

CONSTRUCTION DOCUMENTS

**ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
CAMDEN, ME 04843**

October 4, 2023

PREPARED FOR:

**MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
7 LIONS LANE
CAMDEN, ME 04843**

PREPARED BY:

**GALE ASSOCIATES, INC.
300 LEDGEWOOD PLACE
ROCKLAND, MA 02370**



JN 718830

S
P
E
C
I
F
I
C
A
T
I
O
N
S

THIS PAGE IS INTENTIONALLY LEFT BLANK

**PROJECT MANUAL
FOR
ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
CAMDEN, MAINE**

TABLE OF CONTENTS

INFORMATION TO BIDDERS AND BID FORMS

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS Section No.

Notice to Contractors.....	00 11 13
Instructions to Bidders.....	00 21 13

PROCUREMENT FORMS

Contractor Bid Form	00 41 13
Contractor Bid Bond	00 43 13

NOTICE OF AWARD

Contract Agreement	00 52 13
--------------------------	----------

PROJECT FORMS

Contractor Performance Bond.....	00 61 13.13
Contractor Payment Bond	00 61 13.16
Application for Payment.....	00 62 76
Change Order.....	00 63 63

CONDITIONS OF THE CONTRACT

Definitions	00 71 00
General Conditions.....	00 72 13
Wage Determination Schedule.....	00 73 46

**TECHNICAL SPECIFICATIONS
FOR
ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
CAMDEN, MAINE**

TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

Summary of Work.....	01 01 00
Conduct of the Work.....	01 31 14
Submittal Requirements	01 33 02
Environmental Protection Procedures.....	01 35 43
Temporary Facilities	01 50 00
Project Closeout	01 70 00
Surveys & Record Drawings	01 71 23
Cleaning Up.....	01 74 19
Protection	01 76 00

DIVISION 02 - EXISTING CONDITIONS

Existing Conditions	02 21 13
Subsurface Investigation	02 30 00
Selective Site Demolition.....	02 41 13

DIVISION 11 – EQUIPMENT

Athletic Field Equipment.....	11 68 33
-------------------------------	----------

DIVISION 31 – EARTHWORK

Site Clearing	31 10 00
Earth Moving	31 20 00
Erosion and Sedimentation Controls	31 25 00

DIVISION 32 - EXTERIOR IMPROVEMENTS

Infield Mix	32 18 26
Fence and Gates.....	32 31 13
Loam and Seed.....	32 92 50

DIVISION 33 – UTILITIES

Storm Utility Drainage.....	33 41 00
-----------------------------	----------

END OF TABLE OF CONTENTS

00 11 13
Notice to Contractors

Camden-Rockport Middle School - Athletic Field Improvements
34 Knowlton Street, Camden, Maine 04843

Removal and replacement of softball infield, chain link backstop, and dugouts. Installation of roughly 700 feet of drainage pipe, four (4) drainage structures, and limited site regrading.

The cost of the work is approximately \$ 270,000. The contract shall designate the Substantial Completion Date on or before *16 August 2024*, and the Contract Final Completion Date on or before *30 August 2024*.

1. Submit bids on a completed Contractor Bid Form, plus bid security when required, all scanned and included as an attachment to an email with the subject line marked "**Bid for Camden-Rockport Middle School - Athletic Field Improvements**" and addressed to the Bid Administrator at: maria.libby@fivetowns.net, so as to be received no later than **2:00 p.m. on 16 November 2023**.

Bid submissions will be opened and read aloud at the time and date noted above at the "Five Town Community School District Office, 22 Knowlton Street, Camden, ME 04843", accessible as a video conference call. Those who wish to participate in the call must submit a request for access to "maria.libby@fivetowns.net".

Any bid received after the noted time will not be considered a valid bid and will remain unopened. Any bid submitted by any other means will not be considered a valid bid. The Bid Administrator may require the Bidder to surrender a valid paper copy of the bid form or the bid security document in certain circumstances.

Questions on the bid opening process shall be addressed to the Bid Administrator: "Maria Libby, Superintendent, Five Town Community School District Office, 22 Knowlton Street, Camden, ME 04843, maria.libby@fivetowns.net".

2. The bid shall be submitted on the Contractor Bid Form (section 00 41 13) provided in the Bid Documents. The Owner reserves the right to accept or reject any or all bids as may best serve the interest of the Owner.
3. Bid security *is required* on this project.
If noted above as required, the Bidder shall include a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with the completed bid form submitted to the Owner. The Bid Bond form is available on the BGS website.
4. Performance and Payment Bonds *are required* on this project.
If noted above as required, or if any combination of Base Bid and Alternate Bids amounts selected in the award of the contract exceeds \$125,000.00, the selected Contractor shall furnish a 100% contract Performance Bond (section 00 61 13.13) and a 100% contract Payment Bond (section 00 61 13.16) in the contract amount to cover the execution of the Work. Bond forms are available on the BGS website.
5. Filed Sub-bids *are not required* on this project.

00 11 13
Notice to Contractors

6. There *are no* Pre-qualified General Contractors on this project.
If Pre-qualified General Contractors are identified for this project, the name of each company, with their city and state, are listed below.

7. An on-site pre-bid conference *will not* be conducted for this project.
If a pre-bid conference is scheduled, it is *optional* for General Contractors and optional for Subcontractors and suppliers. Contractors who arrive late or leave early for a mandatory meeting may be prohibited from participating in this meeting and bidding.

8. Bid Documents - full sets only - will be available on or about *4 October 2023* and may be obtained *at no cost for electronic copies, or at a cost of \$50.00 for printed copies* from:
Gale Associates, Inc.
5 Moulton Street
Portland, ME 04101
207-536-1092 bds@gainc.com

9. Bid Documents may be examined at:

00 21 13
Instructions to Bidders

1. Bidder Requirements

- 1.1 A bidder is a Contractor which is evidently qualified, or has been specifically pre-qualified by the Bureau of General Services, to bid on the proposed project described in the Bid Documents.
- 1.2 Contractors and Subcontractors bidding on projects that utilize Filed Sub-bids shall follow the requirements outlined in these Bid Documents for such projects. See Section 00 22 13 for additional information.
- 1.3 Contractors and Subcontractors are not eligible to bid on the project when their access to project design documents prior to the bid period distribution of documents creates an unfair bidding advantage. Prohibited access includes consultation with the Owner or with design professionals engaged by the Owner regarding cost estimating, constructability review, or project scheduling. This prohibition to bid applies to open, competitive bidding or pre-qualified contractor bidding or Filed Sub-bidding. The Bureau may require additional information to determine if the activities of a Contractor constitute an unfair bidding advantage.
- 1.4 Each bidder is responsible for becoming thoroughly familiar with the Bid Documents prior to submitting a bid. The failure of a bidder to review evident site conditions, to attend available pre-bid conferences, or to receive, examine, or act on addenda to the Bid Documents shall not relieve that bidder from any obligation with respect to their bid or the execution of the work as a Contractor.
- 1.5 Prior to the award of the contract, General Contractor bidders or Filed Sub-bidders may be required to provide documented evidence to the Owner or the Bureau showing compliance with the provisions of this section, their business experience, financial capability, or performance on previous projects.
- 1.6 The selected General Contractor bidder will be required to provide proof of insurance before a contract can be executed.
- 1.7 Contracts developed from this bid shall not be assigned, sublet or transferred without the written consent of the Owner.
- 1.8 By submitting a bid the Contractor attests that it has not been declared ineligible to bid on State of Maine projects. The Director of the Bureau of General Services may disallow award of this contract to any Contractor if there is evidence that the Contractor or any of its Subcontractors, through their own fault, have been terminated, suspended for cause, debarred from bidding, agreed to refrain from bidding as part of a settlement, have defaulted on a contract, or had a contract completed by another party.
- 1.9 The Contractor attests that it is not presently indicted for or otherwise criminally or civilly charged by a Federal, State or local government entity with commission of any of the following offenses and has not within a three-year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction, or contract under a public transaction, violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

00 21 13
Instructions to Bidders

- 1.10 The Contractor shall not make any award or permit any award (subgrant or contract) at any tier to any party which is debarred or suspended or is otherwise excluded from or ineligible for participation in Federal assistance programs or State of Maine projects.

2. Authority of Owner
 - 2.1 The Owner reserves the right to accept or reject any or all bids as may best serve the interest of the Owner.
 - 2.2 Subject to the Owner's stated right to accept or reject any or all bids, the Contractor shall be selected on the basis of the lowest dollar value of an acceptable Base Bid, or any combination of Base Bid plus Alternate Bids, as well as other limited cost modifications the Owner determines may best serve the interests of the Owner. An acceptable bid is a duly submitted bid from a responsive and responsible bidder.
 - 2.3 The Owner reserves the right to require Bid Bonds or Performance and Payment Bonds for any project of any contract value.

3. Submitting Bids and Bid Requirements
 - 3.1 Each bid shall be submitted on the forms provided in the Bid Documents.
 - 3.2 Each bid shall be valid for a period of thirty calendar days following the Project bid closing date and time. The bid expiration date may be extended in unusual circumstances by mutual consent of the Bidder and the Owner. The bid amount shall not be modified due to the bid expiration date extension.
 - 3.3 Any provision contained in a bid which shows cost escalation, or any modification of schedule or other requirements shall not be accepted. Such a provision causes the bid to be invalid, or, at the discretion of the Owner and BGS, that element of the bid submission may be disregarded for the purpose of awarding the contract without that provision.
 - 3.4 Bidders shall include a Bid Bond or other approved bid security with the bid form submitted to the Owner when the bid form indicates such bid security is required. The bond value shall be 5% of the bid amount. The form of bond is shown in section 00 43 13.
 - 3.5 Bidders recognize that inclusion of contract bonds and the cost of those bonds is dependent on the awarded contract dollar value. Therefore, a Base Bid, or any combination of Base Bid plus Alternate Bids, as well as other limited cost modifications, resulting in a contract award shall include the cost of Performance and Payment Bonds in the submitted bid amount when the construction contract value is over \$125,000.00. Similarly, the cost of Performance and Payment Bonds is excluded in the submitted bid amount when the construction contract value is \$125,000.00 or less unless bonds are specifically required by the Bid Documents. When required for the project, the selected Contractor shall provide these bonds before a contract can be executed, pursuant to 14 M.R.S.A., Section 871, Public Works Contractors' Surety Bond Law of 1971, subsection 3. The form of bonds is shown in section 00 61 13.13 and 00 61 13.16.

00 21 13
Instructions to Bidders

- 3.6 Bidders may modify bids in writing, by the same means as the original bid submission, prior to the bid closing time. Such written amendments shall not disclose the amount of the initial bid. If so disclosed, the entire bid is considered invalid.
- 3.7 Bidders implicitly acknowledge all Addenda issued when they submit the bid form. By usual practice the Consultant shall not issue Addenda less than 72 hours prior to the bid closing time, to allow ample time for bidders to incorporate the information. However, some information, such as extending the bid due date and time, may be issued with shorter notice. Addenda shall be issued to all companies who are registered holders of Bid Documents.
- 3.8 A bid may be withdrawn without penalty if a written request by the bidder is presented to the Owner prior to the bid closing time. Such written withdrawal requests are subject to verification as required by the Bureau.
- A bid may be withdrawn without penalty after the bid closing time if, in the determination of the Bureau, evidence provided by the Contractor shows an apparent unintended error such as a miscalculation, or an erroneous number on estimating documents, was the cause of an inaccurate bid. The Bureau may allow withdrawal in consideration of the bid bond or, without utilizing a bid bond, if the Bureau considers documented evidence provided by the Contractor shows factual errors had been made on the bid form.
- 3.9 In the event State of Maine Offices unexpectedly close on the published date of a public bid opening in the location of that bid opening, prior to the time of the scheduled deadline, the new deadline for the public bid opening will be the following business day at the originally scheduled hour of the day, at the original location. Official closings are posted on the State of Maine government website.
- 3.10 The Owner may require, in a Notice of Intent to Award letter to the apparent low bidder, a Schedule of Values, Project Schedule, and List of Subcontractors and Suppliers as both a demonstration of capability of the Bidder and as a condition of award.
- 3.11 Projects which require a State of Maine wage determination will include that schedule as part of the Bid Documents. See section 00 73 46, if such rates are required.
- 3.12 Projects which require compliance with the Davis-Bacon Act are subject to the regulations contained the Code for Federal Regulations and the federal wage determination which is made a part of the Bid Documents. See section 00 73 46, if such rates are required.
- 3.13 The Owner is exempt from the payment of Maine State sales and use taxes as provided in 36 M.R.S. §1760 (1). The Contractor and Subcontractors shall not include taxes on exempt items in the construction contract.

**00 41 13
Contractor Bid Form**

Camden-Rockport Middle School - Athletic Field Improvements

Bid Form submitted by: *email only to email address below*

Bid Administrator:

Maria Libby
Five Town Community School District
22 Knowlton Street
Camden, ME 04843

CC: maria.libby@fivetowns.net

Bidder:

Signature: _____

Printed name and title: _____

Company name: _____

Mailing address: _____

City, state, zip code: _____

Phone number: _____

Email address: _____

State of incorporation, if a corporation: _____

List of all partners, if a partnership: _____

The Bidder agrees, if the Owner offers to award the contract, to provide any and all bonds and certificates of insurance, as well as Schedule of Values, Project Schedule, and List of Subcontractors and Suppliers if required by the Owner, and to sign the designated Construction Contract within twelve calendar days after the date of notification of such acceptance, except if the twelfth day falls on a State of Maine government holiday or other closure day, or a Saturday, or a Sunday, in which case the aforementioned documents must be received before 12:00 noon on the first available business day following the holiday, other closure day, Saturday, or Sunday.

As a guarantee thereof, the Bidder submits, together with this bid, a bid bond or other acceptable instrument as and if required by the Bid Documents.

**00 41 13
Contractor Bid Form**

- 1. The Bidder, having carefully examined the Camden-Rockport Middle School - Athletic Field Improvements Project Manual dated 4 October 2023, prepared by Gale Associates, Inc., as well as Specifications, Drawings, and any Addenda, the form of contract, and the premises and conditions relating to the work, proposes to furnish all labor, equipment and materials necessary for and reasonably incidental to the construction and completion of this project for the **Base Bid** amount of:

\$ _____ .00

- 2. Allowances *are not included* on this project.
No Allowances

\$.00

- 3. Alternate Bids *are not included* on this project.
No Alternate Bids

Any dollar amount line below that is left blank by the Bidder shall be read as a bid of **\$0.00**.

0 . \$ _____ .00

0 . \$ _____ .00

0 . \$ _____ .00

0 . \$ _____ .00

- 4. Bid security *is required* on this project.

If noted above as required, or if the Base Bid amount exceeds \$125,000.00, the Bidder shall include with this bid form a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with this completed bid form submitted to the Owner.

- 5. Filed Sub-bids *are not required* on this project.

If noted above as required, the Bidder shall include with this bid form a list of each Filed Sub-bidder selected by the Bidder on the form provided (section 00 41 13F).

**00 43 13
Contractor Bid Bond**

Bond No.: insert bond number

We, the undersigned, insert company name of Contractor, select type of entity of insert name of municipality in the State of insert name of state as principal, and insert name of surety as Surety, are hereby held and firmly bound unto select title of obligee in the penal sum of five percent of the bid amount, for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns, signed this insert date, i.e.: 8th day of select month, select year, which is the same date as that of the first specified bid due date, or subsequent bid due date revised by addendum.

The condition of the above obligation is such that whereas the principal has submitted to the Owner, or State of Maine, to a certain bid, attached hereto and hereby made a part hereof, to enter into a contract in writing, for the construction of insert name of project as designated in the contract documents

Now therefore:

If said bid shall be rejected, or, in the alternate,

If said bid shall be accepted and the principal shall execute and deliver a contract in the form of contract attached hereto, properly completed in accordance with said bid, and shall furnish a bond for the faithful performance of said contract, and for the payment of all persons performing labor or furnishing material in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void.

Otherwise, the same shall remain in force and effect- it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received hereby stipulates and agrees that the obligation of said Surety and its bonds shall be in no way impaired or affected by any extension of the time within which the Obligee may accept such bid and said Surety does hereby waive notice of any such extension.

**00 43 13
Contractor Bid Bond**

In witness whereof, the principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set above.

Signed and sealed this insert date, i.e.: 8th day of select month, select year, which is the first specified bid due date, or subsequent bid due date revised by addendum.

Contractor

(Signature)

insert name and title

insert company name

*insert address
insert city state zip code*

Surety

(Signature)

insert name and title

insert company name

*insert address
insert city state zip code*

If Contractor is a partnership, all partners shall execute the bond. A power of attorney document indicating that it still is in full force and effect shall be provided by the person executing this bond.

**State of Maine
CONSTRUCTION CONTRACT**

Large Construction Project

*This form is used when the Contract value is \$50,000 or greater.
The Project Manual, Specifications and Drawings, and any Addenda are considered part of this Contract.*

Agreement entered into by and between the contracting entity name hereinafter called the **Owner** and Contractor company name hereinafter called the **Contractor**.

BGS Project No.: number assigned by BGS Other Project No.: _____

For the following Project: title of project as shown on bid documents at facility or campus name, municipality, Maine.

The Specifications and the Drawings have been prepared by Consultant firm name, acting as Professional-of-Record and named in the documents as the Consultant Architect or Engineer.

The *Owner* and *Contractor* agree as follows:

ARTICLE 1 COMPENSATION AND PAYMENTS

1.1 The Owner shall pay the Contractor to furnish all labor, equipment, materials and incidentals necessary for the construction of the Work described in the Specifications and shown on the Drawings the Contract Amount as shown below.

Base Bid	\$0.00
<i>Alternate Bid number and name or "no Alternates"</i>	\$0.00
<i>Alternate Bid number and name or "no Alternates"</i>	\$0.00
<i>Alternate Bid number and name or "no Alternates"</i>	\$0.00
<i>Alternate Bid number and name or "no Alternates"</i>	\$0.00
<i>Alternate Bid number and name or "no Alternates"</i>	\$0.00
Total Contract Amount	\$0.00

1.2 The Contractor’s requisition shall contain sufficient detail and supporting information for the Owner to evaluate and support the payment requested.

1.2.1 Payments are due and payable twenty-five working days from the date of receipt of a Contractor requisition which is approved by the Owner.

1.2.2 Provisions for late payments are governed by 5 M.R.S. Chapter 144, *Payment of Invoices Received from Business Concerns*, and interest shall be calculated at 1% per month.

ARTICLE 2 COMMENCEMENT AND COMPLETION DATES

2.1 The Work of this Contract shall commence no sooner than the date this document is executed by the approval authority, or a subsequent date designated in the contract documents.

2.2 The Substantial Completion Date shall be _____.

2.3 The Work of this Contract shall be completed on or before the Contract Final Completion Date of _____.

2.4 The Contract Expiration Date shall be _____. (This date is the Owner's deadline for internal management of contract accounts. The Contract Expiration Date does not directly relate to any contract obligation of the Contractor.)

ARTICLE 3 INELIGIBLE BIDDER

3.1 By signing this contract the Contractor attests that it has not been declared ineligible to bid on State of Maine projects. The Bureau of General Services may disallow award of this contract to any Contractor if there is evidence that the Contractor or any of its Subcontractors, through their own fault, have been terminated, suspended for cause, debarred from bidding, agreed to refrain from bidding as part of a settlement, have defaulted on a contract, or had a contract completed by another party.

3.2 By signing this contract the Contractor attests that it is not presently indicted for or otherwise criminally or civilly charged by a Federal, State or local government entity with commission of any of the following offenses and has not within a three-year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction, or contract under a public transaction, violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

3.3 The Contractor shall not make any award or permit any award (subgrant or contract) at any tier to any party which is debarred or suspended or is otherwise excluded from or ineligible for participation in Federal assistance programs or State of Maine projects.

ARTICLE 4 CONTRACTOR'S RESPONSIBILITIES

4.1 On this project, the Contractor shall furnish the Owner the appropriate contract bonds in the amount of 100% of the Contract Sum. Contract bonds are mandated if the Contract Sum exceeds \$125,000, or if bonds are specifically required by the Contract Documents.

4.2 The Contractor shall comply with all laws, codes and regulations applicable to the Work.

4.3 The Contractor shall acquire all permits and third-party approvals applicable to the Work not specifically identified as provided by the Owner. Costs for Contractor-provided permits and third-party approvals shall be included in the Contract Sum identified in Section 1.1 above.

4.4 The Contractor shall remain an independent agent for the duration of this Contract, shall not become an employee of the State of Maine, and shall assure that no State employee will be compensated by, or otherwise benefit from, this Contract.

4.5 The Contractor shall be responsible for any design cost, construction cost, or other cost incurred on the Project to the extent caused by the negligent acts, errors or omissions of the Contractor or their Subcontractors in the performance of Work under this Contract.

ARTICLE 5 OWNER'S RESPONSIBILITIES

5.1 The Owner shall provide full information about the objectives, schedule, constraints and existing conditions of the project. The Owner has established a budget with reasonable contingencies that meets the project requirements.

5.2 By signing this contract, the Owner attests that all State of Maine procurement requirements for this contract have been met, including the solicitation of competitive bids.

ARTICLE 6 INSTRUMENTS OF SERVICE

6.1 The Contractor's use of the drawings, specifications and other documents known as the Consultant's Instruments of Service is limited to the execution of the Contractor's scope of work of this project unless the Contractor receives the written consent of the Owner and Consultant for use elsewhere.

ARTICLE 7 MISCELLANEOUS PROVISIONS

7.1 This Contract shall be governed by the laws of the State of Maine.

7.2 The Owner and Contractor, respectively, bind themselves, their partners, successors, assigns and legal representatives to this Contract. Neither party to this Contract shall assign the Contract as a whole without written consent of the other party, which consent the Owner may withhold without cause.

7.3 Notwithstanding any other provision of this Agreement, if the Owner does not receive sufficient funds to fund this Agreement or funds are de-appropriated, or if the Owner does not receive legal authority from the Maine State Legislature or Maine Courts to expend funds intended for this Agreement, then the Owner is not obligated to make payment under this Agreement; provided, however, the Owner shall be obligated to pay for services satisfactorily performed prior to any such non-appropriation in accordance with the termination provisions of this Agreement. The Owner shall timely notify the Contractor of any non-appropriation and the effective date of the non-appropriation.

ARTICLE 8 CONTRACT DOCUMENTS

8.1 The Project Manual, Specifications and Drawings, and any Addenda, together with this agreement, form the contract. Each element is as fully a part of the Contract as if hereto attached or herein repeated.

8.2 Specifications: **indicate date of issuance of project manual**

8.3 Drawings: **note here or attach each sheet number and title**

8.4 Addenda: **note each addenda number and date, or "none"**

00 61 13.13
Contractor Performance Bond

Bond No.: insert bond number

We, the undersigned, insert company name of Contractor, select type of entity of insert name of municipality in the State of insert name of state as principal, and insert name of surety as Surety, are hereby held and firmly bound unto select title of obligee in the penal sum of the Contract Price \$ insert the Contract Price in numbers for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that if the principal shall promptly and faithfully perform the contract entered into this insert date, i.e.: 8th day of select month, select year, which is the same date as that of the notice of intent to award letter, or in the absence of such a letter, not later than the date the Owner signs the construction contract, for the construction of insert name of project as designated in the contract documents, then this obligation shall be null and void.

Otherwise, the same shall remain in force and effect- it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received hereby stipulates and agrees that the obligation of said Surety and its bonds shall be in no way impaired or affected by any extension of the time which the Obligee may accept during the performance of the contract and said Surety does hereby waive notice of any such extension.

**00 61 13.13
Contractor Performance Bond**

In witness whereof, the principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set above.

Signed and sealed this *insert date, i.e.: 8th* day of *select month, select year*, which is the same date as that of the notice of intent to award letter, or in the absence of such a letter, not later than the date the Owner signs the construction contract.

Contractor

(Signature)

insert name and title

insert company name

insert address

insert city state zip code

Surety

(Signature)

insert name and title

insert company name

insert address

insert city state zip code

If Contractor is a partnership, all partners shall execute the bond. A power of attorney document indicating that it still is in full force and effect shall be provided by the person executing this bond.

00 61 13.16
Contractor Payment Bond

Bond No.: insert bond number

We, the undersigned, insert company name of Contractor, select type of entity of insert name of municipality in the State of insert name of state as principal, and insert name of surety as Surety, are hereby held and firmly bound unto select title of obligee in the penal sum of the Contract Price \$ insert the Contract Price in numbers for the use and benefit of claimants, defined as an entity having a contract with the principal or with a subcontractor of the principal for labor, materials, or both labor and materials, used or reasonably required for use in the performance of the contract, for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that if the principal shall promptly satisfy all claims and demands incurred for all labor and materials, used or required by the principal in connection with the work described in the contract entered into this insert date, i.e.: 8th day of select month, select year, which is the same date as that of the notice of intent to award letter, or in the absence of such a letter, not later than the date the Owner signs the construction contract, for the construction of insert name of project as designated in the contract documents, and shall fully reimburse the obligee for all outlay and expense with said obligee may incur in making good any default of said principal, then this obligation shall be null and void.

Otherwise, the same shall remain in force and effect- it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received hereby stipulates and agrees that the obligation of said Surety and its bonds shall be in no way impaired or affected by any extension of the time which the Obligee may accept during the performance of the contract and said Surety does hereby waive notice of any such extension.

**00 61 13.16
Contractor Payment Bond**

In witness whereof, the principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set above.

Signed and sealed this *insert date, i.e.: 8th* day of *select month, select year*, which is the same date as that of the notice of intent to award letter, or in the absence of such a letter, not later than the date the Owner signs the construction contract.

Contractor

(Signature)

insert name and title

insert company name

insert address

insert city state zip code

Surety

(Signature)

insert name and title

insert company name

insert address

insert city state zip code

If Contractor is a partnership, all partners shall execute the bond. A power of attorney document indicating that it still is in full force and effect shall be provided by the person executing this bond.

