

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143



DEPARTMENT ORDER

IN THE MATTER OF

| | |
|---------------------------|------------------------------------|
| CITY OF SANFORD |) SITE LOCATION OF DEVELOPMENT ACT |
| SCHOOL DEPARTMENT |) NATURAL RESOURCES PROTECTION ACT |
| Sanford, York County |) FRESHWATER WETLAND ALTERATION |
| SANFORD HIGH SCHOOL AND |) ADJACENT ACTIVITY |
| REGIONAL TRAINING CENTER |) WATER QUALITY CERTIFICATION |
| L-26744-22-A-N (approval) |) |
| L-26744-TG-B-N (approval) |) |
| L-26744-2F-C-N (approval) |) FINDINGS OF FACT AND ORDER |

Pursuant to the provisions of 38 M.R.S.A. Sections 481 et seq. and 480-A et seq., and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of the CITY OF SANFORD SCHOOL DEPARTMENT with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant is seeking approval to construct a new high school and regional technical center on an approximately 132-acre parcel of land. The high school and technical center will be in a single building with a footprint of approximately five acres. The entire campus will include the building; parking areas for faculty, students, and visitors; an artificial turf athletic field and track with bleachers; tennis courts; a javelin and discus area; three athletic fields; and paved walkways and drives. Primary access to the campus will be from Main Street (Route 109) at the western end of the parcel, and secondary access will be from the west side of Alfred Road at the eastern end of the parcel.

The proposed project is shown on a set of plans, the first of which is entitled "Sanford High School and Technical Center," prepared by Sebago Technics, Inc., and dated October 15, 2013, with a last revision date of December 18, 2015. The project site is located on the east side of Main Street in the City of Sanford. When completed, the development will result in 51.2 acres of developed area, of which 22.2 acres will be new impervious area.

The applicant is also seeking approval under the Natural Resources Protection Act (NRPA) to fill approximately 122,597 square feet (2.81 acres) of forested wetland for the proposed development.

B. Current Use of Site: The site of the proposed project is currently undeveloped fields, woodland, and wetlands. There are no structures on the property, but a portion of

the site is an abandoned sand and gravel pit. Numerous tote roads and trails cross through the site, and a 36-inch sewer trunk line is located along the northern end of the property along the Mousam River.

2. FINANCIAL CAPACITY:

The total cost of the project is estimated to be \$112,240,000. The applicant submitted a letter from the Maine State Board of Education, dated October 15, 2014, giving concept approval for the proposed project and granting \$102,716,632. The applicant also submitted the Warrant and Notice of Election, dated January 13, 2015, certifying that the referendum, which authorizes the issuance of bonds in the amount of \$10,628,450, was approved by voters in Sanford.

The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards.

3. TECHNICAL ABILITY:

The applicant provided resume information for key persons involved with the project and a list of projects successfully constructed by the applicant. The applicant also retained the services of Sebago Technics, Inc., a professional engineering firm, to assist in the design and engineering of the project.

The Department finds that the applicant has demonstrated adequate technical ability to comply with Department standards.

4. NOISE:

The project consists of a school campus and will have a minor noise impact. Typical noises emanating from the development will be from cars, lawn mowers, and from a Public Address system used at the athletic field. The Public Address system will comply with the City of Sanford's noise ordinance. The closest protected location is greater than 500 feet from the proposed athletic field. The applicant proposes to limit construction on the site to normal (daylight) hours established in the City of Sanford Ordinances.

Based on the information contained in the application, the Department anticipates that the project will have a minor sound impact and will be in compliance with the Department's Noise Rules, Chapter 375(10).

5. SCENIC CHARACTER:

The campus will be constructed greater than 100 feet from development on Route 109 and Alfred Road. The project site is bounded by woodland and forested wetland to the north and east, with the Mousam River along the northern property boundary. The northwest portion of the parcel contains two significant vernal pools and will not be developed.

Four sets of stadium lights on 80-foot high poles are proposed to illuminate the athletic field. The photometric model included in the application indicates that light intensities of 0.5 foot-candles will not intrude 100 feet beyond the athletic field. The applicant does not propose to illuminate the tennis courts or other fields on this property. Lighting of the main and secondary drives, as well as the parking areas will be illuminated with LED lights providing directional lighting to targeted areas. Illumination levels at the property boundary and within preserved natural areas are predicted to be negligible.

Based on the project's location and design, the Department finds that the proposed project will not have an unreasonable adverse effect on the scenic character of the surrounding area.

6. WILDLIFE AND FISHERIES:

The applicant submitted survey information that indicates that two of three vernal pools located on the project site are significant vernal pools, as defined in the Department's *Significant Wildlife Habitat Rules*, Chapter 335. The proposed project has been designed to avoid impacts to the significant vernal pools, including the 250-foot critical terrestrial habitat around the vernal pools as regulated by the Department. However, approximately 19.27 acres proposed for development are located within the 750-foot vernal pool habitat regulated by the Army Corps of Engineers (Corps). To compensate for the impacts to the terrestrial habitat established by the Corps, the applicant proposes to preserve approximately 104.27 acres of land. Compensation and preservation for vernal pool impacts and for wetland alteration, including how the preservation area will be protected through the execution of deed restrictions, is outlined in Finding 17.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project. In its comments dated August 18, 2015, MDIFW stated that during surveys of the project site, populations of Sleepy Duskywing butterflies and Brown Snakes were documented in areas proposed for development. The Sleepy Duskywing butterfly is listed as a state threatened species and the Brown Snake is listed as a state species of special concern. MDIFW stated that the proposed project will adversely impact approximately 10 acres of habitat for these species. Because the applicant is seeking to use preservation as the method for mitigating this impact, MDIFW stated that a ratio of 8:1 (preservation: impact) of suitable land area be used to compensate for the loss of habitat.

After reviewing the parcels proposed for preservation to compensate for vernal pool impacts and wetland alterations, MDIFW determined that approximately 32 acres of the preservation area are suitable habitat for one or both of the two abovementioned species, and recommended that additional land be made available to mitigate for the adverse impact to existing habitat. Working with MDIFW, the applicant identified a 36-acre area on the City-owned, Sanford Airport parcel which would provide suitable habitat for the Sleepy Duskywing butterflies and Brown Snake. This 36-acre area is part of the airport complex covered under Department Order #L-18872-18-A-N, dated August 4, 1995.

Due to concerns that the Federal Aviation Administration would have for preserving this area by deed restriction, the City, on behalf of the applicant and MDIFW executed a Cooperative Agreement, dated February 1, 2016. Under the agreement, the parties agree that this additional area will complete the preservation plan for the proposed project, MDIFW will be permitted access to the 36-acre area for management purposes, and in the event that this area becomes developed to meet future airport needs, then the City will be obligated to locate and protect another suitable parcel of comparable size and habitat characteristics.

Based on the site layout and the Cooperative Agreement between the applicant and MDIFW, the Department finds that the proposed project will not have an adverse effect on endangered species provided that the applicant complies with the requirements of the executed Cooperative Agreement, and that the applicant submits recorded deed restrictions protecting the Preservation Area as outlined in Finding 17.

MDIFW further commented that a 100-foot wide undisturbed buffer along the Mousam River be maintained. The City maintains a gravel road over its 36-inch sewer trunk line that is located within this 100-foot buffer. The applicant proposes to improve the gravel road as a means of accessing the northern end of the school. No development is proposed between the sewer trunk line and the river; however, to address MDIFW's concerns about maintaining the riparian area along the river, the applicant proposes to restore disturbed areas north of the sewer trunk line. The restoration includes a planting plan and the planting will be done concurrently with project construction.

The applicant must monitor the plantings and the plantings must be replaced or maintained as necessary to achieve 85% survival after one full growing season.

No fisheries concerns were identified.

The Department finds that the applicant has made adequate provision for the protection of wildlife and fisheries provided that applicant monitors the plantings in the disturbed areas within 100 feet of the Mousam River and plantings are replaced or maintained as necessary to achieve 85% survival after one full growing season.

7. HISTORIC SITES AND UNUSUAL NATURAL AREAS:

The Maine Historic Preservation Commission (MHPC) reviewed the proposed project and requested a prehistoric archaeological survey and historic archaeological survey of the project site and an architectural survey of nearby ground resources. These surveys were included in the application. MHPC reviewed the applicant's submittals and stated, in a letter dated August 6, 2015, that there will be no prehistoric or archeological properties affected by the project.

Based on the prehistoric archaeological, historic archaeological, and architectural surveys and the conclusions from MHPC drawn from the surveys, the Department finds that the

proposed development will not have an adverse effect on the preservation of any historic sites.

8. UNUSUAL NATURAL AREAS:

The Maine Natural Areas Program database does not contain any records documenting the existence of rare or unique botanical features on the project site.

The Department finds that the proposed development will not have an adverse effect on the preservation of any unusual natural areas either on or near the development site, and potential impacts to special wildlife habitats will be addressed as discussed in Finding 6.

9. BUFFER STRIPS:

A buffer between disturbance associated with the proposed project and the Mousam River will be maintained and enhanced as discussed in Finding 6. Forested, no-disturbance stormwater buffers are proposed to provide treatment of stormwater runoff. The buffers will be protected from alteration through the execution of a deed restriction as discussed in Finding 11. No other buffers are proposed as part of the project.

The Department finds that the applicant has made adequate provision for buffer strips.

10. SOILS:

The applicant submitted a soil survey map and report and a geotechnical report based on the soils found at the project site. The soil survey map and report was prepared by a certified soils scientist and the geotechnical report was prepared by a registered professional engineer. The reports were reviewed by staff from the Division of Environmental Assessment (DEA) of the Bureau of Water Quality (BWQ).

The applicant indicated that blasting associated with construction of the project is likely to be necessary and submitted a generic blasting plan in the application. DEA recommended that the applicant be required to submit a site-specific Blasting Plan for blasting that occurs within 500 feet of non-owned off-site structures such as buildings and wells. Prior to the start of any blasting on the project site, the applicant must submit a site map showing blast areas and a blasting plan to the Bureau of Land Resources (BLR) for review and approval. The blasting plan must be prepared by a qualified blaster and include the blasting standards contained in 38 M.R.S. § 490-Z(14), and the plan must include an anticipated blast design/shot pattern specifically tailored to the project.

If a rock crusher is being utilized on site, the applicant must ensure that the crusher is licensed by the Department's Bureau of Air Quality and is being operated in accordance with that license.

The Department finds that based on the reports and Blasting Plan submitted in the application and DEA's review, the soils on the project site present no limitations to the

proposed project that cannot be overcome through standard engineering practices provided that a site-specific blasting plan is submitted for review and approval prior to commencement of blasting activities.

11. STORMWATER MANAGEMENT:

The proposed project includes approximately 51.2 acres of developed area, of which 22.2 acres are impervious area. It lies within the watershed of the Mousam River, which drains into Estes Lake, a lake most at risk from new development. The applicant submitted a stormwater management plan based on the Basic, Phosphorus, and Flooding standards contained in Department's Rules, *Stormwater Management*, Chapter 500. The proposed stormwater management system consists of catch basins, subsurface drainage systems, vegetated underdrained soil filters and trenches, infiltration basins, Filterra units, a filtration system under the synthetic turf field, a subsurface sand filter using a chamber system, permeable paver areas, approximately 1,300 linear feet of porous pavement roadway, stone bermed level lip spreaders, and forested, undisturbed buffers.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan (Section 14 of the application) that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of, BLR.

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor. Given the size and nature of the project site, the applicant must retain the services of a third party inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order.

Prior the start of construction, the applicant must conduct a pre-construction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties. This meeting must be attended by the applicant's representative, Department staff, the design engineer, the contractor, and the third-party inspector.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by, and revised in response to the comments of, BLR. The applicant will be responsible for the maintenance of the stormwater management system. The application included a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the stormwater control structures.

Storm sewer grit and sediment materials removed from stormwater control structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500(4)(B).

B. Phosphorus Standards:

Because of the proposed project's location in the watershed of Estes Lake, stormwater runoff from the project site will be treated to meet the phosphorus standard outlined in 500 (4)(D). The applicant's phosphorus control plan was developed using methodology developed by the Department and outlined in "Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development". For this project, the Permitted Phosphorus Export is 2.6044 pounds of phosphorus per year. The applicant proposes to remove phosphorus from the project's stormwater runoff by utilizing the stormwater treatment measures listed above and as shown on the set of plans referenced in Finding 1. The predicted phosphorus export for the project site based on the applicant's model is 10.1573 pounds per year. The proposed stormwater treatment will not be able to reduce the export of phosphorus in the stormwater runoff below the maximum permitted phosphorus export for the site.

The applicant indicated that it is unable to meet the phosphorus standard at a reasonable cost and because of site constraints by utilizing additional, conventional on-site phosphorus control measures. Therefore, the applicant is addressing the remaining phosphorus reduction requirements of Chapter 500 through the payment of a compensation fee. To utilize the compensation fee, the applicant must demonstrate that the stormwater management system provides a minimum of 60 percent removal of phosphorus. The proposed stormwater management system for this site will provide a phosphorus treatment and removal rate of approximately 62 percent. In order to compensate for the excess phosphorus export of 7.5529 pounds per year, the applicant will submit a payment of \$175,503 to the Department's Lake Phosphorus Compensation Fund to be utilized at other sites in the Estes Lake watershed to reduce phosphorus exports to the pond.

