Michael Shilale, AIA, LEED, CPHC
John Cirilli, AIA, LEED

MICHAEL SHILALE ARCHITECTS, L.L.P.

140 Park Avenue ☐ New City, New York 10956 ☐ Tel 845-708-9200 ☐ Fax 845-708-9222 ☐ E-mail info@shilale.com

October 23, 2024

North Rockland High School Projects – Phase 2
MSA File No. 43045
North Rockland Highschool **SED No. 50-02-01-06-0-016-036**
Press Box- Softball **SED No. 50-02-01-06-7-090-001**
Press Box- Baseball **SED No. 50-02-01-06-7-091-001**

NOTICE TO BIDDERS

Re: **ADDENDUM NO. 1**

THE FOLLOWING REVISIONS TO THE PROJECT MANUAL AND OR THE DRAWINGS REFERENCED HEREIN SHALL BECOME A PART OF THE CONTRACT DOCUMENTS AND SHALL SUPERSEDE ANY PRIOR OR CONFLICTING INFORMATION.

1) SEALED BIDS will be received until 2:00 PM. in the office of facilities, on the 7th of November 2024, at the North Rockland Central School District, 65 Chapel Street, Garnerville, NY 10923, at which time and place they will be publicly opened and read. Faxed bids will NOT be accepted. Bids must be in sealed envelope(s) approximately labeled with the following label:
"North Rockland High School Projects – Phase 2 – Site Construction"
"North Rockland High School Projects – Phase 2 – Mechanical Construction"
"North Rockland High School Projects – Phase 2 – Electrical Construction"

2) Deliver Bids to: North Rockland Central School District
65 Chapel Street
Garnerville, NY 10923

3) The North Rockland Central School District is exempt from sales tax.

4) All requests may be sent to bidding@shilale.com. As per specification 001000 section 3.2.2, "Requests for clarification or interpretation of the bidding documents shall be submitted by the bidder in writing and shall be received by the architect at least seven (7) days prior to the date for receipt of bids."

5) Requests for additional site visits may be emailed to bidding@shilale.com. We will coordinate with the District for additional visits if required.

6) Alternate No. 5 is added to the project. See revised drawing A-001 and CE-003. The transformer replacement has been changed from base bid to alternate. The location of the existing transformer has been updated on drawings CE-003. See attached revised specifications 003002E Bid Form – Electrical and 012300 Alternates.

7) Alternate No. 6 is added to the project. Site Contractor to provide a price for providing a Turf Paint Remover Machine to Owner. See revised drawing A-001 and revised specifications 003002S Bid Form – Site Contractor and 012300 Alternates. See attached cut sheet.

8) The basis of design for liquid applied roofing has been changed from PUMA to Alpha Guard MT. This change is for the roofing at the Field Hockey Press Box and all four dugouts. See revised drawings A-131 and

A-501. See new drawings A-503 and A-504 with additional roof details for the Field Hockey Press Box. See revised specification section 075600.13 Fluid-Applied Membrane Roofing. Specification section 071800 Traffic Coatings, Pedestrian Traffic Roofing is void and has been removed from the project.

9) The foundation design for the Field Hockey Press Box has been revised. See attached revised drawings A-131, CE-714, S-104 & S-200.

10) See attached revised CE-101. Revisions include pole luminaire summary updates, softball field speakers updates, added control circuit summary and a change in the softball field plan.

11) See attached revised drawings CE-102, CE-103, CE-501, CE-502, CE-503, CE-504 and CE-505 for updated sound system, controls and grounding detail.

12) See attached revised drawing CE-104. The lighting layout has been revised to coordinate with drawing A-440. The lighting in the Dugouts are 1X4 abuse resistant fixtures.

13) See attached revised drawings CE-401, CE-402, CE-403 and CE-404. Revisions to panels have been made.

14) See attached revised drawing M-102, M-103 and CE-106. Plans and elevations of Press Boxes have been revised to match as shown in Architectural Drawings.

15) Attached for reference is a Draft Baseline Schedule.

16) See attached revised spec section 116833 Athletic Equipment.

17) What is the current max loading on bridge?
All materials and design are set for H-20 loading. Contractor shall conform to all applicable regulations to provide H20 loading for new bridge. Load rating of the existing bridge/culvert crossing is unknown. The contractor shall take necessary precautions to avoid accident or damage upon the existing crossing location.

18) What is the egress and access for students for the track and field during construction?
Attached for reference are Logistics and Phasing Plans 1 & 2. Refer to these Plans for egress and access.

19) Testing of the existing soils for removal. Who is responsible?
Contract scope does not require testing of soils for removal. Costs for any voluntary testing or testing required by facility accepting disposed materials shall be born by the contractor.

20) Soil boring log seems to be excluded from the set. Based on the site location near an existing body of water underground water levels are typically much higher.
Provided under separate cover for reference are two Geotech reports titled “NRCSD Geotech Report Phase 1” and “NRCSD Geotech Report Phase 2”.

21) How is dewatering of the natural underground streams and perched water being handled?
It is the contractor’s responsibility to follow the recommendations provided within the geotechnical reports. It is further the responsibility of the contractor to properly protect excavations from water and where prevention of water is not possible it is the contractor’s responsibility to properly dewater excavations and spoils materials. All costs associated with dewatering the site shall be born by the contractor.

22) How are the surplus excavated materials being addressed?
Any surplus materials that cannot be utilized on site shall be removed from site and legally disposed. All costs shall be born by contractor.

23) Existing surveys and topo information are outdated and are taking prior to the Phase I install. Are there updated plans being issued? Conflicting information on these plans.
Existing survey was completed prior to phase 1 improvements. Phase 2 design documents utilize existing survey in areas not disturbed by Phase 1 improvements and show completed Phase 1 improvements for reference at transition areas. It is the responsibility of the contractor to identify all differences between design drawings and site conditions that will impact installation of the proposed improvements.

24) Referencing sheet C-201 Existing Culverts. Please verify size and depth of culvert and a complete scope.
Existing culvert is 6' wide x 4' high with inverts shown on plan. Scope is full replacement of culvert with new larger pipe as per drawing C-722.

25) Existing water line on C-10 note calls out for the main to be lowered to maintain a 4.5' FG separation. Is this line active? If so will it require a full removal for it to be lowered? How is this being addressed?
Please see revisions to drawings C-410, C420, and C-720 for locations where changes in grade will require existing active 4" and 8" water lines to be lowered to maintain proper burial depth. Bidder shall carry cost in base bid to cut and replace sections of 4" and 8" water lines in areas shown. Bidder shall also carry cost in base bid for adding insulation over existing water lines where shown. Existing detectable warning tape shall be replaced in all disturbed locations.

26) During the site walk through there was talks about abandoning the sanitary sewer line in place in lieu of asbestos abatement and full removal. Please confirm if sanitary sewer can be abandoned in place.
Existing conditions and proposed utility improvements do not allow for abandoning existing sanitary line. All existing sanitary depicted on plans for removal shall be abated and removed as per plans

27) On page C-200 removal note #5 states topsoil shall not be removed from the site unless approved by the owner representative. Are all soils to remain on site?
While owner shall retain the right to ownership of the topsoil, bidder shall be prepared to remove and legally dispose of all excess topsoil off site. The owner shall be responsible for loading and trucking any topsoil desired for needs outside of this project. Contractor shall stockpile and confirm which topsoil is available for owner use and coordinate owner access to stockpile prior to disposal.

END OF ADDENDUM NO. 1

C:\Users\alazaro\MSA LLP Dropbox\Andrew Lazaro\- M DRIVE\2022\42051 High School Projects\6BN\Addenda\Addendum No. 1\42051 Addendum No. 1.doc

PART 1 - GENERAL

1.01 GENERAL

A. Pursuant to, and in compliance with, your Advertisement for Bids and the Information to Bidders relative thereto and all of the Contract Documents, including any Addenda issued by the Architect and mailed to the undersigned prior to the opening Bids, whether received by the undersigned or not, we

_____
(CONTRACTOR NAME)

hereby proposes to furnish all plant, labor, supplies, materials and equipment for North Rockland High School Fields Phase 2 & HVAC Upgrades – Electrical Construction, as required by and in strict accord with the applicable provisions of the Drawings and Specifications entitled "North Rockland High School Fields Phase 2 & HVAC Upgrades – Electrical Construction at 106 Hammond Rd, Thiells, NY 10984 for the North Rockland Central School District, 65 Chapel Street, Garnerville, NY 10923 ", all to the satisfaction and approval of the Architect and the Owner in accordance with the terms and conditions of the Contract Documents for the following prices:

1._____Dollars
(Write out in words)
(_____) Base Bid for all work.

_____ Consecutive Calendar Days for substantial completion _____with base bid.

The undersigned further proposes and agrees hereby to commence work with an adequate force and equipment immediately after being notified in writing to do so, and to achieve substantial completion for all work as required by the plans and specifications within the number of consecutive calendar days as itemized above.

A. North Rockland High School Fields Phase 2 & HVAC Upgrades – Electrical Construction

Total Project Electrical Construction ($_____)

B. ALTERNATES

The undersigned further proposes and agrees that, should any of the following alternates be accepted and included in the Contract, the amount of the Base Bid, is hereto stated, shall be increased or decreased by the amounts indicated below.

Alternate No. 1
Existing RTU F2 to be removed and replaced with new. ($_____)

Alternate No. 4
Electrical Contractor to provide electrical connections for field hockey press box. ($_____)

Alternate No. 5:
Electrical Contractor to remove and replace existing transformer. ($_____)

C. ALLOWANCES

The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents.

Allowance No. 7
Electrical Contractor testing. ($10,000)

1.02 TIME OF COMPLETION

A. It is agreed by the undersigned that after receipt of Notice of Award and a consummation of a Contract Agreement in accord with the terms of the Contract Documents, he will start work on _____ 2024. Substantial completion will be _____2024. The punch list work will be completed by _____ 2024 and performed after school hours.

1.03 BID SECURITY

A. Attached hereto is Bid Security in the amount of five percent (5%) of the Base Bid.

1.04 UNIT PRICES

A. For work to be supplied or omitted at the price rate stipulated herein should the volume of work be increased, the following unit prices will be established as the limitations for such items of work, and each unit price shall include material, labor and services of each and everything necessary or required to complete for like work in kind, quality and function.

No unit prices at this time.

1.06 NON-COLLUSIVE BIDDING CERTIFICATION

A. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.

2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and

3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not submit a bid for the purpose of restricting competition.

Resolved that _____
(Name of Individual)
be authorized to sign and submit the bid or proposal of this corporation for the following project _____and to include in such bid or proposal the certificate as to non-collusion required by Section One Hundred Three (d) (103d) of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalty of perjury.

The foregoing is a true and correct cop of the resolution by
_____
Corporation at a meeting of its Board of Directors held on the
_____day of_____, 20_____.

(SEAL OF THE CORPORATION)

_____
Secretary

1.07 ACCEPTANCE

A. When this Proposal is accepted, the undersigned agrees to enter into Contract with the Owner as provided in the Form of Agreement.

1.08 AFFIRMS

A. The undersigned affirms and agrees that this Proposal is a firm one which remains in effect and will be irrevocable for a period of forty-five (45) days after opening of Bids.

1.09 TYPE OF BUSINESS

A. The undersigned hereby represents that it is a_____
(Corporation, Partnership, or an Individual). If a Corporation, then the undersigned further represents that it is duly qualified as a Corporation under laws of New York State and it is authorized to do business in this State.

1.10 PLACE OF BUSINESS

A. The following is the name and address of the person to whom all notices required in the connection with this Proposal may be telephoned, mailed or delivered.

_____
(Name)

_____
(Address)

_____
(Telephone)

1.11 EXECUTION OF CONTRACT

A. When written Notice of Acceptance of the Proposal is mailed or delivered to the undersigned within forty-five (45) days after the opening of Bids, or anytime thereafter should the Proposal not be withdrawn, the undersigned, within ten (10) days, will execute the Form of Agreement with the Owner.

1.12 ADDENDA

A. Any Addenda issued by the Architect and mailed or delivered to the undersigned prior to the Bid opening date shall become part of the Contract Documents. The Bidder shall enter on this list any addenda issued after this Form of Proposal has been received and shall fill in the addenda number and date.

Addendum #_____ Dated_____
Addendum #_____ Dated_____
Addendum #_____ Dated_____
Addendum #_____ Dated_____
Addendum #_____ Dated_____
Addendum #_____ Dated_____

1.13 ASBESTOS

A. The Contractor certifies that no asbestos or asbestos-containing material will be incorporated into the Work of this Contract.

(Sign Bid Here)

Dated_____, 20_____ _____
Legal Name of Person, Partnership
or Corporation

By _____

Title _____

Address _____

_____

PART 1 - GENERAL

1.01 GENERAL

A. Pursuant to, and in compliance with, your Advertisement for Bids and the Information to Bidders relative thereto and all of the Contract Documents, including any Addenda issued by the Architect and mailed to the undersigned prior to the opening Bids, whether received by the undersigned or not, we

_____
(CONTRACTOR NAME)

hereby proposes to furnish all plant, labor, supplies, materials and equipment for North Rockland High School Fields Phase 2 & HVAC Upgrades – Sitework, as required by and in strict accord with the applicable provisions of the Drawings and Specifications entitled "North Rockland High School Fields Phase 2 & HVAC Upgrades – Sitework at 106 Hammond Rd, Thiells, NY 10984 for the North Rockland Central School District, 65 Chapel Street, Garnerville, NY 10923 ", all to the satisfaction and approval of the Architect and the Owner in accordance with the terms and conditions of the Contract Documents for the following prices:

1._____Dollars
(Write out in words)
(_____) Base Bid for all work.

_____ Consecutive Calendar Days for substantial completion _____with base bid.

The undersigned further proposes and agrees hereby to commence work with an adequate force and equipment immediately after being notified in writing to do so, and to achieve substantial completion for all work as required by the plans and specifications within the number of consecutive calendar days as itemized above.

A. North Rockland High School Fields Phase 2 & HVAC Upgrades – Sitework

Total Project Sitework ($_____)

B. ALTERNATES

The undersigned further proposes and agrees that, should any of the following alternates be accepted and included in the Contract, the amount of the Base Bid, is hereto stated, shall be increased or decreased by the amounts indicated below.

Alternate No. 6:
Site contractor to provide a price to include turf paint remover machine to owner. ($_____)

C. ALLOWANCES

The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents.

Allowance No. 1
Site Testing ($5,000)

1.02 TIME OF COMPLETION

A. It is agreed by the undersigned that after receipt of Notice of Award and a consummation of a Contract Agreement in accord with the terms of the Contract Documents, he will start work on _____ 2024. Substantial completion will be _____2024. The punch list work will be completed by _____ 2024 and performed after school hours.

1.03 BID SECURITY

A. Attached hereto is Bid Security in the amount of five percent (5%) of the Base Bid.

1.04 UNIT PRICES

A. For work to be supplied or omitted at the price rate stipulated herein should the volume of work be increased, the following unit prices will be established as the limitations for such items of work, and each unit price shall include material, labor and services of each and everything necessary or required to complete for like work in kind, quality and function.

No unit prices at this time.

1.06 NON-COLLUSIVE BIDDING CERTIFICATION

A. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.

2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and

3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not submit a bid for the purpose of restricting competition.

Resolved that _____
(Name of Individual)
be authorized to sign and submit the bid or proposal of this corporation for the following project
_____and to include in such bid or proposal the certificate as to non-collusion required by Section One Hundred Three (d) (103d) of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalty of perjury.

The foregoing is a true and correct cop of the resolution by
_____
Corporation at a meeting of its Board of Directors held on the
_____day of_____, 20_____.

(SEAL OF THE CORPORATION)

_____
Secretary

1.07 ACCEPTANCE

A. When this Proposal is accepted, the undersigned agrees to enter into Contract with the Owner as provided in the Form of Agreement.

1.08 AFFIRMS

A. The undersigned affirms and agrees that this Proposal is a firm one which remains in effect and will be irrevocable for a period of forty-five (45) days after opening of Bids.

1.09 TYPE OF BUSINESS

A. The undersigned hereby represents that it is a_____
(Corporation, Partnership, or an Individual). If a Corporation, then the undersigned further represents that it is duly qualified as a Corporation under laws of New York State and it is authorized to do business in this State.

1.10 PLACE OF BUSINESS

A. The following is the name and address of the person to whom all notices required in the connection with this Proposal may be telephoned, mailed or delivered.

_____
(Name)

_____
(Address)

_____
(Telephone)

1.11 EXECUTION OF CONTRACT

A. When written Notice of Acceptance of the Proposal is mailed or delivered to the undersigned within forty-five (45) days after the opening of Bids, or anytime thereafter should the Proposal not be withdrawn, the undersigned, within ten (10) days, will execute the Form of Agreement with the Owner.

1.12 ADDENDA

A. Any Addenda issued by the Architect and mailed or delivered to the undersigned prior to the Bid opening date shall become part of the Contract Documents. The Bidder shall enter on this list any addenda issued after this Form of Proposal has been received and shall fill in the addenda number and date.

Addendum #_____	Dated_____
Addendum #_____	Dated_____
Addendum #_____	Dated_____
Addendum #_____	Dated_____
Addendum #_____	Dated_____
Addendum #_____	Dated_____

1.13 ASBESTOS

A. The Contractor certifies that no asbestos or asbestos-containing material will be incorporated into the Work of this Contract.

(Sign Bid Here)

Dated_____, 20_____ _____

Legal Name of Person, Partnership or Corporation

By _____

Title _____

Address _____

_____

_____

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation, whether or not indicated as part of alternate.

B. Execute accepted alternates under the same conditions as other Work of the Contract.

C. Schedule: A Part 3 "Schedule of Alternates" Article is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Existing RTU F2 to be removed and replaced with new.

1. Base Bid: Existing RTU F2 to remain.

2. Alternate: HVAC Contract to remove and replace with new F2 roof top unit, as indicated on Drawing and as specified in Sections. Electrical Contract to disconnect existing electrical connections and make connections for new RTU. General Contract to provide structural reinforcing for new unit.

B. Alternate No. 2: Provide double batting tunnel at softball field and baseball field in lieu of base bid.

1. Base Bid: Provide single batting tunnel at softball and baseball field.

C. Alternate No. 3: Provide (4) four sets of portable bleachers at baseball field.

D. Alternate No. 4: Electrical Contractor to provide electrical connections for field hockey press box.

E. Alternate No. 5: Electrical Contractor to remove and replace existing transformer.

F. Alternate No. 6: Site contractor to provide a price to include turf paint remover machine to owner.

END OF SECTION 012300

SECTION 075600.13 - FLUID-APPLIED MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes fluid-applied roof membrane system on wood deck, consisting of the following:

1. Substrate board, adhered.

2. Base-ply sheet, adhered.

3. Application of reinforced fluid-applied polyurethane roof membrane and membrane flashings.

4. Full slip-resistant walkway top coat on all horizontal roofing surfaces.

B. Related Information:

1. Division 07 Section "Sheet Metal Flashing and Trim" for formed metal roof flashings and roof edge metal.

1.2 ROOFING CONFERENCES

A. Roofing Preinstallation Conference: Conduct conference at Project site. Review methods and procedures related to roofing system.

1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative if applicable, roofing materials manufacturer's representative, roofing Installer including project manager and foreman, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment requiring removal and replacement as part of the Work.

2. Review methods and procedures related to preparation, including membrane roofing system manufacturer's written instructions.

3. Review drawings and specifications.

4. Review temporary protection requirements for existing roofing system that is to remain, during and after installation.

5. Review roof drainage during each stage of roofing and review roof drain plugging and plug removal procedures.

6. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

7. Review base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect re-coating.

8. Review HVAC shutdown and sealing of air intakes.

9. Review shutdown of fire-suppression, -protection, and -alarm and -detection systems.

10. Review procedures for asbestos removal or unexpected discovery of asbestos-containing materials.

11. Review governing regulations and requirements for insurance and certificates if applicable.

12. Review existing conditions that may require notification of Owner before proceeding.

1.3 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D1079 "Standard Terminology Relating to Roofing and Waterproofing" and glossary in applicable edition of NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" for definition of terms related to roofing work in this Section.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product specified.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Provide roof plan showing orientation and types of roof deck and orientation of membrane roofing and fastening spacings and patterns for mechanically fastened components.

1. Base flashings and terminations.

C. Samples for Verification: For the following products:

1. 3-by-5-inch sample of custom top coat colors.

2. 3-by-5-inch sample of base ply.

3. 4-by-4-inch sample of cement substrate board.

1.5 INFORMATIONAL SUBMITTALS

A. Contractor's Product Certificate: Submit certificate, indicating products intended for Work of this Section, including product names and numbers and manufacturers' names, with statement indicating that products to be provided meet the requirements of the Contract Documents.

B. Qualification Data: For Installer, Manufacturer, and Roofing Inspector.

1. Letter written for this Project indicating manufacturer approval of Installer to apply specified products and provide specified warranty.

C. Warranties: Unexecuted sample copies of special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: To include in maintenance manuals.

B. Warranties: Executed copies of approved warranty forms.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An employer of workers trained and certified by manufacturer, including a full-time on-site supervisor with a minimum of five years' experience installing products comparable to those specified, able to communicate verbally with Contractor, Architect, and employees, and the following:

1. Qualified by the manufacturer to install manufacturer's product and furnish warranty of type specified.

B. Manufacturer Qualifications: Approved manufacturer listed in this Section, with minimum five years' experience in manufacture of specified products in successful use in similar applications.

1. Approval of Other Manufacturers and Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:

a. Product data, including certified independent test data indicating compliance with requirements.

b. Samples of each component.

c. Sample submittal from similar project.

d. Project references: Minimum of five installations of specified products not less than five years old, with Owner and Architect contact information.

e. Sample warranty.

C. Roofing Inspector Qualifications: A technical representative of manufacturer not engaged in the sale of products and experienced in the installation and maintenance of the specified roofing system, qualified to perform roofing observation and inspection specified in Field Quality Control Article, to determine Installer's compliance with the requirements of this Project, and approved by the manufacturer to issue warranty certification. The Roofing Inspector shall be one of the following:

1. An authorized full-time technical employee of the manufacturer.

2. An independent party certified as a Registered Roof Observer by the International Institute of Building Enclosure Consultants (formerly the Roof Consultants Institute) retained by the Contractor or the Manufacturer and approved by the Manufacturer.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Handle and store roofing materials, and place equipment in a manner to avoid significant or permanent damage to deck or structural supporting members.

C. Protect materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting.

1.9 PROJECT / FIELD CONDITIONS

A. Protect building, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from roofing operations.

B. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

C. Weather Limitations: Proceed with roofing work only when existing and forecasted weather conditions permit Work to proceed without water entering into existing roofing system or building.

1. Store all materials prior to application at temperatures between 60 and 90 deg. F (16 and 32 deg C).

2. Apply coatings within range of ambient and substrate temperatures recommended by manufacturer. Do not apply materials when air temperature is below 50 or above 110 deg. F (10 or above 43 deg C).

3. Do not apply roofing in snow, rain, fog, or mist.

D. Daily Protection: Coordinate installation of roofing so insulation and other components of roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.

E. Owner will occupy portions of building immediately below roofing area. Conduct roofing so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.

1.10 WARRANTY

A. Manufacturer's Warranty: Roof System Manufacturer's standard form in which Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within warranty period, as follows.

1. Form of Warranty: Manufacturer's standard warranty form.

2. Scope of Warranty: Work of this Section and including sheet metal details and termination details installed by the roof system Installer and approved by the Roof System Manufacturer.

3. Warranty Period: 30 years from date of completion.

B. Manufacturer Inspection Services: By manufacturer's technical representative, to report maintenance responsibilities to Owner necessary for preservation of Owner's warranty rights. The cost of manufacturer's inspections is included in the Contract Sum.

1. Inspections to occur in following years: 2, 5, 10, 15, 20 and 25 following completion.

C. Installer Warranty: Installer's warranty signed by Installer, as follows.

1. Form of Warranty: Form acceptable to Roofing Manufacturer and Owner.

2. Scope of Warranty: Work of this Section.

3. Warranty Period: 2 years from date of completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: The roof system specified in this Section is based upon products of Tremco CPG Inc, Beachwood, OH, (800) 562-2728, www.tremcoroofing.com that are named in other Part 2 articles. Provide specified products or comparable products of one of the following.

1. Tremco CPG Inc., Basis-of-Design.

2. Kemper.

B. Source Limitations: Obtain components for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. General: Provide roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.

1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.

2. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D3746/D3746M, ASTM D4272/D4272M, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

C. Roofing System Design: Provide roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency in accordance with ANSI/FM 4474, UL 580, or UL 1897, and to resist uplift pressures.

1. Zone 1 (Field-of-Roof) Uplift Pressure: 58.1 psf.

2. Zone 2 (Perimeter) Uplift Pressure: 76.7 psf, located within 9 ft. of roof perimeter.

3. Zone 3 (Corner) Uplift Pressure: 104.5 psf, located within 9 ft. of outside corners.

D. SPRI Wind Design Standard: Manufacture and install roof edge flashings tested according to ANSI/SPRI ES-1.

1. Design Pressure: 104.5 psf.

E. Flashings: Comply with requirements of Division 07 Sections "Sheet Metal Flashing and Trim" and "Manufactured Roof Specialties." Provide base flashings, perimeter flashings, detail flashings and component materials that comply with requirements and recommendations of the following:

1. FMG 1-49 Loss Prevention Data Sheet for Perimeter Flashings.

2. NRCA Roofing Manual (Sixth Edition) for construction details and recommendations.

3. SMACNA Architectural Sheet Metal Manual (Seventh Edition) for construction details.

F. Exterior Fire-Test Exposure: ASTM E108, Class A; for application and roof slopes indicated, as determined by testing identical membrane roofing materials by a qualified testing agency. Materials shall be identified with appropriate markings of applicable testing agency.

2.3 MATERIALS

A. General: Roofing materials recommended by roofing system manufacturer for intended use and compatible with components of existing membrane roofing system.

B. Temporary Roofing Materials: Selection of materials and design of temporary roofing is responsibility of Contractor.

C. General: Provide adhesive and sealant materials recommended by roofing manufacturer for intended use and compatible with built-up roofing.

1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.

2.4 SHEET MATERIALS

A. Base-Ply Sheet:

1. SBS-modified asphalt coated composite polyester/fiberglass/fiberglass mat reinforced high tensile strength base sheet, ASTM D4601 Type II.

a. Basis of design product: Tremco, BURmastic Composite Ply HT.

b. Tensile Strength at 77 deg. F (25 deg. C), minimum, ASTM D5147: Machine direction, 165 lbf/in (725 N); Cross machine direction, 150 lbf/in (660 N).

c. Tear Strength at 77 deg. F (25 deg. C), minimum, ASTM D5147: Machine direction, 260 lbf (1150 N); Cross machine direction, 230 lbf (1120 N).

d. Thickness, minimum, ASTM D5147: 0.060 inch (1.5 mm).

2.5 FLUID-APPLIED ROOFING MEMBRANE

A. Polyurethane Elastomeric Fluid-Applied System: Two-coat reinforced fluid-applied roofing membrane formulated for application over prepared existing roofing substrate.

1. Base Coat:

a. Polyurethane Roof Coating System Base Coat: Single-part moisture-curing, for use with a compatible top coat.

1) Basis of design product: Tremco, AlphaGuard MTS Base Coat.

2) Volatile Organic Compounds (VOC), maximum, ASTM D3960: 50 g/L.

3) Accelerated Weathering, 5000 hours, ASTM G154: Pass.

4) Hardness, Shore A, minimum, ASTM D2240: 85.

5) Solids, by volume, ASTM D2697, minimum: 87 percent.

6) Minimum Thickness, Base Coat on Smooth Surface: 48 mils (1.22 mm) wet.

2. Top Coat:

a. Polyurethane roof coating system top coat, low odor low VOC single-part, for application over compatible base coat.

1) Basis of design product: Tremco, AlphaGuard MT Top Coat.

2) Volatile Organic Compounds (VOC), maximum, ASTM D 3960: 50 g/L.

3) Solar Reflectance Index (SRI), ASTM C1549: 86 percent.

4) Accelerated Weathering, 5000 hours, ASTM G154: Pass.

5) Hardness, Shore A, minimum, ASTM D2240: 85.

6) Solids, by volume, ASTM D2697: 87.

7) Minimum Thickness: 48 mils (1.22 mm) wet over cured base coat.

8) Minimum Thickness, Slip-Resistant Coat: 20 mils (0.50 mm) wet.

9) Color: Custom match.

3. Reinforcing Fabric:

a. Polyester Reinforcing Fabric: 100 percent stitch-bonded mildew-resistant polyester fabric intended for reinforcement of compatible fluid-applied membranes and flashings.

1) Basis of design product: Tremco, Permafab.

2) Tensile Strength, Minimum, ASTM D5034 (2-inch): MD - 110 lbs (49.8 kg); XMD - 60 lbs (27.2 kg) avg.

3) Elongation, Minimum, ASTM D5034 (1-inch): MD - 25 percent; XMD - 100 percent.

4) Tear Strength, Minimum, ASTM D5587: MD - 20 lbs (9.0 kg) avg; XMD - 20 lbs (9.0 kg) avg.

5) Weight: 3 oz./sq. yd (102 g/sq. m).

4. Primers:

a. Primer for Asphaltic and Single-Ply Membranes: Water-based, polymer-modified quick-dry low odor primer.

1) Basis of design product: Tremco, AlphaGuard WB Primer.

2) Volatile Organic Compounds (VOC), maximum, ASTM D3960: 1 g/L.

3) Solids, by weight: 70 percent.

b. Primer for Masonry Surfaces: Two-part high-solids epoxy-penetrating low-odor primer for masonry and concrete surfaces.

1) Basis of design product: Tremco, AlphaGuard C-Prime.

2) Volatile Organic Compounds (VOC), maximum, ASTM D3960: 0 g/L.

3) Solids, by weight: 100 percent.

c. Primer for Non-Porous Surfaces: Single-part, water based primer to promote adhesion of urethanes to metals, PVC and other non-porous surfaces.

1) Basis of design product: Tremco, AlphaGuard M-Prime.

2) Volatile Organic Compounds (VOC), maximum, ASTM D3960: 22 g/L.

3) Nonvolatile Content, minimum, ASTM D2369: 5 percent.

4) Density at 77 deg F (25 deg C): 8.3 lb./gal (1kg/L).

d. Primer for Intercoat and Substrate Adhesion: Single-part, quick-drying primer to promote adhesion of urethane products to previous urethane coats and to other approved surfaces.

1) Basis of design product: Tremco, Geogard Primer.

2) Volatile Organic Compounds (VOC), maximum, ASTM D3960: 100 g/L.

3) Coverage Rate, 400 sq. ft/ gal. (10 m2/ L): 4 mils (0.10 mm) wet.

2.6 ADHESIVE MATERIALS

A. Base-Ply Sheet Adhesive:

1. Cold-applied bio-based low odor urethane roofing adhesive, two-part, USDA BioPreferred, formulated for compatibility and use with specified roofing membranes and flashings.

a. Basis of design product: Tremco, POWERply Endure BIO Adhesive TF.

b. Volatile Organic Compounds (VOC), maximum, ASTM D3690: 0 g/L.

c. Low Temperature Flexibility, ASTM D2240: Pass at -30 deg F (-34 deg C).

d. Solids, by Volume, ASTM D2697: 100 percent.

e. Biobase Content, Minimum, ASTM D6866: 70 percent.

2.7 AUXILIARY ROOFING MEMBRANE MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with existing roofing system and fluid-applied roofing system.

B. Joint Sealant: Elastomeric joint sealant compatible with applied coating, with movement capability appropriate for application.

1. Joint Sealant, Polyurethane: ASTM C920, Type S, Grade NS, Class 50 single-component moisture curing sealant, formulated for compatibility and use in dynamic and static joints; paintable.

a. Basis of design product: Tremco, TremSEAL Pro.

b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 40 g/L.

c. Hardness, Shore A, ASTM C661: 40.

d. Adhesion to Concrete, ASTM C794: 35 pli.

e. Tensile Strength, ASTM D412: 350 psi (2410 kPa).

f. Color: Closest match to substrate.

C. Stripping Adhesive / Sealer:

1. Seam Sealer: Aromatic polyurethane sealer, single-component, high solids, moisture curing, formulated for compatibility and use with a variety of roofing and flashing substrates.

a. Basis of design product: Tremco, GEOGARD Seam Sealer.

b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 189 g/L.

c. Tensile Strength, ASTM D412: 270 psi (1860 kPa).

d. Tear Strength, ASTM D412: 35 pli (6.13 kNm).

e. Elongation, ASTM D412: 220 percent.

f. Color: Gray.

D. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.

2.8 SUBSTRATE BOARDS

A. Substrate Boards:

1. Reinforced Cement Board, ASTM C1325.

a. Basis of design product: USG Securock Cement Board

b. Thickness: 5/8 inch (15.99mm).

2.9 INSULATION ACCESSORIES

A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with built-up roofing.

B. Substrate Board Adhesive:

1. Urethane adhesive, bead-applied, low-rise two-component solvent-free low odor, formulated to adhere roof insulation to substrate.

    a. Basis of design product: Tremco, Low Rise Foam Insulation Adhesive.

    b. Flame Spread Index, ASTM E84: 10.

    c. Smoke Developed Index, ASTM E84: 30.

    d. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 0 g/L.

    e. Tensile Strength, minimum, ASTM D412: 250 psi (1720 kPa).

    f. Peel Adhesion, minimum, ASTM D903: 17 lbf/in (2.50 kN/m).

    g. Flexibility, 70 deg. F (39 deg. C), ASTM D816: Pass.

C. Tapered Edge Strips: ASTM C208, Type II, Grade 1, cellulosic-fiber insulation board.

2.10 PERIMETER WOOD BLOCKING

A. Exterior Grade Plywood Sheathing

1. Minimum thickness: 5/8 inch (to match substrate board).

2. Width: No less than 5-1/2 inches.

B. Fasteners:

1. Nails, Brads, and Staples: ASTM F1667.

2. Power-Driven Fasteners: NES NER-272.

2.11 SLIP RESISTANT TOP COAT

A. Slip Resistant Top Coat Materials:

1. Polyurethane Top Coat, Slip-Resistant: Second top coat with broadcast slip-resistant aggregate.

    a. Basis of design product: Tremco, AlphaGuard MT Top Coat Slip-Resistant.

    b. Minimum Thickness: As indicated in Part 2 product listing; over cured top coat.

    c. Silica sand aggregate: 20 to 30 lb./100 sq. ft.

    d. Color: As selected from manufacturer's standard colors.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:

1. Verify that roof openings and penetrations are in place and curbs are set and braced and that roof drain bodies are securely clamped in place.

2. Verify that existing substrate is sound and dry.

B. Proceed with installation once unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing manufacturer's written instructions. Remove sharp projections.

B. Protect adjacent portions of building and building equipment.

1. Comply with warranty requirements of existing roof membrane manufacturer.

2. Mask surfaces to be protected. Seal joints subject to infiltration by coating materials.

3. Limit traffic and material storage to areas of existing roofing membrane that have been protected.

4. Maintain temporary protection and leave in place until replacement roofing has been completed.

C. Shut down air intake equipment in the vicinity of the Work in coordination with the Owner. Cover air intake louvers before proceeding with re-coating work that could affect indoor air quality or activate smoke detectors in the ductwork.

1. Verify that rooftop utilities and service piping affected by the Work have been shut off before commencing Work.

D. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

1. Do not permit water to enter into or under existing membrane roofing system components that are to remain.

3.3 MEMBRANE ROOFING INSTALLATION, GENERAL

A. Install roofing membrane according to roofing manufacturer's written instructions.

1. Commence installation of roofing in presence of manufacturer's technical personnel.

B. Coordinate installation of roofing so insulation and other components of roofing not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.

1. Provide tie-offs at end of each day's work to cover exposed roofing sheets and insulation with a course of coated felt set in roofing cement with joints and edges sealed.

2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing.

3. Remove and discard temporary seals before beginning work on adjoining roofing.

C. Substrate-Joint Penetrations: Prevent fluid-applied materials and adhesives from penetrating substrate joints, entering building, or damaging built-up roofing components or adjacent building construction.

D. Install wood blocking sheathing at all roof perimeters to match thickness of substrate board.

1. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

a. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code or requirements of authorities having jurisdiction.

b. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.4 SUBSTRATE BOARD INSTALLATION

A. Install substrate board with long joints in continuous straight lines, perpendicular to roof slopes with end joints staggered between rows. Tightly butt substrate boards together.

1. Adhere substrate board to wood deck to resist uplift pressure at corners, perimeter, and field of roof according to membrane roofing system manufacturers' written instructions.

a. Low rise foam insulation beads spaced 6-inches on center.

3.5 BASE-PLY SHEET INSTALLATION

A. Install base sheet starting at low point of roofing. Align base sheet without stretching. Shingle side laps of base a minimum of 4 inches (100 mm). Shingle in direction to shed water. Extend base sheets over edges and terminate above cants.

1. Embed base sheet in cold-applied membrane adhesive applied at rate required by roofing manufacturer.

B. Extend base flashing up walls or parapets a minimum of 8 inches (200 mm) above roofing and 6 inches (150 mm) onto field of roofing.

C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.

1. Seal top termination of base flashing with specified sealant.

D. Install stripping according to roofing manufacturer's written instructions where metal flanges and edgings are set on roofing.

1. Flashing Sheet Stripping: Install flashing sheet stripping in specified cold adhesive and extend onto roofing membrane.

E. Roof Drains: Install base-ply sheet in cold adhesive around drain bowl. Base sheet must be installed so that it will be under compression from the clamping ring. Install base coat, fabric reinforcement, and top coat over base sheet. Install drain clamping ring and strainer.

3.6 FLUID-APPLIED FLASHING APPLICATION

A. Fluid-Applied Flashing and Detail Base Coat Application: Complete base coat and fabric reinforcement at parapets, curbs, penetrations, and drains prior to application of field of fluid-applied membrane. Apply base coat in accordance with manufacturer's written instructions.

1. Extend coating minimum of 8 inches (200 mm) up vertical surfaces and 4 inches onto horizontal surfaces.

2. Back roll to achieve minimum coating thickness indicated on Part 2 product listing unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.

3. Reinforcing Fabric: Embed fabric reinforcement into wet base coat. Lap adjacent flashing pieces of fabric minimum 3 inches (75 mm) along edges and 6 inches (150 mm) at end laps.

a. Roll surface of fabric reinforcing to completely embed and saturate fabric. Leave finished base coat with fabric free of pin holes, voids, or openings.

4. Roll surface of fabric reinforcing to completely embed and saturate fabric. Leave finished base coat with fabric free of pin holes, voids, or openings.

5. Allow base coat to cure prior to application of top coat.

3.7 FLUID-APPLIED MEMBRANE APPLICATION

A. Base Coat: Apply base coat to field of membrane in accordance with manufacturer's written instructions.

1. Apply base coat on prepared and primed surfaces and spread coating evenly.

2. Back roll to achieve minimum coating thickness indicated on Part 2 product listing unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.

3. Reinforcing Fabric: Embed fabric reinforcement into wet base coat. Lap adjacent flashing pieces of fabric minimum 3 inches (75 mm) along edges and 6 inches (150 mm) at end laps.

    a. Roll surface of fabric reinforcing to completely embed and saturate fabric. Leave finished base coat with fabric free of pin holes, voids, or openings.

4. Roll surface of fabric reinforcing to completely embed and saturate fabric. Leave finished base coat with fabric free of pin holes, voids, or openings.

5. Allow base coat to cure prior to application of top coat.

B. Top Coat: Apply top coat to field of membrane and flashings uniformly in a complete, continuous installation.

1. Prime base coat prior to application of top coat if top coat is not applied within 72 hours of the base coat application, using manufacturer's recommended primer.

2. Apply top coat extending coating up vertical surfaces and out onto horizontal surfaces. Install top coat over field base coat and spread coating evenly.

3. Back roll to achieve minimum coating thickness indicated on Part 2 product listing unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.

4. Avoid foot traffic on new fluid-applied membrane for a minimum of 24 hours.

3.8 SLIP RESISTANT TOP COAT INSTALLATION

A. General: Install walkways according to roofing manufacturer's written instructions.

1. Install at following locations:

    a. On all horizontal roofing surfaces.

B. Slip-Resistant Walkway Topcoat: Apply walkway second topcoat following application and curing of top coat.

1. Mask walkway location with tape.

2. Prime first top coat prior to application of walkway top coat if walkway top coat is not applied within 72 hours of the first top coat application, using manufacturer's recommended primer.

3. Apply walkway topcoat and back roll to achieve minimum coating thickness indicated on Part 2 product listing unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.

4. Broadcast Slip-Resistant Top Coat Aggregate in wet top coat at rate indicated in Part 2 product listing or as otherwise recommended by coating manufacturer.

    a. Back roll aggregate and top coat creating even dispersal of aggregate.

5. Remove masking immediately.

3.9 FIELD QUALITY CONTROL

A. Roofing Inspector: Owner will engage a qualified roofing inspector to perform roof tests and inspections and to prepare test reports.

B. Roofing Inspector: Contractor shall engage a qualified roofing inspector for a minimum of twice per week to perform roof tests and inspections and to prepare start up, interim, and final reports. Roofing Inspector's quality assurance inspections shall comply with criteria established in Quality Control and Quality-assurance Guidelines for the Application of Membrane Roof Systems."

C. Roof Inspection: Contractor shall engage roofing system manufacturer's technical personnel to inspect roofing installation and submit report to the Architect. Notify Architect 24 hours in advance of dates and times of inspections. Inspect work as follows:

1. Upon completion of preparation of first component of work, prior to application of re-coating materials.

2. Following application of re-coating to flashings and application of base coat to field of roof.

3. Upon completion of re-coating but prior to re-installation of other roofing components.

D. Repair fluid-applied membrane where test inspections indicate that they do not comply with specified requirements.

E. Arrange for additional inspections, at Contractor's expense, to verify compliance of replaced or additional work with specified requirements.

3.10 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period.

B. Correct deficiencies in or remove coating that does not comply with requirements, repair substrates, and reapply coating.

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075600.13

SECTION 116833 - ATHLETIC FIELD EQUIPMENT (Bid Addendum 01)

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Backstop tension netting system with integrated wall pad
B. Baseball accessories
C. Softball accessories
D. Foul poles
E. Windscreen with graphics
F. Pitching mound forming systems
G. Semi-permanent fence system
H. Dugout Guardrail padding
I. Dugout accessories
J. Soccer goals and accessories
K. Soccer corner flags
L. Lacrosse goals
M. Field hockey goals and accessories
N. Ball Safety Netting
O. Batting Tunnels
P. Synthetic Turf Paint Removal Equipment (Alternate #6 ONLY)

1.02 RELATED SECTIONS

A. Section 311001 – Earthwork – Site Work
B. Section 321813 – Synthetic Grass Surfaces

1.03 SUBMITTALS

A. Comply with the requirements of Section 013300 – Submittal Procedures and as modified below.

B. Product Data: Submit manufacturer's name, specifications and installation instructions for each item specified.

C. Quality Control Submittals

1. Qualifications Certification: Submit written certification or similar documentation signed by the applicable subcontractor, prime contractor and/or manufacturer (where applicable) indicating compliance with the requirements of this specification.
2. Experience Listing: Submit a list of completed projects using the products proposed for this project, including owner's contact information and telephone number for each project, demonstrating compliance with the applicable portions of this specification.

D. Closeout Procedures: Comply with the requirements of Section 017700.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide products by a company specializing in the manufacture of athletic equipment with at least five years experience.

1.05 PROJECT CONDITIONS

A. Field Measurements: Establish and maintain required lines and elevations for grade control.

1.06 DELIVERY, STORAGE AND HANDLING

A. Packing and Shipping: Deliver all equipment in a manner to protect the material from dirt, water, chemical or mechanical injury.

B. Acceptance at the Project Site: Deliver all athletic equipment to the site to designated representatives of the Prime Contractor responsible for athletic field equipment for storage and handling when required. The Owner or other contractors on the project site shall not store or handle any athletic equipment.

1.07 SEQUENCING AND SCHEDULING

A. Proceed with and complete athletic field equipment installation as rapidly as portions of the site become available, working within seasonal limitations for the work required.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. For convenience, details and specifications have been based on the following products by the following manufacturers:

1. Sportsfield Specialties, Inc; Delhi, New York (Telephone# 1-888-975-3343):

a. Backstop Tension Netting System with Integrated Wall Pad

(1) TNPPUCWPB - Pole-to-Pole Tension Netting System with Integrated Wall Pad Backstop, Ultra Cross Netting

b. Baseball Accessories

(1) SHIBL Schutt Hollywood Impact Base Set

c. Softball Accessories

(1) SHIBD Hollywood Impact Double First Base Set

d. Foul Poles

(1) FPW420 - 20’ Foul Pole with Wing
(2) FPW630 - 30’ Foul Pole with Wing

e. Custom Windscreen with Graphics

(1) VCPDG-NSS – Vinyl Coated Polyester Windscreen, Non-standard size with custom digital graphics

f. Dugout Guard Rail and Padding System

(1) GRS36 – 36" Guard Rail System

g. Mound Forming Systems

(1) PMFSS – Softball Pitching Mound Forming System
(2) PMFSB – Baseball Pitching Mound Forming System
(3) PMFSBPS – Single Bullpen Pitching Mound Forming System
(4) PMFSBPD – Double Bullpen Pitching Mound Forming System

h. Semi-Permanent Fence System

(1) SF6 - 6'H Semi-Permanent Seasonal Fence System

i. ~~Guardrail Padding~~ **(Omit from Project)**

~~(1) BSGRP – BaseZone® Squared Guard Rail Padding~~

j. Dugout Accessories

(1) SUAHCBBSS - Aluminum Storage Unit; Helmet Cubby, Bat Bin, and Side Storage
(2) PTBTTWM – Wall Mounted Two Tier Polyboard Team Bench
(3) SUACRSWM – Aluminum Wall Mounted Coat Rack and Shelf Unit

k. Soccer Goals and Accessories

(1) "Round Faced Soccer Goal with Mobility Wheel Kit and Safety System" – Model Nos. SG824R, SGWKL, and SG 2S (One complete set of two required).

l. Soccer Corner Flags

(1) "Premier Soccer Corner Flags" – Model #SG6B1404 (Set of four)

m. Lacrosse Goals

(1) "Heavy Duty Lacrosse Goal with Flat Iron Base" – Model No. LCG01 (One complete set of two required).

n. Field Hockey Goals and Accessories

(1) "Field Hockey Goal with Portable Mobility Wheel Kit with Integrated Retractable Handle" – Model Nos. FHG and FHGWK (One complete set of two required).

o. Ball Safety Netting

(1) BSS420 StormGuard® Professionally Pre-Engineered 20' Straight Pole Break-Away Ball Safety Netting System and Accessories

p. Batting Tunnels

(1) BTTBD Tension Baseball Single Batting Tunnel (BASE BID)
a. ALTERNATE #2 – Double Batting Tunnel
(2) BTTSD Tension Softball Single Batting Tunnel (BASE BID)
a. ALTERNATE #2 – Double Batting Tunnel

2. Pioneer Athletics; Cleveland, Ohio (Telephone# 1-800-877-1500):

a. Synthetic Turf Paint Removal Equipment (ALTERNATE #6)

(1) P-REX – One person paint remover and extractor

2.02 MATERIALS

A. Backstop Tension Netting System with Integrated Wall Pad

a. Pole-to-Pole Tension Netting System Upright Support Posts and Pole Structures – Fabricated, Sized and Configured as Required:
a. Height Above Finish Grade as Indicated
b. Super Durable Powder Coated Black Finish with Enhanced Resistance to UV and Fade
c. Ground Sleeve Embedment Mount
d. Hot Dipped Galvanized Assembly Hardware - Quantities, Sizes and Configurations as Required

2. Pole-to-Pole Tension Netting System Wire Rope Support Structure:
a. Length, Height and Configuration as Indicated
b. 7 x 19 GAC Galvanized Aircraft Cable - 5/16" Diameter Main Horizontal Support, 9,800 lb. Minimum Breaking Strength, 3,267 lb. Minimum Working Load Limit
c. 7 x 19 GAC Galvanized Aircraft Cable - 1/4" Diameter Vertical and Bottom Horizontal Supports, 7,000 lb. Minimum Breaking Strength, 2,333 lb. Minimum Working Load Limit
d. Hot Dipped Galvanized Attachment and Assembly Hardware Quantities, Sizes and Configurations as Required

3. Pole-to-Pole Tension Netting System Net and Rope Bound Border:
a. Length, Height and Configuration as Required
b. Ultra Cross Knotless Netting
c. Dyneema® Ultra-High Molecular Weight Polyethylene (UHMWPE) SK-75 Black Fiber Construction
d. 4 Ply, 1.2 mm (0.0472") Diameter Twine
e. 95% Open Mesh Area (See-Through Visibility)
f. 58,445 psi Minimum Breaking Strength
g. 30% Maximum Elongation at Break
h. 1-3/4" (44 mm) Square Mesh Size, 0.009 lbs. per Square Foot
i. 4-Strand, Braided, Continuous Monofilament Dyneema® Fiber

j. Black Multi-Filament Polypropylene Solid Braid Derby Rope Sewn Binding on Perimeter Edges - 1/4" Diameter, 530 lb. Minimum Breaking Strength
k. Urethane Black Bonded Finish
l. Strong Resistance to Ultraviolet (UV) Light Degradation
m. Excellent Resistance to Chemicals and Water Absorption

4. Integrated Wall Pad Backstop Intermediate Support Poles:
   a. 4.00" Dia. HSS Intermediate Poles with 7 Gauge Steel Welded Mounting Tabs
   b. 30" Ground Sleeve Embedment Mount Standard for All Heights
   c. Super Durable Powder Coated Black Finish with Enhanced Resistance to UV and Fade
   d. Height Above Finish Grade, Configuration, and Quantity as Required

5. Integrated Wall Pad Backstop Rail Support Structure and Mounting Brackets:
   a. Quantity and Configuration as Indicated
   b. 2 ½" SQ. x 11 Gauge Wall Thickness Steel Rail Support Structure
   c. 7 Ga. Steel Bracketry for Rail Mounting
   d. Super Durable Powder Coated Black Finish with Enhanced Resistance to UV and Fade

6. BaseZone® Wall Pads and Backer Board:
   a. Length, Height, and Configuration as Indicated
   b. 18 oz. Exterior Vinyl (Various Colors Available)
   c. ¾" Advantech ® Water Resistant Sheathing Panel, Sealed and Stained with Exterior Grade Black Finish
   d. Include Custom Digitally Printed Graphics for Padding
   e. Aluminum Z-Clip Style Mounting Brackets, (2) Sets per Pad
   f. 11 Ga. Steel U-Bracket for Backer Board Mounting, Super Durable Powder Coated Black Finish with Enhanced Resistance to UV and Fade

7. Included Accessories:
   a. Hot Dipped Galvanized Attachment and Assembly Hardware - Quantities, Sizes and Configurations as Required
   b. Black Rope for Net Binding Attachment to Wire Rope Support Structure – Quantities and Configurations as Required
   c. Stamped and Sealed Drawings and Calculations by a Licensed Professional Engineer of Record in the State of Project Location
   d. Model Specific Hardware Kit and Installation Instructions
   e. One (1) Year Limited Manufacturer's Product Warranty

B. Baseball Accessories

1. Bases: Base set with the following components:

   a. White, 15" X 15" X 2 1/2" bases constructed of a natural rubber covering over a foam core with steel stanchion, base pan and tapered lip.
   b. One set of three female anchors.
   c. One set of three rubber plugs to be inserted into the female anchors when bases are removed from the field.

C. Softball Accessories

1. Bases: Base set with the following components:

a. White and Orange, 30" X 15" X 2 1/2" one-piece double first base and (2) white 15"x15"x2 1/2" bases constructed of a natural rubber covering over a foam core with steel stanchion, base pan and tapered lip.
b. Female anchors.
c. Rubber plugs to be inserted into the female anchors when bases are removed from the field.

D. Foul Poles

1. Foul Pole Upright:

a. 6" Schedule 40 Aluminum Pipe (6.625"O.D. x .280" Wall)
b. Height Above Finish Grade: 20' Softball / 30' Baseball
c. Super Durable Powder Coated Finish
d. Color: Yellow, Orange, or White

2. Foul Pole Wing:

a. Stamped 1/8" (0.125") Aluminum Sheet with Double Reinforced Bends Welded at Corners
b. 1.5" Square Open Mesh
c. 18"W x 12'L (Softball) / 18"W x 22'L (Baseball)
d. Bottom of wing to be 8' Above Finish Grade

3. Ground Sleeve:

a. 5' Depth
b. 7" O.D. x .109" Wall Steel
c. Alignment Bolt
d. Welded Leveling Plate
e. Stainless Steel Assembly Hardware

E. Custom Windscreen with Graphics

1. Provide custom sized windscreen at the following locations:
a. Rear face of softball scoreboard. See drawing C-717.
b. Rear face of baseball scoreboard. See drawing C-717.
c. Full coverage of 8' height chain link fencing on three sides of bullpen for four bullpen locations. See drawings C-300 and C-301 for fencing layout and drawing C-718 for graphics.
d. Full coverage of 8' height chain link fence on REAR side of softball utility pad fencing. Graphics TBD.
2. Windscreen system requirements:
a. Base fabric: 1,000 denier polyester
b. Weight: Eight ounces (8oz.) per square yard (±1oz.)
c. 80% closed mesh, 20% openings
d. Tensile Strength: 210 x 220 pounds
e. Adhesion: 8 x 8 pounds per 2"
f. Tear Strength: 90 x 90 pounds
g. Heat welded perimeter hem with 30mm PVC coated weldable webbing reinforcement tape with 1,650 pound tensile strength

h. #2 brass grommets inserted in perimeter hem every twelve inches on center and at corners.
i. Standard machine cut half moon air vents located approximately 12 feet on center.
j. Weather, Ultraviolet, Rot, Mildew, and Flame Resistant.
k. Owner shall have choice of the following standard colors: Black, Green, Royal Blue, Navy Blue, Red, Burgundy, Purple, and Yellow.
l. Standard three (3) year limited warranty.
m. Color shop drawings required for approval prior to fabrication. Owner shall provide digital graphic files for manufacturer use.

F. Dugout Guard Rail System

1. 36" Height Guard Rail System
   a. 36" height, 2" square x 11 ga (.120") thick wall structural steel tube posts with factory predrilled 7" x 7" x 3/8" steel mounting plates.
   b. Four 3/8" dia. X 5" long wedge anchors per base plate fasten railing modules to concrete.
   c. 2" Square x 11ga (.120") Thick Wall Structural Steel Top Rail Running Across the Entire Module Length
   d. 2" Square x 11ga (.120") Thick Wall Structural Steel Bottom Rails Between Posts
   e. Fully Welded Modules with Factory Pre-Drilled Holes for Stainless Steel Bolt Module to Module Connection to Assist Installation
   f. Super Durable Powder Coated Black Finish with Enhanced Resistance to UV and Fade
2. Guard Rail Padding Consisting of Squared Guard Rail Padding on Exposed Perimeter Edges, Flat Padding on Posts, Bottom Railing, and Middle Railing
   a. Three (3) – faced Squared Padding. 6"H Front and Rear Faces, 6-1/8"W Top Face. All Faces Consist of Vinyl Covering, Foam and Rigid Sheathing
   b. 6"W Single Face Flat Padding Consisting of Vinyl Covering, Foam and Rigid Sheathing
   c. Outdoor Vinyl Encasement:
      i. High UV Resistance
      ii. Total Weight: 18 oz./yd^2 (ASTM D3776)
      iii. Construction: 84% Vinyl Coating, 16% Polyester Fabric (ASTM D751)
      iv. Tongue Tear: Warp 93 lbs., Fill 68 lbs. (ASTM D751)
      v. Grab Tensile: Warp 232 lbs., Fill 213 lbs. (ASTM D751)
      vi. Adhesion: Warp 28 lbs/in, Fill 40 lbs/in (ASTM D751)
      vii. Abrasion: > 1000 Cycles (ASTM D3389-94)
      viii. Cold Crack: -49° F (ASTM D2136)
      ix. Rot, Mildew and Fungus Resistant: Yes
      x. Flame Resistance: None
      xi. Various Standard Colors Available
   d. 1.25" Thick High Density Polyethylene Cross-Link Closed Cell Foam
      i. Density: 1.7 pcf
      ii. Tensile Strength: 20 psi
      iii. Elongation: 95%
      iv. Tear Resistance: 7 lb/in
      v. Compression Strength:
         a) @ 25% psi: 4 psi
         b) @ 50% psi: 7 psi
      vi. Compression Set: 29% of Original Thickness

vii. Thermal Stability: < 0.5% of Change @ 158°F for 22 hrs
viii. Thermal Conductivity: 0.20 btu/hr/inch ft/°F
ix. Working Temperature Range: -70 °F to 175 °F
x. Water Absorption: <0.06 lb/ft^2/°F
xi. Flammability: Pass (MVSS302)

e. ¾" AdvanTech® Water Resistant Composite Sheathing Panel, Stained and Sealed with Exterior Grade Finish
f. Optional Custom Digitally Printed Lettering and/or Graphics Available Upon Request
g. Padding Attach to Modularized Steel Structure using 11ga (.120") Steel Brackets, Super Durable Powder Coated Black Finish. #10 316 Stainless Steel Round Head Wood Screws Fasten Brackets to Rigid Backing on Pads. #12 x 1-1/2"L Hex Head Self Drilling Screws with Sealing Washers used to Fasten Brackets to Railing

3. UltraCross Knotless Dyneema Netting:
a. Length, Height and Configuration as Required
b. Ultra Cross® Knotless Netting
c. Dyneema® Ultra-High Molecular Weight Polyethylene (UHMWPE) SK-75 Black Fiber Construction
d. 4 Ply, 1.2 mm (0.0472") Diameter Twine
e. 95% Open Mesh Area (See-Through Visibility)
f. 58,445 psi Minimum Breaking Strength
g. 30% Maximum Elongation at Break
h. 1-3/4" (44 mm) Square Mesh Size, 0.009 lbs. per Square Foot
i. 4-Strand, Braided, Continuous Monofilament Dyneema® Fiber
j. Urethane Black Bonded Finish
k. Strong Resistance to Ultraviolet (UV) Light Degradation
l. Excellent Resistance to Chemicals and Water Absorption
m. Attached to Rail Using 14"L Nylon Zip Ties with a 50 lb. Break Strength, UV Stabilized

4. Included Accessories:
a. Model specific hardware kit and installation instructions.
b. One (!) year limited manufacturers product warranty

G. Mound Forming Systems

1. PMFSS – Softball Pitching Mound Forming System:
a. Welded construction fabricated of 1/8" aluminum sheet structure
b. Two (2) welded form sections with bolted connections
c. Notched cutouts for rebar bracing and stake holes for rebar anchoring (Rebar not provided with kit from manufacturer)
d. 8' radius per NFHS rules and regulations
e. Rear form section includes two ½" schedule 40 aluminum drainage pipes and removable pitching rubber tray with four ¾" aluminum round stock threaded studs with 3/8" stainless steel bolts for pitching rubber height adjustment.
f. Includes replaceable SHBBPB Schutt four-sided professional pitching rubber.
g. Includes synthetic turf attachment ledges
h. Includes factory pre-installed 2"x4" synthetic wood nailer boards around the outside perimeter of the form sections for synthetic turf attachment.
i. Includes ¼" roll out rubber underlayment for high traffic areas
j. Synthetic turf replacement size is 48" wide x 121" long.