**State of Maine
CONSTRUCTION CONTRACT
Application for Payment**

Project name
location / school / campus

Application Number: **1**

Contractor Company name
address
city state zip code

Period Start Date: 1-Jul-2021
Period End Date: 31-Jul-2021
BGS Project No.: n
Other Project No.: x

1	Original Contract Amount		\$0
2	Net of Change Orders to Date	(from table below)	\$0
3	Contract Sum to Date	(line 1 plus or minus line 2)	\$0
4	Total Completed and Stored to Date	(column G on Continuation Sheet)	\$0
5a	5% Retainage of Completed Work	(columns D + E x 5%)	\$0
5b	5% Retainage of Stored Materials	(column F x 5%)	\$0
5c	Total Retainage	(column I)	\$0
6	Total Earned Less Retainage	(line 4 minus line 5c)	\$0
7	Less Previous Approved Applications for Payment	(line 6 from previous Application)	\$0
8	Current Payment Due	(line 6 minus line 7)	\$0
9	Balance to Finish, Including Retainage	(line 3 minus line 6)	\$0

Change Order Summary	Additions	Deductions
Total Changes Approved in Previous Months	\$0	\$0
Total Changes Approved this Month	\$0	\$0
Subtotals	\$0	\$0
Net of Change Orders to Date		\$0

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information, and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which the previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

Contractor
Type company name here
Type person's name, title here

signature date

In accordance with the Contract Documents, based on on-site observations and the data comprising this Application, the Consultant certifies to the Owner that to the best of the Consultant's knowledge, information, and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the Amount Certified. **Amount Certified:** _____

Consultant (Architect or Engineer)
Type firm name here
Type person's name, title here

signature date

Owner
Type contracting entity name here
Type person's name, title here

signature date

Owner's Rep / other - clear text if not used
Type entity name here
Type person's name, title here

signature date

Bureau of General Services
Type person's name, title here

signature date

**State of Maine
CONSTRUCTION CONTRACT
Change Order**

Project name
location / school / campus

Change Order Number: **1**

Issue Date of this Document: **31-Dec-2022**

Contractor Company name
address
city state zip code

BGS Project No.: **n**
Other Project No.: **x**

Cost Change

Show Deduct as a negative number, e.g.: "-\$850".

	Add	Deduct	Total
Net Amount of this Change Order	\$0	\$0	
Net Amount of Previous Change Orders	\$0	\$0	
Net of Change Orders to Date	\$0	\$0	\$0
Original Contract Amount			\$0
Revised Contract Amount			\$0

Time Change

Show Deduct as a negative number, e.g.: "-8".

	Add	Deduct	Total
Net Calendar Days Adjusted by this Change Order	0	0	
Net Calendar Days Adjusted by Previous Change Orders	0	0	
Net of Change Orders to Date	0	0	0
Original Contract Final Completion Date			31-Dec-2023
Revised Contract Final Completion Date*			31-Dec-2023

Consultant (Architect or Engineer)

Type firm name here
Type person's name, title here

signature date

Contractor

Type company name here
Type person's name, title here

signature date

Owner

Type contracting entity name here
Type person's name, title here

signature date

Type Entity, such as "Owner's Rep", or "not used"

Type entity name here
Type person's name, title here

signature date

Bureau of General Services

Division of Planning, Design & Construction
Type person's name, title here

signature date

Attach the "List of Change Order Items" sheet, plus all supporting documentation for each Change Order Item.

Substantial Completion Date: the deadline for first beneficial use by Owner, as certified by Consultant.

* **Contract Final Completion Date** : the Contractor's final completion deadline for contract work.

Contract Expiration Date: the Owner's deadline for internal management of contract accounts;

Contract Expiration Date does not directly relate to any contract obligation of the Contractor.

<i>1-Dec-2023</i>
<i>31-Dec-2023</i>
<i>29-Feb-2024</i>

List of Change Order Items

Project name

C. O. Number: 1

Contractor Company name

CO Item No.	CP No.	Item Name	Reason Code	Calendar Days*	Cost
1	1	Type brief name of Change Order Item here		0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
				0	\$0
Totals				0	\$0

Reason Codes

- EO Error or omission of Consultant
- UC Unforeseen job site condition
- OC Owner-generated change
- RC Regulatory authority-generated change
- CC Contractor-generated change

* Calendar Days shows Contract Final Completion Date impact only.

Attach this sheet to the BGS "Change Order" cover sheet (with cost and time summaries, and signatures). Attach a "Details" sheet, and other supporting documentation, for each Change Order Item listed above.

Details of Change Order Item

Project name
location / school / campus

Change Order Item Number **1**
CP (Change Proposal) Number **1**
Issue Date of this Document: **31-Oct-2021**

Contractor Company name
address
city state zip code

BGS Project No.: **n**
Other Project No.: **x**

Change Order Item	Type name of Change Order Item here			
Description of Work	Type brief description here of work scope here.			
Reason or Necessity of Work	Type brief justification for change here.			
Cost Breakdown	Work by Subcontractor only	Work by Sub and Contractor	Work by Contractor only	
Subcontractor base cost	\$0	\$0		
Subcontractor markup	\$0	\$0		
Contractor base cost		\$0	\$0	
Contractor markup	\$0	\$0	\$0	
Subtotal	\$0	\$0	\$0	
Compensation	lump sum		Total Cost	
Initiated by	Consultant		Calendar Days*	0
Reason Code	CC	Supporting Documentation		is attached

EO *UC* *OC* *RC* *CC*
Error or omission of Consultant *Unforeseen job site condition* *Owner-generated change* *Regulatory authority-generated change* *Contractor-generated change*

* Calendar Days shows Contract Final Completion Date impact only.

Consultant Type firm name here
(Architect or Engineer) Type person's name, title here

signature date

Contractor Type company name here
Type person's name, title here

signature date

Owner Type contracting entity name here
Type person's name, title here

signature date

Owner's Rep Type entity name here
Type person's name, title here

signature date

Bureau of Division of Planning, Design & Construction

General Services

Type person's name, title here

signature

date

00 71 00
Definitions

1. Definitions
 - 1.1 *Addendum*: A document issued by the Consultant that amends the Bid Documents. Addenda shall not be issued less than seventy-two hours prior to the specified bid opening time.
 - 1.2 *Allowance*: A specified dollar amount for a particular scope of work or service included in the Work that is identified in the Bid Documents and included in each Bidder's Bid. The Contractor shall document expenditures for an Allowance during the Project. Any unused balance shall be credited to the Owner. The Contractor is responsible for notifying the Owner of anticipated expenses greater than the specified amount and the Owner is responsible for those additional expenses.
 - 1.3 *Alternate Bid*: The Contractor's written offer of a specified dollar amount, submitted on the Bid Form, for the performance of a particular scope of work described in the Bid Documents. The Owner determines the low bidder based on the sum of the base Bid and any combination of Alternate Bids that the Owner selects.
 - 1.4 *Architect*: A Consultant acting as, or supporting, the Professional-of-Record who is responsible for the design of the Project. Equivalent to "Consultant" in State of Maine contract forms.
 - 1.5 *Architectural Supplemental Instruction (ASI)*: A written instruction from the Architect for the purpose of clarification of the Contract Documents. An ASI does not alter the Contract Price or Contract Time. ASIs may be responses to RFIs and shall be issued by the Architect in a timely manner to avoid any negative impact on the Schedule of the Work.
 - 1.6 *Bid*: The Contractor's written offer of a specified dollar amount or amounts, submitted on a form included in the Bid Documents, for the performance of the Work. A Bid may include bonds or other requirements. A base Bid is separate and distinct from Alternate Bids, being the only cost component necessary for the award of the contract, and representing the minimum amount of Work that is essential for the functioning of the Project.
 - 1.7 *Bid Bond*: The security designated in the Bid Documents, furnished by Bidders as a guaranty of good faith to enter into a contract with the Owner, should a contract be awarded to that Bidder.
 - 1.8 *Bidder*: Any business entity, individual or corporation that submits a bid for the performance of the work described in the Bid Documents, acting directly or through a duly authorized representative. See also *Responsive and Responsible Bidder*.
 - 1.9 *Bid Documents*: The drawings, procurement and contracting requirements, general requirements, and the written specifications -including all addenda, that a bidder is required to reference in the submission of a bid.
 - 1.10 *Bureau*: The State of Maine Bureau of General Services, or BGS, in the Department of Administrative and Financial Services.
 - 1.11 *Calendar days*: Consecutive days, as occurring on a calendar, taking into account each day of the week, month, year, and any religious, national or local holidays. Calendar days are used for changes in Contract Time.

00 71 00
Definitions

- 1.12 *Certificate of Substantial Completion*: A document developed by the Consultant that describes the final status of the Work and establishes the date that the Owner may use the facility for its intended purpose. The Certificate of Substantial Completion may also include a provisional list of items - a "punch list" - remaining to be completed by the Contractor. The Certificate of Substantial Completion identifies the date from which the project warranty period commences.
- 1.13 *Certificate of Occupancy*: A document developed by a local jurisdiction such as the Code Enforcement Officer that grants permission to the Owner to occupy a building.
- 1.14 *Change Order (CO)*: A document that modifies the contract and establishes the basis of a specific adjustment to the Contract Price or the Contract Time, or both. Change Orders may address correction of omissions, errors, and document discrepancies, or additional requirements. Change Orders should include all labor, materials and incidentals required to complete the work described. A Change Order is not valid until signed by the Contractor, Owner and Consultant and approved by the Bureau.
- 1.15 *Change Order Proposal (COP) (see also Proposal)*: Contract change proposed by the Contractor regarding the contract amount, requirements, or time. The Contractor implements the work of a COP after it is accepted by all parties. Accepted COPs are incorporated into the contract by Change Order.
- 1.16 *Clerk of the Works*: The authorized representative of the Consultant on the job site. Clerk of the Works is sometimes called the Architect's representative.
- 1.17 *Construction Change Directive (CCD)*: A written order prepared by the Consultant and signed by the Owner and Consultant, directing a change in the Work prior to final agreement with the Contractor on adjustment, if any, in the Contract Price or Contract Time, or both.
- 1.18 *Contract*: A written agreement between the Owner and the successful bidder which obligates the Contractor to perform the work specified in the Contract Documents and obligates the Owner to compensate the Contractor at the mutually accepted sum, rates or prices.
- 1.19 *Contract Bonds (also known as Payment and Performance Bonds)*: The approved forms of security, furnished by the Contractor and their surety, which guarantee the faithful performance of all the terms of the contract and the payment of all bills for labor, materials and equipment by the Contractor.
- 1.20 *Contract Documents*: The drawings and written specifications (including all addenda), Standard General Conditions, and the contract (including all Change Orders subsequently incorporated in the documents).
- 1.21 *Contract Expiration Date*: Date determined by the Owner as a deadline for internal management of contract accounts. This allows time after the Contract Final Completion Date for processing the final Requisition for Payment. The Contract Expiration Date does not directly relate to any contract obligation of the Contractor.
- 1.22 *Contract Final Completion Date*: Point of time when the Work is fully completed in compliance with the Contract Documents, as certified by the Consultant. Final payment to the Contractor is due upon Final Completion of the Project.
- 1.23 *Contract Price*: The dollar amount of the construction contract, also called *Contract Sum*.

00 71 00
Definitions

- 1.24 *Contract Time*: The designated duration of time to execute the Work of the contract, with a specific date for completion.
- 1.25 *Contractor*: Also called the "General Contractor" or "GC" the individual or entity undertaking the execution of the general contract work under the terms of the contract with the Owner, acting directly or through a duly authorized representative. The Contractor is responsible for the means, methods and materials utilized in the execution and completion of the Work.
- 1.26 *Consultant*: The Architect or Engineer acting as Professional-of-Record for the Project. The Consultant is responsible for the design of the Project.
- 1.27 *Drawings*: The graphic and pictorial portion of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
- 1.28 *Engineer*: A Consultant acting as, or supporting, the Professional-of-Record who is responsible for the design of the Project. Equivalent to "Consultant" in State of Maine contract forms.
- 1.29 *Filed Sub-bid*: The designated major Subcontractor's (or, in some cases, Contractor's) written offer of a specified dollar amount or amounts, submitted on a form included in the Bid Documents, for the performance of a particular portion of the Work. A Filed Sub-bid may include bonds or other requirements.
- 1.30 *General Requirements*: The on-site overhead expense items the Contractor provides for the Project, typically including, but not limited to, building permits, construction supervision, Contract Bonds, insurance, field office, temporary utilities, rubbish removal, and site fencing. Overhead expenses of the Contractor's general operation are not included. Sometimes referred to as the Contractor's General Conditions.
- 1.31 *Owner*: The State agency which is represented by duly authorized individuals. The Owner is responsible for defining the scope of the Project and compensation to the Consultant and Contractor.
- 1.32 *Owner's Representative*: The individual or entity contracted by the Owner to be an advisor and information conduit regarding the Project.
- 1.33 *Overhead*: General and administrative expenses of the Contractor's principal and branch offices, including payroll costs and other compensation of Contractor employees, deductibles paid on any insurance policy, charges against the Contractor for delinquent payments, and costs related to the correction of defective work, and the Contractor's capital expenses, including interest on capital used for the work.
- 1.34 *Performance and Payment Bonds (also known as Contract Bonds)*: The approved forms of security, furnished by the Contractor and their surety, which guarantee the faithful performance of all the terms of the contract and the payment of all bills for labor, materials and equipment by the Contractor.
- 1.35 *Post-Bid Addendum*: Document issued by the Consultant that defines a potential Change Order prior to signing of the construction contract. The Post-Bid Addendum allows the Owner to negotiate

00 71 00
Definitions

contract changes with the Bidder submitting the lowest valid bid, only if the negotiated changes to the Bid Documents result in no change or no increase in the bid price.

A Post-Bid Addendum may also be issued after a competitive construction Bid opening to those Bidders who submitted a Bid initially, for the purpose of rebidding the Project work without re-advertising.

- 1.36 *Project*: The construction project proposed by the Owner to be constructed according to the Contract Documents. The Project, a public improvement, may be tied logistically to other public improvements and other activities conducted by the Owner or other contractors.
- 1.37 *Proposal (see also Change Order Proposal)*: The Contractor's written offer submitted to the Owner for consideration containing a specified dollar amount or rate, for a specific scope of work, and including a schedule impact, if any. A proposal shall include all costs for overhead and profit. The Contractor implements the work of a Proposal after it is accepted by all parties. Accepted Proposals are incorporated into the contract by Change Order.
- 1.38 *Proposal Request (PR)*: An Owner's written request to the Contractor for a Change Order Proposal.
- 1.39 *Punch List*: A document that identifies the items of work remaining to be done by the Contractor at the Close Out of a Project. The Punch List is created as a result of a final inspection of the work only after the Contractor attests that all of the Work is in its complete and permanent status.
- 1.40 *Request For Information (RFI)*: A Contractor's written request to the Consultant for clarification, definition or description of the Work. RFIs shall be presented by the Contractor in a timely manner to avoid any negative impact on the Schedule of the Work.
- 1.41 *Request For Proposal (RFP)*: An Owner's written request to the Contractor for a Change Order Proposal.
- 1.42 *Requisition for Payment*: The document in which the Contractor certifies that the Work described is, to the best of the Contractor's knowledge, information and belief, complete and that all previous payments have been paid by the Contractor to Subcontractors and suppliers, and that the current requested payment is now due. See *Schedule of Values*.
- 1.43 *Responsive and Responsible Bidder*: A bidder who complies, when submitting a bid on a given project, with the following *responsive* standards, as required by the Bid Documents:
- submits specific qualifications to bid the project, if required;
 - attends mandatory pre-bid conferences, if required;
 - submits a bid prior to the close of the bid period;
 - submits a complete bid form;
 - submits a bid without indications of intent contrary to the stated requirements;
 - submits other materials and information, such as bid security, as required;
- and, meets the following minimums regarding these *responsible* standards:
- sustains a satisfactory record of project performance;
 - maintains a permanent place of business in a known physical location;
 - possesses the financial means for short- and long-term operations;
 - possesses the appropriate technical experience and capabilities;
 - employs adequate personnel and subcontractor resources;

00 71 00
Definitions

maintains the equipment needed to perform the work;
complies with the proposed implementation schedule;
complies with the insurance and bonding requirements;
provides post-construction warranty coverage;
and other criteria which can be considered relevant to the contract.

- 1.44 *Retainage*: The amount, calculated at five percent (5%) of the contract value or a scheduled value, that the Owner shall withhold from the Contractor until the work or portion of work is declared substantially complete or otherwise accepted by the Owner. The Owner may, if requested, reduce the amount withheld if the Owner deems it desirable and prudent to do so. (See Title 5 M.R.S.A., Section 1746.)
- 1.45 *Sample*: A physical example provided by the Contractor which illustrates materials, equipment or workmanship and establishes standards by which the Work will be judged.
- 1.46 *Schedule of the Work*: The document prepared by the Contractor and approved by the Owner that specifies the dates on which the Contractor plans to begin and complete various parts of the Work, including dates on which information and approvals are required from the Owner.
- 1.47 *Schedule of Values*: The document prepared by the Contractor and approved by the Owner before the commencement of the Work that specifies the dollar values of discrete portions of the Work equal in sum to the contract amount. The Schedule of Values is used to document progress payments of the Work in regular (usually monthly) requisitions for payment. See *Requisition for Payment*.
- 1.48 *Shop Drawings*: The drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
- 1.49 *Specifications*: The portion of the Contract Documents consisting of the written requirements of the Work for materials, equipment, systems, standards, workmanship, and performance of related services.
- 1.50 *Subcontractor*: An individual or entity undertaking the execution of any part of the Work by virtue of a written agreement with the Contractor or any other Subcontractor. Also, an individual or entity retained by the Contractor or any other Subcontractor as an independent contractor to provide the labor, materials, equipment or services necessary to complete a specific portion of the Work.
- 1.51 *Substantial Completion Date*: Point of time when the Work or a designated portion of the Work is sufficiently complete in compliance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended purpose without unscheduled disruption. Substantial Completion is documented by the date of the Certificate of Substantial Completion signed by the Owner and the Contractor.
- 1.52 *Superintendent*: The representative of the Contractor on the job site, authorized by the Contractor to receive and fulfill instructions from the Consultant.
- 1.53 *Surety*: The individual or entity that is legally bound with the Contractor and Subcontractor to insure the faithful performance of the contract and for the payment of the bills for labor, materials and equipment by the Contractor and Subcontractors.

00 71 00
Definitions

- 1.54 *Work*: The construction and services, whether completed or partially completed, including all labor, materials, equipment and services provided or to be provided by the Contractor and Subcontractors to fulfill the requirements of the Project as described in the Contract Documents.

00 72 13
General Conditions

Table of Contents of this General Conditions Section

1. Preconstruction Conference2

2. Intent and Correlation of Contract Documents.....2

3. Additional Drawings and Specifications3

4. Ownership of Contract Documents3

5. Permits, Laws, and Regulations3

6. Taxes4

7. Labor and Wages.....4

8. Indemnification5

9. Insurance Requirements5

10. Contract Bonds.....6

11. Patents and Royalties7

12. Surveys, Layout of Work7

13. Record of Documents.....7

14. Allowances8

15. Shop Drawings8

16. Samples8

17. Substitutions8

18. Assignment of Contract.....9

19. Separate Contracts.....9

20. Subcontracts10

21. Contractor-Subcontractor Relationship10

22. Supervision of the Work.....11

23. Observation of the Work11

24. Consultant's Status.....12

25. Management of the Premises12

26. Safety and Security of the Premises13

27. Changes in the Work14

28. Correction of the Work.....15

29. Owner's Right to do Work.....16

30. Termination of Contract and Stop Work Action16

31. Delays and Extension of Time17

32. Payments to the Contractor18

33. Payments Withheld19

34. Liens19

35. Workmanship19

36. Close-out of the Work20

37. Date of Completion and Liquidated Damages21

38. Dispute Resolution21

00 72 13
General Conditions

1. Preconstruction Conference

- 1.1 The Contractor shall, upon acceptance of a contract and prior to commencing work, schedule a preconstruction conference with the Owner and Consultant. The purpose of this conference is as follows.
- 1.1.1 Introduce all parties who have a significant role in the Project, including:
- Owner (State agency or other contracting entity)
 - Owner's Representative
 - Consultant (Architect or Engineer)
 - Subconsultants
 - Clerk-of-the-works
 - Contractor (GC)
 - Superintendent
 - Subcontractors
 - Other State agencies
 - Construction testing company
 - Commissioning agent
 - Special Inspections agent
 - Bureau of General Services (BGS);
- 1.1.2 Review the responsibilities of each party;
- 1.1.3 Review any previously-identified special provisions of the Project;
- 1.1.4 Review the Schedule of the Work calendar submitted by the Contractor to be approved by the Owner and Consultant;
- 1.1.5 Review the Schedule of Values form submitted by the Contractor to be approved by the Owner and Consultant;
- 1.1.6 Establish routines for Shop Drawing approval, contract changes, requisitions, et cetera;
- 1.1.7 discuss jobsite issues;
- 1.1.8 Discuss Project close-out procedures;
- 1.1.9 Provide an opportunity for clarification of Contract Documents before work begins; and
- 1.1.10 Schedule regular meetings at appropriate intervals for the review of the progress of the Work.

2. Intent and Correlation of Contract Documents

- 2.1 The intent of the Contract Documents is to describe the complete Project. The Contract Documents consist of various components; each component complements the others. What is shown as a requirement by any one component shall be inferred as a requirement on all corresponding components.
- 2.2 The Contractor shall furnish all labor, equipment and materials, tools, transportation, insurance, services, supplies, operations and methods necessary for, and reasonably incidental to, the construction and completion of the Project. Any work that deviates from the Contract Documents which appears to be required by the exigencies of construction or by inconsistencies in the Contract Documents, will be determined by the Consultant and authorized in writing by the Consultant, Owner and the Bureau prior to execution. The Contractor shall be responsible for requesting clarifying information where the intent of the Contract Documents is uncertain.
- 2.3 The Contractor shall not utilize any apparent error or omission in the Contract Documents to the disadvantage of the Owner. The Contractor shall promptly notify the Consultant in writing of such errors or omissions. The Consultant shall make any corrections or clarifications necessary in such a situation to document the true intent of the Contract Documents.

00 72 13
General Conditions

3. Additional Drawings and Specifications

- 3.1 Upon the written request of the Contractor, the Owner shall provide, at no expense to the Contractor, up to five sets of printed Drawings and Specifications for the execution of the Work.
- 3.2 The Consultant shall promptly furnish to the Contractor revised Drawings and Specifications, for the area of the documents where those revisions apply, when corrections or clarifications are made by the Consultant. All such information shall be consistent with, and reasonably inferred from, the Contract Documents. The Contractor shall do no work without the proper Drawings and Specifications.

4. Ownership of Contract Documents

- 4.1 The designs represented on the Contract Documents are the property of the Consultant. The Drawings and Specifications shall not be used on other work without consent of the Consultant.

5. Permits, Laws, and Regulations

- 5.1 The Owner is responsible for obtaining any zoning approvals or other similar local project approvals necessary to complete the Work, unless otherwise specified in the Contract Documents.
- 5.2 The Owner is responsible for obtaining Maine Department of Environmental Protection, Maine Department of Transportation, or other similar state government project approvals necessary to complete the Work, unless otherwise indicated in the Contract Documents.
- 5.3 The Owner is responsible for obtaining any federal agency project approvals necessary to complete the Work, unless otherwise indicated in the Contract Documents.
- 5.4 The Owner is responsible for obtaining all easements for permanent structures or permanent changes in existing facilities.
- 5.5 The Contractor is responsible for obtaining and paying for all permits and licenses necessary for the implementation of the Work. The Contractor shall notify the Owner of any delays, variance or restrictions that may result from the issuing of permits and licenses.
- 5.6 The Contractor shall comply with all ordinances, laws, rules and regulations and make all required notices bearing on the implementation of the Work. In the event the Contractor observes disagreement between the Drawings and Specifications and any ordinances, laws, rules and regulations, the Contractor shall promptly notify the Consultant in writing. Any necessary changes shall be made as provided in the contract for changes in the work. The Contractor shall not perform any work knowing it to be contrary to such ordinances, laws, rules and regulations.
- 5.7 The Contractor shall comply with local, state and federal regulations regarding construction safety and all other aspects of the Work.
- 5.8 The Contractor shall comply with the Maine Code of Fair Practices and Affirmative Action, 5 M.R.S. §784 (2).

00 72 13
General Conditions

6. Taxes

- 6.1 The Owner is exempt from the payment of Maine State sales and use taxes as provided in 36 M.R.S. §1760 (1). The Contractor and Subcontractors shall not include taxes on exempt items in the construction contract.
- 6.2 Section 1760 further provides in subsection 61 that sales to a construction contractor or its subcontractor of tangible personal property that is to be physically incorporated in, and become a permanent part of, real property for sale to or owned by the Owner, are exempt from Maine State sales and use taxes. Tangible personal property is defined in 36 M.R.S. §1752 (17).
- 6.3 The Contractor may contact Maine Revenue Services, 24 State House Station, Augusta, Maine 04333 for guidance on tax exempt regulations authorized by 36 M.R.S. §1760 and detailed in Rule 302 (18-125 CMR 302).

7. Labor and Wages

- 7.1 The Contractor shall conform to the labor laws of the State of Maine, and all other laws, ordinances, and legal requirements affecting the work in Maine.
- 7.2 The Consultant shall include a wage determination document prepared by the Maine Department of Labor in the Contract Documents for state-funded contracts in excess of \$50,000. The document shows the minimum wages required to be paid to each category of labor employed on the project.
- 7.3 On projects requiring a Maine wage determination, the Contractor shall submit monthly payroll records to the Owner ("the contracting agency") showing the name and occupation of all workers and all independent contractors employed on the project. The monthly submission must also include the Contractor's company name, the title of the project, hours worked, hourly rate or other method of remuneration, and the actual wages or other compensation paid to each person.
- 7.4 The Contractor shall not reveal, in the payroll records submitted to the Owner, personal information regarding workers and independent contractors, other than the information described above. Such information shall not include Social Security number, employee identification number, or employee address or phone number, for example.
- 7.5 The Contractor shall conform to Maine statute (39-A M.R.S. §105-A (6)) by providing to the Workers' Compensation Board a list of all subcontractors and independent contractors on the job site and a record of the entity to whom that subcontractor or independent contractor is directly contracted and by whom that subcontractor or independent contractor is insured for workers' compensation purposes.
- 7.6 The Contractor shall enforce strict discipline and good order among their employees at all times, and shall not employ any person unfit or unskilled to do the work assigned to them.
- 7.7 The Contractor shall promptly pay all employees when their compensation is due, shall promptly pay all others who have billed and are due for materials, supplies and services used in the Work, and shall promptly pay all others who have billed and are due for insurance, workers compensation coverage, federal and state unemployment compensation, and Social Security

00 72 13
General Conditions

charges pertaining to this Project. Before final payments are made, the Contractor shall furnish to the Owner affidavits that all such payments described above have been made.