The proposed infiltration system was reviewed by staff from DEA. The applicant must ensure that the discharge of soluble pollutants to the infiltration area is minimized and that the infiltration area is maintained to assure that its capacity is unimpaired. Based on DEA's review, the Department does not anticipate that the infiltration area will adversely impact groundwater quality.

The forested, no disturbance stormwater buffers will be protected from alteration through the execution of a deed restriction. The applicant proposes to use the deed restriction language contained in Appendix G of Chapter 500 and submitted a draft deed restriction that meets Department standards.

Prior to the start of construction, the location of stormwater buffers must be permanently marked on the ground. Prior to the start of construction, the applicant shall execute and record the appropriate buffer deed restrictions. The deed must contain deed restrictions relative to the buffers and have attached to it a plot plan for the parcel, drawn to scale, that specifies the location of the buffers on the parcel. The applicant must submit a copy of the recorded deed restriction, including the plot plan, to the BLR within 60 days of its recording.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, BLR. After a final review, BLR commented that the proposed stormwater management system is designed in accordance with the Phosphorus Standards contained in Chapter 500(4)(D), and recommended the applicant retain its design engineer or other qualified professional engineer to oversee the construction of the vegetated underdrained soil filters and trenches, the infiltration basins, the Filterra units, the filtration system under the synthetic turf field, the subsurface sand filter and chamber system, the permeable paver areas, and the porous pavement roadway, according to the details and notes specified on the approved plans. Within 30 days of completion of each stormwater treatment measure, the applicant must submit a log of inspection reports detailing the items inspected, photographs taken, and the date of each inspection to the BLR for review.

Based on the stormwater system's design and BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Phosphorus Standards contained in Chapter 500(4)(D) provided that the buffers are marked and protected, and the installation of the stormwater structures is inspected and documented as described above.

C. Flooding Standard:

The applicant is proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20, U.S.D.A., Soil Conservation Service, and detains or results in infiltration of stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will be increased by an insignificant amount over the pre-development peak flow from the site and the peak flow of the receiving water will not be increased as a result of stormwater runoff from the development site.

BLR commented that the proposed system is designed in accordance with the Flooding Standard contained in Chapter 500(4)(E).

Based on the system's design and BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500(4)(E) for peak flow from the project site, and channel limits and runoff areas.

The Department further finds that the proposed project will meet the Chapter 500 standards for: (1) easements and covenants; (2) management of stormwater discharges; (3) discharge to freshwater wetlands; and (4) threatened or endangered species.

12. GROUNDWATER:

The project site is not located over a mapped sand and gravel aquifer. The proposed project does not propose any withdrawal from, or discharge to, the groundwater. The applicant submitted a draft Spill Prevention, Control, and Countermeasure Plan (SPCC Plan) for the project site, dated August 14, 2015, which was reviewed by DEA. DEA recommended that the applicant submit a final version of the SPCC Plan when it is completed.

The Department further finds that the proposed project will not have an unreasonable adverse effect on ground water quality or quantity, provided that the final and signed SPCC Plan is submitted to the BLR for review prior to occupancy of the school.

13. WATER SUPPLY:

When completed, the proposed project is anticipated to use 27,247 gallons of water per day for domestic use and approximately 160,600 gallons per week for irrigation of the athletic fields and the school grounds. Water will be supplied by the Sanford Water District. The applicant submitted a letter from the District, dated July 17, 2015, indicating that it will be capable of servicing this project.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply.

14. WASTEWATER DISPOSAL:

When completed, the proposed project is anticipated to discharge 27,247 gallons of wastewater per day to the Sanford Sewerage District's wastewater treatment facility. The applicant submitted a letter from the District stating that it will accept these flows. This project was reviewed by the Division of Water Quality Management (DWQM) of the BWQ, which commented that the Sanford Sewerage District has the capacity to treat these flows and is operating in compliance with the water quality laws of the State of Maine.

Based on DWQM's comments, the Department finds that the applicant has made adequate provision for wastewater disposal at a facility that has the capacity to ensure satisfactory treatment.

15. SOLID WASTE:

When completed, the proposed project is anticipated to generate approximately 171 tons of municipal solid waste per year. All general solid wastes from the proposed project will be disposed of at EcoMaine in Portland, which is currently in substantial compliance with the Maine Solid Waste Management Rules.

The proposed project will generate approximately 20,000 cubic yards of stumps and grubblings. All stumps and grubblings generated will be ground on site and the resulting material utilized for erosion control, in compliance with Solid Waste Management Regulations of the State of Maine.

The proposed project will generate approximately 1,550 cubic yards of construction debris and demolition debris. All construction and demolition debris generated will be disposed of at the Sanford Transfer Station or Riverside Recycling in Portland, which is currently in substantial compliance with the Maine Solid Waste Management Rules.

Universal waste including fluorescent light bulbs, computer equipment, and spent hazardous chemicals will be disposed of in accordance with the applicant's existing disposal plan.

Based on the above information, the Department finds that the applicant has made adequate provision for solid waste disposal.

16. FLOODING:

Approximately 375 linear feet of the main access road that leads to the campus from Main Street lies within the 100-year floodplain of an unnamed stream that drains into the Mousam River. The watershed of this stream is largely undeveloped. The access road will be located along the edge of the designated floodplain and at the upper end of the watershed and is therefore anticipated to have little or no effect on the floodplain. Additionally, approximately 300 linear feet of the gravel road over the existing sewer trunk line that is proposed for improvement lies within the 100-year floodplain of the Mousam River. No new development is proposed at this location, so impacts to the floodplain are not anticipated.

The Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

17. WETLAND IMPACTS:

The topography of the portion of the parcel proposed for development is characterized by a very low ridgeline that trends northwest to southeast. On either side of this ridge are two wetland complexes. The southern wetland complex (Wetland A, approximately 9.7 acres) drains from northwest to southeast and is composed of forested wetlands. The

second wetland complex (Wetland B, approximately 5.04 acres) drains from southeast to northwest and is composed of scrub shrub wetland. At the northwest end of this wetland complex the wetland type changes from scrub shrub to emergent wetland, covering an area of approximately 21,600 square feet. This emergent wetland meets the definition of wetland of special significance set forth in the Department's *Wetlands and Waterbodies Protection Rules*, Chapter 310. As a result, the entire wetland complex is considered a wetland of special significance.

The surface water that enters the Wetland A complex drains into a linear man-made pond at the southeast end of the wetland complex and then into a stream that crosses the ridge. The stream enters the Wetland B complex from the southeast. Flow through this wetland moves toward the northwest, passes through culverts under the existing 36-inch sewer trunk line, and then flows into the Mousam River.

A third wetland complex (Wetland C, approximately 3.2 acres) that also includes emergent wetlands is located between the Mousam River and the sewer trunk line. Development along this wetland complex will be limited to improvements to the existing gravel road over the trunk line and to the road side slopes. No wetland alteration is proposed in this area. A fourth wetland complex is located along the western portion of the parcel. This wetland complex is associated with an unnamed stream that runs northerly from Main Street to the Mousam River. The stream and wetland lie within the 100-year flood plain. No development is proposed for this portion of the parcel, except for a small wetland alteration associated with the access road near the entrance.

The two significant vernal pools discussed in Finding 6 are located near the center of the parcel, between the Mousam River, the Main Street access road, and the west side of the school building.

The applicant proposes to locate the building, parking areas for faculty, students, and visitors, the artificial turf athletic field complex, tennis courts, and the javelin/discus area on the uplands between Wetland Areas A and B. The proposed project will directly alter approximately 122,597 square feet (2.81 acres) of forested wetland at 10 locations to construct the proposed project. Wetland impacts are shown on the set of plans referenced in Finding 1. In addition to wetland impacts, the applicant proposes to construct structures within 75 feet of the wetland edge and conduct ground disturbance activities within 25 feet of the wetland edge along Wetland Area B, a wetland of special significance.

Chapter 310 interprets and elaborates on the NRPA criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a freshwater wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. The applicant submitted an alternatives analysis for the proposed project completed by Sebago Technics and dated August 19, 2015. The project purpose is to construct a new high school and regional technical center with associated sports fields and parking. Following a screening analysis of 126 locations, the applicant examined nine sites, taking into consideration environmental issues, critical habitats, parcel configuration, infrastructure connectivity, and local regulatory considerations. The selected site was determined to be the best to meet the purpose and need of the proposed project. The applicant was unable to further reduce the size, scope, or density of the project in a manner that would significantly reduce wetland impacts while maintaining viability of the project.

The applicant's effort to limit the majority of the campus development between Wetland Areas A and B requires that the man-made pond and fringe wetlands be drained and filled. The athletic fields are located in upland areas between wetlands and the critical terrestrial habitat of the significant vernal pools. The crossing of Wetland A will be located outside of the critical terrestrial habitat of the significant vernal pools.

Along the southern wetland edge of Wetland Area B, structures have been located at least 25 back from the wetland edge; however, this requires that grading along the wetland occur right up to the wetland edge. The site plans require the contractor to place silt fence along the wetland edge and that grading not be allowed to encroach into the wetlands.

To ensure that wetlands will be protected from alteration, prior to the start of construction, the location of the wetland edge adjacent to any development must be permanently marked on the ground. The spacing interval between markings must not exceed 10 feet.

Based on the alternatives analysis and the siting efforts limiting wetland impacts, the Department finds that the applicant has avoided wetland impacts to the greatest extent practicable and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project, provided that prior to the start of construction, the location of the wetland edge adjacent to any development is permanently marked on the ground with the spacing between markings no greater than 10 feet.

B. Minimal Alteration. The amount of freshwater wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant has avoided and minimized wetland impacts to the greatest extent practicable through the design of the facility. The project, as designed, would prevent fragmentation of the natural and campus environment. Roads and parking areas that impact wetlands have been designed to cross the wetlands at their narrowest point while avoiding encroachment in the critical terrestrial habitat of a significant vernal pool or altering the

edge of the wetlands. Road side slopes in wetland areas will be constructed at a 1.5:1 or 2:1 ratio to further minimize impacts.

The Department finds that the applicant has minimized wetland impacts to the greatest extent practicable.

C. Compensation. Compensation is required to achieve the goal of no net loss of wetland functions and values. The applicant submitted a functions and values assessment for freshwater wetlands on the project site. The primary functions and values of the on-site wetlands are groundwater recharge, sediment/toxicant retention, nutrient removal, wildlife habitat, floodflow attenuation, endangered species habitat, and educational/scientific value.

To compensate for the wetland alterations, and for development of 19.27 acres of upland located within the 750-foot habitat for the two significant vernal pools required by the Corps, the applicant proposes to preserve approximately 104.27 acres of undeveloped on-site and off-site land owned by the applicant and the City of Sanford that includes upland (approximately 58.1 acres) and wetlands (approximately 46.2 acres). The parcels proposed for preservation include nine lots of record, and are located along the Mousam River. Portions of five of the lots are located within a moderate-value Inland Waterfowl and Wading Bird Habitat (IWWH ID #011084) identified by MDIFW. The proposed preservation areas are shown on a plan entitled "Proposed Preservation Parcels Plan," prepared by Sebago Technics, and dated May 1, 2015.

The applicant submitted a draft Declaration of Covenants and Restrictions that is intended to protect the Preservation Areas in perpetuity and to maintain them in an undeveloped state with limited access. The Declaration of Covenants and Restrictions was reviewed and found to meet Department requirements. The applicant must submit a copy of the recorded deed restriction protecting the Preservation Area to the BLR prior to the start of construction.

The Department finds that the applicant has made adequate provision for the protection of wildlife and fisheries provided that applicant submits a recorded deed restriction protecting the Preservation Area to the BLR prior to the start of construction.

18. AIR QUALITY:

The Department finds that no significant source of air emissions has been identified.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.

- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided the applicant submits recorded deed restrictions protecting the Preservation Areas to the BLR and the location of the wetland edge adjacent to any development is permanently marked on the ground as described in Finding 17, and provided the applicant monitors and maintains vegetation in the disturbed areas within 100 feet of the Mousam River and complies with the requirements of the executed Cooperative Agreement as described in Finding 6.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.
- I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S.A. Section 480-P.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 481 et seq.:

- A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.
- B. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities.
- C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil provided that a site-specific blasting plan is submitted for review and approval prior to commencement of blasting activities.

- D. The proposed development meets the standards for storm water management in Section 420-D and the standard for erosion and sedimentation control in Section 420-C provided that the a pre-construction meeting is held, a third party inspector is hired, storm sewer grit and sediment materials are disposed of properly, buffers are marked and protected, a professional engineer is retained to inspect and document the installation of stormwater components, and a payment is submitted to the Department's Lake Phosphorus Compensation Fund, all as described in Finding 11.
- E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur provided that an updated SPCC Plan is submitted as outlined in Finding 12.
- F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities and solid waste disposal required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities in the municipality or area served by those services.
- G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

THEREFORE, the Department APPROVES the application of the CITY OF SANFORD SCHOOL DEPARTMENT to construct a new high school and regional technical center as described in Finding 1, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.
2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
4. Prior the start of construction, the applicant shall submit a payment of \$175,503 to the Department's Lake Phosphorus Compensation Fund.
5. The applicant shall retain the services of a third-party inspector in accordance with the Special Condition for Third-Party Inspection Program, which is attached to this Order.