2. PMFSB – Baseball Pitching Mound Forming System:

a. Welded construction fabricated of 1/8" aluminum sheet structure and ¼" x 4" aluminum bar outer ring roller to an 18' outside diameter.
b. Five (5) welded form sections with bolted connections
c. Notched cutouts for rebar bracing and stake holes for rebar anchoring (Rebar not provided with kit from manufacturer)
d. Official size 18' outside diameter with center section height of 10" above finish grade and sloped 1" vertical per 12" horizontal per NFHS rules and regulations.
e. Center form section includes two ½" schedule 40 aluminum drainage pipes and removable pitching rubber tray with four ¾" aluminum round stock threaded studs with 3/8" stainless steel bolts for pitching rubber height adjustment.
f. Two rear mound slope profile guides fabricated of 1/8" aluminum sheet with bolted connections.
g. Includes replaceable SHBBPB Schutt four-sided professional pitching rubber.
h. Includes synthetic turf attachment ledges
i. Includes factory pre-installed 2"x4" synthetic wood nailer boards around the outside perimeter of the form sections for synthetic turf attachment.
j. Includes ¼" roll out rubber underlayment for high traffic areas
k. Synthetic turf replacement center section size is 60" wide x 135" long.

3. PMFSBPS – Single Bullpen Baseball Pitching Mound Forming System:
a. Welded construction fabricated of 1/8" aluminum sheet structure.
b. Knock out perforations for concrete flow in multi-mound systems.
c. Three (3) welded form sections with bolted connections.
d. Notched cutouts for rebar bracing and stake holes for rebar anchoring (Rebar not provided with kit from manufacturer)
e. Center section height of 10" above finish grade and sloped 1" vertical per 12" horizontal per NFHS rules and regulations.
f. Center form section includes two ½" schedule 40 aluminum drainage pipes and removable pitching rubber tray with four ¾" aluminum round stock threaded studs with 3/8" stainless steel bolts for pitching rubber height adjustment.
g. Includes replaceable SHBBPB Schutt four-sided professional pitching rubber.
h. Includes synthetic turf attachment ledges
i. Includes ¼" roll out rubber underlayment for high traffic areas.
j. Synthetic turf replacement center section size is 58" wide x 152" long.

4. PMFSBPD – Double Bullpen Baseball Pitching Mound Forming System:
a. Welded construction fabricated of 1/8" aluminum sheet structure.
b. Knock out perforations for concrete flow in multi-mound systems.
c. Front and Rear adjustable spacing brackets for multi-mound systems.
d. Three (3) welded form sections with bolted connections.
e. Notched cutouts for rebar bracing and stake holes for rebar anchoring (Rebar not provided with kit from manufacturer)
f. Center section height of 10" above finish grade and sloped 1" vertical per 12" horizontal per NFHS rules and regulations.
g. Center form section includes two ½" schedule 40 aluminum drainage pipes and removable pitching rubber tray with four ¾" aluminum round stock threaded studs with 3/8" stainless steel bolts for pitching rubber height adjustment.
h. Includes replaceable SHBBPB Schutt four-sided professional pitching rubber.
i. Includes synthetic turf attachment ledges
j. Includes ¼" roll out rubber underlayment for high traffic areas.
k. Synthetic turf replacement center section size is 58" wide x 152" long.

H. Semi-Permanent Fence system

1. SF6 - 6'H Semi-Permanent Seasonal Fence System:
   a. Vertical Posts:
      (1) 4" Aluminum Tube (4" O.D. x 1/8" Wall)
      (2) Durable Powder Coated Finish
      (3) Various Standard Color Options Available
      (4) Typical Spacing: 10' On-Center
   b. Fence Panel:
      (1) Dimensions: 5'-11"H x 9'-6"W
      (2) Top of Fence Panel to Finish Grade: 6'
      (3) Fabricated of Stamped 1/8" (0.125") Aluminum Panel with Double Reinforced Bends Welded
      (4) 2" Square Open Mesh Size
      (5) 1/8" (0.125") Aluminum Panel Mounting Brackets
      (6) Durable Powder Coated Finish
      (7) Various Standard Color Options Available
   c. Ground Sleeve:
      (1) 24" Depth
      (2) Aluminum Construction
      (3) Welded Leveling Plate
      (4) Press Fit Ground Sleeve Plug

~~I. Guardrail Padding~~ **(Omit from Project)**

~~1. BSGRP - BaseZone® Squared Guard Rail Padding:~~
~~a. Outside Dimensions: 6" x Variable Width x 6" x Variable Length~~
~~b. Outdoor Vinyl Encasement:~~
~~(1) High UV Resistance~~
~~(2) Total Weight: 18 oz./yd^2 (ASTM D3776)~~
~~(3) Construction: 84% Vinyl Coating, 16% Polyester Fabric (ASTM D751)~~
~~(4) Tongue Tear: Warp 93 lbs., Fill 68 lbs. (ASTM D751)~~
~~(5) Grab Tensile: Warp 232 lbs., Fill 213 lbs. (ASTM D751)~~
~~(6) Adhesion: Warp 28 lbs/in, Fill 40 lbs/in (ASTM D751)~~
~~(7) Abrasion: > 1000 Cycles (ASTM D3389-94)~~
~~(8) Cold Crack: -49° F (ASTM D2136)~~
~~(9) Rot, Mildew and Fungus Resistant: Yes~~
~~(10) Flame Resistance: None~~
~~(11) Various Standard Colors Available~~
~~c. 1.25" Thick High Density Polyethylene Cross-Link Closed Cell Foam~~
~~(1) Density: 1.7 pcf~~
~~(2) Tensile Strength: 20 psi~~
~~(3) Elongation: 95%~~
~~(4) Tear Resistance: 7 lb/in~~
~~(5) Compression Strength:~~
~~(6) @ 25% psi: 4 psi~~
~~(7) @ 50% psi: 7 psi~~
~~(8) Compression Set: 29% of Original Thickness~~
~~(9) Thermal Stability: < 0.5% of Change @ 158°F for 22 hrs~~
~~(10) Thermal Conductivity: 0.20 btu/hr/inch ft/°F~~
~~(11) Working Temperature Range: -70 °F to 175 °F~~
~~(12) Water Absorption: <0.06 lb/ft^2/°F~~
~~(13) Flammability: Pass (MVSS302)~~

~~d. 3/4" Square Edge AdvanTech® Water Resistant Sheathing Panel, All Sides Stained and Sealed with Exterior Grade Finish~~
~~e. Includes Custom Powder Coated Bracketry and Stainless Steel and/or Galvanized Hardware Sized for Applicable Guard Rail Attachment~~
~~f. 1-Year Manufacturer's Limited Product Warranty~~
~~g. Include Custom High-Resolution Digitally Printed Graphics~~

J. Dugout Accessories

1. SUAHCBBSS - Aluminum Storage Unit; Helmet Cubby, Bat Bin, and Side Storage
   a. Overall Dimensions: 7'-6"H x 4'W x 3'-5/16"D
   b. Constructed with Formed .090" 5052 Aluminum Sheet and Stainless Steel Domed Rivets
   c. Durable Powder Coated Finish
      (1) Weather Resistant and Unsusceptible to Rust
      (2) Choose From Various Standard Color Options
   d. Helmet Cubbies: Sixteen (16) 10-3/8" x 10-3/8" x 18"D
   e. Bat Bins: Eight (8) 10-3/8" x 10-3/8" x +/- 3'D
   f. Side Storage: Lockable Access Doors with Recessed Pull Handle
   g. Bolt-on Powder Coated Steel Understructure Assembly with ½" Galvanized Steel Wedge Anchors for Optional Surface Mounting to Concrete Slab
   h. 5-Year Manufacturer's Limited Product Warranty

2. PTBTTWM – Wall Mounted Two Tier Polybard Team Bench
   a. Overall Length: 8 feet
   b. Fully welded frame fabricated with 1/8" formed aluminum and 2' x 2" x 1/8" square aluminum tubing
      (1) Durable powder coat finish
      (2) Weather Resistant and Unsusceptible to Rust
      (3) Choose From Various Standard Color Options
   c. 2" x 4" and 2" x 6" synthetic polyboard seat and backrest planking material.
      (1) Weather Resistant and Unsusceptible to Rust
      (2) Wear resistant solid core construction
      (3) Guaranteed not to crack, splinter, or sliver.
      (4) Manufactured from 90% recycled post consumer plastic.
      (5) Choose From Various Standard Color Options
   d. 100% Preassembled
   e. Two tier design permits player seating on bench or upper shelf.
   f. Includes mounting brackets and concrete wedge anchors for wall mounting.
   g. 5-Year Manufacturer's Limited Product Warranty

3. SUACRSWM – Aluminum Wall Mounted Coat Rack and Shelf Unit
   a. Overall Dimensions: 13-1/16"H x 48"L x 16-1/16"D
   b. Constructed with formed 0.09" 5052 aluminum sheet and stainless steel rivets.
      (1) Durable powder coat finish
      (2) Weather Resistant and Unsusceptible to Rust
      (3) Choose From Various Standard Color Options
   c. Metal coat and hat hooks spaced 12" on center.
   d. Combine multiple units to desired overall length.
   e. Wall mounting hardware NOT included by manufacturer.
   f. 100% Preassembled
   g. 5-Year Manufacturer's Limited Product Warranty

K. Soccer Goals and Accessories

1. Round Faced Soccer Goal with Mobility Wheel Kit and Safety System: Steel and aluminum framed soccer goals with nylon nets and related accessories complying with the following:

   a. Crossbar: White powder coated, 24' long, round face, 4.375" square X 4.688" 6061 T6 extruded aluminum tube with radius backside corners and 7-gauge steel crossbar attachment brackets.
   b. End Frame: White powder coated, round face with radius back corners, 4.375" X 4.688" corner upright posts fabricated of 6061 T6 extruded aluminum tube with 2" X 3" X 0.125" rolled side frame welded to corner upright posts.
   c. Bottom Ground Bar: White powder coated, 2" square X 0.250" thick 6061 T6 extruded aluminum tube.
   d. Net Clips: Welded aluminum.
   e. Net: Orange polypropylene.
   f. Portable Wheel Mobility Kit: Levered external wheel kit with 360 swivel hard rubber 8" wheels.
   g. Safety Clamp Kit: 0.25", white powder coated aluminum safety clamp with stainless steel hardware and access kit fabricated of 16 gauge, 0.125" aluminum stainless steel with 0.25" and 0.75" weather resistant plywood cover plug, stainless steel assembly hardware and galvanized steel anchoring hardware.

2. Soccer Corner Flags: Set of four, weighted soccer corner flags for synthetic turf field use meeting NFSHSA, NCAA and FIFA standards and complying with the following:

   a. Size: 63" high.
   b. Uprights: White, high impact PVC, minimum 1.00" O.D.
   c. Base: Round, black, 12" diameter stackable base standing 5.094" high and weighing 8.50 pounds per flag unit.
   d. Flag Color: Red.

L. Lacrosse Goal and Accessories

1. Heavy duty lacrosse goal with flat iron base and net complying with the following:

   a. Frame: Orange powder coated uprights and top bar fabricated from TIG welded 1.50" Schedule 40 steel pipe.
   b. Ground Bar: Orange powder coated TIG welded steel bar.
   c. Assembly Hardware: Stainless steel.
   d. Net: Heavy duty, minimum 5mm, white, braided, knotless polyester similar to netting manufactured by STX.

M. Field Hockey Goal and Accessories

1. Heavy duty field hockey goal with net and wheels complying with the following:

   a. Size: 7' high X 12' wide X 4' deep.

b. Frame: One piece side frame construction fabricated from TIG welded square, 2" X 2" X 0.090" thick wall aluminum tubing.
c. Net Clips: Welded aluminum.
d. Finish: White powder coated.
e. Bottom Boards: ½" thick black polyethylene secured by bottom and top channels.
f. Net: 7' high X 12' wide X 4' deep, 1½" square mesh fabricated from 2.5 mm twisted black polyethylene material.
g. Assembly Hardware: Stainless Steel.
h. Wheels: Portable mobility wheel kit option with integrated retractable handle required.

N. Ball Safety Netting: System complying with the following:

1. BSS420 StormGuard® Professionally Pre-Engineered Break-Away Ball Safety Netting System Straight Poles:

a. 3-1/2" Schedule 40 Aluminum Pipe (4" O.D.), 23'-6"L
b. Standard Powder Coated Black Finish, Various Standard and Custom Powder Coat Finish Color Options Available

2. StormGuard® Professionally Pre-Engineered Break-Away Ball Safety Netting System (United States Patents #9,017,190, Issued April 28, 2015 and #9,586,123, Issued March 7, 2017):

a. StormGuard® is the first and only ball safety netting system in the industry that is both designed and professionally pre-engineered to allow the net to fall to the ground before failures of the poles and/or hardware occur under extreme wind speed and/or adverse weather conditions such as ice and snow. This patented feature utilizes a shear pin device attached to the net at the top of each pole.

As shown in the diagram, the snap clip that holds the net up is attached to the oblong shaped hole located at the bottom of the smaller drop shaft that is connected to the cylindrical steel weight utilizing a 150 lb. break strength aluminum shear pin. The cylindrical steel weight is semi-permanently attached to the rope tether that hoists the net up and down with a removable bolt and includes a rubber absorption bumper to prevent damage to the pole's powder coated black finish.

The poles are installed at a maximum of twenty-five foot (25') on center or less. When the wind speed exceeds approximately sixty-five to seventy miles per hour (65 - 70 mph), the 150 lb. break strength aluminum shear pin will react to the environmental conditions by allowing the smaller drop shaft to release from the cylindrical steel weight causing the net to fall to the ground. The end user then simply unwinds the rope tether from the cleat, lowers the cylindrical steel weight to the ground, replaces the already provided aluminum shear pin and raises the net back up.

3. Ground Sleeves with Welded Base Plates:
    a. 30”L Ground Sleeves
    b. Aluminum Tube with Alignment Bolt

4. Net with Perimeter Rope Binding:
    a. Overall Dimensions Specified by Customer
    b. 1-3/4" Square Mesh
    c. #36 Black Nylon
    d. Sewn 1/4” Diameter Braided Rope Binding on Perimeter Edges
    e. Standard Color is Black

5. Included Accessories:
    a. Stainless Steel and/or Galvanized Steel Assembly Hardware
    b. Fixed Welded Upper Tab and Adjustable Lower Bracket with Tensioned Vertical Slide Cable System
    c. Secure Snap Clips for Net Attachment
    d. 3/16” Diameter Galvanized Wire Rope Black Vinyl Coated to 1/4” Diameter
    e. Black Plastic Friction Fit Ground Sleeve Caps
    f. Model Specific Hardware Kit and Installation Instructions
    g. Stamped and Sealed Drawings and Calculations by a Licensed Professional Engineer of Record in the State of Project Location

O. Baseball Batting Tunnel

1. BTTBD Tension Baseball **Single** Batting Tunnel **(BASE BID)**
   BTTBD Tension Baseball **Double** Batting Tunnel **(ALTERNAT #2)**

    a. Four (Single) **OR** Six (Double) Upright Poles Fabricated of 8” Schedule 40 Steel (8.625” O.D.) Pipe
        (1) 4’ Direct Embedment or Optional Ground Sleeve
    b. Fixed Net Stabilizer Extension Arms Fabricated of 3/8” Steel Plate x 18”L
    c. Crossbar Supports Fabricated of 4” x 3/16” Wall Square Steel Tube
    d. Super Durable Black Powder Coated Finish
        (1) Enhanced Resistance to UV
    e. Tension Cable Support: ¼” 7x19 Black Powder Coated Galvanized Aircraft Cable with ½” x 6” Jaw and Jaw Turnbuckles
    f. One (Single) **OR** Two (Double) 13’H x 14’W x 75’L Baseball Nets
        (1) #36 Black Nylon 1-3/4” Square Mesh Net
            1. #36 Twisted Knotted Netting
            2. 100% Nylon Construction
            3. 2.6mm (0.1023”) Diameter Twine
            4. 87% Open Mesh Area (See-Through Visibility)
            5. 13,363 psi Minimum Breaking Strength
            6. 1-3/4” (44mm) Maximum Square Mesh Size
            7. 0.0425 lbs. per Square Foot
            8. Black Multi-Filament Polypropylene Solid Braid Derby Rope Sewn Binding on Perimeter Edges – ¼” Diameter, 530 lb. Minimum Breaking Strength
            9. UV and Weather Treated
    g. Two (2) 4’W x Full Height Openings with Curtain Style Exterior Overlap Flaps

h. Weighted Rope Bottom
   (1) Factory-Sewn / Integrated into Batting Tunnel
   (2) Flexible / Easy to Handle
   (3) 2,000 lbs. Average Strength
   (4) 250 lbs. per 100 Fathoms Material Weight (0.42 lbs/ft)
i. Model Specific Hardware Kit and Installation Instructions

P. Softball Batting Tunnel

1. BTTSD Tension Softball **Single** Batting Tunnel **(BASE BID)**
   BTTSD Tension Softball **Double** Batting Tunnel **(ALTERNAT #2)**

   a. Four (single) **OR** Six (Double) Upright Poles Fabricated of 8" Schedule 40 Steel (8.625" O.D.) Pipe
   b. 4' Direct Embedment or Optional Ground Sleeve
   c. Fixed Net Stabilizer Extension Arms Fabricated of 3/8" Steel Plate x 18"L
   d. Crossbar Supports Fabricated of 4" x 3/16" Wall Square Steel Tube
   e. Super Durable Black Powder Coated Finish
      (1) Enhanced Resistance to UV
   f. Tension Cable Support: ¼" 7x19 Black Powder Coated Galvanized Aircraft Cable with ½" x 6" Jaw and Jaw Turnbuckles
   g. One (Single) **OR** Two (Double) 13'H x 14'W x 55'L Softball Nets
      (1) #36 Black Nylon 1-3/4" Square Mesh Net
      (2) #36 Twisted Knotted Netting
      (3) 100% Nylon Construction
      (4) 2.6mm (0.1023") Diameter Twine
      (5) 87% Open Mesh Area (See-Through Visibility)
      (6) 13,363 psi Minimum Breaking Strength
      (7) 1-3/4" (44mm) Maximum Square Mesh Size
      (8) 0.0425 lbs. per Square Foot
      (9) Black Multi-Filament Polypropylene Solid Braid Derby Rope Sewn Binding on Perimeter Edges – ¼" Diameter, 530 lb. Minimum Breaking Strength
      (10) UV and Weather Treated
   h. Two (2) 4'W x Full Height Openings with Curtain Style Exterior Overlap Flaps
   i. Weighted Rope Bottom
      (1) Factory-Sewn / Integrated into Batting Tunnel
      (2) Flexible / Easy to Handle
      (3) 2,000 lbs. Average Strength
      (4) 250 lbs. per 100 Fathoms Material Weight (0.42 lbs/ft)
   j. Model Specific Hardware Kit and Installation Instructions

Q. Synthetic Turf Paint Removal Equipment: One person paint remover and extractor complying with the following: **(ALTERNATE #6)**

1. Engine: Kawasaki 852cc gasoline engine with electric start, air-cooled 4 stroke OHV V-twin cylinder.
2. Drive System: Dual hydrostatic, 21cc hydrogear PY pumps, Parker TG310 wheel motors, Variable speed up to 14mph, hydraulic cooling with 8" fan, and 3 gallon reservoir capacity.
3. Frame Construction: 1.5" x 3.0" x 0.187" thick steel
4. Steering: advanced zero-radius turn system

5. Seat: Boistered grammar suspension seat
6. Fuel Capacity: 12 gallons (Two 6-gallon tanks with individual gauges)
7. Integrated Cup Holder Included
8. Front Tires: 13 x 6.5-6
9. Rear Drive Tires: 24 x 9.5-12
10. Endzone Brush Assembly with the following:

    a. Three 20" diameter brushes
    b. Brushes shall be a blend of polypropylene and natural fibers.
    c. Brushes shall have a quick release system for cleaning or replacement.
    d. Three spray nozzles
    e. 12 volt, 8" electric actuator lift system operable from driver seat
    f. Fully removable brush assembly system with pins and quick connect hoses.
    g. Brushes operated by individual hydraulic motors with belt-drive hydraulic pump activated by electric switch PTO clutch.
11. Wheel Rinse System with the following:

    a. Dual spray head system rinses paint off REAR wheels to eliminate tracking.
    b. Single spray head system rinses paint off FRONT wheels to eliminate tracking.
    c. Electric on-off switch operated from driver's seat.
12. Remover Solution Spray Assembly: 16 gallon polypropylene tank with 110-120 volt, 20 amp utility outlet pump and 60" rear mounted boom sprayer with two spray nozzles.
13. Electric System: 5500 watt, belt-driven generator with 20 amp push-to-reset breaker and 110-120 volt 20 amp GFI outlet.
14. Extraction System: 60" wide suction plate, 5 spray nozzles apply rinse water immediately in front of suction plate. Dual motor vacuums with 238 cfm suction power and 114" water lift. Each vacuum has its own clear suction hose. Vacuums works on 15 amp, 115 volt AC circuit. 12 volt, 6" electric actuator lift system. 55 gallon recovery tank with bottom ball valve drain.
15. Operator Controls: All controls shall be located on either side of operator within reach of driver seat and clearly labeled. Water can be directed to the front brushes, vacuum bar, and wheel rinse nozzles separately or all at once. Removal solution can be directed to the rear boom sprayer or the front brushes.
16. Safety Features: Safety start interlock system consisting of park brake switches, seat switch, and brush pump clutch switch. Rollover protective structure and lap belt for driver safety.

PART 3 EXECUTION

3.01 EXAMINATION

A. Installer Verification of Conditions: Examine conditions under which athletic field equipment is to be installed with the materials and components specified in this section. Affected Prime Contractors, the Owner's Representative and the Architect shall be notified in writing of any conditions detrimental to the proper and timely installation of the work.

    1. When the installer confirms conditions as being acceptable to ensure proper and timely installation of the work and to ensure the requirements of applicable warranties or guarantees can be satisfied, submit written confirmation to the Architect. Failure to submit written confirmation and subsequent installation will be assumed to indicate conditions are acceptable to the installer.

3.02 INSTALLATION

A. Install athletic equipment in accordance with the manufacturer's written instructions under the supervision of a manufacturer's representative.

3.03 ADJUSTING AND CLEANING

A. Repairs and Protection of Athletic Field Equipment

1. Repair or replace broken or defective components athletic field equipment components as directed by the Architect.
2. Protect athletic field equipment from damage until acceptance of the installation.

END OF SECTION 116833

NRHS FIELDS PHASE 2 & HVAC UPGRADES

NORTH ROCKLAND HIGH SCHOOL
SED NO. 50-02-01-06-0-016-036

PRESS BOX - SOFTBALL
SED NO. 50-02-01-06-7-090-001

PRESS BOX - BASEBALL
SED NO. 50-02-01-06-7-091-001

106 Hammond Rd
Thiells, NY 10984

OWNER:
North Rockland Central School District
65 Chapel St
Garnerville, NY 10923

ARCHITECT:
MICHAEL SHILALE ARCHITECTS, LLP
140 Park Avenue
New City, NY 10956

STRUCTURAL & PME ENGINEER:
GREENMAN-PEDERSEN, INC.
400 Rella Boulevard
Montebello, NY 10901

LANDSCAPE ARCHITECT & CIVIL ENGINEER:
THE LA GROUP
40 Long Alley
SARATOGA SPRINGS, NY 12866

LIST OF DRAWINGS

DRAWING No.	DRAWING TITLE	DATE
A-000	COVER SHEET	10/23/24
A-001	LEGENDS, NOTES, UNIT PRICES, ALTERNATES & ALLOWANCES	10/23/24
B-100	CODE ANALYSIS – RTU REPLACEMENT	10/03/24 2
B-110	CODE ANALYSIS – BLEACHERS	10/03/24
B-130	CODE ANALYSIS – PRESS BOXES	10/03/24
B-190	EGRESS PLAN BASEBALL BLEACHER	10/03/24
B-191	EGRESS PLAN SOFTBALL BLEACHER	10/03/24
	BOUNDARY LINE AND TOPOGRAPHIC SURVEY (SHEET 1 OF 4)	06/01/22
	BOUNDARY LINE AND TOPOGRAPHIC SURVEY (SHEET 2 OF 4)	06/01/22
	BOUNDARY LINE AND TOPOGRAPHIC SURVEY (SHEET 3 OF 4)	06/01/22
	BOUNDARY LINE AND TOPOGRAPHIC SURVEY (SHEET 4 OF 4)	06/01/22
AA-100	ASBESTOS ABATEMENT PLAN	10/03/24
C-100	SITE KEY PLAN	10/03/24
C-101	SITE CODE COMPLIANCE PLAN	10/03/24
C-200	DEMO PLAN – SOFTBALL FIELD	10/03/24
C-201	DEMO PLAN – BASEBALL FIELD	10/03/24
C-202	DEMO PLAN – FIELD HOCKEY	10/03/24
C-300	LAYOUT PLAN – SOFTBALL	10/03/24
C-301	LAYOUT PLAN – BASEBALL	10/03/24
C-302	LAYOUT PLAN – FIELD HOCKEY	10/03/24
C-400	GRADING & DRAINAGE PLAN – SOFTBALL	10/03/24
C-401	GRADING & DRAINAGE PLAN – BASEBALL	10/03/24
C-402	GRADING & DRAINAGE PLAN – FIELD HOCKEY	10/03/24
C-410	GRADING & UTILITY – SOFTBALL	10/03/24
C-420	GRADING & UTILITY – BASEBALL	10/03/24
C-430	GRADING & UTILITY – FIELD HOCKEY	10/03/24 2
C-500	PLANTING PLAN – SOFTBALL	10/03/24
C-501	PLANTING PLAN – BASEBALL	10/03/24
C-502	PLANTING PLAN – FIELD HOCKEY	10/03/24
C-600	LINESTRIPPING PLANS	10/03/24
C-601	LINESTRIPPING PLANS	10/03/24
C-710	SITE DETAILS	10/03/24
C-711	SITE DETAILS	10/03/24
C-712	SITE DETAILS	10/03/24
C-713	SITE SECTIONS	10/03/24
C-714	RAMP, WALL AND STAIR DETAILS	10/03/24
C-715	SITE DETAILS	10/03/24
C-716	SITE DETAILS	10/03/24 2
C-717	ATHLETIC DETAILS	10/03/24
C-718	ATHLETIC DETAILS	10/03/24
C-720	UTILITY DETAILS	10/03/24
C-721	UTILITY DETAILS	10/03/24
C-722	UTILITY DETAILS	10/03/24 2
C-723	UTILITY DETAILS	10/03/24
CE-001	ELECTRICAL SYMBOLS, GENERAL NOTES, SCHEDULES AND ABBREVIATIONS	10/03/24
CE-002	ELECTRICAL SITE AND SERVICES REMOVAL PLAN	10/03/24
CE-003	ELECTRICAL SITE AND SERVICES PLAN FROM ANNEX BUILDING	10/03/24
CE-004	ELECTRICAL SITE AND SERVICES PLAN FROM MAIN BUILDING	10/03/24 2
CE-101	ELECTRICAL SOFTBALL FIELD INSTALLATION PLAN	10/23/24
CE-102	ELECTRICAL BASEBALL FIELD INSTALLATION PLAN	10/23/24
CE-103	ELECTRICAL HOCKEY FIELD INSTALLATION PLAN	10/23/24
CE-104	ELECTRICAL DUGOUT AND PRESSBOX PLANS	10/03/24
CE-105	ELECTRICAL SOFTBALL BLEACHER CANOPY LIGHTING PLAN	10/03/24 2
CE-106	ELECTRICAL PRESSBOX PLANS	10/23/24
CE-401	ELECTRICAL MAIN & ANNEX BUILDING INSTALLATION PART PLANS	10/23/24
CE-402	ELECTRICAL PARTIAL ONE LINE DIAGRAMS	10/23/24
CE-403	ELECTRICAL LIGHTING FIXTURE AND PARTIAL SCHEDULES	10/23/24
CE-404	ELECTRICAL PANEL SCHEDULES SHEET #2	10/23/24
CE-501	ELECTRICAL DETAILS SHEET #1	10/23/24
CE-502	ELECTRICAL DETAILS SHEET #2	10/23/24
CE-503	ELECTRICAL DETAILS SHEET #3	10/23/24
CE-504	ELECTRICAL DETAILS SHEET #4	10/23/24
CE-505	ELECTRICAL DETAILS SHEET #5	10/23/24
S-001	STRUCTURAL GENERAL NOTES	10/03/24
S-100	BASE PLAN	10/23/24
S-101	BASEBALL BLEACHER FOUNDATION PLAN	10/03/24
S-102	SOFTBALL BLEACHER FOUNDATION PLAN	10/03/24
S-103	DUGOUTS STRUCTURAL PLAN	10/03/24
S-104	HOCKEY PRESSBOX FOUNDATION PLAN	10/03/24
S-110	PARTIAL ROOF PLANS	10/03/24
S-200	FOUNDATION DETAILS AND SECTIONS	10/03/24 2
S-300	BLEACHER FRAMING SECTIONS	10/03/24
S-301	SECTIONS & DETAILS	10/03/24 2
A-100	ROOF PLAN	10/03/24
A-110	SOFTBALL BLEACHER LAYOUT PLAN	10/03/24
A-111	SOFTBALL BLEACHER CANOPY PLAN	10/03/24
A-120	BASEBALL BLEACHER LAYOUT PLAN	10/03/24
A-121	BASEBALL BLEACHER CANOPY PLAN	10/03/24
A-130	PRESS BOX PLANS & ELEVATIONS	10/03/24
A-131	FIELD HOCKEY PRESS BOX PLANS & ELEVATIONS	10/23/24
A-140	DUGOUT PLANS	10/03/24
A-150	FIELD ENTRY SIGNAGE PLANS & ELEVATIONS	10/03/24 2
A-210	SOFTBALL BLEACHER SECTIONS	10/03/24
A-211	SOFTBALL BLEACHER SECTIONS	10/03/24
A-220	BASEBALL BLEACHER SECTIONS	10/03/24
A-221	BASEBALL BLEACHER SECTIONS	10/03/24
A-240	DUGOUT ELEVATIONS	10/03/24
A-241	DUGOUT SECTIONS	10/03/24
A-242	DUGOUT SECTIONS	10/03/24
A-400	CEILING REMOVAL & INSTALLATION PLAN	10/03/24
A-440	DUGOUT REFLECTED CLG PLANS	10/03/24
A-500	ROOF DETAILS	10/03/24
A-501	ROOF DETAILS	10/03/24
A-502	ROOF DETAILS	10/03/24 2
A-503	FIELD HOCKEY PRESS BOX ROOF DETAILS	10/23/24
A-504	FIELD HOCKEY PRESS BOXROOF DETAILS	10/23/24
A-515	DUGOUT DETAILS	10/03/24 2
M-001	MECHANICAL GENERAL NOTES	10/03/24
M-002	MECHANICAL SCHEDULES	10/03/24
M-101	MECHANICAL SITE PLAN	10/23/24
M-102	MECHANICAL PRESS BOX INSTALL-1	10/23/24
M-103	MECHANICAL PRESS BOX INSTALL-2	10/23/24
M-104	MECHANICAL ROOF REMOVAL	10/03/24 2
M-105	MECHANICAL ROOF INSTALLATION	10/03/24
M-401	CONTROL DIAGRAMS-1	10/03/24
M-501	MECHANICAL DETAILS – 1	10/03/24
M-502	MECHANICAL DETAILS – 2	10/03/24
ED-101	NRHS ELECTRICAL ROOF REMOVAL PLAN	10/03/24
E-101	NRHS ELECTRICAL ROOF INSTALLATION PLAN	10/03/24

No.	Date	Revisions
1	10-23-24	BIDDING ADDENDUM 1
2	10-03-24	BIDDING DOCUMENTS

REG. EXP DATE:12-03-25

Drawn by JR/MAL
Checked by MS/JC
Project No. 43045
Scale AS NOTED
Date 10-03-24

Landscape Architect & Civil Engineer:
THE LA GROUP
LANDSCAPE ARCHITECTURE & ENGINEERING
40 LONG ALLEY,
SARATOGA SPRINGS, NY 12866

Structural & PME Engineer:
GREENMAN PEDERSEN, INC
400 RELLA BOULEVARD,
SUITE 302, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL
FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL SED# 50-02-01-06-7-091-001
106 Hammond Rd.
Thiells, NY 10984
TOWN OF RAMAPO
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
COVER SHEET

Drawing No.
A-000

CONCRETE MASONRY UNIT
BRICK
RIGID INSULATION
CONCRETE
GRAVEL OR STONE
EARTH
EIFS
ASPHALT PAVING
SAND/MORTAR/GYPSUM BOARD
STEEL
ACT
ROUGH WOOD
BRONZE

MATERIALS LEGEND

DOOR NUMBER
KEY NOTE
PARTITION TYPE
REVISION NUMBER
WINDOW TYPE
MECHANICAL EQUIPMENT
EXISTING PARTITION
EXISTING PARTITION TO BE REMOVED
NEW PARTITION (SEE PARTITION LEGEND)
NEW DOOR
EXISTING DOOR
EXISTING DOOR TO BE REMOVED
EXISTING WINDOW
NEW WINDOW
ROOM NAME
OFFICE
100 SF 101
ROOM NAME/ NUMBER IDENTIFICATION
ROOM NUMBER
ROOM AREA
DRAWING NUMBER
1 A-100
WALL SECTION/ ELEVATION REFERENCE
SHEET NUMBER
DETAIL NUMBER
1 A-100
DETAIL REFERENCE
SHEET NUMBER
1 COLUMN LINE DESIGNATION

SYMBOLS LEGEND

ACT	ACOUSTICAL CEILING TILE
A.F.F.	ABOVE FINISH FLOOR
ASPH	ASPHALT
BLK	BLOCK
BLK'G	BLOCKING
BUR	BUILT UP ROOFING
CLG	CEILING
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONT	CONTINUOUS
C.J.	CONTROL JOINT
DN	DOWN
DIA	DIAMETER
DWG	DRAWING
E.F.	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
E.W.	EACH WAY
E.W.C.	ELECTRICAL WATER COOLER
EL	ELEVATION
ELC	ELECTRICAL CONTRACTOR
EXIST	EXISTING
EXP	EXPANSION
EXT'G	EXISTING
EXTR	EXTERIOR
FP	FIREPROOF
FIN.	FINISH(ED)
GA	GAUGE
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GL	GLASS
GWB	GYPSUM WALL BOARD
HDPE	HIGH DENSITY POLYETHYLENE
HM	HOLLOW METAL
H.P.	HIGH POINT
HAC	HEATING & A/C CONTRACTOR
ITR	INDIVIDUAL TREATMENT ROOM
JT	JOINT
LAM	LAMINATE
LAV	LAVATORY
LP	LOW POINT
MAX	MAXIMUM
MFR	MANUFACTURER
MTL	METAL
MIN	MINIMUM
MO	MASONRY OPENING
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
OC	ON CENTER
OPN'G	OPENING
PBC	PLUMBING CONTRACTOR
PLAS.LAM.	PLASTIC LAMINATE
PL	PLATE
PLY'D	PLYWOOD
RAD	RADIUS
REF.CLG.	REFLECTED CEILING
REQ'D	REQUIRED
RO	ROUGH OPENING
SIM	SIMILAR
S.P.	STARTING POINT
STL	STEEL
SUSP.CLG.	SUSPENDED CEILING
T.O.M.	TOP OF MASONRY
T.O.S.	TOP OF STEEL
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V.I.F.	VERIFY IN FIELD
VCT	VINYL COMPOSITE TILE
W/	WITH
WD	WOOD

ABBREVIATIONS

1. ALL PLAN DIMENSIONS ARE NOMINAL U.O.N. DIMENSIONS TO THE FINISHED FACE OF AN ELEMENT OR WALL WILL BE DESIGNATED WITH AN "F" AS SHOWN.

2. G.C. TO VERIFY ALL DIMENSIONS IN THE FIELD AND IS TO NOTIFY ARCHITECT IF THERE ARE ANY DISCREPANCIES.

GENERAL NOTES

- UNIT PRICE NO. 1: PROVIDE UNIT PRICE TO INCREASE OR REDUCE CLEANING EXISTING MAIN DUCTWORK FOR EACH UNIT. PRICE IS PER LINEAR FOOT.
- UNIT PRICE NO. 2: PROVIDE UNIT PRICE TO INCREASE OR REDUCE REPLACING EXISTING SUPPLY AND RETURN PIPING AND INSULATION FOR EACH UNIT. PRICE IS PER LINEAR FOOT.
- UNIT PRICE NO. 3: PROVIDE UNIT PRICE TO INCREASE OR REDUCE REMOVAL OF ROCK PER CY.

UNIT PRICES

- ALT. NO. 1: EXISTING RTU F2 TO BE REMOVED AND REPLACED WITH NEW.
- ALT. NO. 2: PROVIDE DOUBLE BATTING TUNNEL AT SOFTBALL FIELD AND BASEBALL FIELD IN LIEU OF BASE BID SINGLE BATTING TUNNEL.
- ALT. NO. 3: PROVIDE FOUR PORTABLE BLEACHERS AT BASEBALL FIELD.
- ALT. NO. 4: ELECTRICAL CONTRACTOR TO PROVIDE ELECTRICAL CONNECTIONS FOR FIELD HOCKEY PRESS BOX.
- ALT. NO. 5: ELECTRICAL CONTRACTOR TO REMOVE AND REPLACE EXISTING TRANSFORMER.
- ALT. NO. 6: SITE CONTRACTOR TO PROVIDE A PRICE TO INCLUDE TURF PAINT REMOVER MACHINE TO OWNER.

2

ALTERNATES

- ALLOWANCE NO. 1: CONTRACTOR SHALL PROVIDE ALLOWANCE TO CLEAN 20LF OF EXISTING DUCT–WORK PER UNIT. CONTRACTOR SHALL PROVIDE AS–BUILT TO SPECIFY AREAS OF CLEANING WITH DIMENSIONS INDICATED IN LINEAR FEET.
- ALLOWANCE NO. 2: REPLACE EXISTING SUPPLY AND RETURN PIPING AND INSULATION FOR 20 LINEAR FEET PER UNIT.
- ALLOWANCE NO. 3: PROVIDE PROPOSAL FROM THIRD PARTY HVAC COMMISSIONING AGENT FOR OWNER TO CONTRACT WITH (DEDUCT ALLOWANCE)
- ALLOWANCE NO. 4: REMOVAL OF EXISTING DRAINAGE PIPES FOUND IN EXISTING FIELDS AND CAP DISCOVERED WATER PIPES.
- ALLOWANCE NO. 5: SITE CONTRACTOR TESTING
- ALLOWANCE NO. 6: MECHANICAL CONTRACTOR TESTING
- ALLOWANCE NO. 7: ELECTRICAL CONTRACTOR TESTING
- ALLOWANCE NO. 8: SITE CONTRACTOR ALLOWANCE FOR SWPPP INSPECTIONS.
- ALLOWANCE NO. 9: ROCK ALLOWANCE. INCLUDE 100 CY.
- ALLOWANCE NO. 10: SCOPE AND CLEAN EXISTING DRAINPIPES.

ALLOWANCES

No.	Date	Revisions
1	10–23–24	BIDDING ADDENDUM 1
2	10–03–24	BIDDING DOCUMENTS

2

REG. EXP DATE: 06–30–24

Drawn by JR/MAL
Checked by MS/JC
Project No. 43045
Scale AS NOTED
Date 10–03–24

Landscape Architect & Civil Engineer:
THE LA GROUP
LANDSCAPE ARCHITECTURE & ENGINEERING
49 LAKE AVENUE EXT.
SARATOGA SPRINGS, NY 12866

Structural & PME Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD,
SUITE 502, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-600-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-601-001

106 Hammond Rd.
Pearl River, NY 10965

TOWN OF HAVERSTRAW
COUNTY OF ROCKLAND

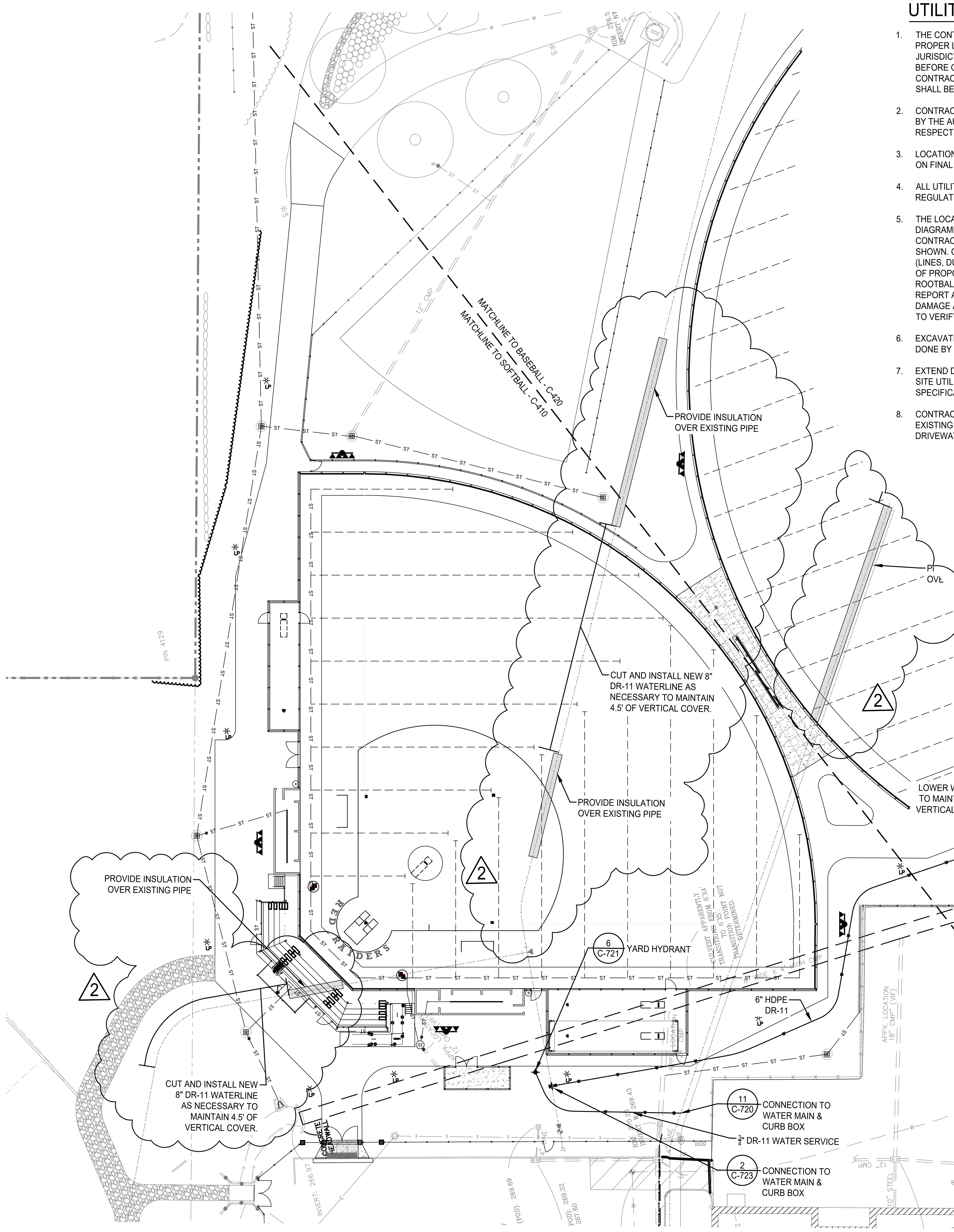
MICHAEL SHILALE ARCHITECTS, LLP.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
LEGENDS, NOTES, UNIT PRICES, ALTS. & ALLOWANCES

Drawing No.
A-001

UTILITY NOTES

1. THE CONTRACTOR SHALL CONTACT U.F.P.O. (1-800-962-7962) AND THE PROPER LOCAL AUTHORITIES OR RESPECTIVE UTILITY COMPANY HAVING JURISDICTION TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY COSTS INCURRED BY THE CONTRACTOR DUE TO FAILURE TO CONTACT THE PROPER AUTHORITIES SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR.
2. CONTRACTOR SHALL COORDINATE ALL REQUIRED UTILITY INSPECTIONS BY THE AUTHORITY HAVING JURISDICTION IN ACCORDANCE WITH THEIR RESPECTIVE REQUIREMENTS.
3. LOCATION OF UTILITY CONNECTIONS AT BUILDING TO BE VERIFIED BASED ON FINAL BUILDING FOOTPRINT CONFIGURATION.
4. ALL UTILITY INSTALLATIONS SHALL BE IN ACCORDANCE WITH ALL REGULATORY, LOCAL MUNICIPAL AND BUILDING CODE REQUIREMENTS.
5. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE DIAGRAMMATIC FOR INFORMATION ONLY, AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL COORDINATE LOCATION OF ALL UTILITIES (LINES, DUCTS, CONDUITS, SLEEVES, FOOTINGS, ETC.) WITH LOCATIONS OF PROPOSED LANDSCAPE ELEMENTS (WALLS, FENCE, FOOTINGS, TREE ROOTBALLS, PROPOSED LIGHTING FOOTINGS, ETC.) AND IMMEDIATELY REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. ANY DAMAGE AND INCURRED COSTS DUE TO FAILURE OF THE CONTRACTOR TO VERIFY UTILITY LOCATIONS SHALL BE BORNE BY THE CONTRACTOR.
6. EXCAVATION REQUIRED WITHIN PROXIMITY OF UTILITY LINES SHALL BE DONE BY HAND.
7. EXTEND DESIGNATED LIMIT OF WORK AS NECESSARY TO ACCOMPLISH SITE UTILITY WORK AS REQUIRED BY THESE DRAWINGS AND SPECIFICATIONS.
8. CONTRACTOR SHALL PROTECT AND SUSTAIN IN NORMAL SERVICE ALL EXISTING UTILITIES, STRUCTURES, EQUIPMENT ROADWAYS AND DRIVEWAYS FOR THE DURATION OF CONSTRUCTION.



LEGEND

	PROPERTY LINE
	EXISTING VEGETATION
	EXISTING UNDERGROUND WATER
	EXISTING UNDERGROUND SEWER
	EXISTING FENCE
	EXISTING UNDERGROUND ELECTRIC
	EXISTING WATER LINE
	EXISTING SANITARY LINE
	PROPOSED WATER LINE
	PROPOSED SANITARY LINE

30 0 10 20 30
Scale: 1" = 30'

No.	Date	Revisions
2	10/23/24	BIDDING ADDENDUM 1
1	10/03/24	BIDDING DOCUMENTS

Drawn by
Checked by
Project No. 43045
Scale AS NOTED
Date 10/30/2023

Landscape Architect & Civil Engineer: The LA GROUP Landscape Architecture & Engineering P.C.

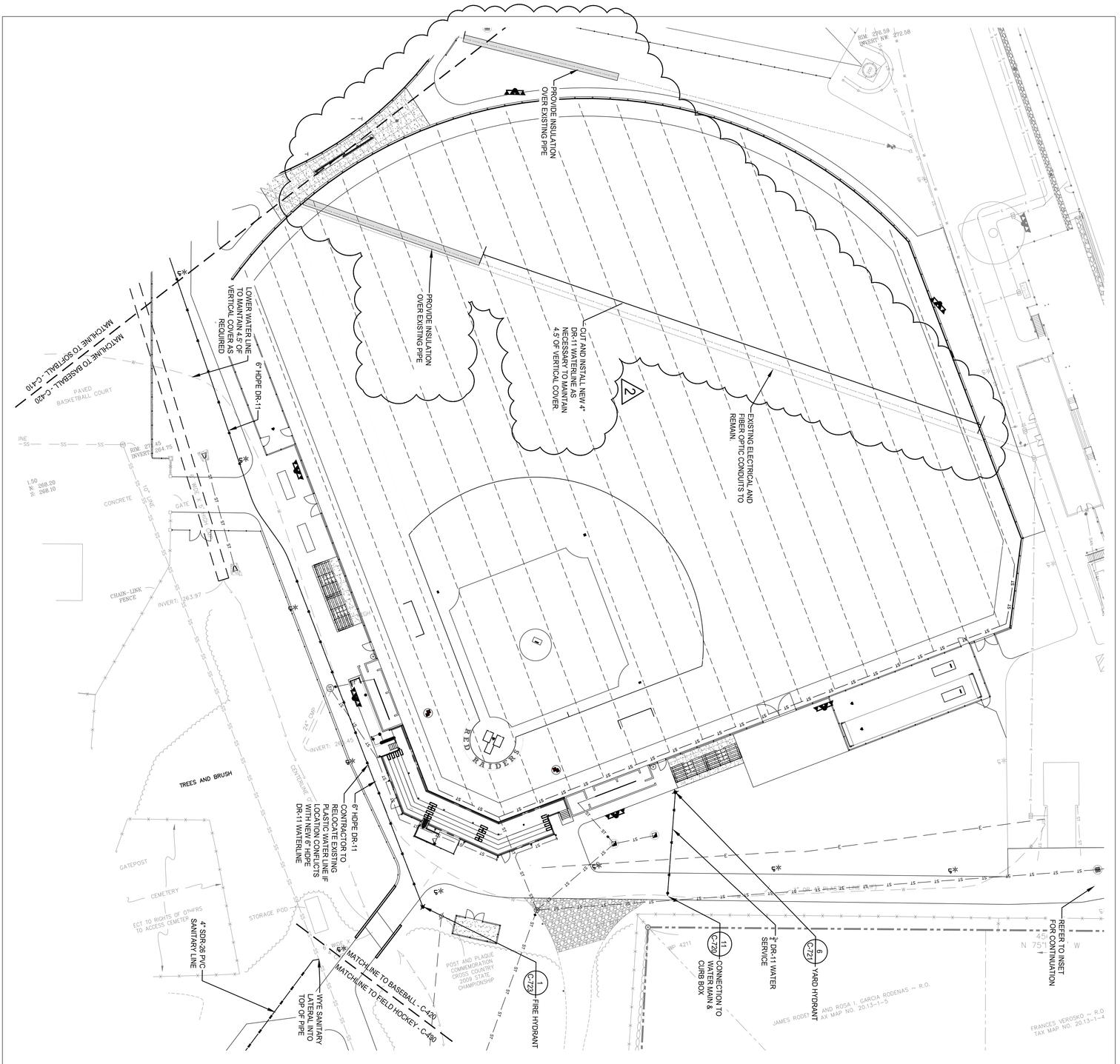
Structural Engineer:

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
UTILITY PLAN - SOFTBALL FIELD

Drawing No.
C-410
of X

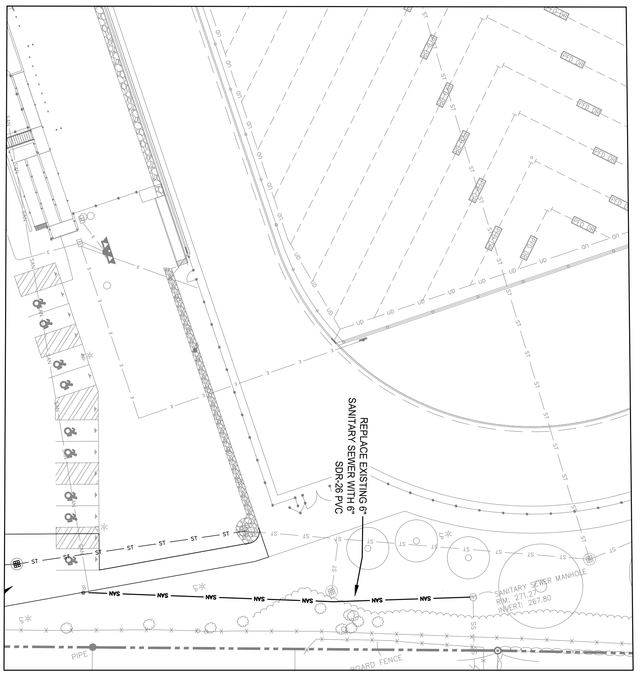


LEGEND

- PROPERTY LINE
- EXISTING VEGETATION
- EXISTING UNDERGROUND WATER
- EXISTING UNDERGROUND SEWER
- EXISTING FENCE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING WATER LINE
- EXISTING SANITARY LINE
- PROPOSED WATER LINE
- PROPOSED SANITARY LINE

Scale: 1" = 30'

SANITARY SEWER INSET



UTILITY NOTES

REFER TO SHEET C-410 FOR UTILITY NOTES.

Drawing Title

UTILITY PLAN -
BASEBALL FIELD

Drawing No.