- 7.8 The Contractor may contact the Maine Department of Labor, 54 State House Station, Augusta, Maine 04333 for guidance on labor issues.
- 7.9 The Contractor may contact the Maine Workers' Compensation Board, 27 State House Station, Augusta, Maine 04333 for guidance on workers' compensation issues.

8. Indemnification

- 8.1 The Contractor shall indemnify and hold harmless the Owner and its officers and employees from and against any and all damages, liabilities, and costs, including reasonable attorney's fees, and defense costs, for any and all injuries to persons or property, including claims for violation of intellectual property rights, to the extent caused by the negligent acts or omissions of the Contractor, its employees, agents, officers or subcontractors in the performance of work under this Agreement. The Contractor shall not be liable for claims to the extent caused by the negligent acts or omissions of the Owner or for actions taken in reasonable reliance on written instructions of the Owner.
- 8.2 The Contractor shall notify the Owner promptly of all claims arising out of the performance of work under this Agreement by the Contractor, its employees or agents, officers or subcontractors.
- 8.3 This indemnity provision shall survive the termination of the Agreement, completion of the project or the expiration of the term of the Agreement.

9. Insurance Requirements

- 9.1 The Contractor shall provide, with each original of the signed Contract, an insurance certificate or certificates acceptable to the Owner and BGS. The Contractor shall submit insurance certificates to the Owner and BGS at the commencement of this Contract and at policy renewal or revision dates. The certificates shall identify the project name and BGS project number, and shall name the Owner as certificate holder and as additional insured for general liability and automobile liability coverages. The submitted forms shall contain a provision that coverage afforded under the insurance policies will not be canceled or materially changed unless at least ten days prior written notice by registered letter has been given to the Owner and BGS.
- 9.2 The Owner does not warrant or represent that the insurance required herein constitutes an insurance portfolio which adequately addresses all risks faced by the Contractor or its Subcontractors. The Contractor is responsible for the existence, extent and adequacy of insurance prior to commencement of work. The Contractor shall not allow any Subcontractor to commence work until all similar insurance required of the Subcontractor has been confirmed by the Contractor.
- 9.3 The Contractor shall procure and maintain primary insurance for the duration of the Project and, if written on a Claims-Made basis, shall also procure and maintain Extended Reporting Period (ERP) insurance for the period of time that any claims could be brought. The Contractor shall ensure that all Subcontractors they engage or employ will procure and maintain similar insurance

**00 72 13
General Conditions**

in form and amount acceptable to the Owner and BGS. At a minimum, the insurance shall be of the types and limits set forth herein protecting the Contractor from claims which may result from the Contractor's execution of the Work, whether such execution be by the Contractor or by those employed by the Contractor or by those for whose acts they may be liable. All required insurance coverages shall be placed with carriers authorized to conduct business in the State of Maine by the Maine Bureau of Insurance.

9.3.1 The Contractor shall have Workers' Compensation insurance for all employees on the Project site in accordance with the requirements of the Workers' Compensation law of the State of Maine. Minimum acceptable limits for Employer's Liability are:

Bodily Injury by Accident.....	\$500,000
Bodily Injury by Disease.....	\$500,000 Each Employee
Bodily Injury by Disease.....	\$500,000 Policy Limit

9.3.2 The Contractor shall have Commercial General Liability insurance providing coverage for bodily injury and property damage liability for all hazards of the Project including premise and operations, products and completed operations, contractual, and personal injury liabilities. The policy shall include collapse and underground coverage as well as explosion coverage if explosion hazards exist. Aggregate limits shall apply on a location or project basis. Minimum acceptable limits are:

General aggregate limit	\$2,000,000
Products and completed operations aggregate	\$1,000,000
Each occurrence limit.....	\$1,000,000
Personal injury aggregate.....	\$1,000,000

9.3.3 The Contractor shall have Automobile Liability insurance against claims for bodily injury, death or property damage resulting from the maintenance, ownership or use of all owned, non-owned and hired automobiles, trucks and trailers. Minimum acceptable limit is:

Any one accident or loss	\$500,000
--------------------------------	-----------

9.3.4 For the portion of a project which is new construction, the Contractor shall procure and maintain Builder's Risk insurance naming the Owner, Contractor, and any Subcontractor as insureds as their interest may appear. Covered causes of loss form shall be all Risks of Direct Physical Loss, endorsed to include flood, earthquake, transit and sprinkler leakage where sprinkler coverage is applicable. Unless specifically authorized in writing by the Owner, the limit of insurance shall not be less than the initial contract amount, for the portion of the project which is new construction, and coverage shall apply during the entire contract period and until the work is accepted by the Owner.

9.3.5 The Contractor shall have Owner's Protective Liability insurance for contract values \$50,000 and above, naming the Owner as the Named Insured. Minimum acceptable limits are:

General aggregate limit	\$2,000,000
Each occurrence limit.....	\$1,000,000

10. Contract Bonds

10.1 When noted as required in the Bid Documents, the Contractor shall provide to the Owner a Performance Bond and a Payment Bond, or "contract bonds", upon execution of the contract. Each bond value shall be for the full amount of the contract and issued by a surety company authorized to do business in the State of Maine as approved by the Owner. The bonds shall be

00 72 13
General Conditions

executed on the forms furnished in the Bid Documents. The bonds shall allow for any subsequent additions or deductions of the contract.

- 10.2 The contract bonds shall continue in effect for one year after final acceptance of the contract to protect the Owner's interest in connection with the one year guarantee of workmanship and materials and to assure settlement of claims for the payment of all bills for labor, materials and equipment by the Contractor.

11. Patents and Royalties

- 11.1 The Contractor shall, for all time, secure for the Owner the free and undisputed right to the use of any patented articles or methods used in the Work. The expense of defending any suits for infringement or alleged infringement of such patents shall be borne by the Contractor. Awards made regarding patent suits shall be paid by the Contractor. The Contractor shall hold the Owner harmless regarding patent suits that may arise due to installations made by the Contractor, and to any awards made as a result of such suits.
- 11.2 Any royalty payments related to the work done by the Contractor for the Project shall be borne by the Contractor. The Contractor shall hold the Owner harmless regarding any royalty payments that may arise due to installations made by the Contractor.

12. Surveys, Layout of Work

- 12.1 The Owner shall furnish all property surveys unless otherwise specified.
- 12.2 The Contractor is responsible for correctly staking out the Work on the site. The Contractor shall employ a competent surveyor to position all construction on the site. The surveyor shall run the axis lines, establish correct datum points and check each line and point on the site to insure their accuracy. All such lines and points shall be carefully preserved throughout the construction.
- 12.3 The Contractor shall lay out all work from dimensions given on the Drawings. The Contractor shall take measurements and verify dimensions of any existing work that affects the Work or to which the Work is to be fitted. The Contractor is solely responsible for the accuracy of all measurements. The Contractor shall verify all grades, lines, levels, elevations and dimensions shown on the Drawings and report any errors or inconsistencies to the Consultant prior to commencing work.

13. Record of Documents

- 13.1 The Contractor shall maintain one complete set of Contract Documents on the jobsite, in good order and current status, for access by the Owner and Consultant.
- 13.2 The Contractor shall maintain, continuously updated, complete records of Requests for Information, Architectural Supplemental Instructions (or equivalent), Information Bulletins, supplemental sketches, Change Order Proposals, Change Orders, Shop Drawings, testing reports, et cetera, for access by the Owner and Consultant.

00 72 13
General Conditions

14. Allowances

- 14.1 The Contract Price shall include all allowances described in the Contract Documents. The Contractor shall include all overhead and profit necessary to implement each allowance in their Contract Price.
- 14.2 The Contractor shall not be required to employ parties for allowance work against whom the Contractor has a reasonable objection. In such a case, the Contractor shall notify the Owner in writing of their position and shall propose an alternative party to complete the work of the allowance.

15. Shop Drawings

- 15.1 The Contractor shall administer Shop Drawings prepared by the Contractor, Subcontractors, suppliers or others to conform to the approved Schedule of the Work. The Contractor shall verify all field measurements, check and authorize all Shop Drawings and schedules required by the Work. The Contractor is the responsible party and contact for the Contractor's work as well as that of Subcontractors, suppliers or others who provide Shop Drawings.
- 15.2 The Consultant shall review and acknowledge Shop Drawings, with reasonable promptness, for general conformity with the design concept of the project and compliance with the information provided in the Contract Documents.
- 15.3 The Contractor shall provide monthly updated logs containing: requests for information, information bulletins, supplemental instructions, supplemental sketches, change order proposals, change orders, submittals, testing and deficiencies.
- 15.4 The Contractor shall make any corrections required by the Consultant, and shall submit a quantity of corrected copies as may be needed. The acceptance of Shop Drawings or schedules by the Consultant shall not relieve the Contractor from responsibility for deviations from Drawings and Specifications, unless the Contractor has called such deviations to the attention of the Consultant at the time of submission and secured the Consultant's written approval. The acceptance of Shop Drawings or schedules by the Consultant does not relieve the Contractor from responsibility for errors in Shop Drawings or schedules.

16. Samples

- 16.1 The Contractor shall furnish for approval, with reasonable promptness, all samples as directed by the Consultant. The Consultant shall review and approve such samples, with reasonable promptness, for general conformity with the design concept of the project and compliance with the information provided in the Contract Documents. The subsequent work shall be in accord with the approved samples.

17. Substitutions

- 17.1 The Contractor shall furnish items and materials described in the Contract Documents. If the item or material specified describes a proprietary product, or uses the name of a manufacturer, the term "or approved equal" shall be implied, if it is not included in the text. The specific item or material specified establishes a minimum standard for the general design, level of quality, type, function, durability, efficiency, reliability, compatibility, warranty coverage, installation factors

00 72 13
General Conditions

and required maintenance. The Drawing or written Specification shall not be construed to exclude other manufacturers products of comparable design, quality, and efficiency.

- 17.2 The Contractor may submit detailed information about a proposed substitution to the Consultant for consideration. Particular models of items and particular materials which the Contractor asserts to be equal to the items and materials identified in the Contract Documents shall be allowed only with written approval by the Consultant. The request for substitution shall include a cost comparison and a reason or reasons for the substitution.
- 17.3 The Consultant may request additional information about the proposed substitution. The approval or rejection of a proposed substitution may be based on timeliness of the request, source of the information, the considerations of minimum standards described above, or other considerations. The Consultant should briefly state the rationale for the decision. The decision shall be considered final.
- 17.4 The duration of a substitution review process can not be the basis for a claim for delay in the Schedule of the Work.

18. Assignment of Contract

- 18.1 The Contractor shall not assign or sublet the contract as a whole without the written consent of the Owner. The Contractor shall not assign any money due to the Contractor without the written consent of the Owner.

19. Separate Contracts

- 19.1 The Owner reserves the right to create other contracts in connection with this Project using similar General Conditions. The Contractor shall allow the Owner's other contractors reasonable opportunity for the delivery and storage of materials and the execution of their work. The Contractor shall coordinate and properly connect the Work of all contractors.
- 19.2 The Contractor shall promptly report to the Consultant and Owner any apparent deficiencies in work of the Owner's other contractors that impacts the proper execution or results of the Contractor. The Contractor's failure to observe or report any deficiencies constitutes an acceptance of the Owner's other contractors work as suitable for the interface of the Contractor's work, except for latent deficiencies in the Owner's other contractors work.
- 19.3 Similarly, the Contractor shall promptly report to the Consultant and Owner any apparent deficiencies in their own work that would impact the proper execution or results of the Owner's other contractors.
- 19.4 The Contractor shall report to the Consultant and Owner any conflicts or claims for damages with the Owner's other contractors and settle such conflicts or claims for damages by mutual agreement or arbitration, if necessary, at no expense to the Owner.
- 19.5 In the event the Owner's other contractors sue the Owner regarding any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor, who shall defend such proceedings at the Contractor's expense. The Contractor shall pay or satisfy any judgment that may arise against the Owner, and pay all other costs incurred.

00 72 13
General Conditions

20. Subcontracts

- 20.1 The Contractor shall not subcontract any part of this contract without the written permission of the Owner.
- 20.2 The Contractor shall submit a complete list of named Subcontractors and material suppliers to the Consultant and Owner for approval by the Owner prior to commencing work. The Subcontractors named shall be reputable companies of recognized standing with a record of satisfactory work.
- 20.3 The Contractor shall not employ any Subcontractor or use any material until they have been approved, or where there is reason to believe the resulting work will not comply with the Contract Documents.
- 20.4 The Contractor, not the Owner, is as fully responsible for the acts and omissions of Subcontractors and of persons employed by them, as the Contractor is for the acts and omissions of persons directly or indirectly employed by the Contractor.
- 20.5 Neither the Contract Documents nor any Contractor-Subcontractor contract shall indicate, infer or create any direct contractual relationship between any Subcontractor and the Owner.

21. Contractor-Subcontractor Relationship

- 21.1 The Contractor shall be bound to the Subcontractor by all the obligations in the Contract Documents that bind the Contractor to the Owner.
- 21.2 The Contractor shall pay the Subcontractor, in proportion to the dollar value of the work completed and requisitioned by the Subcontractor, the approved dollar amount allowed to the Contractor no more than seven days after receipt of payment from the Owner.
- 21.3 The Contractor shall pay the Subcontractor accordingly if the Contract Documents or the subcontract provide for earlier or larger payments than described in the provision above.
- 21.4 The Contractor shall pay the Subcontractor for completed and requisitioned subcontract work, less retainage, no more than seven days after receipt of payment from the Owner for the Contractor's approved Requisition for Payment, even if the Consultant fails to certify a portion of the Requisition for Payment for a cause not the fault of the Subcontractor.
- 21.5 The Contractor shall not make a claim for liquidated damages or penalty for delay in any amount in excess of amounts that are specified by the subcontract.
- 21.6 The Contractor shall not make a claim for services rendered or materials furnished by the Subcontractor unless written notice is given by the Contractor to the Subcontractor within ten calendar days of the day in which the claim originated.
- 21.7 The Contractor shall give the Subcontractor an opportunity to present and to submit evidence in any progress conference or disputes involving subcontract work.

00 72 13
General Conditions

- 21.8 The Contractor shall pay the Subcontractor a just share of any fire insurance payment received by the Contractor.
- 21.9 The Subcontractor shall be bound to the Contractor by the terms of the Contract Documents and assumes toward the Contractor all the obligations and responsibilities that the Contractor, by those documents, assumes toward the Owner.
- 21.10 The Subcontractor shall submit applications for payment to the Contractor in such reasonable time as to enable the Contractor to apply for payment as specified.
- 21.11 The Subcontractor shall make any claims for extra cost, extensions of time or damages, to the Contractor in the manner provided in these General Conditions for like claims by the Contractor to the Owner, except that the time for the Subcontractor to make claims for extra cost is seven calendar days after the receipt of Consultant's instructions.
22. Supervision of the Work
- 22.1 During all stages of the Work the Contractor shall have a competent superintendent, with any necessary assistant superintendents, overseeing the project. The superintendent shall not be reassigned without the consent of the Owner unless a superintendent ceases to be employed by the Contractor due to unsatisfactory performance.
- 22.2 The superintendent represents the Contractor on the jobsite. Directives given by the Consultant or Owner to the superintendent shall be as binding as if given directly to the Contractor's main office. All important directives shall be confirmed in writing to the Contractor. The Consultant and Owner are not responsible for the acts or omissions of the superintendent or assistant superintendents.
- 22.3 The Contractor shall provide supervision of the Work equal to the industry's highest standard of care. The superintendent shall carefully study and compare all Contract Documents and promptly report any error, inconsistency or omission discovered to the Consultant. The Contractor may not necessarily be held liable for damages resulting directly from any error, inconsistency or omission in the Contract Documents or other instructions by the Consultant that was not revealed by the superintendent in a timely way.
23. Observation of the Work
- 23.1 The Contractor shall allow the Owner, the Consultant and the Bureau continuous access to the site for the purpose of observation of the progress of the work. All necessary safeguards and accommodations for such observations shall be provided by the Contractor.
- 23.2 The Contractor shall coordinate all required testing, approval or demonstration of the Work. The Contractor shall give sufficient notice to the appropriate parties of readiness for testing, inspection or examination.
- 23.3 The Contractor shall schedule inspections and obtain all required certificates of inspection for inspections by a party other than the Consultant.

00 72 13
General Conditions

- 23.4 The Consultant shall make all scheduled observations promptly, prior to the work being concealed or buried by the Contractor. If approval of the Work is required of the Consultant, the Contractor shall notify the Consultant of the construction schedule in this regard. Work concealed or buried prior to the Consultant's approval may need to be uncovered at the Contractor's expense.
- 23.5 The Consultant may order reexamination of questioned work, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to conform to the Contract Documents, the Owner shall pay the expense of the reexamination and remedial work. If the work is found to not conform to the Contract Documents, the Contractor shall pay the expense, unless the defect in the work was caused by the Owner's Contractor, whose responsibility the reexamination expense becomes.
- 23.6 The Bureau shall periodically observe the Work during the course of construction and make recommendations to the Contractor or Consultant as necessary. Such recommendations shall be considered and implemented through the usual means for changes to the Work.
24. Consultant's Status
- 24.1 The Consultant represents the Owner during the construction period, and observes the work in progress on behalf of the Owner. The Consultant has authority to act on behalf of the Owner only to the extent expressly provided by the Contract Documents or otherwise demonstrated to the Contractor. The Consultant has authority to stop the work whenever such an action is necessary, in the Consultant's reasonable opinion, to ensure the proper execution of the contract.
- 24.2 The Consultant is the interpreter of the conditions of the contract and the judge of its performance. The Consultant shall favor neither the Owner nor the Contractor, but shall use the Consultant's powers under the contract to enforce faithful performance by both parties.
- 24.3 In the event of the termination of the Consultant's employment on the project prior to completion of the work, the Owner shall appoint a capable and reputable replacement. The status of the new Consultant relative to this contract shall be that of the former Consultant.
25. Management of the Premises
- 25.1 The Contractor shall place equipment and materials, and conduct activities on the premises in a manner that does not unreasonably hinder site circulation, environmental stability, or any long term effect. Likewise, the Consultant's directions shall not cause the use of premises to be impeded for the Contractor or Owner.
- 25.2 The Contractor shall not use the premises for any purpose other than that which is directly related to the scope of work. The Owner shall not use the premises for any purpose incompatible with the proposed work simultaneous to the work of the Contractor.
- 25.3 The Contractor shall enforce the Consultant's instructions regarding information posted on the premises such as signage and advertisements, as well as activities conducted on the premises such as fires, and smoking.

00 72 13
General Conditions

- 25.4 The Owner may occupy any part of the Project that is completed with the written consent of the Contractor, and without prejudice to any of the rights of the Owner or Contractor. Such use or occupancy shall not, in and of itself, be construed as a final acceptance of any work or materials.
26. Safety and Security of the Premises
- 26.1 The Contractor shall designate, and make known to the Consultant and the Owner, a safety officer whose duty is the prevention of accidents on the site.
- 26.2 The Contractor shall continuously maintain security on the premises and protect from unreasonable occasion of injury all people authorized to be on the job site. The Contractor shall also effectively protect the property and adjacent properties from damage or loss.
- 26.3 The Contractor shall take all necessary precautions to ensure the safety of workers and others on and adjacent to the site, abiding by applicable local, state and federal safety regulations. The Contractor shall erect and continuously maintain safeguards for the protection of workers and others, and shall post signs and other warnings regarding hazards associated with the construction process, such as protruding fasteners, moving equipment, trenches and holes, scaffolding, window, door or stair openings, and falling materials.
- 26.4 The Contractor shall restore the premises to conditions that existed prior to the start of the project at areas not intended to be altered according to the Contract Documents.
- 26.5 The Contractor shall protect existing utilities and exercise care working in the vicinity of utilities shown in the Drawings and Specifications or otherwise located by the Contractor.
- 26.6 The Contractor shall protect from damage existing trees and other significant plantings and landscape features of the site which will remain a permanent part of the site. If necessary or indicated in the Contract Documents, tree trunks shall be boxed and barriers erected to prevent damage to tree branches or roots.
- 26.7 The Contractor shall repair or replace damage to the Work caused by the Contractor's or Subcontractor's forces, including that which is reasonably protected, at the expense of the responsible party.
- 26.8 The Contractor shall not load, or allow to be loaded, any part of the Project with a force which imperils personal or structural safety. The Consultant may consult with the Contractor on such means and methods of construction, however, the ultimate responsibility lies with the Contractor.
- 26.9 The Contractor shall not jeopardize any work in place with subsequent construction activities such as blasting, drilling, excavating, cutting, patching or altering work. The Consultant must approve altering any structural components of the project. The Contractor shall supervise all construction activities carried out by others on site to ensure that the work is neatly done and in a manner that will not endanger the structure or the component parts.
- 26.10 The Contractor may act with their sole discretion in emergency situations that potentially effect health, life or serious damage to the premises or adjacent properties, to prevent such potential loss or injury. The Contractor may negotiate with the Owner for compensation for expenses due to such emergency work.

00 72 13
General Conditions

- 26.11 The Contractor and Subcontractors shall have no responsibility for the identification, discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials in any form at the project site. The Contractor shall avoid disruption of any hazardous materials or toxic substances at the project site and promptly notify the Owner in writing on the occasion of such a discovery.
- 26.12 The Contractor shall keep the premises free of any unsafe accumulation of waste materials caused by the work. The Contractor shall regularly keep the spaces “broom clean”. See the Close-out of the Work provisions of this section regarding cleaning at the completion of the project.
27. Changes in the Work
- 27.1 The Contractor shall not proceed with extra work without an approved Change Order or Construction Change Directive. A Change Order which has been properly signed by all parties shall become a part of the contract.
- 27.2 A Change Order is the usual document for directing changes in the Work. In certain circumstances, however, the Owner may utilize a Construction Change Directive to direct the Contractor to perform changes in the Work that are generally consistent with the scope of the project. The Owner shall use a Construction Change Directive only when the normal process for approving changes to the Work has failed to the detriment of the Project, or when agreement on the terms of a Change Order cannot be met, or when an urgent situation requires, in the Owner's judgment, prompt action by the Contractor.
- 27.3 The Consultant shall prepare the Construction Change Directive representing a complete scope of work, with proposed Contract Price and Contract Time revisions, if any, clearly stated.
- 27.4 The Contractor shall promptly carry out a Construction Change Directive which has been signed by the Owner and the Consultant. Work thus completed by the Contractor constitutes the basis for a Change Order. Changes in the Contract Price and Contract Time shall be as defined in the Construction Change Directive unless subsequently negotiated with some other terms.
- 27.5 The method of determining the dollar value of extra work shall be by:
- .1 an estimate of the Contractor accepted by Owner as a lump sum, or
 - .2 unit prices named in the contract or subsequently agreed upon, or
 - .3 cost plus a designated percentage, or
 - .4 cost plus a fixed fee.
- 27.6 The Contractor shall determine the dollar value of the extra work for both the lump sum and cost plus designated percentage methods so as not to exceed the following rates. The rates include all overhead and profit expenses.
- .1 Contractor - for any work performed by the Contractor's own forces, up to 20% of the cost;
 - .2 Subcontractor - for work performed by Subcontractor's own forces, up to 20% of the cost;
 - .3 Contractor - for work performed by Contractor's Subcontractor, up to 10% of the amount due the Subcontractor.
- 27.7 The Contractor shall keep and provide records as needed or directed for the cost plus designated percentage method. The Consultant shall review and certify the appropriate amount which

00 72 13
General Conditions

- includes the Contractor's overhead and profit. The Owner shall make payments based on the Consultant's certificate.
- 27.8 Cost reflected in Change Orders shall be limited to the following: cost of materials, cost of delivery, cost of labor (including Social Security, pension, Workers' Compensation insurance, and unemployment insurance), and cost of rental of power tools and equipment. Labor cost may include a pro-ratio share of a foreman's time only in the case of an extension of contract time granted due to the Change Order.
- 27.9 Overhead reflected in Change Orders shall be limited to the following: bond premium, supervision, wages of clerks, time keepers, and watchmen, small tools, incidental expenses, general office expenses, and all other overhead expenses directly related to the Change Order.
- 27.10 The Contractor shall provide credit to the Owner for labor, materials, equipment and other costs but not overhead and profit expenses for those Change Order items that result in a net value of credit to the contract.
- 27.11 The Owner may change the scope of work of the Project without invalidating the contract. The Owner shall notify the Contractor of a change of the scope of work for the Owner's Contractors, which may affect the work of this Contractor, without invalidating the contract. Change Orders for extension of the time caused by such changes shall be developed at the time of directing the change in scope of work.
- 27.12 The Consultant may order minor changes in the Work, not involving extra cost, which is consistent with the intent of the design or project.
- 27.13 The Contractor shall immediately give written notification to the Consultant of latent conditions discovered at the site which materially differ from those represented in the Drawings or Specifications, and which may eventually result in a change in the scope of work. The Contractor shall suspend work until receiving direction from the Consultant. The Consultant shall promptly investigate the conditions and respond to the Contractor's notice with direction that avoids any unnecessary delay of the Work. The Consultant shall determine if the discovered conditions warrant a Change Order.
- 27.14 The Contractor shall, within ten calendar days of receipt of the information, give written notification to the Consultant if the Contractor claims that instructions by the Consultant will constitute extra cost not accounted for by Change Order or otherwise under the contract. The Consultant shall promptly respond to the Contractor's notice with direction that avoids any unnecessary delay of the Work. The Consultant shall determine if the Contractor's claim warrants a Change Order.
28. Correction of the Work
- 28.1 The Contractor shall promptly remove from the premises all work the Consultant declares is non-conforming to the contract. The Contractor shall replace the work properly at no expense to the Owner. The Contractor is also responsible for the expenses of others whose work was damaged or destroyed by such remedial work.