6. Prior the start of construction, the applicant shall conduct a pre-construction meeting. This meeting shall be attended by the applicant's representative, Department staff, the design engineer, the contractor, and the third-party inspector.
7. The applicant shall retain the services of either the design engineer or another qualified professional engineer to oversee the construction of the vegetated underdrained soil filters and trenches, the infiltration basins, the Filterra units, the filtration system under the synthetic turf field, the subsurface sand filter using a chamber system, the permeable paver areas, and the porous pavement roadway in accordance with the details and notes specified on the approved plans. Within 30 days of the completion of each stormwater treatment measure, the applicant shall submit a log of inspection reports detailing the items inspected to the BLR for review.
8. Storm sewer grit and sediment materials removed from stormwater control structures during maintenance activities shall be disposed of in compliance with the Maine Solid Waste Management Rules.
9. Prior to the start of construction, the applicant shall execute and record the appropriate buffer deed restrictions. The deed must contain deed restrictions relative to the buffers and have attached to it a plot plan for the parcel, drawn to scale, that specifies the location of the buffers on the parcel. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the BLR within 60 days of its recording.
10. Prior to the start of construction, the location of the stormwater forested buffers shall be permanently marked on the ground.
11. The applicant shall monitor the plantings in the disturbed areas within 100 feet of the Mousam River and the plantings must be replaced or maintained as necessary to achieve 85% survival after one full growing season.
12. The applicant shall comply with the requirements of the executed Cooperative Agreement between the applicant and MDIFW.
13. Prior to the start of construction, the location of the wetland edge adjacent to any development shall be permanently marked on the ground with a spacing interval not to exceed 10 feet.
14. Prior the start of construction, the applicant shall execute and record all required deed restrictions for the lots identified in the Preservation Areas. The applicant shall submit a copy of the recorded deed restrictions to the BLR within 60 days of their recording.
15. Prior to occupancy of the school, the applicant shall submit the updated SPCC Plan to the BLR for review.

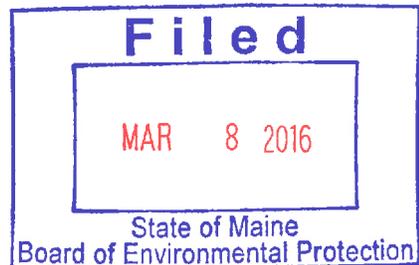
16. Prior to the start of any blasting on the project site within 500 feet of non-owned off-site structures such as buildings and wells, the applicant shall submit a site-specific Blasting Plan to the BLR for review and approval.
17. If a rock crusher is being utilized on site, the applicant shall ensure that the crusher is licensed by the Department's Bureau of Air Quality and is being operated in accordance with that license.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 8TH DAY OF MARCH, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
For: Paul Mercer, Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

RLG/L26744ANBNCN/ATS#79645, 79646, 80305

Department of Environmental Protection
SITE LOCATION OF DEVELOPMENT (SITE)
STANDARD CONDITIONS

- A. Approval of Variations from Plans.** The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited without prior approval of the Board, and the applicant shall include deed restrictions to that effect.
- B. Compliance with All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Compliance with All Terms and Conditions of Approval.** The applicant shall submit all reports and information requested by the Board or the Department demonstrating that the applicant has complied or will comply with all preconstruction terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- D. Advertising.** Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- E. Transfer of Development.** Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.
- F. Time frame for approvals.** If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- G. Approval Included in Contract Bids.** A copy of this approval must be included in or attached to all contract bid specifications for the development.
- H. Approval Shown to Contractors.** Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.

(2/81)/Revised December 27, 2011



Natural Resources Protection Act (NRPA) Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCES PROTECTION ACT, 38 M.R.S.A. § 480-A ET SEQ., UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. §420-D(8) and is subject to penalties under 38 M.R.S.A. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance

- with the approval and conditions. Completed certification forms must be forwarded to the department.
- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.
 - (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
 - (a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the facilities.
 - (c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained.
 - (9) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

November 16, 2005 (revised December 27, 2011)

Special Condition
for
Third Party Inspection Program

THIRD-PARTY INSPECTION PROGRAM

1.0 THE PURPOSE OF THE THIRD-PARTY INSPECTION

As a condition of this permit, the Maine Department of Environmental Protection (MDEP) requires the permit applicant to retain the services of a third-party inspector to monitor compliance with MDEP permit conditions during construction. The objectives of this condition are as follows:

- 1) to ensure that all construction and stabilization activities comply with the permit conditions and the MDEP-approved drawings and specifications,
- 2) to ensure that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations, and
- 3) to ensure communication between the contractor and MDEP regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

This document establishes the inspection program and outlines the responsibilities of the permit applicant, the MDEP, and the inspector.

2.0 SELECTING THE INSPECTOR

At least 30 days prior to starting any construction activity on the site, the applicant will submit the names of at least two inspector candidates to the MDEP. Each candidate must meet the minimum qualifications listed under section 3.0. The candidates may not be employees, partners, or contracted consultants involved with the permitting of the project or otherwise employed by the same company or agency except that the MDEP may accept subcontractors who worked for the project's primary consultant on some aspect of the project such as, but not limited to, completing wetland delineations, identifying significant wildlife habitats, or conducting geotechnical investigations, but who were not directly employed by the applicant, as Third Party inspectors on a case by case basis. The MDEP will have 15 days from receiving the names to select one of the candidates as the inspector or to reject both candidates. If the MDEP rejects both candidates, then the MDEP shall state the particular reasons for the rejections. In this case, the applicant may either dispute the rejection to the Director of the Bureau of Land Resources or start the selection process over by nominating two, new candidates.

3.0 THE INSPECTOR'S QUALIFICATIONS

Each inspector candidate nominated by the applicant shall have the following minimum qualifications:

- 1) a degree in an environmental science or civil engineering, or other demonstrated expertise,
- 2) a practical knowledge of erosion control practices and stormwater hydrology,
- 3) experience in management or supervision on large construction projects,
- 4) the ability to understand and articulate permit conditions to contractors concerning erosion control or stormwater management,
- 5) the ability to clearly document activities being inspected,
- 6) appropriate facilities and, if necessary, support staff to carry out the duties and responsibilities set forth in section 6.0 in a timely manner, and
- 7) no ownership or financial interest in the development other than that created by being retained as the third-party inspector.

4.0 INITIATING THE INSPECTOR'S SERVICES

The applicant will not formally and finally engage for service any inspector under this permit condition prior to MDEP approval or waiver by omission under section 2.0. No clearing, grubbing, grading, filling, stockpiling, or other construction activity will take place on the development site until the applicant retains the MDEP-approved inspector for service.

5.0 TERMINATING THE INSPECTOR'S SERVICES

The applicant will not terminate the services of the MDEP-approved inspector at any time between commencing construction and completing final site stabilization without first getting written approval to do so from the MDEP.

6.0 THE INSPECTOR'S DUTIES AND RESPONSIBILITIES

The inspector's work shall consist of the duties and responsibilities outlined below.

- 1) Prior to construction, the inspector will become thoroughly familiar with the terms and conditions of the state-issued site permit, natural resources protection permit, or both.
- 2) Prior to construction, the inspector will become thoroughly familiar with the proposed construction schedule, including the timing for installing and removing erosion controls, the timing for constructing and stabilizing any basins or ponds, and the deadlines for completing stabilization of disturbed soils.
- 3) Prior to construction, the inspector will become thoroughly familiar with the project plans and specifications, including those for building detention basins, those for installing the erosion control measures to be used on the site, and those for temporarily or permanently stabilizing disturbed soils in a timely manner.
- 4) During construction, the inspector will monitor the contractor's installation and maintenance of the erosion control measures called for in the state permit(s) and any additional measures the inspector believes are necessary to prevent sediment discharge to off-site properties or natural resources. This direction will be based on the approved erosion control plan, field conditions at the time of construction, and the natural resources potentially impacted by construction activities.
- 5) During construction, the inspector will monitor the contractor's construction of the stormwater system, including the construction and stabilization of ditches, culverts, detention basins, water quality treatment measures, and storm sewers.
- 6) During construction, the inspector will monitor the contractor's installation of any stream or wetland crossings.
- 7) During construction, the inspector will monitor the contractor's final stabilization of the project site.
- 8) During construction, the inspector will keep logs recording any rain storms at the site, the contractor's activities on the site, discussions with the contractor(s), and possible violations of the permit conditions.
- 9) During construction, the inspector will inspect the project site at least once a week and before and after any significant rain event. The inspector will photograph all protected natural resources both before and after construction and will photograph all areas under construction. All photographs will be identified with, at a minimum the date the photo was taken, the location and the name of the individual taking the photograph.
Note: the frequency of these inspections as contained in this condition may be varied to best address particular project needs.
- 10) During construction, the inspector will prepare and submit weekly (*or other frequency*) inspection reports to the MDEP.

- 11) During construction, the inspector will notify the designated person at the MDEP immediately of any sediment-laden discharges to a protected natural resource or other significant issues such as the improper construction of a stormwater control structure or the use of construction plans not approved by the MDEP.

7.0 INSPECTION REPORTS

The inspector will submit weekly written reports (*or at another designated frequency*), including photographs of areas that are under construction, on a form provided by the Department to the designated person at the MDEP. Each report will be due at the MDEP by the Friday (*or other designated day*) following the inspection week (Monday through Sunday).

The weekly report will summarize construction activities and events on the site for the previous week as outlined below.

- 1) The report will state the name of the development, its permit number(s), and the start and end dates for the inspection week (Monday through Sunday).
- 2) The report will state the date(s) and time(s) when the inspector was on the site making inspections.
- 3) The report will state the date(s) and approximate duration(s) of any rainfall events on the site for the week.
- 4) The report will identify and describe any erosion problems that resulted in sediment leaving the property or sediment being discharged into a wetland, brook, stream, river, lake, or public storm sewer system. The report will describe the contractor's actions to repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.
- 5) The report will list the buildings, roads, parking lots, detention basins, stream crossings or other features open to construction for the week, including those features or areas actively worked and those left unworked (dormant).
- 6) For each area open to construction, the report will list the date of initial soil disturbance for the area.
- 7) For each area open to construction, the report will note which areas were actively worked that week and which were left dormant for the week. For those areas actively worked, the report will briefly state the work performed in the area that week and the progress toward final stabilization of the area -- e.g. "grubbing in progress", "grubbing complete", "rough grading in progress", "rough grading complete", "finish grading in progress", "finish grading complete", "permanent seeding completed", "area fully stable and temporary erosion controls removed", etc.
- 8) For each area open to construction, the report will list the erosion and sedimentation control measures installed, maintained, or removed during the week.
- 9) For each erosion control measure in-place, the report will note the condition of the measure and any maintenance performed to bring it to standard.

Third Party Inspection Form

This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as a Special Condition to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules. Only Department staff may make that determination.

| | |
|---------------------------------------|-----------------|
| TO: <i>PM, Maine DEP (@maine.gov)</i> | FROM: |
| PROJECT NAME/ LOCATION: | DEP #: |
| DATE OF INSPECTION: | DATE OF REPORT: |
| WEATHER: | CONDITIONS: |

SITE CHARACTERISTICS:

| | | |
|------------------------|--------------------------|----------------------------|
| # ACRES OPEN: | # ACRES ACTIVE: | # ACRES INACTIVE: |
| LOCATION OF OPEN LAND: | LOCATION OF ACTIVE LAND: | LOCATION OF INACTIVE LAND: |
| OPEN SINCE: | OPEN SINCE: | OPEN SINCE: |

PROGRESS OF WORK:

| INSPECTION OF: | Satisfactory | Minor Deviation (corrective action required) | Unsatisfactory (include photos) |
|--|--------------|---|------------------------------------|
| STORMWATER CONTROL (VEGETATIVE & STRUCTURAL BMP'S) | | | |
| EROSION & SEDIMENTATION CONTROL (TEMPORARY & PERMANENT BMP'S) | | | |
| OTHER: (PERMIT CONDITIONS, ENGINEERING DESIGN, ETC.) | | | |

COMMENTS/CORRECTIVE ACTIONS TAKEN (attach additional sheets as necessary):

Photos (must be labeled with date, photographer and location):

| | | |
|---|--|--|
| Cc: | | |
| <i>Original and all copies were sent by email only.</i> | | |



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

SECTION 07 53 00
ELASTOMERIC MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Elastomeric roofing membrane, adhered conventional application.
- B. Insulation, flat and tapered.
- C. Roof Air-vapor barrier.
- D. Deck sheathing.
- E. Membrane flashings.
- F. Roofing stack boots, roofing expansion joints, and walkway pads.

1.02 RELATED REQUIREMENTS

- A. Section 01 23 00 - Alternates: Roof protection board.
- B. Section 05 12 00 - Structural Steel: Roof dunnage for mechanical equipment.
- C. Section 06 10 54 - Wood Blocking and Curbing: P.T. wood nailers and curbs.
- D. Section 07 62 00 - Sheet Metal Flashing and Trim: Metalwork fascias, copings, counterflashings.
- E. Section 07 72 00 - Roof Accessories: Roof-mounted vents and hatches with integral curbs.
- F. Section 08 62 00 - Unit Skylights: integral curb.
- G. Section 08 62 23 - Tubular Skylights: Integral curb.
- H. Division 22 - Plumbing: Roof drains.
- I. Division 23 - HVAC: Mechanical equipment penetrating the roofing.