C-420
of X

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

NORTH ROCKLAND
HIGH SCHOOL
FIELDS - PHASE 2 & HVAC
UPGRADES

HIGH SCHOOL: SED# 50-02-01-05-0-016-036
PRESS BOX - SOFTBALL: SED# 50-02-01-05-7-090-001
PRESS BOX - BASEBALL: SED# 50-02-01-05-7-091-001

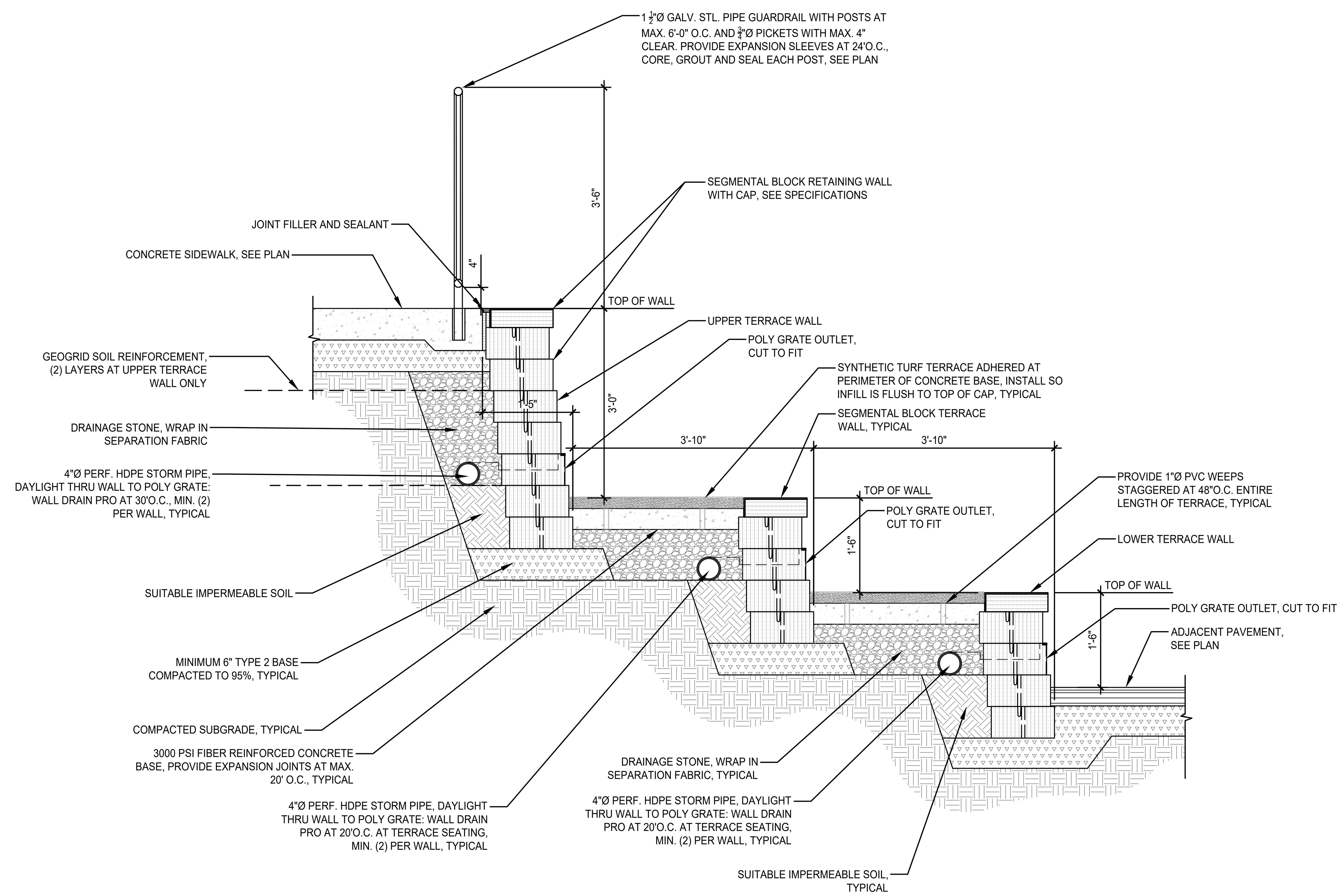
106 Hammond Rd,
Thiells, NY 10984

TOWN OF HAVERSTRAW
COUNTY OF ROCKLAND

Landscape Architect & Civil Engineer:	The LA GROUP Landscape Architecture & Engineering P.C. Nyack, Pomona, Albany
Structural Engineer:	-

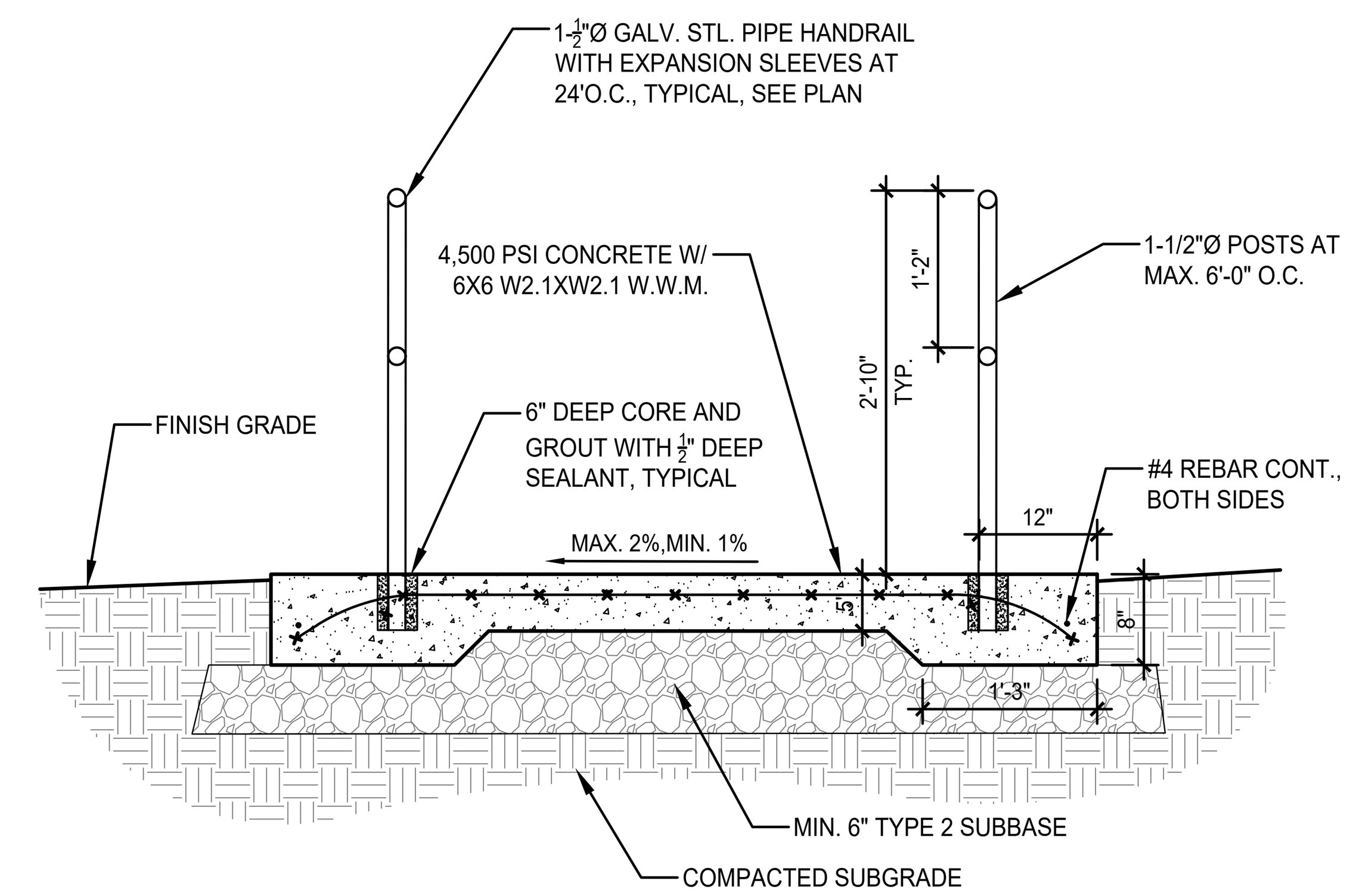
Drawn by	
Checked by	
Project No.	43045
Scale	AS NOTED
Date	10/30/2023

No.	Date	Revisions
2	10/23/24	BIDDING ADDENDUM 1
1	10/03/24	BIDDING DOCUMENTS



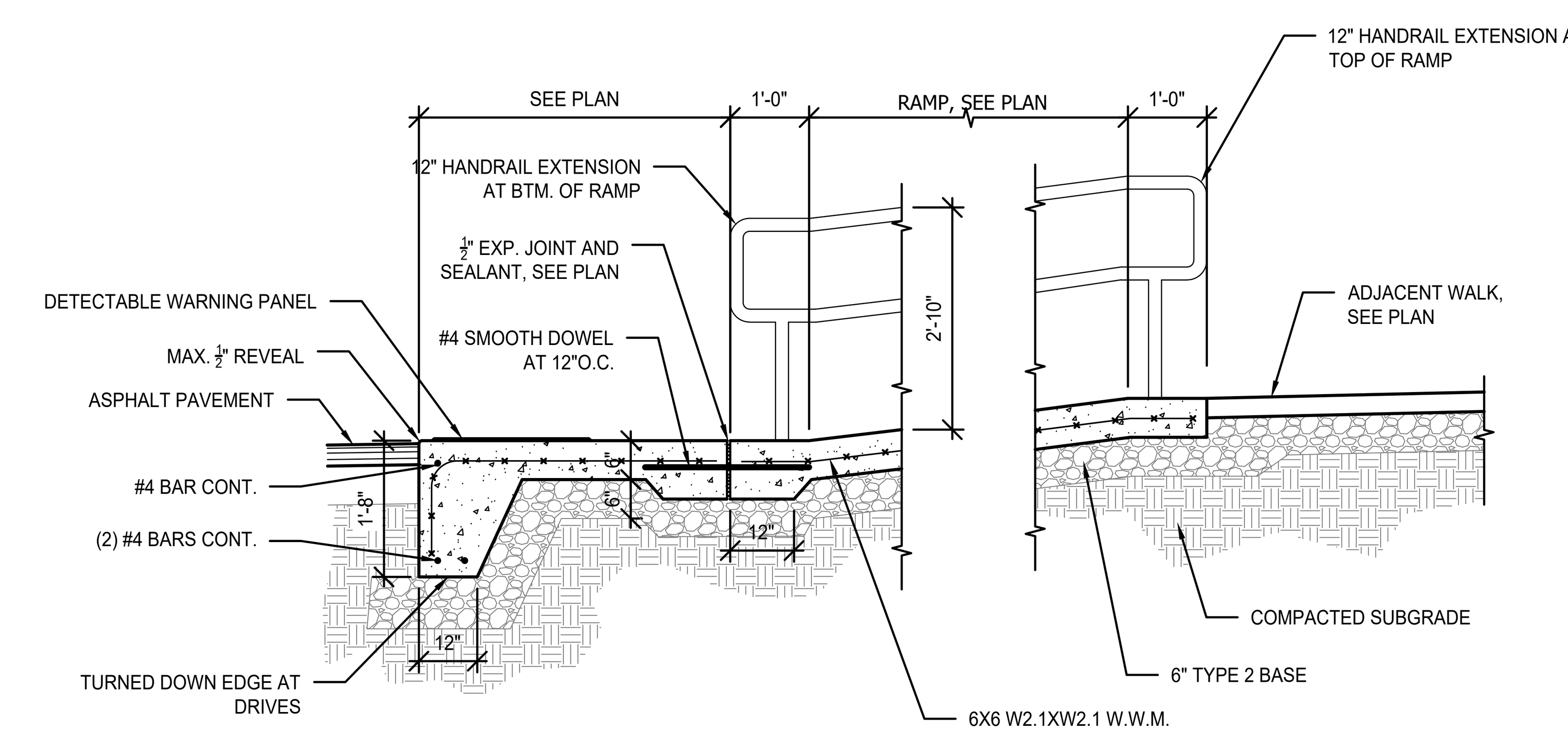
1 SECTION AT TERRACE SEATING

SCALE: 3/4" = 1'-0"



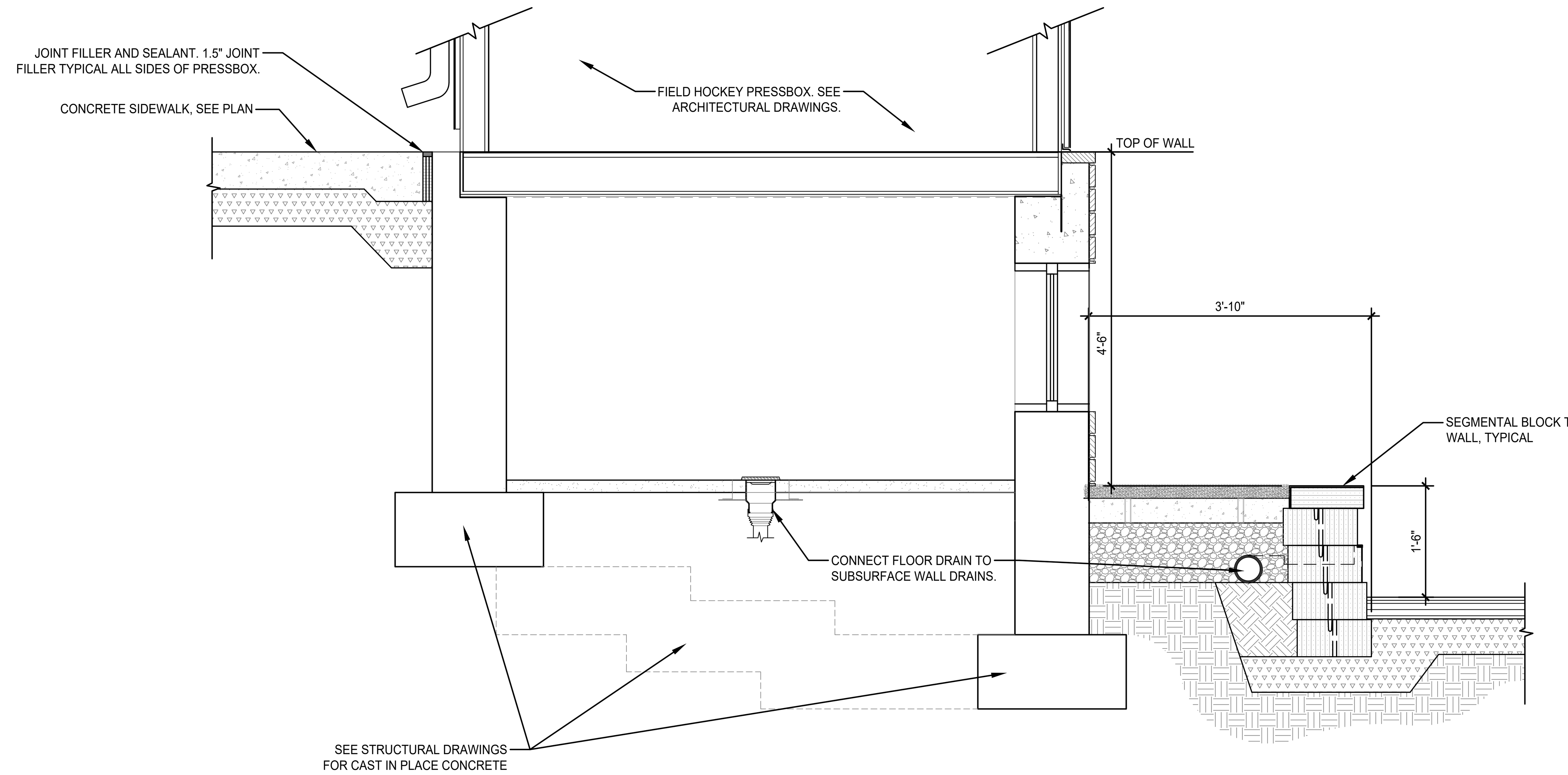
2 SECTION AT SIDEWALK RAMP

SCALE: 3/4" = 1'-0"



3 LANDING DETAILS AT SIDEWALK RAMPS

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



4 SECTION AT PRESSBOX WALL

SCALE: 3/4" = 1'-0"

2

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

No.	Date	Revisions
2	10/23/24	BIDDING ADDENDUM 1
1	10/03/24	BIDDING DOCUMENTS

Drawn by

Checked by

Project No. 43045

Scale AS NOTED

Date 10/30/2023

Landscape Architect & Civil Engineer: The LA GROUP

Structural Engineer:

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-018-036
PRESS BOX - SOFTBALL: SED# 50-02-01-06-7-000-001
PRESS BOX - BASEBALL: SED# 50-02-01-06-7-001-001

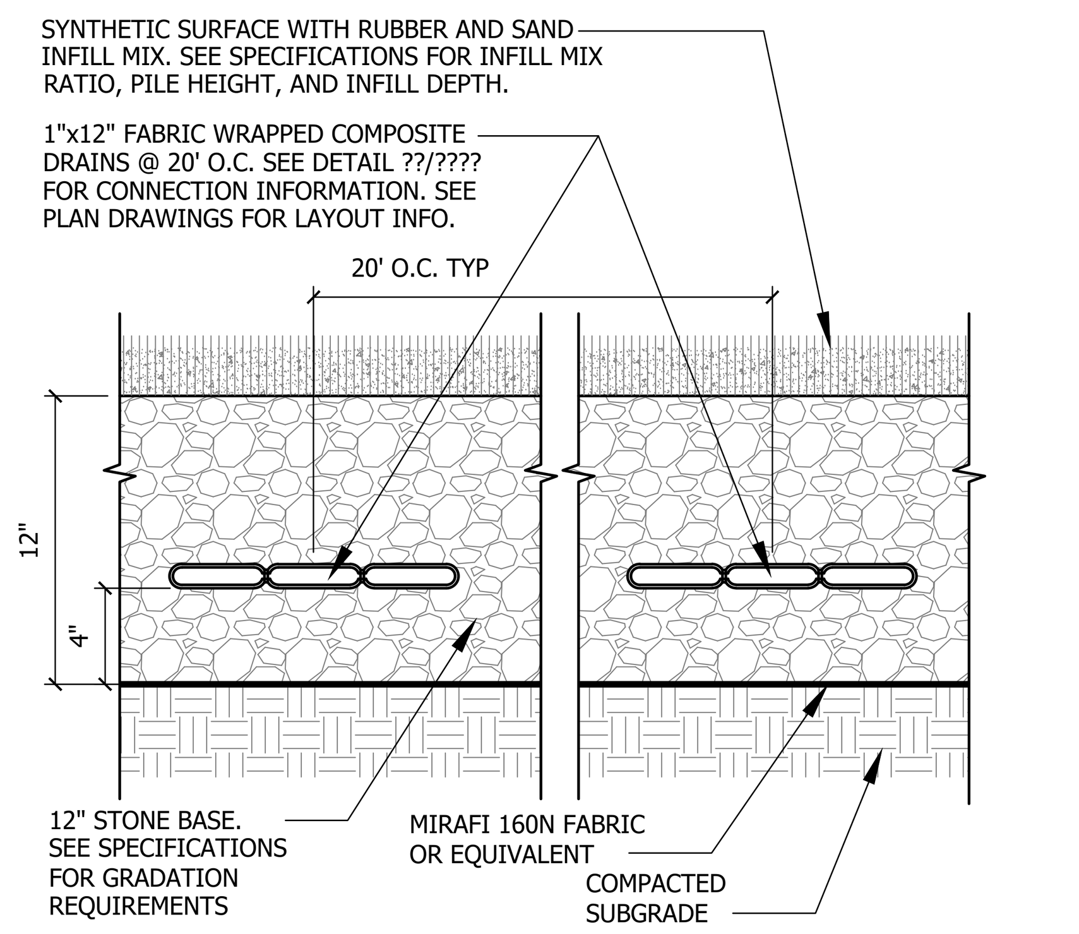
106 Hammond Rd. Thiells, NY 10984

TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
STAIR & WALL DETAILS

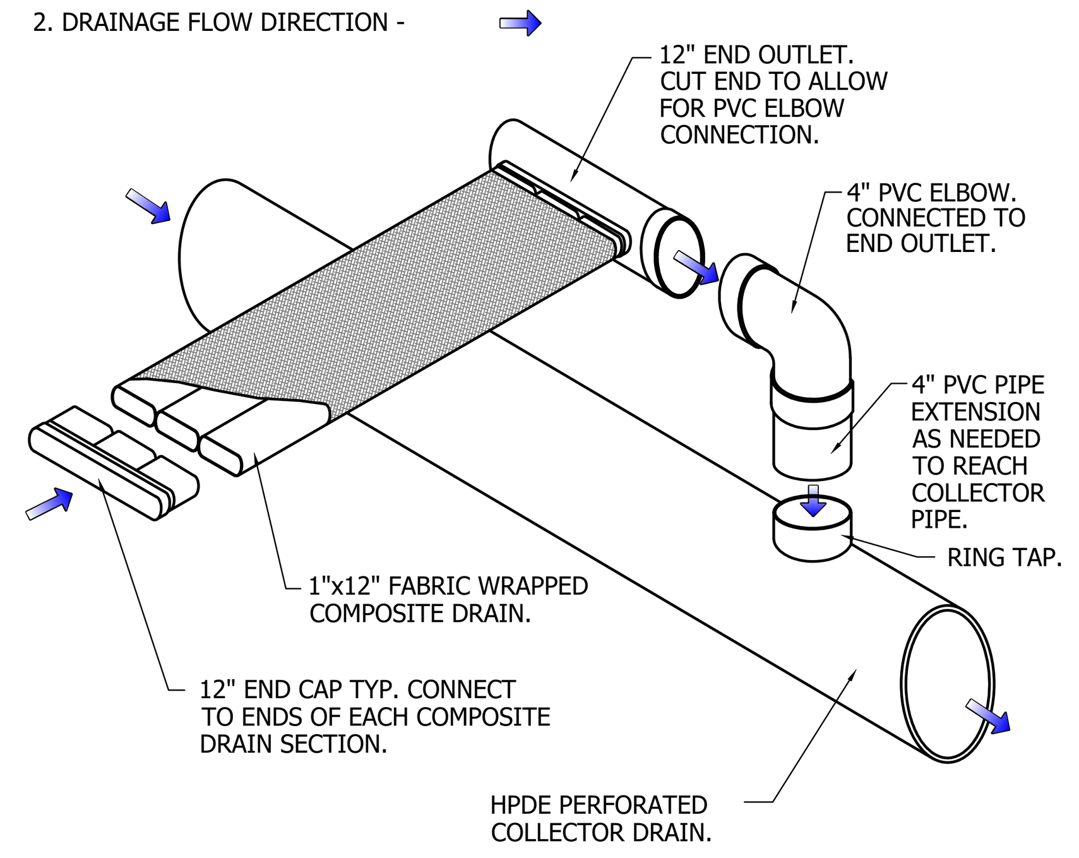
Drawing No.
C-714
of X



1 SYNTHETIC TURF COMPOSITE DRAIN

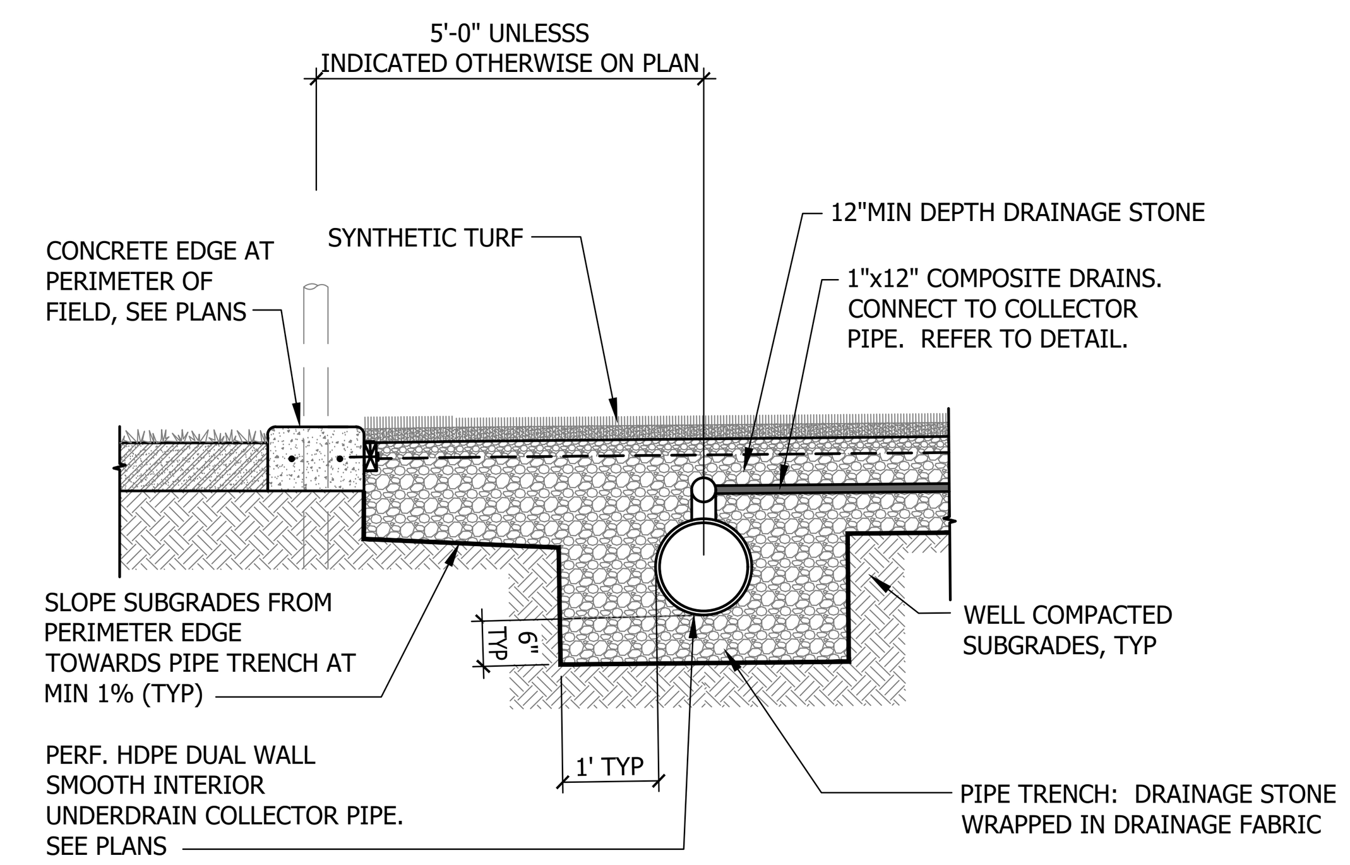
Scale: N.T.S.

NOTES:
1. USE PVC TAPE ON ALL COMPOSITE PIPE CONNECTIONS.
2. DRAINAGE FLOW DIRECTION -



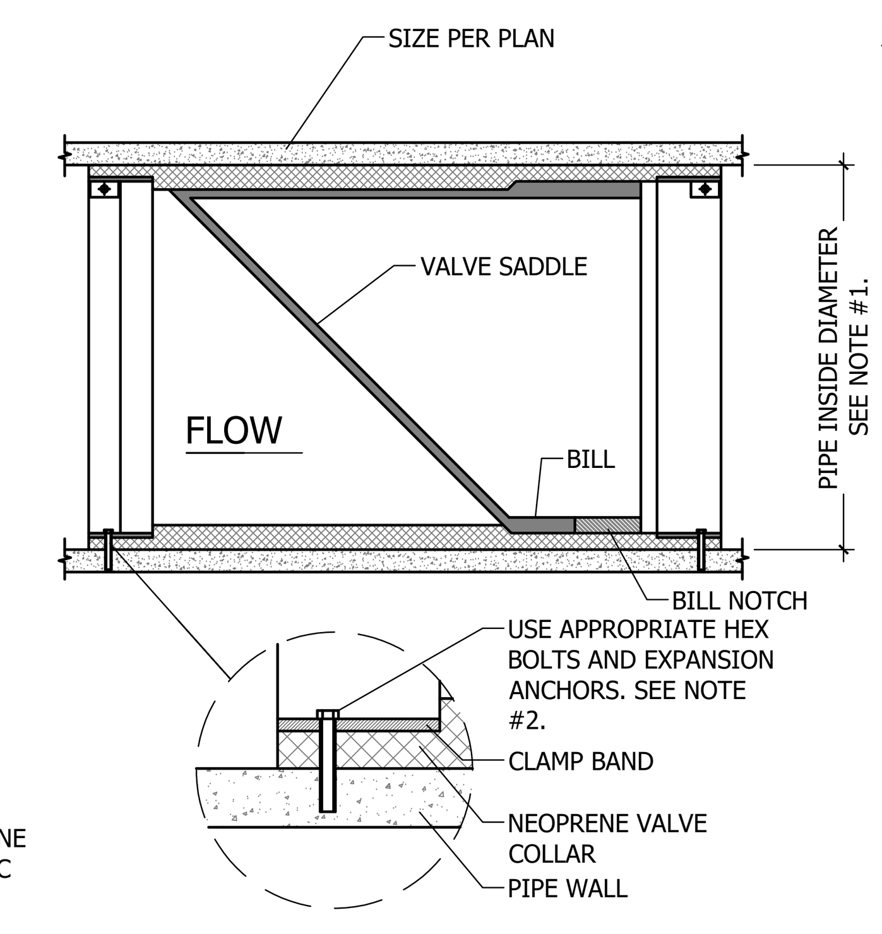
2 COMPOSITE DRAIN CONNECTIONS

Scale: N.T.S.

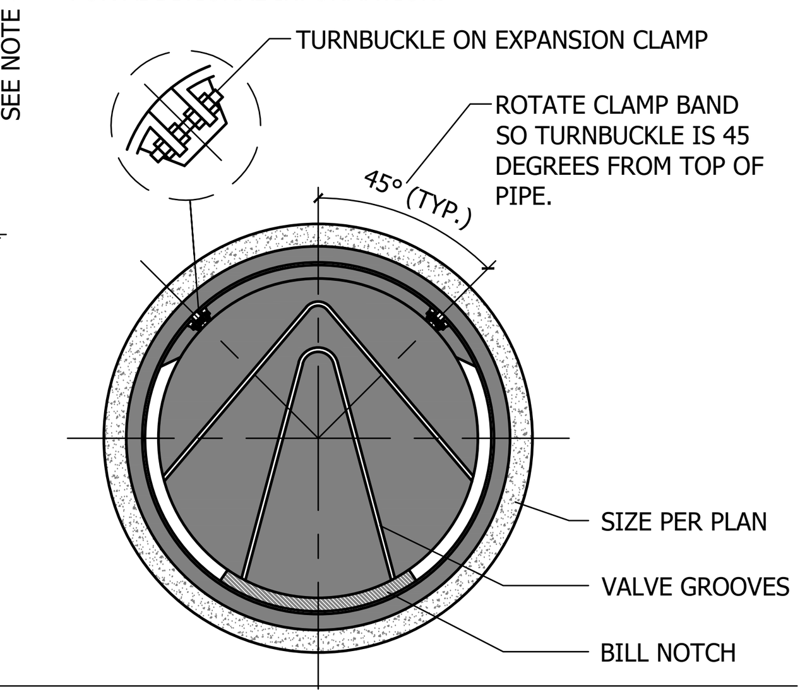


3 TURF FIELD COLLECTOR PIPE

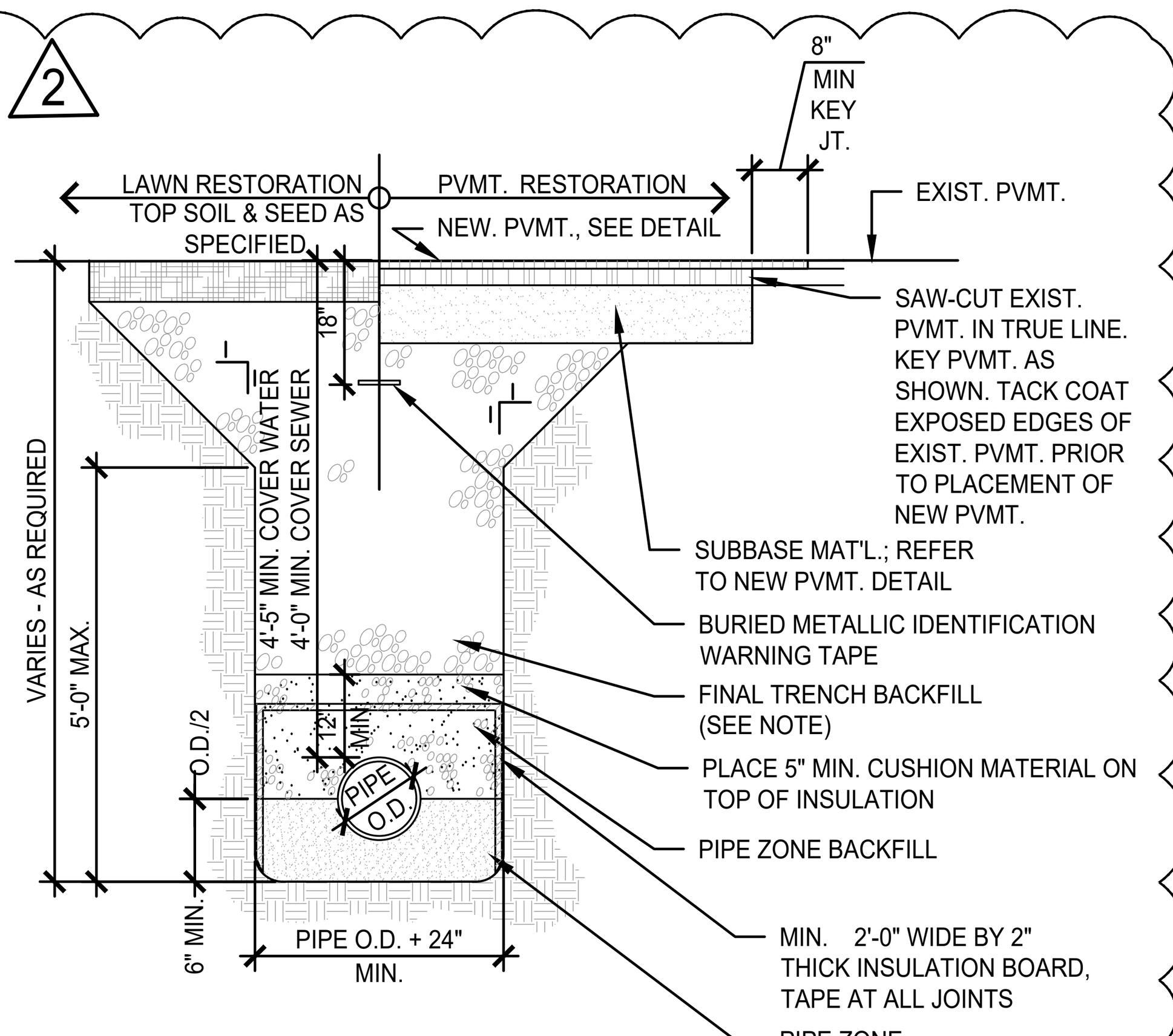
Scale: NTS



NOTES:
1. CHECK VALVE SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL TEST FIT VALVE INTO NEW PIPE AS EARLY AS POSSIBLE.
2. BOLT THROUGH VALVE AND CLAMP BAND INTO EXISTING PIPE FOUR PLACES AT 90 DEGREES APART, EACH END.
3. OWNER SHALL PROVIDE TWO STAINLESS STEEL EXPANSION CLAMPS FOR INSTALLATION BY CONTRACTOR.
4. SEE PROJECT MANUAL SECTION 33 40 00 - STORM UTILITIES FOR ADDITIONAL INFORMATION.



4 NEOPRENE CHECK VALVE

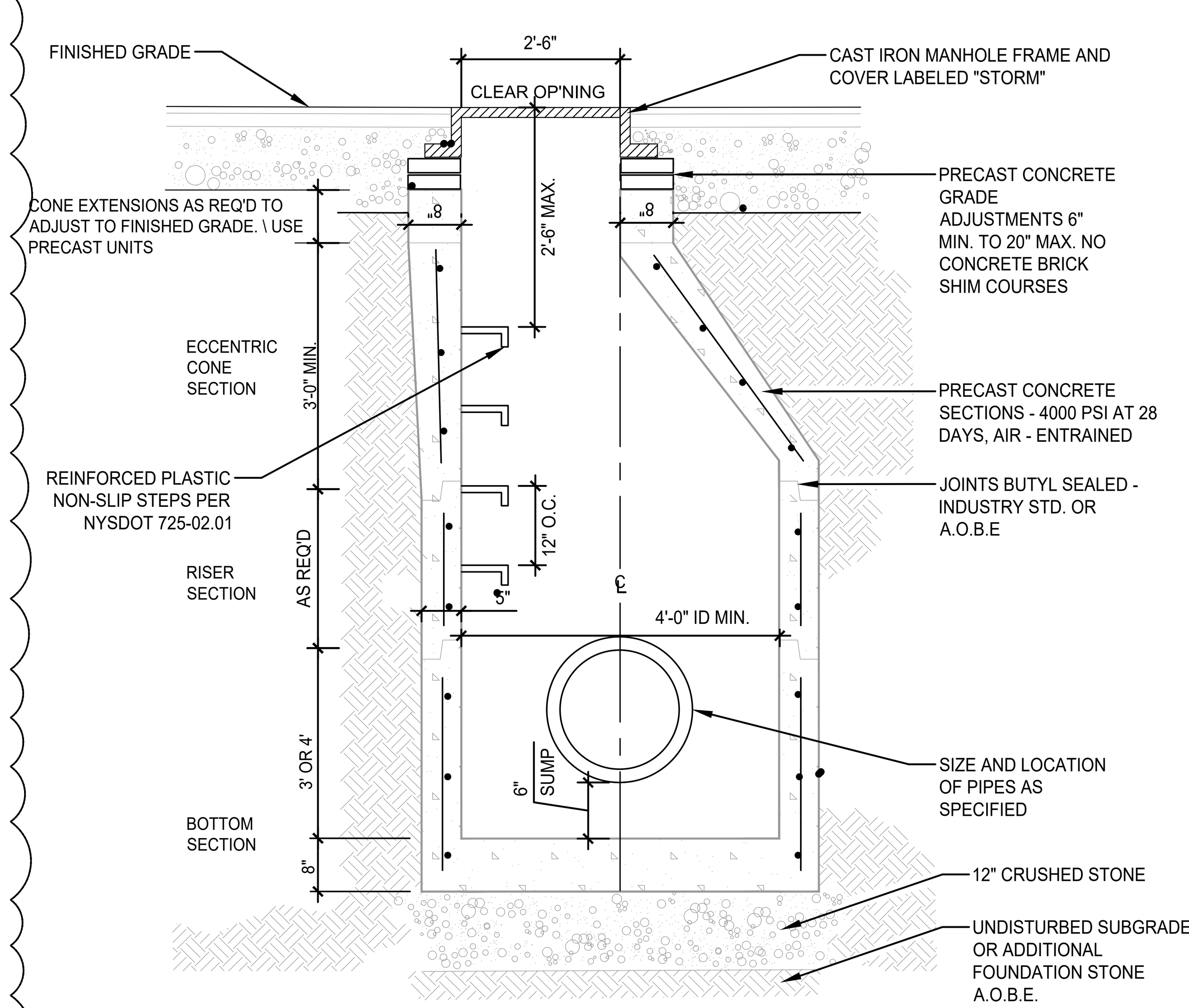


NOTES:
1. FINAL TRENCH BACKFILL
 1.a. IN NON-PAVED AREAS, FINAL TRENCH BACKFILL SHALL BE EXCAVATED MATERIAL WHEN DETERMINED SUITABLE BY THE ENGINEER OF RECORD; OTHERWISE IT SHALL BE NYSDOT TYPE 1 (ITEM NO. 304.02). MIN. MOD. PROCTOR DENSITY SHALL BE 85 PERCENT.
 1.b. IN PAVED AREAS, FINAL TRENCH BACKFILL SHALL BE NYSDOT TYPE 1 (ITEM NO. 304.02). MIN. MODIFIED PROCTOR DENSITY SHALL BE 95 PERCENT.
2. ALL PIPE ZONE BEDDING, PIPE ZONE BACKFILL, AND FINAL TRENCH BACKFILL SHALL BE PLACED IN 6 INCH MAX. COMPACTED LIFTS. ALL BEDDING AND BACKFILL MATERIALS SHALL BE MECHANICALLY COMPACTED TO THE SATISFACTION OF THE ENGINEER.
3. EXCAVATION SHALL BE KEPT DRY AND DEWATERED AT ALL TIMES.

ITEM	DEPTH	MATERIAL	NYSDOT TYPE	METHOD OF PLACEMENT
PIPE ZONE BEDDING	6" MIN.	ANGULAR CRUSHED STONE	1 & 2	MECHANICAL COMPACTION
PIPE ZONE BACKFILL	12" MIN. COVER	ANGULAR CRUSHED STONE	1 & 2	
FINAL TRENCH BACKFILL	VARIES	SEE NOTE	SEE NOTE	

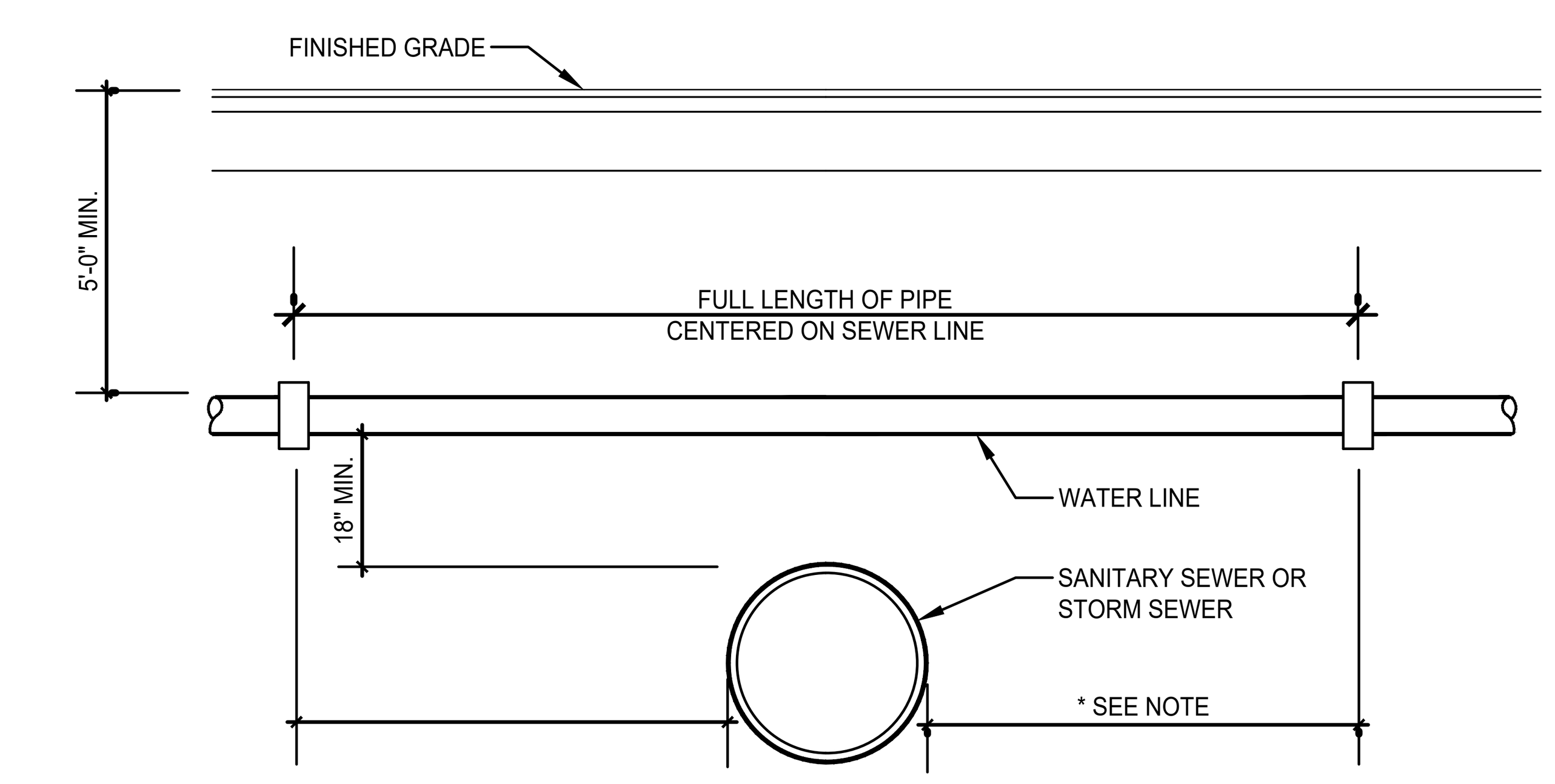
5 PIPE TRENCH

Scale: N.T.S.



6 STORMWATER MANHOLE

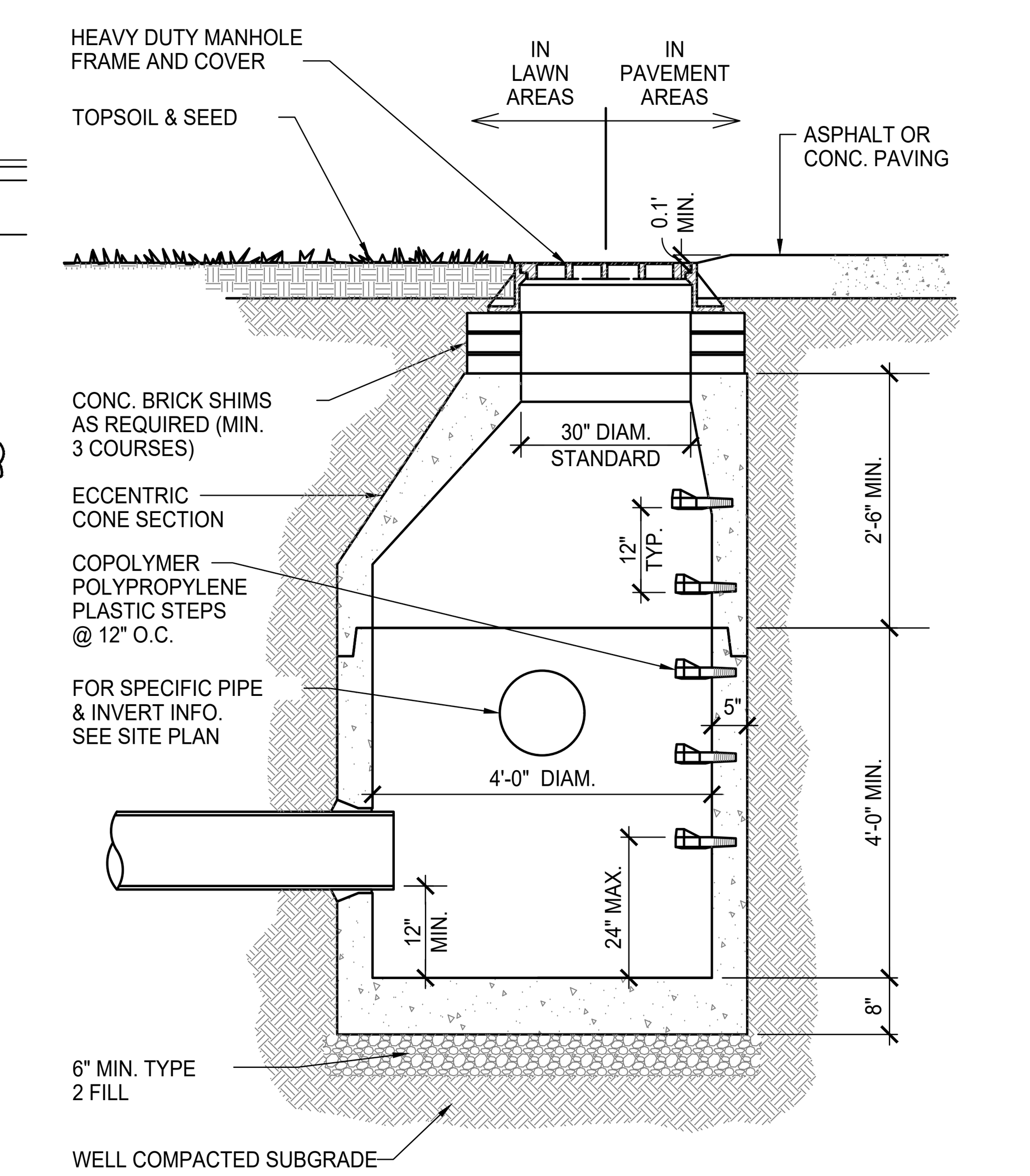
Scale: N.T.S.



NOTE:
(REFERENCE - "TEN STATE STANDARDS")
WHEN INSTALLED PARALLEL, ALL WATER AND SEWER LINES SHALL HAVE A MINIMUM SEPARATION OF 10' EDGE TO EDGE. IF MINIMUM CANNOT BE MAINTAINED, WATER MAIN SHALL BE IN SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF TO ONE SIDE OF SEWER, WITH BOTTOM OF WATER MAIN 18" MINIMUM ABOVE TOP OF SEWER PIPE. WHEN CROSSING, MAINS SHALL BE INSTALLED TO INSURE 18" MINIMUM VERTICAL SEPARATION BETWEEN PIPES, OUTSIDE TO OUTSIDE. WHERE WATER MAIN IS UNDERNEATH SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO WATER MAIN. WHEN IT IS IMPOSSIBLE TO PROVIDE THE ABOVE MINIMUMS, THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE, AND SHALL BE PRESSURE TESTED TO ASSURE WATERTIGHTNESS PRIOR TO BACKFILLING.

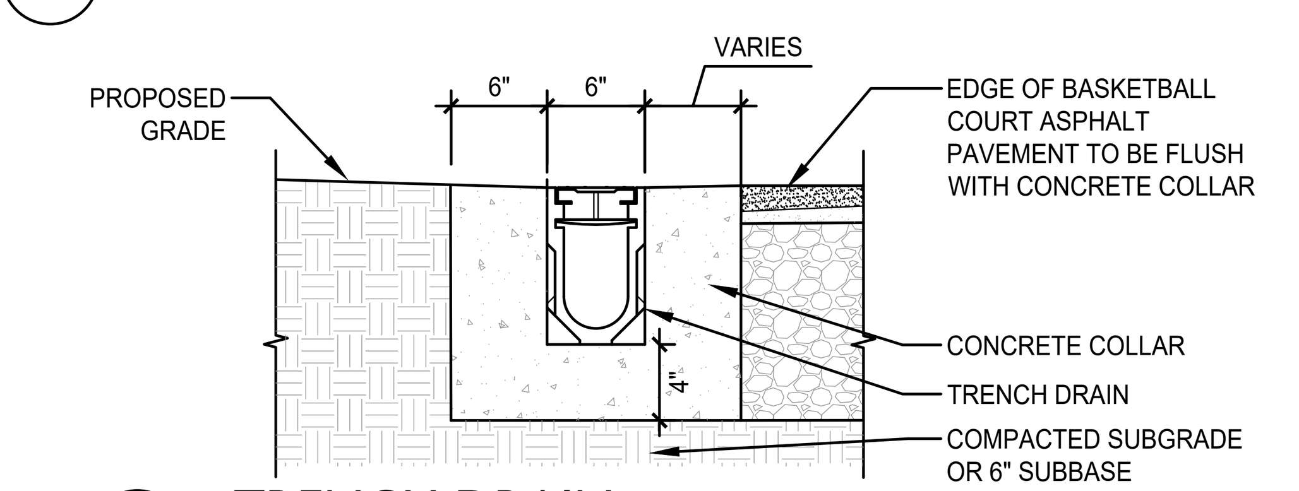
7 UTILITY CROSSING

Scale: N.T.S.



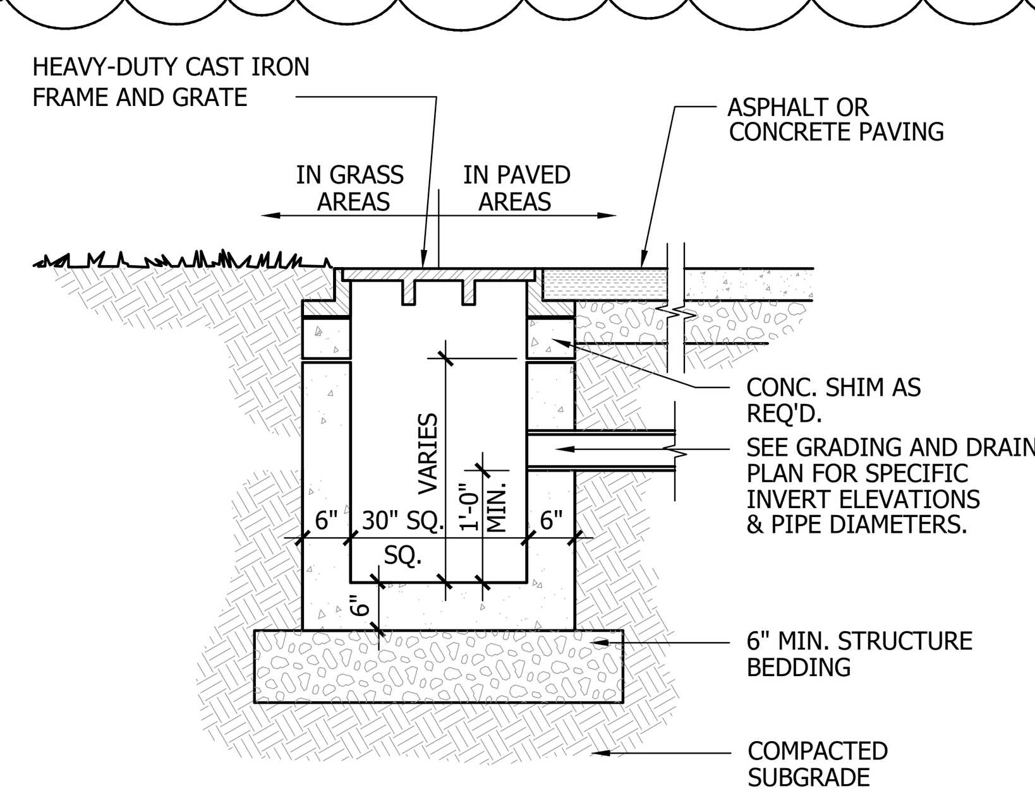
8 CATCH BASIN

Scale: N.T.S.



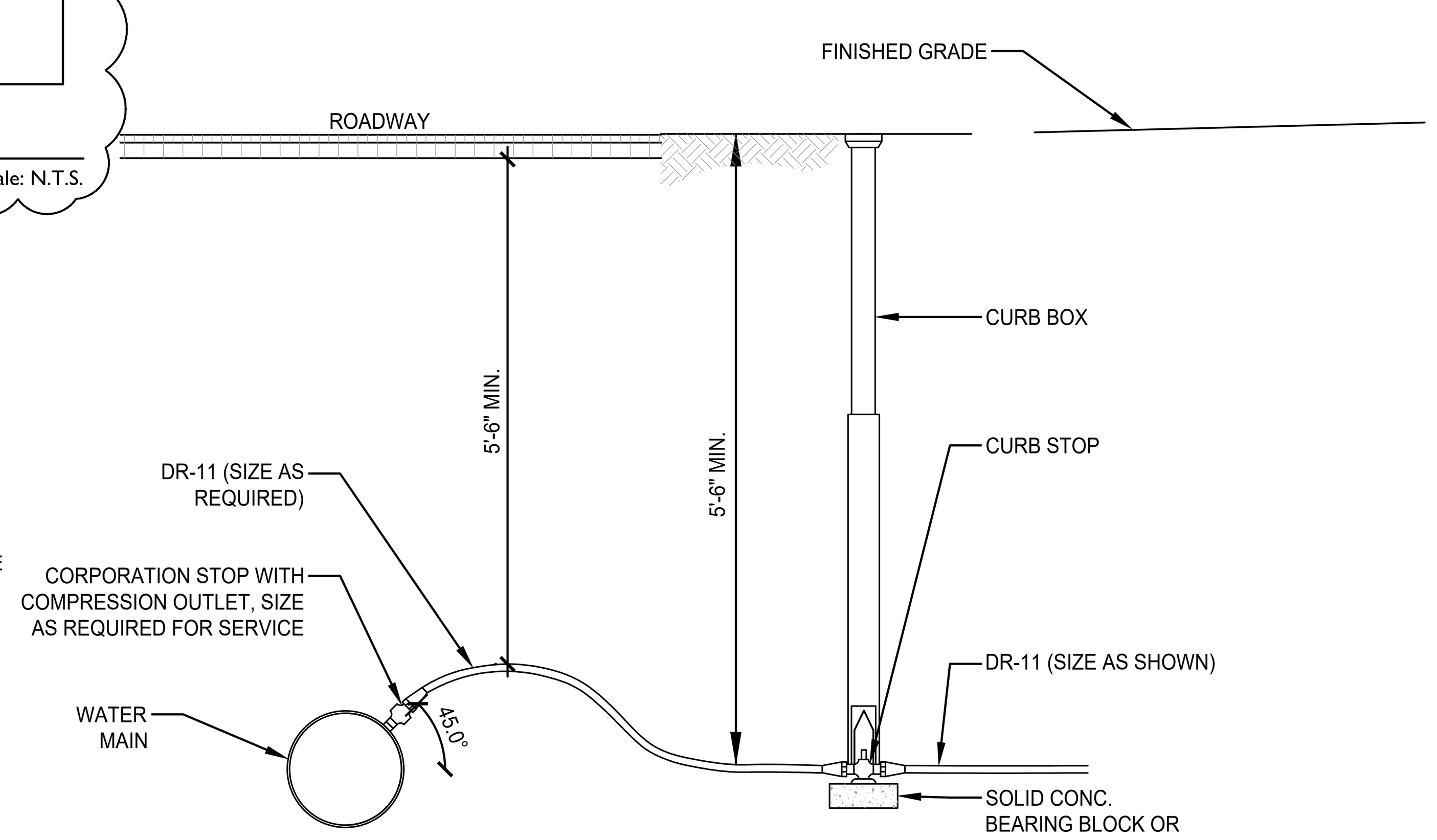
9 TRENCH DRAIN

Scale: N.T.S.



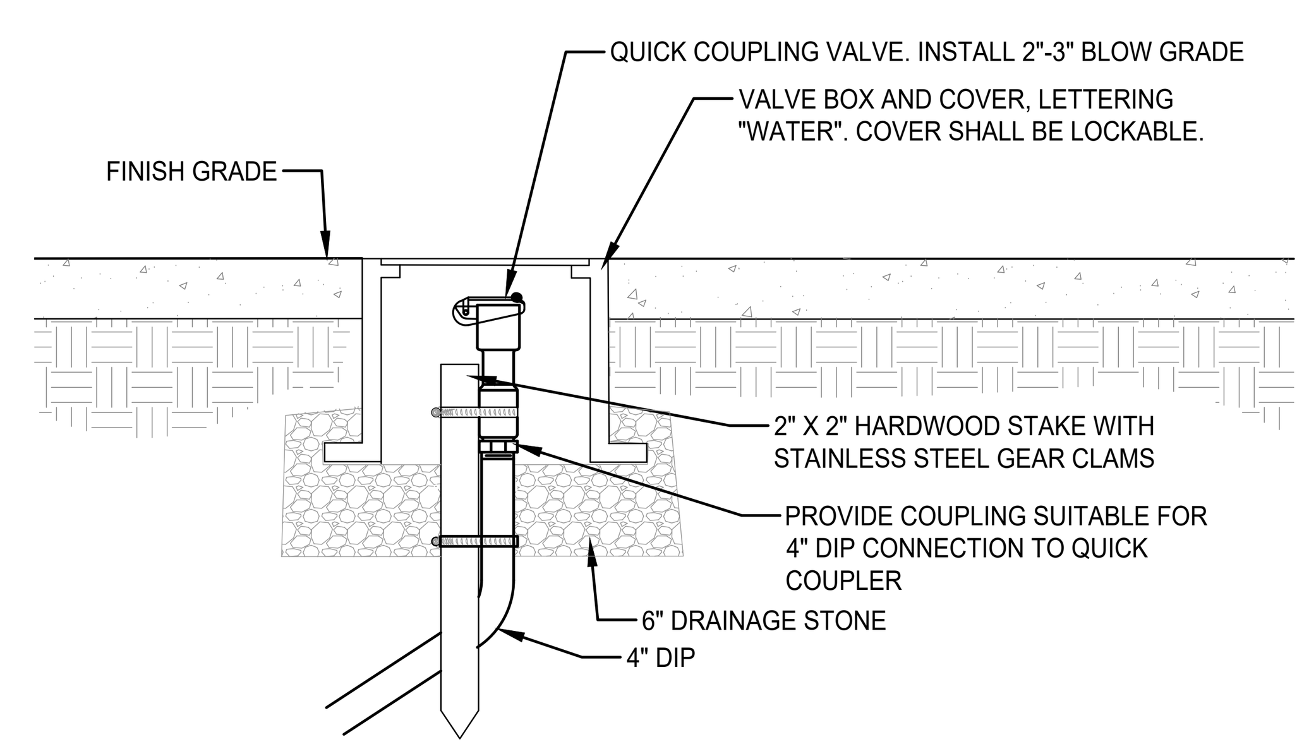
10 DROP INLET

Scale: N.T.S.



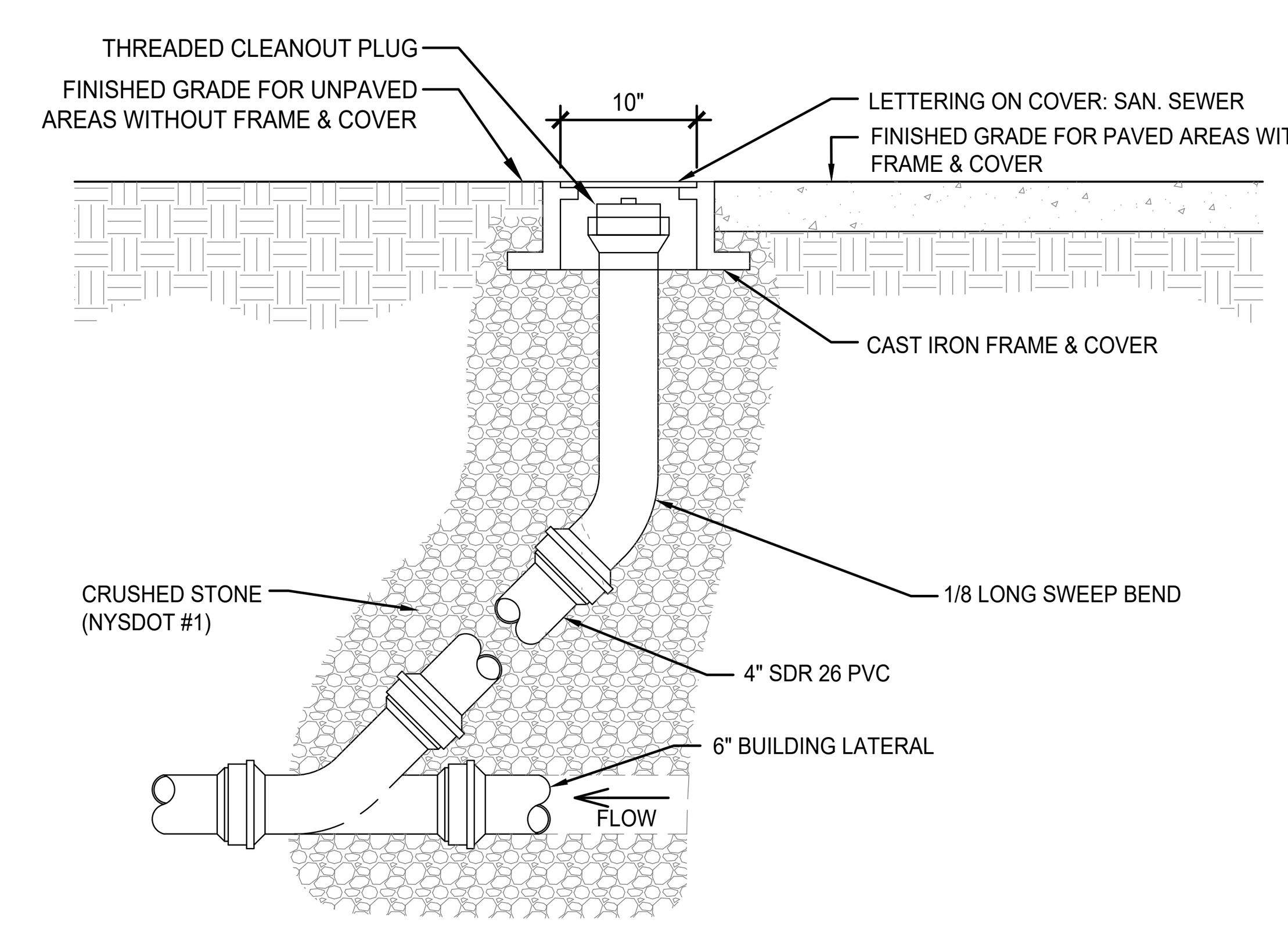
11 WATER SERVICE CONNECTION

Scale: NTS



12 QUICK COUPLER VALVE

Scale: NTS



13 SANITARY CONNECTION AT GRADE

Scale: NTS

No.	Date	Revisions
2	10/23/24	BIDDING ADDENDUM 1
1	10/03/24	BIDDING DOCUMENTS

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

Drawn by
Checked by
Project No. 43045
Scale AS NOTED
Date 10/30/2023

Landscape Architect & Civil Engineer: The LA GROUP Landscape Architecture & Engineering P.C.