00 72 13
General Conditions

- 28.2 The Owner may elect to remove non-conforming work if it is not removed by the Contractor within a reasonable time, that time defined in a written notice from the Consultant. The Owner may elect to store removed non-conforming work not removed by the Contractor at the Contractor's expense. The Owner may, with ten days written notice, dispose of materials which the Contractor does not remove. The Owner may sell the materials and apply the net proceeds, after deducting all expenses, to the costs that should have been borne by the Contractor.
- 28.3 The Contractor shall remedy any defects due to faulty materials or workmanship and pay for any related damage to other work which appears within a period of one year from the date of substantial completion, and in accord with the terms of any guarantees provided in the contract. The Owner shall promptly give notice of observed defects to the Contractor and Consultant. The Consultant shall determine the status of all claimed defects. The Contractor shall perform all remedial work without unjustifiable delay in either the initial response or the corrective action.
- 28.4 The Consultant may authorize, after a reasonable notification to the Contractor, an equitable deduction from the contract amount in lieu of the Contractor correcting non-conforming or defective work.
29. Owner's Right to do Work
- 29.1 The Owner may, using other contractors, correct deficiencies attributable to the Contractor, or complete unfinished work. Such action shall take place only after giving the Contractor three days written notice, and provided the Consultant approves of the proposed course of action as an appropriate remedy. The Owner may then deduct the cost of the remedial work from the amount due the Contractor.
- 29.2 The Owner may act with their sole discretion when the Contractor is unable to take action in emergency situations that potentially effect health, life or serious damage to the premises or adjacent properties, to prevent such potential loss or injury. The Owner shall inform the Contractor of the emergency work performed, particularly where it may affect the work of the Contractor.
30. Termination of Contract and Stop Work Action
- 30.1 The Owner may, owing to a certificate of the Consultant indicating that sufficient cause exists to justify such action, without prejudice to any other right or remedy and after giving the Contractor and the Contractor's surety seven days written notice, terminate the employment of the Contractor. At that time the Owner may take possession of the premises and of all materials,

00 72 13
General Conditions

tools and appliances on the premises and finish the work by whatever method the Owner may deem expedient. Cause for such action by the Owner includes:

- .1 the contractor is adjudged bankrupt, or makes a general assignment for the benefit of its creditors, or
- .2 a receiver is appointed due to the Contractor's insolvency, or
- .3 the Contractor persistently or repeatedly refuses or fails to provide enough properly skilled workers or proper materials, or
- .4 the Contractor fails to make prompt payment to Subcontractors or suppliers of materials or labor, or
- .5 the Contractor persistently disregards laws, ordinances or the instructions of the Consultant, or is otherwise found guilty of a substantial violation of a provision of the Contract Documents.

- 30.2 The Contractor is not entitled, as a consequence of the termination of the employment of the Contractor as described above, to receive any further payment until the Work is finished. If the unpaid balance of the contract amount exceeds the expense of finishing the Work, including compensation for additional architectural, managerial and administrative services, such balance shall be paid to the Contractor. If the expense of finishing the Work exceeds the unpaid balance, the Contractor shall pay the difference to the Owner. The Consultant shall certify the expense incurred by the Contractor's default. This obligation for payment shall continue to exist after termination of the contract.
- 30.3 The Contractor may, if the Work is stopped by order of any court or other public authority for a period of thirty consecutive days, and through no act or fault of the Contractor or of anyone employed by the Contractor, with seven days written notice to the Owner and the Consultant, terminate this contract. The Contractor may then recover from the Owner payment for all work executed, any proven loss and reasonable profit and damage.
- 30.4 The Contractor may, if the Consultant fails to issue a certificate for payment within seven days after the Contractor's formal request for payment, through no fault of the Contractor, or if the Owner fails to pay to the Contractor within 30 days after submission of any sum certified by the Consultant, with seven days written notice to the Owner and the Consultant, stop the Work or terminate this Contract.

31. Delays and Extension of Time

- 31.1 The completion date of the contract shall be extended if the work is delayed by changes ordered in the work which have approved time extensions, or by an act or neglect of the Owner, the Consultant, or the Owner's Contractor, or by strikes, lockouts, fire, flooding, unusual delay in transportation, unavoidable casualties, or by other causes beyond the Contractor's control. The Consultant shall determine the status of all claimed causes.
- 31.2 The contract shall not be extended for delay occurring more than seven calendar days before the Contractor's claim made in writing to the Consultant. In case of a continuing cause of delay, only one claim is necessary.
- 31.3 The contract shall not be extended due to failure of the Consultant to furnish drawings if no schedule or agreement is made between the Contractor and the Consultant indicating the dates

00 72 13
General Conditions

which drawings shall be furnished and fourteen calendar days has passed after said date for such drawings.

31.4 This article does not exclude the recovery of damages for delay by either party under other provisions in the Contract Document.

32. Payments to the Contractor

- 32.1 As noted under *Preconstruction Conference* in this section, the Contractor shall submit a Schedule of Values form, before the first application for payment, for approval by the Owner and Consultant. The Consultant may direct the Contractor to provide evidence that supports the correctness of the form. The approved Schedule of Values shall be used as a basis for payments.
- 32.2 The Contractor shall submit an application for each payment (“Requisition for Payment”) on a form approved by the Owner and Consultant. The Consultant may require receipts or other documents showing the Contractor's payments for materials and labor, including payments to Subcontractors.
- 32.3 The Contractor shall submit Requisitions for Payment as the work progresses not more frequently than once each month, unless the Owner approves a more frequent interval due to unusual circumstances. The Requisition for Payment is based on the proportionate quantities of the various classes of work completed or incorporated in the Work, in agreement with the actual progress of the Work and the dollar value indicated in the Schedule of Values.
- 32.4 The Consultant shall verify and certify each Requisition for Payment which appears to be complete and correct prior to payment being made by the Owner. The Consultant may certify an appropriate amount for materials not incorporated in the Work which have been delivered and suitably stored at the site. The Contractor shall submit bills of sale, insurance certificates, or other such documents that will adequately protect the Owner’s interests prior to payments being certified.
- 32.5 In the event any materials delivered but not yet incorporated in the Work have been included in a certified Requisition for Payment with payment made, and said materials thereafter are damaged, deteriorated or destroyed, or for any reason whatsoever become unsuitable or unavailable for use in the Work, the full amount previously allowed shall be deducted from subsequent payments unless the Contractor satisfactorily replaces said material.
- 32.6 The Contractor may request certification of an appropriate dollar amount for materials not incorporated in the Work which have been delivered and suitably stored away from the site. The Contractor shall submit bills of sale, insurance certificates, right-of-entry documents or other such documents that will adequately protect the Owner’s interests. The Consultant shall determine if the Contractor's documentation for the materials is complete and specifically designated for the Project. The Owner may allow certification of such payments.
- 32.7 Subcontractors may request, and shall receive from the Consultant, copies of approved Requisitions for Payment showing the amounts certified in the Schedule of Values.
- 32.8 Certified Requisitions for Payment, payments made to the Contractor, or partial or entire occupancy of the project by the Owner shall not constitute an acceptance of any work that does

00 72 13
General Conditions

not conform to the Contract Documents. The making and acceptance of the final payment constitutes a waiver of all claims by the Owner, other than those arising from unsettled liens, from faulty work or materials appearing within one year from final payment or from requirements of the Drawings and Specifications, and of all claims by the Contractor, except those previously made and still unsettled.

33. Payments Withheld

- 33.1 The Owner shall retain five percent of each payment due the Contractor as part security for the fulfillment of the contract by the Contractor. The Owner may make payment of a portion of this “retainage” to the Contractor temporarily or permanently during the progress of the Work. The Owner may thereafter withhold further payments until the full amount of the five percent is reestablished. The Contractor may deposit with the Maine State Treasurer certain securities in place of retainage amounts due according to Maine Statute (5 M.R.S. §1746).
- 33.2 The Consultant may withhold or nullify the whole or a portion of any Requisitions for Payment submitted by the Contractor in the amount that may be necessary, in his reasonable opinion, to protect the Owner from loss due to any of the following:
- .1 defective work not remedied;
 - .2 claims filed or reasonable evidence indicating probable filing of claims;
 - .3 failure to make payments properly to Subcontractors or suppliers;
 - .4 a reasonable doubt that the contract can be completed for the balance then unpaid;
 - .5 liability for damage to another contractor.

The Owner shall make payment to the Contractor, in the amount withheld, when the above circumstances are removed.

34. Liens

- 34.1 The Contractor shall deliver to the Owner a complete release of all liens arising out of this contract before the final payment or any part of the retainage payment is released. The Contractor shall provide with the release of liens an affidavit asserting each release includes all labor and materials for which a lien could be filed. Alternately, the Contractor, in the event any Subcontractor or supplier refuses to furnish a release of lien in full, may furnish a bond satisfactory to the Owner, to indemnify the Owner against any lien.
- 34.2 In the event any lien remains unsatisfied after all payments to the Contractor are made by the Owner, the Contractor shall refund to the Owner all money that the latter may be compelled to pay in discharging such lien, including all cost and reasonable attorney’s fees.

35. Workmanship

- 35.1 The Contractor shall provide materials, equipment, and installed work equal to or better than the quality specified in the Contract Documents and approved in submittal and sample. The installation methods shall be of the highest standards, and the best obtainable from the respective trades. The Consultant’s decision on the quality of work shall be final.

00 72 13
General Conditions

- 35.2 The Contractor shall know local labor conditions for skilled and unskilled labor in order to apply the labor appropriately to the Work. All labor shall be performed by individuals well skilled in their respective trades.
- 35.3 The Contractor shall perform all cutting, fitting, patching and placing of work in such a manner to allow subsequent work to fit properly, whether that be by the Contractor, the Owner's Contractors or others. The Owner and Consultant may advise the Contractor regarding such subsequent work. Notwithstanding the notification or knowledge of such subsequent work, the Contractor may be directed to comply with this standard of compatible construction by the Consultant at the Contractor's expense.
- 35.4 The Contractor shall request clarification or revision of any design work by the Consultant, prior to commencing that work, in a circumstance where the Contractor believes the work cannot feasibly be completed at the highest quality, or as indicated in the Contract Documents. The Consultant shall respond to such requests in a timely way, providing clarifying information, a feasible revision, or instruction allowing a reduced quality of work. The Contractor shall follow the direction of the Consultant regarding the required request for information.
- 35.5 The Contractor shall guarantee the Work against any defects in workmanship and materials for a period of one year commencing with the date of the Certificate of Substantial Completion, unless specified otherwise for specific elements of the project. The Work may also be subdivided in mutually agreed upon components, each defined by a separate Certificate of Substantial Completion.
36. Close-out of the Work
- 36.1 The Contractor shall remove from the premises all waste materials caused by the work. The Contractor shall make the spaces "broom clean" unless a more thorough cleaning is specified. The Contractor shall clean all windows and glass immediately prior to the final inspection, unless otherwise directed.
- 36.2 The Owner may conduct the cleaning of the premises where the Contractor, duly notified by the Consultant, fails to adequately complete the task. The expense of this cleaning may be deducted from the sum due to the Contractor.
- 36.3 The Contractor shall participate in all final inspections and acknowledge the documentation of unsatisfactory work, customarily called the "punch list", to be corrected by the Contractor. The Consultant shall document the successful completion of the Work in a dated Certificate of Substantial Completion, to be signed by Owner, Consultant, and Contractor.
- 36.4 The Contractor shall not call for final inspection of any portion of the Work that is not completely and permanently installed. The Contractor may be found liable for the expenses of individuals called to final inspection meetings prematurely.
- 36.5 The Contractor and all major Subcontractors shall participate in the end-of-warranty-period conference, typically scheduled close to one year after the Substantial Completion date.

**00 72 13
General Conditions**

37. Date of Completion and Liquidated Damages

- 37.1 The Contractor may make a written request to the Owner for an extension or reduction of time, if necessary. The request shall include the reasons the Contractor believes justifies the proposed completion date. The Owner may grant the revision of the contract completion date if the Work was delayed due to conditions beyond the control and the responsibility of the Contractor. The Contractor shall not conduct unauthorized accelerated work or file delay claims to recover alleged damages for unauthorized early completion.

- 37.2 The Contractor shall vigorously pursue the completion of the Work and notify the Owner of any factors that have, may, or will affect the approved Schedule of the Work. The Contractor may be found responsible for expenses of the Owner or Consultant if the Contractor fails to make notification of project delays.

- 37.3 The Project is planned to be done in an orderly fashion which allows for an iterative submittal review process, construction administration including minor changes in the Work and some bad weather. The Contractor shall not file delay claims to recover alleged damages on work the Consultant determines has followed the expected rate of progress.

- 37.4 The Consultant shall prepare the Certificate of Substantial Completion which, when signed by the Owner and the Contractor, documents the date of Substantial Completion of the Work or a designated portion of the Work. The Owner shall not consider the issuance of a Certificate of Occupancy by an outside authority a prerequisite for Substantial Completion if the Certificate of Occupancy cannot be obtained due to factors beyond the Contractor’s control.

- 37.5 Liquidated Damages may be deducted from the sum due to the Contractor for each calendar day that the Work remains uncompleted after the completion date specified in the Contract or an approved amended completion date. The dollar amount per day shall be calculated using the Schedule of Liquidated Damages table shown below.

If the original contract amount is:	The per day Liquidated Damages shall be:
Less than \$100,000	\$250
\$100,000 to less than \$2,000,000	\$750
\$2,000,000 to less than \$10,000,000	\$1,500
\$10,000,000 and greater	\$1,500 plus \$250 for each \$2,000,000 over \$10,000,000

38. Dispute Resolution

38.1 Mediation

- 38.1.1 A dispute between the parties which arises under this Contract which cannot be resolved through informal negotiation, shall be submitted to a neutral mediator jointly selected by the parties.

- 38.1.2 Either party may file suit before or during mediation if the party, in good faith, deems it to be necessary to avoid losing the right to sue due to a statute of limitations. If suit is filed before good faith mediation efforts are completed, the party filing suit shall agree to stay all proceedings in the lawsuit pending completion of the mediation process, provided such stay is without prejudice.

00 72 13
General Conditions

38.1.3 In any mediation between the Owner and the Consultant, the Owner has the right to consolidate related claims between Owner and Contractor.

38.2 Arbitration

38.2.1 If the dispute is not resolved through mediation, the dispute shall be settled by arbitration. The arbitration shall be conducted before a panel of three arbitrators. Each party shall select one arbitrator; the third arbitrator shall be appointed by the arbitrators selected by the parties. The arbitration shall be conducted in accordance with the Maine Uniform Arbitration Act (MUAA), except as otherwise provided in this section.

38.2.2 The decision of the arbitrators shall be final and binding upon all parties. The decision may be entered in court as provided in the MUAA.

38.2.3 The costs of the arbitration, including the arbitrators' fees shall be borne equally by the parties to the arbitration, unless the arbitrator orders otherwise.

38.2.4 In any arbitration between the Owner and the Consultant, the Owner has the right to consolidate related claims between Owner and Contractor.

00 73 46
Wage Determination Schedule

PART 1- GENERAL

1.1 Related Documents

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

1.2 Summary

- A. This Section includes the wage determination requirements for Contractors as issued by the State of Maine Department of Labor Bureau of Labor Standards or the United States Department of Labor.

1.3 Requirements

- A. Conform to the wage determination schedule for this project which is shown on the following page.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

00 73 46
Wage Determination Schedule

THIS DOCUMENT MUST BE CLEARLY POSTED AT ALL CONSTRUCTION SITES FUNDED IN PART WITH STATE FUNDS

State of Maine
 Department of Labor
 Bureau of Labor Standards
 Augusta, Maine 04333-0045
 Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRS §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid to laborers and workers employed on the below titled project.

2023 Fair Minimum Wage Rates
Highway & Earth Knox County

Occupational Title	Minimum Wage	Minimum Benefit	Total
Bulldozer Operator	\$28.56	\$7.59	\$36.15
Carpenter	\$32.67	\$5.92	\$38.59
Cement Masons And Concrete Finisher	\$24.00	\$3.34	\$27.34
Coating Painting And Spraying Machine Operators	\$27.00	\$0.00	\$27.00
Construction And Maintenance Painters	\$23.00	\$1.02	\$24.02
Construction Laborer	\$21.84	\$1.00	\$22.84
Control And Valve Installers And Repairers - Except Mechanical Door	\$31.00	\$9.86	\$40.86
Crane And Tower Operators	\$32.63	\$8.06	\$40.69
Crushing Grinding And Polishing Machine Operators	\$25.51	\$7.55	\$33.06
Electrical Power - Line Installer And Repairers	\$40.16	\$10.82	\$50.98
Electricians	\$41.00	\$16.50	\$57.50
Excavating And Loading Machine And Dragline Operators	\$25.48	\$4.20	\$29.68
Excavator Operator	\$30.70	\$4.49	\$35.19
Fence Erectors	\$19.50	\$1.45	\$20.95
Flaggers	\$19.00	\$0.00	\$19.00
Grader/Scrapper Operator	\$24.76	\$3.96	\$28.72
Heavy And Tractor - Trailer Truck Drivers	\$23.00	\$4.20	\$27.20
Highway Maintenance Workers	\$22.39	\$3.69	\$26.08
Industrial Machinery Mechanics	\$33.43	\$2.38	\$35.81
Industrial Truck And Tractor Operators	\$21.00	\$3.08	\$24.08
Light Truck Or Delivery Services Drivers	\$24.75	\$5.72	\$30.47
Millwrights	\$32.00	\$8.71	\$40.71
Mixing And Blending Machine Operators	\$25.51	\$13.80	\$39.31
Mobile Heavy Equipment Mechanics - Except Engines	\$26.78	\$4.72	\$31.50
Operating Engineers And Other Equipment Operators	\$25.51	\$6.48	\$31.99
Paver Operator	\$25.51	\$13.80	\$39.31
Pile-Driver Operators	\$30.96	\$6.86	\$37.82
Pipelayers	\$23.45	\$3.54	\$26.99
Plumbers Pipe Fitters And Steamfitters	\$31.97	\$3.93	\$35.90
Reclaimer Operator	\$25.51	\$10.78	\$36.29
Reinforcing Iron And Rebar Workers	\$29.75	\$10.87	\$40.62
Screed/Wheelman	\$26.40	\$3.75	\$30.15
Structural Iron And Steel Workers	\$26.93	\$8.12	\$35.05

Welders are classified as the trade to which welding is incidental (e.g. welding structural steel is Structural Iron and Steel Worker)

Apprentices – The minimum wage rates for registered apprentices are the rates recognized in the sponsorship agreement for registered apprentices working in the pertinent classification.

For any other specific trade on this project not listed above, contact the Bureau of Labor Standards for further clarification.

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

Appeal – Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates.

A true copy

Attest: 
 Scott R. Cotnoir
 Wage & Hour Director
 Bureau of Labor Standards

Expiration Date: 12-31-2023

End of Section 00 73 46

SECTION 01 01 00 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 RELATED SECTIONS

- A. Section 00 21 13 – Instruction for Bidders
- B. Section 01 31 14 – Conduct of the Work
- C. Section 02 21 13 – Existing Conditions

1.3 GENERAL SCOPE OF WORK

- A. The Athletic Field Improvements at Camden-Rockport Middle School shall include:
 - 1. The demolition of existing site features to include, but not limited to, the existing softball infield, chain link fence and backstop, and other appurtenances as detailed in the contract documents.
 - 2. The construction of a softball infield, chain link backstop and fencing, installation of a subsurface drainage system, and other appurtenances, as detailed in the contract documents.
 - 3. Various site improvements to include regrading, and all other requirements, as detailed in the contract documents.
 - 4. The restoration of any items damaged or destroyed by encroaching upon areas outside the Project Site.
 - 5. Providing and restoring, where appropriate, all temporary facilities.
 - 6. All other work indicated on the contract plans and/or specifications.

1.4 TIME OF COMPLETION

- A. Start Construction – July 1, 2024
- B. Substantial Completion – August 16, 2024
- C. Final Completion – August 30, 2024
- D. Prior to construction, the Contractor shall provide a detailed Gantt Chart schedule noting the start and end date of each task to be completed. The schedule shall include submission dates for key product submittals.

1.5 TESTING

- A. The Contractor will retain and pay for the services of a certified independent testing laboratory in good standing to perform inspections, tests and other services required by the Specification including the expense of all failed tests, including retests as required to obtain approval. Contractor shall submit testing lab certifications and qualifications to the Owner for approval. However, the Owner shall pay for testing of concrete. The Contractor shall coordinate and schedule concrete testing.

1.6 MEETINGS

- A. A competent representative of the Contractor who is familiar with the site and progress of the work is required to attend weekly jobsite meeting during the period of construction.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 01 00 - Summary of Work.docx

SECTION 01 31 14 – CONDUCT OF THE WORK

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 RELATED SECTIONS

- A. Section 00 21 13 – Instructions to Bidders
- B. Section 01 01 00 – Summary of Work
- C. Section 02 21 13 – Existing Conditions

1.3 PROJECT MANAGEMENT

- A. Adjacent school buildings proximate to the project sites may not be occupied during construction. The Contractor will take all necessary precautions to ensure the public safety and convenience of the occupants during construction. Use of any on-sites structures by the Contractor, proximate to the work site as a construction office, will not be allowed unless the Owner gives express written consent.
- B. The work must be completed in a continuous uninterrupted operation. The Contractor must use sufficient personnel and adequate equipment to complete all the necessary work requirements within a minimum period of time.
- C. Unless specifically authorized by the Owner, in writing, the work must be conducted between the hours of 7:00 A.M. and 5:00 P.M., Monday through Friday. No work is to be done on holidays or Sundays, other than for emergencies or as approved by the Owner. Work may be allowed on Saturdays, provided the Contractor obtains the Owner's written approval at least one week prior to the date of such work.
- D. The Contractor is responsible for the security of partially completed work until the Owner accepts the project.
- E. There will be no storage of materials, tools, and/or equipment within any of the adjacent buildings. The Owner, in writing, must authorize any storage within the school facilities.

- F. Only materials and/or equipment intended and necessary for immediate use will be brought onto the sites. At the end of each workday and at the completion of each phase of work, equipment and leftover or unused materials will be removed from the sites.

1.4 SHUTDOWN OF SERVICES

- A. The Contractor's attention is especially called to the fact that the continuous operation of services for the Owner is mandatory. The work cannot result in the shutdown of any major utilities in adjacent facilities without the Owner's consent, in writing. If the Owner will not allow this shutdown, but wants instead a temporary means of supplying said services, the Contractor will supply all labor, materials or whatever may be required to supply said temporary services, at no extra cost to the Owner and in accordance with the state and local regulations on health and safety.

1.5 COORDINATION

- A. At the pre-construction conference, the Contractor will submit to the Owner for approval, a detailed project progress schedule showing the sequence of operations. The progress schedule will be in a Gantt Chart or CPM format with tasks on the critical path clearly identified. The progress schedule must reflect achievements of the required substantial and final completion dates. The Owner may request a revised progress schedule at any point in the project when the working progress schedule is determined to be out of date. The Owner must approve any changes to this operational plan.
- B. The Contractor must retain on the worksites, during the work's progress, a competent, full-time representative, satisfactory to the Owner. This representative will not be changed, except with the consent of the Owner. The representative will be in full charge of the work and all instructions given to this person by the Engineer will be binding.
- C. The Contractor must supply to the Owner the home telephone number of responsible persons who may be contacted during non-work-hours for emergencies on the Project.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 31 14 - Conduct of the Work.docx

SECTION 01 33 02 – SUBMITTAL REQUIREMENTS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS.

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 RELATED DOCUMENTS

- A. Consult the individual sections of the specifications for the specific submittals required under those sections and for further details and descriptions of the requirements.

1.3 GENERAL PROCEDURES FOR SUBMITTALS

- A. Submittal Register: Within seven (7) days of receipt of a Notice to Proceed, the Contractor will furnish to the Engineer a complete listing of all submittals (Shop Drawings, Manufacturer's Data, Samples, etc.) required by these specifications in tabular form. This form will include columns sufficient to manage and track the submission and action for each submission. The Contractor will revise and update this form upon request of the Engineer.
- B. Schedule of Values: Within seven (7) days of receipt of a Notice to Proceed, the Contractor will furnish to the Engineer a Schedule of Values for review and approval. The Contractor will revise and update this form upon request of the Engineer.
- C. Timeliness: The Contractor will transmit each submittal to the Engineer sufficiently in advance of performing related Work or other applicable activities so that the installation is not delayed by processing times, including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery, and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit submittals to the Engineer in advance of the Work.
- D. Sequence: The Contractor will transmit each submittal in a sequence which will not result in the Engineer's approval having to be later modified or rescinded by reason of subsequent submittals which should have been processed earlier or concurrently for coordination.

- E. Contractor's Review and Approval: Only submittals received from and bearing the stamp of approval of the Contractor will be considered for review by the Engineer. Submittals will be accompanied by a transmittal notice stating name of Project, date of submittal, "To", "From" (Contractor, Subcontractor, Installer, Manufacturer, Supplier), Specification Section, or Drawing No. to which the submittal refers, purpose (first submittal, resubmittal), description, remarks, distribution record, and signature of transmitter.
- F. Engineer's Action: The Engineer will review the Contractor's submittals and return them with one of the following actions recorded thereon by appropriate markings:
 - 1. Final Unrestricted Release: Where marked "Approved" the Work covered by the submittal may proceed provided it complies with the requirements of the Contract Documents.
 - 2. Final-But-Restricted Release: When marked "Approved As Noted" the Work may proceed provided it complies with the Engineer's notations or corrections on the submittal and complies with the requirements of the Contract Documents. Acceptance of the Work will depend on these compliances.
 - 3. Returned for Resubmittal: When marked "Revise and Resubmit" or "Disapproved", the Work covered by the submittal (such as purchasing, fabrication, delivery, or other activity) should not proceed. The submittal should be revised, or a new submittal resubmitted without delay, in accordance with the Engineer's notations stating the reasons for returning the submittal.
- G. Processing: All costs for printing, preparing, packaging, submitting, resubmitting, and mailing, or delivering submittals required by this contract will be included in the Contract Sum.