1.03 REFERENCE STANDARDS

- A. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2014.
- B. ASTM D746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact; 2013.
- C. ASTM D4637 - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2012.
- D. FM P7825 - Approval Guide; Factory Mutual Research Corporation; current edition.
- E. FM DS 1-28 - Wind Design; Factory Mutual Research Corporation; 2007.
- F. NRCA ML104 - The NRCA Roofing and Waterproofing Manual; National Roofing Contractors Association; Fifth Edition, with interim updates.
- G. UL - Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with installation of associated counterflashings installed under other Sections.
- B. Pre-installation Meeting: After the submission and review of roofing and flashing shop drawings, samples and printed data, convene a pre-installation meeting at least two weeks before starting installation. Review preparation and installation procedures, coordination and scheduling necessary for related work, determine access, staging and storage areas, establish working weather conditions, roofing protection provisions, considerations for safety of building occupants and other relevant issues.
 - 1. The following personnel shall be present:
 - a. Contractor (Project Manager, Superintendent)
 - b. Roofing Sub-Contractor (Project Manager, Foreman)

- c. Roofing and Flashing Materials Manufacturers
- d. Architect, Project Manager and Owner's Representative
2. Verify compatibility of all materials in contact with roofing, including but not limited to:
 - a. Treated lumber.
 - b. Sealants and adhesives.
 - c. Waterstop membrane.
 - d. Thru wall flashing
 - e. Insulations and roofing boards.
 - f. Vapor Retarders.
 - g. Sheathing.
 - h. Walkway pads.
 - i. All other roofing materials.

1.05 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- C. Shop Drawings: Provide roofing details and roof layout plan.
 1. Indicate joint or termination detail conditions, conditions of interface with other materials, setting plan for tapered insulation, and paver layout.
 2. Indicate areas, slopes and thicknesses of tapered insulation on roof layout plan.
 3. Indicate roof mounted equipment, hatches, skylights, etc.
 4. Indicate thickness and dimensions of all parts, fastening and anchoring methods, details and locations of seams, joints, and provisions necessary for thermal expansion and contraction. Key in details on roof layout plan.
 5. Indicate details of roof flashing including jointing, expansion joint flashing, intersections, intersections with walls, transitions from cants to walls, transitions from curbs to gravel stops, and any other details required for a complete watertight installation. Key in details on roof layout plan.
- D. Samples:
 1. Submit samples illustrating insulation, roofing membrane, metal flashing, fasteners and underlayments.
- E. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- F. Manufacturer's Certificate: Certify that all products, including insulation, underlayment and related fasteners are satisfactory for their intended applications..
 1. Submit final shop drawings to the roofing manufacturer for review as required by warranty requirements.
- G. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, supplementary instructions given, and manufacturer acceptance substrate surface is ready and acceptable to receive roof system.
- H. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.06 QUALITY ASSURANCE

- A. Perform work in accordance with NRCA Roofing and Waterproofing Manual and manufacturer's instructions.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this Section with minimum twenty years of documented experience.
- C. Installer Qualifications: Company specializing in performing the work of this Section with minimum ten years documented experience, and approved by manufacturer.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- B. Store products in weather protected environment, clear of ground and moisture.
- C. Protect foam insulation from direct exposure to sunlight.
- D. Materials being stored on a roof surface shall not overload the deck or structural assembly.
- E. Lids shall be secured on cans of stored materials and all emulsions, coatings, adhesives, solvents, sealants, foams, etc. shall be stored at temperatures as recommended by the manufacturers.

1.08 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather.
- B. Do not apply roofing membrane when ambient temperature is below 40 degrees F or above manufacturer's recommendations degrees F.
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

1.09 WARRANTY

- A. Applicator/Contractor Warranty: The roofing subcontractor hereby guarantees that all roofing items not covered by the roofing manufacturer's total system warranty shall be free from defective materials and workmanship for a period of two (2) years from the date of Substantial Completion. Upon notification of any such defects within said guarantee period the roofing subcontractor shall promptly make all necessary repairs and replacements at no cost or expense to the Owner. This warranty shall be signed and countersigned by the installer (Roofer) and the Contractor.
- B. Manufacturer's System and Membrane Warranties: Upon completion of the membrane roofing system work, the roofing materials manufacturer shall furnish the Owner a "Total System" warranty insuring a watertight roof for a period of twenty-five (25) years. The warranty shall cover all repairs necessary over the twenty-five (25) year period up to the original cost of the original roofing contract. The membrane shall also be warranted not to prematurely deteriorate to the point of failure because of weathering for a period of twenty-five (25) years. Warranty shall include maximum peak gust wind speed coverage of up to 55 mph.
- C. The manufacturer warranty shall also provide labor and material as required to cover leaks caused by accidental punctures: 32 man-hours per year for the specified system.
- D. Pro-rated System Warranties shall not be accepted.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. EPDM Membrane Materials Basis of Design:
 - 1. ~~Sure-Tough~~ **Sure-Seal Non-Reinforced** EPDM by Carlisle SynTec.
- B. Acceptable Manufacturers:
 - 1. Johns Manville.
 - 2. Firestone Building Products Co.
 - 3. Substitutions: See Section 01 60 00 - Product Requirements.
- C. Insulation: Manufacturer as recommended by the roofing system manufacturer.
- D. Fasteners, polymeric components, edgings, cover boards, accessories and components required to complete the specified system: The roofing system membrane or accepted by the roofing system manufacturer as compatible.

2.02 ROOFINGSYSTEM DESCRIPTION

- A. Elastomeric Membrane Roofing System: Fully adhered ~~Scrim Reinforced~~ Ethylene Propylene Diene Monomer membrane.
 - 1. Comply with applicable local building code requirements.
- B. Roofing System - Type 1: Listed in order from the top of the roof down:
 - 1. Membrane: Thickness as specified, Fully adhered.
 - 2. Cover board (see Alternates).
 - 3. Insulation Board, Constant Thickness.
 - 4. Tapered Insulation.
 - 5. Roof Air-Vapor Barrier.
 - 6. Metal Roof Deck.
- C. Roofing Assembly Requirements:
 - 1. Basic Wind Speed: 100 MPH.
 - 2. Importance Factor: 1.15
 - 3. Exposure: B.
 - 4. Roof Design Pressures:
 - a. Field wind uplift pressure: 21.56 PSF.
 - b. Perimeter wind uplift pressure 36.17 PSF.
 - c. Corner wind uplift pressure: -54.44 PSF.
 - 5. Roof Fire Resistance Rating: 1 hour. Conform to UL Assembly Design No. P732.
 - 6. Roof Covering External Fire Resistance Classification: UL Class A.
 - 7. Factory Mutual Classification: Class I and windstorm resistance of I-90, in accordance with FM DS 1-28.
 - 8. Insulation Thermal Value (R), minimum: 33.6 6 inches minimum thickness.

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Membrane: Ethylene-propylene-diene-terpolymer (EPDM); ~~internally reinforced with fabric or scrim~~; complying with minimum properties of ASTM D4637.
 - 1. Thickness: ~~0.075~~ **0.060** inch.
 - 2. NOTE IF FIRE RESISTIVE: TYPE LSFR
 - 3. Color: Black.
 - 4. Tear Strength, ASTM D751B: 70 lbf.
 - 5. Ultimate Elongation, ASTM D751: 500 percent.
 - 6. Water Absorption, ASTM D471: +5.5 percent, after 7 days immersion @ 158F
 - 7. Brittleness Temperature, ASTM D2137: -49 deg F.
- B. Seaming Materials: As recommended by membrane manufacturer.
- C. Roof Air-Vapor Barrier: Reinforced 3 ply laminated, fire-retardant sheet. Provide manufacturer's recommended tape for seams.
 - 1. Fire Resistance, ASTM E84: Class A, Flame spread 5, Smoke developed 35.
 - 2. Moisture Vapor Permeance, ASTM E96: <1.0 perm.
 - 3. Tensile Strength, ASTM D882: 90 lb-ft.
 - 4. Products:
 - a. Griffolyn Type 55-FR by Reef Industries Inc.
 - b. Substitutions: See Section 01 60 00 - Product Requirements.
- D. Flexible Flashing Material: Same material as membrane;
- E. Protective Overlayment: Cured, non-reinforced, black, 0.060 inch thick ECO/CO membrane to resist hydrocarbons, solvents, grease, and oils, as recommended by the roofing membrane manufacturer.
- F. Adhesives, primers, cleaners, splice tapes and sealants as recommended by membrane manufacturer.

2.04 DECK SHEATHING AND COVER BOARDS

- A. Bid Alternate Cover Board: Glass mat faced gypsum panels, ASTM C1177, fire resistant type, 1/4 inch thick.

2.05 INSULATION

- A. Polyisocyanurate Board Insulation: Rigid cellular foam, complying with ASTM C1289, Type II, Class 2, polymer bonded glass fiber mat both faces and with the following characteristics:
 1. Compressive Strength: ~~46~~ **20** psi
 2. Provide tapered boards where indicated for sloping to drain. Fabricate with taper of 1/4 inch per foot minimum. All roof drains shall be sumped in a 4' x 4' area.
 3. Board Thickness: 3.0 inches in a minimum of 2 layers.
 4. Total Minimum Insulation Board Thickness: Six (6) inches.
 5. Long-term Thermal Resistance: R-value of 5.6 per inch min.
 6. Board Edges: Square.
 7. Manufacturer: As recommended by the roofing system manufacturer.

2.06 ACCESSORIES

- A. Roof Expansion Joint: For multi-directional movement; 60 mil black elastomeric bellows with closed cell foam backer and integral 4 inch wide 0.032 aluminum 0.018" flanges for 3 inch wide building expansion joint. Provide in roll length for no joints. Provide fire barrier insert for 1 hour roof assembly.
- B. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.
- C. Cant Strips: Wood; pressure preservative treated.
- D. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer. Length as required for thickness of insulation material and penetration of deck substrate, with metal washers.
- E. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with membrane.
- F. Sealants: One-part urethane as recommended by roofing membrane manufacturer.
- G. Walkway Pads: Suitable for maintenance traffic, contrasting color or otherwise visually distinctive from roof membrane.
 1. Composition: Molded rubber, slip resistant.
 2. Size: 18 by 18 inch.
- H. Sponge Tubing: Sized to suit job conditions; Ethafoam by Dow Chemical.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.
- F. Ensure that treated wood nailers are installed at the perimeter of each roof level, curb, expansion joint, and all roof penetrations as recommended by the membrane manufacturer. Nailers shall be firmly anchored to resist forces of not less than those prescribed by applicable codes and regulations. See Section 06 10 -54 - Wood Blocking and Curbing for additional information. The

thickness of the nailers shall be such that the top of the nailer is flush with the surface to which the membrane is attached at the horizontal plane. All preservative treated wood blocking shall be separated from all metals by use of membrane flashing, see Section 06 10 54.

- G. Inspect the substrates scheduled to receive the roofing and flashing systems. Notify the Contractor of any and all defects in the substrates and do not proceed with the work until such defects have been satisfactorily corrected. Before beginning the Work, a representative of the membrane manufacturer shall examine the roof surfaces in order to ensure that they are acceptable for application.

3.02 ROOF AIR-VAPOR BARRIER AND INSULATION - UNDER MEMBRANE

- A. Apply roof air-vapor barrier to deck surface with adhesive in accordance with manufacturer's instructions.
 - 1. Extend air-vapor barrier under blocking to deck edge.
 - 2. Install flexible flashing from air-vapor barrier to wall weather barrier to air seal, lap and seal to provide continuity of the air barrier plane.
- B. Ensure air-vapor barrier is clean and dry, continuous, and ready for application of insulation.
- C. Attachment of Insulation:
 - 1. Mechanically fasten insulation to deck in accordance with roofing manufacturer's instructions.
- D. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
- E. Lay subsequent layers of constant thickness insulation board with joints staggered minimum 6 inch from joints of preceding layer.
- F. On metal deck, place boards parallel to flutes with insulation board edges bearing on deck flutes.
- G. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- H. At roof drains, use factory-tapered boards to slope down to roof drains over a distance of 24 inches.
- I. Do not apply more insulation than can be covered with membrane in same day.
- J. If separate cover board option is selected, install cover board over insulation boards with staggered joints, as recommended by the roofing system manufacturer.

3.04 MEMBRANE APPLICATION

- A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- B. Shingle joints on sloped substrate in direction of drainage.
- C. Membrane shall be fully-adhered except in areas directly over or within 3 inches of expansion joints. Overlap edges and seal seams in accordance with manufacturer's recommendations.
- D. At intersections with vertical surfaces:
 - 1. Extend membrane flashing up a minimum of 12 inches onto vertical surfaces.
 - 2. Provide securement strips and fasten as recommended by the membrane manufacturer.
- E. At fascias, extend membrane under fascia metalwork and to the outside face of the wall.
- F. Around roof penetrations, seal flanges and flashings with flexible flashing.
- G. Install roofing expansion joints where indicated. Make joints watertight.
 - 1. Install prefabricated joint components in accordance with manufacturer's instructions.
- H. Coordinate installation of roof drains and sumps and related flashings to ensure that drains are placed in low points of the roof.
- I. Coordinate installation of associated metalwork flashings installed under other Sections.

3.05 FIELD QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for general requirements for field quality control and inspection.
- B. System Manufacturer's Inspection: Inspection(s) shall be made by a technical representative of the system manufacturer to ascertain that the roofing system has been installed in accordance with the system manufacturer's published specifications and details.
 - 1. The purpose of this inspection is to determine whether a system warranty will be issued by the system manufacturer. Should the technical representative find that the roofing system has not been installed in a manner that qualifies for issuance of the specified system warranty, the system shall not be acceptable to the Owner until the installer has made corrections or repairs, the system has been re-inspected by the system manufacturer's technical representative and the specified roofing system warranty has been issued.
 - 2. Submit a copy of all inspection reports and follow-up reports to the Architect.
- C. Independent Roofing Inspection: During the course of the roofing installation, inspections may be conducted by an independent roofing inspector engaged by the Owner. The cost of independent roofing inspection shall be paid for by the Owner.