Structural Engineer:

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

TOWN OF HAVERSTRAW, COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: UTILITY DETAILS

Drawing No. C-720 of X

1 ELECTRICAL SITE SERVICES PLAN FROM ANNEX BUILDING

SCALE: 1/32" = 1' 0"

PLAN NOTES:

1. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS AND DISRUPTIONS TO NORMAL SERVICES WITH SCHOOL BUILDING FACILITY AND ALL OTHER TRADES.
2. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DISRUPTION AND POWER OUTAGES.
3. MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY CONSTRUCTION WORK.
4. CONTRACTOR IS TO TRACE AND PROTECT ALL FEEDER & BRANCH CIRCUITS FOR ALL AREAS OF THE SITE AND ALL OTHER ELECTRICAL EQUIPMENT DURING DEMOLITION/CONSTRUCTION. ELECTRICAL CONTRACTOR IS REQUIRED TO COORDINATE THIS REQUIREMENT WITH THE GENERAL CONTRACTOR AND ALL OTHER TRADES.
5. ROUTING OF ELECTRICAL CONDUITS IF SHOWN IN THE DRAWINGS ARE TENTATIVE. THE CONTRACTOR IS RESPONSIBLE TO FINALIZE THE ROUTING OF ALL ELECTRICAL CONDUITS AT FIELD IN COORDINATION WITH ALL OTHER TRADES, EXISTING AND NEW BUILDING ELEMENTS, STRUCTURES, PIPES, EQUIPMENT, LANDSCAPING ETC., FOR CODE COMPLIANT INSTALLATION.
6. ALL ELECTRIC SERVICES AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS & THE NATIONAL ELECTRIC CODE (NEC).
7. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CODE COMPLIANT GROUNDING OF THE CIRCUITS, EQUIPMENT AND CONDUITS AS PER NEC AND SPECIFICATION.
8. ALL UNDERGROUND CONDUITS SHALL BE PVC/RGC AND RUN 24" BELOW GRADE UNLESS OTHERWISE INDICATED.
9. ALL SPARE CONDUITS SHALL BE INSTALLED WITH DRAG LINES.
10. COORDINATE WITH LANDSCAPE ARCHITECT AND ARCHITECTURAL DRAWINGS FOR SURFACE RESTORATION AND RESURFACING WORK.
11. THE CONTRACTOR SHALL PROVIDE MAGNETIC WARNING TAPE FOR EACH UNDERGROUND DUCT BANK/CONDUIT.
12. THE CONTRACTOR IS REQUIRED TO USE POLYWATER AFT-AEROSOL FOAM SEALANT OR EQUIVALENT TO SEAL BOTH ENDS OF SERVICE CONDUITS TO FILL THE GAP BETWEEN CABLES AND CONDUIT IN ORDER TO PREVENT ANY WATER PENETRATION THROUGH CONDUITS TO THE ELECTRICAL EQUIPMENT INSIDE THE BUILDING. THE CONDUIT OPENINGS (GAP BETWEEN CABLES AND CONDUIT) SHALL BE SEALED DEEP ENOUGH TO CONFIRM THAT NO WATER INFILTRATION IS TAKING PLACE.
13. ROUTING OF CONDUITS SHALL BE AS PER LANDSCAPE ARCHITECTS DRAWINGS
14. ALL CONDUITS PASSING THROUGH ROADWAYS SHALL BE ENCASED IN MINIMUM 2" THICK CONCRETE

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by	AWF
Checked by	SH
Project No.	43045
Scale	AS NOTED
Date	10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL SITE SERVICES PLAN FROM ANNEX BUILDING

Drawing No.
CE-003

SOFT BALL FIELD POLE/LUMINAIRE SUMMARY						
POLE ID	POLE HEIGHT	LUMINAIRE MOUNTING HEIGHT	LUMINAIRE QUANTITY	TOTAL LOAD	POLE MANUFACTURER	CIRCUIT
A3 & A4	60'	60'	1 TLC-LED-1200	1.17KW	MUSCO	A
		60'	3 TLC-LED-900	2.64KW		A
		16'	1 TLC-LED-575	0.57KW		B
		16'	1 TLC-RGB-U	0.43KW		F
B3 & B4	70'	70'	1 TLC-LED-1500	1.41kW	MUSCO	A
		70'	3 TLC-LED-1200	3.51kW		A
		16'	1 TLC-BT-575	0.57kW		B
		16'	1 TLC-RGB-U	0.43KW		F

SOFT BALL FIELD SPEAKERS			
SPEAKER	MOUNTING HEIGHT	MANUFACTURER	MODEL #
▼	30'	BIAMP	R.5-96MAX

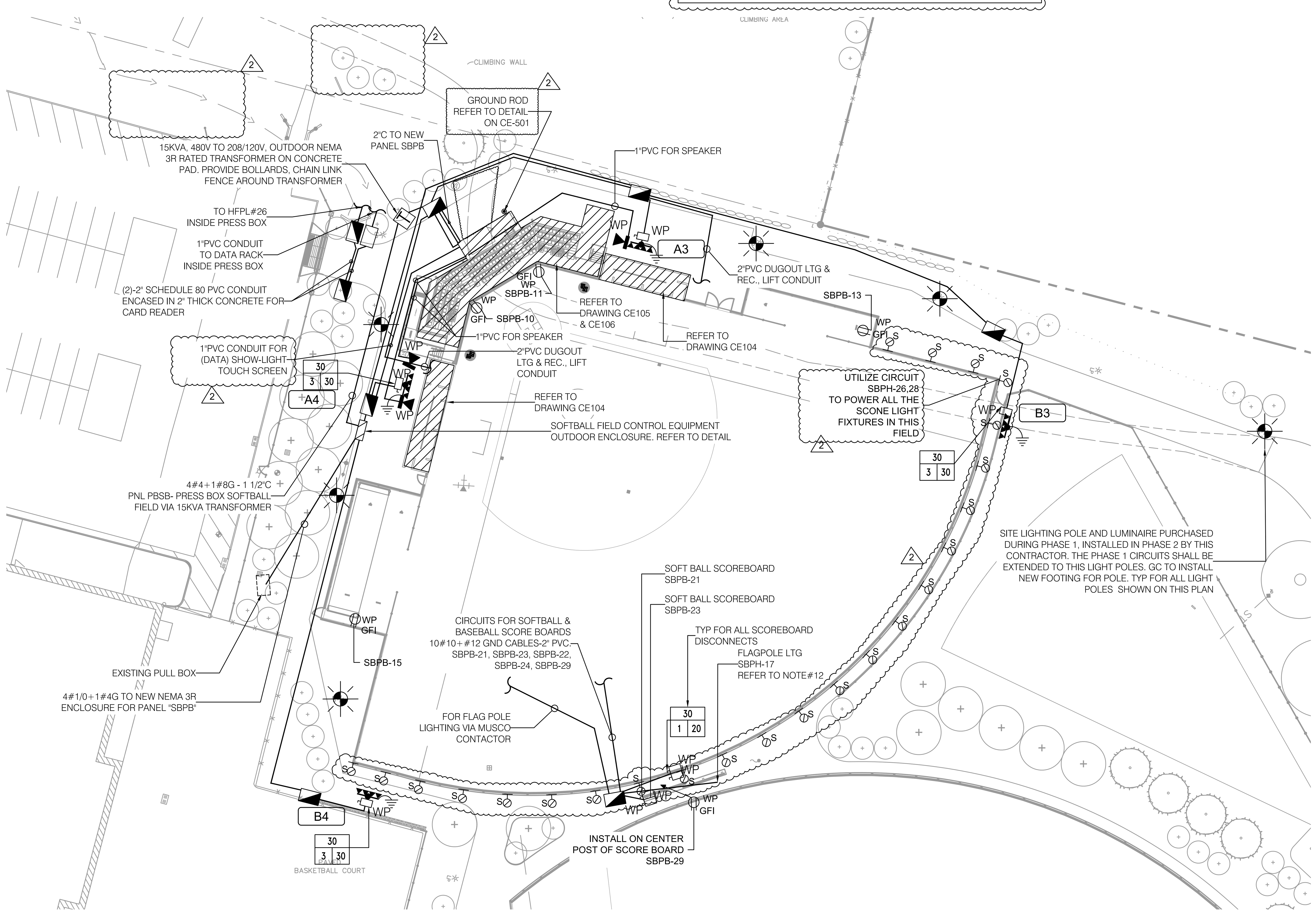
NOTE: REFER TO DRAWINGS CE-505 FOR SOUND SYSTEM EQUIPMENT.

RUN THE FOLLOWING CABLES IN 1"C FOR SPEAKERS:
1. A1XX AUDIO WIRE 1 SHIELDED 22AWG STRANDED PAIR (BELDEN 9451)
2. S1XX SPEAKER WIRE 2 CONDUCTOR, 12AWG, UNSHIELDED, STRANDED (WEST PENN AQ227)

ELECTRICAL NOTES:

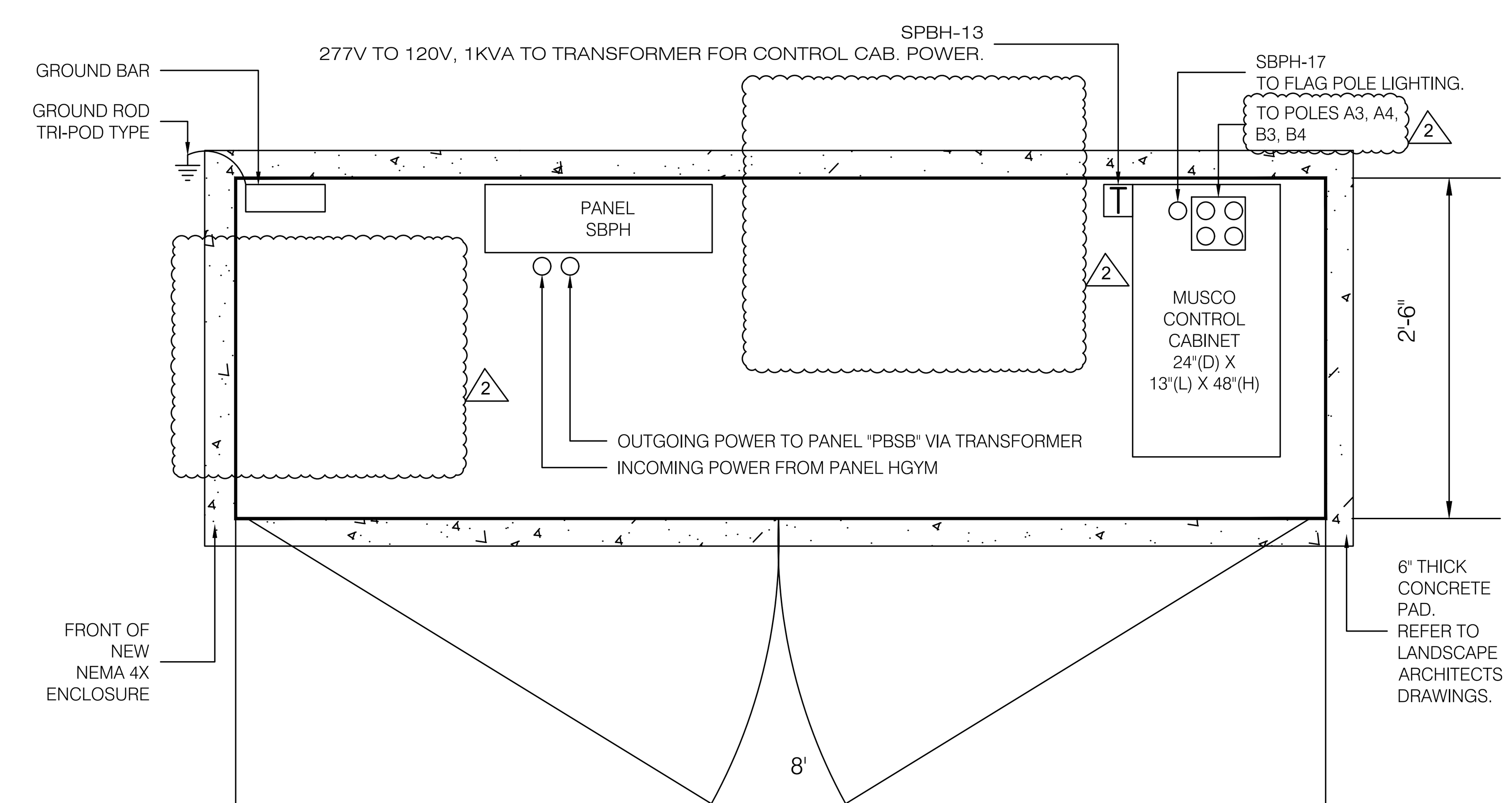
1. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS AND DISRUPTIONS TO NORMAL SERVICES WITH THE FACILITY
2. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DISRUPTION AND POWER OUTAGES.
3. MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY DEMOLITION/CONSTRUCTION WORK. CONTRACTOR IS TO TRACE AND PROTECT ALL FEEDER & BRANCH CIRCUITS FOR ALL AREAS OF THE FACILITY AND ALL OTHER ELECTRICAL EQUIPMENT WHICH ARE NOT AFFECTED BY THE CONSTRUCTION.
4. ROUTING OF ELECTRICAL CONDUITS IF SHOWN IN THE DRAWINGS ARE TENTATIVE. THE CONTRACTOR IS RESPONSIBLE TO FINALIZE THE ROUTING OF ALL ELECTRICAL CONDUITS AT FIELD IN COORDINATION WITH ALL OTHER TRADES, EXISTING AND NEW BUILDING ELEMENTS, STRUCTURES, PIPES, EQUIPMENT, LANDSCAPING ETC., FOR CODE COMPLIANT INSTALLATION.
5. ALL ELECTRIC SERVICES AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE PLANS AND THE NATIONAL ELECTRIC CODE (NEC).
6. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CODE COMPLIANT GROUNDING OF THE SERVICE, EQUIPMENT AND THE LIGHTING POLE AS REQUIRED.
7. ROUTE CONDUIT AROUND TREES, PLACE FOOTING FOR POLES OUTSIDE TREE CRITICAL ROOT ZONES.
8. ALL SHOP DRAWING MUST BE SUBMITTED TO THE EOR FOR APPROVAL BEFORE PURCHASE
9. EMERGENCY AND NORMAL CIRCUITS CANNOT RUN IN THE SAME RACEWAY AND PULL BOXES.
10. PROVIDE DRAG WIRE FOR ALL UNDERGROUND CONDUITS.
11. FOR WIRING AND CONDUIT SIZES REFER TO PANEL SCHEDULES.
12. 3 FIXTURES SHALL BE INSTALLED IN-GRADE. FIXTURES SHALL BE OPTICALLY AND MECHANICALLY ADJUSTED ON SITE TO FOCUS ILLUMINATION ON THE FLAG AND FLAG POLE. FIXTURES SHALL BE WITHIN 18" OF THE POLE BASE AND 120 DEGREES APART. MODEL - HYDREL #M9820-B-LED-WHT41K-MVOLT-NSP-FL
13. MOUNTING BRACKET SUPPLIED BY "COMMUNITY" SHALL STRAP TO POLE. MUSCO SHALL PROVIDE THREADED COUPLING
14. REFER TO DRAWING E-410 FOR PANEL SCHEDULES
15. ALL FIBER/COMMUNICATION, SPEAKER AND POWER CONDUITS MUST BE RUN 24" BELOW GRADE. U.O.I.
16. ALL CONDUITS OUTSIDE THE BUILDING FOOT PRINT SHALL BE PVC SCH. 40, CONDUITS INSIDE THE PRESSBOX SHALL BE EMT AND CONDUITS INSIDE THE DUGOUTS SHALL BE RGC.
17. ALL OUTDOOR CONDUITS SHALL RUN 24" BELOW GRADE. CABLES IN OUTDOOR CONDUITS SHALL BE TYPLE XLPE.
18. AT TRANSITION POINTS BETWEEN INDOOR AND OUTDOOR CONDUITS PROVIDE ADAPTER FITTINGS TO CONVERT THHN TO TYPLE XLPE CABLES AND EMT TO PVC/RGC CONDUIT.
19. THE SCORE BOARD WILL BE CONTROLLED WIRELESSLY.

CONTROL CIRCUIT SUMMARY					
POLE ID	FULL LOAD AMPERES	CONTACTOR SIZE (A)	CONTACTOR ID	LIGHTING CIRCUIT	VOLTAGE
A3	7.77	30	C1	SBPH-1,3,5	480 V
A4	7.77	30	C2	SBPH-2,4,6	480 V
B3	9.6	30	C3	SBPH-7,9,11	480 V
B4	9.6	30	C4	SBPH-8,10,12	480 V



1 ELECTRICAL SOFTBALL FIELD INSTALLATION PLAN

SCALE: 1/32" = 1' 0"



NOTES:

1. ENCLOSURE IN THIS CONTRACT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. ALL SHOP DRAWINGS MUST BE SUBMITTED TO EOR FOR APPROVAL BEFORE PURCHASE.
3. ENCLOSURE SHALL BE NEMA 4X, IP66 RATED.
4. COORDINATE KEY TO OPEN AND CLOSE THE NEMA ENCLOSURE WITH NORTH ROCKLAND HIGH SCHOOL'S CUSTODIAN ENGINEER.
5. CUSTOM MADE NEMA ENCLOSURE SHALL BE MANUFACTURED BY NEMA ENCLOSURES, OR APPROVED EQUAL.
6. ENCLOSURE SHALL BE MOUNTED ON A NEW 8" THICK CONCRETE PAD. REFER TO LANDSCAPE ARCHITECTS DRAWINGS.
7. CONTRACTOR SHALL COORDINATE WITH ENCLOSURE MANUFACTURER FOR ALL NECESSARY FITTINGS AND ACCESSORIES TO HOUSE ALL ELECTRICAL EQUIPMENT.
8. REFER TO SCHEMATIC ONE LINE DIAGRAM ON THIS DRAWING FOR SIZES.
9. ALL ELECTRICAL EQUIPMENT SHALL BE SET MINIMUM OF 6" ABOVE THE FINISHED FLOOR/BASE OF THE NEMA ENCLOSURE

0 1/2 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

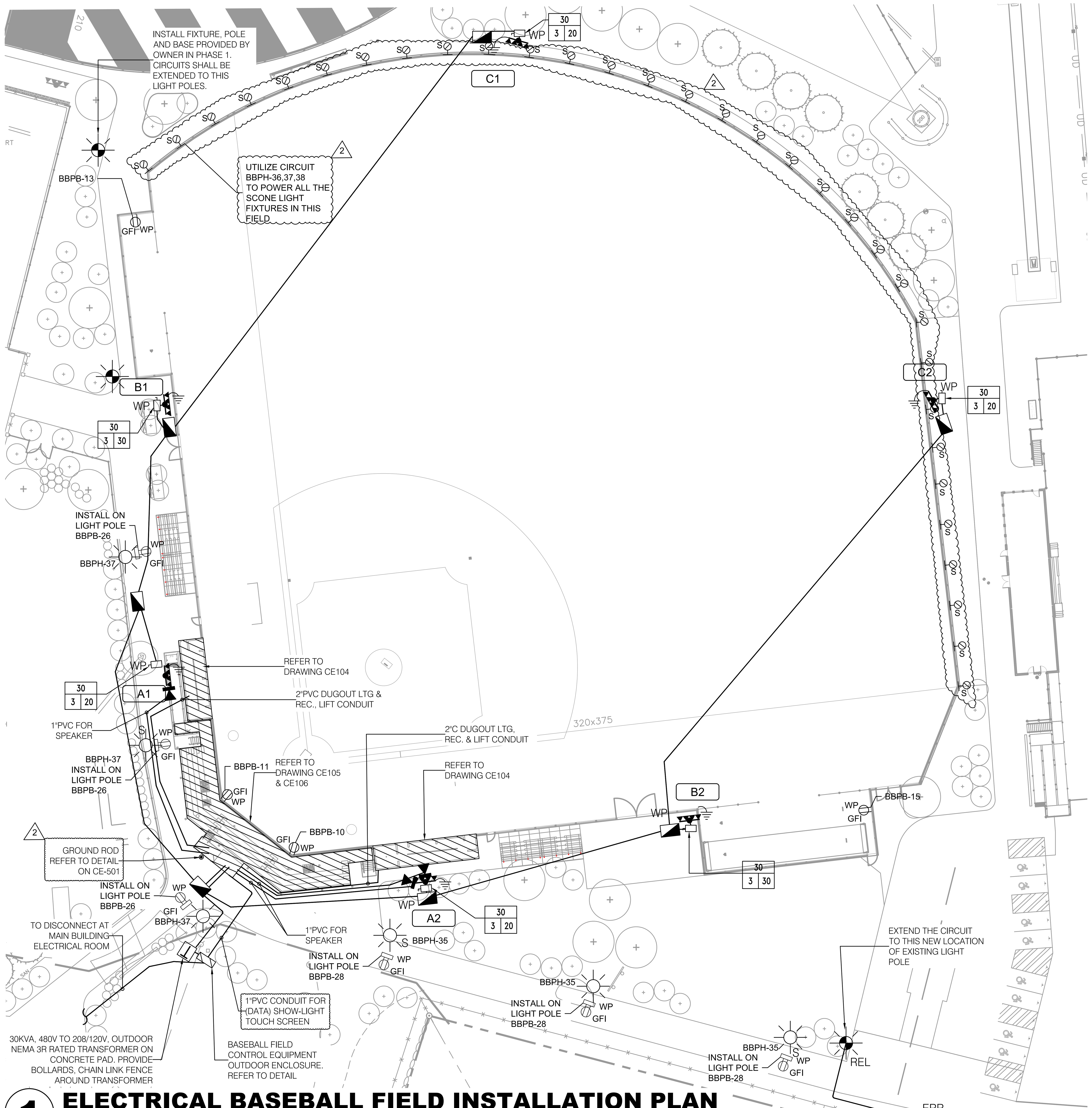
Structural & PME Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: **ELECTRICAL SOFTBALL FIELD INSTALLATION PLAN**

Drawing No. **CE-101**

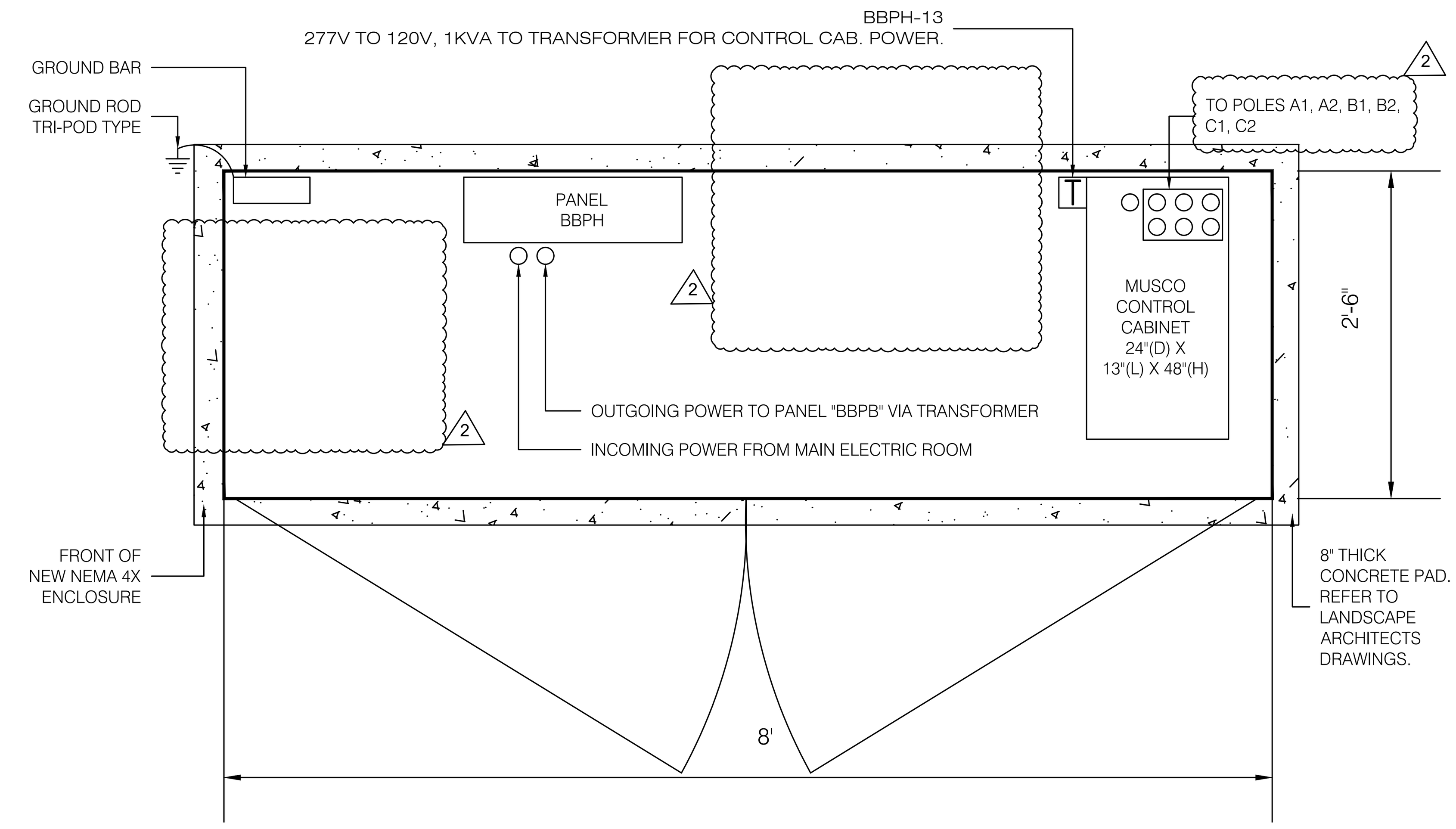


1 ELECTRICAL BASEBALL FIELD INSTALLATION PLAN

SCALE: 1/32" = 1' 0"

ELECTRICAL NOTES:

1. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS AND DISRUPTIONS TO NORMAL SERVICES WITH THE FACILITY
2. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DISRUPTION AND POWER OUTAGES.
3. MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY DEMOLITION/CONSTRUCTION WORK. CONTRACTOR IS TO TRACE AND PROTECT ALL FEEDER & BRANCH CIRCUITS FOR ALL AREAS OF THE FACILITY AND ALL OTHER ELECTRICAL EQUIPMENT WHICH ARE NOT AFFECTED BY THE CONSTRUCTION.
4. ROUTING OF ELECTRICAL CONDUITS IF SHOWN IN THE DRAWINGS ARE TENTATIVE. THE CONTRACTOR IS RESPONSIBLE TO FINALIZE THE ROUTING OF ALL ELECTRICAL CONDUITS AT FIELD IN COORDINATION WITH ALL OTHER TRADES, EXISTING AND NEW BUILDING ELEMENTS, STRUCTURES, PIPES, EQUIPMENT, LANDSCAPING ETC., FOR CODE COMPLIANT INSTALLATION.
5. ALL ELECTRIC SERVICES AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE PLANS AND THE NATIONAL ELECTRIC CODE (NEC).
6. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CODE COMPLIANT GROUNDING OF THE SERVICE, EQUIPMENT AND THE LIGHTING POLE AS REQUIRED.
7. ROUTE CONDUIT AROUND TREES, PLACE FOOTING FOR POLES OUTSIDE TREE CRITICAL ROOT ZONES.
8. ALL SHOP DRAWING MUST BE SUBMITTED TO THE EOR FOR APPROVAL BEFORE PURCHASE
9. EMERGENCY AND NORMAL CIRCUITS CANNOT RUN IN THE SAME RACEWAY AND PULL BOXES.
10. PROVIDE DRAG WIRE FOR ALL UNDERGROUND CONDUITS.
11. FOR WIRING AND CONDUIT SIZES REFER TO PANEL SCHEDULES.
12. MOUNTING BRACKET SUPPLIED BY "COMMUNITY" SHALL STRAP TO POLE. MUSCO SHALL PROVIDE THREADED COUPLING
13. REFER TO DRAWING E-410 FOR PANEL SCHEDULES
14. ALL FIBER/COMMUNICATION, SPEAKER AND POWER CONDUITS MUST BE RUN 24" BELOW GRADE. U.O.I.
15. ALL CONDUITS OUTSIDE THE BUILDING FOOT PRINT SHALL BE PVC SCH. 40, CONDUITS INSIDE THE PRESSBOX SHALL BE EMT AND CONDUITS INSIDE THE DUGOUTS SHALL BE RGC.
16. ALL OUTDOOR CONDUITS SHALL RUN 24" BELOW GRADE. CABLES IN OUTDOOR CONDUITS SHALL BE TYPLE XLPE.
17. AT TRANSITION POINTS BETWEEN INDOOR AND OUTDOOR CONDUITS PROVIDE ADAPTER FITTINGS TO CONVERT THHN TO TYPE XLPE CABLES AND EMT TO PVC/RGC CONDUIT, UNLESS OTHERWISE INDICATED.
19. THE SCORE BOARD WILL BE CONTROLLED WIRELESSLY.



NOTES:

1. ENCLOSURE IN THIS CONTRACT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. ALL SHOP DRAWINGS MUST BE SUBMITTED TO EOR FOR APPROVAL BEFORE PURCHASE.
3. ENCLOSURE SHALL BE NEMA 4X, IP66 RATED.
4. COORDINATE KEY TO OPEN AND CLOSE THE ENCLOSURE WITH NORTH ROCKLAND HIGH SCHOOL'S CUSTODIAN ENGINEER.
5. CUSTOM MADE NEMA ENCLOSURE SHALL BE MANUFACTURED BY NEMA ENCLOSURES, OR APPROVED EQUAL.
6. ENCLOSURE SHALL BE MOUNTED ON A NEW 8" THICK CONCRETE PAD. REFER TO LANDSCAPE ARCHITECTS DRAWINGS.
7. CONTRACTOR SHALL COORDINATE WITH ENCLOSURE MANUFACTURER FOR ALL NECESSARY FITTINGS AND ACCESSORIES TO HOUSE ALL ELECTRICAL EQUIPMENT.
8. REFER TO SCHEMATIC ONE LINE DIAGRAM ON THIS DRAWING FOR SIZES.
9. ALL ELECTRICAL EQUIPMENT SHALL BE SET MINIMUM OF 6" ABOVE THE FINISHED FLOOR/BASE OF THE NEMA ENCLOSURE

2 ELECTRICAL BASEBALL NEMA ENCLOSURE DETAIL

SCALE: NTS

BASEBALL FIELD SPEAKERS

SPEAKER	MOUNTING HEIGHT	MANUFACTURER	MODEL #
⧗	30'	BIAMP	R.5-96MAX

NOTE: REFER TO DRAWINGS CE-505 FOR SOUND SYSTEM EQUIPMENT.

RUN THE FOLLOWING CABLES IN 1"C FOR SPEAKERS:
1. A1XX AUDIO WIRE 1 SHIELDED 22AWG STRANDED PAIR (BELDEN 9451)
2. S1XX SPEAKER WIRE 2 CONDUCTOR, 12AWG, UNSHIELDED, STRANDED (WEST PENN AQ227)

CONTROL CIRCUIT SUMMARY

POLE ID	FULL LOAD AMPERES	CONTACTOR SIZE (A)	CONTACTOR ID	LIGHTING CIRCUIT	VOLTAGE
A1	9.6	30	C1	BBPH-1,3,5	480 V
A2	9.6	30	C2	BBPH-2,4,6	480 V
B1	16.43	30	C3	BBPH-7,9,11	480 V
B2	16.43	30	C4	BBPH-8,10,12	480 V
C1	13.83	30	C5	BBPH-25,27,29	480 V
C2	13.83	30	C6	BBPH-26,28,30	480 V

BASE BALL FIELD POLE/LUMINAIRE SUMMARY

POLE ID	POLE HEIGHT	LUMINAIRE MOUNTING HEIGHT	LUMINAIRE QUANTITY	TOTAL LOAD	POLE MANUFACTURER
A1 & A2	70'	70'	1 TLC-LED-1500	1.41KW	MUSCO
		70'	3 TLC-LED-1200	3.51KW	
		16'	1 TLC-BT-575	0.57KW	
		16'	1 TLC-RGB-U	0.43KW	
B1 & B2	80'	80'	1 TLC-LED-1200	1.17kW	MUSCO
		80'	6 TLC-LED-1500	8.46kW	
		16'	2 TLC-BT-575	1.15kW	
		16'	1 TLC-RGB-U	0.43kW	
C1 & C2	70'	70'	5 TLC-LED-1500	7.05kW	MUSCO
		16'	2 TLC-BT-575	1.15kW	
		16'	1 TLC-RGB-U	0.43KW	

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP

Structural & PME Engineer: GREENMAN PEDERSEN, INC

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

MICHAEL SHILALE ARCHITECTS, L.L.P.

Drawing Title: ELECTRICAL BASEBALL FIELD INSTALLATION PLAN

Drawing No. CE-102

HOCKEY FIELD SPEAKERS			
SPEAKER	MOUNTING HEIGHT	MANUFACTURER	MODEL #
1	30'	BIAMP	R.5-66Z (SIDELINE COVERAGE)
2	30'	BIAMP	R.5-94Z (FIELD COVERAGE)

NOTE: REFER TO DRAWINGS CE-505 FOR SOUND SYSTEM EQUIPMENT.

RUN THE FOLLOWING CABLES IN 1"C FOR SPEAKERS:
1. A1XX AUDIO WIRE 1 SHIELDED 22AWG STRANDED PAIR (BELDEN 9451)
2. S1XX SPEAKER WIRE 2 CONDUCTOR, 12AWG, UNSHIELDED, STRANDED (WEST PENN AQ227)

2

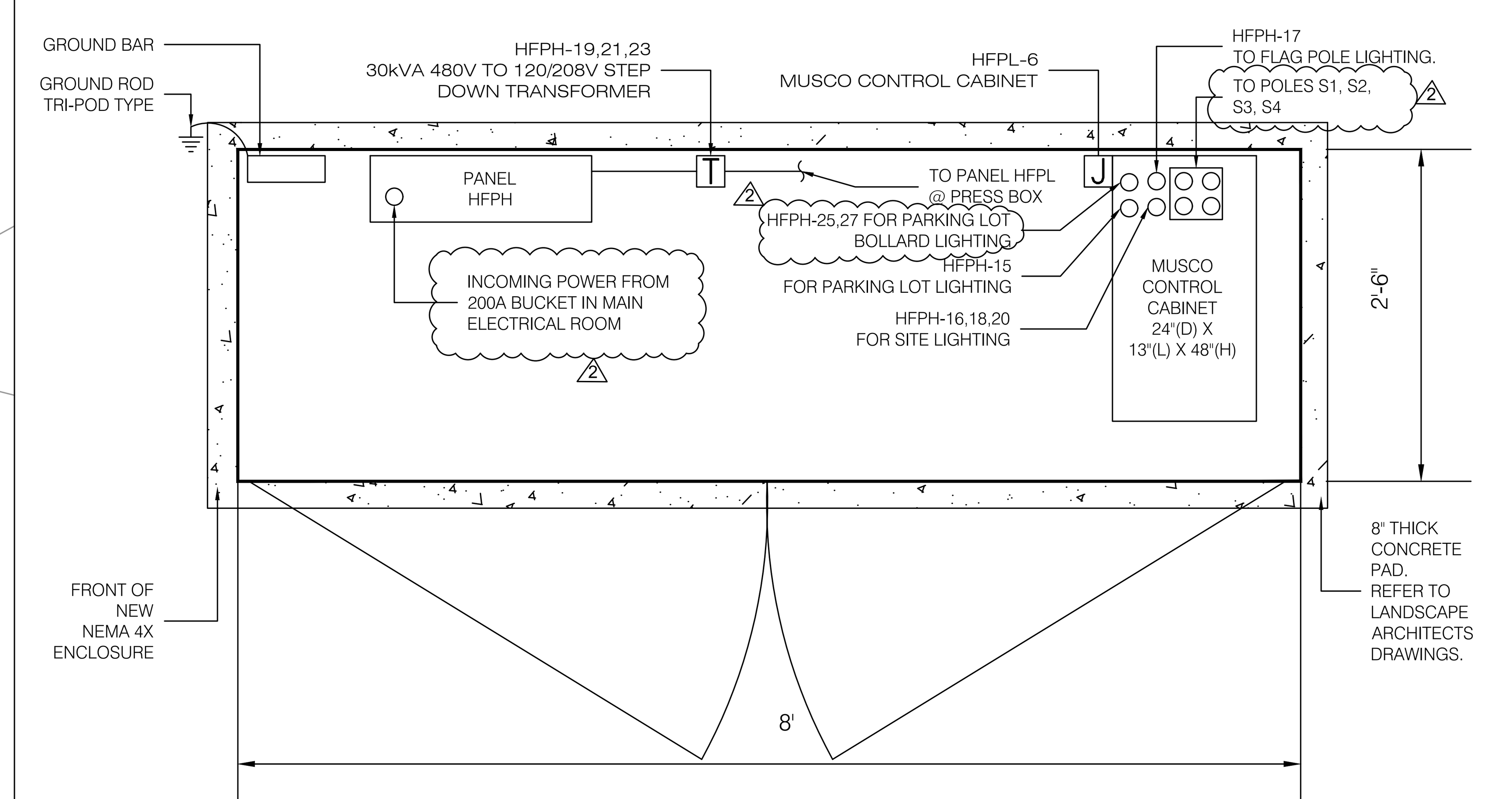
HOCKEY FIELD POLE/LUMINAIRE SUMMARY					
POLE ID	POLE HEIGHT	LUMINAIRE MOUNTING HEIGHT	LUMINAIRE QUANTITY	TOTAL LOAD	POLE MANUFACTURER
S1, S2 S3, S4	70'	70'	7 (TLC-LED-1500)	9.87KW	MUSCO
		16'	1 TLC-RGB-U	0.43KW	

ELECTRICAL NOTES:

1. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS AND DISRUPTIONS TO NORMAL SERVICES WITH THE FACILITY
2. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DISRUPTION AND POWER OUTAGES.
3. MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY DEMOLITION/CONSTRUCTION WORK. CONTRACTOR IS TO TRACE AND PROTECT ALL FEEDER & BRANCH CIRCUITS FOR ALL AREAS OF THE FACILITY AND ALL OTHER ELECTRICAL EQUIPMENT WHICH ARE NOT AFFECTED BY THE CONSTRUCTION.
4. ROUTING OF ELECTRICAL CONDUITS IF SHOWN IN THE DRAWINGS ARE TENTATIVE. THE CONTRACTOR IS RESPONSIBLE TO FINALIZE THE ROUTING OF ALL ELECTRICAL CONDUITS AT FIELD IN COORDINATION WITH ALL OTHER TRADES, EXISTING AND NEW BUILDING ELEMENTS, STRUCTURES, PIPES, EQUIPMENT, LANDSCAPING ETC., FOR CODE COMPLIANT INSTALLATION.
5. ALL ELECTRIC SERVICES AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE PLANS AND THE NATIONAL ELECTRIC CODE (NEC).
6. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CODE COMPLIANT GROUNDING OF THE SERVICE, EQUIPMENT AND THE LIGHTING POLE AS REQUIRED.
7. ROUTE CONDUIT AROUND TREES, PLACE FOOTING FOR POLES OUTSIDE TREE CRITICAL ROOT ZONES.
8. ALL SUBMITTALS MUST BE APPROVED BY EOR BEFORE PURCHASE.
9. EMERGENCY AND NORMAL CIRCUITS CANNOT RUN IN THE SAME RACEWAY AND PULL BOXES.
10. PROVIDE DRAG WIRE FOR ALL UNDERGROUND CONDUITS.
11. FOR WIRING AND CONDUIT SIZES REFER TO PANEL SCHEDULES.
12. 3 FIXTURES SHALL BE INSTALLED IN-GRADE. FIXTURES SHALL BE OPTICALLY AND MECHANICALLY ADJUSTED ON SITE TO FOCUS ILLUMINATION ON THE FLAG AND FLAG POLE. FIXTURES SHALL BE WITHIN 18" OF THE POLE BASE AND 120 DEGREES APART. MODEL - HYDREL #M9820-B-LED-WHT41K-MVOLT-NSP-FL
13. REFER TO DRAWING CE-403, CE-404 FOR PANEL SCHEDULES
14. ALL FIBER/COMMUNICATION, SPEAKER AND POWER CONDUITS MUST BE RUN 24" BELOW GRADE. U.O.I.
15. ALL CONDUITS OUTSIDE THE BUILDING FOOT PRINT SHALL BE PVC SCH. 40, CONDUITS INSIDE THE PRESSBOX SHALL BE EMT AND CONDUITS INSIDE THE DUGOUTS SHALL BE RGC.
16. ALL OUTDOOR CONDUITS SHALL RUN 24" BELOW GRADE. CABLES IN OUTDOOR CONDUITS SHALL BE TYPLE XLPE.
17. AT TRANSITION POINTS BETWEEN INDOOR AND OUTDOOR CONDUITS PROVIDE ADAPTER FITTINGS TO CONVERT THHN TO TYPE XLPE CABLES AND EMT TO PVC/RGC CONDUIT, UNLESS OTHERWISE INDICATED.
18. REFER TO SCHEDULES FOR SITE, PARKING LOT LIGHT POLE AND LUMINAIRE.
19. THE SCORE BOARD WILL BE CONTROLLED WIRELESSLY.

CONTROL CIRCUIT SUMMARY					
POLE ID	FULL LOAD AMPERES	CONTACTOR SIZE (A)	CONTACTOR ID	LIGHTING CIRCUIT	VOLTAGE
S1	15.72	30	HC1	HFPH-1,3,5	480 V
S2	15.72	30	HC2	HFPH-2,4,6	480 V
S3	15.72	30	HC3	HFPH-7,9,11	480 V
S4	15.72	30	HC4	HFPH-8,10,12	480 V
FLAG POLE		20	HC5	HFPH-17	277 V
SITE LTG.		20	HC6	HFPH-16, 18, 20	480V, WITH NEUTRAL
PARKING		20	HC7	HFPH-15	277 V
PARKING BOLLARD		20	HC8	HFPH-25,27	277 V

1 ELECTRICAL HOCKEY FIELD INSTALLATION PLAN
SCALE: 1/32" = 1' 0"



NOTES:
1. ENCLOSURE IN THIS CONTRACT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. ALL SHOP DRAWINGS MUST BE SUBMITTED TO EOR FOR APPROVAL BEFORE PURCHASE.
3. ENCLOSURE SHALL BE NEMA 4X, IP66 RATED.
4. COORDINATE KEY TO OPEN AND CLOSE THE ENCLOSURE WITH NORTH ROCKLAND HIGH SCHOOL'S CUSTODIAN ENGINEER.
5. CUSTOM MADE NEMA ENCLOSURE SHALL BE MANUFACTURED BY NEMA ENCLOSURES, OR APPROVED EQUAL.
6. ENCLOSURE SHALL BE MOUNTED ON A NEW 8" THICK CONCRETE PAD. REFER TO LANDSCAPE ARCHITECTS DRAWINGS.
7. CONTRACTOR SHALL COORDINATE WITH ENCLOSURE MANUFACTURER FOR ALL NECESSARY FITTINGS AND ACCESSORIES TO HOUSE ALL ELECTRICAL EQUIPMENT.
8. REFER TO SCHEMATIC ONE LINE DIAGRAM ON THIS DRAWING FOR SIZES.
9. ALL ELECTRICAL EQUIPMENT SHALL BE SET MINIMUM OF 6' ABOVE THE FINISHED FLOOR/BASE OF THE NEMA ENCLOSURE

2 ELECTRICAL HOCKEY FIELD NEMA ENCLOSURE DETAIL
SCALE: NTS

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV.2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

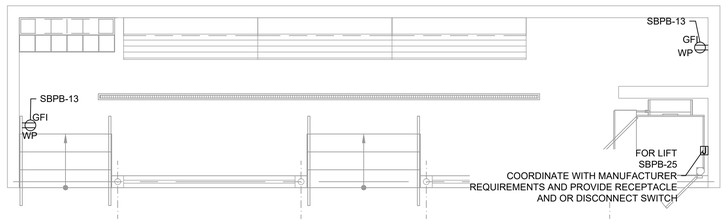
NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-018-026
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-020-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-021-001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

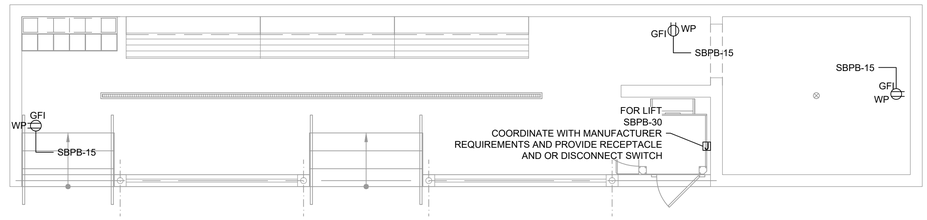
MSA
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200 www.shilale.com

Drawing Title: ELECTRICAL HOCKEY FIELD INSTALLATION PLAN

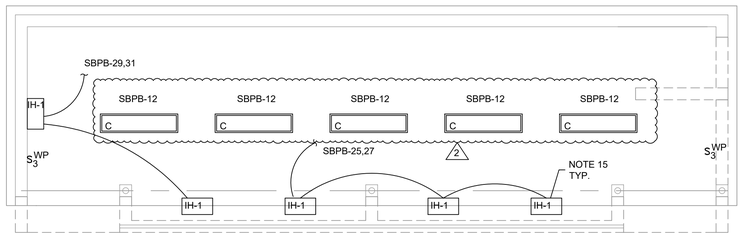
Drawing No. CE-103



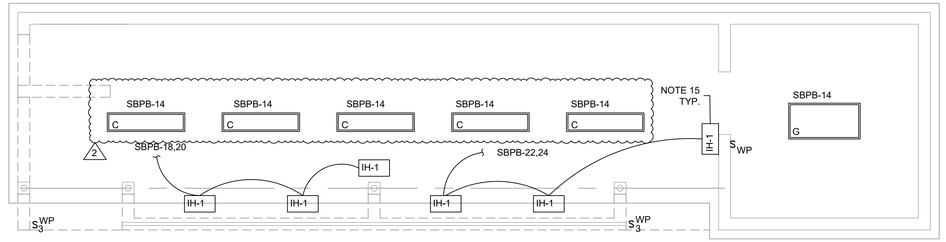
1 ELECTRICAL SOFTBALL DUGOUT INSTALL PLAN-1
SCALE: 1/4" = 1' 0"



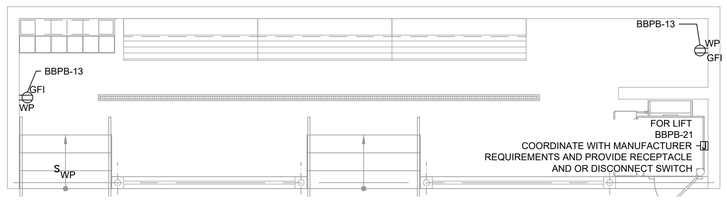
2 ELECTRICAL SOFTBALL DUGOUT INSTALL PLAN-2
SCALE: 1/4" = 1' 0"



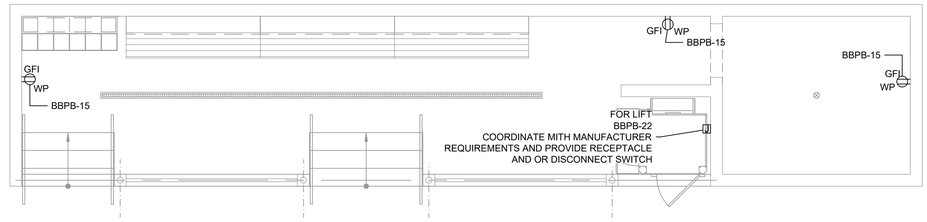
3 ELECTRICAL SOFTBALL DUGOUT CEILING PLAN-1
SCALE: 1/4" = 1' 0"



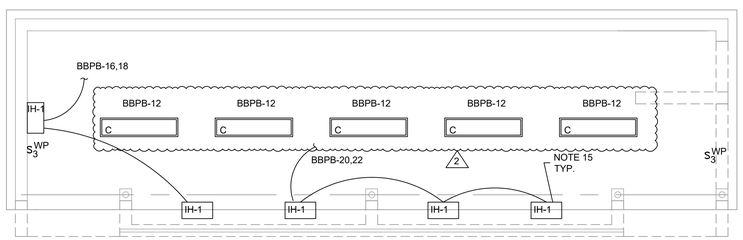
4 ELECTRICAL SOFTBALL DUGOUT CEILING PLAN-2
SCALE: 1/4" = 1' 0"



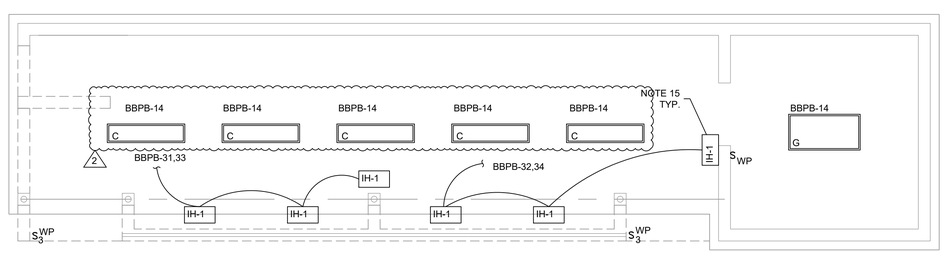
5 ELECTRICAL BASEBALL DUGOUT INSTALLATION PLAN-1
SCALE: 1/4" = 1' 0"



6 ELECTRICAL BASEBALL DUGOUT INSTALLATION PLAN-2
SCALE: 1/4" = 1' 0"



3 ELECTRICAL BASEBALL DUGOUT CEILING PLAN-1
SCALE: 1/4" = 1' 0"



4 ELECTRICAL BASEBALL DUGOUT CEILING PLAN-2
SCALE: 1/4" = 1' 0"

PLAN NOTES:

1. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS AND DISRUPTIONS TO NORMAL SERVICES WITH SBU, ALL OTHER TRADES AND THE FACILITY.
2. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DISRUPTION AND POWER OUTAGES.
3. MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY CONSTRUCTION WORK.
4. CONTRACTOR IS TO TRACE AND PROTECT ALL FEEDER & BRANCH CIRCUITS FOR ALL AREAS OF THE SITE AND ALL OTHER ELECTRICAL EQUIPMENT DURING DEMOLITION/CONSTRUCTION. ELECTRICAL CONTRACTOR IS REQUIRED TO COORDINATE THIS REQUIREMENT WITH THE GENERAL CONTRACTOR AND ALL OTHER TRADES.
5. ROUTING OF ELECTRICAL CONDUITS IF SHOWN IN THE DRAWINGS ARE TENTATIVE. THE CONTRACTOR IS RESPONSIBLE TO FINALIZE THE ROUTING OF ALL ELECTRICAL CONDUITS AT FIELD IN COORDINATION WITH ALL OTHER TRADES, EXISTING AND NEW BUILDING ELEMENTS, STRUCTURES, PIPES, EQUIPMENT, LANDSCAPING ETC., FOR CODE COMPLIANT INSTALLATION.
6. ALL ELECTRIC SERVICES AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS & THE NATIONAL ELECTRIC CODE (NEC).
7. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CODE COMPLIANT GROUNDING OF THE CIRCUITS, EQUIPMENT AND CONDUITS AS PER NEC AND SPECIFICATION.
8. ALL UNDERGROUND CONDUITS SHALL BE PVC/RGC AND RUN 24" BELOW GRADE UNLESS OTHERWISE INDICATED.
9. ALL SPARE CONDUITS SHALL BE INSTALLED WITH DRAG LINES.
10. COORDINATE WITH LANDSCAPE ARCHITECT AND ARCHITECTURAL DRAWINGS FOR SURFACE RESTORATION AND RESURFACING WORK.
11. THE CONTRACTOR SHALL PROVIDE MAGNETIC WARNING TAPE FOR EACH UNDERGROUND DUCT BANK/CONDUIT.
12. THE CONTRACTOR IS REQUIRED TO USE POLYWATER AFT-AEROSOL FOAM SEALANT OR EQUIVALENT TO SEAL BOTH ENDS OF SERVICE CONDUITS TO FILL THE GAP BETWEEN CABLES AND CONDUIT IN ORDER TO PREVENT ANY WATER PENETRATION THROUGH CONDUITS TO THE ELECTRICAL EQUIPMENT INSIDE THE BUILDING. THE CONDUIT OPENINGS (GAP BETWEEN CABLES AND CONDUIT) SHALL BE SEALED DEEP ENOUGH TO CONFIRM THAT NO WATER INFILTRATION IS TAKING PLACE.
13. ROUTING OF CONDUITS SHALL BE AS PER LANDSCAPE ARCHITECTS DRAWINGS
14. ALL CONDUITS PASSING THROUGH ROADWAYS SHALL BE ENCASED IN MINIMUM 2" THICK CONCRETE
15. REFER TO MECHANICAL PLANS FOR INFRARED HEATER "IH-1" SCHEDULE. MOUNTING SHALL BE AS PER THE MANUFACTURERS INSTRUCTIONS. SWITCHES FOR THE "IH-1" INFRARED HEATERS ARE LOCATED IN THE PRESS BOXES OF THE RESPECTIVE FIELDS.