1.4 OR EQUALS

- A. Definition: Whenever a specification section names one or more brands for a given item, and the Contractor wishes to submit, for consideration, another brand, the submission will be considered an "or-equal" or a "material substitution". For the purposes of this Contract, the terms "or-equal" and "material substitution" will be considered synonymous.
- B. In no case may an item be furnished on the Work other than the item named or described, unless the Engineer, will consider the item equal to the item so named or described.
- C. The equality of items offered as "equal" to items named or described will be proved to the satisfaction of the Engineer at the expense of the Contractor submitting the substitution.
- D. The Engineer and/or the Owner may require that full size samples of both the specified and proposed products be submitted for review and evaluation. The Contractor will bear full cost for providing, delivering, and disposal of all such samples.
- E. The Contractor will assume full responsibility for the performance of any item submitted as an "Or-Equal" and assume the costs of any changes in any Work which may be caused by such substitution.

- F. Or Equal Approval Process: On the transmittal, or on a separate sheet attached to the submission, the Contractor will direct attention to any deviations, including minor limitations and variations, from the Contract Documents.
1. The Contractor will submit to the Engineers for consideration of any or-equal substitution a written point-by-point comparison containing the name and full particulars of the proposed product and the product named or described in the Contract Documents.
 2. Such submittal will in no event be made later than 10 calendar days prior to the incorporation of the item into the Work. This requirement may be waived by the Engineer upon written request.
 3. Upon receipt of a written request for approval of an or-equal substitution, the Engineer will investigate whether the proposed item will be considered equal to the item named or described in the Contract Documents. Upon conclusion of the investigation, the Engineer will promptly advise the Contractor that the item is, or is not, considered acceptable as an Or-Equal substitution. Such written notice must have the concurrence of the Owner.

1.5 SUBMISSION OF SHOP DRAWINGS

- A. Shop Drawings will be complete and to scale, giving all information necessary or requested in the individual section of the specifications. They will also show adjoining Work and details of connection thereto.
- B. Shop Drawings will be for whole systems. Partial submissions will not be accepted.
- C. The Engineer reserves the right to review and approve shop drawings only after approval of related product data and samples.
- D. Shop drawings will be properly identified and contain the name of the project, name of the firm submitting the shop drawings, shop drawing number, date of shop drawings and revisions, Contractor's stamp of approval, and sufficient spaces near the title block for the Engineer's stamp.
- E. The Contractor will submit to the Engineer legible, shop drawings. Shop drawings shall be electronic PDF format. Each submittal will be accompanied by a transmittal notice.
- F. When the shop drawings are returned by the Engineer with the stamp "Revise and Resubmit", or "Disapproved", the Contractor will correct the original drawing or prepare a new drawing and resubmit to the Engineer for approval. This procedure will be repeated until the Engineer's approval is obtained.
- G. When the shop drawings are returned by the Engineer with the stamp "Approved" or "Approved as Noted", the Contractor will provide and distribute the drawings for all Contractors and Subcontractors use.
- H. The Contractor will maintain one full set of approved shop drawings at the site. The Contractor will produce a set of coordination drawings before the installation of any electrical work.

- I. Changes on the submitted shop drawings that deviate from the Design Drawings must be brought to the Owners and Designers attention in writing prior to review. Changes must be clearly visible on the shop drawings in the form of written notation, ballooning or highlighting the intended change. A written description for the proposed change must also be included and submitted on company letterhead. Changes to drawings and details not submitted in accordance with these requirements will not be recognized as an approved deviation from the Design of Record. Construction repairs, renovations or replacements required as a result of shop drawing and submittal deviations that are not documented in accordance with these requirements are subject to removal and/or replacement by the Contractor, at the sole cost of the Contractor.

1.6 SUBMISSION OF PRODUCT DATA

- A. The Contractor will submit Product Data to the Engineer via electronic PDF Format. All such data will be specific, and identification of material or equipment submitted will be clearly marked in ink. Data of general nature will not be accepted.
- B. Product Data will be accompanied by a transmittal notice. The Contractor's stamp of approval will appear on the information itself, in a location which will not impair legibility.
- C. Product Data returned by the Engineer as "Disapproved" will be resubmitted until the Engineers approval is obtained.
- D. When the Product Data is acceptable, the Engineer will stamp them "Approved" or "Approved as Noted", and return to the Contractor. The Contractor will provide and distribute as may be required to complete the Work.
- E. The Contractor will maintain one full set of approved, Product Data at the site.

1.7 SUBMISSION OF SAMPLES

- A. Unless otherwise specified in the individual section, the Contractor will submit two (2) specimens of each sample required for submission.
- B. Samples will be of adequate size to permit proper evaluation of materials. Where variations in color or in other characteristics are to be expected, samples will show the maximum range of variation. Materials exceeding the variation of approved samples will not be approved on the Work.
- C. Samples which can be conveniently mailed will be sent directly to the Engineer, accompanied by a transmittal notice. All transmittals will be stamped with the Contractor's approval stamp of the material submitted.
- D. All other samples will be delivered at the field office of the Project Representative with sample identification tag attached and properly filled in. Transmittal notice of samples so delivered with the Contractor's stamp of approval will be mailed to the Engineer.

- E. If a sample is rejected by the Engineer, a new sample will be resubmitted in the manner specified herein above. This procedure will be repeated until the sample is approved by the Engineer.
- F. Samples will not be returned unless return is requested at the time of submission. The right is reserved to require submission of samples whether or not particular mention is made in the specifications, at no additional cost to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not used)

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 33 02 - Submittal Requirements.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 01 35 43 – ENVIRONMENTAL PROTECTION PROCEDURES

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 SUMMARY

- A. Furnishing all labor, materials, equipment and perform all work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and, as the result, of construction operation under this Contract. For the purpose of this Section, environmental pollution is defined as the presence of chemical, physical or biological elements, or agents, which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes.
- B. The control of environmental pollution requires consideration of air, water and land, and involves management of runoff, dust, noise and solid waste, as well as other pollutants. Work will include installing, maintaining and removing sedimentation and erosion control components within the Limits of Work.
- C. This Section does not address erosion and sedimentation control requirements, which are addressed in Section 31 25 00 of these Specifications.

1.3 SECTION INCLUDES

- A. Applicable Regulations
- B. Notifications
- C. Protection of Groundwater
- D. Protection of Streams And Wetlands
- E. Protection of Land Resources
- F. Protection of Air Quality
- G. Maintenance of Pollution Control Facilities During Construction
- H. Noise Control
- I. Diesel Equipment Emission Controls
- J. Spill And Discharge Control

1.4 RELATED SECTIONS

- A. Section 01 50 00 - TEMPORARY FACILITIES
- B. Section 02 41 13 – SELECTIVE SITE DEMOLITION
- C. Section 31 20 00 - EARTH MOVING
- D. Section 31 25 00 - EROSION AND SEDIMENTATION CONTROLS

1.5 APPLICABLE REGULATIONS

- A. The General Contractor will comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.
- B. Fines and related costs resulting from failure to provide adequate protection against any environmentally objectionable acts and corrective action to be taken are the obligations of the General Contractor.

1.6 NOTIFICATIONS

- A. Engineer may notify the General Contractor, in writing, of any non-compliance with the foregoing provisions or of any environmentally objectionable acts and corrective action to be taken. State or local agencies responsible for verification of certain aspects of the environmental protection requirements may notify the General Contractor, in writing, through the Engineer, of any non-compliance with State or local requirements. After receipt of such notice from the Engineer or from the regulatory agency, through the Engineer, the General Contractor will immediately take corrective action. Such notice, when delivered to the General Contractor or his/her authorized representative at the site of the Work, will be deemed sufficient for the purpose. If the General Contractor fails or refuses to comply promptly, the Engineer may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost, due to any such stop orders, will be made the subject of a claim for extension of time or for excess costs or damages by the General Contractor, unless it is later determined that the General Contractor was in compliance.

PART 2 - MATERIALS

2.1 WATER

- A. Water used for dust control and equipment washes will be clean and free of salt, oil and other injurious materials. The General Contractor will provide all necessary water.
- B. ONSITE SPILL KIT
 - 1. The General Contractor will provide the following minimum equipment to be kept onsite, at all times, during site work activities for any unexpected spills or discharges:
 - 2. Sand, clean fill and absorbent pillows;
 - 3. One (1) drum (55 gallon, U.S. DOT 17-E or 17-H);

4. Shovels; and
5. Steam cleaner for decontamination of tools and equipment.

PART 3 - EXECUTION

3.1 PROTECTION OF GROUNDWATER – NOT USED

3.2 PROTECTION OF STREAMS AND WETLANDS

- A. Care will be taken to prevent, or reduce to a minimum, any damage to any wetland from pollution by debris, sediment, or other material. Manipulation of equipment and/or materials in delineated wetland areas is prohibited. Water that has been used for washing or processing, or that contains oils or sediments that will reduce the quality of the water in downstream waters of the state will not be discharged from the Site. Such waters will be collected and disposed of by the General Contractor, in accordance with all applicable Federal, State and local regulations.

3.3 PROTECTION OF LAND RESOURCES

- A. Land resources, within the project boundaries and outside the limits of permanent work, will be restored to a condition, after completion of remediation activities that will appear to be natural and not detract from the appearance of the project. Confine all construction activities to Limits of Work areas shown on the Drawing.
- B. Outside of the Limits of Work as shown on the Drawing, do not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. Snow fence or other approved equal will be erected at the “fall line” of the tree canopy, and no vehicles or storage will be permitted within, to prevent damage to trees.
- C. The locations of storage and other facilities, required in the performance of the Work, will not be within wetlands or resource areas.

3.4 PROTECTION OF AIR QUALITY

- A. Burning – The use of burning at the project site for the disposal of refuse and debris will not be permitted.
- B. Dust Control – Maintain all demolition excavations, stockpiles, waste areas and all other work areas within or without the project boundaries free from dust, which could cause the standards for air pollution to be exceeded and, which would cause a hazard or nuisance to others.
- C. The General Contractor will provide adequate means for the purpose of preventing dust and odor caused by construction operations throughout the period of the construction contract. If the Designer indicates that the level of dust or odors is unacceptable, the General Contractor will employ measures necessary to reduce dust or odors to an acceptable level.

- D. The General Contractor will implement engineering controls (e.g. watering, misting) to control dust whenever required by the Engineer.

3.5 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

- A. During the life of this Contract, maintain all facilities constructed for pollution, erosion and sedimentation control as long as the operations creating the particular pollutant area being carried out.

3.6 NOISE CONTROL

- A. The General Contractor will develop and maintain a noise-abatement program and enforce strict discipline over all personnel to keep noise to a minimum. Local noise ordinances will govern.
- B. The General Contractor will execute construction work by methods and by use of equipment, which will reduce excess noise.
- C. Equipment will be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with Federal and State regulations.
- D. The General Contractor will manage vehicular traffic and scheduling to reduce noise.

3.7 DIESEL EQUIPMENT EMISSION CONTROLS

- A. All motor vehicles and construction equipment will comply with all pertinent local, state, and federal regulations covering exhaust emission controls and safety.
- B. All General Contractor and Subcontractor diesel-powered, non-road construction equipment with engine horsepower (HP) ratings of 50HP and above, which are used on the Project Site, for a period in excess of 30 calendar days over the course of the construction period on the Project Site, will be retrofitted with Emission Control Devices in order to reduce diesel emissions.
- C. The reduction of emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment will be accomplished by installing Retrofit Emission Control Devices.
- D. Construction will not proceed until the General Contractor has submitted a certified list of the non-road, diesel-powered, construction equipment subject to this specification which are, or will be, retrofitted with emission control devices. The list will include: (1) the equipment number, type, make and General Contractor/Subcontractor name; and (2) the emission control device make, model, and EPA verification number. General Contractors will also submit a receipt or other documentation from a manufacturer or installer that verifies that the appropriate equipment has been installed. The General Contractor will also identify any vehicles that will use Clean Fuels. Equipment that has been retrofitted with an emission control device will be stenciled, or otherwise clearly marked as "Low Emission Equipment".
- E. The General Contractor will submit monthly reports, updating the same information stated in Paragraph D above, including the quantity of Clean Fuel utilized. The addition, or

deletion, of non-road diesel equipment will be indicated in the report.

- F. The General Contractor will use methods to control nuisance odors associated with diesel emissions from construction equipment including, but not limited to, the following: (1) turning off diesel combustion engines on construction equipment not in active use and on trucks that are idling for five (5) minutes or more; and (2) locating diesel equipment away from the general public and sensitive receptors.
- G. All costs associated with implementation of the diesel equipment emissions control will be borne by the respective General Contractor and included in their cost for performing the work of the Contract.

3.8 SPILL AND DISCHARGE CONTROL

- A. The General Contractor will provide equipment and personnel to perform emergency measures required to contain any spillage and to remove spilled materials and soils or liquids that become contaminated due to spillage. The collected spill material will be properly disposed of at the General Contractor's expense.
- B. Costs to provide the above spill and discharge control materials will be included in the contract base bid price.

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 35 43 - Environmental Protection.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 01 50 00 – TEMPORARY FACILITIES

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 GENERAL REQUIREMENTS

- A. The Contractor will be responsible for providing and maintaining all temporary facilities until Substantial Completion. Removal of such, prior to Substantial Completion, must be with the concurrence of the Engineer. The Contractor bears full responsibility for providing any facility removed prior to Substantial Completion
- B. Removal of all temporary facilities will be a condition precedent to Substantial Completion unless directed otherwise by the Engineer or specifically noted in the Specifications.
- C. The Contractor must comply with all safety laws and regulations of the State of Maine, the United States Government, and local government agencies applicable to Work under this contract. The Contractor's attention is directed to the State of Maine, Department of Labor and Industries Regulations.
- D. Submittals:
 - 1. Within seven (7) days from a Notice to Proceed, the Contractor will submit for the approval of the Engineer a site layout plan indicating the location of all temporary facilities described within this Specification.
 - 2. Shop drawings showing proposed project sign (if applicable).
 - 3. Manufacturer's Data for proposed field offices (if applicable).

1.3 FIELD OFFICES

- A. A field office is not required for this project.

1.4 TEMPORARY TELEPHONES

- A. The Contractor will provide a cell phone on site at all times with the same phone number. This will be the number that the Engineer or Owner may contact in times of emergency.

1.5 TEMPORARY TOILETS

- A. The Contractor will provide and service an adequate number of toilet booths, with chemical type toilets.
- B. The toilets will be maintained by the Contractor in a clean and orderly condition, in compliance with all local and state health requirements.
- C. Under no circumstances will the Contractor's personnel be allowed to use Owner's toilets.

1.6 TEMPORARY CONSTRUCTION FENCE

- A. The Contractor will be responsible for providing and maintaining temporary fencing or barricades around the construction site, as may be necessary to ensure the safety of all persons authorized or unauthorized. Such protective measures will be located and constructed as required by local, state and federal ordinances, laws, codes, or regulations and as required by the Engineer or Owner. The contractor will provide at the pre-construction conference a site operation plan that indicates construction entrance, lay down areas, stockpile areas, and construction fencing locations for Owner review.

1.7 TEMPORARY STRUCTURES AND MATERIAL HANDLING

- A. The Contractor will provide such storage sheds, temporary buildings or trailers, as required for the performance of the Contract. Subcontractors will provide their own temporary buildings and trailers. The locations of such items are to be approved by the Engineer.
- B. Materials will be handled, stored, installed, cleaned and protected in accordance with the best practice in the industry and, except where otherwise specified in the Contract Documents, in accordance with manufacturer's specifications and directions.
- C. The Contractor must obtain the permission of the Owner for the use of any storage facilities available on site, but the Owner assumes no responsibility for articles stored.

1.8 HOISTING FACILITIES

- A. Except as otherwise specified, the Contractor will provide, operate, and remove material hoists, cranes and other hoisting, as required for the performance of the Work by all trades. All such hoisting service will be without cost to the Subcontractors.

1.9 TEMPORARY WATER

- A. The Contractor may make use of the available water supply at the site for construction purposes, provided the permission of the Owner is obtained beforehand and only as long as the water is metered and paid for by the contractor. If onsite water is not available, the contractor is responsible for supplying temporary water.

- B. The Contractor will provide all necessary backflow preventers, piping, and hoses to utilize the available sources of water.
- C. The Contractor will provide an adequate supply of cool drinking water, with individual drinking cups, for personnel on the job.

1.10 TEMPORARY ELECTRICITY

- A. The Contractor may make use of the electricity as available at the site as long as the electricity is metered and paid for by the contractor, provided that the Contractor will supply proper adapters and extension cords. Power requirements that cannot be met with onsite power will be the responsibility of the Contractor.
 - 1. Where heavy duty electric equipment drawing current in excess of 15 amperes is involved, the Contractor will provide temporary service to supply the power.
 - 2. The temporary electric service will include, but not be limited to, labor, materials and equipment necessary to supply temporary power of adequate capacity for the project.
 - 3. Transformers and meters, when required by the power company, will be furnished by the power company and the Contractor will pay the costs thereof.
- B. Temporary electrical Work will be performed under the direct supervision of at least one master electrician, who will be present on the project at all times when such work is being performed.
- C. All temporary work will be provided in conformity with the National Electric Code, state and local laws, and the requirements of the power company.
- D. Dismantle and completely remove from the project site all temporary electrical facilities, only when the permanent electrical system is operational and accepted by the Engineer.
- E. Electrical permits will be the responsibility of the Contractor to obtain.

1.11 WEATHER PROTECTION

- A. It is to be specifically understood that the Contractor shall do no work under any conditions deemed unsuitable by the manufacturer of various materials to be installed or the Owner for the execution of the Work. This provision will not constitute any waiver, release, or lessening of the Contractor's obligation to bring the Work to Substantial Completion within the period of time set forth in the Contract Documents.

END OF SECTION

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 01 70 00 – PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 RELATED DOCUMENTS

- A. Consult the individual sections of the specifications for specific items required under those sections.

1.3 PERMITS

- A. The Contractor will coordinate the efforts of all Subcontractors and obtain any final permits that may be required.

1.4 SUBSTANTIAL COMPLETION

- A. Prior to requesting Substantial Completion, the Contractor will make a thorough inspection of the Work. During this inspection, the Contractor will prepare a comprehensive list of all items remaining to be completed or corrected. This list will include all remaining Contractor and Subcontractor items to be provided under the Contract Documents.
- B. Upon completion of the items, noted on the Contractor's list, the Contractor will notify the Engineer that the Work is Substantially Complete. The Engineer will then conduct a similar thorough inspection. If the Engineer agrees that the Work is Substantially Complete, the Engineer will promptly make a thorough inspection and prepare a punch list, setting forth, in accurate detail, any items on the Contractor's list in addition to items that are not acceptable or incomplete. The Contractor will coordinate all Subcontractors to achieve prompt completion of the punch list.
- C. The Contractor will not be relieved of the responsibility to provide Contract items omitted on the Engineer's punch list.
- D. If the Engineer determines that the Work is not substantially complete, the Engineer will inform the Contractor of those items that must be completed before the Engineer will prepare a punch list. Upon completion of those items, the Contractor will again request the Engineer to prepare a punch list.

- E. When the punch list has been prepared, the Engineer will arrange a meeting with the Contractor and Subcontractors to identify and explain all punch list items and answer questions on work which must be done before final acceptance.
- F. The Engineer may revise the punch list, from time to time, to ensure that all items of Work are properly completed.
- G. The Engineer will prepare the Certificate of Substantial Completion.

1.5 RECORD DRAWINGS

- A. See Section 01 71 23 – Surveys and Record Drawings

1.6 OPERATING AND MAINTENANCE INSTRUCTIONS

- A. Consult the individual sections of the specifications for the specific requirements for those sections and for further details and descriptions of the requirements
- B. Prior to final payment and completion, the Contractor will provide all Operating Manuals and Maintenance Instructions, as required by the Contract Documents.
- C. Operating Instructions and Manuals
 - 1. Subcontractors, installers and suppliers will furnish to the Contractor two (2) sets of operating and maintenance instructions of all equipment furnished and installed by them.
 - 2. The Contractor will collect all of the above instructions, bind them into two (2) complete sets and submit them to the Engineer who will deliver them to the Owner.
 - 3. Submission of operating and maintenance instructions will be a condition precedent to final payment.
- D. Instruction of Owner's Personnel
 - 1. Where specified, in the individual sections of the specifications, the Contractor and Subcontractor will instruct the Owner's personnel at the site in the use and maintenance of equipment installed under the Contract.
 - 2. Submission to the Engineer of a Certificate of Compliance to this requirement, signed by the Contractor and the Owner's Representative, will be a condition precedent to final payment.

1.7 FINAL COMPLETION

- A. Full Release of Retainage
 - 1. Upon completion of all work, and after receipt of all appropriate marked up As-Built Drawings, Operating Manuals, Warranties, Guarantees and Spare Parts required by the Contract Documents, the Engineer will prepare the Certificate of Final Completion.
 - 2. The Contractor's signature on this Certificate will be notarized.
 - 3. The Contractor will provide a final Application for Payment to complement the close-out process.

1.8 Partial Release of Retainage

- A. If, within sixty (60) days after Substantial Completion, any of the items on the Engineer's punch list are not complete or if the Contractor has not provided the appropriate marked up As-Built Drawings, Operating Manuals, Warranties, Guarantees, or Spare Parts, the Engineer will assign a monetary value for each incomplete item as well as any other items, and the Engineer will prepare a Certificate for Partial Release of Retainage.
1. If the Engineer is required to prepare a Certificate for Partial Release of Retainage, the Contractor will still complete all remaining Work.
 2. The Contractor's signature on this Certificate will be notarized.
 3. The Contractor may make a request for additional Releases of Retainage when portions of the Work listed on the Engineer's punch list have been satisfactorily completed. Each request will be accompanied by a new application for payment and a new signed and notarized Certificate for Partial Release of Retainage.
 4. Upon completion of all remaining items, the Final Release of Retainage will be processed in accordance with Paragraph A above.

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 70 00 - Project Closeout.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 01 71 23 – SURVEYS AND RECORD DRAWINGS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 RECORD DRAWINGS

- A. Prior to final payment, the Contractor will engage a Professional Land Surveyor (PLS) to complete an “on-the ground” detailed survey and provide an as-built plan of all facilities within the limit of work. This includes grading, field layout, fencing, utilities, walkways, and all other related amenities within the project scope. The final submitted as-built will be stamped by a Professional Land Surveyor or Professional Engineer registered in Maine, demonstrating compliance with all MIAAA, American Sports Builders Association (ASBA), and Americans with Disabilities Act (ADA) requirements for layout, geometry, striping and slope requirements. An electronic version of the as-built plan in AutoCAD 2018 or newer format shall be provided. As-Built drawings that consist of the Engineer’s electronic design file will not be accepted.
- B. Record Drawings will consist of all the Contract Drawings with mark-ups made during construction.
- C. From the sets of drawings furnished by the Owner, the Contractor will reserve one (1) set for record purposes.
- D. The Contractor will keep their marked-up record set on the site at all times and note on it in colored ink or pencil, neatly and accurately, at the end of each working day, the exact location of their work as actually installed. This will include the location and dimensions of underground and concealed Work and any variations from the Contract Drawings. All changes, including those issued by Addendum, Change Order, or instructions by the Engineer will be recorded. Marked-up record drawings will be prepared for the entire project and include all Work, including, but not limited to:
- E. The location of all underground utilities and appurtenances referenced to permanent surface improvements, both horizontally and vertically, at ten foot (10’) intervals and at all changes of direction.
- F. The Engineer may periodically inspect the marked-up record drawings at the site. The proper and current maintenance of the information required on these drawings will be a condition precedent to approval of the monthly applications for payment.

- G. At Substantial Completion, the Contractor will submit the complete set of marked-up as-built drawings to the Engineer. The Contractor will check all marked-up record drawings prepared by subcontractors and certify, in writing, on the title sheet of the drawings, that they are complete and correct prior to submission to the Engineer.
- H. The Engineer will review the marked-up record drawings and verify by letter to the Owner that the Work is complete. The Contractor will incorporate any and all changes into the as-built drawings.
- I. The Contractor may make a written request for copies of the completed Record Drawings. The Contractor will reimburse the Owner directly for the cost of printing of any requested Record Drawings.
- J. Submission of accurate marked-up record drawings, as-built drawings and their approval by the Engineer will be a condition precedent to final payment.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 71 23 - Surveys and Record Drawings.docx

SECTION 01 74 19 – CLEANING UP

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 RELATED DOCUMENTS

- A. Consult the individual sections of the specifications for cleaning of Work installed under those sections.

1.3 CLEANING DURING CONSTRUCTION

- A. Conduct cleaning and disposal operations to comply with local ordinances, anti-pollution laws and the Owner.
- B. Do not burn or bury rubbish and waste materials on the site.
- C. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
- D. Do not dispose of wastes into streams or waterways.
- E. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
- F. Maintain the site free from accumulations of waste, debris and rubbish.
- G. Provide on-site containers for collection of waste materials and rubbish.
- H. At the end of each day, remove and legally dispose of waste materials and rubbish from site.
- I. Schedule cleaning operations so that dust and other contaminants, resulting from cleaning process, will not fall on wet, newly applied surfaces.
- J. Disposal of materials will be in compliance with all applicable laws, ordinances, codes and by-laws.

1.4 FINAL CLEANING

- A. Prior to submitting a request to the Engineer to certify Substantial Completion of the Work, the Contractor will inspect all spaces and verify that all waste materials, rubbish, tools, equipment, machinery and surplus materials have been removed, and that all sight-exposed surfaces are clean. Leave the Project clean and ready for occupancy.

- B. Unless otherwise specified under other sections of the Specifications, the Contractor will perform final cleaning operations as herein specified prior to final inspection.
- C. Cleaning will include all surfaces which Contractor has had access to, whether new or existing.
- D. Employ experienced workmen or professional cleaners for final cleaning.
- E. Use only cleaning materials recommended by the manufacturer of the surface to be cleaned.
- F. Use cleaning materials which will not create a hazard to health or property and will not damage surfaces.
- G. Remove grease, mastic, adhesive, dust, dirt, stains, labels, fingerprints and other foreign materials from sight-exposed surfaces. This includes cleaning of the Work of all finishing trades where needed, whether or not cleaning by such trades is included in their respective specifications.
- H. Repair, patch and touch up marred surfaces to the specified finish, to match adjacent surfaces.
- I. In cleaning items with manufacturer's finish, or items previously finished by a Subcontractor, care will be taken not to damage such manufacturer's or Subcontractor's finish. Any damage to finishes caused by cleaning operations will be repaired at the Contractor's expense.
- J. Broom clean exposed concrete surfaces and paved surfaces. Rake clean other surfaces of grounds.
- K. The Owner's responsibility for cleaning commences at Substantial Completion and transfer of occupancy from the Contractor to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 74 19 - Cleaning Up.docx

SECTION 01 76 00 – PROTECTION

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 PROTECTION OF PERSONS & PROPERTIES

- A. All Owner facilities may be occupied during construction. The Contractor will take all necessary precautions to ensure public safety and convenience of the occupants during construction.
- B. Any damage to buildings, roads, (public and private), bituminous concrete areas, fences, lawn areas, trees, shrubbery, poles, underground utilities, etc. will be made good by and at the Contractor's own expense, all to the satisfaction of the Owner.
- C. The Contractor will patch, repair and/or replace all adjacent materials and surfaces damaged after the installation of new work, at no expense to the Owner. All repair and replacement work will match the existing in kind and appearance.