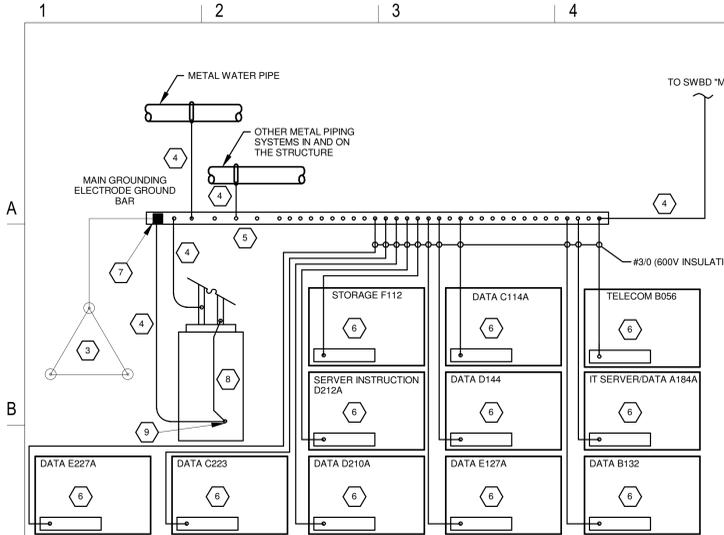
3.06 CLEANING

- A. Remove bituminous markings from finished surfaces.
- B. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
- C. Repair or replace defaced or damaged finishes caused by work of this Section.

3.07 PROTECTION

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION



SPECIAL RECEPTACLE SCHEDULE

| TYPE | NEMA CONFIG. | ELECTRICAL RATING | POWER SOURCE | WIRE | CONDUIT | REMARKS |
|------|--------------|---------------------------------|--------------|--------------|---------|---------------------------------|
| D | 10-30R | 125/250V, 30A 2 POLE, 3 WIRE | 208V, 1Ø | 2#10 & 1#10G | 3/4" | DRYER ① |
| K | 15-50R | 250V, 50A 3 POLE, 4 WIRE | 208V, 3Ø | 3#6 & 1#10G | 1" | KILN ① |
| R | 14-50R | 125/250V, 40A 2 POLE, 3 WIRE | 208V, 1Ø | 3#6 & 1#10G | 3/4" | RANGE ① |
| T | L5-30R | 125V, 30A 1 POLE, 3 WIRE | 120V, 1Ø | 2#10 & 1#10G | 3/4" | UPS ① ② |
| USB | 5-20R | 125V, 20A 1 POLE, 3 WIRE | 120V, 1Ø | 2#12 & 1#12G | 3/4" | USB RECEPTACLE WITH DUPLEX ① |
| USB1 | | 125V, 20A 1 POLE, 3 WIRE | 120V, 1Ø | 2#12 & 1#12G | 3/4" | 4 PORT USB RECEPTACLE ① |
| W | L16-30R | 480V, 30A 3 POLE, 4 WIRE | 480V, 3Ø | 3#10 & 1#10G | 3/4" | WELDING BOOTH ① |
| X | ??-?? | ??/???V, ??A ? POLE, ? WIRE | ??V, ?Ø | 4#10 & 1#10G | 3/4" | FIELD VERIFY ① |

① COORDINATE EXACT NEMA CONFIGURATION REQUIRED WITH ACTUAL EQUIPMENT SUPPLIED.
② PROVIDE CONNECTOR BODY ON STRAIN RELIEF CORSET FROM TOP OF A POST RACK MDF SUPPORT STRUCTURE, WITH SLACK TO REACH CUSTOMER SUPPLIED UPS PACKAGE.

BUS DROP CORD RECEPTACLE SCHEDULE

| TYPE | NEMA CONFIG. | ELECTRICAL RATING | POWER SOURCE | WIRE | CONDUIT | MOUNTING HEIGHT | REMARKS |
|------|--------------|--------------------------------|--------------|--------------|---------|-----------------|-----------------------|
| B/A | 5-20R | 125V, 20A 2 POLE, 3 WIRE | 120V, 1Ø | 2#12 & 1#12G | 3/4" | 24" | STRAIGHT BLADE ① ② |
| B/B | ??-?? | ??/???V, 20A ? POLE, ? WIRE | 208V, 1Ø | 3#12 & 1#12G | 3/4" | 24" | FIELD VERIFY ① ② |
| B/C | L15-20R | 250V, 20A 3 POLE, 4 WIRE | 208V, 3Ø | 3#10 & 1#10G | 3/4" | 24" | TWIST-LOCK ① ② |
| B/D | L6-20R | 250V, 20A 2 POLE, 3 WIRE | 208V, 1Ø | 2#12 & 1#12G | 3/4" | 24" | TWIST-LOCK ① ② |
| B/F | ??-?? | ??/???V, 30A ? POLE, ? WIRE | 208V, 3Ø | 4#10 & 1#10G | 3/4" | 24" | FIELD VERIFY ① ② |
| B/G | ??-?? | ??/???V, 50A ? POLE, ? WIRE | ??V, 3Ø | 4#6 & 1#10G | 1" | 24" | FIELD VERIFY ① ② |
| B/X | ??-?? | ??/???V, ??A ? POLE, ? WIRE | ??V, ?Ø | 4#12 & 1#12G | 3/4" | 24" | FIELD VERIFY ① ② |

① COORDINATE EXACT NEMA CONFIGURATION REQUIRED WITH ACTUAL EQUIPMENT SUPPLIED.
② DEEP, SINGLE-GANG, CAST ALUMINUM WITH 3/4" HUB, OPEN FRONT AND REAR FOR TWO DEVICES.
③ DEEP TWO-GANG BOX WITH 1" HUB.

- ### DRAWING NOTES
- THE FOLLOWING NOTES ONLY APPLY TO THIS DRAWING.
 - REFER TO GENERAL NOTES, ELECTRICAL TRADE NOTES, LEGEND AND ABBREVIATIONS ON DRAWING E0.01.
 - PROVIDE #4/0 COPPER GROUND CONDUCTOR IN 1 1/4" PVC CONDUIT AND CONNECT (UNDERGROUND) TO THE DELTA GROUND GRID (THREE GROUND RODS, 10 FEET APART), CONNECT GROUND TO ALL OTHER BUILDING STEEL, METAL PIPING, ETC., AS REQUIRED BY ARTICLE 250 OF THE NEC.
 - INSTALL GROUNDING ELECTRODE CONDUCTOR, SIZED BASED ON NEC TABLE 250.66 USING THE SERVICE PHASE CONDUCTOR SIZE, BUT NOT SMALLER THAN NO. 4.
 - INSTALL A "MAIN GROUND ELECTRODE GROUND BAR" FOR SINGLE POINT GROUNDING. LOCATE AT AN ACCESSIBLE POINT NEAR THE SERVICE ENTRANCE EQUIPMENT. MAKE CONNECTIONS TO THE GROUND ELECTRODE CONDUCTOR USING IRREVERSIBLE CONNECTORS OR EXOTHERMIC WELDS. MAKE OTHER CONNECTIONS TO THE GROUND BAR USING TWO-HOLE COMPRESSION SPADE LUGS THAT MEET IEEE 837 REQUIREMENTS. LABEL EACH CONNECTION TO THE GROUND BAR.
 - INSTALL A COPPER GROUNDING BAR IN EACH TELECOMMUNICATIONS ROOM. CONNECT TO THE "MAIN GROUNDING ELECTRODE GROUND BAR" USING 800V INSULATED #6 COPPER CABLE AND COMPRESSION SPADE LUGS. MOUNT AT 7' AFF.
 - INSTALL IRREVERSIBLE COMPRESSION CONNECTOR WITH TAMPERPROOF HARDWARE OR INSTALL EXOTHERMIC WELD.
 - BOND STEEL COLUMN TO CONCRETE ENCASED ELECTRODE.
 - PROVIDE CONCRETE ENCASED GROUNDING ELECTRODE(S) IN THE NEW CONCRETE FOUNDATION(S) USING:
 - AT LEAST 1/2" DIAMETER STEEL BAR (NO. 4 REBAR OR LARGER).
 - AT LEAST 20 FT. IN LENGTH OR MULTIPLE PIECES TIED TOGETHER TO MAKE ELECTRICALLY CONTINUOUS.
 - PLACED NEAR THE BOTTOM OF THE ADDITION FOOTING WITH A MINIMUM 3" OF CONCRETE COVER.
 - NOT ENCAPSULATED IN NONCONDUCTIVE COATINGS.