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

THE LA GROUP
LANDSCAPE ARCHITECTURE & PLANNING, PLLC
40 LONG ALLEY,
SARATOGA SPRINGS, NY 12866
Landscape Architect & Civil Engineer:

GREENMAN PEDERSEN INC
18 COMPUTER DRIVE EAST
SUITE 202, ALBANY, NY 12065
Structural & MEP Engineer:

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SBPB 60-02-01-06-0-015-036
PRESS BOX – SOFTBALL: SBPB 60-02-01-06-7-000-001
PRESS BOX – BASEBALL: SBPB 60-02-01-06-7-001-001

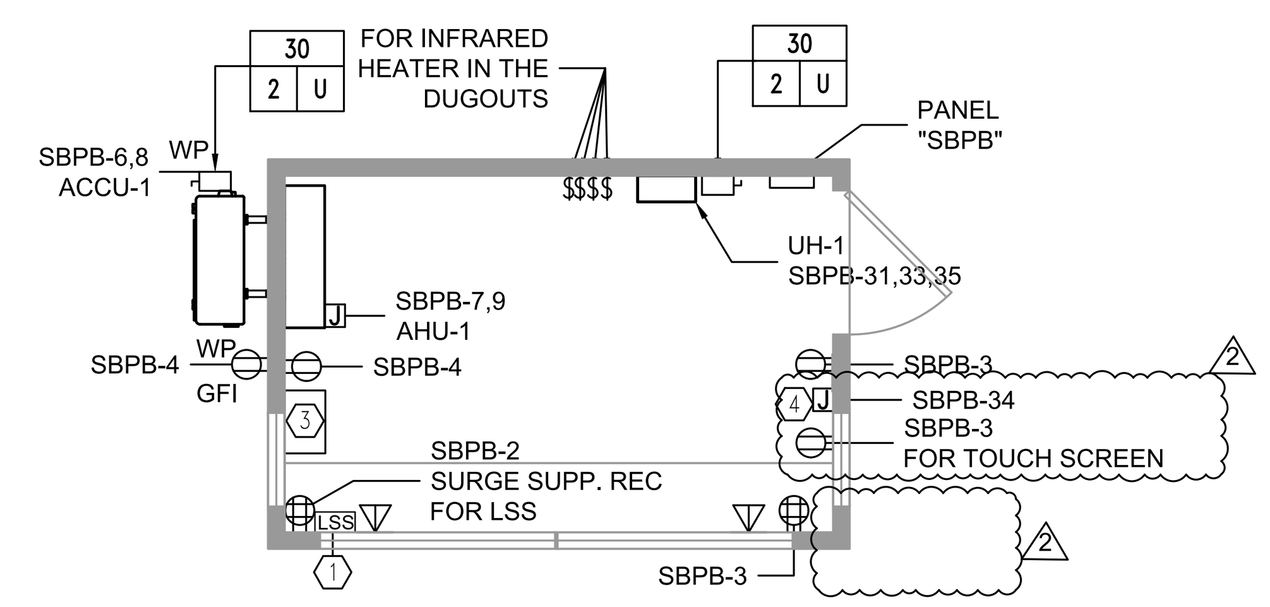
TOWN OF ORANGETOWN
COUNTY OF ROCKLAND

106 Haverstraw Rd.
Thiells, NY 10984

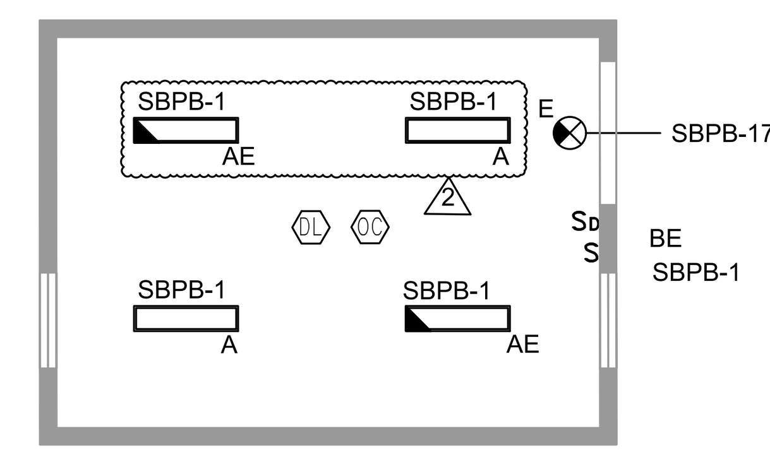
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-709-8300
www.shilale.com

Drawing Title
ELECTRICAL DUGOUT PLANS

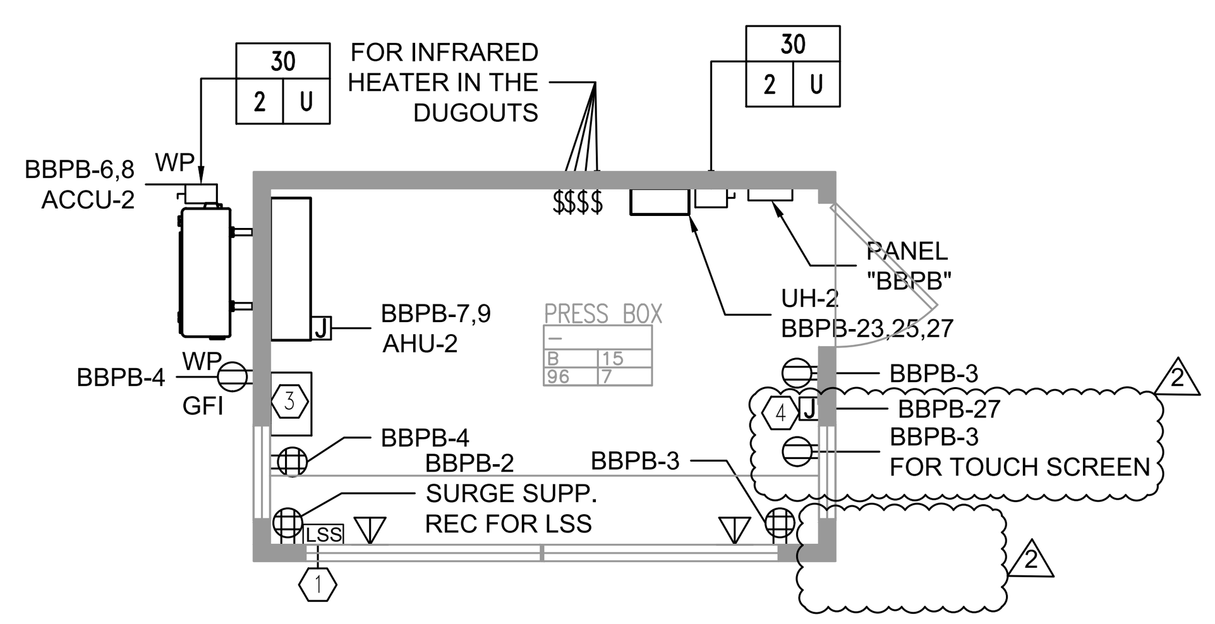
Drawing No.
CE-104



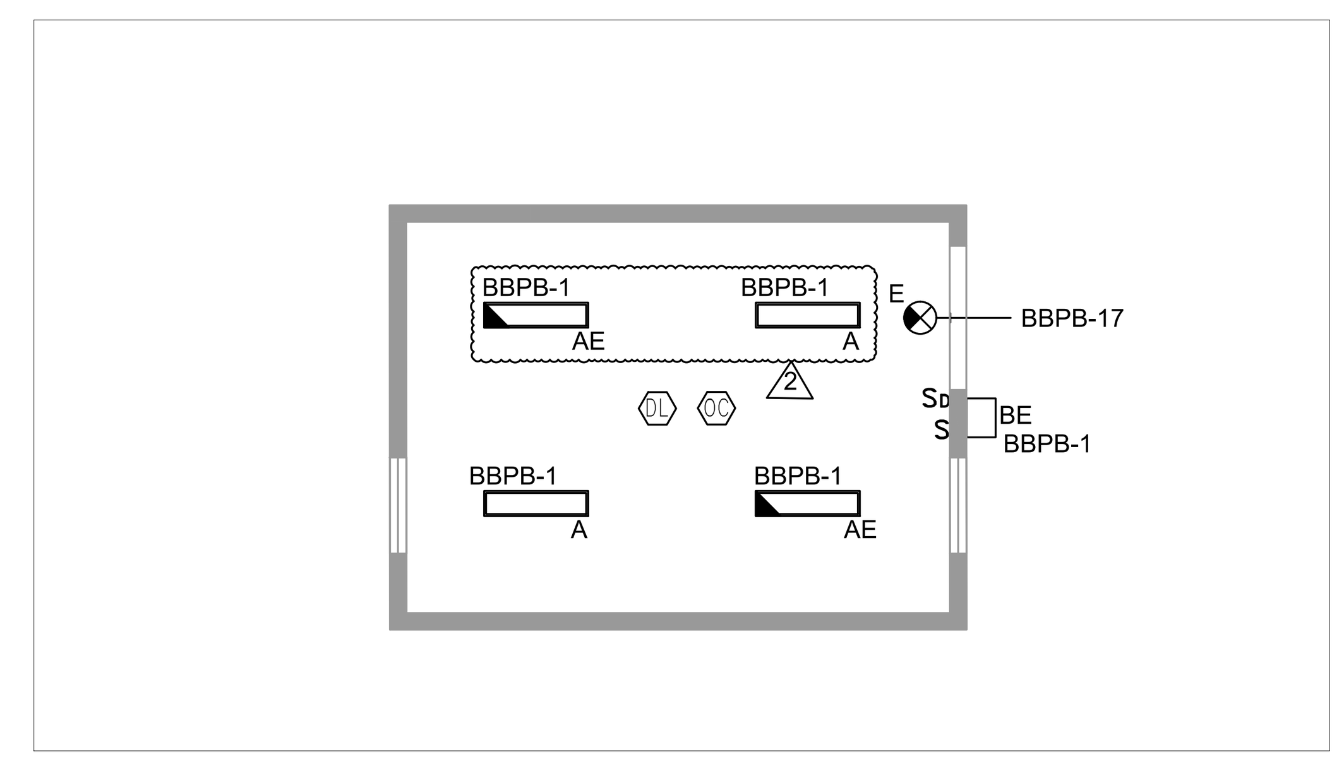
1 SOFTBALL PRESSBOX FLOOR INSTALLATION PLAN
SCALE: 1/4" = 1' 0"



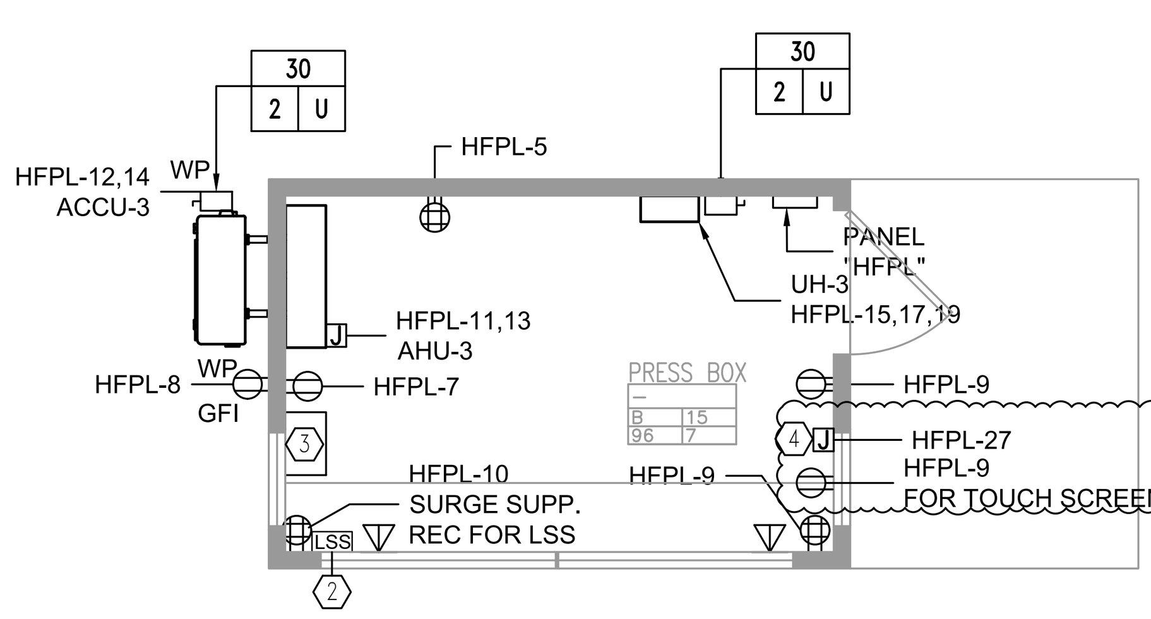
2 SOFTBALL PRESSBOX LIGHTING INSTALLATION PLAN
SCALE: 1/4" = 1' 0"



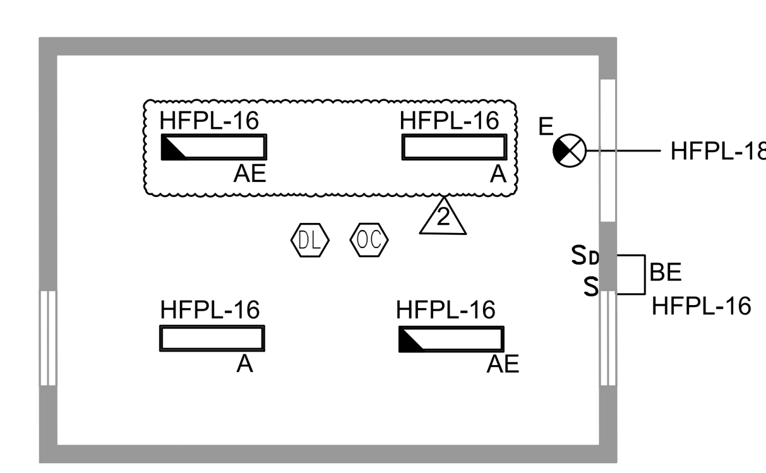
3 BASEBALL PRESSBOX FLOOR INSTALLATION PLAN
SCALE: 1/4" = 1' 0"



4 BASEBALL PRESSBOX LIGHTING INSTALLATION PLAN
SCALE: 1/4" = 1' 0"



5 HOCKEY FIELD PRESSBOX FLOOR INSTALLATION PLAN
SCALE: 1/4" = 1' 0"



6 HOCKEY FIELD PRESSBOX LIGHTING INSTALLATION PLAN
SCALE: 1/4" = 1' 0"

PLAN NOTES:

1. ALL ELECTRICAL EQUIPMENTS INSIDE THE PRESS BOXES WILL BE PREFABRICATED EXCEPT THE EQUIPMENTS RELATED TO DATA.
2. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS AND DISRUPTIONS TO NORMAL SERVICES WITH SBU, ALL OTHER TRADES AND THE FACILITY.
3. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DISRUPTION AND POWER OUTAGES.
4. MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY CONSTRUCTION WORK.
5. CONTRACTOR IS TO TRACE AND PROTECT ALL FEEDER & BRANCH CIRCUITS FOR ALL AREAS OF THE SITE AND ALL OTHER ELECTRICAL EQUIPMENT DURING DEMOLITION/CONSTRUCTION. ELECTRICAL CONTRACTOR IS REQUIRED TO COORDINATE THIS REQUIREMENT WITH THE GENERAL CONTRACTOR AND ALL OTHER TRADES.
6. ROUTING OF ELECTRICAL CONDUITS IF SHOWN IN THE DRAWINGS ARE TENTATIVE, THE CONTRACTOR IS RESPONSIBLE TO FINALIZE THE ROUTING OF ALL ELECTRICAL CONDUITS AT FIELD IN COORDINATION WITH ALL OTHER TRADES, EXISTING AND NEW BUILDING ELEMENTS, STRUCTURES, PIPES, EQUIPMENT, LANDSCAPING ETC., FOR CODE COMPLIANT INSTALLATION.
7. ALL ELECTRIC SERVICES AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS & THE NATIONAL ELECTRIC CODE (NEC).
8. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CODE COMPLIANT GROUNDING OF THE CIRCUITS, EQUIPMENT AND CONDUITS AS PER NEC AND SPECIFICATION.
9. ALL UNDERGROUND CONDUITS SHALL BE PVC/RGC AND RUN 24" BELOW GRADE UNLESS OTHERWISE INDICATED.
10. ALL SPARE CONDUITS SHALL BE INSTALLED WITH DRAG LINES.
11. COORDINATE WITH LANDSCAPE ARCHITECT AND ARCHITECTURAL DRAWINGS FOR SURFACE RESTORATION AND RESURFACING WORK.
12. THE CONTRACTOR SHALL PROVIDE MAGNETIC WARNING TAPE FOR EACH UNDERGROUND DUCT BANK/CONDUIT.
13. THE CONTRACTOR IS REQUIRED TO USE POLYWATER AFT-AEROSOL FOAM SEALANT OR EQUIVALENT TO SEAL BOTH ENDS OF SERVICE CONDUITS TO FILL THE GAP BETWEEN CABLES AND CONDUIT IN ORDER TO PREVENT ANY WATER PENETRATION THROUGH CONDUITS TO THE ELECTRICAL EQUIPMENT INSIDE THE BUILDING. THE CONDUIT OPENINGS (GAP BETWEEN CABLES AND CONDUIT) SHALL BE SEALED DEEP ENOUGH TO CONFIRM THAT NO WATER INFILTRATION IS TAKING PLACE.
14. ROUTING OF CONDUITS SHALL BE AS PER LANDSCAPE ARCHITECTS DRAWINGS
15. ALL CONDUITS PASSING THROUGH ROADWAYS SHALL BE ENCASED IN MINIMUM 2" THICK CONCRETE.

KEYED NOTES:

1. FURNISH & INSTALL A COMPLETE SOUND SYS. SERVING THE ATHLETIC FIELD BY COMMUNITY (MODEL #ALC-3202D) IN A RACK. REFER TO DETAIL DRAWINGS. RACK BY MIDDLE ATLANTIC OR EQUAL. SIZE OF RACK SHALL BE SUFFICIENT TO HOUSE EQUIPMENT. PROVIDE MIN. OF 2 WIRED MICS & 2 WIRELESS MICS. FOR SPEAKER LOCATIONS REFER TO FIELD DWGS.
2. FURNISH & INSTALL A COMPLETE SOUND SYS. SERVING THE ATHLETIC FIELD BY COMMUNITY (MODEL #ALC-1604D) IN A RACK. REFER TO DETAIL DRAWINGS. RACK BY MIDDLE ATLANTIC OR EQUAL. SIZE OF RACK SHALL BE SUFFICIENT TO HOUSE EQUIPMENT. PROVIDE MIN. OF 2 WIRED MICS & 2 WIRELESS MICS. FOR SPEAKER LOCATIONS REFER TO FIELD DWGS.
3. DATA EQUIP. BY DISTRICT IT AND NETWORK GROUP.
4. SHOW-LIGHT TOUCHSCREEN AND TOUCHSCREEN COMMUNICATIONS CABINET.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by: AWF
Checked by: SH
Project No.: 43045
Scale: AS NOTED
Date: 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP
LANDSCAPE ARCHITECTURE & ENGINEERING
40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

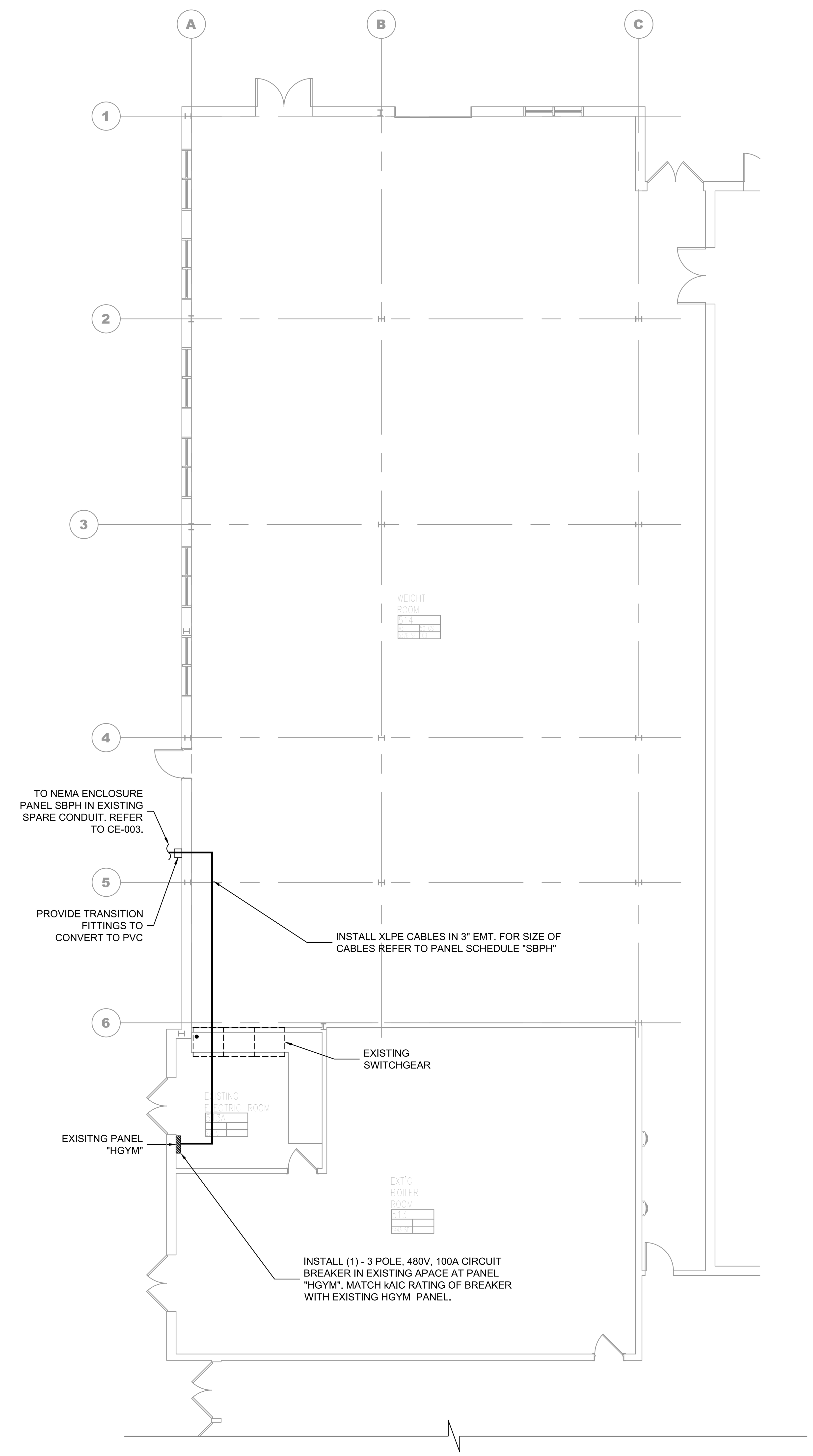
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: ELECTRICAL PRESS BOX PLANS

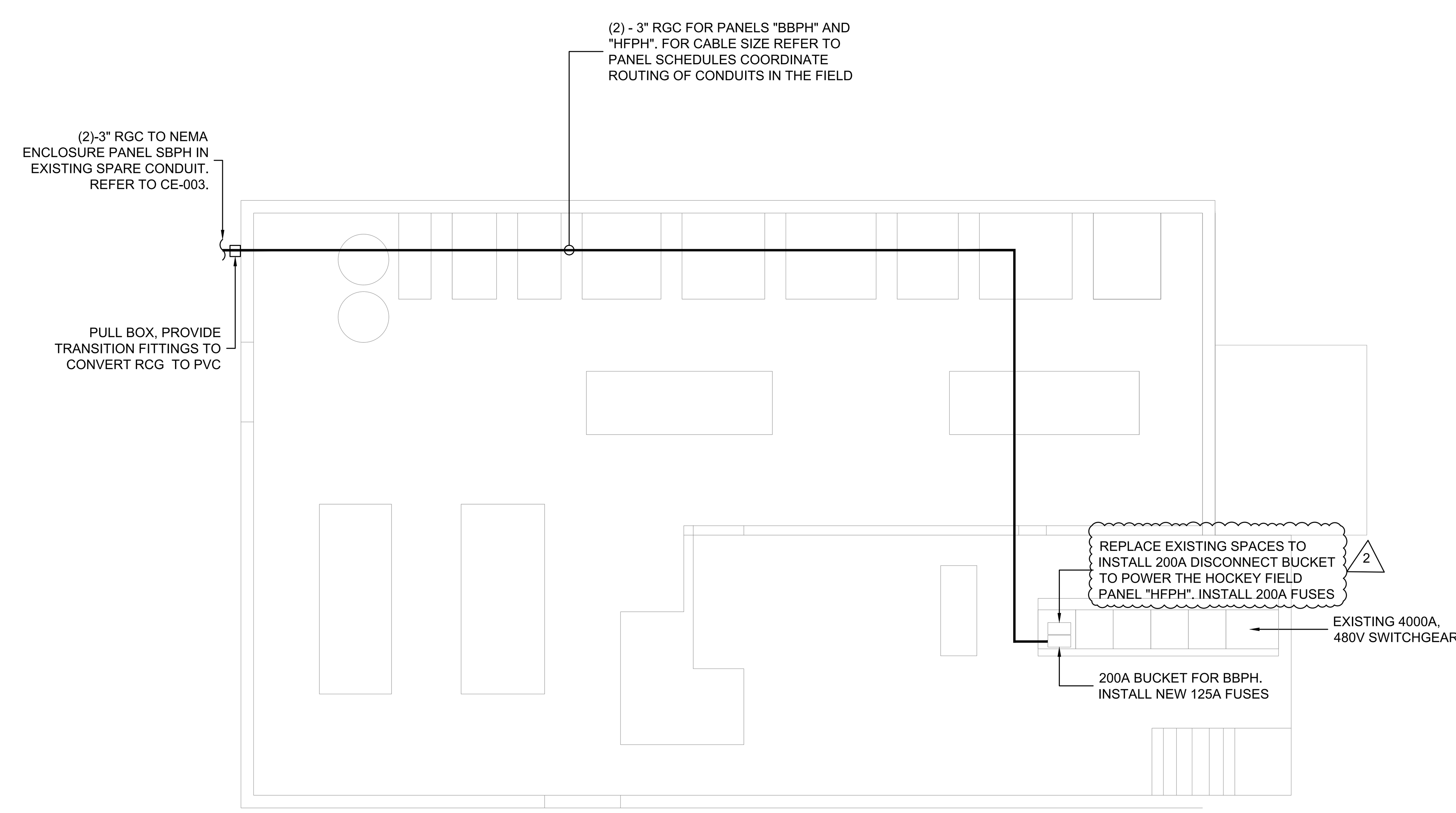
Drawing No. CE-106

PLAN NOTES:

1. REFER TO ADDITIONAL INSTALLATION NOTES ON DRAWING CE-001.
2. ALL NEW BRANCH CIRCUIT SHALL BE RUN WITH MINIMUM OF 2#12+1#12G IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. FOR LIGHTING AND POWER BRANCH CIRCUIT, MC CABLE SHALL BE INSTALLED FOR RECESSED INSTALLATION ONLY, EITHER IN NEW WALLS OR ABOVE HUNG CEILING WHERE POSSIBLE. REFER TO PANEL SCHEDULES IN DRAWING E-201 FOR ALL OTHER FEEDER AND BRANCH CIRCUIT SIZE INFORMATION.
3. PROVIDE LABELS ON ALL ELECTRICAL EQUIPMENT INDICATING CIRCUIT ORIGINATION.
4. UPDATE ALL EXISTING PANEL DIRECTORIES AFFECTED BY NEW WORK.
5. CONTRACTOR SHALL PERFORM AMP PROBE READINGS ON EXISTING SERVICE EQUIPMENT BEFORE AND AFTER WORK TO ENSURE EQUIPMENT WILL NOT BE LOADED BEYOND ITS MAX AMPACITY.
6. CONTRACTOR SHALL MAINTAIN CONTINUITY TO ALL EXISTING CIRCUITRY TO REMAIN WHICH ARE AFFECTED BY THE SCOPE OF WORK; CONTRACTOR SHALL FURNISH ALL NECESSARY JUNCTION BOXES, CONDUIT, AND WIRES AS REQUIRED TO KEEP CONTINUITY.
7. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS TO MATCH EXISTING FIRE RATING WHERE APPLICABLE. ALL CORE DRILLS SHALL BE VERIFIED BY BUILDING REPRESENTATIVE PRIOR TO COMMENCING WORK. X-RAY ALL FLOOR SLABS PRIOR TO ROUGH-INS FOR CORE DRILL WORK.
8. THE CONTRACTOR SHALL FIELD ROUTE FEEDER FOR NEW POWER PANELS. COORDINATE EXACT ROUTING PATH WITH OWNER. SUBMIT A PROPOSED ROUTING PATH TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO RUNNING ANY CONDUIT OR WIRE ASSOCIATED WITH THIS FEEDER.
9. ALL GROUNDING SHALL BE PROVIDED BY THE CONTRACTOR AS PER NEC 2017.



1 ANNEX BUILDING ELECTRICAL ROOM INSTALLATION PART PLAN
SCALE: 1/8"=1'-0"



2 MAIN BUILDING ELECTRICAL ROOM INSTALLATION PART PLAN
SCALE: N.T.S.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by	AWF
Checked by	SH
Project No.	43045
Scale	AS NOTED
Date	10/23/24

Landscape Architect & Civil Engineer:	THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866
Structural & PME Engineer:	GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001

106 Hammond Rd,
Thiells, NY 10984

TOWN OF HAVERSTRAW
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL MAIN & ANNEX BUILDING INSTALLATION PART PLANS

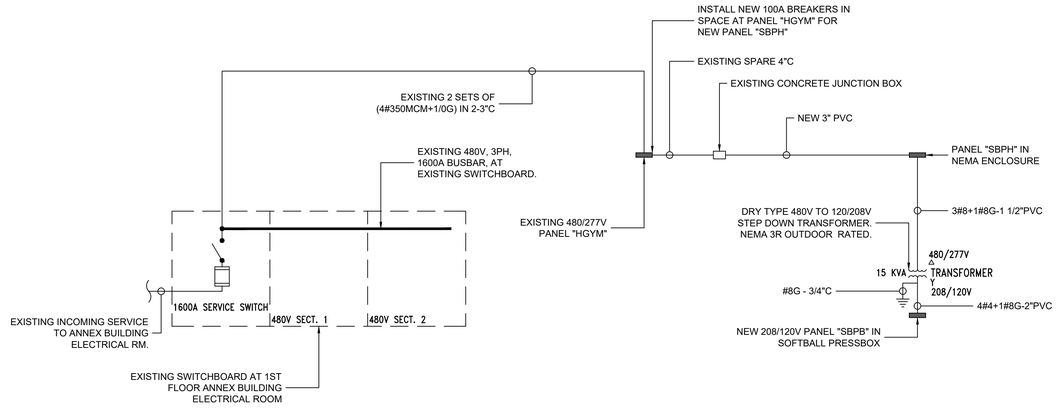
Drawing No.
CE-401

NOTES:

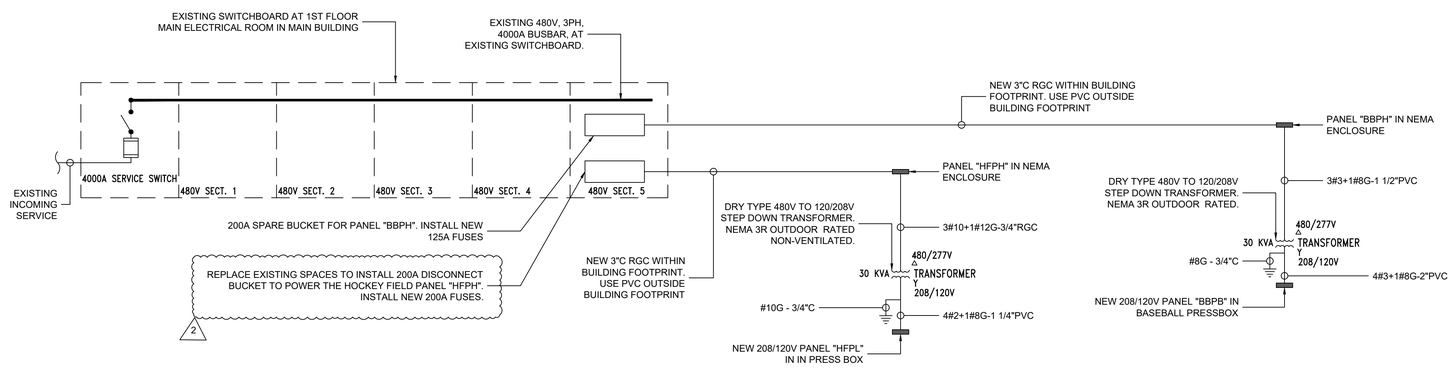
1. ALL CIRCUITS AND FUSE CUTOUTS ARE THREE (3) POLE U.O.I.
2. FUSE RATING IN AMPS ARE DENOTED BY THE LETTERS "AF" SWITCH FRAME RATING IN AMPS ARE DENOTED BY THE LETTERS "AS" AND FRAME RATING IN AMPS ARE DENOTED BY THE LETTERS "AF" CIRCUIT BREAKER TRIP RATING IN AMPS ARE DENOTED BY THE LETTERS "AT".
3. FOR FEEDER SIZE TO PANELS AND DISTRIBUTION BOARDS REFER TO CE-403 AND CE-404 SERIES DWGS.
4. ALL LIVE PARTS MIN 12" OFF FINISHED FLOOR.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTING WITH OTHER TRADES, ONCE COORDINATION IS COMPLETED; CONTRACTOR SHALL SUBMIT SHOP DRAWING OF ALL CONDUIT ROUTING FOR ALL SWITCHGEAR, DISTRIBUTION BOARD, PANEL ETC. PRIOR TO ANY INSTALLATION TO EOR FOR REVIEW AND APPROVAL.
6. ELECTRICAL CONTRACTOR MUST COORDINATE WITH O&R THE AVAILABLE SHORT CIRCUIT CURRENT, PRIOR TO SUBMITTING TO EOR FOR APPROVAL.
7. ELECTRICAL CONTRACTOR TO PROVIDE WARNING SIGN (AS PER NEC 700.7(B)) "WARNING SHOCK HAZARD EXIST IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED".
8. ALL PANEL BOARD SHALL BE PROVIDED WITH 25% SPARE CIRCUIT BREAKERS.

ABBREVIATIONS	
MDB	MAIN DISTRIBUTION BOARD
SWBD	SWITCHBOARD
SSW	SERVICE SWITCH
SEC	SECTION
CT	CURRENT TRANSFORMER
HDB	HVAC DISTRIBUTION BOARD
AS	AMPERE SWITCH
AF	AMPERE FUSE
SW	SWITCH
FOR ALL OTHER ABBREVIATIONS REFER DWG CE001	

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE



1 ELECTRICAL PARTIAL POWER RISER FOR SERVICES FROM ANNEX BUILDING
SCALE: NTS



2 ELECTRICAL PARTIAL POWER RISER FOR SERVICES FROM MAIN BUILDING
SCALE: NTS

No.	Date	Revisions
2	10/23/24	REV.2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

THE LA GROUP
LANDSCAPE ARCHITECTURE & ENGINEERING, PLLC
45 LONG ALLEY,
SARATOGA SPRINGS, NY 12866
Landscape Architect & Civil Engineer:

GREENMAN PEDERSEN, INC
18 COMPUTER DRIVE WEST
SUITE 202, ALBANY, NY 12205
Structural & PME Engineer:

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL: SBPH 60-02-01-06-0-016-026
PRESS BOX – SOFTBALL: SBPB 60-02-01-06-7-001-001
PRESS BOX – BASEBALL: SBPH 60-02-01-06-7-001-001
100 Hammond Rd.
Thiells, NY 10984
TOWN OF HAVERSTRAW
COUNTY OF ROCKLAND

MSA
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel (845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL PARTIAL ONE LINE DIAGRAMS

Drawing No.
CE-402

PANEL SCHEDULE NOTES:

1. PANEL BOARDS SHALL INCLUDE ALL APPLICABLE UL AND PRODUCT SAFETY LABELS AS REQUIRED BY NEMA PB1 AND UL LISTED STANDARDS.
2. ALL PRODUCTS WHICH ARE NOT VERIFIABLE TO BE UL LISTED WILL NOT BE ACCEPTED
3. ALL EXISTING CIRCUITS TO REMAIN SHALL BE DISCONNECTED FROM EXISTING PANEL, EXTENDED AND RECONNECTED TO NEW PANEL.

PANEL SCHEDULE

PANEL NAME:	SBPH	LOCATION:	SOFT BALL NEMA ENCLOSURE	MOUNTING:	SURFACE
VOLTAGE/PHASE:	277/480V, 3 Phase, 4W & G	PANEL (AMP)	100A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#2/0+1#4G IN 3"C PVC SCH 80	FEEDING SOURCE:	HGYM
MAIN BREAKER TYPE	MCCB	MAIN BREAKER RATING (A):	100A	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
POLE A3	3#8+1#10G - 1 1/2"C PVC SCH 40	30	1	2153 / 2153			2	30	3#8+1#10G - 1 1/2"C PVC SCH 40	POLE A4
			3		2153 / 2153		4			
			5			2153 / 2153	6			
POLE B3	3#8+1#10G - 1 1/2"C PVC SCH 40	30	7	2660 / 2660			8	30	3#8+1#10G - 1 1/2"C PVC SCH 40	POLE B4
			9		2660 / 2660		10			
			11			2660 / 2660	12			
CONTROL VTG TRANSFORMER	2#12+1#12G - 3/4"RGC	20	13	500			14	20		SPARE
SPARE		20	15				16	20	2#10+1#12G - 1"PVC	PARKING LOT LIGHTS
FLAG POLE LIGHTING	2#10+1#12G - 1"C PVC SCH 40	20	17			400 / 4500	18	30	3#8+1#10 - 1"C	INFRARED HEATERS @ DUGOUT
PANEL SBPB- PRESS BOX SOFTBALL FIELD TRANSFORMER	3#8+1#10G - 1 1/2"C	25	19	4000 / 4500			20			
			21		4000 / 4500		22	30	3#8+1#10 - 1"C	INFRARED HEATER @ DUGOUT
			23			4000 / 4500	24			
INFRARED HEATER @ DUGOUT	3#8+1#10 - 1"C	30	25	4500			26	20	2#12+1#12G - 3/4"RGC	FIELD SCONE LIGHTS
			27		4500		28	20	2#12+1#12G - 3/4"RGC	FIELD SCONE LIGHTS
INFRARED HEATER @ DUGOUT	3#8+1#10 - 1"C	20	29			3000	30	20		SPARE
			31	3000			32	20		SPARE
SPARE		20	33				34	20		SPARE
SPARE		20	35				36	20		SPARE
SPARE		20	37				38	20		SPARE
SPARE		20	39				40	20		SPARE
SPARE		20	41				42	20		SPARE
CONNECTED LOAD PER PHASE IN VA				26126	22626	26026	PANEL TYPE: NEMA 1 MOUNTING: SURFACE			
TOTAL CONNECTED LOAD IN KVA				74.778			COPPER BUS, EQUIP. GROUND BAR, & CLASS B SURGE PROTECTOR			
TOTAL DEMAND LOAD IN AMPS				89.95			DOOR: INDOOR TYPE			

PANEL SCHEDULE

PANEL NAME:	SBPB	LOCATION:	SOFT BALL PRESSBOX	MOUNTING:	SURFACE
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	100 A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#4+1#8G - 2"PVC	FEEDING SOURCE:	15kVA TRANSFORMER
MAIN BREAKER TYPE	MCCB	MAIN BREAKER RATING (A):	50 A	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
SOFT BALL PRESS BOX LTG	2#12+1#12G - 3/4"C	20	1	200 / 500			2	20	2#12+1#12G - 3/4"C	SOFT BALL LSS
RECEPTACLES @ PRESS BOX	2#12+1#12G - 3/4"C	20	3		760 / 720		4	20	2#12+1#12G - 3/4"C	RECEPTACLES @ PRESS BOX
QUAD @ PRESS BOX FOR DATA	2#12+1#12G - 3/4"C	20	5			720 / 1320	6	20	2#12+1#12G - 3/4"C	ACCU-1
AHU-1	2#12+1#12G - 3/4"C	20	7	208 / 1320			8			
			9		208 / 540		10	20	2#12+1#12G - 3/4"C	GRAND STAND RECEPTACLES
GRAND STAND RECEPTACLES	2#12+1#12G - 3/4"C	20	11			540 / 200	12	20	2#10+1#12G-2"PVC	SOFTBALL DUGOUT LIGHTING
SOFTBALL DUGOUT RECEPTACLES	2#12+1#12G - 2"PVC	20	13	540 / 200			14	20	2#10+1#12G-2"PVC	SOFTBALL DUGOUT LIGHTING
SOFTBALL DUGOUT RECEPTACLES	2#12+1#12G - 2"PVC	20	15		720 / 360		16	20	2#10+1#12G-1"PVC	INVERTER FOR MUSO EGRESS LTG
EXIT LIGHT	2#12+1#12G - 3/4"C	20	17			5 / 360	18			
GRAND STAND LIGHTING	2#12+1#12G - 3/4"C	20	19	600 / 360			20			
SOFT BALL SCORE BOARD CKT 1	2#10+1#12G-2"PVC	20	21		500 / 500		22	20	2#10+1#12G-2"PVC	BASE BALL SCORE BOARD CKT 1
SOFT BALL SCORE BOARD 1 CKT 2	2#10+1#12G-2"PVC	20	23			200 / 200	24	20	2#10+1#12G-2"PVC	BASE BALL SCORE BOARD CKT 2
SOFTBALL DUGOUT LIFT	2#10+1#12G-1"PVC	20	25	250			26	30	2#10+1#12G-2"PVC	GATE @ PARKING LOT
SPARE		20	27				28	20		SPARE
SCORE BOARD RECEPTACLE	2#10+1#12G-2"PVC	20	29			180 / 250	30	20	2#10+1#12G-2"PVC	SOFTBALL DUGOUT LIFT
UH-1	2#12+1#12G - 3/4" C	20	31	1667 / 608			32	20	2#12+1#12G - 3/4"C	GRAND STAND UPLIGHTS
			33		1667 / 500		34	20	2#12+1#12G -PVC	MUSCO COMMUNICATION CABINET
			35			1667	36	20		SPARE
SPARE		20	37				38	20		SPARE
SPARE		20	39				40	20		SPARE
SPARE		20	41				42	20		SPARE
CONNECTED LOAD PER PHASE IN VA				6453	6475	5642	PANEL TYPE: NEMA 1 MOUNTING: SURFACE			
TOTAL CONNECTED LOAD IN KVA				18.57			COPPER BUS, EQUIP. GROUND BAR, & CLASS B SURGE PROTECTOR			
TOTAL LOAD IN AMPS				51.55			DOOR: INDOOR TYPE			

PANEL SCHEDULE

PANEL NAME:	BBPH	LOCATION:	BASEBALL NEMA ENCLOSURE	MOUNTING:	SURFACE
VOLTAGE/PHASE:	277/480V, 3 Phase, 4W & G	PANEL (AMP)	200A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#4/0+1#2G IN 3"C PVC SCH 80	FEEDING SOURCE:	200A DISCONNECT IN MAIN ELECTRICAL ROOM
MAIN BREAKER TYPE	MCCB	MAIN BREAKER RATING (A):	150A	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
POLE A1	3#8+1#10G - 1 1/2"C PVC SCH 40	20	1	2660 / 2660			2	20	3#8+1#10G - 1 1/2"C PVC SCH 40	POLE A2
			3		2660 / 2660		4			
			5			2660 / 2660	6			
POLE B1	3#8+1#10G - 1 1/2"C PVC SCH 40	30	7	4552 / 4552			8	30	3#8+1#10G - 1 1/2"C PVC SCH 40	POLE B2
			9		4552 / 4552		10			
			11			4552 / 4552	12			
CONTROL VTG TRANSFORMER	2#12+1#12G - 3/4"RGC	20	13	500			14	20		SPARE
SPARE		20	15		3000		16	20	3#8+1#10 - 1"C	INFRARED HEATERS @ DUGOUT
SPARE		20	17			3000	18			
PANEL BBPB- PRESS BOX BASEBALL FIELD TRANSFORMER	3#3+1#8G - 1 1/2"C	100	19	6135 / 4500			20	30	3#8+1#10 - 1"C	INFRARED HEATER @ DUGOUT
			21		4975 / 4500		22			
			23			5420	24	20		SPARE
POLE C1	3#8+1#10G - 1 1/2"C PVC SCH 40	20	25	3831 / 3831			26	20	3#8+1#10G - 1 1/2"C PVC SCH 40	POLE C2
			27		3831 / 3831		28			
			29			3831 / 3831	30			
INFRARED HEATER @ DUGOUT	3#10+1#10 - 1"C	30	31	4500 / 4500			32	30	3#10+1#10 - 1"C	INFRARED HEATER @ DUGOUT
			33		4500 / 4500		34			
SITE LIGHTING		20	35			324	36	20	2#12+1#12G - 3/4"RGC	FIELD SCONE LIGHTS
FIELD SCONE LIGHTS	2#12+1#12G - 3/4"RGC	20	37				38	20	2#12+1#12G - 3/4"RGC	FIELD SCONE LIGHTS
SPARE		20	39				40	20		SPARE
SPARE		20	41				42	20		SPARE
CONNECTED LOAD PER PHASE IN VA				42221	43561	30830	PANEL TYPE: NEMA 1 MOUNTING: SURFACE			
TOTAL CONNECTED LOAD IN KVA				116.612			COPPER BUS, EQUIP. GROUND BAR, & CLASS B SURGE PROTECTOR			
TOTAL DEMAND LOAD IN AMPS				140.27			DOOR: INDOOR TYPE			

PANEL SCHEDULE

PANEL NAME:	BBPB	LOCATION:	BASE BALL PRESBBOX	MOUNTING:	SURFACE
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	100 A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#3+1#8G - 2"PVC	FEEDING SOURCE:	BASE BALL TRANSFORMER
MAIN BREAKER TYPE	MCB	MAIN BREAKER RATING (A):	100A	BRANCH C.B TYPE	MCCB (BOLT ON)

Load Designation	Wiring	C/B (A)	CT NO	AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
BASE BALL PRESS BOX LTG	2#12+1#12G - 3/4"C	20	1	200 / 500			2	20	2#12+1#12G - 3/4"C	BASE BALL LSS
RECEPTACLES @ PRESS BOX	2#12+1#12G - 3/4"C	20	3		760 / 720		4	20	2#12+1#12G - 3/4"C	RECEPTACLES @ PRESS BOX
QUAD @ PRESS BOX FOR DATA	2#12+1#12G - 3/4"C	20	5			720 / 1320	6	20	2#12+1#12G - 3/4"C	ACCU-2
AHU-2	2#12+1#12G - 3/4"C	20	7	208 / 1320			8			
			9		208 / 540		10	20	2#12+1#12G - 3/4"C	GRAND STAND RECEPTACLES
GRAND STAND RECEPTACLES	2#12+1#12G - 3/4"C	20	11			540 / 200	12	20	2#10+1#12G-2"PVC	BASEBALL DUGOUT LIGHTING
BASEBALL DUGOUT RECEPTACLES	2#12+1#12G - 2"PVC	20	13	540 / 200			14	20	2#10+1#12G-2"PVC	BASEBALL DUGOUT LIGHTING
BASEBALL DUGOUT RECEPTACLES	2#12+1#12G - 2"PVC	20	15		720 / 360		16	20	2#10+1#12G-1"PVC	INVERTER FOR MUSO EGRESS LTG
EXIT LIGHT	2#12+1#12G - 3/4"C	20	17			5 / 360	18			
GRAND STAND LIGHTING	2#12+1#12G - 3/4"C	20	19	600 / 360			20			
BASEBALL DUGOUT LIFT	2#10+1#12G-1"PVC	20	21				22	20	2#10+1#12G-1"PVC	BASEBALL DUGOUT LIFT
UH-2	2#12+1#12G - 3/4" C	20	23			1667 / 608	24	20	2#12+1#12G - 3/4"C	GRAND STAND UPLIGHTS
			25	1667 / 540			26	20	2#10+1#10G - 3/4"C	LIGHT POLE RECEPTACLE
			27		1667		28	20	2#10+1#10G - 3/4"C	LIGHT POLE RECEPTACLE
MUSCO COMMUNICATION CABINET	2#12+1#12G -PVC	20	29			500	30	20		SPARE
SPARE		20	31				32	20		SPARE
SPARE		20	33				34	20		SPARE
SPARE		20	35				36	20		SPARE
SPARE		20	37				38	20		SPARE
SPARE		20	39				40	20		SPARE
SPARE		20	41				42	20		SPARE
CONNECTED LOAD PER PHASE IN VA				6135	4975	5920	PANEL TYPE: NEMA 1 MOUNTING: SURFACE			
TOTAL CONNECTED LOAD IN KVA				17.03			COPPER BUS, EQUIP. GROUND BAR, & CLASS B SURGE PROTECTOR			
TOTAL LOAD IN AMPS				47.27			DOOR: INDOOR TYPE			

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by: AWF
Checked by: SH
Project No.: 43045
Scale: AS NOTED
Date: 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP
LANDSCAPE ARCHITECTURE & ENGINEERING
40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001
106 Hammond Rd. Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: ELECTRICAL LIGHTING FIXTURE AND PANEL SCHEDULES

Drawing No. CE-403

PARKING LOT LIGHTING FIXTURE SCHEDULE							
TYPE	WATT	VOLT	TYPE COMMENTS	MOUNTING	LAMPS	MANUFACTURER CATALOG NUMBER	REMARKS
A	12 W	277 V	PRESS BOX	SURFACE	LED	NICHE-2NS-FL-2-LO-UNV-3500K-90-SD-SM-WT	SURFACE MOUNTED FIXTURE FOR PRESS BOX
AE	12 W	277 V	PRESS BOX	SURFACE	LED	NICHE-2NS-FL-2-LO-UNV-3500K-90-SD-SM-EM-WT	SURFACE MOUNTED FIXTURE FOR PRESS BOX WITH INTEGRAL BATTERY BACK UP.
BE	29 W	277 V	PRESS BOX	WALL	LED	121-16L-200-NW-G4-2-EBPC-UNV-BK	LED WALL SCONCE FOR PRESS BOX
C	24 W	277 V	DUGOUT	SURFACE	LED	NICHE-2NS-FL-4-LO-UNV-3500K-90-SD-SM-WT	1X4 SURFACE MOUNTED FIXTURE FOR DUGOUT
DE	42 W	277 V	GRANDSTAND	SURFACE	LED	NICHE-2NS-FL-4-HO-UNV-3500K-90-SD-SM-EM-WT	1X4 SURFACE MOUNTED FIXTURE FOR GRANDSTAND WITH INTEGRAL BATTERY BACK UP.
E	5 W	277 V	PRESSBOX	CLG/WALL	LED	ELX-604-R-AL-1-CLEAR	EXIT LIGHT
G	34 W	277 V	DUGOUT	SURFACE	LED	24MMS-L3C3-UNV	
UL	152 W	277 V	GRANDSTAND		LED	S172-H-24-S-XX-00-RGB-DM	FIXTURE FINISH TO BE COORDINATED W/ ARCHITECT
S	25 W	277 V	SOFTBALL & BASEBALL		LED	GWS-A03-840-T4M-277-FAWS-BK	

PARKING LOT LIGHTING FIXTURE SCHEDULE							
TYPE	WATT	VOLT	TYPE COMMENTS	MOUNTING	LAMPS	MANUFACTURER CATALOG NUMBER	REMARKS
P	108W	277 V	MOUNTED BACK TO BACK ON 18' POLE	POLE	LED	LDS-SAL-110-DB-T5-1-40 BACK TO BACK	DOUBLE HEAD ON 20' POLE. TYPE 5. FURNISH & INSTALL POLE SIMILAR TO EXIST. PARKING LOT LIGHT INSTALLED ON SITE
S	108W	277 V	SITE LIGHTING MOUNTED ON 25' POLE	POLE	LED	CIRLY-32-4-70-T2-(120-277)-TP-BLK-LNSHLD	TYPE 2 DISTRIBUTION. VERIFY LENS SHIELDING WITH PHOTOMETRICS
B	108W	277 V	BOLLARD LIGHTING	BOLLARD	LED	SELUX	

PANEL SCHEDULE

PANEL NAME:	HFPH	LOCATION:	HOCKEY FIELD NEMA ENCLOSURE	MOUNTING:	SURFACE
VOLTAGE/PHASE:	277/480V, 3 Phase, 4W & G	PANEL (AMP)	200A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#350MCM+1#1/0G IN 3"C PVC SCH 80	FEEDING SOURCE:	200A DISCONNECT IN MAIN ELECTRICAL ROOM
MAIN BREAKER TYPE	MCCB	MAIN BREAKER RATING (A):	200A	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
S1	3#8+1#10G - 1 1/2"C PVC SCH 40	20	1	4354 / 4354			2	20	3#8+1#10G - 1 1/2"C PVC SCH 40	S2
			3		4354 / 4354		4			
			5			4354 / 4354	6			
S3	3#8+1#10G - 1 1/2"C PVC SCH 40	20	7	4354 / 4354			8	20	3#8+1#10G - 1 1/2"C PVC SCH 40	S4
			9		4354 / 4354		10			
			11			4354 / 4354	12			
SPARE		20	13				14	20		SPARE
PARKING LOT LIGHTING	2#10+1#12G - 1"PVC	20	15		1500 / 300		16	30	4#6+1#10G-1 1/2"PVC	SITE LIGHTING
FLAG POLE LIGHTING	2#10+1#12G - 1"C PVC SCH 40	20	17			400 / 300	18			
30 KVA STEP DOWN TRANSFORMER FOR HFPL	3#10+1#12G - 3/4"RGC (2)	60	19	5195 / 300			20			
			21		5067 / 1000		22	20	2#4+1#8 - 1"C	BOLLARD LIGHTS
			23			6165 / 1000	24	20	2#4+1#8 - 1"C	BOLLARD LIGHTS
BOLLARD LIGHTS @ PARKING	2#12+1#12 - 3/4"C	20	25	800			26	20		SPARE
BOLLARD LIGHTS @ PARKING	2#12+1#12 - 3/4"C	20	27		800		28	20		SPARE
BOLLARD LIGHTS	2#4+1#8 - 1"C	20	29			1000	30	20		SPARE
CONNECTED LOAD PER PHASE IN VA				23711	26083	26281	PANEL TYPE: NEMA 1 MOUNTING: SURFACE COPPER BUS, EQUIP. GROUND BAR, & CLASS B SURGE PROTECTOR DOOR: INDOOR TYPE			
TOTAL CONNECTED LOAD IN KVA				76.075						
TOTAL DEMAND LOAD IN AMPS				91.51						

PANEL SCHEDULE

PANEL NAME:	HFPL	LOCATION:	HOCKEY FIELD PRESS BOX	MOUNTING:	SURFACE
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	100 A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#2+1#8G-1 1/4"PVC	FEEDING SOURCE:	TRANSFORMER IN NEMA ENCLOSURE
MAIN BREAKER TYPE	MCCB	MAIN BREAKER RATING (A):	60 A	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
HOCKEY FIELD CKT 1	2#10+1#12G-2"PVC	15	1	500 / 180			2	15	2#10+1#12G - PVC	SCORE BD OUTLET
HOCKEY FIELD CKT 2	2#10+1#12G-2"PVC	15	3		200 / 720		4	15	2#12+1#12G - PVC	SHOT CLOCK AND OUTLET
OUTLET	2#12+1#12G - 1" PVC	15	5			180 / 250	6	15	2#12+1#12G - PVC	MUSCO CONTROL CABINET
RECEPTACLES @ PRESS BOX	2#12+1#12G - 3/4" C	20	7	240 / 180			8	20	2#12+1#12G - 3/4" C	RECEPTACLES @ PRESS BOX
RECEPTACLES @ PRESS BOX	2#12+1#12G - 3/4" C	20	9		720 / 360		10	20	2#12+1#12G - 3/4" C	RECEPTACLES @ PRESS BOX
AHU-3	2#12+1#12G - 3/4" C	20	11			208 / 1320	12	20	2#12+1#12G - 3/4" C	ACCU-3
			13	208 / 1320			14			
UH-3	2#12+1#12G - 3/4" C	20	15		1667 /		16	20	2#12+1#12G - 3/4" C	HOCKEY FIELD PRESS BOX LGT
			17			1667 /	18	20	2#12+1#12G - 3/4" C	HOCKEY FIELD PRESS BOX LGT
			19	1667 / 540			20	20	2#12+1#12G - 3/4" C	RECEPTACLES @ TEAM AREA
RECEPTACLE @ TEMPORARY TOILET TRAILER	2#3+1#6G - 2"C	20	21		180 / 720		22	15	2#12+1#12G - 3/4" PVC	SHOT CLOCK AND OUTLET
FUTURE GATE @ EAST LAKE DR.	2#1+1#6 - 2"C	20	23			2000 / 540	24	20	2#10+1#10G - 3/4"C	LIGHT POLE RECEPTACLE
GATE @ PARKING LOT	2#10+1#12G-2"PVC	30	25	/ 360			26	20	2#10+1#10G - 3/4"C	LIGHT POLE RECEPTACLE
MUSCO COMMUNICATION CABINET (2)	2#12+1#12G -PVC	20	27		500 /		28	20	2#10+1#10G - 3/4"C	LIGHT POLE RECEPTACLE
SPARE		20	29				30	20		SPARE
CONNECTED LOAD PER PHASE IN VA				5195	5067	6165	PANEL TYPE: NEMA 1 MOUNTING: SURFACE COPPER BUS, EQUIP. GROUND BAR, & CLASS B SURGE PROTECTOR DOOR: INDOOR TYPE			
TOTAL CONNECTED LOAD IN KVA				16.427						
TOTAL LOAD IN AMPS				45.60						

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP

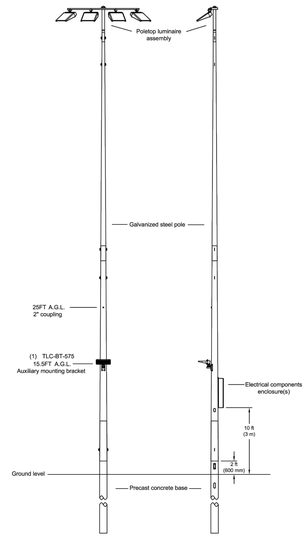
Structural & PME Engineer: GREENMAN PEDERSEN, INC

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

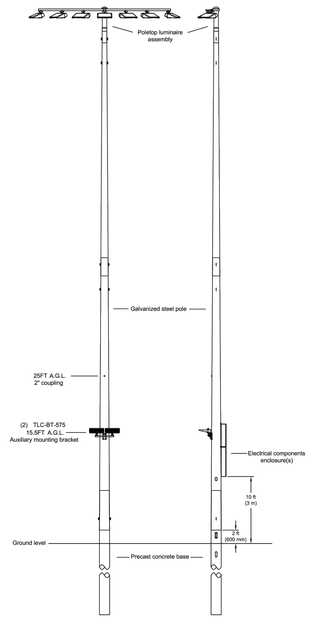
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL PANEL SCHEDULES SHEET #2

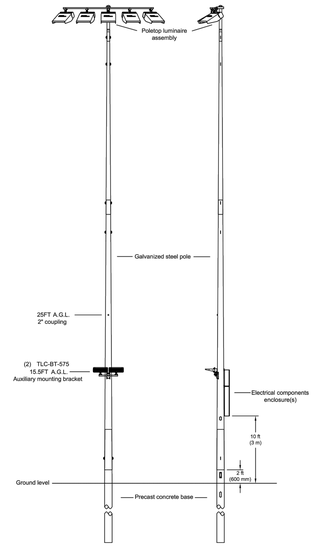
Drawing No.
CE-404



POLE(S): A1, A2, B3, B4
Musco 70FT Light-Structure System™ pole
TLC for LED™ luminaires

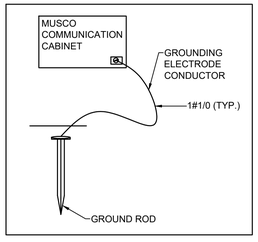


POLE(S): B1, B2
Musco 80FT Light-Structure System™ pole
TLC for LED™ luminaires



POLE(S): C1, C2
Musco 70FT Light-Structure System™ pole
TLC for LED™ luminaires

1 DETAILS FOR BASEBALL FIELD LIGHT POLES
SCALE:N.T.S.



2 GROUNDING ELECTRODE SYSTEM
SCALE:N.T.S.

1/2" IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC 8 SOUTHWOODS BOULEVARD SUITE 202, ALBANY, NY 12211

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

HIGH SCHOOL SBL# 50-02-01-06-4-016-026
PRESS BOX - SOFTBALL SBL# 50-02-01-06-7-001-001
PRESS BOX - BASEBALL SBL# 50-02-01-06-7-001-001

140 Hammond Rd.
Thiells, NY 10984

TOWN OF HAVERSTRAW
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9209
www.shilale.com

Drawing Title
ELECTRICAL DETAILS SHEET #1

Drawing No.
CE-501

Project Information

Control System

Control System ID: 3 of 3
Control System Type: Control-Link ® Control and Monitoring System with Show-Light ® Special Effects
Communication Type: PowerLine-ST

Power Requirements

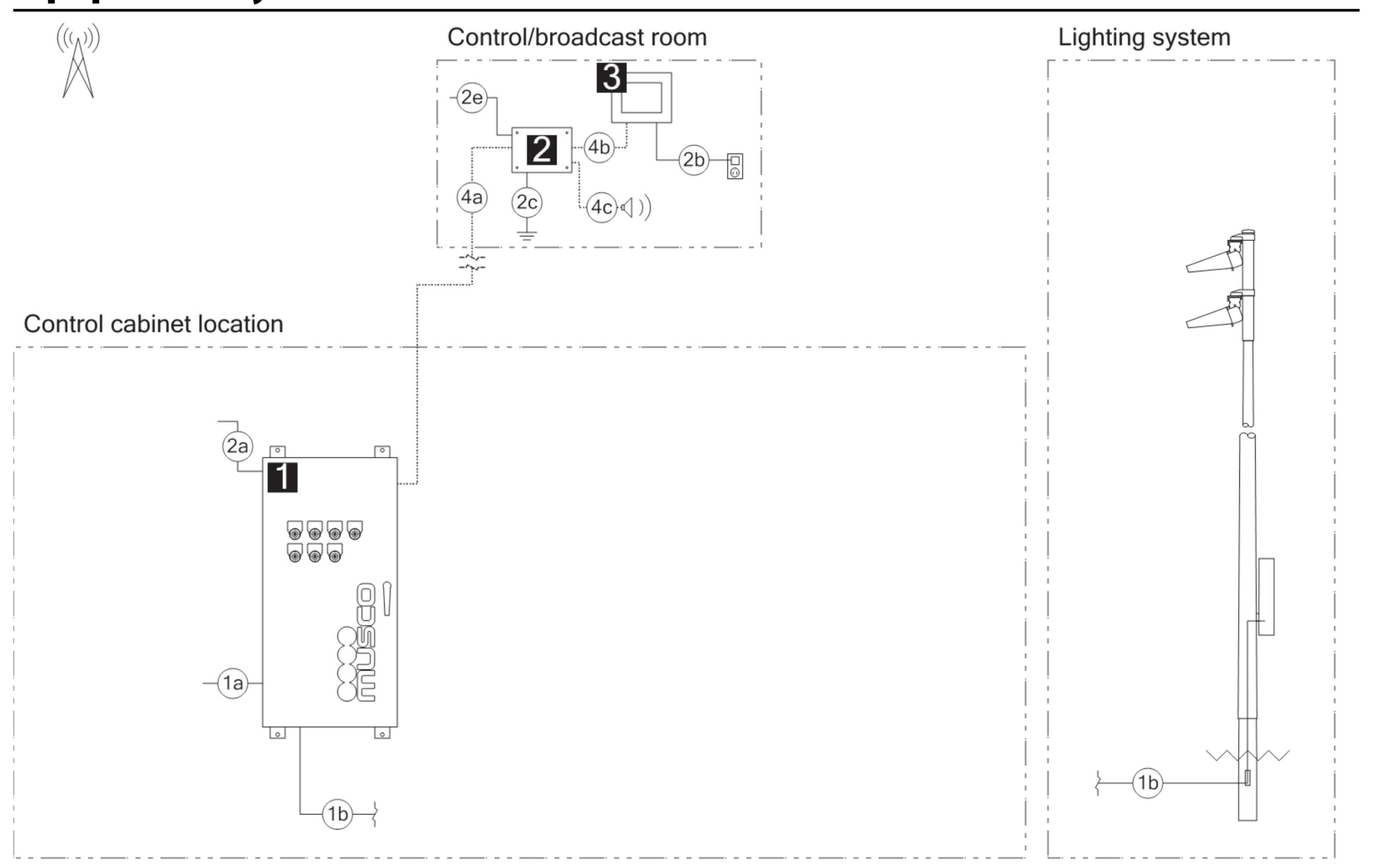
Control cabinet(s):
Control voltage (phase to neutral) 120/60
VA loading - Inrush 2643.0
VA loading - Sealed 250.0
Lighting Circuits:
Voltage/Hertz/Phase 480/60/3
Communication cabinet(s):
Cabinet voltage (phase to neutral) 120/60
Touchscreen(s):
Touchscreen power (receptacle) 120/60

Project Notes:

Equipment Listing

Description	Qty	Size (in)
Control and monitoring cabinet - primary	1	24 X 48
Communication cabinet	1	-
Touchscreen	1	-
Contactors, 30 amperes	6	-
Off/On/Auto switches	4	-

Equipment Layout and Connection Details



Connection Details

ID	Description
1a	Line power to contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
1b	Load power from contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
2a	Control power with equipment ground to control cabinet. Requires dedicated 20 A circuit. Provide transformer if control voltage not present.
2b	Power cord for touchscreen. Requires standard receptacle.
2c	Earth ground connection at communication cabinet location. Requires installation of ground electrode if existing earth gound not present.
2e	Control power with equipment ground.
4a	Communication cable - Communication cabinet to primary control cabinet. Requires Cat5e cable (Belden 7937A or equal), maximum of 1500 feet.