1.3 TEMPORARY PROTECTION

The Contractor Will:

- A. Protect all existing vegetation to remain that is in proximity to the site work required for completion of the construction project.
- B. Protect the private property of the Owner. Any areas damaged by the Contractor will be restored to the original condition or compensated at the Contractor's expense.
- C. After the installation of the Work by any Subcontractor is completed, the Contractor will be responsible for its protection and for repairing, replacing or cleaning any such Work, which has been damaged by other trades or by any other cause, so that all Work is in first class condition at the time of Substantial Completion.

1.4 ACCESS

- A. The Contractor will, at all times, leave an unobstructed way along walks, parking lots and roadways outside the indicated limit of work and will maintain barriers and lights for the protection of all persons and property in all locations where materials are stored or where work is in progress.

1.5 SECURITY

- A. The Contractor will be responsible for providing all security precautions necessary to protect the Contractor's and Owner's interests.
- B. Where excavation is involved, the Contractor will be responsible for providing continuous watchmen service, as necessary, to insure adequate protection of the general public.

1.6 NOISE AND DUST CONTROL

- A. The Contractor will take special measures to protect the neighbors and general public from noise, dust and other disturbances, as needed, and/or directed by the Owner throughout construction by:
 - i. Keeping common pedestrian and vehicular circulation areas clean and unobstructed
 - ii. Applying water or other dust palliatives, as needed, for dust mitigation.
 - iii. Keeping all loose trash picked up and preventing it from blowing outside the limit or work.

1.7 FIRE PROTECTION

- A. The Contractor will take necessary precautions to insure against fire during construction. The Contractor will be responsible to ensure that the area within contract limits is kept orderly and clean and all combustible rubbish and construction debris is promptly removed from the site.
- B. Installation of equipment suitable for fire protection will be done as soon as possible after commencement of the Work.

1.8 WIND PROTECTION

- A. Should high wind or severe weather warnings be issued by the U.S. Weather Bureau, the Contractor will take every precaution to minimize danger to persons, to the Work and to the adjacent property.

1.9 WEATHER PROTECTION

- A. The Contractor will provide Weather Protection, as required by Specification Section 01 5000, Temporary Facilities and any other specific requirements of the Contract Documents.

1.10 COORDINATION - NOTIFICATIONS

- A. The Contractor will coordinate all work activities with the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

G:\718830\02 Design\specs\DIV 01 - General Requirements\01 76 00 - Protection.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 02 21 13 – EXISTING CONDITIONS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 RELATED SECTIONS

- A. Section 00 21 13 – Instructions to Bidders
- B. Section 01 01 00 – Summary of Work
- C. Section 01 31 14 – Conduct of the Work

1.3 EXISTING CONDITIONS

- A. Before submitting a bid, the Contractor will make a thorough examination of the conditions at the site, checking the requirements of the Plans and Specifications with the existing conditions.
- B. No claim for extra compensation or extension of time will be allowed on account of the Contractor's failure to estimate properly the quantities, locations and measurements of all items required to complete the work, which could be discerned from visiting the site and a thorough review of the Bid Documents, Drawings and Specifications.
- C. The Contractor will report any discrepancies to the Engineer and request an interpretation prior to bid submission. Discrepancies discovered after award of Contract will be handled as detailed in the General Conditions.
- D. The Specifications include Borings provided for information only. The Contractor shall remove all topsoil and organic material from beneath areas to receive pavements, structures and synthetic turf. The Contractor assumes any risk associated with conclusions drawn from this information. If additional investigation is required, the Contractor shall contact the Engineer to obtain permission to perform site investigations prior to start of construction.
- E. Existing Utilities exist on site and are shown on the drawings for reference only. Locations shown do not relieve the Contractor from the responsibility for accurately locating and protecting utilities in place. The Contractor is responsible for repair and replacement of all utilities to remain that are damaged by his work.

1.4 SUBMITTALS

- A. The Contractor will submit a field verification plan of all utilities within limit of work and submit to Engineer for review and approval.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

G:\718830\02 Design\specs\DIV 02 - Existing Conditions\02 21 13 - Existing Conditions.docx

SECTION 02 30 00 – SUBSURFACE INVESTIGATION

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR) which are hereby made a part of this Section of the Specifications.

1.2 SUBSURFACE INVESTIGATION

- A. Information Not Guaranteed: Information on the Drawings and in the Project Manual relating to subsurface conditions, natural phenomena, and existing utilities and structures is from the best sources presently available. Such information is furnished only for the information and convenience of the Contractor, and the accuracy or completeness of this information is not guaranteed. The Contractor shall field verify and locate existing utilities prior to construction. The Contractor shall utilize a third party utility locator, as necessary. The Contractor shall coordinate with DIG SAFE (888-DIG-SAFE) at least 72-hours prior to excavation.
- B. The Contractor may refer to the Test Pit Logs on the plans.

1.3 CONFIRMATION OF GRADES AND UTILITIES

- A. Prior to commencement of site excavating operations, the Contractor shall compare existing site grading and proposed new site grading. Where existing utilities are indicated but their inverts or depths are not, exploratory excavating shall be performed to assure that sufficient earth coverage will be attained during the course of new site grading.
 - 1. Utilities existing on the site shall be carefully protected from damage and relocated or removed as required by the work. When an active utility line is exposed during construction, its location and elevation shall be plotted on the record drawings and the Engineer, and the utility Owner notified in writing.
 - 2. If exploratory excavating confirms that the depth of existing utilities will be negatively impacted by proposed new grades (i.e., will be too shallow or become exposed), immediately notify the Engineer. Do not proceed with work in such areas until instructions are issued by the Engineer. Continue work in other areas.

1.4 CONFIRMATION OF INTEGRITY OF ADJACENT STRUCTURES

- A. Prior to commencement of site excavating operations, the Contractor shall compare depths of existing structures and proposed depths of new utilities. Where existing structures are indicated but their depths are not, exploratory excavating shall be performed to assure that proposed new excavations adjacent to them, or in near proximity of them, will not undermine the structural integrity of the existing structures. The Contractor shall be responsible for providing shoring as necessary to protect existing site appurtenances.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

G:\718830\02 Design\specs\DIV 02 - Existing Conditions\02 30 00 - Subsurface Investigation.docx

SECTION 02 41 13 – SELECTIVE SITE DEMOLITION

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR) which are hereby made a part of this Section of the Specifications.

1.2 SUMMARY

- A. Work to include the demolition of indicated existing fencing, fencing foundations, infield mix, topsoil and grass.
- B. Except for items or materials indicated to be reused, salvaged, reinstalled or otherwise indicated to remain the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option and in full compliance with all applicable disposal regulations.

1.3 DESCRIPTION OF WORK

- A. Work Included:
1. Demolition and removal of selected site elements as required for new work. Refer to the Drawings for additional requirements.
 2. Salvage of existing items to be reused or turned over to the owner.
 3. Removal and legal disposal of demolished materials off site. Except those items specifically designated to be relocated, reused, or turned over to the owner, all existing removed materials, items, trash, unsuitable soils, stumps and debris shall become property of the Contractor and shall be completely removed from the site and legally disposed of at her/his expense. Salvage value belongs to the Contractor. On-site sale of materials is not permitted.
 4. Demolition and removal work shall properly prepare for alteration work and new construction to be provided under the Contract.
 5. Scheduling and sequencing operations without interrupting utilities serving occupied areas. If interruption is required, obtain written permission from the utility company. Provide temporary services as necessary to serve occupied and usable facilities when permanent utilities must be interrupted, and schedule interruption when the least amount of inconvenience will result.
- B. Related Work: The following items are not included in this Section and will be performed under the designated Sections:
1. Section 01 50 00 - TEMPORARY FACILITIES: Maintenance of access, cleaning during construction, dust and noise control.

1.4 DEFINITIONS

- A. Remove and Dispose: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Stockpile: Detach items from existing construction and deliver them to the Owner ready for reuse, at a location designated by the Owner. Protect from weather until accepted by Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated. Protect from weather until reinstallation.
- D. Remain and Protect: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.5 MATERIALS OWNERSHIP

- A. Where indicated on plan, Historic items, relics, and similar objects including, but not limited to, ornamental signage, metalwork, cornerstones and their contents, commemorative plaques, antiques, and other items of interest or value that may be encountered during demolition shall remain property of the Owner as applicable. Carefully remove each item or object in a manner to prevent damage and deliver promptly to a location acceptable to the Owner.
- B. Excess topsoil: Refer to Site Clearing 31 1000.
- C. Except for materials indicated to be stockpiled, reused, or to remain as the Owner's property, cleared materials shall become the Contractor's property and shall be removed from the site.

1.6 SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with early and late starting and finishing dates for each activity. Ensure Owner's on-site operations are uninterrupted if applicable.
 - 2. Coordination of Owner's continuing occupancy of portions of existing site.
 - 3. Means of protection for items to remain and items in path of removal.
- B. Submit photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by selective demolition operations. Submit photographs of existing items to be removed and reinstalled to record original condition of objects to be retained.

1.7 RECORD DRAWINGS

- A. Record drawings at Project Closeout shall be in accordance with Division 1.
- B. Identify and accurately locate capped utilities and other subsurface conditions.

1.8 REGULATORY REQUIREMENTS

- A. Comply with governing State and EPA notification regulations, before starting selective demolition. Comply with the hauling and disposal regulations of any authorities having jurisdiction.
- B. The Owner will occupy portions of the facilities and fields immediately adjacent to selective demolition areas. Conduct selective demolition so that the Owner's operations will not be disrupted. Provide not less than 72 hours of notice to the Owner of activities (if any) that may affect the Owner's operations.
- C. The Owner assumes no responsibility for the actual condition of facilities or items to be selectively demolished or removed and reused.
- D. Storage or sale of removed items or materials on-site will not be permitted without the Owner's permission.

1.9 QUALITY ASSURANCE

- A. Examination of Existing Conditions: The Contractor shall examine the Contract Drawings for demolition and removal requirements and provisions for new work. Verify all existing conditions and dimensions before commencing work. The Contractor shall visit the site and examine the existing conditions as he finds them and shall inform herself/himself of the character, extent and type of demolition and removal work to be performed. Submit any questions regarding the extent and character of the demolition and removal work in the manner and within the time period established for receipt of such questions during the bidding period.

1.10 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 EXECUTION

- A. Prior to commencing any excavation or demolition, the Contractor shall take all actions necessary to fully protect the existing facilities from damage. The Contractor shall take all actions required to repair any damage and return the fields to their existing conditions.

- B. Survey the condition of the site to determine whether removing any element might result in the undesirable damage of any portion of the adjacent facilities during selective demolition.
- C. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- D. Conduct demolition operations and remove debris to ensure minimum interference with roads, parking lots, streets, walks and other adjacent occupied and utilized facilities.
- E. Conduct demolition operations to prevent injury to people and damage to adjacent buildings, facilities and site improvements to remain. Ensure safe passage of people around selective demolition areas.
- F. Use water mist and other suitable methods, as necessary, to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
- G. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- H. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to conditions existing before the start of selective demolition.
- I. Demolish and remove existing construction only to the extent required by new construction and as indicated. The Contractor is to be responsible for any cutting and patching that is required.
- J. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.
- K. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
- L. Restore exposed finishes of patched areas and extend finish restoration into adjoining construction to remain in a manner that eliminates evidence of patching and refinishing.
- M. Disposal: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- N. Do not burn demolished materials.
- O. Transport demolished materials off the Owner's property and legally dispose of them, if they are not designated for salvage by the Owner or reuse.
- P. In areas where bituminous concrete is to be removed, the edge of any bituminous concrete to remain must be a sawcut edge.
- Q. Items to be removed and reset may be stored on site, at a location approved by the Owner.
- R. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

3.2 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Section 01 50 00 - TEMPORARY FACILITIES.
- B. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around demolition area(s).
 - 1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction. Provide temporary barricades as required to limit access to demolition areas.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.

3.3 DISCOVERY OF HAZARDOUS MATERIALS

- A. If hazardous materials, such as chemicals, asbestos-containing materials, or other hazardous materials are discovered during the course of the work, cease work in affected area only and immediately notify the Designer of such discovery. Do not proceed with work in such areas until instructions are issued by the Designer. Continue work in other areas.
- B. If unmarked containers are discovered during the course of the work, cease work in the affected area only and immediately notify the Designer of such discovery. Do not proceed with work in such areas until instructions are issued by the Designer. Take immediate precautions to prohibit endangering the containers integrity. Continue work in other areas.

3.4 CUTTING

- A. Provide a flush saw cut edge where pavement, curb and concrete removals abut new construction work or existing surfaces to remain undisturbed.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Comply with requirements of Section 01 74 19 - CLEANING UP and the following.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Burning is prohibited.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Premises shall be left in a clean condition and ready to accept alteration work and new construction.

END OF SECTION

G:\718830\02 Design\specs\DIV 02 - Existing Conditions\02 41 13 - Selective Site Demolition.docx

SECTION 11 68 33 – ATHLETIC FIELD EQUIPMENT

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 WORK INCLUDED

- A. Provide all equipment and materials, and do all Work necessary to furnish, assemble and install the athletic field equipment, (fixed and non-fixed), as indicated on the Drawings and as specified herein.
- B. All equipment and materials shall meet or exceed the National Federation of State High School Associations (NFHS) and the American Sports Builders Association (ASBA) Rules and Regulations.

1.3 RELATED WORK

- A. Examine the Contract Documents for requirements that affect the work of this Section.

1.4 SUBMITTALS

- A. Shop Drawings of each equipment item, including foundations and footings to be installed will be submitted for the Engineer's approval. Indicate methods for allowing each item to properly drain.
- B. Catalog Cuts, manufacturer's data and manufacturer's installation instructions will be submitted on each item of non-fixed and fixed field equipment to be provided in accordance with this Specification.

1.5 PRODUCT DELIVERY AND STORAGE

- A. Materials, when delivered to site, will be stacked and stored above the ground and under protective coverings, or indoors, in such a manner as to insure proper drainage, ventilation and protection.
- B. Non-fixed equipment will be delivered to the site and stored local to the project site, as directed by the Owner and/or the Engineer.

PART 2 - PRODUCTS

2.1 TEAM BENCHES

- A. Team benches (2) shall be 10-foot long, located in dugouts. Benches shall be Single Tier Portable Aluminum Plank Bench with Back Rest, standard black powder coat finish. Final color to be approved by Owner. Model Number ATBBRPT10 as manufactured by Sportsfield Specialties, Inc. 41155 State Highway 10, Delhi, NY 13757, or approved equal.

2.2 FOUL POLES

- A. Combination baseball and softball foul poles (2) with wing shall be 20 feet tall, Model FPW420, as manufactured by Sportsfield Specialties, Inc., 41155 State Highway 10, Delhi, NY 13753, or approved equal. Color shall be yellow.

2.3 BASES

- A. Softball bases (1 set) shall be Schutt Impact Base Model Number SHIBL as manufactured by Sportsfield Specialties, Inc., 41155 State Highway 10, Delhi, NY 13753, or approved equal.
- B. Softball home plate shall be Schutt Pro home plate with anchor Model Number SHP-UM as manufactured by Sportsfield Specialties, Inc., 41155 State Highway 10, Delhi, NY 13753, or approved equal.
- C. Softball pitching rubber shall be Schutt 6"x24" dual stanchion, anchored pitching rubber, Model Number SHLBMPR224 as manufactured by Sportsfield Specialties, Inc., 41155 State Highway 10, Delhi, NY 13753, or approved equal.

PART 3 - EXECUTION

3.1 ATHLETIC FIELD EQUIPMENT

- A. Establishment of subgrade will be completed under Division 31 – Earth Moving.
- B. Install equipment at the locations indicated on the Drawings and in strict accordance with the manufacturer's printed instructions. All non-fixed equipment will be assembled by the Contractor.
- C. Equipment footings shall be installed prior to installation of surrounding pavement base or turf base stone, and any finished paving or turf.
- D. For Concrete footing requirements refer to Division 3 of this specification and Manufacturers installation instructions.

3.2 CLEANING

- A. Upon completion of the Work in any given area, remove all rubbish and debris from the Work area and leave it in clean condition.

END OF SECTION

G:\718830\02 Design\specs\DIV 11 - Equipment\11 68 33 - Athletic Field Equipment.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 31 10 00 - SITE CLEARING

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR), which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
1. Protecting existing trees and vegetation to remain, including temporary fencing for trees in close proximity to construction operations.
 2. Removing existing trees and vegetation indicated to be removed.
 3. Clearing and grubbing.
 4. Stripping topsoil.
 5. Over excavating unsuitable soils as required.
 6. Removing above and below grade site improvements.
 7. Disconnecting, capping or sealing of utilities as required.

1.3 RELATED WORK

- A. Related Work: The following items are not included in this Section and will be performed under the designated Sections:
1. Section 31 20 00 – EARTH MOVING for soil materials, excavating, backfilling, and site grading and removal of site utilities.
 2. Section 31 25 00 – EROSION AND SEDIMENTATION CONTROLS for required erosion and sedimentation control measures.

1.4 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.
- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.5 MATERIAL OWNERSHIP

- A. Except for materials indicated to remain the Owner's property, cleared materials shall become Contractor's property and shall be removed from the Project site and disposed of legally offsite.

1.6 SUBMITTALS

- A. Photographs sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, according to Section 01 70 00 - PROJECT CLOSEOUT identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.7 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- D. Do not commence site clearing operations until erosion and sedimentation control measures are in place.
- E. Protection of Existing Improvements: Provide protection necessary to prevent damage to existing improvements indicated to remain in place or outside of the limit of work. Protect improvements on adjoining properties and on Owner's property.
 - 1. Restore improvements damaged by Contractor's clearing activities to their original condition, at no additional expense to the Owner.

PART 2 – PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly flag trees and vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to the Owner.

3.2 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
 - 1. Do not store construction materials, debris, or excavated material within fenced area.
 - 2. Do not permit vehicles, equipment, or foot traffic within fenced area.
 - 3. Maintain fenced area free of weeds and trash.
 - 4. Except as otherwise directed, cutting and trimming of existing trees will not be permitted.
- B. Do not excavate within tree protection zones, unless otherwise indicated.
- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
 - 1. Cover exposed roots with burlap and water regularly.
 - 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 - 3. Coat cut faces of roots more than 1-1/2 inches in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 - 4. Backfill with soil as soon as possible.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by the Engineer.
 - 1. Employ an arborist, licensed in jurisdiction where Project is located, to submit details of proposed repairs and to repair damage to trees and shrubs.
 - 2. Replace trees that cannot be repaired and restored to full-growth status, as determined by the Engineer.

3.3 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 - 1. Arrange with utility companies to shut off indicated utilities.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by the Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify the Owner not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without the Owner's written permission.

3.4 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 - 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.

3. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade in landscaped areas. Completely remove stumps and roots under pavement, sidewalks and building footprint.
 4. Use only hand methods for grubbing within tree protection zone.
 5. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, or as otherwise noted, unless further excavation or earthwork is indicated.
1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches and compact each layer to a density equal to adjacent original ground.

3.5 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
1. Remove subsoil and nonsoil materials from topsoil, including trash, debris, weeds, roots, and other waste materials.
- C. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent saturation, windblown dust or contamination by air-borne weed seed.
1. Limit height of topsoil stockpiles to 72 inches.
 2. Do not stockpile topsoil within tree protection zones.
 3. Surround stockpiles with silt fence.

3.6 EXCESS TOPSOIL

- A. Topsoil that has been stripped and stockpiled, but is not needed after the completion of all final topsoil spreading and grassing, shall become the property of the Contractor and shall be removed and disposed of offsite.

3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.8 DISPOSAL

- A. Disposal: Remove surplus soil material, boulders, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off the Owner's property.
1. Burning and burying on site is prohibited.

2. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION

G:\718830\02 Design\specs\DIV 31 - Earthwork\31 10 00 - Site Clearing.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 31 20 00 - EARTH MOVING

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR) which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials, and equipment necessary to complete the work of this Section, including but not limited to the following:
1. Preparing subgrades for structures and landscaping.
 2. Excavating and backfilling for pavements and structures.
 3. Drainage course for slabs-on-grade.
 4. Subbase course for concrete pavements.
 5. Subbase and base course for asphalt paving.
 6. Excavating and backfilling for utility trenches.
 7. Remove and replace unsuitable existing fill material.
 8. Over excavation for structures.

1.3 Alternates: N/A

1.4 Items To Be Installed Only: Not Applicable.

1.5 Items To Be Furnished Only: Not Applicable.

1.6 Related Work:

- A. The following items are not included in this Section and will be performed under the designated Sections:
1. Section 31 25 00 – EROSION AND SEDIMENTATION CONTROLS for temporary erosion and sedimentation control measures.

1.7 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Base Course: Course placed between the subbase course and hot-mix asphalt paving.
- C. Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

- E. Drainage Course: Course supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Designer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for unit prices.
 - 2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
 - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Designer. Unauthorized excavation, as well as remedial work directed by Designer, shall be without additional compensation.
- G. Fill: Suitable soil materials used to raise existing grades.
- H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. for bulk excavation or 3/4 cu. yd. for footing, trench, and pit excavation that cannot be removed by rock excavating equipment without systematic drilling, ram hammering, ripping, or blasting, when permitted.
- I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- J. Subbase Course: Course placed between the subgrade and base course for hot-mix asphalt pavement, or course placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- K. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- L. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.8 SITE INVESTIGATION

- A. The Contractor shall satisfy himself to the nature and location of the work, the general and local conditions, particularly those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, groundwater table or similar physical conditions at the site, the confirmation of subsurface materials to be encountered, the character of equipment and facilities needed prior to and during the prosecution of work and other matters which can affect the work or the cost thereof under this contract. Failure by the Contractor to acquaint himself with all information concerning these conditions will not relieve him from responsibility for properly estimating the difficulty or cost of successfully performing the work.

1.9 SUBSURFACE DATA

- A. Variations in existing ground or subsurface soil conditions from those indicated on the test pit or boring logs shall not constitute grounds for changes in contract price or completion dates of this contract.

1.10 SUBMITTALS

- A. Product Data: For the following:
 - 1. Each type of plastic warning tape.
 - 2. Geotextile.
 - 3. Controlled low-strength material, including design mixture.
- B. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
 - 1. Classification according to ASTM D 2487 of each on-site and borrow soil material proposed for fill and backfill.
 - 2. Laboratory compaction curve according to ASTM D 1557 for each onsite and borrow soil material proposed for fill and backfill.
- C. Pre-excavation Photographs and Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by earthwork operations. Submit before earthwork begins. Maintain catalog of up-to-date photographs at the site.

1.11 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by the Owner or others unless permitted in writing by Designer and then only after arranging to provide temporary utility services according to requirements indicated.
 - 1. Notify the Owner not less than one week in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without the Owner's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.
- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

1.12 QUALITY CONTROL

- A. Compaction and materials testing results shall be submitted to the Engineer for review as outlined in the following sections.

PART 2 – PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

- C. Common Fill: Imported Common Fill should consist of Satisfactory Soils having a maximum particle size of 6 inches and no more than 25 percent by weight passing the US No. 200 sieve.
- D. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- E. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940. The gradation requirements for Processed Gravel for Subbase are as follows:

Percent Passing

Sieve Size	By Weight
3 in.	100
1½ in.	70-100
¾ in.	50-85
No. 4	30-60
No. 200	0-10

- F. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940. The gradation requirements for Dense-graded Crushed Stone for Subbase are as follows:

Percent Passing

Sieve Size	By Weight
2 in.	100
1½ in.	70-100
¾ in.	50-85
No. 4	30-55
No. 50	8-24
No. 200	3-10

- G. Engineered Fill (Structural Fill): Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940. The gradation requirements for Engineered Fill (Structural Fill) are as follows:

Percent Passing

Sieve Size	By Weight
8 in.	100
3 in.	70-100*
¾ in.	45-95
No. 4	30-90
No. 10	25-80
No. 40	10-50
No. 200	0-10

**Three inch maximum particle size within twelve (12) inches of the underside of footings or slabs.*

- H. Gravel Borrow: Shall comply with MaineDOT Standard Specifications (Section 703.20 – Gravel Borrow). Maximum size of stone in the gravel shall contain no particles or fragments with a maximum dimension in excess of 6 inches. The gradation requirements for fragments passing a 3 inch sieve shall meet the following gradation:

Percent Passing	
Sieve Size	By Weight
¼ inch	0-70
No. 200	0-10

- I. Three quarter inch stone: Crushed Stone ¾-inch meeting MaineDOT Standard Specifications (Section 703.13):

Sieve Size	Percent Passing
1 inch	100
¾ inch	90-100
½ inch	20-55
⅜ inch	0-15
No. 4	0-5

- J. Bedding Course: Bedding course for utilities shall comply with the requirements of Sand listed below.
- K. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and 0 to 5 percent passing a No. 8 sieve.
- L. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D 448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No. 4 sieve.
- M. Sand: ASTM C 33; fine aggregate, natural, or manufactured sand.
- N. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.
- O. Free draining angular washed stone: Imported angular double washed stone with particle size ranging from ¾ inch to 1-1/2 inch.
- P. Peastone: As specified in MaineDOT Standard Specification (Section 703.22 Underdrain Backfill Material, Type C). Shall be free from organic matter, frozen material and shall conform to the following:

Sieve Size	Percent Passing
1 inch	100
3/4 inch	90-100
3/8 inch	0-75
No 4	0-25
No 10	0-5

- Q. Stonedust: Shall be stone screenings shall be stone crusher material completely passing a No. 4 sieve with not less than 40% passing a No. 8 Sieve.