FLOOR BOX SCHEDULE

| DEVICE | TYPE/SIZE | DESCRIPTION | CONDUITS | COMMENTS | OUTLETS REQUIRED |
|--------|---|---|---|--|---|
| A1 | RECESSED FLOOR BOX SLAB ON GRADE TYPE 10" x 13-5/8" x 2 7/16" | WIREMOLD RESOURCE FLOOR BOX (RFB4E-OG) STEEL FOUR GANG BOX FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE INSTALLATION. INCLUDE TERRAZZO RING WHERE FLOOR BOX WILL BE INSTALLED IN PORCELAIN TILE OR POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1 - 1" C DATA | FOUR GANG CAPACITY FLOOR BOX. PROVIDE SCREW DOWN COVER AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. | TWO DUPLEX RECEPTACLES RFB-DR COVER FINISH TO BE SELECTED BY ARCHITECT. TWO BLANK PLATES RFB-B ONE DECORA DATA BRACKET RFB4GF1 (2 DATA OUTLETS) |
| A2 | RECESSED FLOOR BOX SLAB ON GRADE TYPE 10" x 13-5/8" x 2 7/16" | WIREMOLD RESOURCE FLOOR BOX (RFB4E-OG) STEEL FOUR GANG BOX FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE FLOORS. INCLUDE TERRAZZO RING WHERE FLOOR BOX WILL BE INSTALLED IN PORCELAIN TILE OR POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1-1" C DATA | FOUR GANG CAPACITY FLOOR BOX. PROVIDE SCREW DOWN COVER AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. COORDINATE TEL/DATA, AND AV OUTLET INSTALLATION WITH TELECOM AND AV CONTRACTOR. | TWO DUPLEX RECEPTACLES RFB-DR ONE DECORA DATA BRACKET RFB4GF1 (4 DATA OUTLETS) COVER FINISH TO BE SELECTED BY ARCHITECT. TWO BLANK PLATES RFB-B |
| A3 | RECESSED FLOOR BOX SLAB ON GRADE TYPE 14-5/8" x 14" x 4" | WIREMOLD RESOURCE FLOOR BOX (RFB6E-OG) FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE FLOORS. INCLUDE TERRAZZO RING WHERE FLOOR BOX WILL BE INSTALLED IN PORCELAIN TILE OR POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1 - 1" C DATA 2-1-1/4" AV FUTURE | SIX GANG CAPACITY FLOOR BOX. PROVIDE SCREW DOWN COVER AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. COORDINATE TEL/DATA, AND AV OUTLET INSTALLATION WITH TELECOM AND AV CONTRACTOR. | TWO DUPLEX RECEPTACLES RFB6DP ONE DECORA DATA BRACKET RFB6GF1 (2 DATA OUTLETS) A1 INPUT PLATE (AV CONNECTIONS) TWO BLANK RFB6B COVER FINISH TO BE SELECTED BY ARCHITECT. |
| A4 | RECESSED FLOOR BOX SLAB ON GRADE TYPE 14-5/8" x 14" x 4" | WIREMOLD RESOURCE FLOOR BOX (RFB6E-OG) FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE FLOORS. INCLUDE TERRAZZO RING WHERE FLOOR BOX WILL BE INSTALLED IN PORCELAIN TILE OR POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1 - 1" C DATA 2-1-1/4" AV | SIX GANG CAPACITY FLOOR BOX. PROVIDE SCREW DOWN COVER AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. COORDINATE TEL/DATA, AND AV OUTLET INSTALLATION WITH TELECOM AND AV CONTRACTOR. | TWO DUPLEX RECEPTACLES RFB6DP ONE DECORA DATA BRACKET RFB6GF1 (2 DATA, 1 VOICE, AND 1 CATV OUTLET) TWO DECORA AV BRACKET RFB6GF1 ONE BLANK RFB6B COVER FINISH TO BE SELECTED BY ARCHITECT. 1 - 1 1/4" CONDUIT TO CONNECT TO SCOREBOARD |
| B1 | FIRE RATED RECESSED POKE THRU DEVICE | WIREMOLD EVOLUTION SERIES (8AT) FIRE RATED POKE THRU FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY AND TILE SHIMS FOR USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD, RESILIENT TILE, AND POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1 - 1" C DATA 1 - 2" C AV DATA | FOUR GANG CAPACITY POKE THRU. PROVIDE SCREW DOWN COVER AND 2", 3/4", AND 1" BOTTOM HOUSING ASSEMBLIES AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. COORDINATE TEL/DATA OUTLET INSTALLATION WITH TELECOM CONTRACTOR. | TWO DUPLEX POWER RECEPTACLES 88REC (ONE PER SIDE) ONE DECORA DATA DEVICE PLATE 8DEC (2 DATA OUTLETS) COVER FINISH TO BE SELECTED BY ARCHITECT. A1 INPUT PLATE (AV CONNECTIONS) |
| B2 | FIRE RATED RECESSED POKE THRU DEVICE | WIREMOLD EVOLUTION SERIES (8AT) FIRE RATED POKE THRU FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY AND TILE SHIMS FOR USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD, RESILIENT TILE, AND POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1-2" C AV/DATA | THREE GANG CAPACITY POKE THRU. PROVIDE SCREW DOWN COVER, (1) 3/4", (1) 1-1/4", AND (1) BLANK BOTTOM HOUSING ASSEMBLIES AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. | TWO DUPLEX POWER RECEPTACLES 88REC (ONE PER SIDE) BLANK PLATE 6B FOR CENTRAL COMPARTMENT COVER FINISH TO BE SELECTED BY ARCHITECT. ONE DECORA DATA BRACKET RFB4GF1 (4 DATA OUTLETS) |
| B3 | FIRE RATED RECESSED POKE THRU DEVICE | WIREMOLD EVOLUTION SERIES (8AT) FIRE RATED POKE THRU FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY AND TILE SHIMS FOR USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD, RESILIENT TILE, AND POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1-2" C AV/DATA | THREE GANG CAPACITY POKE THRU. PROVIDE SCREW DOWN COVER, (1) 3/4", (1) 1-1/4", AND (1) BLANK BOTTOM HOUSING ASSEMBLIES AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. | TWO DUPLEX POWER RECEPTACLES 88REC (ONE PER SIDE) COVER FINISH TO BE SELECTED BY ARCHITECT. ONE DECORA DATA DEVICE PLATE 8DEC (2 DATA OUTLETS) |
| D1 | FURNITURE FEED RECESSED FLOOR BOX SLAB ON GRADE TYPE 4 13/16" x 4 13/16" x 3 1/2" | WIREMOLD 880 SERIES FLOOR BOX (889B) STAMPED STEEL, DOUBLE GANG BOX FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE INSTALLATION. INCLUDE TERRAZZO RING WHERE FLOOR BOX WILL BE INSTALLED IN PORCELAIN TILE OR POLISHED CONCRETE FLOORS. | 1 - 1" C POWER | DOUBLE GANG BOX. PROVIDE SCREW DOWN BRASS COVER WITH TAPPED HOLE FOR FURNITURE FEED PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. | FURNITURE FEED COVER PLATE FOR CONNECTION BY ELECTRICAL CONTRACTOR COVER FINISH TO BE SELECTED BY ARCHITECT. |
| D2 | RECESSED FLOOR BOX SLAB ON GRADE TYPE 10" x 13-5/8" x 2 7/16" | WIREMOLD RESOURCE FLOOR BOX (RFB4E-OG) STEEL FOUR GANG BOX FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS USE IN CARPETED FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE FLOORS. INCLUDE TERRAZZO RING WHERE FLOOR BOX WILL BE INSTALLED IN PORCELAIN TILE OR POLISHED CONCRETE FLOORS. | 1 - 3/4" POWER 1-1" C DATA | FOUR GANG CAPACITY FLOOR BOX. PROVIDE SCREW DOWN COVER AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. COORDINATE TEL/DATA, AND AV OUTLET INSTALLATION WITH TELECOM AND AV CONTRACTOR. | TWO DUPLEX RECEPTACLES RFB-DR EACH ON OWN CIRCUIT ONE DECORA DATA BRACKET RFB4GF1 (4 DATA OUTLETS) COVER FINISH TO BE SELECTED BY ARCHITECT. TWO BLANK PLATES RFB-B |
| R1 | CAST IRON THEATER SEATING FLOOR BOX | HUBBELL CAT #3185 NONADJUSTABLE. PROVIDES 3/4" THREADED HUB FOR CONDUIT CONNECTION TO THEATER AISLE LIGHTS. CAST IRON BOX WITH CORROSION-RESISTANT FINISH WIREMOLD 880 SERIES FLOOR BOX (889B) CAST IRON, DOUBLE GANG BOX FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN CARPET FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE INSTALLATION. | 1-3/4" POWER | PERMITS OPENING OF THE ENCLOSURE FOR WIRING WITHOUT DISTURBING ABOVE FLOOR CONNECTIONS. BLANK STEEL COVER. | |
| S1 | RECESSED FLOOR BOX POKE THRU DEVICE POUR IN PLACE 4 13/16" x 4 13/16" x 3 1/2" | WIREMOLD 880 SERIES FLOOR BOX (889B) CAST IRON, DOUBLE GANG BOX FOR INSTALLATION IN CONCRETE FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN CARPET FLOORS, AND FLUSH STYLE COVER ASSEMBLY WITH TILE SHIMS FOR USE IN WOOD AND RESILIENT TILE INSTALLATION. | 1 - 3/4" POWER 1-1" C DATA | DOUBLE GANG BOX. PROVIDE SCREW DOWN COVER PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. | ONE DUPLEX POWER RECEPTACLE WITH USB COVER FINISH TO BE SELECTED BY ARCHITECT. PROVIDE DECORA TYPE FRAME FOR TELECOM (2 DATA OUTLETS) |
| W1 | RECESSED FLOOR BOX WOOD FLOOR TYPE | WIREMOLD RFB6 OR FSR FL500P FOR INSTALLATION IN WOOD FLOORS. PROVIDE SURFACE STYLE COVER ASSEMBLY | 1-3/4" POWER 1 - 1" C DATA 2 - 1-1/4" AV | SIX GANG CAPACITY FLOOR BOX. PROVIDE SCREW DOWN COVER AND DEVICE BRACKETS LISTED. PROVIDE QUANTITY AND LOCATIONS AS INDICATED ON PLANS. COORDINATE TEL/DATA, AND AV OUTLET INSTALLATION WITH TELECOM AND AV CONTRACTOR. | TWO DUPLEX RECEPTACLES RFB6DP ONE DECORA DATA BRACKET RFB6GF1 (2 DATA OUTLETS) COVER FINISH TO BE SELECTED BY ARCHITECT. |

NOTES:
1. DATA AND AV CONDUITS SHALL BE STUBBED TO ACCESSIBLE CEILING AREA, COORDINATE WITH IT CONTRACTOR AND AV DRAWINGS.
2. COORDINATE THE LOCATION OF ALL FLOOR BOXES WITH THE ARCHITECT PRIOR TO INSTALLATION.
3. CAST IRON FLOOR BOXES SHALL BE INSTALLED IN INSTALLATIONS AT GRADE, PER NEC.
4. STAMPED STEEL FLOOR BOXES SHALL BE INSTALLED IN INSTALLATIONS ABOVE GRADE, PER NEC.
5. CONTRACTOR SHALL ENSURE BOX IS AS FLUSH AND LEVEL WITH FLOOR AS POSSIBLE UPON INSTALLATION

WALL BOX SCHEDULE

| DEVICE | TYPE/SIZE | DESCRIPTION | CONDUITS | COMMENTS | OUTLETS REQUIRED |
|--------|--|--------------------|--|--|---|
| LCD | FLAT PANEL DISPLAY WALL BOX 11"x25"x3.5" | FSR NC PWB-100-WHT | 1 - 3/4" POWER 1 - 1" C DATA 1 - 1-1/4" AV | FLAT PANEL DISPLAY BOX AT FLAT PANEL LOCATION QUANTITY AND LOCATION AS INDICATED ON PLANS. | TWO DUPLEX POWER OUTLETS ONE DATA OUTLET A2 INPUT PLATE (AV CONNECTIONS); SEE DETAIL SHEET TO 12 WHERE REQUIRED |

NOTES:
1. DATA AND AV CONDUITS SHALL BE STUBBED TO ACCESSIBLE CEILING AREA, COORDINATE WITH IT CONTRACTOR AND AV DRAWINGS.
2. COORDINATE THE LOCATION OF ALL WALL BOXES WITH THE ARCHITECT PRIOR TO INSTALLATION.

LAVALLEE BRENSINGER ARCHITECTS

Boston | Manchester | Portland

155 Dow Street, Suite 400, Manchester, NH 03101
603.622.5450

305 Commercial Street, Portland, ME 04101
207.558.7200

www.LBPA.com

Sanford School Department and
State of Maine Department of
Education

SANFORD HIGH SCHOOL and TECHNICAL CENTER

SANFORD, ME 04073

| NO. | DESCRIPTION | DATE |
|-----|-------------|------------|
| 4 | ADDENDUM #4 | 2016-03-11 |
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CONTENT:
ELECTRICAL SCHEDULES

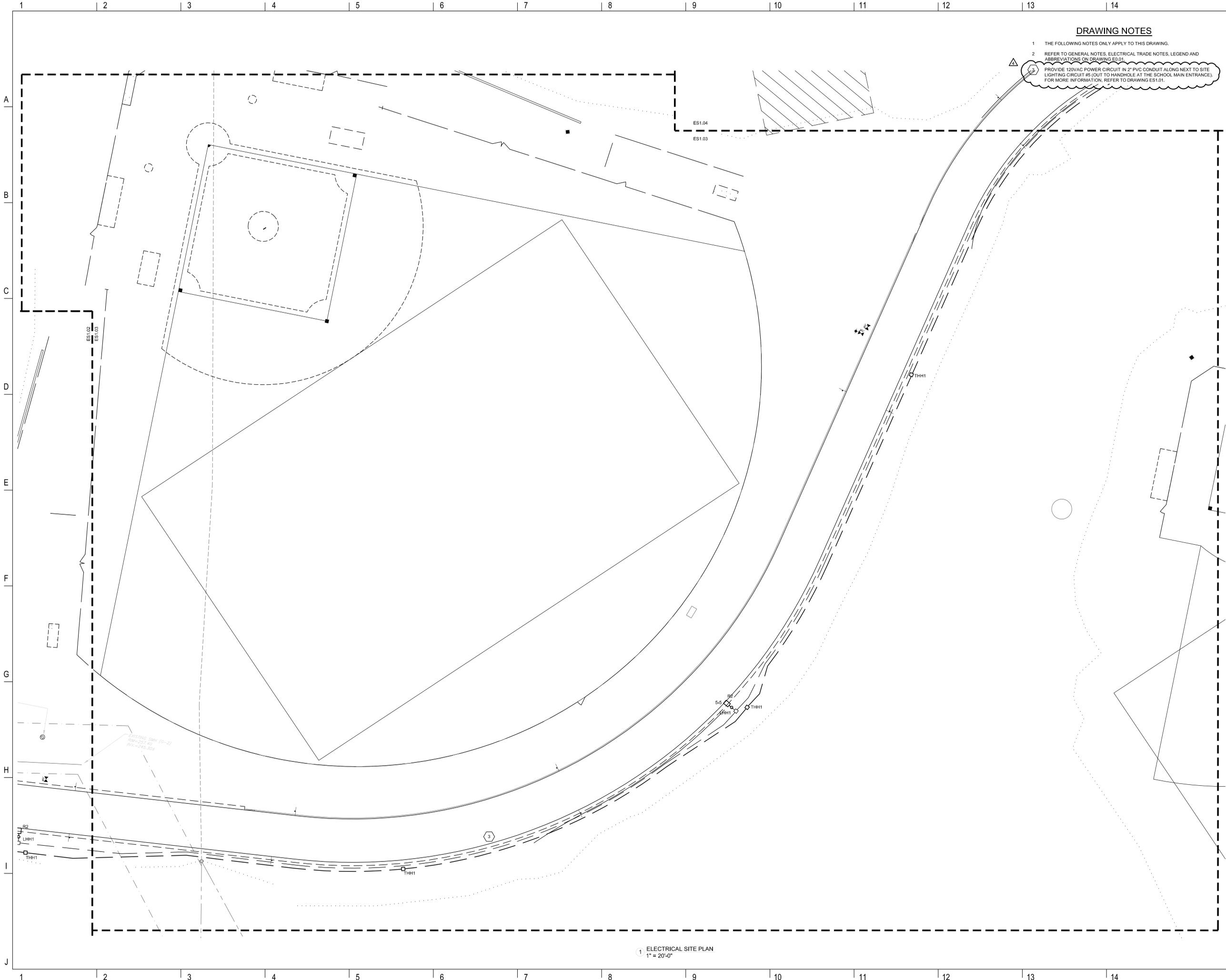
DRAWN BY: C. NEWELL
PROJECT NO: 12-067-00
DATE: 02/11/2016
REVISED:
SCALE: NO SCALE

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Project Phase
BID DOCUMENTS

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DRAWING NOTES

- 1 THE FOLLOWING NOTES ONLY APPLY TO THIS DRAWING.
- 2 REFER TO GENERAL NOTES, ELECTRICAL TRADE NOTES, LEGEND AND ABBREVIATIONS ON DRAWING ES1.01.
- 3 PROVIDE 120VAC POWER CIRCUIT IN 2" PVC CONDUIT ALONG NEXT TO SITE LIGHTING CIRCUIT #5 (OUT TO HANDHOLE AT THE SCHOOL MAIN ENTRANCE). FOR MORE INFORMATION, REFER TO DRAWING ES1.01.