Equipment

ID	Description
1	Control and monitoring cabinet - primary
2	Communication cabinet
3	Touchscreen

Equipment Layout and Connection Details

Connection Details - Cont'd

ID	Description
4b	Communication cable - Communication cabinet to touchscreen. 10-foot ethernet cable provided by Musco. Ethernet cable provided by contractor if longer length is needed. Maximum cable length is 300 feet.
4c	Audio cable - Communication cabinet to audio system, provided by contractor. Requires audio cable with 3.5 mm audio plug, maximum of 50 feet.

Equipment - Cont'd

ID	Description

2

Circuit Summary

Switching Schedule

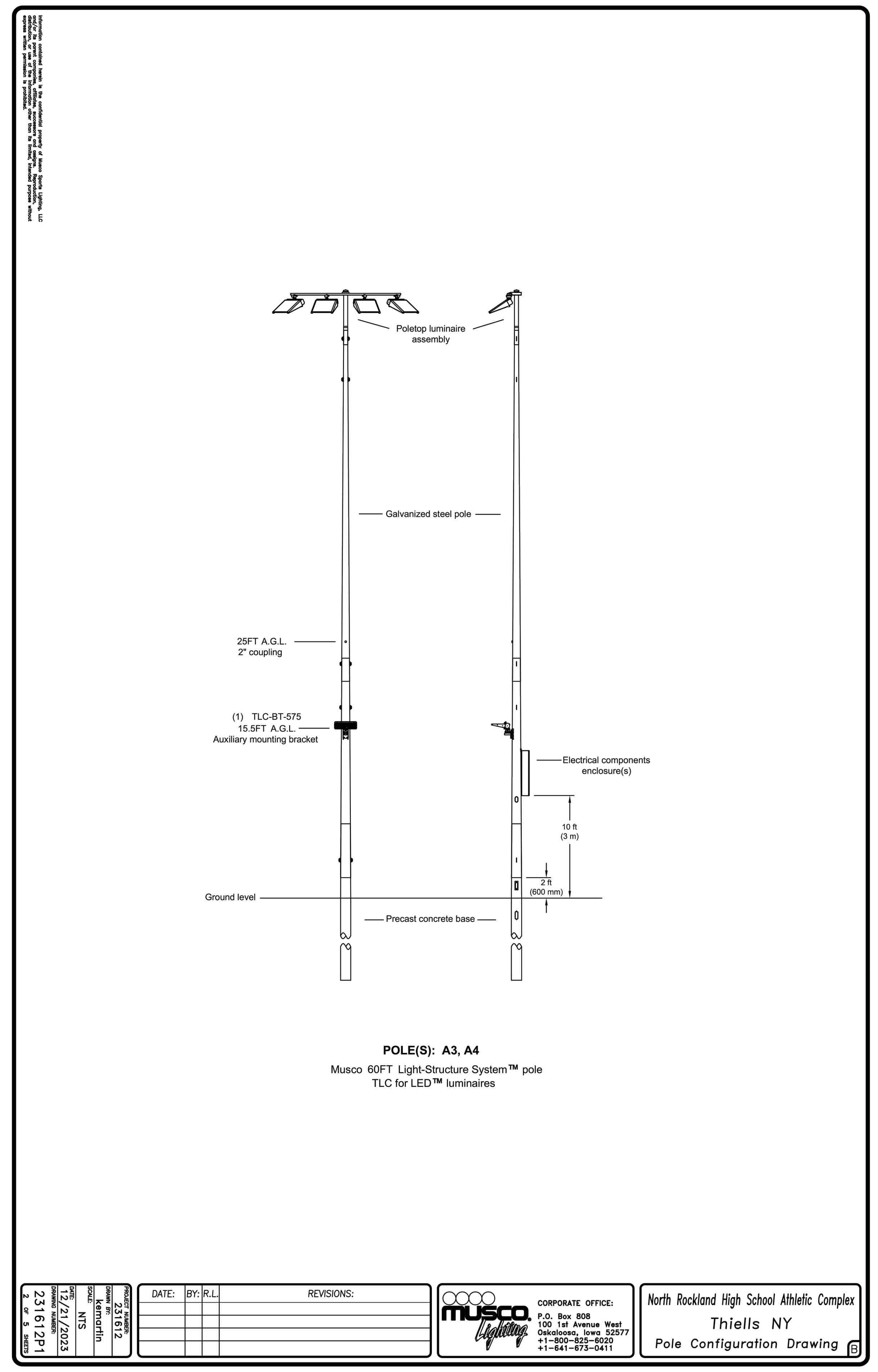
Field/Switch Description	Switches
Softball	1
Softball Pole Accent	2
Softball Flag Pole	3
Softball Site Lighting	4

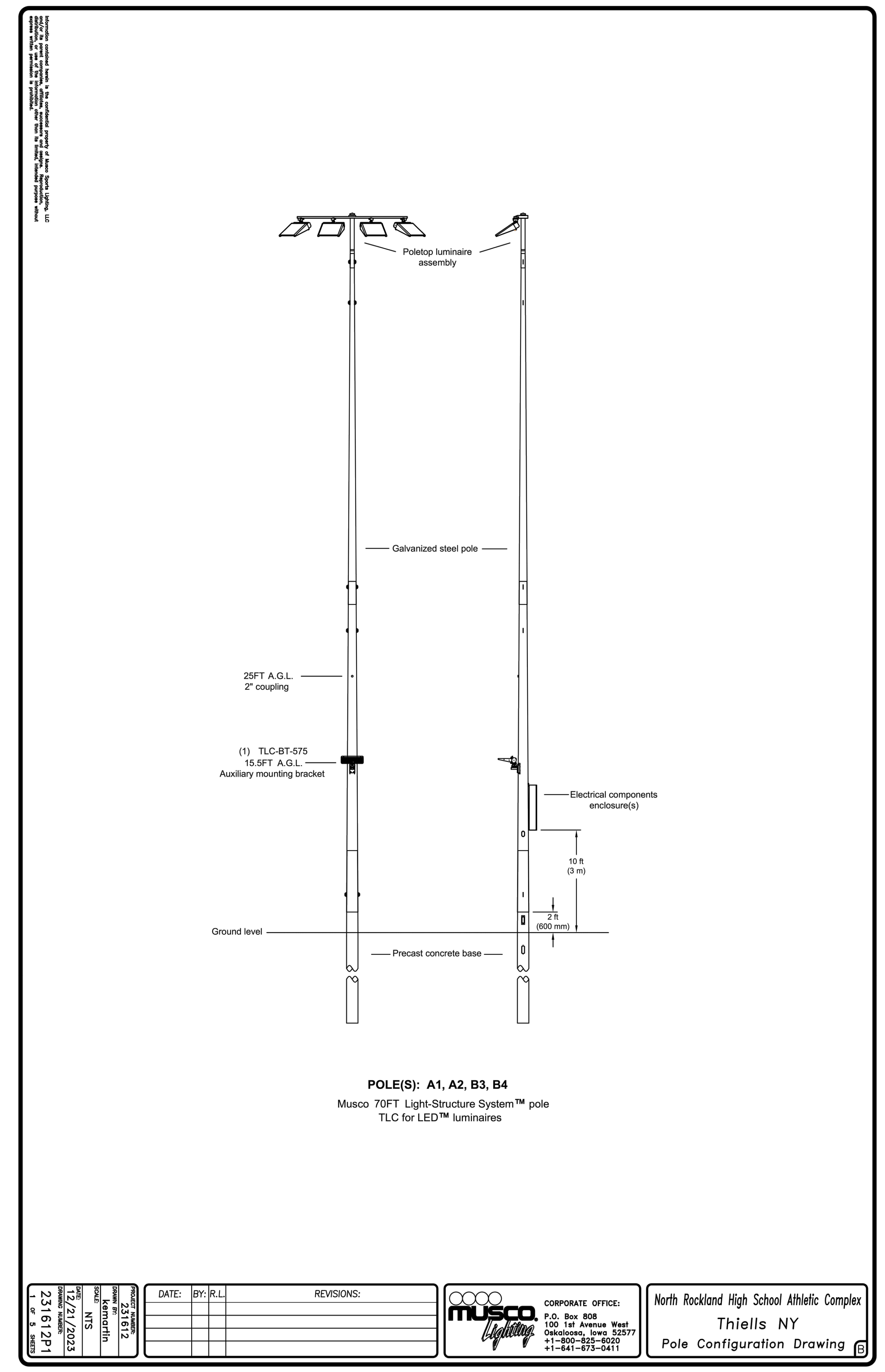
Control Module ID: 3 **Lighting Circuit Voltage: 480/60/3**

Circuit Summary by Switch

Switch	Zone Description	Pole ID	Qty of Fixtures	Full load amperes	Contactor Size (Amps)	Cabinet #	Contactor ID
1	Softball	A3, B3	10	16.11	30	3	C1
	Softball	A4, B4	10	16.11	30	3	C2
2	Pole Accent	A3, B3	2	2.23	30	3	C3
	Pole Accent	A4, B4	2	2.23	30	3	C4
3	Flag Pole	P3	0		30	3	C5
4	Site Lighting	P4	0		30	3	C6

2 SOFTBALL FIELD CIRCUIT & CONTROL SUMMARY, EQUIPMENT LAYOUT & CONNECTION DETAIL
SCALE: N.T.S.





1 DETAILS FOR SOFTBALL FIELD LIGHT POLES
SCALE: N.T.S.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

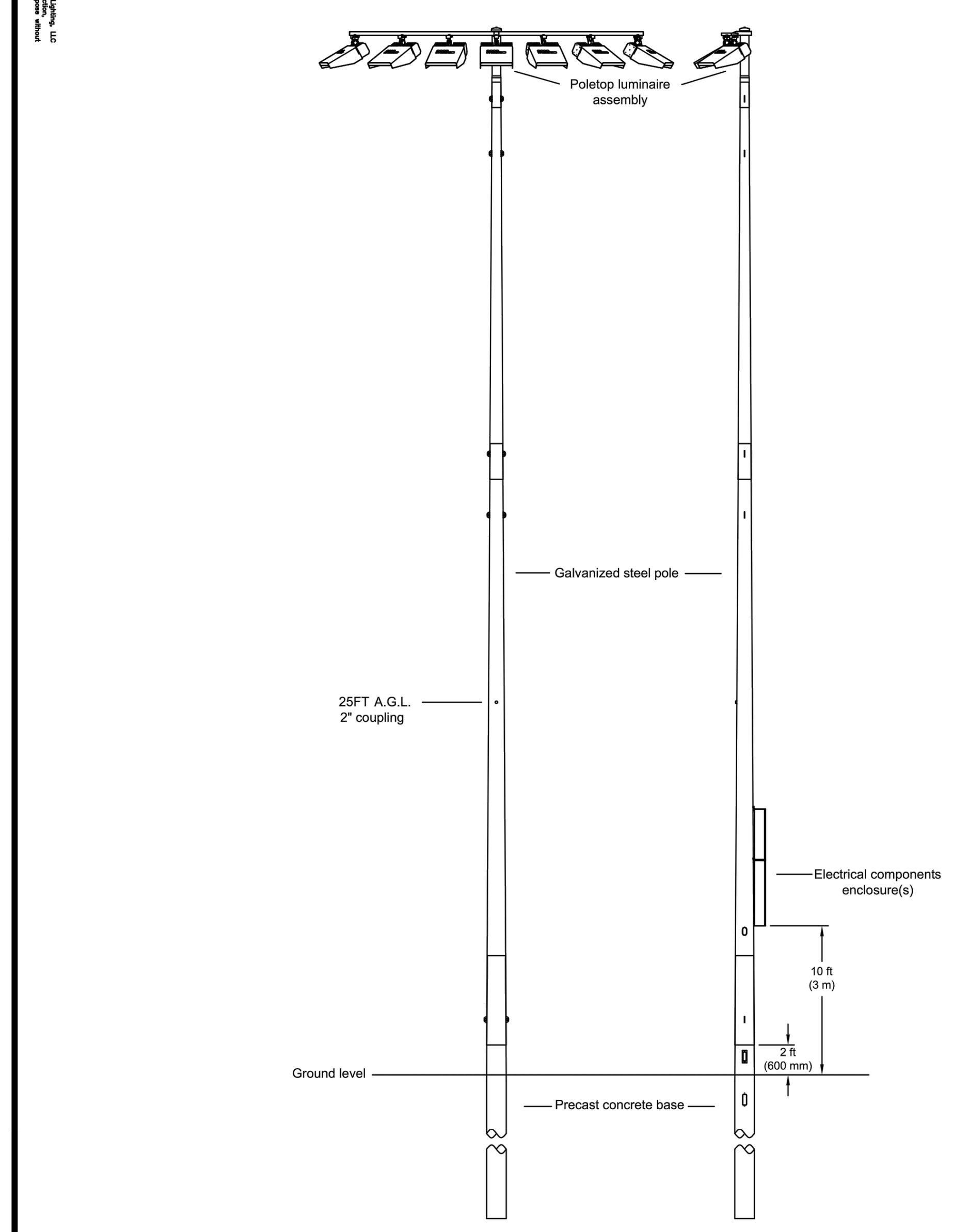
Structural & PME Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL DETAILS SHEET #2

Drawing No.
CE-502



POLE(S): S1-S4
Musco 70FT Light-Structure System™ pole
TLC for LED™ luminaires

PROJECT NUMBER:	DRAWN BY:	SCALE:	DATE:	DRAWING NUMBER:	
231612	kemartin	NTS	12/21/2023	231612P1	5 OF 5 SHEETS

DATE:	BY:	R.L.	REVISIONS:

MUSCO Lighting
CORPORATE OFFICE:
P.O. Box 808
100 1st Avenue West
Oskaloosa, Iowa 52577
+1-800-825-6020
+1-641-673-0411

North Rockland High School Athletic Complex
Thiells NY
Pole Configuration Drawing B

1 DETAILS FOR HOCKEY FIELD LIGHT POLES
SCALE: N.T.S.

Project Information

Preliminary Plans: Confirm all details - see Notes

Control System

Control System ID: 1 of 3
Control System Type: Control-Link ® Control and Monitoring System with Show-Light ® Special Effects
Communication Type: PowerLine-ST

Power Requirements

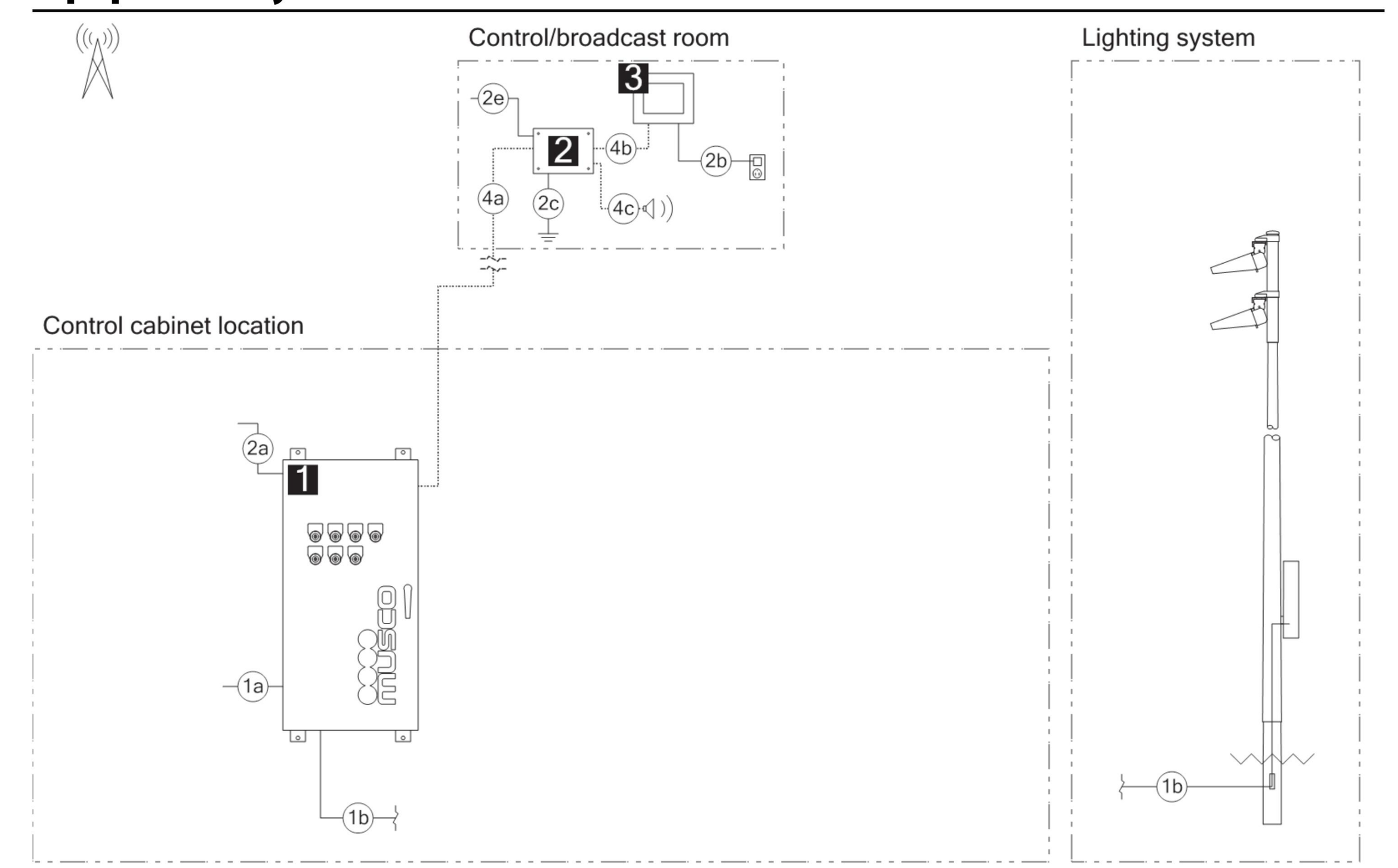
Control cabinet(s):
Control voltage (phase to neutral) 120/60
VA loading - Inrush 2643.0
VA loading - Sealed 250.0
Lighting Circuits:
Voltage/Hertz/Phase 480/60/3
Communication cabinet(s):
Cabinet voltage (phase to neutral) 120/60
Touchscreen(s):
Touchscreen power (receptacle) 120/60

Project Notes:

Equipment Listing

Description	Qty	Size (in)
Control and monitoring cabinet - primary	1	24 X 48
Communication cabinet	1	-
Touchscreen	1	-
Contactors, 30 amperes	4	-
Contactors, 60 amperes	2	-
Off/On/Auto switches	4	-

Equipment Layout and Connection Details



Connection Details

ID	Description
1a	Line power to contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
1b	Load power from contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
2a	Control power with equipment ground to control cabinet. Requires dedicated 20 A circuit. Provide transformer if control voltage not present.
2b	Power cord for touchscreen. Requires standard receptacle.
2c	Earth ground connection at communication cabinet location. Requires installation of ground electrode if existing earth gound not present.
2e	Control power with equipment ground.
4a	Communication cable - Communication cabinet to primary control cabinet. Requires Cat5e cable (Belden 7937A or equal), maximum of 1500 feet.

Equipment

ID	Description
1	Control and monitoring cabinet - primary
2	Communication cabinet
3	Touchscreen

Equipment Layout and Connection Details

Connection Details - Cont'd

ID	Description
4b	Communication cable - Communication cabinet to touchscreen. 10-foot ethernet cable provided by Musco. Ethernet cable provided by contractor if longer length is needed. Maximum cable length is 300 feet.
4c	Audio cable - Communication cabinet to audio system, provided by contractor. Requires audio cable with 3.5 mm audio plug, maximum of 50 feet.

Equipment - Cont'd

ID	Description

Circuit Summary

Switching Schedule

Field/Switch Description	Switches
Multipurpose	**1**
Multipurpose Pole Accent	**2**
Multipurpose Flag Pole	**3**
Multipurpose Site Lighting	**4**

Control Module ID: 1 **Lighting Circuit Voltage: 480/60/3**

Circuit Summary by Switch

Switch	Zone Description	Pole ID	Qty of Fixtures	Full load amperes	Contactor Size (Amps)	Cabinet #	Contactor ID
1	Multipurpose	S1, S2	14	31.44	60	1	C1
	Multipurpose	S3, S4	14	31.44	60	1	C2
2	Pole Accent	S1, S2	2	2.23	30	1	C3
	Pole Accent	S3, S4	2	2.23	30	1	C4
3	Flag Pole	P1	0		30	1	C5
4	Site Lighting	P2	0		30	1	C6

2

2 HOCKEY FIELD CIRCUIT & CONTROL SUMMARY, EQUIPMENT LAYOUT & CONNECTION DETAIL
SCALE: N.T.S.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

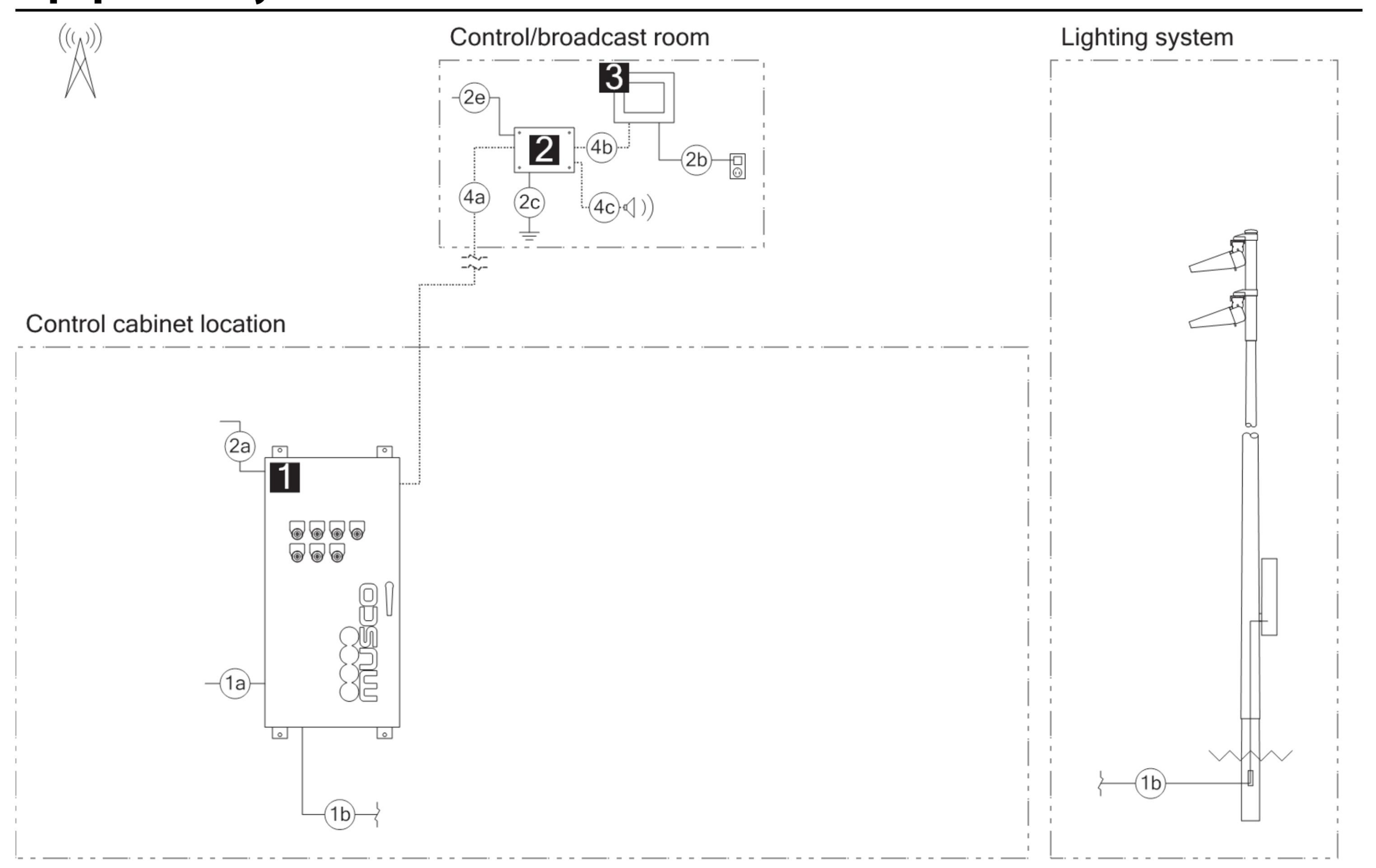
NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

HSA
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL DETAILS SHEET #3

Drawing No.
CE-503

Equipment Layout and Connection Details



Connection Details	
ID	Description
1a	Line power to contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
1b	Load power from contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
2a	Control power with equipment ground to control cabinet. Requires dedicated 20 A circuit. Provide transformer if control voltage not present.
2b	Power cord for touchscreen. Requires standard receptacle.
2c	Earth ground connection at communication cabinet location. Requires installation of ground electrode if existing earth gound not present.
2e	Control power with equipment ground.
4a	Communication cable - Communication cabinet to primary control cabinet. Requires Cat5e cable (Belden 7937A or equal), maximum of 1500 feet.

Equipment	
ID	Description
1	Control and monitoring cabinet - primary
2	Communication cabinet
3	Touchscreen

Equipment Layout and Connection Details

Connection Details - Cont'd	
ID	Description
4b	Communication cable - Communication cabinet to touchscreen. 10-foot ethernet cable provided by Musco. Ethernet cable provided by contractor if longer length is needed. Maximum cable length is 300 feet.
4c	Audio cable - Communication cabinet to audio system, provided by contractor. Requires audio cable with 3.5 mm audio plug, maximum of 50 feet.

Equipment - Cont'd	
ID	Description

Circuit Summary

Switching Schedule	
Field/Switch Description	Switches
Baseball	1
Baseball Pole Accent	2

Control Module ID: 2 **Lighting Circuit Voltage: 480/60/3**

Circuit Summary by Switch							
Switch	Zone Description	Pole ID	Qty of Fixtures	Full load amperes	Contactor Size (Amps)	Cabinet #	Contactor ID
1	Baseball	A1, A2	10	18.65	30	2	C1
	Baseball	B1	9	16.43	30	2	C2
	Baseball	B2	9	16.43	30	2	C3
	Baseball	C1	7	13.83	30	2	C4
	Baseball	C2	7	13.83	30	2	C5
2	Pole Accent	A1, A2, B1, B2, C1, C2	6	5.59	30	2	C6

Project Information

Control System

Control System ID: 2 of 3
Control System Type: Control-Link ® Control and Monitoring System with Show-Light ® Special Effects
Communication Type: PowerLine-ST

Power Requirements

Control cabinet(s):
Control voltage (phase to neutral) 120/60
VA loading - Inrush 2643.0
VA loading - Sealed 250.0
Lighting Circuits:
Voltage/Hertz/Phase 480/60/3
Communication cabinet(s):
Cabinet voltage (phase to neutral) 120/60
Touchscreen(s):
Touchscreen power (receptacle) 120/60

Project Notes:

Equipment Listing		
Description	Qty	Size (in)
Control and monitoring cabinet - primary	1	24 X 48
Communication cabinet	1	-
Touchscreen	1	-
Contactors, 30 amperes	6	-
Off/On/Auto switches	2	-

2

2 BASEBALL FIELD CIRCUIT & CONTROL SUMMARY, EQUIPMENT LAYOUT & CONNECTION DETAIL

SCALE: N.T.S.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by AWF
Checked by SH
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP
LANDSCAPE ARCHITECTURE & ENGINEERING
40 LONG ALLEY,
SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD,
SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES
HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX - SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX - BASEBALL: SED# 50-02-01-06-7-091-001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL DETAILS SHEET #4

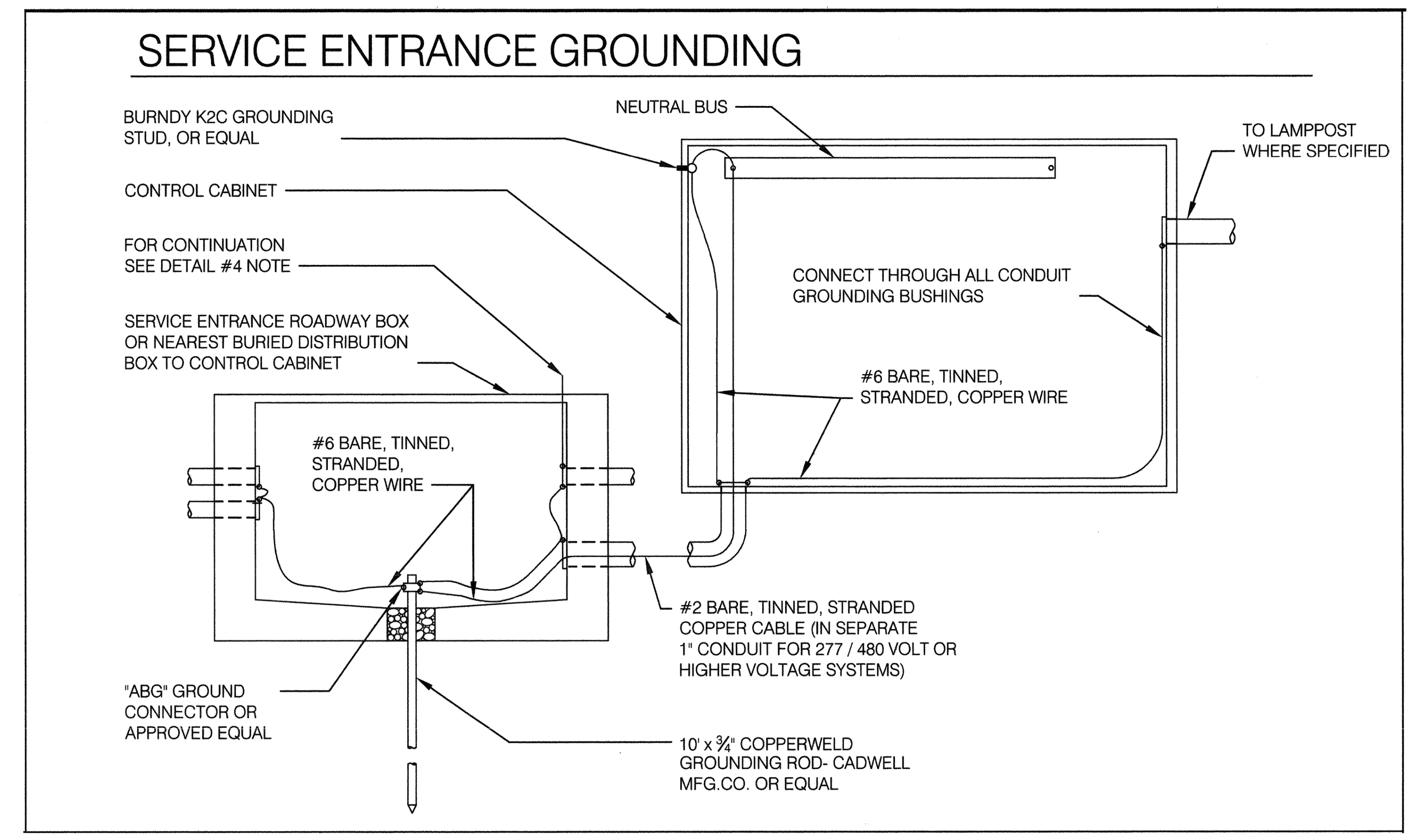
Drawing No.
CE-504

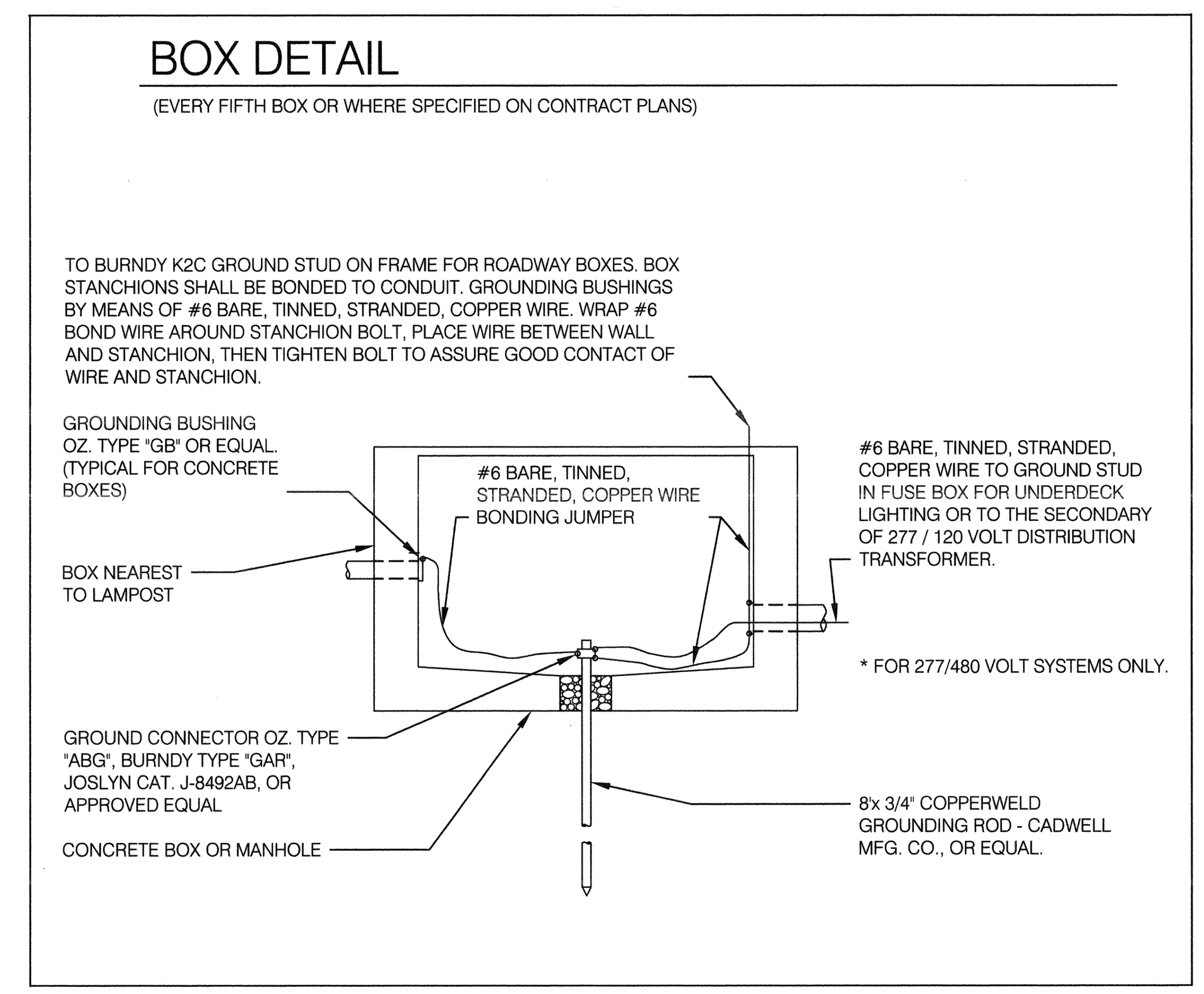
MANUFACTURER	QTY	MODEL	ITEM
Community	3	R.5-96MAX	Loud Speaker
Community	1	ALC-3202D	Amplifiers
ADI	1	DN312X	Mixer
Ashly	1	NE24.24M 4x4	Processor
Adaptive Technologies	6	SC-188-30-SS	Safety Cable
Adaptive Technologies	1	PM-DA-48-G	Dual Loudspeaker Cross Bar
Adaptive Technologies	1	PM-MOUNT-6UP-G	Loudspeaker Pole Mounting Pate
Adaptive Technologies	4	PM-BAND-90	Pole Mounting Bands 30"
Adaptive Technologies	2	PM-SAFETY-6D	Safety Cable Pole Mounting Plate
Adaptive Technologies	1	PM-24-6DOWN-G	Pole Mount Kit for Press Box Speakers
E-Rigging/Haas	10	51612015	3/8"-16 x 11/16" Stainless Eye Bolt
Shure	1	ULXD4-H50	Wireless Recievers
Shure	1	UA825	Remote Antenna Cable - 25'
Shure	1	UA874US	Acitve Directional Remote Antenna
Shure	1	ULXD2/SM58-H50	Handheld Mic
Shure	1	SM58S	Handheld Mic
Shure	1	ULXD1-H50	Belt Pack Transmitter
Shure	1	SBC-200-US	Charging Dock W/ Power Supply
Shure	2	SB900B	Battery Pack
Shure	1	SM31FH-TQG	Head Set Mic
Shure	1	WA360	Belt Pack Toggle
Gator/Frameworks	2	GFW-MIC-0601	Desktop Mic Stand
Gator/Frameworks	1	GFW-MIC-2020	Boom Mic Stand
Whirlwind	1	MIP3S	Audio Plate
Whirlwind	1	MKQ15	Mic Cable
Whirlwind	1	MKQ50NP-ORANGE	Mic Cable
Whirlwind	1	MST2R10	Audio Cable STMINI to Dual RCA
Whirlwind	1	MST10	Audio Cable STMINI
Whirlwind	1	SPLIT6	Line Level Splitter
RDL	1	TX70A	Transformer

1 BASEBALL FIELD SOUND SYSTEM EQUIPMENT
SCALE: N.T.S.

MANUFACTURER	QTY	MODEL	ITEM
Community	3	R.5-96MAX	Loud Speaker
Community	1	ALC-3202D	Amplifiers
ADI	1	DN312X	Mixer
Ashly	1	NE24.24M 4x4	Processor
Adaptive Technologies	6	SC-188-30-SS	Safety Cable
Adaptive Technologies	1	PM-DA-48-G	Dual Loudspeaker Cross Bar
Adaptive Technologies	1	PM-MOUNT-6UP-G	Loudspeaker Pole Mounting Pate
Adaptive Technologies	4	PM-BAND-90	Pole Mounting Bands 30"
Adaptive Technologies	2	PM-SAFETY-6D	Safety Cable Pole Mounting Plate
Adaptive Technologies	1	PM-24-6DOWN-G	Pole Mount Kit for Press Box Speakers
E-Rigging/Haas	10	51612015	3/8"-16 x 11/16" Stainless Eye Bolt
Shure	1	ULXD4-H50	Wireless Recievers
Shure	1	UA825	Remote Antenna Cable - 25'
Shure	1	UA874US	Acitve Directional Remote Antenna
Shure	1	ULXD2/SM58-H50	Handheld Mic
Shure	1	SM58S	Handheld Mic
Shure	1	ULXD1-H50	Belt Pack Transmitter
Shure	1	SBC-200-US	Charging Dock W/ Power Supply
Shure	2	SB900B	Battery Pack
Shure	1	SM31FH-TQG	Head Set Mic
Shure	1	WA360	Belt Pack Toggle
Gator/Frameworks	2	GFW-MIC-0601	Desktop Mic Stand
Gator/Frameworks	1	GFW-MIC-2020	Boom Mic Stand
Whirlwind	1	MIP3S	Audio Plate
Whirlwind	1	MKQ15	Mic Cable
Whirlwind	1	MKQ50NP-ORANGE	Mic Cable
Whirlwind	1	MST2R10	Audio Cable STMINI to Dual RCA
Whirlwind	1	MST10	Audio Cable STMINI
Whirlwind	1	SPLIT6	Line Level Splitter
RDL	1	TX70A	Transformer

2 SOFTBALL FIELD SOUND SYSTEM EQUIPMENT
SCALE: N.T.S.





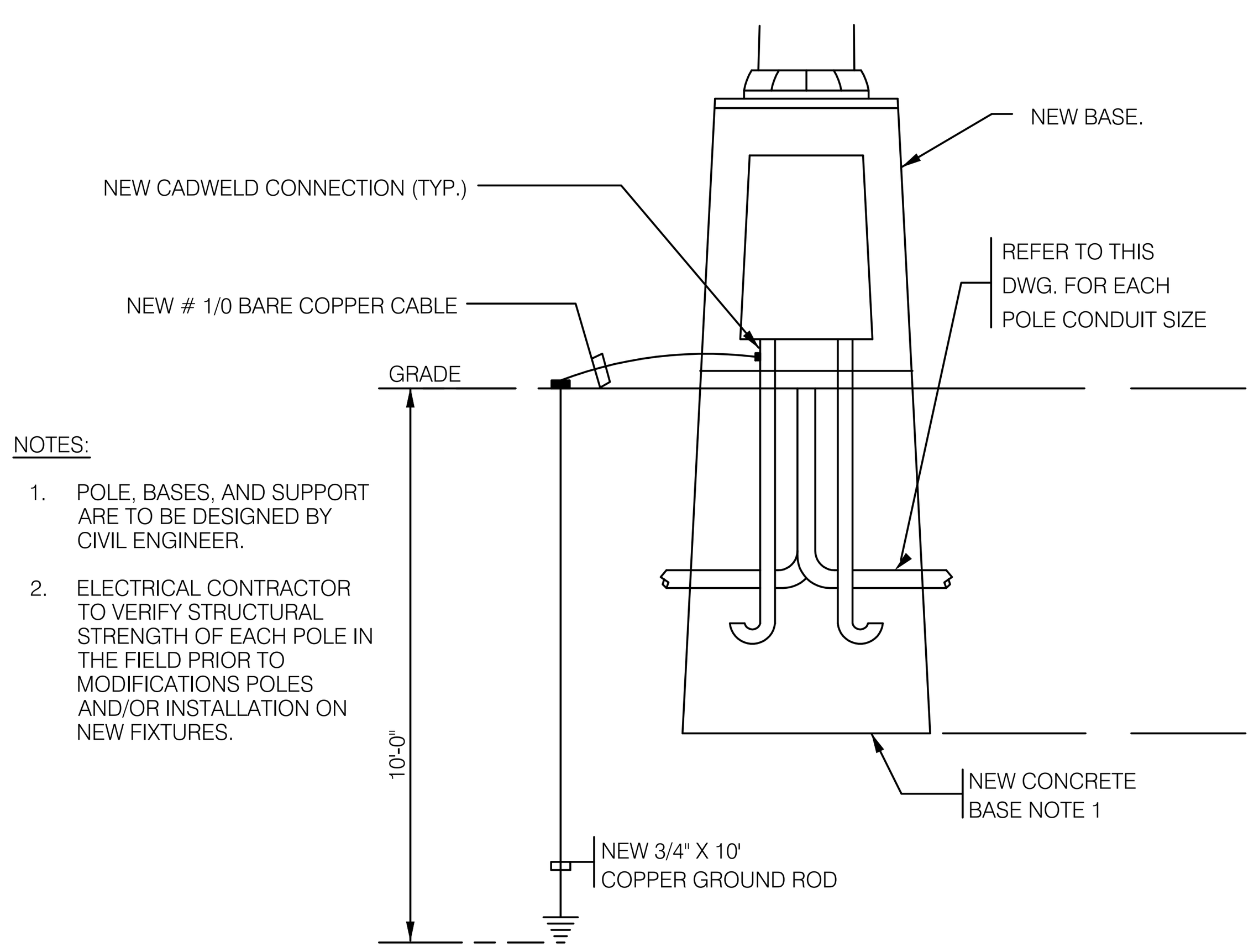
5 TYPICAL CONCRETE ROADWAY BOX GROUNDING DETAILS
SCALE: N.T.S.

MANUFACTURER	QTY	MODEL	ITEM
Community	2	R.5-94Z	Loud Speaker
Community	2	R.5-66Z	Loud Speaker
Community	2	ALC-1604D	Amplifiers
ADI	1	DN312X	Mixer
Ashly	1	NE24.24M 4x4	Processor
Adaptive Technologies	8	SC-188-30-SS	Safety Cable
Adaptive Technologies	2	PM-DA-48-G	Dual Loudspeaker Cross Bar
Adaptive Technologies	2	PM-MOUNT-6UP-G	Loudspeaker Pole Mounting Pate
Adaptive Technologies	8	PM-BAND-90	Pole Mounting Bands 30"
Adaptive Technologies	2	PM-SAFETY-6D	Safety Cable Pole Mounting Plate
E-Rigging/Haas	10	51612015	3/8"-16 x 11/16" Stainless Eye Bolt
Shure	1	ULXD4Q-H50	Wireless Recievers
Shure	1	UA825	Remote Antenna Cable - 25'
Shure	1	UA874US	Acitve Directional Remote Antenna
Shure	1	ULXD2/SM58-H50	Handheld Mic
Shure	1	SM58S	Handheld Mic
Shure	1	ULXD1-H50	Belt Pack Transmitter
Shure	1	SBC-200-US	Charging Dock W/ Power Supply
Shure	2	SB900B	Battery Pack
Shure	1	SM31FH-TQG	Head Set Mic
Shure	1	WA360	Belt Pack Toggle
Gator/Frameworks	2	GFW-MIC-0601	Desktop Mic Stand
Gator/Frameworks	1	GFW-MIC-2020	Boom Mic Stand
Whirlwind	1	MIP3S	Audio Plate
Whirlwind	1	MKQ15	Mic Cable
Whirlwind	1	MKQ50NP-ORANGE	Mic Cable
Whirlwind	1	MST2R10	Audio Cable STMINI to Dual RCA
Whirlwind	1	MST10	Audio Cable STMINI
Whirlwind	1	SPLIT6	Line Level Splitter
RDL	1	TX70A	Transformer

3 HOCKEY FIELD SOUND SYSTEM EQUIPMENT
SCALE: N.T.S.

NOTES:

1. POLE, BASES, AND SUPPORT ARE TO BE DESIGNED BY CIVIL ENGINEER.
2. ELECTRICAL CONTRACTOR TO VERIFY STRUCTURAL STRENGTH OF EACH POLE IN THE FIELD PRIOR TO MODIFICATIONS POLES AND/OR INSTALLATION ON NEW FIXTURES.



4 TYPICAL GROUNDING DETAIL OF POLE
SCALE: N.T.S.

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by: AWF
Checked by: SH
Project No.: 43045
Scale: AS NOTED
Date: 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP, LANDSCAPE ARCHITECTURE & ENGINEERING, 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

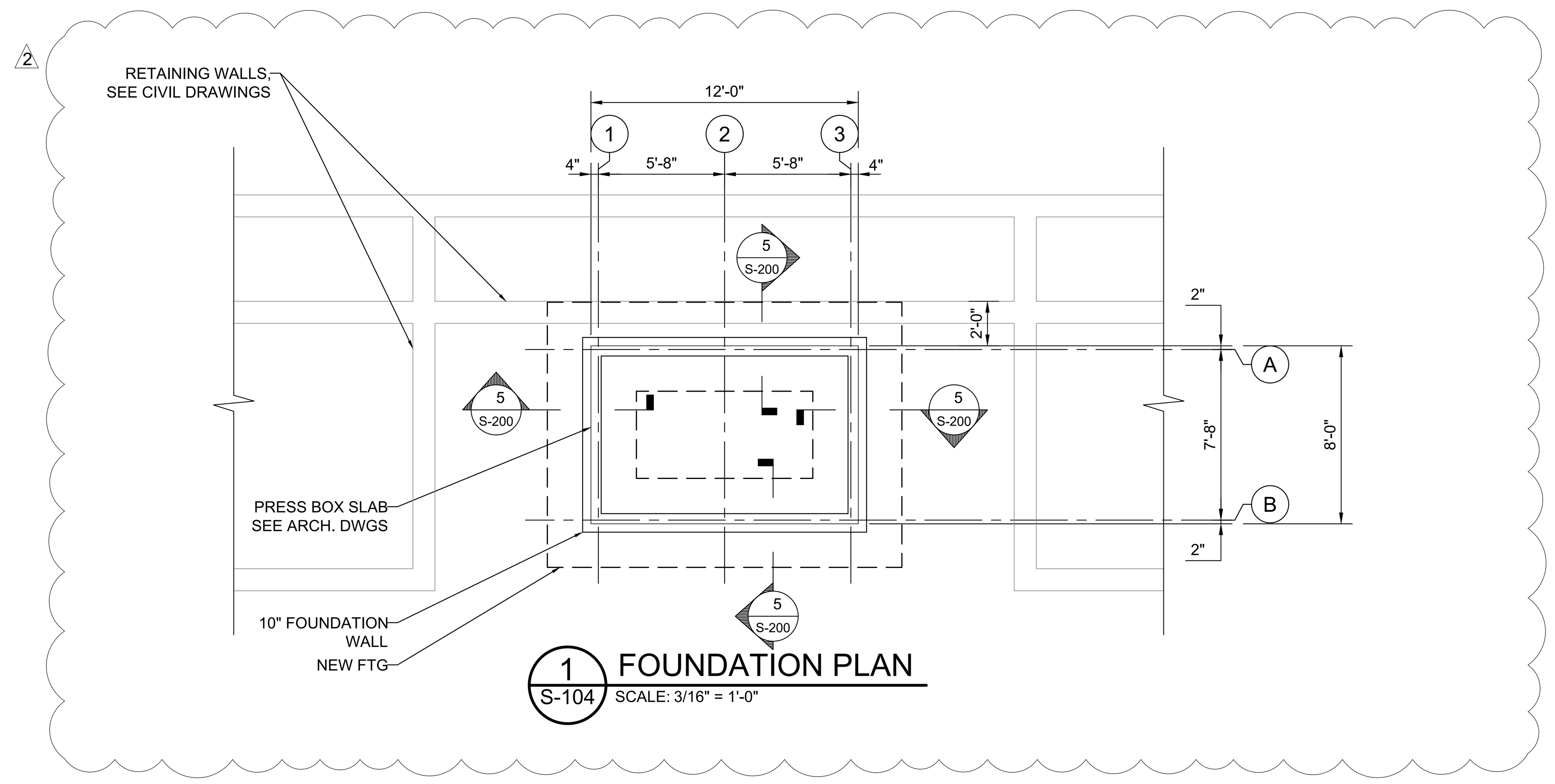
Structural & PME Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

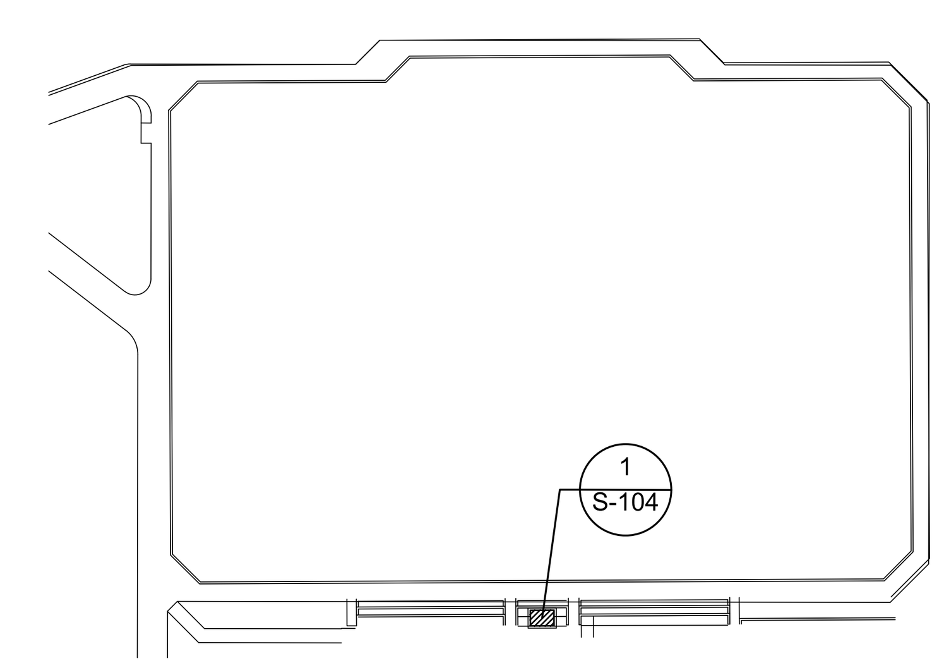
NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-8200
www.shilale.com

Drawing Title: ELECTRICAL DETAILS SHEET #5

Drawing No. CE-505





HOCKEY FIELD KEY PLAN

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10/23/24	PHASE 2 BIDDING ADDENDUM 1
1	10/17/24	FIELD HOCKEY SED SUBMISSION

Drawn by S.I.
Checked by RAB
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP, LANDSCAPE ARCHITECTURE & ENGINEERING, 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001

106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
HOCKEY PRESS BOX FOUNDATION PLAN

Drawing No.
S-104

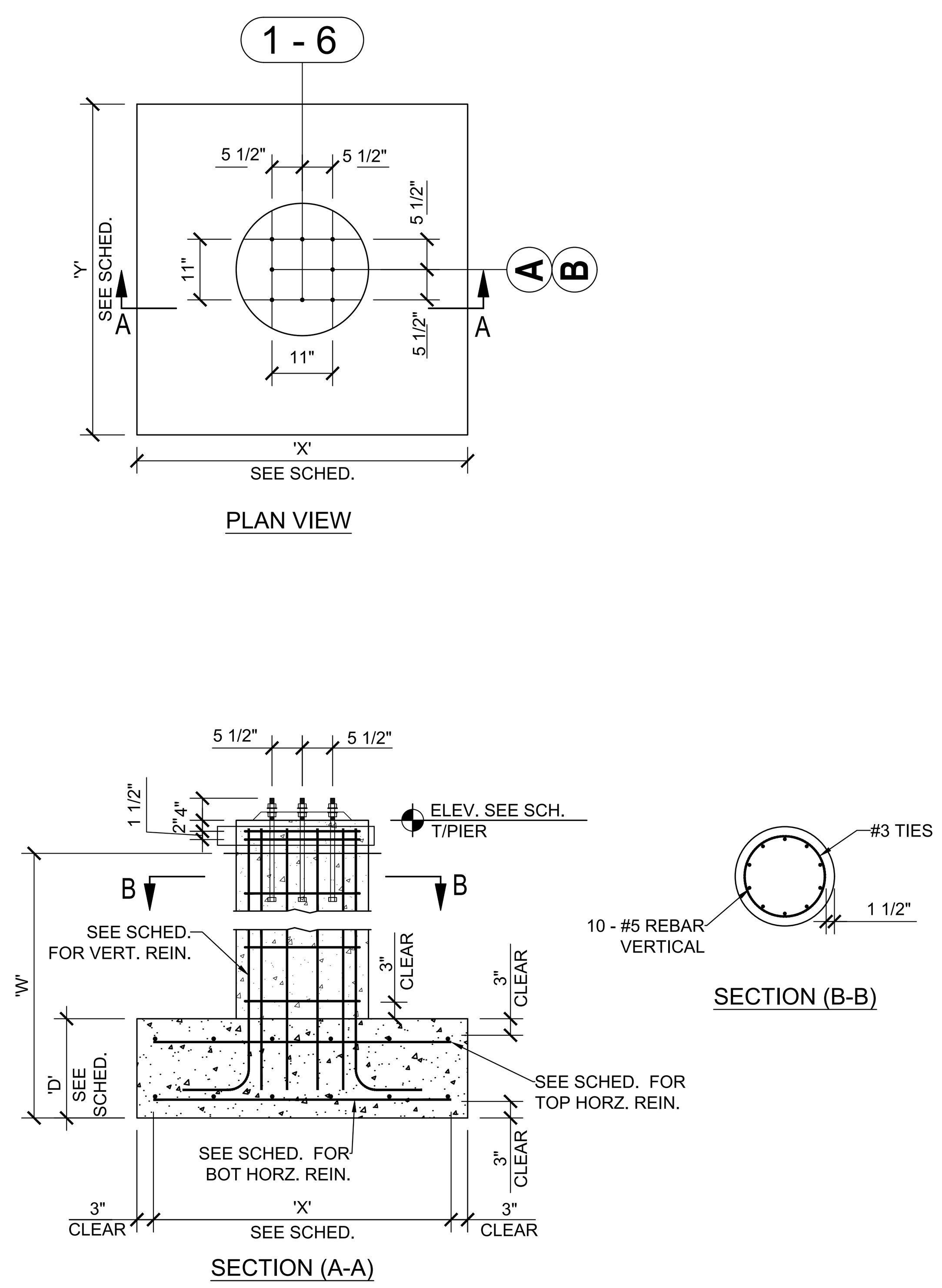
FOOTING MARKS	FOOTING DIMS 'X' x 'Y' x 'D'	MIN. EMBED 'W'	FOOTING REINFORCEMENT	PIER SIZE 'Z'	PIER REINFORCING		T/PIER/SLAB ELEVATION	18" ANCHOR BOLTS	FINISH x DIA. x LEN. x THRD LEN.
					VERTICAL	TIES**			
F1	5'-0" x 5'-0" x 12"	4'-0"	(6) #5 E.W., BOTTOM	24"	(10) #5 REBAR	#3 REBAR TIES @ 12" O/C	100'-0"	4	(4) GALV. 3/4" x 18" BOLT-THREADED 6"
F2	4'-0" x 4'-0" x 12"	4'-0"	(6) #5 E.W., BOTTOM	18"	(7) #5 REBAR	#3 REBAR TIES @ 12" O/C	100'-0"	4	-
S1	SEE PLAN	-	6 x 6 W1.4 x W1.4 WWF	-	-	-	100'-0"	-	-
S2	SEE PLAN	-	6 x 6 W1.4 x W1.4 WWF	-	-	-	100'-0"	-	-

**BEGIN 1ST TIE 2" BELOW TOP, 2ND TIE @ 3-1/2" BELOW TOP, REMAINDER PER CHART.

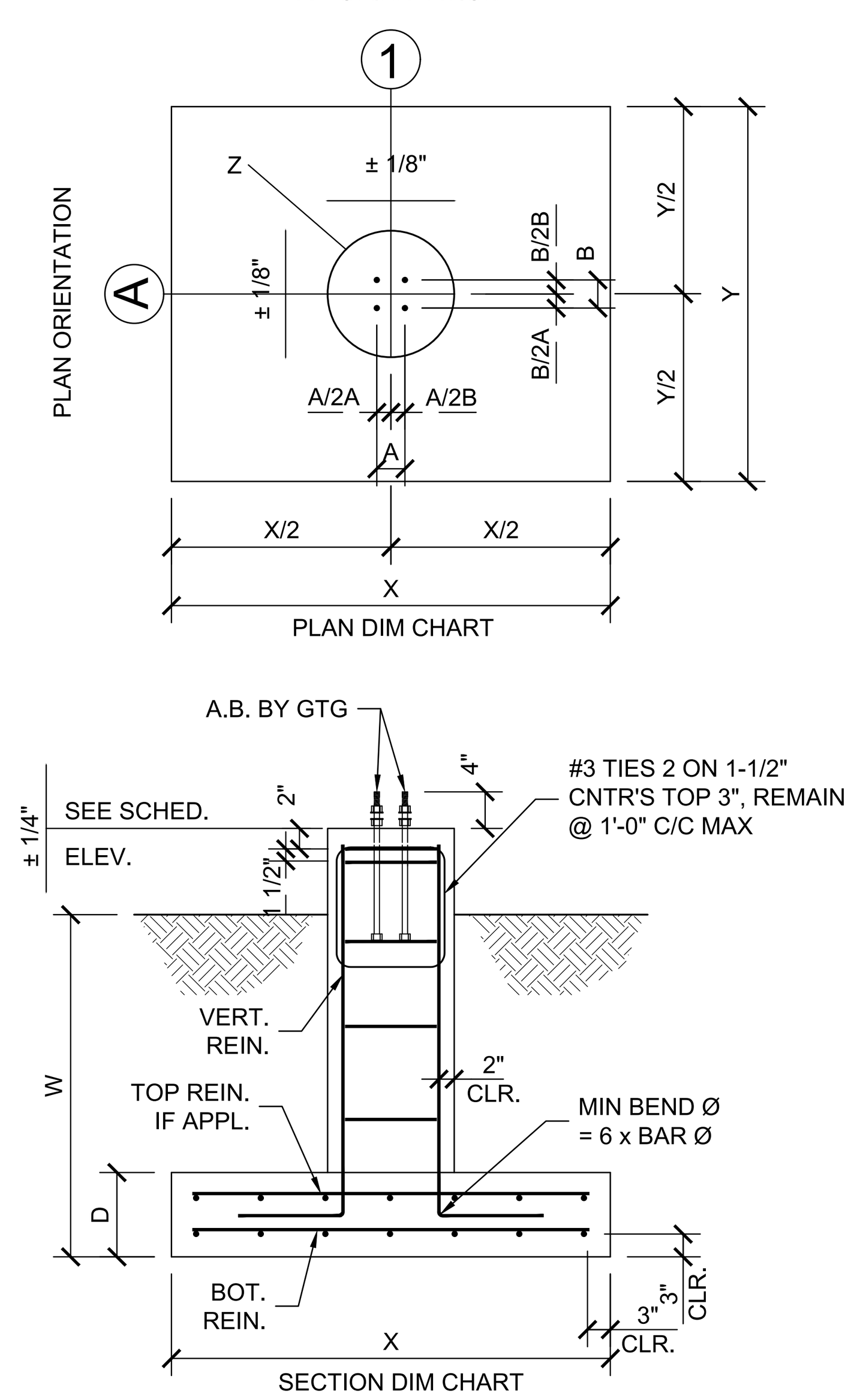
F1	FOOTER #1	RS1	RAMP/STAIR PIER #1	E.W.	EACH WAY
CB2	CURB #1	RW1	RETAINING WALL #1	E.F.	EACH FACE
P1	PIER #1	S1	SLAB #1	T&B	TOP & BOTTOM
PF2	PIER/FOOTER #1	TE1	THICKENED EDGE #1	O/C	ON CENTER

FOUNDATION - CAST IN PLACE CONCRETE

1. CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. 2. STEEL REINFORCING BARS SHALL CONFORM TO ASTM A-615. BARS SHALL BE GRADE 60.
3. CONCRETE MIX SHALL BE DESIGNED TO PROVIDE A COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS.
4. REINFORCEMENT SHALL BE PLACED AND SECURED IN ACCORDANCE WITH CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS.
5. REBARS SHALL BE CONTACT LAP SPLICED 30 BAR DIAMETERS.
6. ALL SLABS TO HAVE WELDED WIRE FABRIC 6x 6x 1.4 x1.4 CONFORMING TO ASTM A185. OR FIBREMESH.
7. AFTER EXCAVATING SOIL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR. (ASTM - D-1557)
8. GROUT SHALL BE NON SHRINK, NATURAL AGGREGATE MASTER BUILDERS SET GROUT OR APPROVED EQUAL.