2.2 GEOTEXTILES

- A. Geotextile Filter Fabric: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:
1. Survivability: Class 2; AASHTO M 288.
 2. Grab Tensile Strength: 157 lbf; ASTM D 4632.
 3. Sewn Seam Strength: 142 lbf; ASTM D 4632.
 4. Tear Strength: 56 lbf; ASTM D 4533.
 5. Puncture Strength: 56 lbf; ASTM D 4833.
 6. Apparent Opening Size: No. 40 sieve, maximum; ASTM D 4751.
 7. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.
- B. Geotextile Stabilization Fabric: Shall be Tensar TX130 or approved equal.

2.3 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:
1. Red: Electric.
 2. Yellow: Gas, oil, steam, and dangerous materials.
 3. Orange: Telephone and other communications.
 4. Blue: Water systems.
 5. Green: Sewer systems.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Protect and maintain erosion and sedimentation controls, which are specified in Section 31 25 00 – EROSION AND SEDIMENTATION CONTROLS, during earthwork operations.

- C. Provide protective insulating materials to protect subgrades and foundation soils against freezing temperatures or frost.

3.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area. Dispose of contaminated water in accordance with regulations of authorities having jurisdiction.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
 - 2. Install a dewatering system to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.

3.3 EXPLOSIVES

- A. Explosives are prohibited.

3.4 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
 - 2. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 24 inches outside of concrete forms other than at footings.
 - b. 12 inches outside of concrete forms at footings.
 - c. 6 inches outside of minimum required dimensions of concrete cast against grade.
 - d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
 - e. 6 inches beneath bottom of concrete slabs on grade.
 - f. 6 inches beneath pipe in trenches, and the greater of 24 inches wider than pipe or 42 inches wide.

3.5 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

2. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch. Do not disturb bottom of excavations intended as bearing surfaces.

3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
 1. Clearance: 12 inches each side of pipe or conduit.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
 1. For pipes and conduit less than 6 inches in nominal diameter and flat-bottomed, multiple-duct conduit units, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
 2. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.
 3. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.8 OVER-EXCAVATION OF UNSUITABLE SOILS

- A. When approved by the Engineer, the Contractor may be required to remove unsuitable soils, fill, or natural soil materials in areas where fills are to be placed when determined to be undesirable in their location or condition. The Contractor shall be required to remove the undesirable material and backfill with approved material properly compacted.
- B. At locations where unstable soil is identified, the removal and replacement of such soil shall be as directed as recommended by the Engineer.
- C. At locations where soil is wet of optimum moisture, the Contractor shall provide a "good faith" effort in drying and discing these areas prior to completing over-excavation as approved by the Engineer.
- D. Where over-excavations are required adjacent or beneath the location of the proposed drainage structure, undercut and backfill shall be done over a sufficient distance adjacent to the installation to prevent future operations from disturbing the completed drainage

structure.

- E. All material removed in the work of over-excavation will be classified by the Engineer and Owner as either suitable for other use without excessive manipulation and utilized by the Contractor elsewhere in the work, or unsuitable for future use and disposed of by the Contractor as directed by the Engineer.
- F. The Contractor shall conduct over-excavation operations in such a way that the necessary measurements can be taken before any backfill is placed.
- G. Backfill in over-excavation areas shall be placed as a continuous operation along with the over-excavation operation. Backfill materials shall be consistent with the intended use. No backfill material shall be placed in water unless otherwise permitted by the Engineer.

3.9 SUBGRADE INSPECTION

- A. Notify Designer when excavations have reached required subgrade.
- B. If Designer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed and specified herein.
- C. Proof-roll subgrade below the building slabs and pavements with suitable equipment, as specified herein, to identify soft pockets and areas of excess yielding. During the proofrolling process, the subgrade shall be reviewed by the Engineer to identify unstable zones. Where fine-grained subgrades are present, proofrolling may need to be accomplished statically, to reduce the potential for disturbing the subgrade. Do not proof-roll wet or saturated subgrades.
 - 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with minimum 10-ton vibratory rollers or a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons, in open areas or a minimum 1-ton walk-behind roller or large plate compactor in trenches or confined areas.
 - 3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Designer, and replace with compacted backfill or fill as recommended by the Engineer.
- D. The Contractor shall be responsible for maintaining stable soil subgrades. Fine-grained subgrade soils exposed during construction are anticipated to be easily disturbed by construction traffic and are likely to become unstable when above the optimum moisture content. The Contractor shall be responsible for managing construction traffic, stockpiling of materials, and providing routine maintenance to protect subgrades from disturbance. Where subgrades are damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, they shall be reconstructed as directed by the Designer, without additional compensation.

3.10 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Alternatively, the unauthorized excavation may be backfilled to design

elevation using appropriate soil for the intended use. Lean concrete fill, with 28-day compressive strength of 2500 psi may also be used when approved by Designer.

1. Fill unauthorized excavations under other construction or utility pipe as directed by Designer.

3.11 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees, if applicable.

3.12 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 2. Observing and accepting subgrade.
 3. Surveying locations of underground utilities for Record Documents.
 4. Testing and inspecting underground utilities.
 5. Removing concrete formwork.
 6. Removing trash and debris.
 7. Removing temporary shoring and bracing, and sheeting.
 8. Installing permanent or temporary horizontal bracing on horizontally supported walls.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.13 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Place and compact initial backfill of subbase material free of particles larger than 1 inch in any dimension, to a height of 12 inches over the utility pipe or conduit.
 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
- D. Backfill voids with satisfactory soil while installing and removing shoring and bracing.
- E. Place and compact final backfill of satisfactory soil to final subgrade elevation.
- F. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.14 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations per plans and details:
- C. Place soil fill on subgrades free of mud, frost, snow, or ice.
- D. All soils to be compacted to a minimum of 95% of its maximum density at optimum moisture content or as otherwise specified.

3.15 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.16 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent; and areas within 10 feet of structures, building slabs, steps, and pavements at 92 percent.
 - 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
 - 3. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 90 percent.
 - 4. For utility trenches, compact each layer of initial and final backfill soil material at 95 percent.

3.17 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.

2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 1. Lawn or Unpaved Areas: Plus or minus 1 inch.
 2. Walks: Plus or minus 1/2 inch. Tolerance will not alleviate the contractor's responsibility to meet required slopes in Accessible areas.
 3. Pavements: Plus or minus 1/4 inch.
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.18 SUBBASE AND BASE COURSES

- A. Place subbase and base course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase and base course under pavements and walks as follows:
 1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
 2. Place base course material over subbase course under hot-mix asphalt pavement.
 3. Shape subbase and base course to required crown elevations and cross-slope grades.
 4. Place subbase and base course 6 inches or less in compacted thickness in a single layer.
 5. Place subbase and base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
 6. Compact subbase and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.19 DRAINAGE COURSE

- A. Place drainage course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place and compact drainage course under cast-in-place concrete slabs-on-grade as follows:
 1. Install subdrainage geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
 2. Compact each layer of drainage course to required cross sections and thicknesses to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.20 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified independent materials testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply

with requirements.

- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Designer.
- D. Double ring infiltrometer testing shall be performed for every 25,000 sf of in-situ Drainage Course material below Synthetic ensure that compacted material achieves a minimum infiltration rate of 9"per hour.
- E. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 - 1. Paved Slab Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2000 sq. ft. or less of paved area or building slab, but in no case fewer than 3 tests.
 - 2. Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for each 150 feet or less of trench length, but no fewer than 2 tests.
- F. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

3.21 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by Designer; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.22 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the property.

END OF SECTION

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 31 25 00 - EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR) which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
1. Control measures to prevent all erosion, siltation and sedimentation of wetlands, waterways, construction areas, adjacent areas and off-site areas.
 2. Control measures shall be accomplished adjacent to or in the following work areas:
 - a. Soil stockpiles and on-site storage and staging areas.
 - b. Cut and fill slopes and other stripped and graded areas.
 - c. Protection of drainage structure inlets.
 - d. At edge of wetlands areas, if applicable, as shown on Drawings.
 - e. Protection of stockpile areas.
 3. Additional means of protection shall be provided by the Contractor as required for continued or unforeseen erosion problems, at no additional cost to the Owner.
 4. Periodic maintenance of all sediment control structures shall be provided to ensure intended purpose is accomplished. Sediment control measures shall be in working condition at the end of each day.
 5. On a weekly basis and after any significant rainfall, sediment control structures shall be inspected for integrity. Any damaged device shall be corrected immediately.
- B. Alternates: Not Applicable.
- C. Items To Be Installed Only: Not Applicable.
- D. Items To Be Furnished Only: Not Applicable.
- E. Related Work: The following items are not included in this Section and will be performed under the designated Sections:
1. Section 31 10 00 – SITE CLEARING for protection of existing trees and other vegetation to remain.
 2. Section 31 20 00 – EARTH MOVING for soil materials, excavating, backfilling, and site grading and removal of site utilities.

1.3 QUALITY ASSURANCE

- A. The Contractor shall develop, submit, and comply with the requirements of Stormwater Pollution Prevention Plan (SWPPP) prepared for the NPDES permit, and all other applicable requirements of governing authorities having jurisdiction. The specifications

and drawings are not represented as being comprehensive, but rather convey the intent to provide complete slope protection and erosion control for both the Owner's and adjacent property. It shall be the responsibility of the Contractor to prepare the required SWPPP plan and to file for a Construction General Permit through the EPA at least 14-business days prior to the start of work. The Contractor shall prepare the SWPPP in advance and submit to Engineer and Town for review. The Engineer may review and request changes / modifications as required.

1. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to a sediment and erosion control plan specific to the site that complies with EPA 832/R-92-005 or requirements of authorities having jurisdiction whichever is more stringent.
- B. Erosion control measures shall be established at the beginning of construction and maintained during the entire period of construction. On-site areas which are subject to severe erosion, and off-site areas which are especially vulnerable to damage from erosion and/or sedimentation, are to be identified and receive special attention.
- C. All land-disturbing activities are to be planned and conducted to minimize the size of the area to be exposed at any one time, and the length of time of exposure.
- D. Surface water runoff originating upgrade of exposed areas should be controlled to reduce erosion and sediment loss during the period of exposure.
- E. When the increase in the peak rates and velocity of storm water runoff resulting from a land-disturbing activity is sufficient to cause accelerated erosion of the receiving stream bed, provide measures to control both the velocity and rate of release so as to minimize accelerated erosion and increased sedimentation of the stream.
- F. All land-disturbing activities are to be planned and conducted so as to minimize off-site sedimentation damage.
- G. The Contractor is responsible for cleaning out and disposing of all sediment once the storage capacity of the sediment facility is reduced by one-half.
- H. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- I. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stakes: Stakes for bales shall be one of the following materials: Wood stakes of sound hardwood 2 by 2 inches in size or steel reinforcing bars of at least No. 4 size. Lengths shall be approximately three feet.
- B. Siltation Fence: Fabricated or prefabricated unit consisting of the following filter fabric properties:

1) Grab Tensile Strength	90	ASTM D1682
2) Elongation at Failure (%)	50	ASTM D1682
3) Mullen Burst Strength (PSI)	190	ASTM D3786
4) Puncture Strength (lbs)	70	ASTMD751(modified)
5) Slurry Flow Rate (gal/min/sf)	0.5	Virginia DOT VTM-51
6) Equivalent Opening Size	40-80 US	Std Sieve CW-02215
7) Ultraviolet Radiation Stability (%)	90	ASTM G26

- C. Fencing: Steel posts shall be standard 6 foot long metal stamped drive stakes commonly used to support snow fences. Fencing shall be new four foot height wood lath snow fencing. Provide suitable steel staples or heavy nylon cord for securing filter cloth to support system.
- D. Silt Socks: The silt socks for construction of erosion control devices shall be 12" in diameter. In areas of slope greater than 2:1(horizontal: vertical), silt sock must be secured in place by stakes. Silt socks shall be either lapped or butted at the ends to create a continuous line.
- E. Protective Measures: As temporary coverings on ground areas subject to erosion, provide one of the following protective measures, and as directed by the Engineer:
1. Hay or straw temporary mulch, 100 pounds per 1,000 square feet.
 2. Wood fiber cellulose temporary mulch, 35 pounds per 1,000 square feet.
 3. Tackafier for anchoring mulch or straw shall be a non-petroleum based liquid bonding agent specifically made for anchoring hay or straw.
 4. Provide natural (jute, wood excelsior) or man-made (glass fiber) covering with suitable staples or anchors to secure to ground surface. Note that wire stapes and non-biodegradable coverings shall not be used for any area that will be mown turf.
 5. Temporary vegetative cover for graded areas shall be undamaged, air dry threshed straw or hay free of undesirable weed seed.
 6. Provide temporary settling basis as shown on the contract drawings and described in the specifications.
- F. Stone for Construction Entrance: Shall be ASTM designation C-33, size No. 2 (1-1/2" to 2-1/2") crushed stone.

PART 3 - EXECUTION

3.1 STABILIZED CONSTRUCTION ENTRANCE AND STONE BERMS

- A. Stone as specified above.
- B. Length: As effective, but not less than 75 feet.
- C. Thickness: Not less than six inches.
- D. Width: Not less than full width of all points on ingress or egress, but not less than 24 feet.
- E. Washing: When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment

basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through the use of sandbags, gravel boards or other approved methods.

- F. Maintenance: The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spoiled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- G. Place crushed stone berms in locations required and as directed. Berms shall have side slopes of 1:3 or less.
- H. Inspect stone berms periodically and replace and/or regrade crushed stone as required.

3.2 SILT FENCING

- A. Excavate a 6 inch trench along the upstream side of the desired fence location.
- B. Drive fence posts a minimum of 1'-6" into the ground. Install fence, well-staked at maximum eight foot intervals in locations as shown on Drawings. Secure fabric to fence and bury fabric end within the six inch deep trench cut.
- C. Lay lower 12 inches of silt fence into the trench, 6 inches deep and 6 inches wide. Backfill trench and compact.
- D. Overlap joints in fabric at post to prevent leakage of silt at seam.

3.3 VEGETATIVE STABILIZATION / TEMPORARY SEEDING

- A. Temporary Seeding shall be applied according to applicable sections of MaineDOT Standard Specifications Section 618.

3.4 INLET PROTECTION

- A. Install silt fence or straw bales around inlet as specified herein.

3.5 DUST CONTROL

- A. Throughout the construction period the Contractor shall carry on an active program for the control of fugitive dust within all site construction zones, or areas disturbed as a result of construction. Control methods shall include the following: Apply calcium chloride at a uniform rate of one and one-half (1 ½) pounds per square yard in areas subject to blowing. For emergency control of dust apply water to affected areas. The source of supply and the method of application for water are the responsibility of the contractor.
- B. The frequency and methods of application for fugitive dust control shall be as directed by the Engineer.

3.6 TEMPORARY PROTECTIVE COVERINGS (AFTER GROWING SEASON)

- A. Place temporary covering for erosion and sedimentation control on all areas that have been graded and left exposed after October 30. Contractor shall have the choice to use either or both of the methods described herein.
- B. Hay or straw shall be anchored in-place by one of the following methods and as approved by the Engineer: Mechanical "crimping" with a tractor drawn device specifically devised to cut mulch into top two inches of soil surface or application of non-petroleum based liquid tackifier, applied at a rate and in accordance with manufacturer's instructions for specific mulch material utilized.
- C. Placement of mesh or blanket matting and anchoring in place shall be in accordance with manufacturer's printed instructions.
- D. Inspect protective coverings periodically and reset or replace materials as required.

3.7 TEMPORARY SETTLING BASIN

- A. Shall collect stormwater runoff by use of earthen berm or excavated settling pond. The settling basin shall provide at least 18 inches of depth for runoff to settle out suspended solids prior to discharge. Discharge shall be through a gravel and crushed stone filter and apron.

3.8 SILT SOCKS

- A. Silt Socks shall be constructed and installed as required by the order of conditions prior to the start of work.

END OF SECTION

G:\718830\02 Design\specs\DIV 31 - Earthwork\31 25 00 - Erosion Control.docx

THIS PAGE IS INTENTIONALLY BLANK

SECTION 32 18 26 INFIELD MIX

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within Division 00 – Bidding Requirements and Conditions of the Contract, which are hereby made a part of this Section of the Specifications.

1.2 SCOPE OF WORK

- A. This specification covers the construction and installation for softball infield mix. The work to be performed under this specification includes all labor, equipment, materials and supplies necessary for the installation included in this contract.
- B. Related Work Specified Elsewhere:
 - 1. Section 31 20 00 – EARTH MOVING

1.3 STANDARDS

- A. All work shall be done in accordance with manufacturer's specifications.

1.4 SUBMITTALS

- A. The Contractor shall submit material documentation and Sieve Analysis for review and approval by the Engineer.

PART 2 - PRODUCTS

2.1 SOFTBALL INFIELD MIX

- A. Material shall be standard softball infield mix as provided by Sports Fields, Inc., 225 Warren Rd, Monmouth, ME 04259, 207-933-3547 or approved equal.

PART 3 - EXECUTION

3.1 APPLICATION

- A. SOFBALL INFIELD

1. Compaction factor is approximately 10%-15% per 1" of material.
2. Excavate infield area in accordance with infield detail.

3.2 COMPLETION

- A. Upon completion, the Contractor shall monitor, until final completion, the constructed infield areas to assure no migration between the proposed infield mix and surrounding topsoil. In any instance where topsoil migrates into the infield basebaths, the Contractor must screen infield and remove topsoil from those areas.

END OF SECTION

G:\718830\02 Design\specs\DIV 32 - Exterior Improvements\32 18 26 - Infield Mix.docx

SECTION 32 31 13 – FENCE AND GATES

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR) which are hereby made a part of this Section of the Specifications.

1.2 WORK INCLUDED

- A. Provide all equipment, materials, and installation of chain link fence, line posts, end posts, rails, gates and backstops as designated on the Contract Drawings.

1.3 RELATED WORK

- A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:
1. Section 31 20 00 - Earth Moving
 2. Section 03 30 00 - Cast-in-Place Concrete

1.4 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other requirements, the most restrictive requirements shall govern.
1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
 - a. ASTM A 53 Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
 - b. ASTM A 123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - c. ASTM A 153 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
 - d. ASTM A 176 (1994) Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
 - e. ASTM A 385 Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip)
 - f. ASTM A 392 (1991b) Zinc-Coated Chain-Link Fence Fabric
 - g. ASTM A 478 (1995a) Chromium-Nickel Stainless and Heat-Resisting Steel Weaving and Knitting Wire
 - h. ASTM A 491 (1994) Aluminum-Coated Steel Chain-Link Fence Fabric
 - i. ASTM A 666 (1994) Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar

- j. ASTM C 94 (1994) Ready-Mixed Concrete
 - k. ASTM F 626 (1994a) Fence Fittings
 - l. ASTM F 688 Poly (Vinyl Chloride) (PVC) and other Organic Polymer-Coated Steel Chain link fence fabric, Class 2B
 - m. ASTM F 883 (1990) Padlocks
 - n. ASTM F 900 (1994) Industrial and Commercial Swing Gates
 - o. ASTM F 1043 (1995) Strength and Protective Coatings on Metal Industrial Chain-Link Fence Framework
 - p. ASTM F 1083 (1993) Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded for Fence Structures
- 2. AMERICAN WELDING SOCIETY (AWS)
 - a. AWS WZC (1972) Welding Zinc-Coated Steels
 - 3. CHAIN LINK FENCE MANUFACTURERS INSTITUTE (CLFMI)
 - a. CLFMI Product Manual (CLF-PM0610) revised January 2012

1.5 SUBMITTALS

- A. Submit shop drawings and manufacturer's specifications and installation instructions for all materials to be used.
- B. Certificates: Statement signed by an official authorized to certify on behalf of the manufacturer attesting that the chain link fence and component materials meet the specified requirements.

PART 2 - PRODUCTS

2.1 CHAIN LINK FENCE MATERIALS

- A. Vinyl Coated Fence Fabric
 - 1. Fabric shall be black vinyl coated thermally fused and bonded to a primer which is thermally cured onto galvanized steel core wire conforming to ASTM F 668, Class 2b. Color of vinyl coating shall be black as specified in the plan set. Minimum coating thickness shall be 0.006 in. Color sample shall be submitted to the Owner for approval.
 - 2. Chain link Fabric shall be woven into a two-inch (2") mesh of 8-core, 6 gauge or 8-core, 9-gauge galvanized wire with a minimum breaking strength of 1290 lbs. in accordance with ASTM F 668, Class 2b.
 - 3. Zinc for galvanized coating shall conform to ASTM B 6, galvanized by hot dipped method AISI Type I, before vinyl coating; coating shall be smooth. Minimum weight of zinc coating shall be 1.2 oz. per sq. ft.
 - 4. Polyvinyl chloride coating shall meet the following requirements:
 - a. Specific gravity shall be 1.30 maximum, tested in accordance with ASTM D 792.
 - b. Hardness shall have a minimum Durometer reading of A 95 in accordance with ASTM D 2240. Ultimate elongation shall be 275% in accordance with ASTM D 412.

5. Tensile strength shall have a test minimum of 3,300 psi in accordance with ASTM D 412.
6. Vinyl shall be a dense and impervious covering free of voids, having a smooth, lustrous surface without pinholes, bubbles, voids, or rough or blistered surface.

B. Fence Posts, Hardware, and Fittings - General

1. Fittings shall be of best quality malleable iron castings, wrought iron forgings, or pressed steel and provided with pin connections. Equipment shall be designed to carry 100% overload.
2. Malleable iron castings shall be hot-dipped galvanized in accordance with ASTM A 153.
3. Wrought iron forgings or pressed steel fitting and appurtenances shall be hot-dipped galvanized in accordance with ASTM A 123.
4. Fence Hardware Coatings: shall match fence fabric coating.
5. Piping for fence posts shall be steel conforming to ASTM A 53 except that pipe shall be unthreaded and untested for water pressure.
6. Galvanized items shall be galvanized in accordance with ASTM A 123, A 153, or A 385, as applicable.
7. Bolts, which are installed six (6) feet or less above grade shall not protrude more than 1/4 inch beyond the nut after tightening. Rough edges shall be filed smooth to the satisfaction of the engineer. Peen ends of all bolts after tightening.

C. Posts

1. Under Six Foot (6') High Fence:
 - a. Line posts shall be 1.9 in. outside diameter (O.D.), Schedule 40 pipe, weighing 2.28 lb./ft.
 - b. End and corner posts shall be 2.375 in. O.D., Schedule 40 pipe, weighing 3.65 lb./ft.
2. Six Feet to Nine Feet (6' to 9') High Fence:
 - a. Line posts shall be 2.375 in. O.D., Schedule 40 pipe, weighing 3.65 lb./ft.
 - b. End and corner posts shall be 2.875 in. O.D., Schedule 40 pipe, weighing 5.79 lb./ft.
3. Nine Feet to Twelve Feet (9' to 12') High Fence:
 - a. Line posts shall be 2.875 in. outside diameter (O.D.), Schedule 40 pipe, weighing 5.79 lb./ft.
 - b. End and corner posts shall be 4.00 in. O.D., Schedule 40 pipe, weighing 9.11 lb./ft.
4. Twelve Feet to Sixteen Feet (12' to 16') High Fence:
 - a. Line posts shall be 4.0 in. outside diameter (O.D.), Schedule 40 pipe, weighing 9.11 lb./ft.
 - b. End and corner posts shall be 6.6 in. O.D., Schedule 40 pipe, weighing 18.9 lb./ft.
5. Fences greater than Sixteen feet (>16'):
 - a. Fence assemblies and installation details shall be designed by fence manufacturer/supplier.
 - b. Design drawings shall be stamped by an engineer licensed or registered in the state where project is located.

6. The gatepost for any gate leaf 6 ft. wide and less shall be 3.0 in. O.D., Schedule 40 pipe, weighing 5.79 lb./ft.
7. Posts shall be PVC coated, thermally fused and bonded to a primer that is thermally cured onto galvanized steel posts. The color of the vinyl coating shall be black. The minimum coating thickness shall be 0.006 in.

D. Rails and Post Braces

1. Top rail, mid rail (equal to or greater than 8-ft. fence) and bottom rails shall be 1.66 in. O.D., Schedule 40 pipe, weighing 2.27 lb./ft.
2. Rails and post braces shall be PVC coated, thermally fused and bonded to a primer which is thermally cured onto galvanized steel rails and post braces. The color of the vinyl coating shall be black, as specified in the plan set. The minimum coating thickness shall be 0.006 in.

E. Gates and Gate Frames

1. Fabrication: Assemble gate frames by welding connections. Use the same fabric as for the fence, unless otherwise indicated. Install fabric with stretcher bars at the edges (and tie wire at top and bottom edges, if stretcher is not used). Attach the stretcher bars to gate frame at not more than 12 in. O.C. Attach the hardware with rivets or by other means, which shall provide security against removal or breakage.
 - a. Framing:
 - 1) Fabricate perimeter frames of a minimum of 1.90 in. O.D., Schedule 40 pipe, that has been hot-dipped and galvanized, with a minimum of 2.0 oz. of zinc per sq. ft. of surface area.
 - b. Bracing:
 - 1) Provide diagonal cross bracing, consisting of 3/8 in. diameter adjustable length truss rods, on gates where four sided tension rods are not used. Provide frame rigidity without sag or twist.
2. Gate hardware: Galvanize per ASTM A 153 (each gate). Provide lockable drop bar on each gate leaf for double swing gates, so that gate leaves can be locked in place individually.
3. Gate Hardware Coatings: These shall match the fence fabric coating.
4. Hinges: Pressed steel or malleable iron to gate size, non-lift-off type, offset to permit 180° gate opening. Provide one pair of hinges for each leaf.
5. Latch: Forked type, to permit operation from either side of gate: Provide padlock eye as integral part of latch. Provide locking mechanism for sliding gates.
6. Keeper: Provide keeper for gates, which automatically engages the gate leaf and holds it in the open position until it is manually released.
7. Gates and gate frames shall be PVC coated, thermally fused and bonded to a primer that is thermally cured onto galvanized steel components. The color of the vinyl coating shall be black, as specified in the plan set. The minimum coating thickness shall be 0.006 in.
8. Stretcher Bars
 - a. Stretcher bars shall not be less than 3/16 in. x 3/4 in. and shall be the full height of the fabric with which they are being used.
 - b. Provide stretcher bars for each gate, end and corner, and pull post stretcher bar bands and clips shall be of heavy pressed steel or malleable iron.