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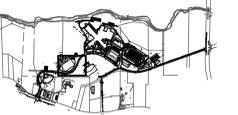
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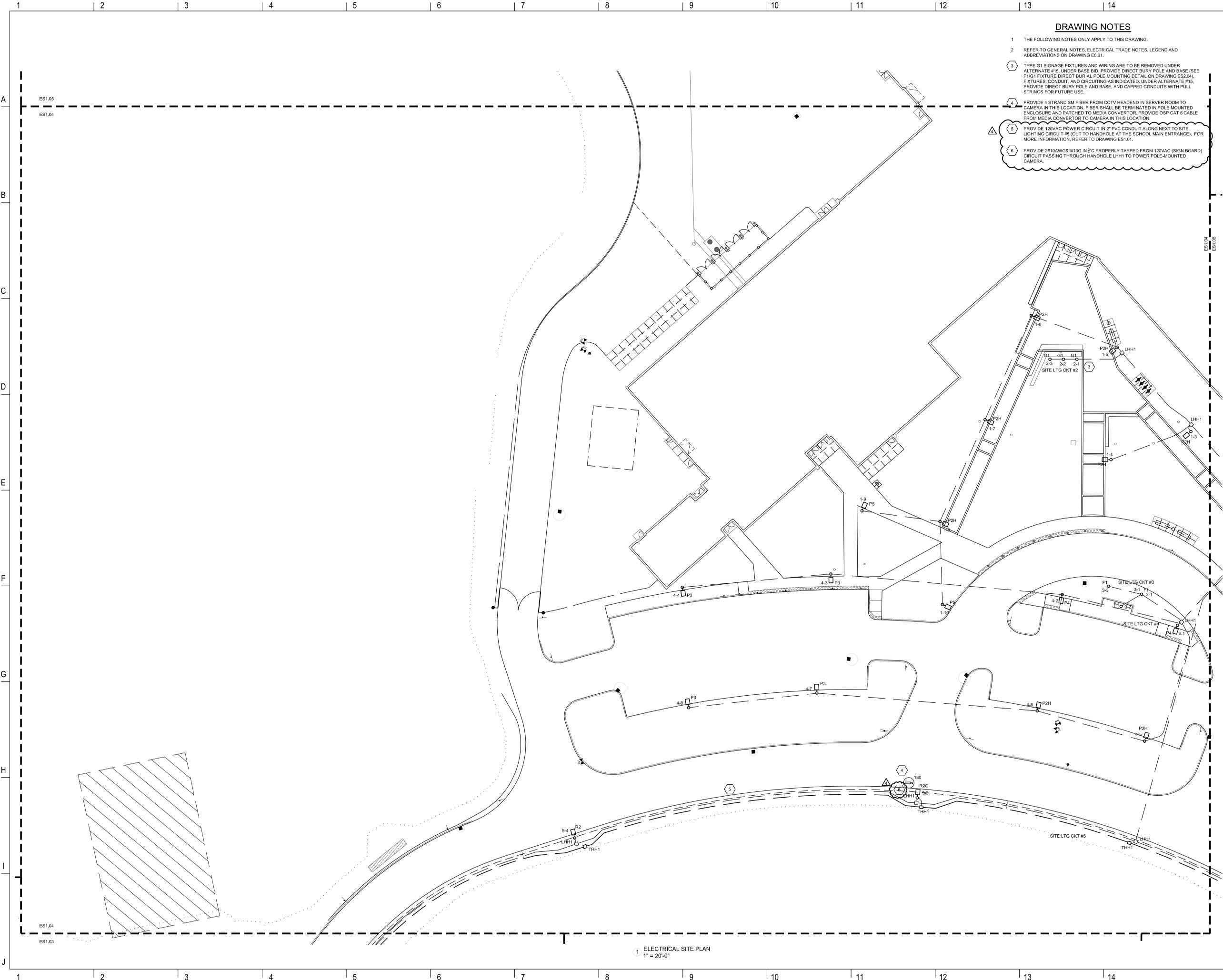
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| NO. | DESCRIPTION | DATE |
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| 3 | ADDENDUM #3 | 2016-03-04 |
| 4 | ADDENDUM #4 | 2016-03-11 |
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FOR ADDITIONAL INFORMATION, REFER TO PROJECT MANUAL.

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| CONTENT: | ELECTRICAL SITE PLAN |
| DRAWN BY: | C. NEWELL |
| PROJECT NO.: | 12-067-00 |
| DATE: | 02/11/2016 |
| REVISED: | |
| SCALE: | AS NOTED |
| ES1.03 | |
| Project Phase: | |
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1 ELECTRICAL SITE PLAN
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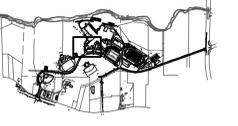


DRAWING NOTES

- 1 THE FOLLOWING NOTES ONLY APPLY TO THIS DRAWING.
- 2 REFER TO GENERAL NOTES, ELECTRICAL TRADE NOTES, LEGEND AND ABBREVIATIONS ON DRAWING E0.01.
- 3 TYPE G1 SIGNAGE FIXTURES AND WIRING ARE TO BE REMOVED UNDER ALTERNATE #15. UNDER BASE BID, PROVIDE DIRECT BURY POLE AND BASE (SEE FIG 1 FIXTURE DIRECT BURIAL POLE MOUNTING DETAIL ON DRAWING ES2.04), FIXTURES, CONDUIT, AND CIRCUITING AS INDICATED. UNDER ALTERNATE #15, PROVIDE DIRECT BURY POLE AND BASE, AND CAPPED CONDUITS WITH FULL STRINGS FOR FUTURE USE.
- 4 PROVIDE 4 STRAND SM FIBER FROM CCTV HEADEND IN SERVER ROOM TO CAMERA IN THIS LOCATION. FIBER SHALL BE TERMINATED IN POLE MOUNTED ENCLOSURE AND PATCHED TO MEDIA CONVERTOR. PROVIDE OSP CAT 6 CABLE FROM MEDIA CONVERTOR TO CAMERA IN THIS LOCATION.
- 5 PROVIDE 120VAC POWER CIRCUIT IN 2" PVC CONDUIT ALONG NEXT TO SITE LIGHTING CIRCUIT #5 (OUT TO HANDHOLE AT THE SCHOOL MAIN ENTRANCE). FOR MORE INFORMATION, REFER TO DRAWING ES1.01.
- 6 PROVIDE 2#10AWG&1#10G IN 2" PVC PROPERLY TAPPED FROM 120VAC (SIGN BOARD) CIRCUIT PASSING THROUGH HANDHOLE LHH1 TO POWER POLE-MOUNTED CAMERA.

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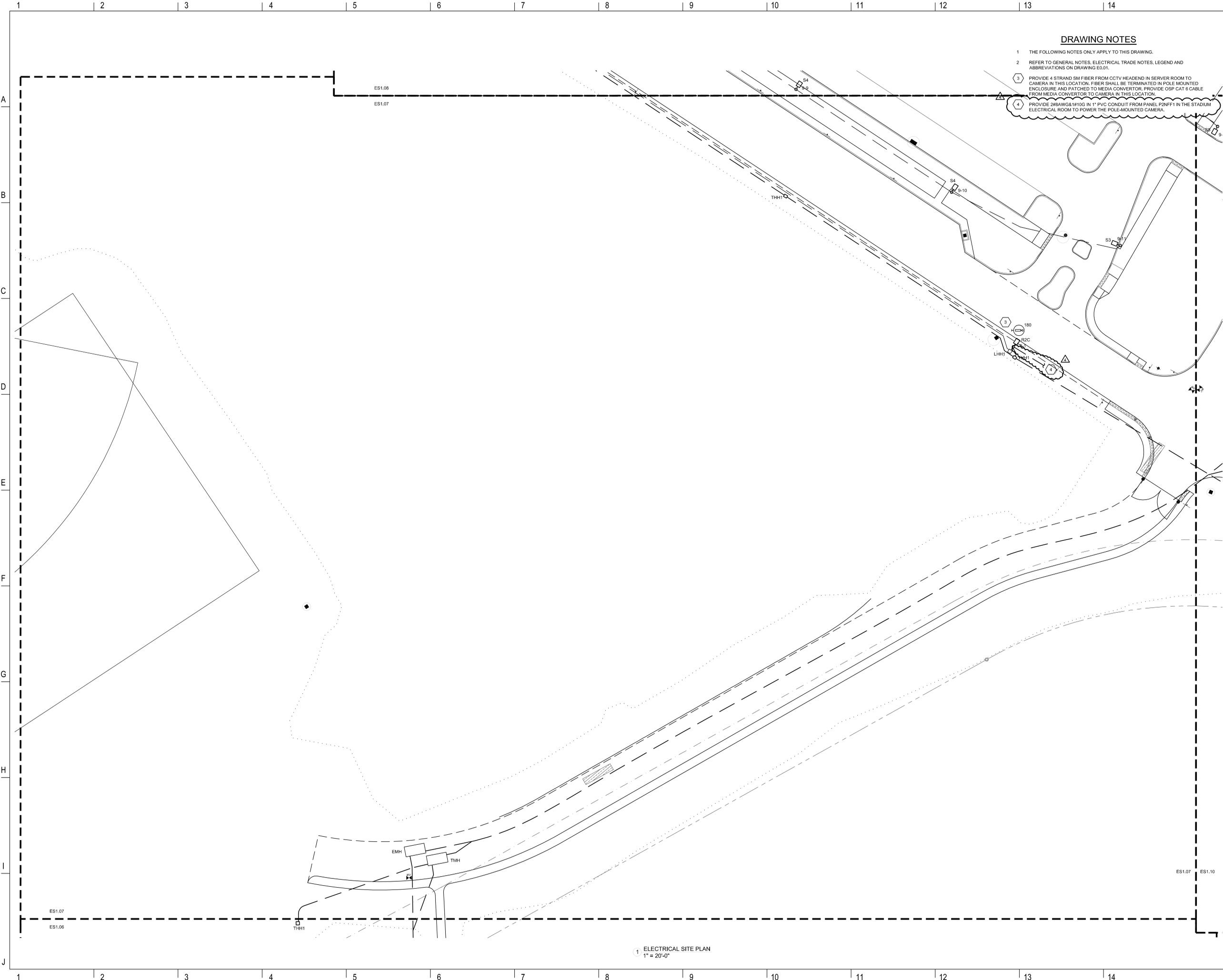
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| 3 | ADDENDUM #3 | 2016-03-04 |
| 4 | ADDENDUM #4 | 2016-03-11 |

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| CONTENT: ELECTRICAL SITE PLAN | |
| DRAWN BY: | C. NEWELL |
| PROJECT NO.: | 12-067-00 |
| DATE: | 02/11/2016 |
| REVISED: | |
| SCALE: | AS NOTED |
| ES1.04 | |
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1 ELECTRICAL SITE PLAN
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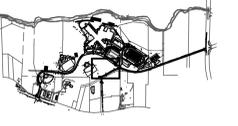


DRAWING NOTES

- 1 THE FOLLOWING NOTES ONLY APPLY TO THIS DRAWING.
- 2 REFER TO GENERAL NOTES, ELECTRICAL TRADE NOTES, LEGEND AND ABBREVIATIONS ON DRAWING ED.01.
- 3 PROVIDE 4 STRAND SM FIBER FROM CCTV HEADEND IN SERVER ROOM TO CAMERA IN THIS LOCATION. FIBER SHALL BE TERMINATED IN POLE MOUNTED ENCLOSURE AND PATCHED TO MEDIA CONVERTOR. PROVIDE OSP CAT 6 CABLE FROM MEDIA CONVERTOR TO CAMERA IN THIS LOCATION.
- 4 PROVIDE 2#8AWGьG. IN 1" PVC CONDUIT FROM PANEL P2NFF1 IN THE STADIUM ELECTRICAL ROOM TO POWER THE POLE-MOUNTED CAMERA.

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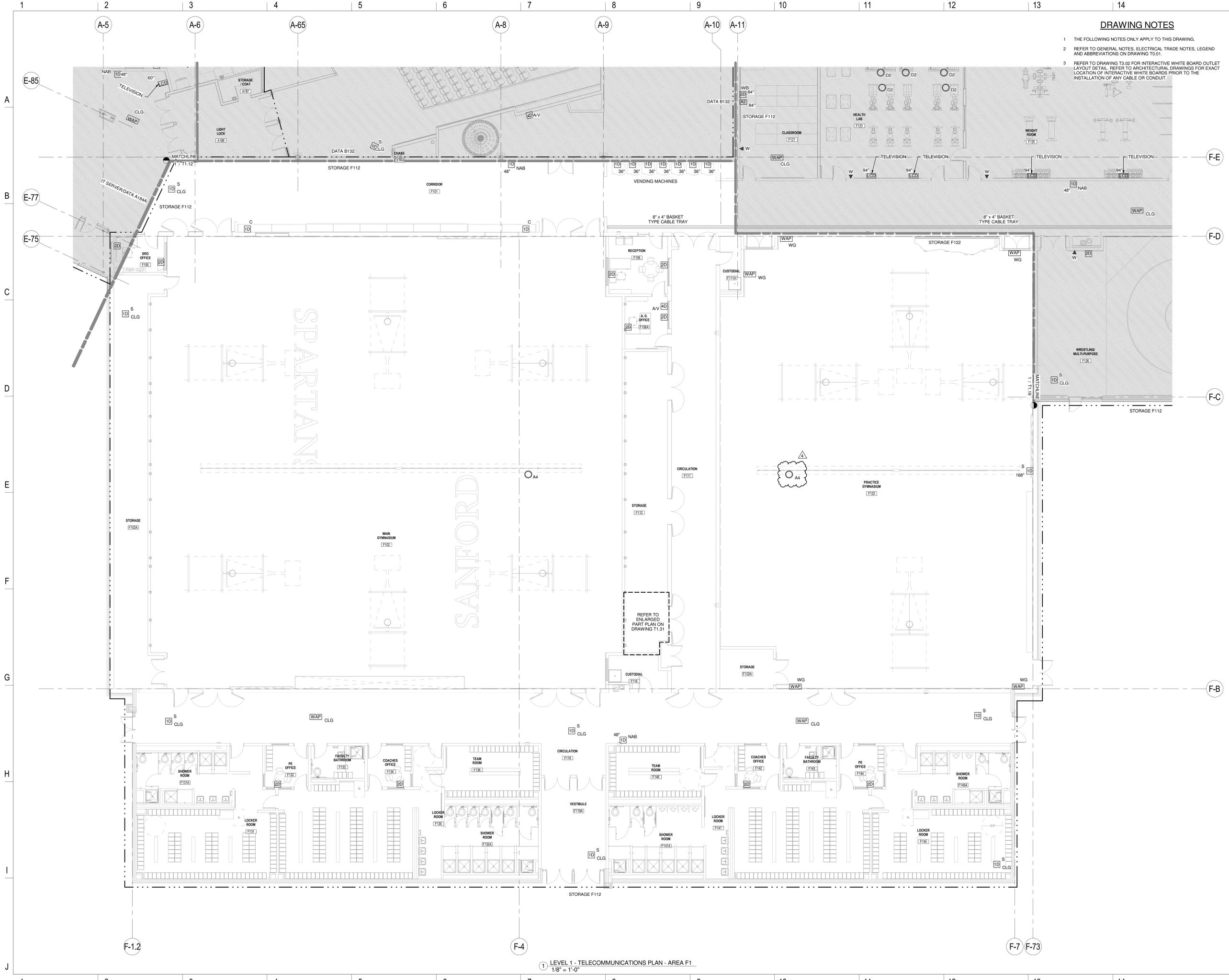
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| 3 | ADDENDUM #3 | 2016-03-04 |
| 4 | ADDENDUM #4 | 2016-03-11 |
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| CONTENT: | ELECTRICAL SITE PLAN |
| DRAWN BY: | C. NEWELL |
| PROJECT NO.: | 12-067-00 |
| DATE: | 02/11/2016 |
| REVISED: | |
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1 ELECTRICAL SITE PLAN
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DRAWING NOTES