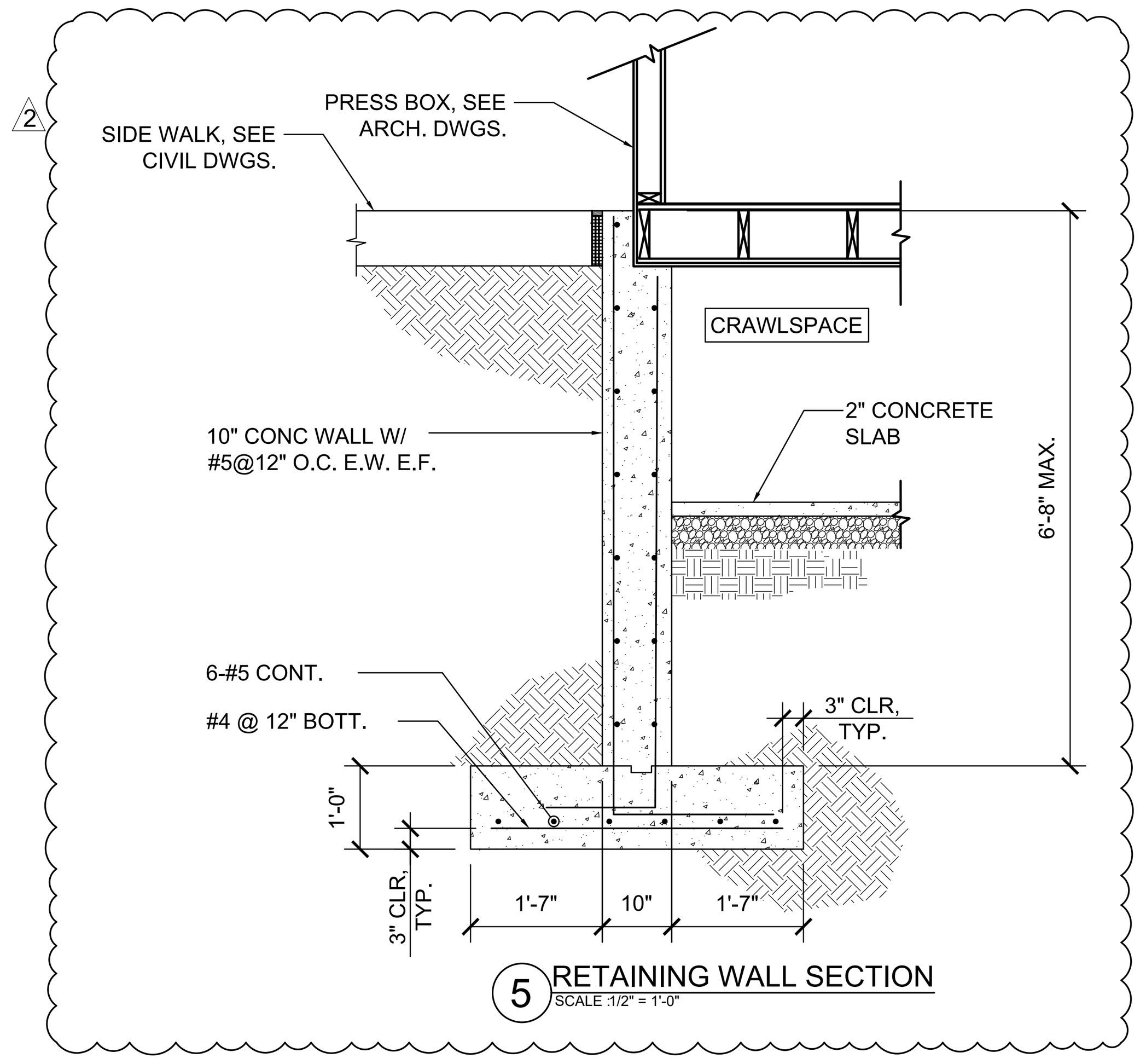
1 PIER/FOOTING @COL MOMENT CONN.
SCALE 3/8" = 1'-0"



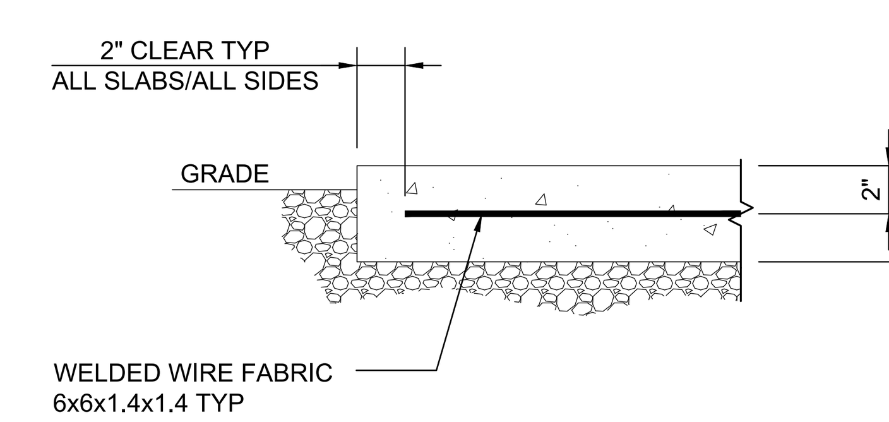
CONCRETE PIER AND ANCHOR ROD TOLERANCES

HORIZONTAL LOCATION ± 1/8"
VERTICAL LOCATION ± 1/4"
THE ABOVE TOLERANCES MUST BE HELD
FOR PROPER GRANDSTAND INSTALLATION
(UNLESS NOTED OTHERWISE)

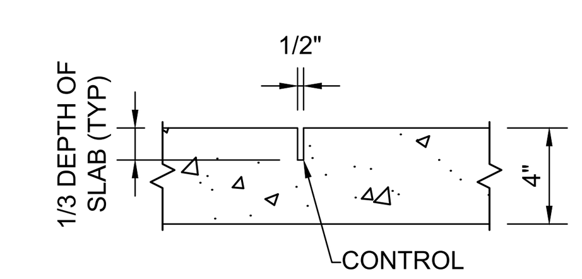
2 FOUNDATION - CAST IN PLACE CONCRETE
SCALE 3/8" = 1'-0"



5 RETAINING WALL SECTION
SCALE 1/2" = 1'-0"



3 TYPICAL SLAB REINFORCEMENT DETAIL
SCALE 1 1/2" = 1'-0"



4 CONTROL JOINT DETAIL
SCALE 1 1/2" = 1'-0"

No.	Date	Revisions
2	10/23/24	PHASE 2 BIDDING ADDENDUM 1
1	10/17/24	FIELD HOCKEY SED SUBMISSION

Drawn by S.I.
Checked by RAB
Project No. 43045
Scale AS NOTED
Date 10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP, LANDSCAPE ARCHITECTURE & ENGINEERING, 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX - SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX - BASEBALL: SED# 50-02-01-06-7-091-001

106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
FOUNDATION DETAILS & SECTIONS

Drawing No.
S-200

5/8" GYPSUM CEILING BOARD FINISH

EXIT SIGN/EMERGENCY LIGHT WITH SELF-CONTAINED BATTERY BACKUP.

A — 1' x 4' SURFACE MOUNT LIGHT FIXTURE

LEGEND

(1) NEW DOOR: 3'–0"W X 6'–8"H INSULATED FRP DOOR WITH ALUMINUM EXTRUSION WRAP AROUND FRAMES, HYDRAULIC CLOSER, 10"X10" INSULATED WINDOW WITH ARGON FILL, VINYL WEATHER–STRIPPING, ALUMINUM THRESHOLD AND KEYED LEVER HANDLED LOCKSETS. U–VALUE=0.29. INCLUDE EMERGENCY PANIC HARDWARE DEVICE SEE SPECIFICATIONS 131210 – PRE–ENGINEERED STRUCTURES

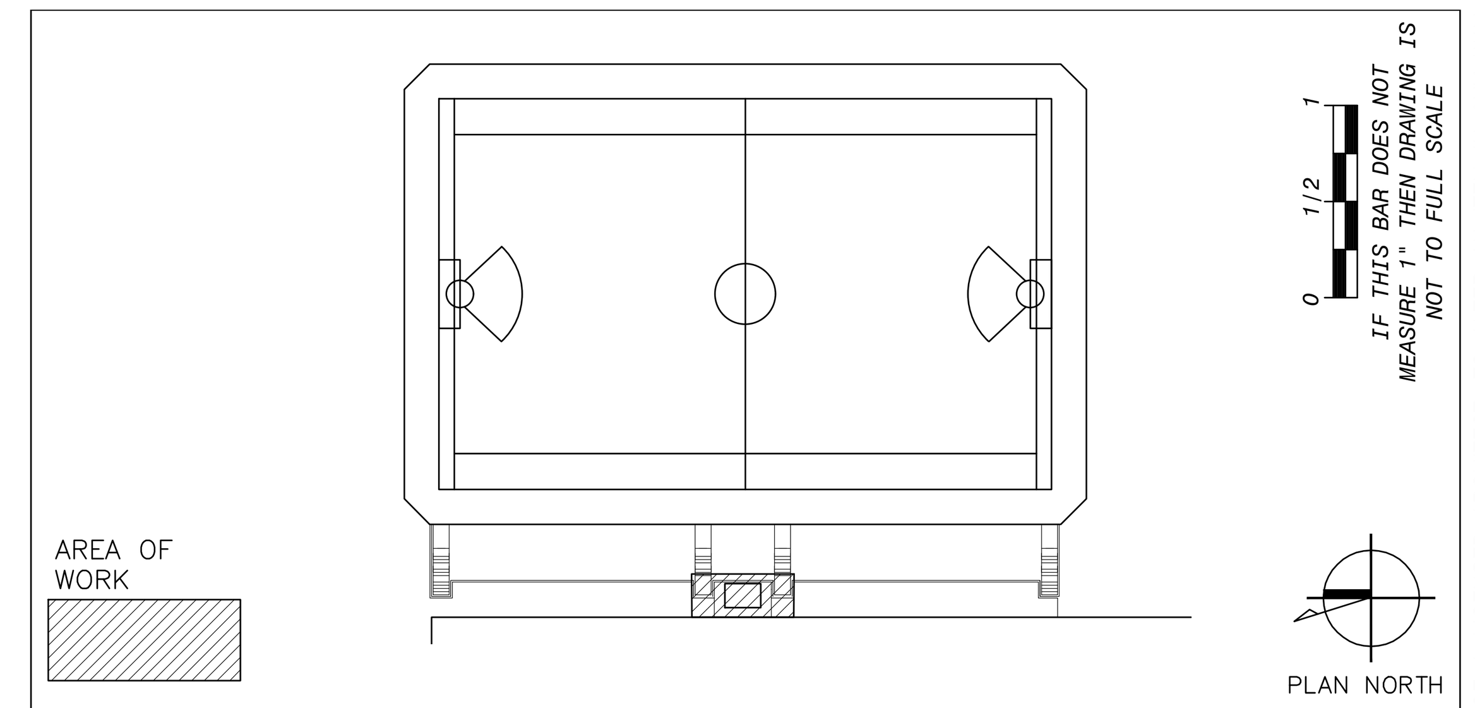
[A] NEW WINDOW: 4'–11"W X 4'–0"H WOJAN "M85 SERIES" ALUMINUM FRAMED HORIZONTAL SLIDING WINDOWS WITH EXTRUDED ALUMINUM FRAMES WITH THERMAL BREAK EXTRUSIONS AND 3/4" INSULATED TEMPERED SAFETY GLASS ARGON FILLED AND WITH LOW E. AAMA C–35 RATING. MUST BE ETCHED ON EACH PANEL OF WINDOWS. U–VALUE=0.24 SEE SPECIFICATIONS 131210 – PRE–ENGINEERED STRUCTURES

[B] NEW WINDOW: 2'–0"W X 4'–0"H WOJAN "M85 SERIES" ALUMINUM FRAMED HORIZONTAL FIXED WINDOWS WITH EXTRUDED ALUMINUM FRAMES WITH THERMAL BREAK EXTRUSIONS AND 3/4" INSULATED TEMPERED SAFETY GLASS WITH LOW E. AAMA C–35 RATING. MUST BE ETCHED ON EACH PANEL OF WINDOWS. U–VALUE=0.24. SEE SPECIFICATIONS 131210 – PRE–ENGINEERED STRUCTURES

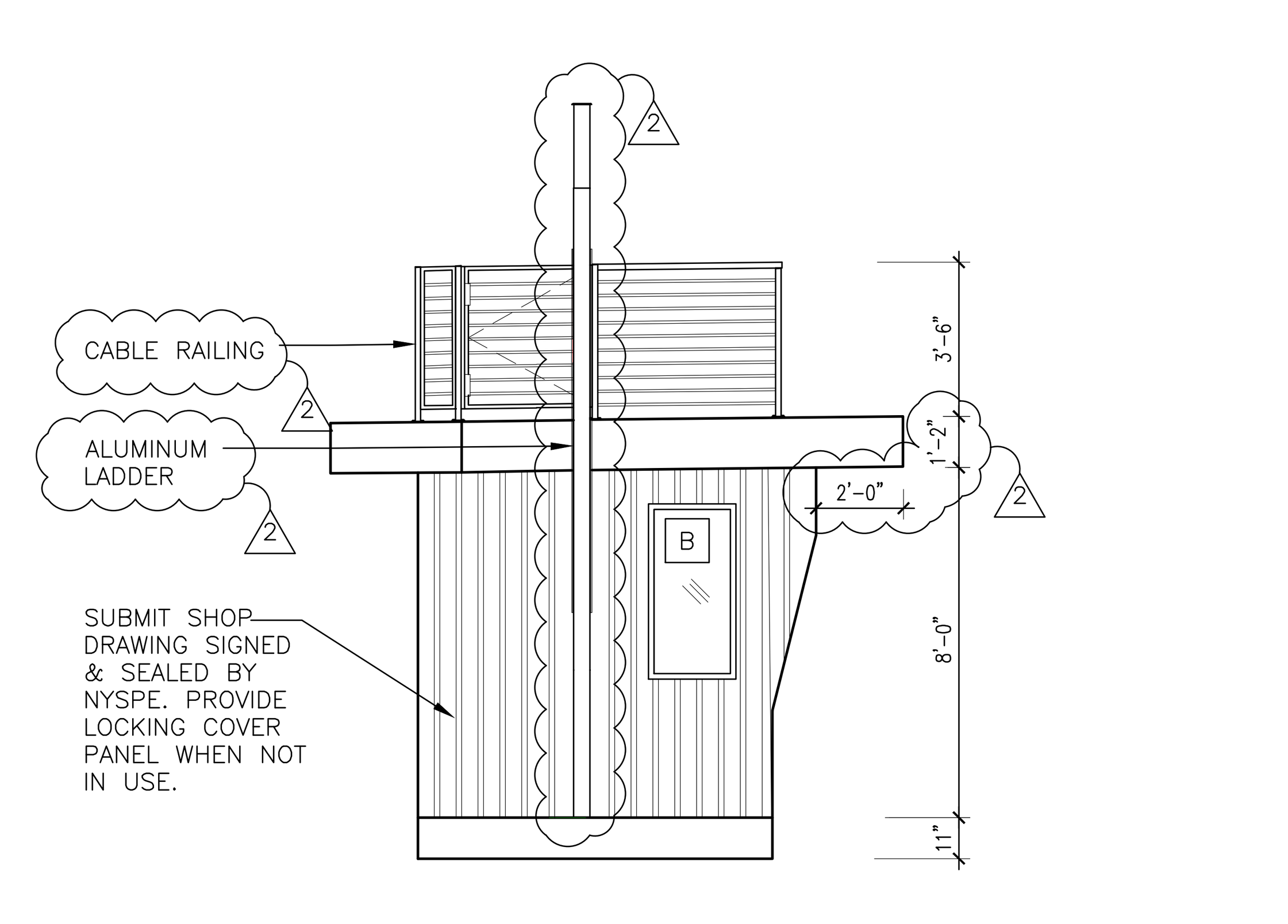
CONSTRUCTION LEGEND

1. BASIS OF DESIGN FOR PRESS BOX BY GT GRANDSTANDS. SEE SPECIFICATION SECTION 131210: "PRE–ENGINEERED STRUCTURES"
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS SIGNED AND SEALED BY NYS PROFESSIONAL ENGINEER FOR OWNER/ARCHITECT REVIEW.
3. PRESS BOX TO COMPLY WITH THE 2020 BUILDING CODE OF NEW YORK STATE AND THE 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE. SEE DRAWING B–100 FOR REQUIREMENTS.
4. PRESS BOX TO COMPLY TYPE IIB CONSTRUCTION REQUIREMENTS SET IN THE 2020 BUILDING CODE OF NEW YORK STATE
5. PROVIDE WINDOW SHADES AT ALL B WINDOWS.

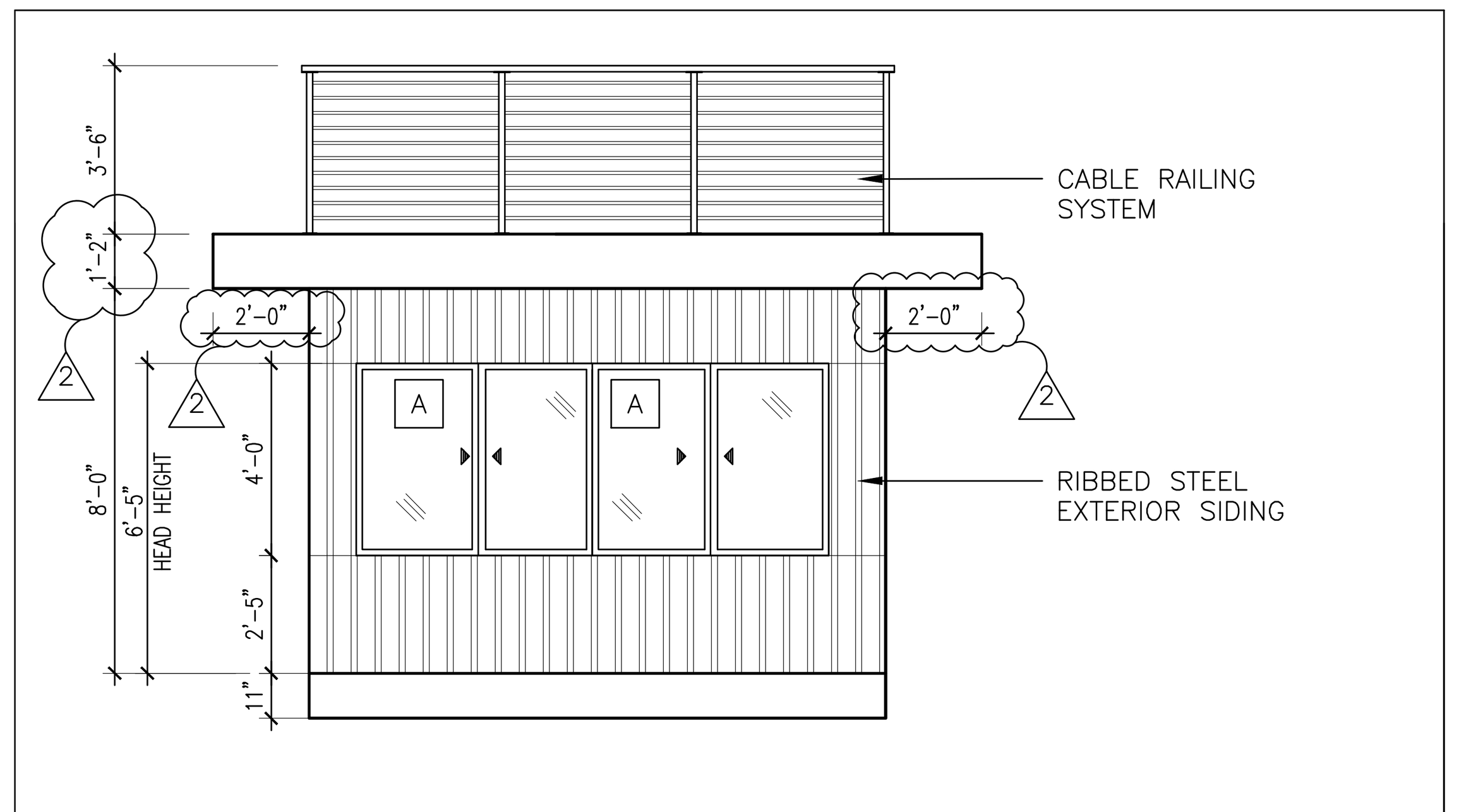
GENERAL NOTES



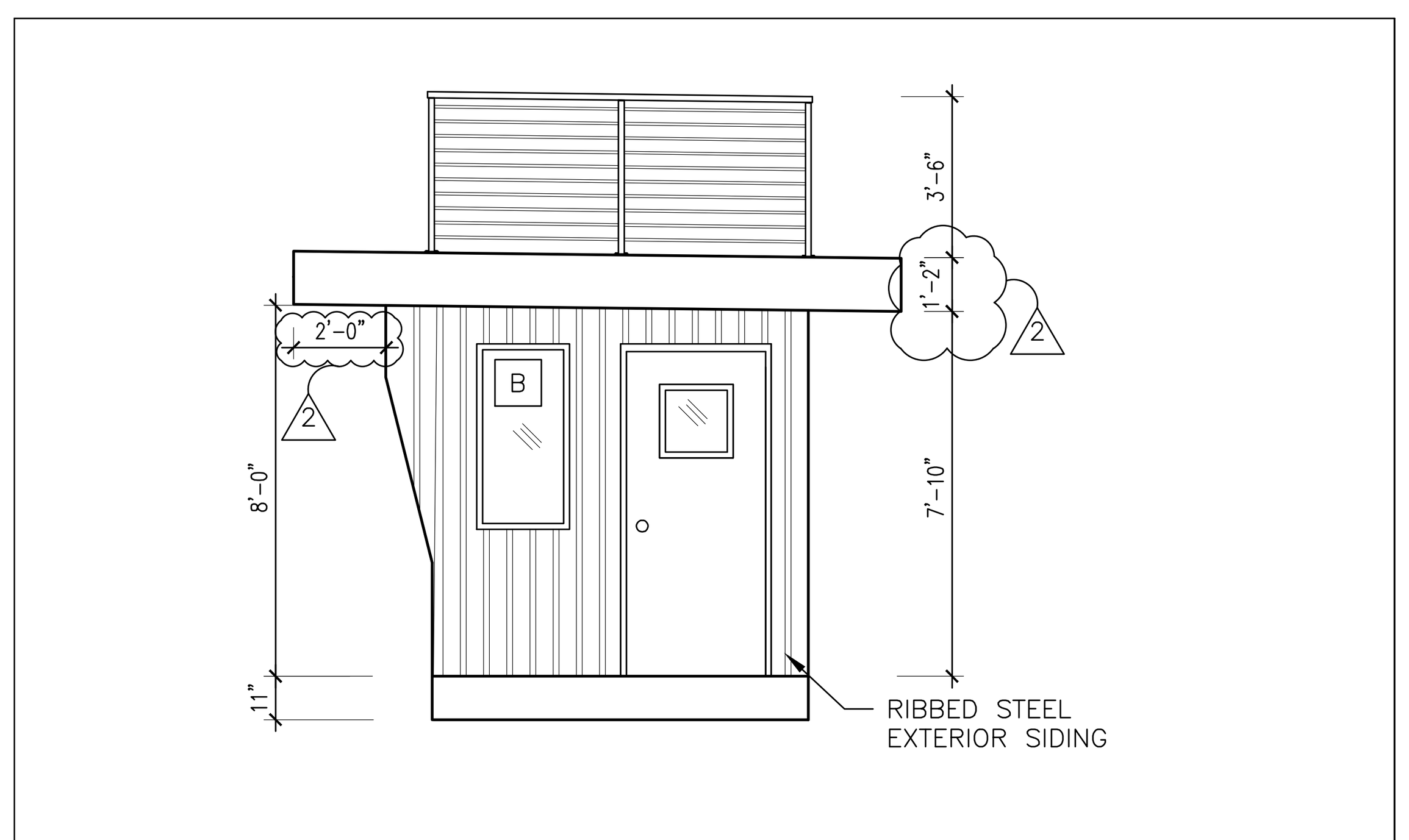
KEY PLAN



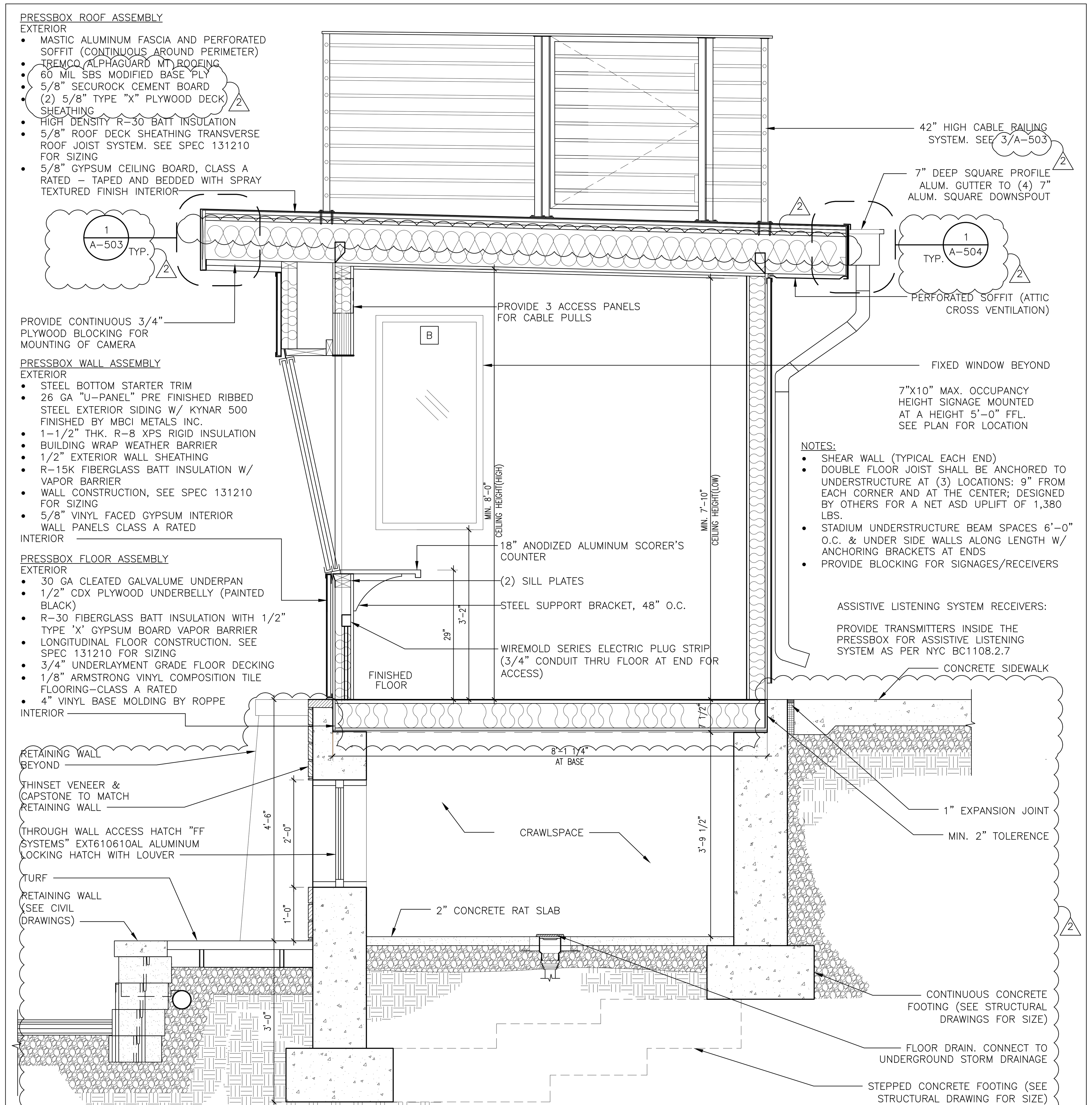
7 SIDE ELEVATION
SCALE: 1/4" = 1'-0"



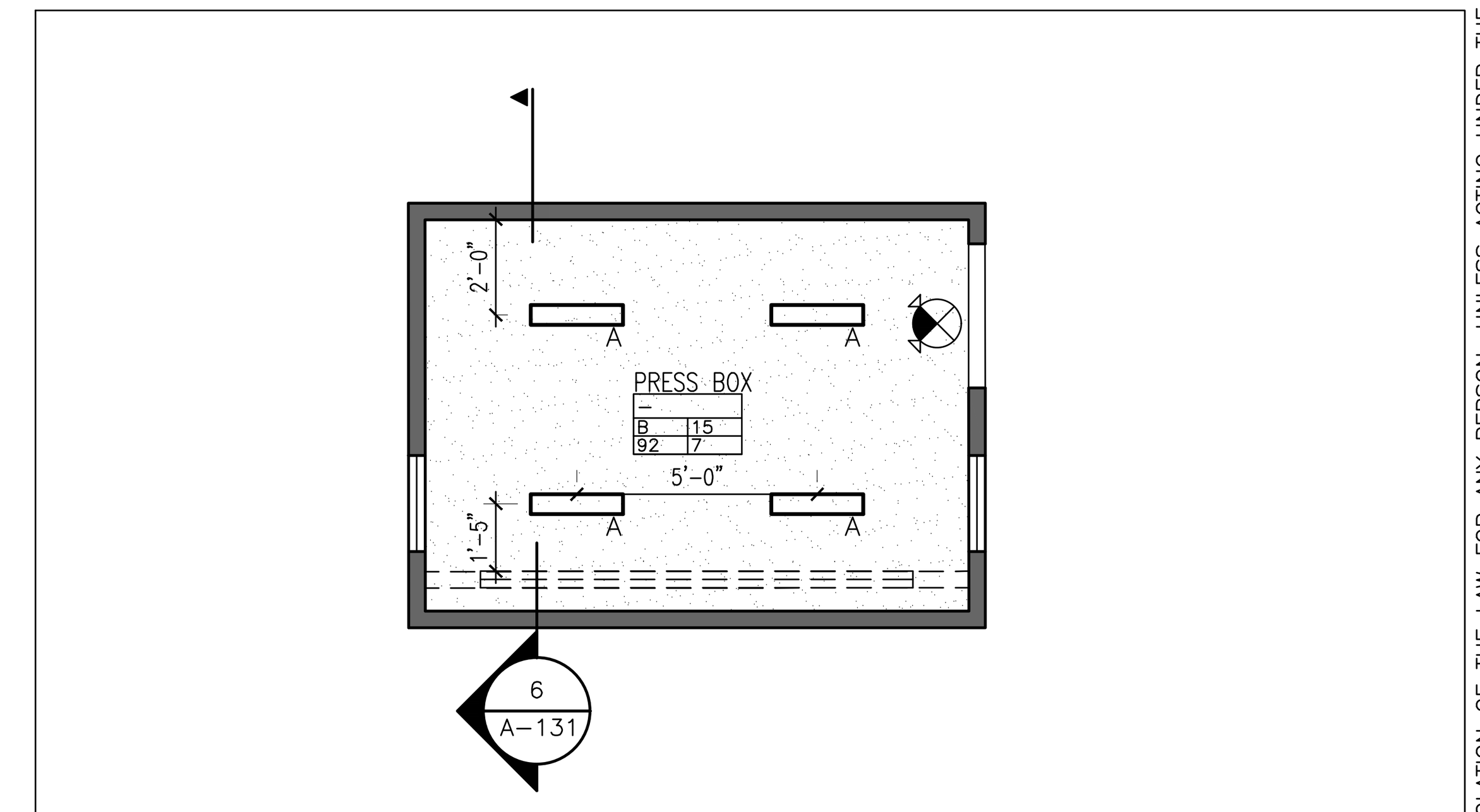
4 FRONT ELEVATION
SCALE: 1/4" = 1'-0"



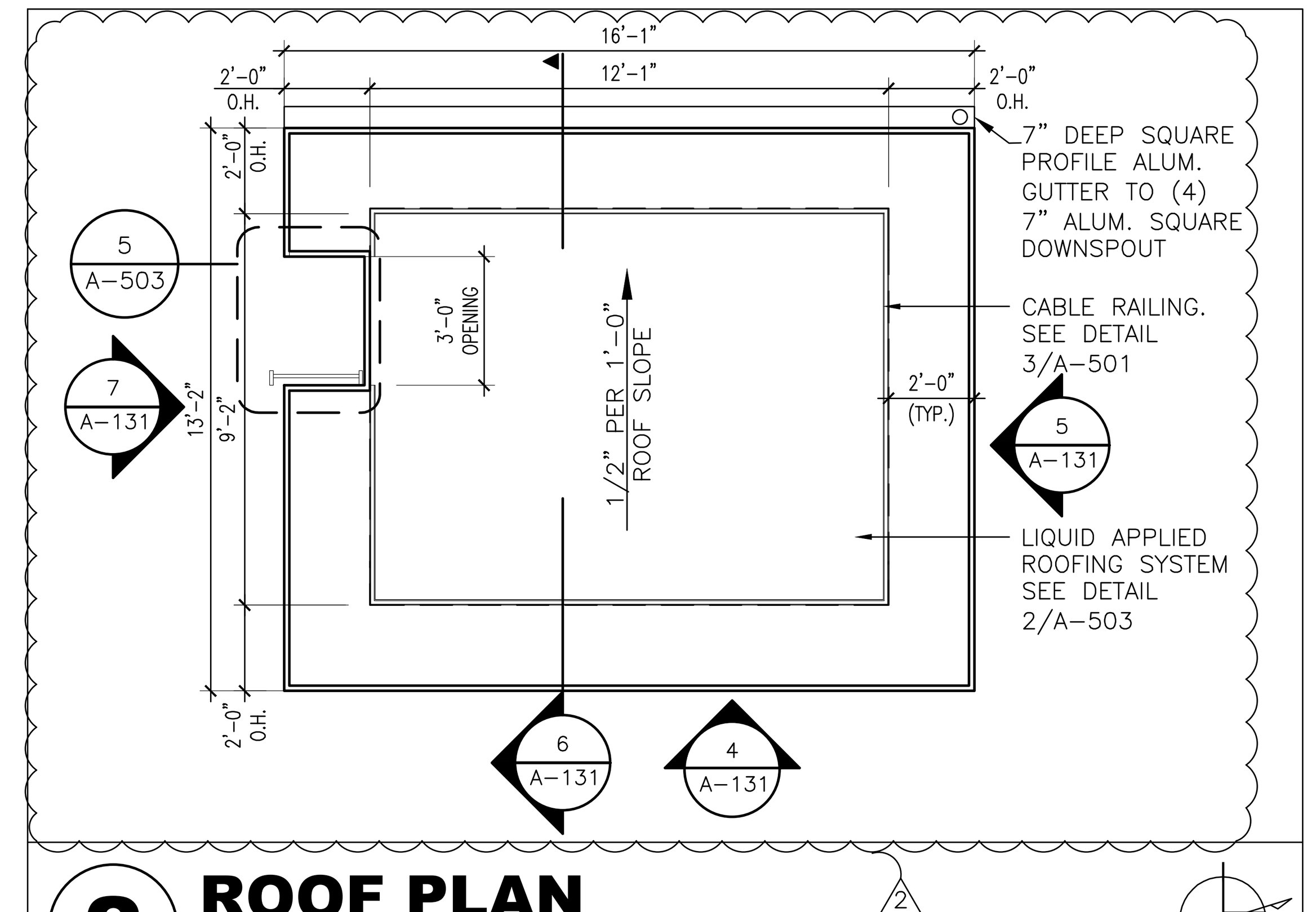
5 SIDE ELEVATION
SCALE: 1/4" = 1'-0"



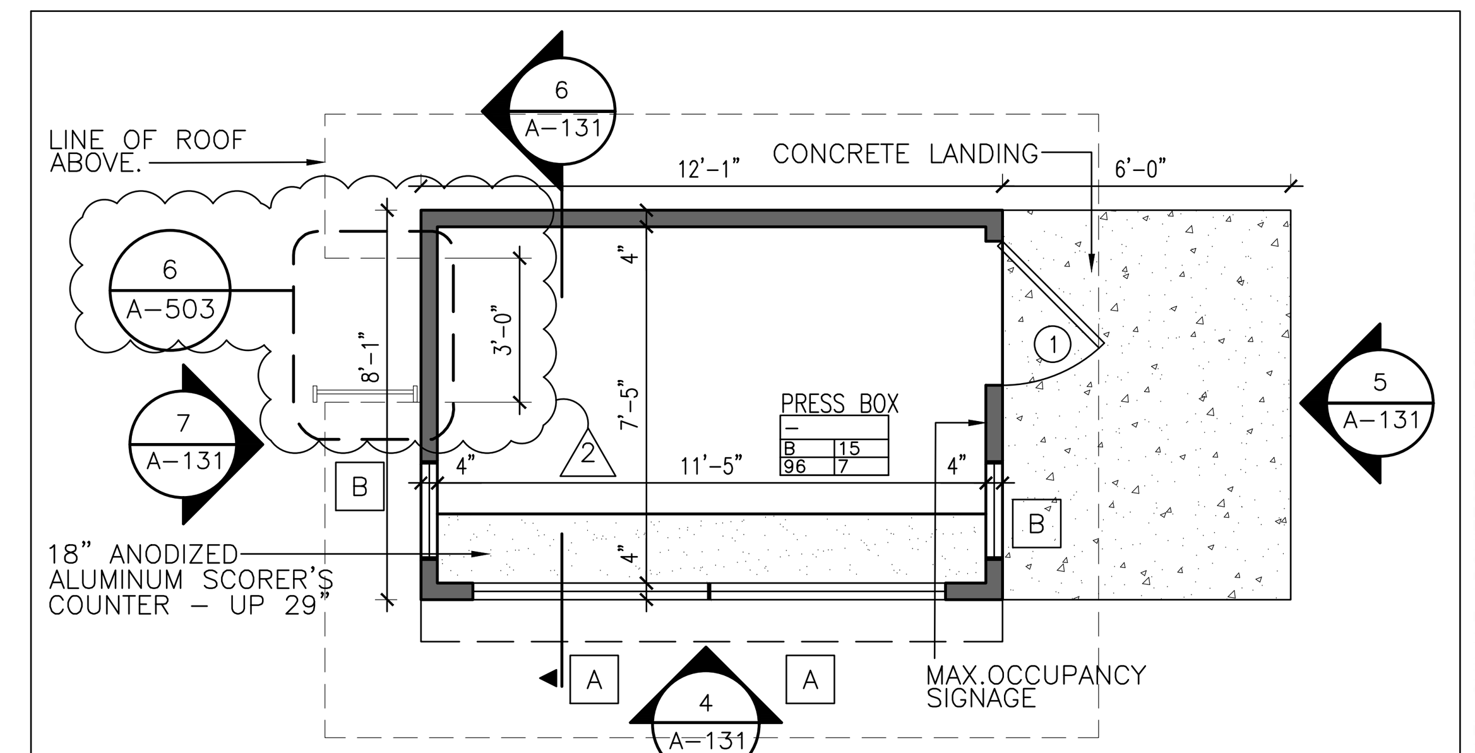
6 CROSS SECTION
SCALE: 3/4" = 1'-0"



3 REFLECTED CLG PLAN
SCALE: 1/4" = 1'-0"



2 ROOF PLAN
SCALE: 1/4" = 1'-0"



1 FLOOR PLAN
SCALE: 1/4" = 1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10–23–24	BIDDING ADDENDUM 1
1	10–03–24	BIDDING DOCUMENTS

REG. EXP DATE:12–03–25

Drawn by MAL/JR
Checked by MS/JC
Project No. 43045
Scale AS NOTED
Date 09–28–23

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

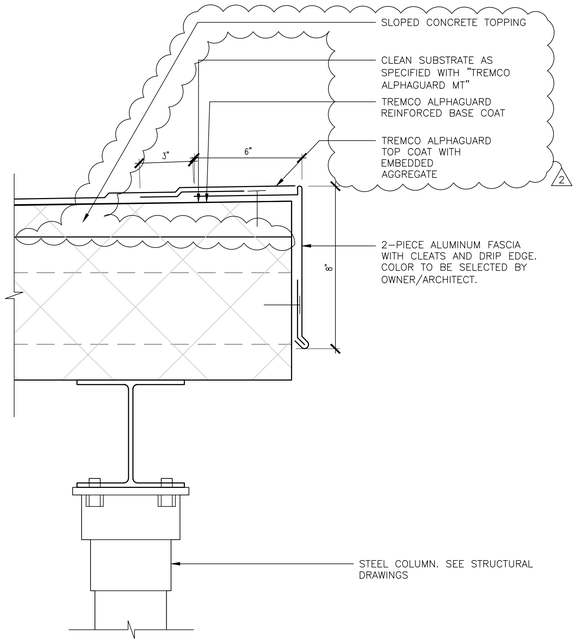
Structural & PME Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL: SED# 50–02–01–06–0–016–036
PRESS BOX – SOFTBALL: SED# 50–02–01–06–7–090–001
PRESS BOX – BASEBALL: SED# 50–02–01–06–7–091–001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

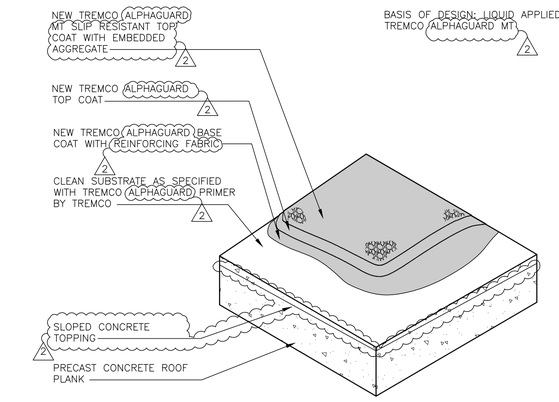
Drawing Title
FIELD HOCKEY PRESS BOX PLANS & ELEVATIONS

Drawing No.
A-131



4 LIQUID APPLIED ROOF AT DUGOUT

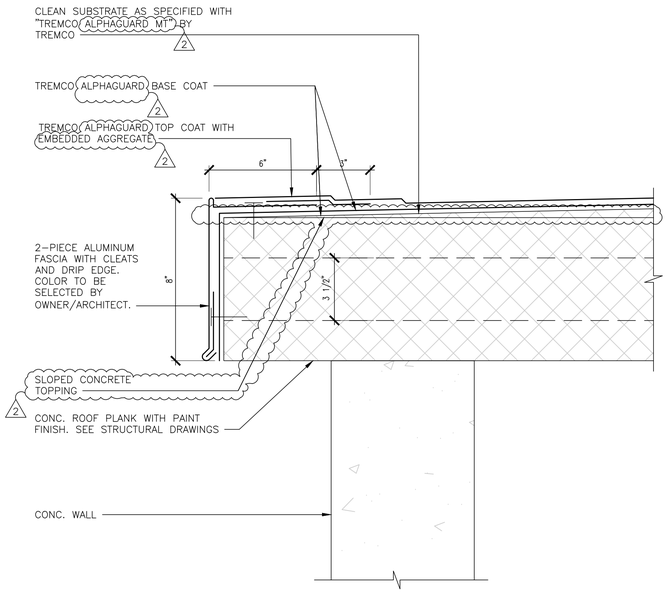
SCALE: 3"=1'-0"



2 TYP. LIQUID APPLIED ROOFING AT DUGOUT

SCALE: 3"=1'-0"

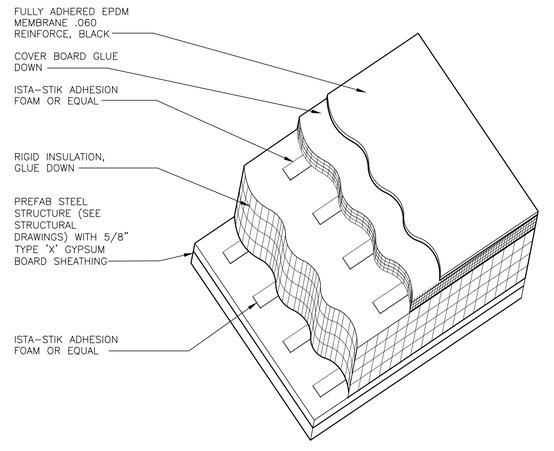
2



3 LIQUID APPLIED ROOF AT DUGOUT

SCALE: 3"=1'-0"

NOTE: ROOF INSULATION TO BE MIN R-38 AND R-30ci WHERE INSULATION IS ENTIRELY ABOVE ROOF DECK



1 TYP. EPDM ROOFING SYSTEM

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

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1, THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10-23-24	BIDDING ADDENDUM 1
1	10-03-24	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

Drawn by SP
Checked by MS/JC
Project No. 43045
Scale AS NOTED
Date 10-06-23

THE LA GROUP
LANDSCAPE ARCHITECTURE & PLANNING, PLLC
40 LONG ALLEY,
SARATOGA SPRINGS, NY 12866

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD,
SUITE 302, SUFFERN, NY 10901

Landscape Architect & Civil Engineer:
Structural & PME Engineer:

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SBL# 50-02-01-06-0-016-036
PRESS BOX - SOFTBALL: SBL# 50-02-01-06-7-600-001
PRESS BOX - BASEBALL: SBL# 50-02-01-06-7-601-001

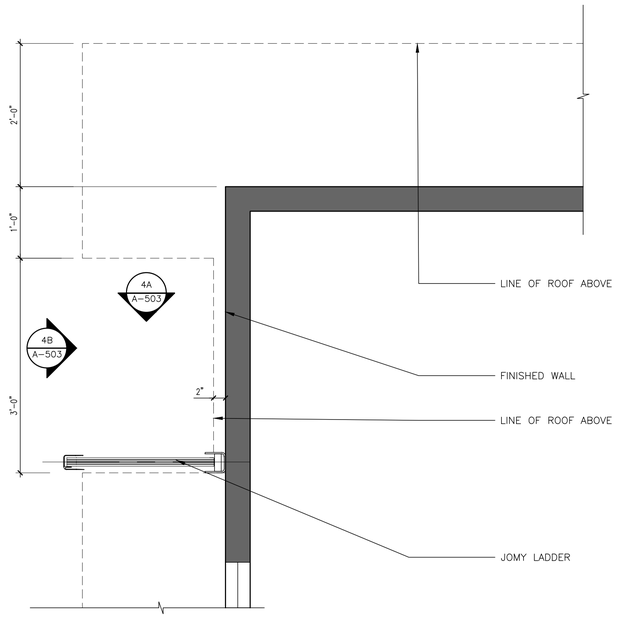
106 Hammond Rd.
Thiells, NY 10984

TOWN OF CLARKSTOWN
COUNTY OF ROCKLAND

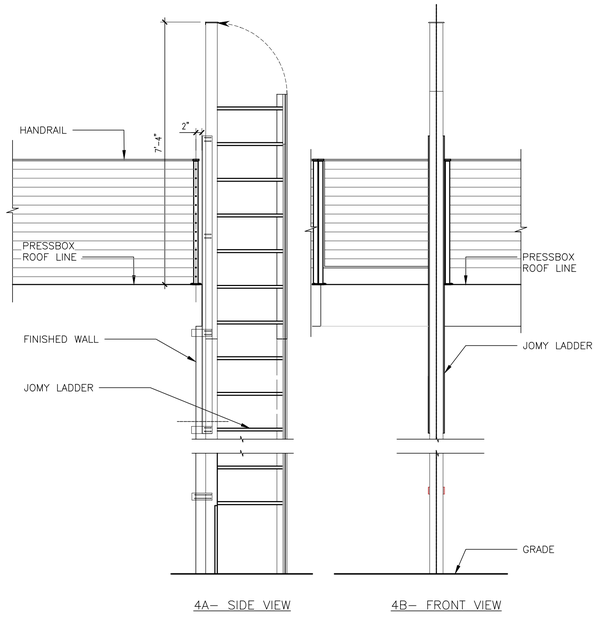
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ROOF DETAILS

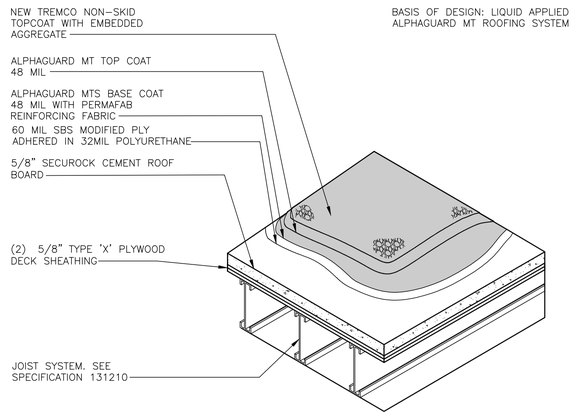
Drawing No.
A-501



6 LADDER AT FIRST FLOOR
SCALE: 1"=1'-0"

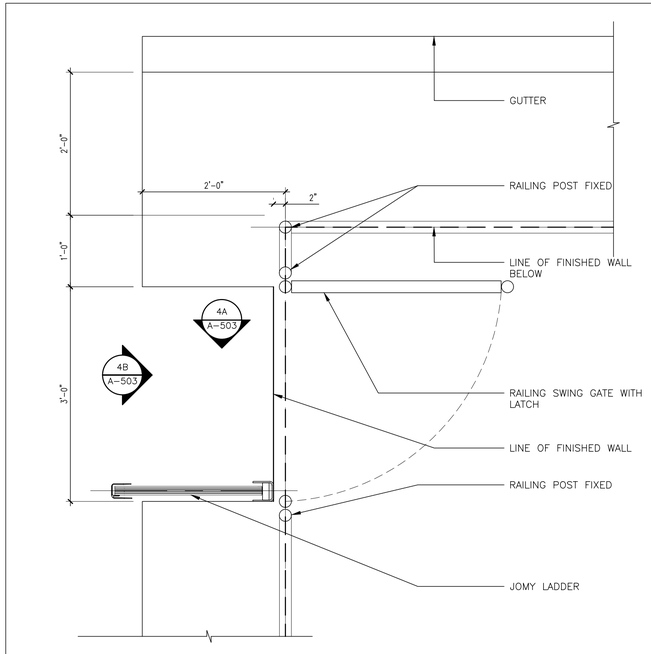


4 LADDER DETAIL
SCALE: 1/2"=1'-0"

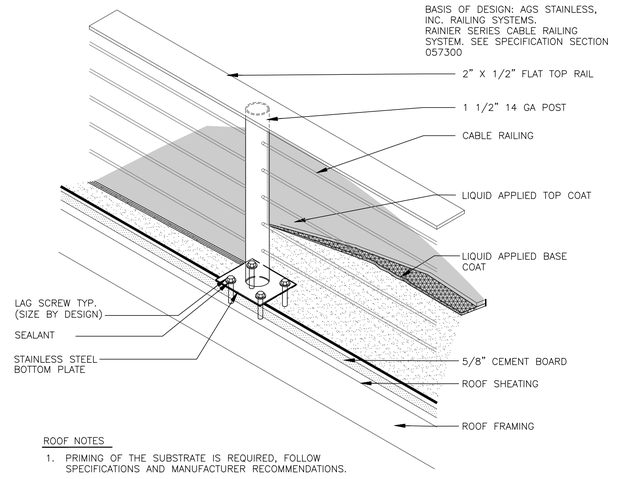


BASIS OF DESIGN: LIQUID APPLIED TREMCO ALPHAGUARD MT ROOFING SYSTEM

2 TYP. LIQUID APPLIED ROOFING
SCALE: 3"=1'-0"



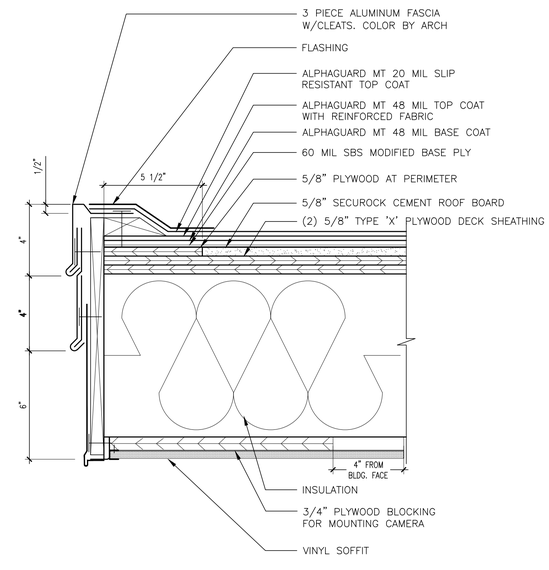
5 ROOF PLAN AT LADDER ON ROOF
SCALE: 1"=1'-0"



ROOF NOTES
1. PRIMING OF THE SUBSTRATE IS REQUIRED, FOLLOW SPECIFICATIONS AND MANUFACTURER RECOMMENDATIONS.

NOTE: CONTRACTOR SHALL SUBMIT S&S SET BY A NYSPE. SHOP DRAWINGS TO INDICATE CODE COMPLIANCE WITH NYS BUILDING CODE FOR THE HANDRAIL & GUARDRAIL LOADING REQUIREMENTS.

3 RAILING DETAIL AT FIELD HOCKEY PRESSBOX
SCALE: N.T.S.



1 FASCIA DETAIL AT PRESSBOX ROOF
SCALE: 3"=1'-0"

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
0 1/2 1

No.	Date	Revisions
2	10-23-24	BIDDING ADDENDUM 1
1	10-03-24	BIDDING DOCUMENTS

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

Drawn by JJ
Checked by MS/JC
Project No. 43045
Scale AS NOTED
Date 10-08-24

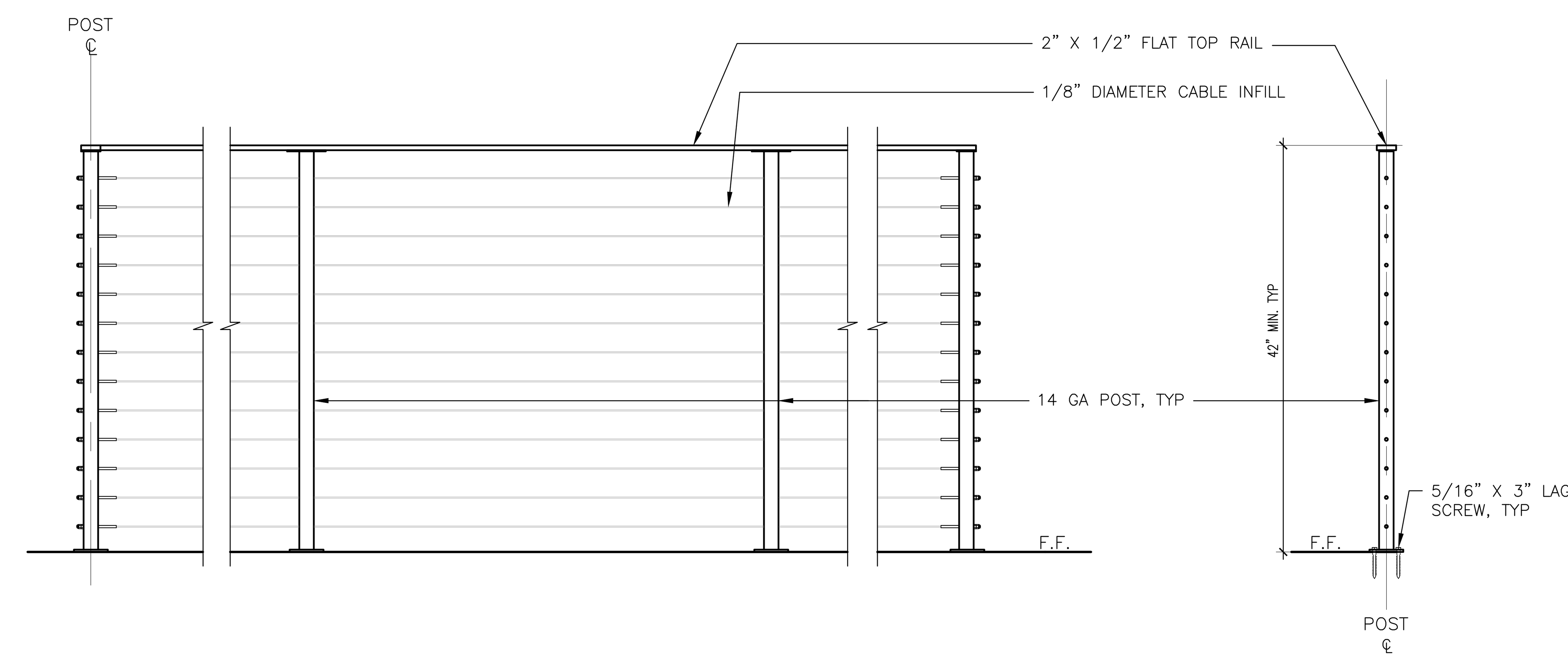
Landscape Architect & Civil Engineer: THE LA GROUP, LANDSCAPE ARCHITECTURE & ENGINEERING, 40 LAKE BLVD, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

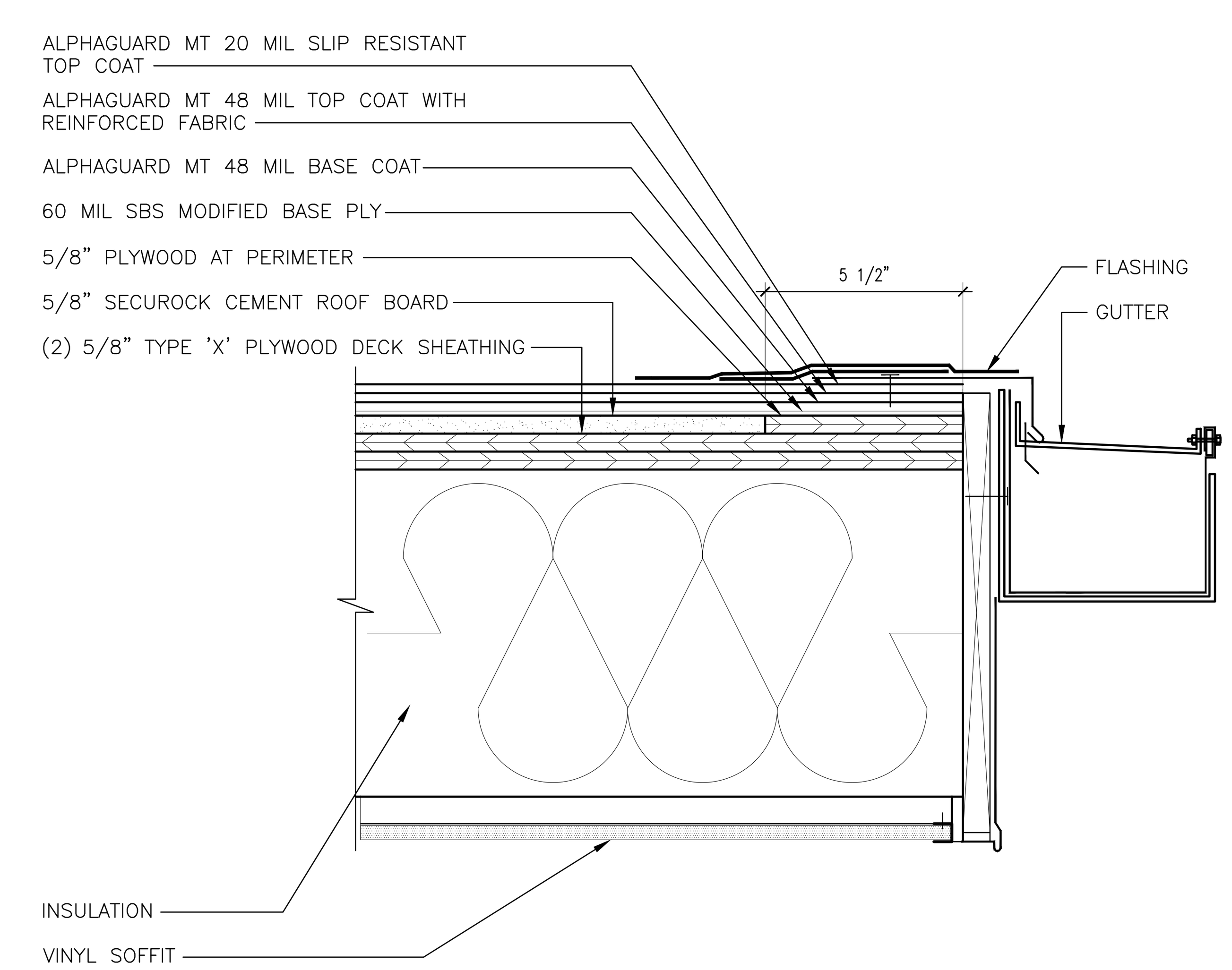
NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES
HIGH SCHOOL SBL# 50-02-01-06-7-000-001
PRESS BOX – SOFTBALL SBL# 50-02-01-06-7-000-001
PRESS BOX – BASEBALL SBL# 50-02-01-06-7-001-001
150 Hamerond Rd. Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9500
www.shilale.com

Drawing Title: ROOF DETAILS
Drawing No. A-503



2 RAILING DETAIL
SCALE: 1"=1'-0"



1 FASCIA DETAIL W/ GUTTER
SCALE: 3"=1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
2	10-23-24	BIDDING ADDENDUM 1
1	10-03-24	BIDDING DOCUMENTS

Drawn by JJ
Checked by MS/JC
Project No. 43045
Scale AS NOTED
Date 10-08-24

Landscape Architect & Civil Engineer: THE LA GROUP, LANDSCAPE ARCHITECTURE & ENGINEERING, 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS - PHASE 2 & HVAC UPGRADES
HIGH SCHOOL SED# 50-02-01-06-0-016-035
PRESS BOX - SOFTBALL SED# 50-02-01-06-7-000-001
PRESS BOX - BASEBALL SED# 50-02-01-06-7-001-001
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW, COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: ROOF DETAILS

Drawing No. A-504

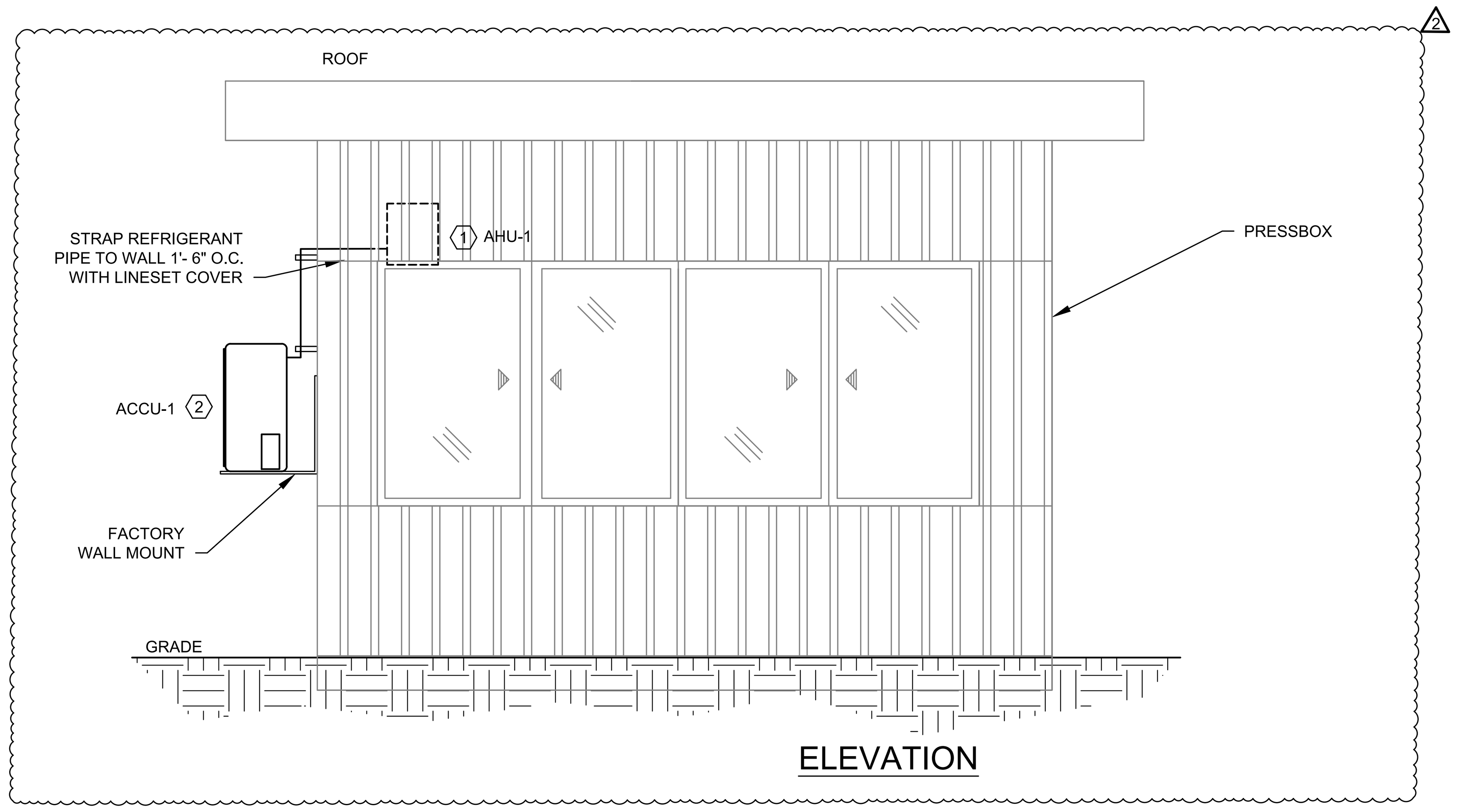
GENERAL NOTES:

1. INSTALL BOTH CONDENSERS AND AIR HANDLING UNITS AS PER MANUFACTURERS DIRECTIONS

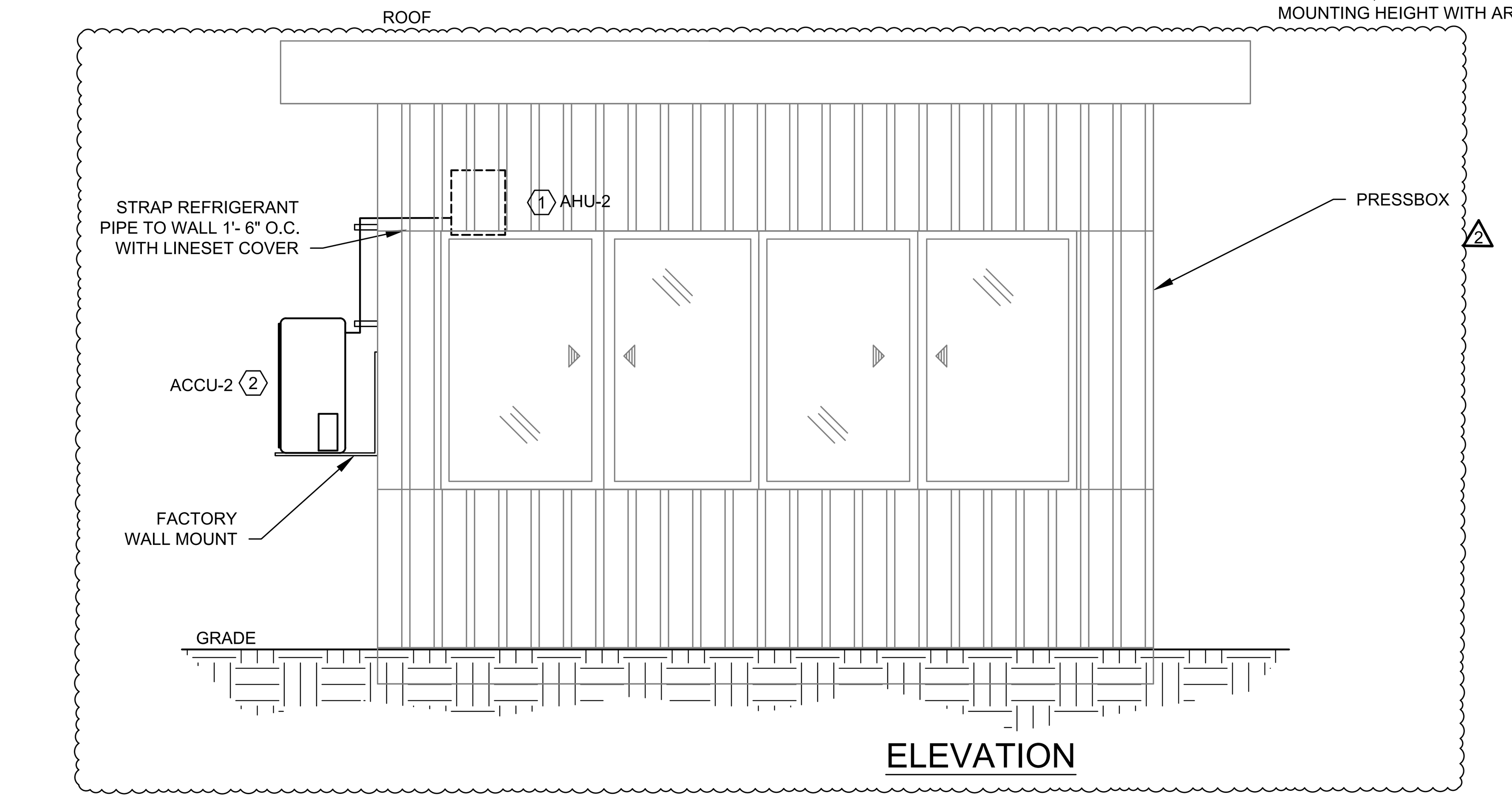
KEYED NOTES:

1. FURNISH AND INSTALL NEW INDOOR AC/HEAT PUMP UNIT, MOUNT 71" ABOVE FINISHED FLOOR. SEE SPLIT SYSTEM SCHEDULE ON DRAWING M-102.
2. FURNISH AND INSTALL OUTDOOR CONDENSER UNIT. MOUNT TO WALL, SEE SPLIT SYSTEM SCHEDULE ON DRAWING M-102.
3. FURNISH AND INSTALL NEW STAND-ALONE OEM THERMOSTAT CONTROLS, MOUNT 60" ABOVE FINISHED FLOOR, COORDINATE MOUNTING HEIGHT WITH ARCHITECT.

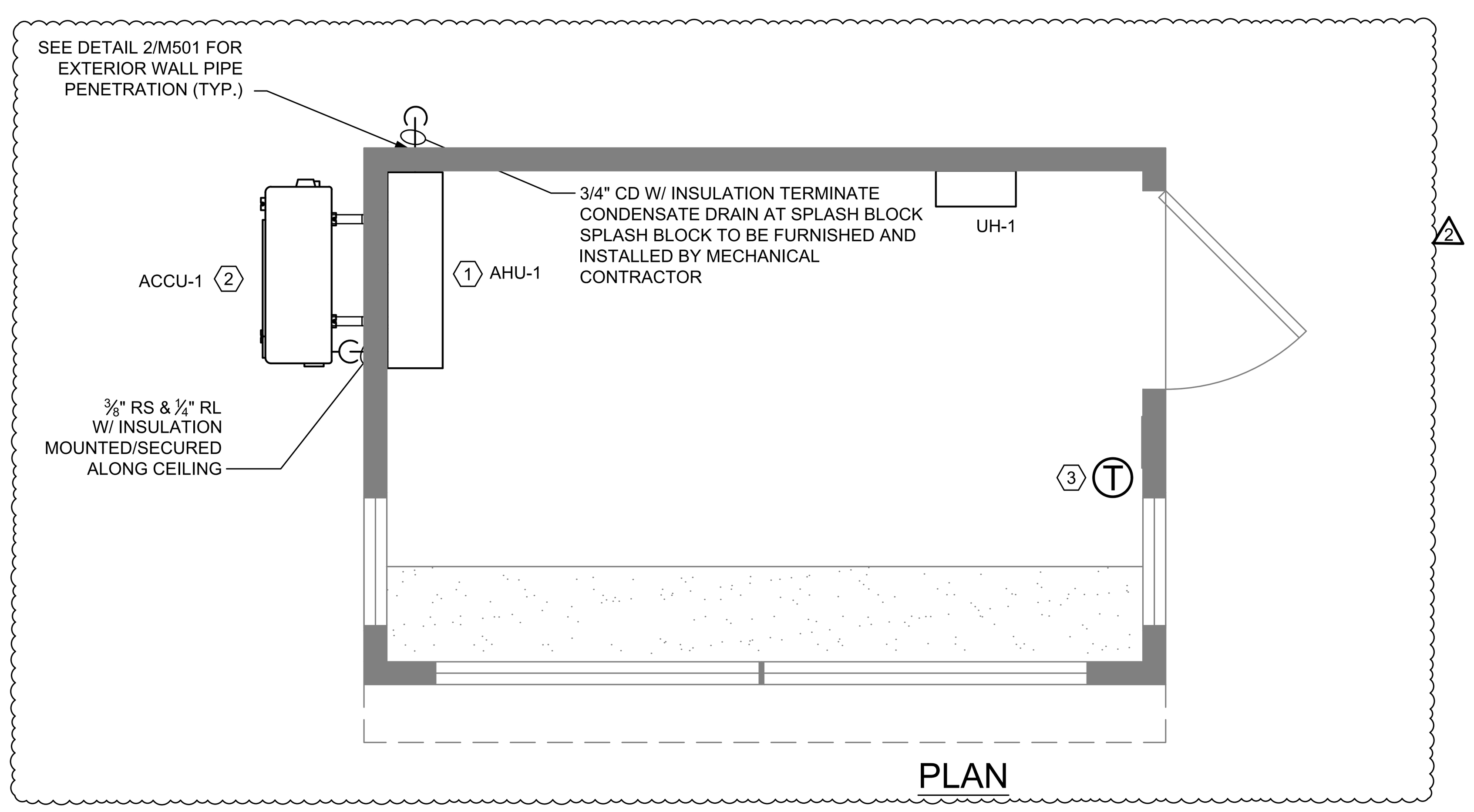
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



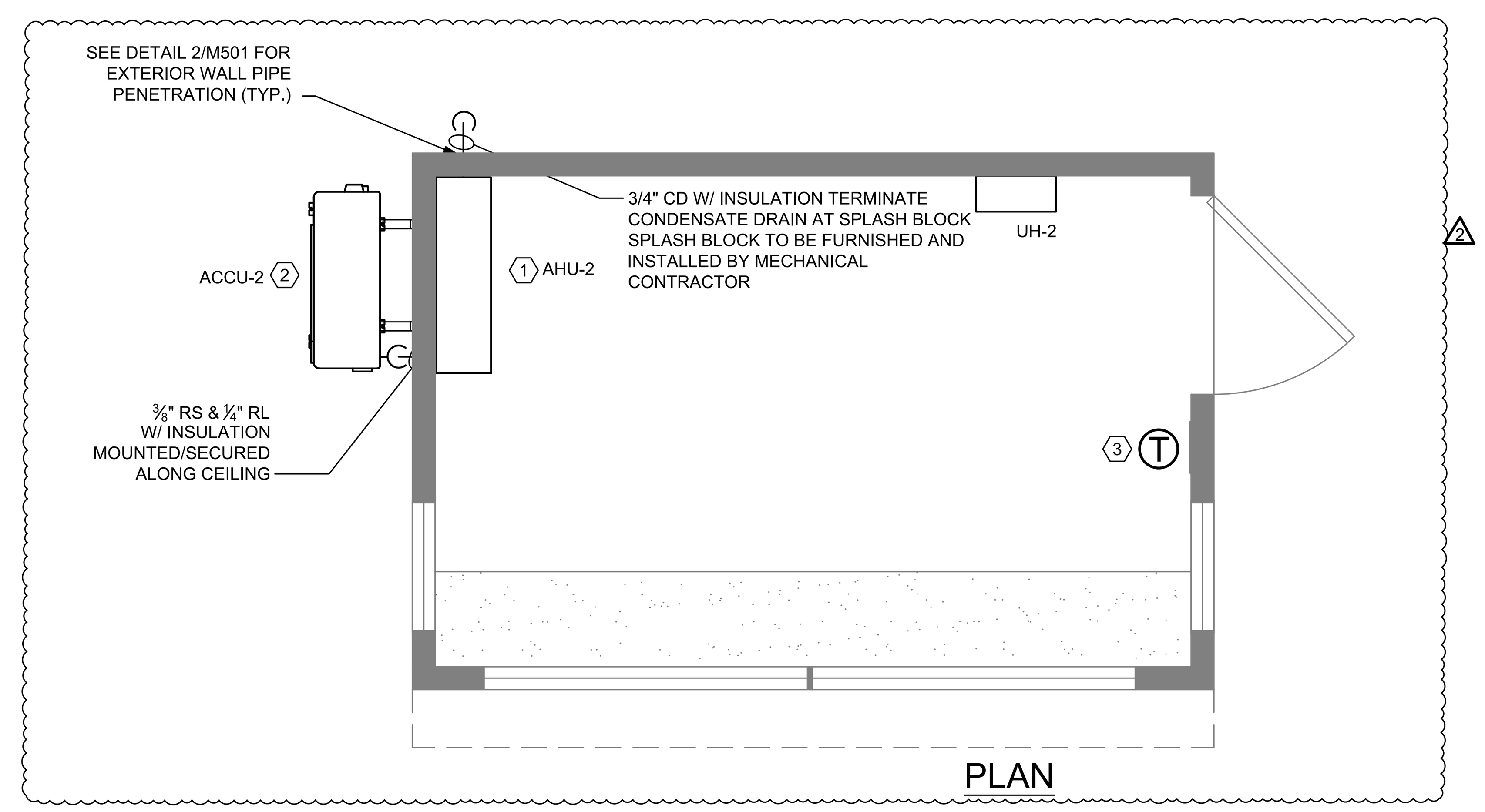
1 SOFTBALL PRESSBOX - ELEVATION
SCALE: 1/2" = 1'- 0"



2 BASEBALL PRESSBOX - ELEVATION
SCALE: 1/2" = 1'- 0"



3 SOFTBALL PRESSBOX PLAN - MECHANICAL
SCALE: 1/2" = 1'- 0"



4 BASEBALL PRESSBOX PLAN - MECHANICAL
SCALE: 1/2" = 1'- 0"

No.	Date	Revisions
2	10/23/24	REV2 BIDDING ADDENDUM1
1	09/17/24	BIDDING DOCUMENTS

Drawn by	EVF
Checked by	ERF
Project No.	43045
Scale	AS NOTED
Date	10/23/24

Landscape Architect & Civil Engineer: THE LA GROUP, LANDSCAPE ARCHITECTURE & ENGINEERING, 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

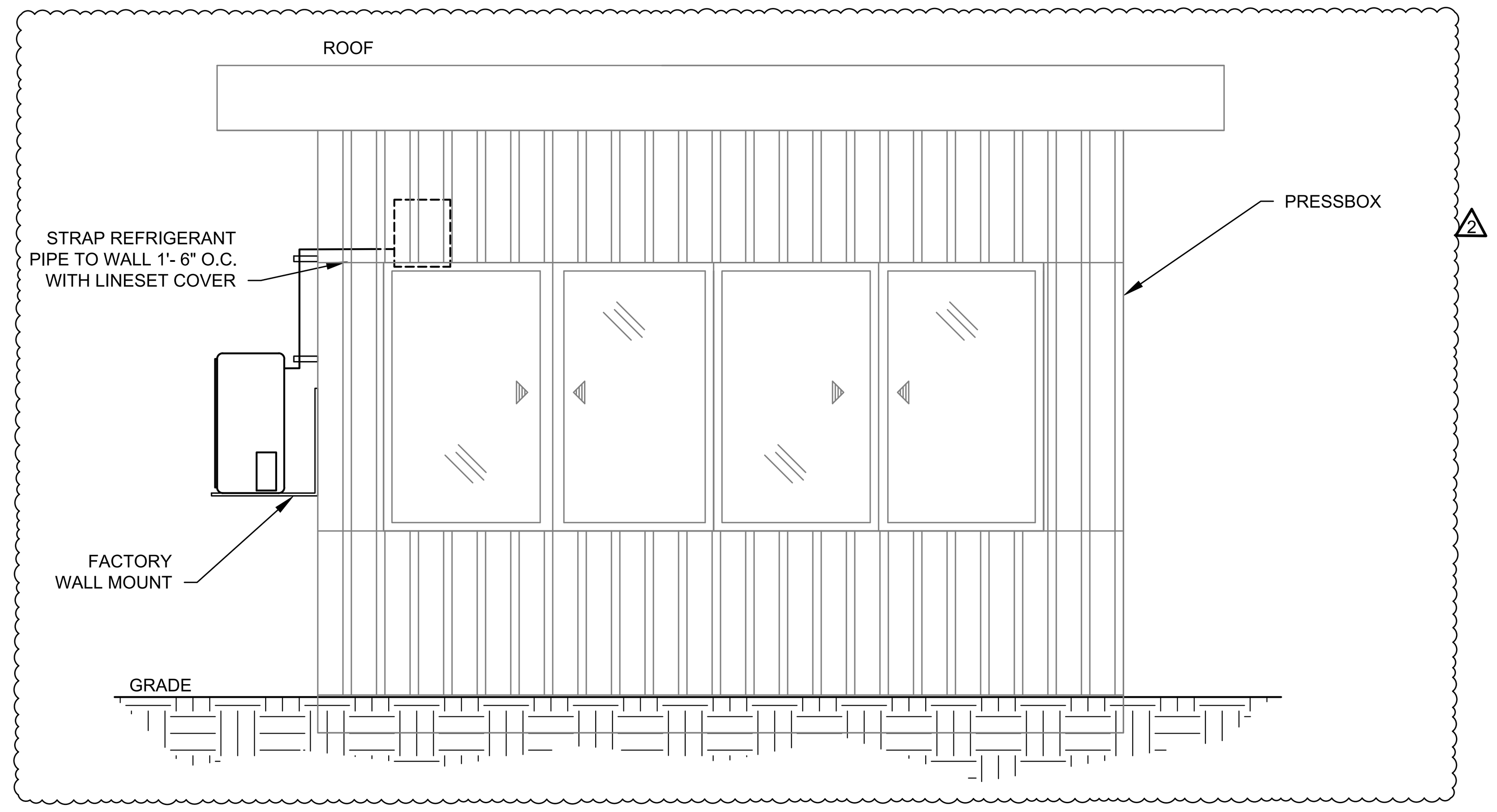
HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001

108 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

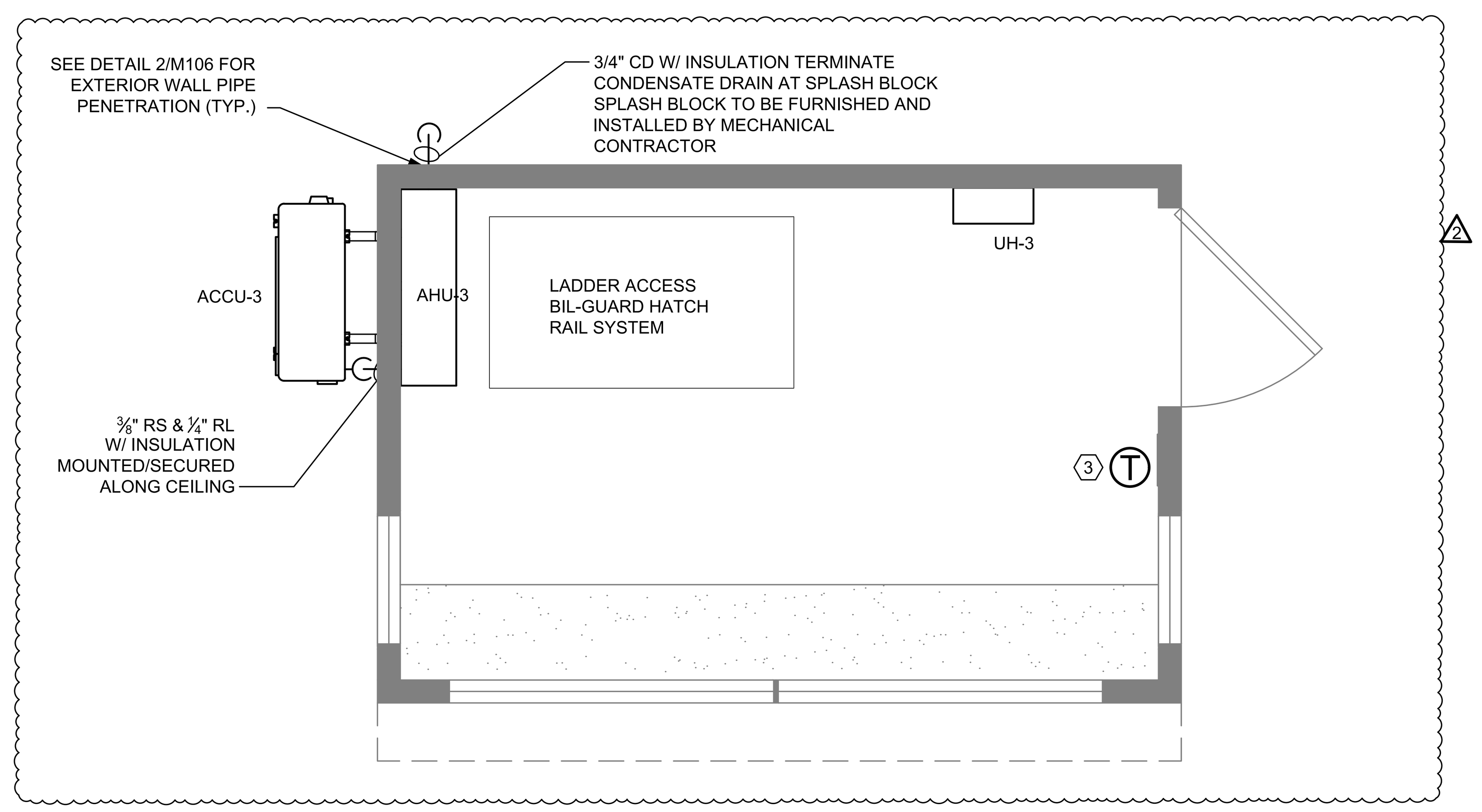
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL PRESSBOX INSTALL - 1

Drawing No.
M-102



1 FIELD HOCKEY PRESSBOX - ELEVATION
SCALE: 1/2" = 1'- 0"



2 FIELD HOCKEY PRESSBOX PLAN - MECHANICAL
SCALE: 1/2" = 1'- 0"

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	09/17/24	BIDDING DOCUMENTS
2	10/03/24	REV1 BIDDING DOCUMENTS

Drawn by
Checked by
Project No. 43045
Scale AS NOTED
Date 10/03/24

Landscape Architect & Civil Engineer: THE LA GROUP LANDSCAPE ARCHITECTURE & ENGINEERING 40 LONG ALLEY, SARATOGA SPRINGS, NY 12866

Structural & PME Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL: SED# 50-02-01-06-0-016-036
PRESS BOX – SOFTBALL: SED# 50-02-01-06-7-090-001
PRESS BOX – BASEBALL: SED# 50-02-01-06-7-091-001

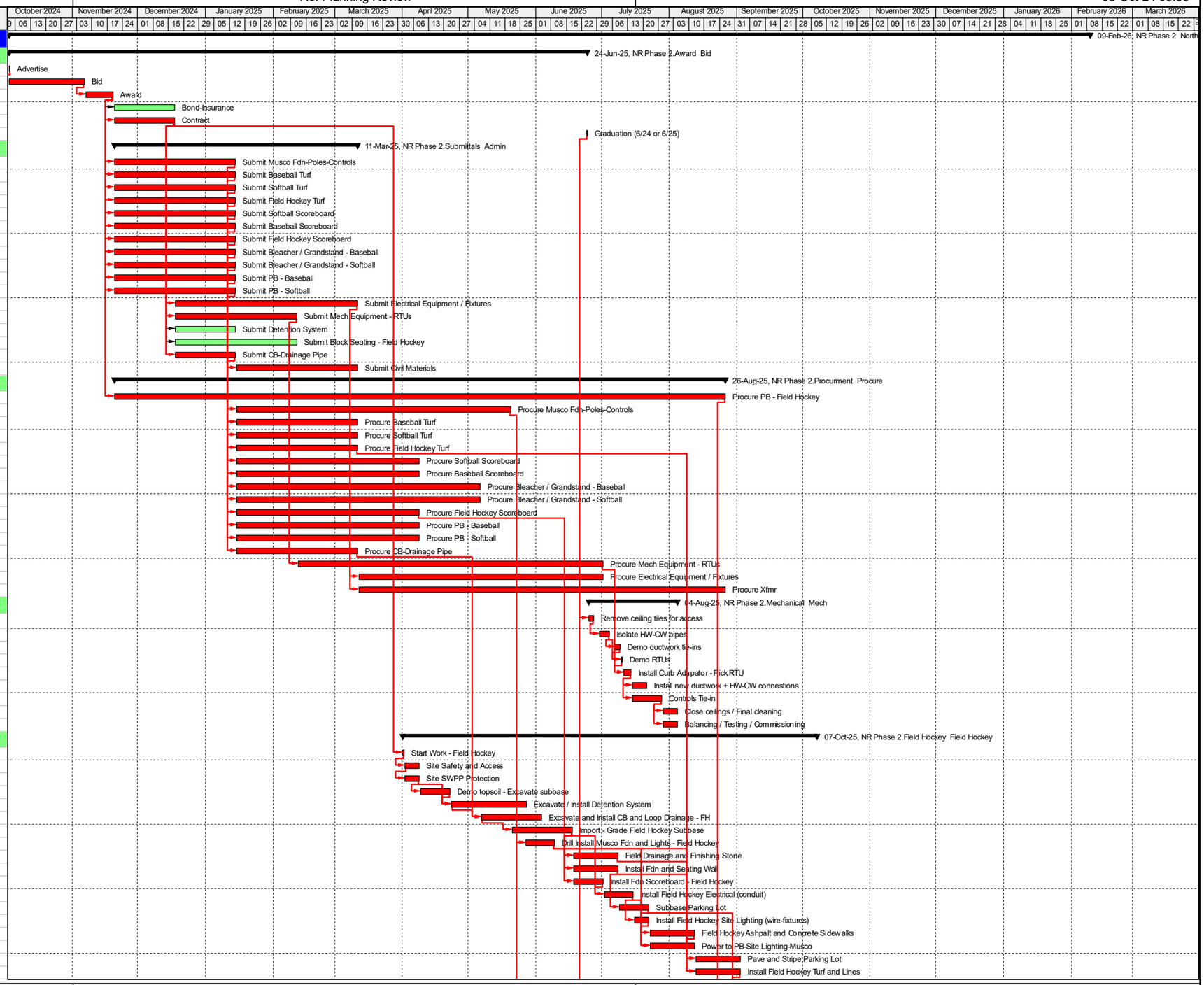
106 Hammond Rd, Thiells, NY 10984
TOWN OF HAVERSTRAW COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL PRESSBOX INSTALL - 2

Drawing No.
M-103

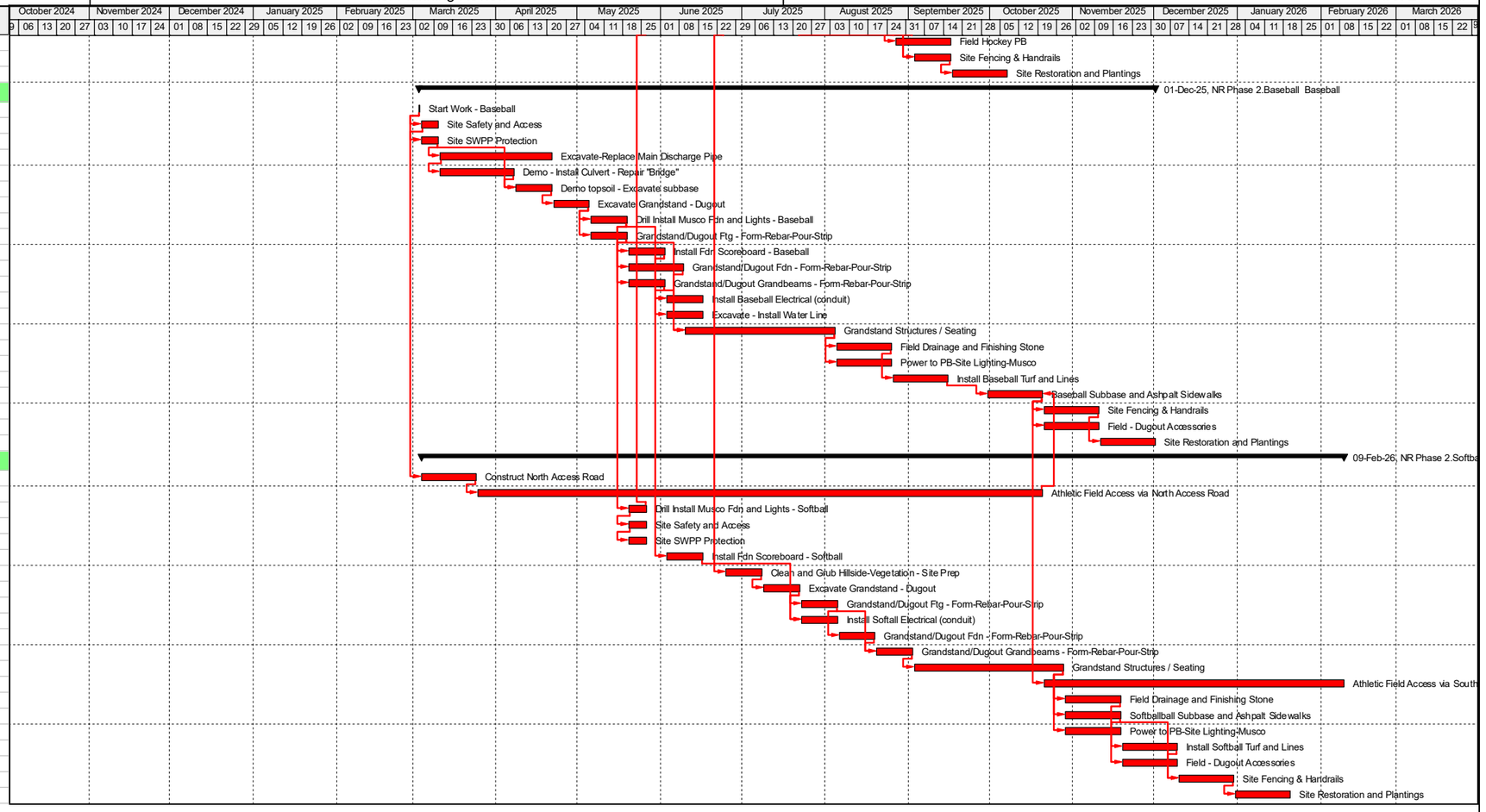
Activity ID	Activity Name	Original Duration	Calendar	Start	Finish
NR Phase 2	**North Rockland Phase 2 - HS Athl**	353	Trades - 5 Day Workweek	03-Oct-24	09-Feb-26
NR Phase 2.Award	**Bid**	189	Trades - 5 Day Workweek	03-Oct-24	24-Jun-25
A1000	Advertise	1	Trades - 5 Day	03-Oct-24*	03-Oct-24
A1010	Bid	25	Trades - 5 Day	03-Oct-24	06-Nov-24
A1020	Award	9	Trades - 5 Day	07-Nov-24	19-Nov-24
A1030	Bond-Insurance	20	Trades - 5 Day	20-Nov-24	17-Dec-24
A1040	Contract	20	Trades - 5 Day	20-Nov-24	17-Dec-24
A1790	Graduation (6/24 or 6/25)	1	Trades - 5 Day	24-Jun-25*	24-Jun-25
NR Phase 2.Submittals	**Admin**	80	Trades - 5 Day Workweek	20-Nov-24	11-Mar-25
A1070	Submit Musco Fdn-Poles-Controls	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1080	Submit Baseball Turf	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1090	Submit Softball Turf	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1100	Submit Field Hockey Turf	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1110	Submit Softball Scoreboard	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1120	Submit Baseball Scoreboard	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1130	Submit Field Hockey Scoreboard	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1200	Submit Bleacher / Grandstand - Baseball	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1210	Submit Bleacher / Grandstand - Softball	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1900	Submit PB - Baseball	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1910	Submit PB - Softball	40	Trades - 5 Day	20-Nov-24	14-Jan-25
A1060	Submit Electrical Equipment / Fixtures	60	Trades - 5 Day	18-Dec-24	11-Mar-25
A1140	Submit Mech Equipment - RTUs	40	Trades - 5 Day	18-Dec-24	11-Feb-25
A1190	Submit Detention System	20	Trades - 5 Day	18-Dec-24	14-Jan-25
A1220	Submit Block Seating - Field Hockey	40	Trades - 5 Day	18-Dec-24	11-Feb-25
A1230	Submit CB-Drainage Pipe	20	Trades - 5 Day	18-Dec-24	14-Jan-25
A1890	Submit Civil Materials	40	Trades - 5 Day	15-Jan-25	11-Mar-25
NR Phase 2.Procurment	**Procure**	200	Trades - 5 Day Workweek	20-Nov-24	26-Aug-25
A1950	Procure PB - Field Hockey	200	Trades - 5 Day	20-Nov-24	26-Aug-25
A1620	Procure Musco Fdn-Poles-Controls	90	Trades - 5 Day	15-Jan-25	20-May-25
A1630	Procure Baseball Turf	40	Trades - 5 Day	15-Jan-25	11-Mar-25
A1640	Procure Softball Turf	40	Trades - 5 Day	15-Jan-25	11-Mar-25
A1650	Procure Field Hockey Turf	40	Trades - 5 Day	15-Jan-25	11-Mar-25
A1660	Procure Softball Scoreboard	60	Trades - 5 Day	15-Jan-25	08-Apr-25
A1670	Procure Baseball Scoreboard	60	Trades - 5 Day	15-Jan-25	08-Apr-25
A1690	Procure Bleacher / Grandstand - Baseball	80	Trades - 5 Day	15-Jan-25	06-May-25
A1700	Procure Bleacher / Grandstand - Softball	80	Trades - 5 Day	15-Jan-25	06-May-25
A1710	Procure Field Hockey Scoreboard	60	Trades - 5 Day	15-Jan-25	08-Apr-25
A1960	Procure PB - Baseball	60	Trades - 5 Day	15-Jan-25	08-Apr-25
A1970	Procure PB - Softball	60	Trades - 5 Day	15-Jan-25	08-Apr-25
A1980	Procure CB-Drainage Pipe	40	Trades - 5 Day	15-Jan-25	11-Mar-25
A1680	Procure Mech Equipment - RTUs	100	Trades - 5 Day	12-Feb-25	01-Jul-25
A1930	Procure Electrical Equipment / Fixtures	80	Trades - 5 Day	12-Mar-25	01-Jul-25
A1940	Procure Xfmr	120	Trades - 5 Day	12-Mar-25	26-Aug-25
NR Phase 2.Mechanical	**Mech**	29	Trades - 5 Day Workweek	25-Jun-25	04-Aug-25
A2070	Remove ceiling tiles for access	3	Trades - 5 Day	25-Jun-25	27-Jun-25
A2080	Isolate HW-CW pipes	5	Trades - 5 Day	30-Jun-25	04-Jul-25
A2090	Demo ductwork tie-ins	3	Trades - 5 Day	07-Jul-25	09-Jul-25
A2100	Demo RTUs	1	Trades - 5 Day	10-Jul-25	10-Jul-25
A2110	Install Curb Adapator - Pick RTU	2	Trades - 5 Day	11-Jul-25	14-Jul-25
A2120	Install new ductwork + HW-CW connestions	5	Trades - 5 Day	15-Jul-25	21-Jul-25
A2130	Controls Tie-in	10	Trades - 5 Day	15-Jul-25	28-Jul-25
A2140	Close ceilings / Final cleaning	5	Trades - 5 Day	29-Jul-25	04-Aug-25
A2150	Balancing / Testing / Commissioning	5	Trades - 5 Day	29-Jul-25	04-Aug-25
NR Phase 2.Field Hockey	**Field Hockey**	136	Trades - 5 Day Workweek	01-Apr-25	07-Oct-25
A1050	Start Work - Field Hockey	1	Trades - 5 Day	01-Apr-25*	01-Apr-25
A1150	Site Safety and Access	5	Trades - 5 Day	02-Apr-25	08-Apr-25
A1160	Site SWPP Protection	5	Trades - 5 Day	02-Apr-25	08-Apr-25
A1170	Demo topsoil - Excavate subbase	10	Trades - 5 Day	09-Apr-25	22-Apr-25
A1180	Excavate / Install Detention System	25	Trades - 5 Day	23-Apr-25	27-May-25
A1300	Excavate and Install CB and Loop Drainage - FH	20	Trades - 5 Day	07-May-25	03-Jun-25
A1310	Import - Grade Field Hockey Subbase	20	Trades - 5 Day	21-May-25	17-Jun-25
A1270	Drill Install Musco Fdn and Lights - Field Hockey	10	Trades - 5 Day	27-May-25	09-Jun-25
A1320	Field Drainage and Finishing Stone	15	Trades - 5 Day	18-Jun-25	08-Jul-25
A1330	Install Fdn and Seating Wall	15	Trades - 5 Day	18-Jun-25	08-Jul-25
A1390	Install Fdn Scoreboard - Field Hockey	10	Trades - 5 Day	18-Jun-25	01-Jul-25
A1370	Install Field Hockey Electrical (conduit)	10	Trades - 5 Day	02-Jul-25	15-Jul-25
A1350	Subbase Parking Lot	10	Trades - 5 Day	09-Jul-25	22-Jul-25
A1380	Install Field Hockey Site Lighting (wire-fixtures)	5	Trades - 5 Day	16-Jul-25	22-Jul-25
A1440	Field Hockey Ashpalt and Concrete Sidewalks	15	Trades - 5 Day	23-Jul-25	12-Aug-25
A1760	Power to PB-Site Lighting-Musco	15	Trades - 5 Day	23-Jul-25	12-Aug-25
A1360	Pave and Stripe Parking Lot	15	Trades - 5 Day	13-Aug-25	02-Sep-25
A1510	Install Field Hockey Turf and Lines	15	Trades - 5 Day	13-Aug-25	02-Sep-25



Actual Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | summary

TASK filter: All Activities

Activity ID	Activity Name	Original Duration	Calendar	Start	Finish
A1990	Field Hockey PB	15	Trades - 5 Day	27-Aug-25	16-Sep-25
A1340	Site Fencing & Handrails	10	Trades - 5 Day	03-Sep-25	16-Sep-25
A1550	Site Restoration and Plantings	15	Trades - 5 Day	17-Sep-25	07-Oct-25
NR Phase 2.Baseball Baseball		196	Trades - 5 Day Workweek	03-Mar-25	01-Dec-25
A1720	Start Work - Baseball	1	Trades - 5 Day	03-Mar-25*	03-Mar-25
A1240	Site Safety and Access	5	Trades - 5 Day	04-Mar-25*	10-Mar-25
A1250	Site SWPP Protection	5	Trades - 5 Day	04-Mar-25	10-Mar-25
A1260	Excavate-Replace Main Discharge Pipe	30	Trades - 5 Day	11-Mar-25	21-Apr-25
A1520	Demo - Install Culvert - Repair "Bridge"	20	Trades - 5 Day	11-Mar-25	07-Apr-25
A1750	Demo topsoil - Excavate subbase	10	Trades - 5 Day	08-Apr-25	21-Apr-25
A1460	Excavate Grandstand - Dugout	10	Trades - 5 Day	22-Apr-25	05-May-25
A1280	Drill Install Musco Fdn and Lights - Baseball	10	Trades - 5 Day	06-May-25	19-May-25
A1480	Grandstand/Dugout Ftg - Form-Rebar-Pour-Strip	10	Trades - 5 Day	06-May-25	19-May-25
A1400	Install Fdn Scoreboard - Baseball	10	Trades - 5 Day	20-May-25	02-Jun-25
A1470	Grandstand/Dugout Fdn - Form-Rebar-Pour-Strip	15	Trades - 5 Day	20-May-25	09-Jun-25
A1490	Grandstand/Dugout Grandbeams - Form-Rebar-Pc	10	Trades - 5 Day	20-May-25	02-Jun-25
A1430	Install Baseball Electrical (conduit)	10	Trades - 5 Day	03-Jun-25	16-Jun-25
A1500	Excavate - Install Water Line	10	Trades - 5 Day	03-Jun-25	16-Jun-25
A1740	Grandstand Structures / Seating	40	Trades - 5 Day	10-Jun-25	04-Aug-25
A1410	Field Drainage and Finishing Stone	15	Trades - 5 Day	05-Aug-25	25-Aug-25
A2000	Power to PB-Site Lighting-Musco	15	Trades - 5 Day	05-Aug-25	25-Aug-25
A1730	Install Baseball Turf and Lines	15	Trades - 5 Day	26-Aug-25	15-Sep-25
A1530	Baseball Subbase and Ashpalt Sidewalks	15	Trades - 5 Day	30-Sep-25	20-Oct-25
A1420	Site Fencing & Handrails	15	Trades - 5 Day	21-Oct-25	10-Nov-25
A1450	Field - Dugout Accessories	15	Trades - 5 Day	21-Oct-25	10-Nov-25
A2040	Site Restoration and Plantings	15	Trades - 5 Day	11-Nov-25	01-Dec-25
NR Phase 2.Softball Softball		245	Trades - 5 Day Workweek	04-Mar-25	09-Feb-26
A1780	Construct North Access Road	15	Trades - 5 Day	04-Mar-25	24-Mar-25
A2160	Athletic Field Access via North Access Road	150	Trades - 5 Day	25-Mar-25	20-Oct-25
A1290	Drill Install Musco Fdn and Lights - Softball	5	Trades - 5 Day	20-May-25	26-May-25
A2010	Site Safety and Access	5	Trades - 5 Day	20-May-25*	26-May-25
A2020	Site SWPP Protection	5	Trades - 5 Day	20-May-25	26-May-25
A1810	Install Fdn Scoreboard - Softball	10	Trades - 5 Day	03-Jun-25	16-Jun-25
A1610	Clean and Grub Hillside-Vegetation - Site Prep	10	Trades - 5 Day	25-Jun-25	08-Jul-25
A1590	Excavate Grandstand - Dugout	10	Trades - 5 Day	09-Jul-25	22-Jul-25
A1580	Grandstand/Dugout Ftg - Form-Rebar-Pour-Strip	10	Trades - 5 Day	23-Jul-25	05-Aug-25
A1820	Install Softall Electrical (conduit)	10	Trades - 5 Day	23-Jul-25	05-Aug-25
A1570	Grandstand/Dugout Fdn - Form-Rebar-Pour-Strip	10	Trades - 5 Day	06-Aug-25	19-Aug-25
A1600	Grandstand/Dugout Grandbeams - Form-Rebar-Pc	10	Trades - 5 Day	20-Aug-25	02-Sep-25
A1840	Grandstand Structures / Seating	40	Trades - 5 Day	03-Sep-25	28-Oct-25
A1800	Athletic Field Access via South Access Road	80	Trades - 5 Day	21-Oct-25	09-Feb-26
A1850	Field Drainage and Finishing Stone	15	Trades - 5 Day	29-Oct-25	18-Nov-25
A1870	Softballball Subbase and Ashpalt Sidewalks	15	Trades - 5 Day	29-Oct-25	18-Nov-25
A2050	Power to PB-Site Lighting-Musco	15	Trades - 5 Day	29-Oct-25	18-Nov-25
A1860	Install Softball Turf and Lines	15	Trades - 5 Day	19-Nov-25	09-Dec-25
A2030	Field - Dugout Accessories	15	Trades - 5 Day	19-Nov-25	09-Dec-25
A1880	Site Fencing & Handrails	15	Trades - 5 Day	10-Dec-25	30-Dec-25
A2060	Site Restoration and Plantings	15	Trades - 5 Day	31-Dec-25	20-Jan-26



Actual Level of Effort | Actual Work | Remaining Work | Critical Remaining Work | Milestone | summary

TASK filter: All Activities

North Rockland Phase 2 - Site Logistics and Phasing Plan - 1

Access path #1
Path to be 15ft wide with 8ft high chainlink fence on both sides. Path to be 6" basestone with millings (or similar) for safe pedestrian and vechile pathway. Maintain for duration of project or until another pathway is available

8ft temp. chain link fence around construction area at all times. Install gates as required and requested

Maintain pedestrian access path for walking students from residential area to school. School will maintain path for weather related occurances, Contractor shall maintain all other needs.

Maintain an emergency only access path. Coordinate path/stock piles/storage as needed as schedule dictates

Access path is the primary source of access for school use of the Track/Football Complex. Graduation is also held on this field at the end of June. No work shall commence on the day of graduation. Work shall be scheduled/ corrdinated leading up to the days around graduation

Upon completion of the paved baseball field access path, Access path #1 can be removed and signage added for access to the Athletic Complex via this route. Coordination will be required for work adjacent to this path while the Complex is in use.

Create emergency access path for graduation (vechile)

FIELD HOCKEY FIELD AND PARKING LOT

BASEBALL FIELD

SOFTBALL FIELD

Modify curb and fence to receive temp roadway / access path

Coordinate pathway to avoid foundations, structures, utilities. Contractor to included path crossing and continual upkeep as need to facility project schedule

Maintain school/ public/emergency acess around building at all times

Site trailers can be placed along site CM's trailer in parking lot

50 0 10 20 30 40 50
Scale: 1" = 50'

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

No.	Date	Revisions
2	05/20/24	REVIEW SET
1	12/06/23	BIDDING DOCUMENTS

EXPIRATION 01/31/2027

Drawn by KMK
Checked by JFK
Project No. 43045
Scale AS NOTED
Date 10/30/2023

Landscape Architect & Civil Engineer: The LA GROUP
Structural Engineer: - - -

NORTH ROCKLAND HIGH SCHOOL FIELDS – PHASE 2 & HVAC UPGRADES

HIGH SCHOOL SBL# 60-02-01-06-0-010-006
PRESS BOX – SOFTBALL SBL# 60-02-01-06-7-000-001
PRESS BOX – BASEBALL SBL# 60-02-01-06-7-001-001
106 Hammond Rd.
Pearl River, NY 10965
TOWN OF ORANGETOWN
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: SITE KEY PLAN

Drawing No. C-100 of X

North Rockland Phase 2 - Site Logistics and Phasing Plan - 2