- 1 THE FOLLOWING NOTES ONLY APPLY TO THIS DRAWING.
- 2 REFER TO GENERAL NOTES, ELECTRICAL TRADE NOTES, LEGEND AND ABBREVIATIONS ON DRAWING T0.01.
- 3 REFER TO DRAWING T3.02 FOR INTERACTIVE WHITE BOARD OUTLET LAYOUT DETAIL. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF INTERACTIVE WHITE BOARDS PRIOR TO THE INSTALLATION OF ANY CABLE OR CONDUIT.

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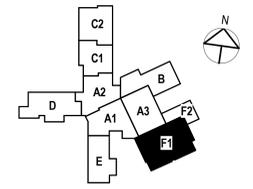
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CONTENT:
 FIRST FLOOR TELECOMMUNICATIONS PLAN - AREA F1

DRAWN BY: C. NEWELL
 PROJECT NO: 12-067-00
 DATE: 02/11/2016
 REVISED:
 SCALE: 1/8" = 1'-0"

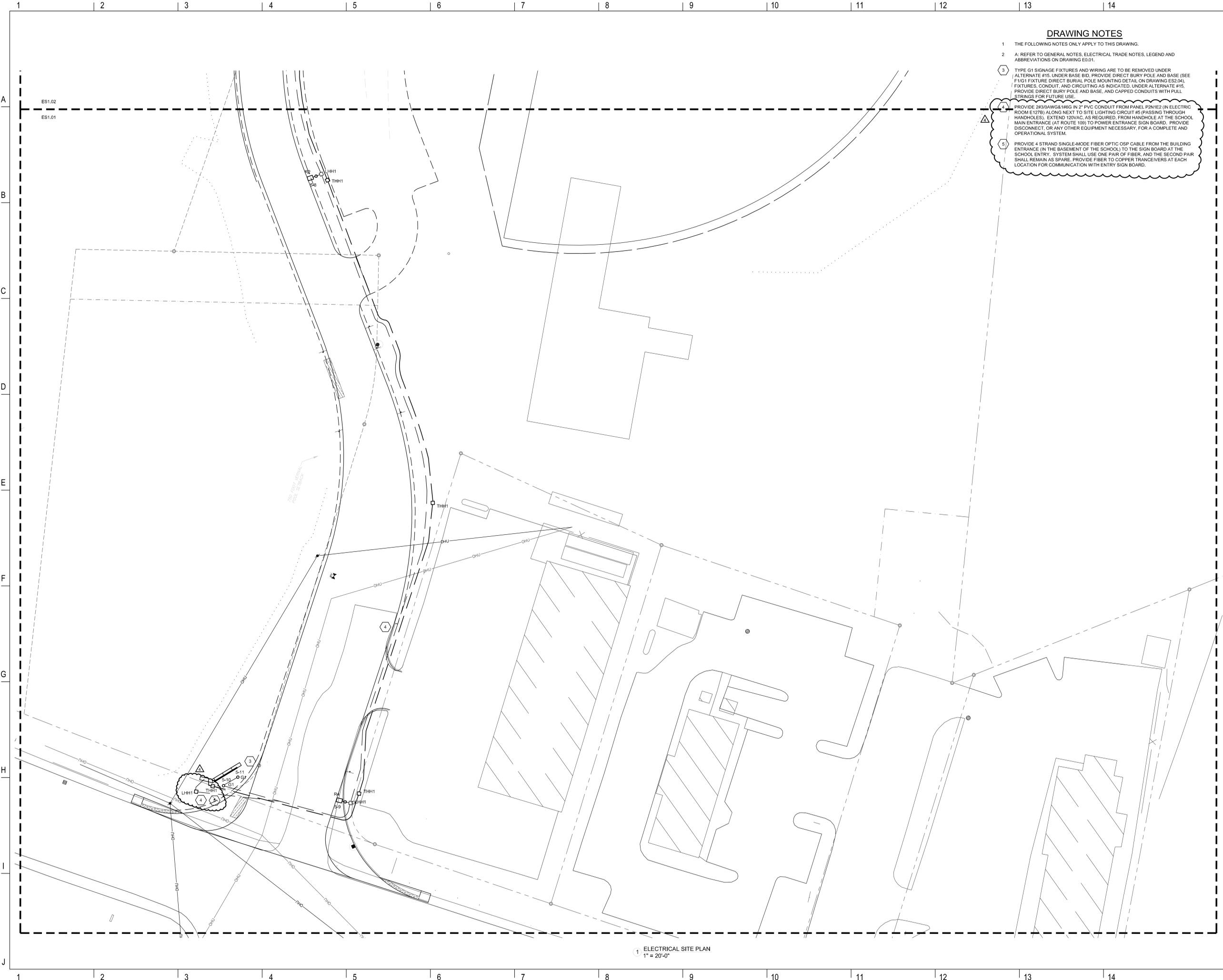
T1.18

Project Phase
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1 LEVEL 1 - TELECOMMUNICATIONS PLAN - AREA F1
 1/8" = 1'-0"

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DRAWING NOTES

- 1 THE FOLLOWING NOTES ONLY APPLY TO THIS DRAWING.
- 2 A: REFER TO GENERAL NOTES, ELECTRICAL TRADE NOTES, LEGEND AND ABBREVIATIONS ON DRAWING E0.01.
- 3 TYPE G1 SIGNAGE FIXTURES AND WIRING ARE TO BE REMOVED UNDER ALTERNATE #15. UNDER BASE BID, PROVIDE DIRECT BURY POLE AND BASE (SEE F1/G1 FIXTURE DIRECT BURIAL POLE MOUNTING DETAIL ON DRAWINGS ES2.04), FIXTURES, CONDUIT, AND CIRCUITING AS INDICATED, UNDER ALTERNATE #15. PROVIDE DIRECT BURY POLE AND BASE, AND CAPPED CONDUITS WITH PULL STRINGS FOR FUTURE USE.
- 4 PROVIDE 2#3/0AWG#1#6G IN 2" PVC CONDUIT FROM PANEL P2N1E2 (IN ELECTRIC ROOM E127B) ALONG NEXT TO SITE LIGHTING CIRCUIT #5 (PASSING THROUGH HANDHOLES), EXTEND 120' W/C, AS REQUIRED, FROM HANDHOLE AT THE SCHOOL MAIN ENTRANCE (AT ROUTE 109) TO POWER ENTRANCE SIGN BOARD. PROVIDE DISCONNECT, OR ANY OTHER EQUIPMENT NECESSARY, FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 5 PROVIDE 4 STRAND SINGLE-MODE FIBER OPTIC OSP CABLE FROM THE BUILDING ENTRANCE (IN THE BASEMENT OF THE SCHOOL) TO THE SIGN BOARD AT THE SCHOOL ENTRY. SYSTEM SHALL USE ONE PAIR OF FIBER, AND THE SECOND PAIR SHALL REMAIN AS SPARE. PROVIDE FIBER TO COPPER TRANCEIVERS AT EACH LOCATION FOR COMMUNICATION WITH ENTRY SIGN BOARD.

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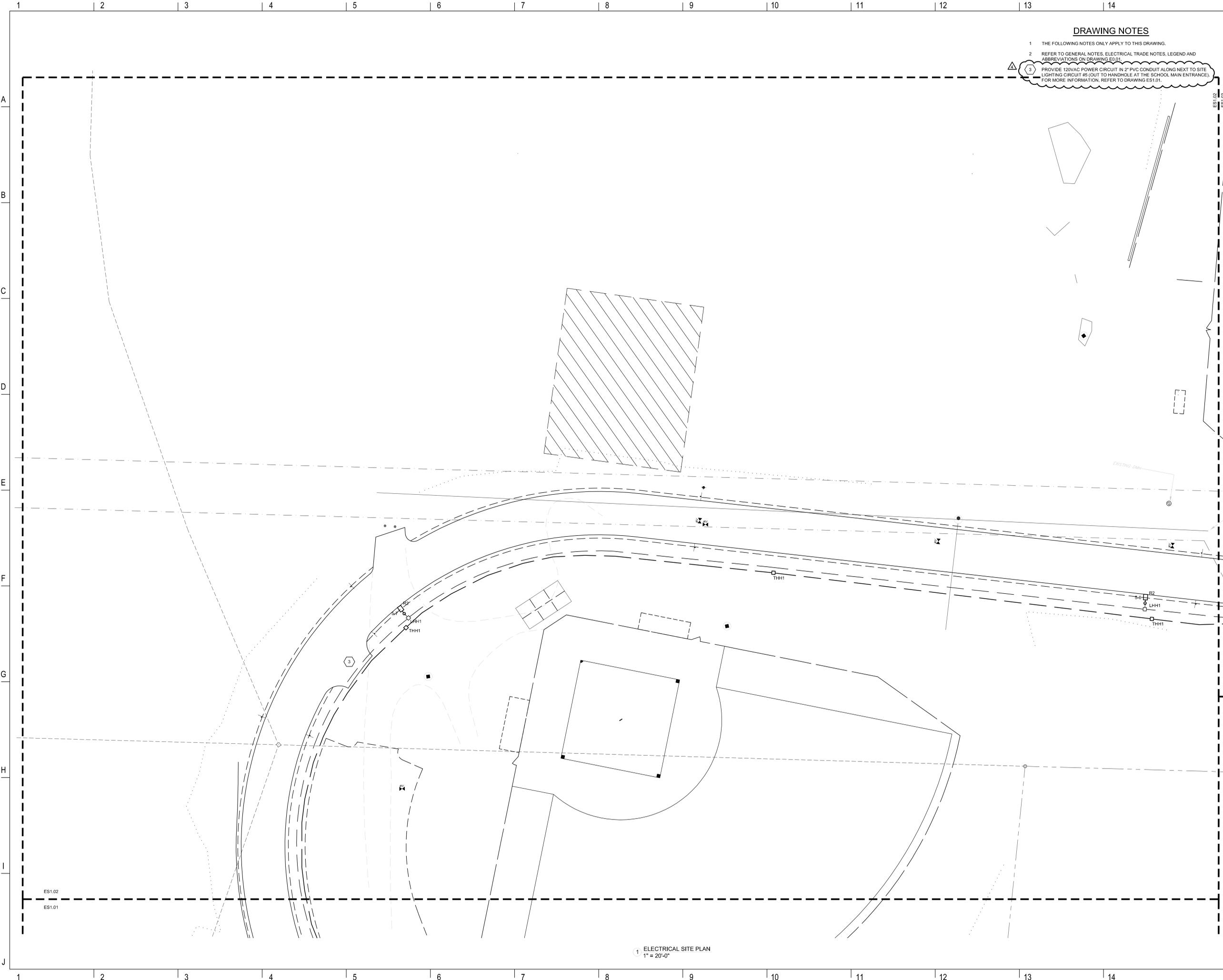
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| DRAWN BY: | C. NEWELL |
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1 ELECTRICAL SITE PLAN
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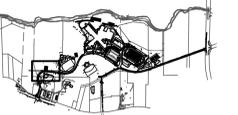


DRAWING NOTES

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- 3 PROVIDE 120VAC POWER CIRCUIT IN 2" PVC CONDUIT ALONG NEXT TO SITE LIGHTING CIRCUIT #5 (OUT TO HANDHOLE AT THE SCHOOL MAIN ENTRANCE). FOR MORE INFORMATION, REFER TO DRAWING ES1.01.

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| CONTENT: ELECTRICAL SITE PLAN | |
| DRAWN BY: | C. NEWELL |
| PROJECT NO.: | 12-067-00 |
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ES1.02
ES1.01