F. Caps

1. Posts shall have caps, which shall be designed to exclude water from the posts. Caps shall have holes suitable for the through passage of the top rail, where necessary.
2. Caps for posts shall be PVC coated, thermally fused and bonded to a primer which is thermally cured onto the galvanized steel caps. The color of the vinyl coating shall be black, as specified in the plan set. The minimum coating thickness shall be 0.006 in. All caps shall be securely fastened to the posts.

G. Tension and Tie Wire

1. PVC Coated Fence: Tie wire shall be 9-gauge O.D., vinyl-clad, galvanized steel wire.

H. Galvanized Paint

1. Cold galvanized paint shall be one of the following:

Product	Manufacturer
Galvicon	Galvicon Corporation
Zinc Shield	Stanley Chemical Division of The Stanley Works

2. Touch-up for Galvanized Surfaces: Touch-up damaged or abraded galvanized surfaces with products equal to one of the following:
 - a. Cold Galvanizing Compound; ZRC.
 - b. Speedhide Galvanized Steel Paint; PPG.
 - c. Series 90-97 Zinc-Rich Primer; Tnemec.

I. Concrete

1. Concrete shall meet ASTM C 94, using 3/4 inch maximum size aggregate, and having minimum compressive strength of 4000 psi at 28 days. Grout shall consist of one part Portland cement to three parts clean, well-graded sand and the minimum amount of water to produce a workable mix.

2.2 SEMI-PERMANENT OUTFIELD FENCE

- A. Grand Slam Fence System shall be as provided by Beacon Athletics or approved equal and provide a continuous semi-permanent outfield fence from foul line to foul line as shown on the drawings. Fence system shall include the following:

1. 4-foot high,
2. Fence fabric with contrasting color top edge (colors to be approved by owner),
3. Flush ground sockets to receive fence posts.

PART 3 - EXECUTION

3.1 GENERAL

- A. Fence shall be installed to the lines and grades indicated. The area on either side of the fence line shall be cleared to the extent indicated. Line posts shall be spaced equidistant, at intervals not exceeding ten feet (10). Terminal (corner, gate, and pull) posts shall be set at abrupt changes in vertical and horizontal alignment. Fabric shall be continuous between the terminal posts. However, runs between terminal posts shall not exceed 500 feet. Any damage to galvanized surfaces, including welding, shall be repaired with paint containing zinc dust, in accordance with ASTM A 780.

3.2 POSTS

- A. Posts shall be poured-in-place, into the proposed concrete footings, as shown on the plans and details.

3.3 RAILS

- A. Top Rail, Mid (8-ft. fence) and Bottom Rails
 - 1. Top, mid (8-ft. fence) and bottom rails shall be supported at each post to form a continuous brace between terminal posts. Where required, sections of top rail shall be joined using sleeves or couplings that shall allow expansion or contraction of the rail. Bottom tension wire is not acceptable.

3.4 BRACES AND TRUSS RODS

- A. Braces and truss rods shall be installed as indicated and in conformance with the standard practice for the fence furnished. Braces and truss rods shall extend from terminal posts to line posts. Diagonal braces shall form an angle of approximately 40 to 50 degrees with the horizontal. No bracing is required on fences six feet high or less, if a top rail is installed.

3.5 CHAIN LINK FABRIC

- A. Chain link fabric shall be installed on the playing field side of the fence unless otherwise noted. Fabric shall be attached to terminal posts with stretcher bars and tension bands. Bands shall be spaced at approximately fifteen inch (15") intervals. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Fabric shall be fastened to line posts at approximately fourteen inch (14") intervals and fastened to all rails at approximately twelve inch (12") intervals. Fabric shall be cut by untwisting and removing pickets. Splicing shall be accomplished by weaving a single picket into the ends of the rolls to be joined. The top and bottom of installed fabric shall be as indicated on the Drawings. After the fabric installation is complete, the fabric shall be exercised by applying a 50-pound push-pull force at the center of the fabric between posts. The use of a 30-pound pull at the center of the panel shall cause fabric deflection of not more than two and one half inches (2-1/2") when pulling fabric from the post side of the fence. Every second fence panel shall meet this requirement. All failed panels shall be re-secured and retested at the Contractor's expense.

3.6 GATES

- A. Gates shall be installed plumb, level and secure, at the locations shown. Hinged gates shall be mounted to swing, as indicated. Latches, stops and keepers shall be installed, as required. Slide gates shall be installed as recommended by the manufacturer. Hinge pins and hardware shall be welded or otherwise secured to prevent removal. All gates shall be tested by the Engineer for proper functionality prior to final approval.

3.7 TOUCH-UP

- A. Following installation, scratches and marred spots in vinyl-coated surfaces shall be field coated with a vinyl coating supplied by the fence manufacturer.
- B. Following installation, scratches and marred spots in galvanized surfaces shall be power wire brushed and painted, with a cold-applied galvanized paint, at a rate of 2 oz. zinc per sq. ft. of surface.

3.8 SEMI-PERMANENT FENCE INSTALLATION

- A. Fence system shall be installed in accordance with the manufactures instructions.

3.9 GROUNDING

- A. Electrical equipment attached to the fence shall be grounded, as specified in manufacturer's instructions. Fences shall be grounded on each side of all gates, at each corner, at the closest approach to each building located within 50 feet of the fence, and where the fence alignment changes by more than 15 degrees. Grounding locations shall not exceed 650 feet. Each gate panel shall be bonded with a flexible bond strap to its gatepost. Fences crossed by power lines of 600 volts or more shall be grounded, at or near the point of crossing, and at distances not exceeding 150 feet on each side of crossing. The ground conductor shall consist of No. 8 AWG solid copper wire. Grounding electrodes shall consist of No. 8 AWG solid copper wire. Grounding electrodes shall be $\frac{3}{4}$ inch, by 10-foot long, copper-clad steel rod. Electrodes shall be driven into the earth so that the top of the electrode is at least six inches below the grade. Where driving is impracticable, electrodes shall be buried a minimum of twelve inches (12") deep and radially from the fence. The top of the electrode shall be not less than two feet or more than eight feet from the fence. The ground conductor shall be clamped to the fence and electrodes with bronze grounding clamps to create electrical continuity between fence posts, fence fabric and ground rods. After installation, the total resistance of the fence to the ground shall not be greater than 25 ohms.

END OF SECTION

G:\718830\02 Design\specs\DIV 32 - Exterior Improvements\32 31 13 - Fence and Gates.docx

SECTION 32 92 50 – LOAM AND SEED

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR) which are hereby made a part of this Section of the Specifications.
- B. Examine all other Sections of the Specifications for requirements which affect work of this Section, whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with trades affecting, or affected by, work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 WORK INCLUDES

- A. Refer to the Drawings for the extent and details of the work.
- B. The work of this Section consists of all seeding and related work as shown on the Drawings or required herein, and includes, but is not limited to, the following:
 - 1. Providing all topsoil required for work of this Section.
 - 2. Screened, stripped and stockpiled topsoil.
 - 3. Providing additional new topsoil from off-site sources, as required to complete work for this Section.
 - 4. Providing all soil amendments, fertilizers, erosion controls and mulches, as required for work in this Section.
 - 5. Scarification of subsoil in preparation for loaming.
 - 6. Spreading and fine grading topsoil for all lawn areas, sodded or seeded.
 - 7. Seeding required for work in this Section.

1.3 RELATED SECTIONS

- A. Section 31 20 00 – Earth Moving.

1.4 SUBMITTALS

- A. Materials List: Submit a complete list of all materials proposed for use in this work, demonstrating complete conformance with the requirements specified.
 - 1. Submit grass seed mixes for approval.
 - 2. Submit topsoil analysis results for review by the Landscape Architect. State recommended quantities of amendments necessary to produce satisfactory topsoil, as stated in the specifications herein. If on-site stockpiled topsoil is to be used, submit topsoil analysis of screened products.
 - 3. Submit product information, with mix ratios and amounts, for hydro mulching to be used during hydro seeding, for Landscape Architect's approval.

4. Submit fertilizer, herbicide and fungicide products for application, as required, for Landscape Architect's approval.
5. Submit mechanical analysis of any soil amendments.

1.5 QUALITY ASSURANCE

- A. All seed and amendments shall comply with all federal, state and local laws and regulations requiring inspection for plant disease and insect control.

1.6 PRODUCT HANDLING

- A. Delivery and Storage:
 1. Deliver all items to the job site in their original containers, with all labels intact and legible at time of the Landscape Architect's inspection.
 2. Immediately remove from the site all materials which do not comply with the specified requirements.
 3. Use all means necessary to protect seed from moisture and other contaminants which may adversely affect proper germination.
 4. Use all means necessary to protect fertilizers, amendments and other materials from moisture and other contaminants which may adversely affect their efficacy.

1.7 JOB CONDITIONS

- A. Utilities: Determine the location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned.
- B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions or obstructions, notify Landscape Architect before spreading topsoil.

PART 2 - PRODUCTS

2.1 TOPSOIL

- A. Topsoil
 1. Topsoil stockpiled from on-site stripping, once tested, may be utilized and amended to meet the requirements for New Topsoil (aka Topsoil Mix).
 2. All topsoil that was stripped and stockpiled shall be screened to a maximum stone size of three quarters of an inch (3/4") in any dimension.
 3. If determined by soil testing that the existing topsoil does not meet these specifications, the topsoil shall be amended to provide an acceptable topsoil for use.
- B. New Topsoil for Lawns(Topsoil Mix/Amended Topsoil):

1. New Topsoil (Topsoil Mix): Shall be natural, fertile loam, typically cultivated topsoils of the locality, containing not less than 4% or more than 8% by weight, of decayed organic matter (humus), as determined in ASTM F-1647. If organic amendments are needed to obtain the specified matter content of the topsoil, the organic matter source may be a peat or compost material.
2. Topsoil shall be taken from a well-drained, arable site, free of subsoil, slag and any stones, earth clods, sticks, stumps, clay lumps, roots or other objectionable, extraneous matter or debris over ¾" in any dimension.
3. Topsoil shall be free of Quack-grass rhizomes, Agropyron Repens, and the nut-like tubers of Nutgrass, Cyperus Esculentus, and all other primary noxious weeds.
4. Topsoil shall have a pH not less than 6.0 or greater than 7.0.
5. Topsoil shall not have soluble salts greater than 500 parts per million.
6. Topsoil mix (amended topsoil) shall have target Nutrient levels of Phosphorus (P), Potassium (K), Calcium (C) and Magnesium (Mg) in the Optimum Range as determined local Agricultural Extension Service Topsoil testing recommendations for Sportsturf/Golf Fairway Lawn Establishment.
7. Topsoil shall be a loamy sand, sandy loam, loam, sandy clay loam as defined by the USDA, as determined by Pipette Method, in compliance with ASTM F-1632.
8. Topsoil shall not be delivered or placed while in a frozen or muddy condition.

C. Imported Topsoil:

1. The Contractor shall submit representative samples of topsoil he intends to bring onto the site, and samples of topsoil that was stockpiled from on-site stripping, to a Soil Plant Testing Laboratory acceptable to the Engineer or Landscape Architect. All reports shall be sent to the Engineer / Landscape Architect for approval. The cost for testing and analysis of the soils shall be borne by the Contractor.
2. Samples of topsoil to be brought to the site must be approved prior to delivery of topsoil to the site. Imported topsoil shall be amended by the Contractor to comply with the requirements of New Topsoil (aka Topsoil Mix)
3. Testing reports shall include the following tests and recommendations:
 - a. Mechanical gradation (sieve analysis) shall be performed and compared to the USDA Soil Classification System.
 - b. The silt and clay content shall be determined by a Pipette Test of soil passing the No. 270 sieve.
 - c. Percent of organics shall be determined by an Ash Burn Test or Walkley/Black Test (ASTM F-1647).
 - d. Test for gradation and organics shall be performed by a private testing laboratory approved by the Engineer/Landscape Architect. Tests for soil chemistry and pH may be performed by a public extension service agency.
 - e. Chemical analysis shall be undertaken for Phosphorus, Potassium, Calcium, Magnesium, Aluminum, Soluble Salts, and acidity (pH).
 - f. Soil analysis tests shall include recommendations for soil additives to correct soils deficiencies, as necessary, and for additives necessary to meet defined topsoil mix requirements.
 - g. All tests shall be performed in accordance with the current standards of the Association of Official Agriculture Chemists.
4. Deficiencies in the topsoil shall be corrected by the Contractor

2.2 SOIL AMENDMENTS:

- A. Organic Amendments: Shall be Compost or Peat.
 - 1. Peat shall be Canadian sphagnum peat, having an ash content not exceeding 15%, as determined by ASTM D-2974.
 - 2. Compost may be used, provided that the material has been composted in an in-vessel system, and has an ash content not exceeding 40%, and is free from debris and contaminants.

- B. Lime
 - 1. Lime shall be an approved agricultural limestone, containing no less than fifty (50%) percent of total carbonates and twenty five (25%) percent total magnesium, with a neutralizing value of at least one hundred (100%) percent.
 - 2. The material shall be ground to such a fineness that forty (40%) percent will pass through a Number 100 U.S. Standard Sieve, and ninety eight (98%) percent will pass through a Number 20 U.S. Standard Sieve.
 - 3. The lime shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis.
 - 4. Any lime which becomes caked or otherwise damaged, making it unsuitable for use, will be rejected.

- C. Fertilizers: Quantity, gradation and rate of application shall be determined based on soil tests and recommendations conducted by an approved soil testing laboratory.

- D. Water: The Contractor is responsible for providing all water equipment, hoses, etc. for watering throughout the project and until final acceptance of lawn and turf areas by the Landscape Architect.

- E. Herbicides, Pesticides and Fungicides: Herbicides, pesticides and fungicides may be used, subject to the approval of the Engineer / Landscape Architect, and handled by state-licensed operators only.

2.3 SEED:

- A. Seed
 - 1. Grass seed shall be clean, new crop seed, composed of a mixture of varieties, mixed in proportion by weight and tested for minimum percentages of purity and germination. Submit proposed mixture to the Engineer / Landscape Architect for approval.
 - 2. General Lawn Area Seed Mix:
 - a. Perennial Ryegrass: 40%
 - b. Chewing Fescue: 30%
 - c. Kentucky Bluegrass: 30%

- B. Hydroseed Mix (Lawn Areas Only)

1. All work will be carried out by an approved spraying machine specifically used for this work. Amounts of fertilizer used shall reflect recommendations outlined in the Soil Analysis, see Section 2.01 D. The Contractor shall submit to the Landscape Architect for approval, prior to the start of work, a certified statement as to number of pounds of fertilizer, amounts and types of grass seed, and processed fiber, per one hundred (100) gallons of water.
2. Hydromulch: Shall be Terra-Sorb GB, or an approved equal. Add Terra-Sorb to the hydroseed tank at the amount of 60 pounds per acre.
3. Hydroseeding is not permitted for athletic field areas

PART 3 - EXECUTION

3.1 PREPARATION OF SUBSOIL (General Lawn Areas)

- A. Prior to spreading topsoil, subsoil should be rough graded to correspond with finish grades, as indicated on the Drawings. Subgrade shall slope to allow for subsurface drainage. Depressions shall be filled and areas which are highly compacted shall be loosened to a depth of 2 inches (2") minimum, which is adequate for the passage of gravitational water through the subsoil.
- B. After acceptance of subsoil grades, loosen and mix subgrade material four to six inches (4"-6") deep. Remove all stones, sticks, rubbish and other deleterious materials, over ¾ inch in any dimension which may impede the healthy and vigorous growth of grass. Do not allow heavy objects or machinery, except as necessary for the spreading of topsoil, over the seedbeds after the preparation of the subgrade.
- C. Subsoil which becomes compacted due to excessive construction activity shall be loosened, as directed by the Engineer / Landscape Architect, at no additional cost to the Owner.

3.2 SPREADING OF TOPSOIL

- A. Immediately after approval and loosening of subgrade, evenly spread and lightly compact approved topsoil to finish grades, as indicated on the Drawings. Do not spread topsoil which is in a muddy or frozen condition. Handle no topsoil when dry or above the plastic limit. Install a minimum of six inches (6") of topsoil to lawn areas, unless otherwise indicated on the Drawings.
- B. When possible, the spreading of topsoil shall be performed from the center of the lawn area to the perimeter. Contractor may use alternate spreading pattern, if approved in writing by the Engineer / Landscape Architect.
- C. Caution should be exercised to minimize or eliminate travel over areas previously covered with topsoil. Topsoil which becomes compacted due to construction activity shall be stripped and re-spread or loosened, as directed by Engineer / Landscape Architect, at no additional cost to the Owner.

3.3 TOPSOIL SEED BED PREPARATION

- A. The minimum depth of topsoil in all lawn areas shall be six inches (6"). Contractor is responsible for supplying all topsoil needed from off-site sources.
- B. Grade all lawn areas to finish grades, as indicated on the Drawings. When no grades are shown, areas shall have a smooth and continuous grade between existing or fixed controls and elevations shown on plans. Roll, scarify, rake and level, as necessary, to obtain true even lawn surfaces. All lawn areas shall slope to drain. Finish grades shall be approved by Engineer / Landscape Architect prior to commencing any seeding or sodding work.
- C. Install soil additives per manufacturer's and topsoil testing lab instructions and as indicated on the Drawings.
- D. Amend all disturbed areas to be topsoiled, seeded or sodded to meet amended topsoil target recommendations. Follow the testing lab and manufacturer's recommendations for installation.
- E. Spreading Limestone: Spread ground limestone evenly over the topsoil surface. Incorporate limestone within the top two inches (2") of soil, prior to finish raking. Apply limestone at the rate recommended by the testing and analysis agency.
- F. Rake and remove all rocks and debris over ¾" in any dimension from the topsoil surface.

3.4 SEEDING

- A. Schedule for Seeding: Sow grass seed between April 1 and May 31, or between August 15 and October 1, except as otherwise approved in writing by the Engineer / Landscape Architect.
- B. If seeding out of season, as described above, the Contractor is still obligated by all conditions and responsibilities described under 3.6 LAWN MAINTENANCE, until final acceptance of all lawn areas.
- C. Before seed is sown, scarify soil and rake until surface is smooth, friable and of uniformly fine texture. Seed evenly at supplier's recommendation rates, lightly rake and water with fine spray. Do not use wet seed which is moldy or otherwise damaged in transit or storage.
- D. Mulch bank areas with three to one (3 to 1) slope or greater with straw mulch, one and one half to two (1½ to 2) tons per acre. Secure mulch at Contractor's discretion as to method or need. Wood fiber mulch may be substituted at a rate of 1,400 pounds per acre, at same time as seed and fertilizer.
- E. Equipment Calibration

1. The equipment to be used and the methods of seeding shall be subject to the inspection and approval of the Owner's Representative, prior to commencement of seeding operations. Immediately prior to the commencement of seeding operations, the Contractor shall conduct seeding equipment calibration tests in the presence of the Owner's Representative.

F. Applying Seed

1. Mechanical Seeding of Lawn Seed Mix:
 - a. Seed shall not be placed until soils have stabilized and further settlement is not apparent. Utilize an irrigation system for consolidation of top mix.
 - b. Seed at a minimum rate of three (3) lbs per 1000 square feet.
 - c. Sow grass seed, applying half the quantity in one direction and the remaining quantity at right angles to the previous application
 - d. Do not sow seed on a windy day or when the ground is frozen, wet or otherwise non-tillable.
 - e. Cover seed with a thin layer of topsoil by raking or dragging. Cover with straw mulch, loosely spread to a uniform depth.
 - f. Keep soil moist throughout the germination period.

3.5 FERTILIZING

- A. The Contractor is to have the topsoil tested for soil fertility by an approved soil testing laboratory, and a complete fertilization program will be recommended by the testing laboratory and Landscape Architect for the installation and maintenance period.

3.6 LAWN MAINTENANCE

- A. Maintenance of the grass areas shall begin immediately and generally consist of watering, weeding, fertilization, mowing and edging, reseeding, disease and insect pest control, repair of all erosion, and any other procedure consistent with good horticultural practice, as necessary to insure normal, vigorous and healthy growth.
- B. After grass has appeared, reseed all areas which have failed to show a uniform stand of grass.
- C. Maintenance shall also include filling, regrading and reseeding, as necessary, to correct depressions caused by settling, subsidence or other physical or mechanical damage.
- D. Maintenance shall also include all temporary protection fences, barriers, signs and all other work incidental to proper maintenance.

- E. The Contractor shall be responsible for maintenance to establish a uniform stand of the approved grasses until acceptance. After the grass has started, all areas and parts of areas showing poor germination or growth shall be re-seeded, repeatedly, until all areas are covered with a satisfactory growth of grass. At the time of the first cutting, mow lawn with sharp mowing units not less than two and one half inches (2 1/2") high. Lawn shall be maintained between two and one half inches to three and one half inches (2 1/2" - 3 1/2") high. Do not remove more than one third (1/3) of the grass blade. All lawns shall receive a minimum of three (3) mowings before Contractor's request for inspection and acceptance. Additional mowings may be required before acceptance.
- F. Where permitted, the contractor shall be responsible for the application of pre-emergent crabgrass control, in accordance with manufacture's recommended rate and timing for all lawn areas the spring following seeding.
- G. Fertilization: Second fertilization of all lawn areas shall be done either the following spring after a fall seeding or in the fall after a spring seeding.
- H. Watering: The Contractor shall include the cost for daily and, if necessary, continuous watering of all grass areas during a normal eight (8) hour working day.
 - 1. The seed bed shall be maintained in a continuous moist condition, to the depth of 2". Maintain soil moisture satisfactory for good germination and growth of grass until acceptance of lawns.
- I. Full and complete written instructions for maintenance of the lawn areas are to be furnished to the Owner, by the Contractor, at least ten (10) days prior to the end of the contractual maintenance period, to familiarize him with the maintenance requirements for proper care and development of lawns.

3.7 INSPECTION AND ACCEPTANCE

- A. The Landscape Architect shall inspect the lawns upon written request by the Contractor. The request shall be received at least ten (10) days before the anticipated date of inspection.
- B. Final acceptance will not be granted until all seeded areas are in satisfactory condition. No seeded areas will be inspected prior to 60 days from seeding and prior to the completion of two mowings. An acceptable stand of grass will be determined by the Engineer or Landscape Architect.
- C. A satisfactory stand of grass which is acceptable is defined as consisting of a uniform stand of at least 60% established, permanent grass species, free of weed species and no bare spots (free of germinating grass) over 1sf in area.
- D. If the grass is in satisfactory condition, the Contractor's care and maintenance responsibilities will end. If the grass stand is unsatisfactory, the Contractor's maintenance responsibility shall continue, including a normal program of mowing, irrigation, reseeding, fertilizing and repair until an acceptable stand of grass is achieved.

3.8 CLEAN UP

- A. Absolutely no debris may be left on the site. Excavated material shall be removed, as directed. Repair any damage to site or structures to restore them to their original condition, as directed by the Landscape Architect, at no cost to the Owner.

END OF SECTION

G:\718830\02 Design\specs\DIV 32 - Exterior Improvements\32 92 50 - Loam and Seed.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

SECTION 33 41 00 – STORM UTILITY DRAINAGE

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (PCR) which are hereby made a part of this Section of the Specifications.

1.2 RELATED DOCUMENTS

- A. The requirements of the sections of Division 1 – General Requirements, as listed in the Table of Contents, apply to the work specified in this section.

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM)
1. D 5034 (1995) Breaking Strength and Elongation of Textile Fabrics (Grab Test)
 2. F 405 (1996) Corrugated Polyethylene (PE) Tubing and Fittings
 3. F 667 (1985) Large Diameter Corrugated Polyethylene Tubing and Fittings.
- B. Unibell Handbook of PVC Pipe
1. C32-73 (1984) Sewer and Manhole Brick
 2. C62-85a, Building Brick
 3. C76-85a, Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
 4. C139-73 (1985) Concrete Masonry units for Construction of Catch Basins and Manholes
 5. C270-86b, Mortar for Unit Masonry
 6. C443-85A, Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets
 7. C478-85a, Precast Reinforced Concrete Manhole Sections

1.4 SUBMITTALS

- A. The following shall be submitted: Filter Fabric, HDPE Pipe, Flat Panel Drains, Free Draining Angular Washed Stone, Drain Manholes, and Catch Basins.
- B. Certifications from the manufacturers, attesting that the materials meet specification requirements, and samples are required for filter fabric, drain pipe and fittings.
- C. Submit shop drawings and manufacturer's specifications and installation instructions for all pipe materials, precast concrete catch basins and manholes, frames and covers and detention chambers.

- D. Each shipment of pipe, catch basins and metal castings shall be accompanied with the manufacturer's notarized certificate that the materials meet the specification requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Storage: Materials delivered to site shall be inspected for damage, unloaded, and stored with minimum handling. Materials shall not be stored directly on the ground. The inside of pipes and fittings shall be kept free of dirt and debris. During shipment and storage, filter fabric shall be wrapped in burlap or similar heavy-duty protective covering. The storage area shall protect the fabric from mud, soil, dust and debris. Filter fabric materials that are not to be installed immediately shall not be stored in direct sunlight. Plastic pipe shall be installed within six (6) months from the date of manufacture, unless otherwise approved.
- B. Handling: Material shall be handled in such a manner as to insure delivery to the trench in sound undamaged condition. Pipe shall be carried and not dragged to the trench.

PART 2 - PRODUCTS

2.1 PIPE MATERIALS

- A. Corrugated High-Density Polyethylene (HDPE) Pipe and Fittings: Use ASTM F 405 for pipes three (3") to six (6") inches in diameter, inclusive, and ASTM F 667 for pipes eight (8") to twenty-four (24") inches in diameter. Fittings shall be manufacturer's standard type and shall conform to the indicated specification.
- B. Pipe Perforations: Water inlet area shall be a minimum of one-half (0.5 sq.in./lf) square inch per liner foot. Manufacturer's standard perforated pipe which essentially meets these requirements may be substituted with prior approval of the Owner's Representative.
- C. Slotted Perforations in Plastic Pipe: Circumferential slots shall be cleanly cut so as not to restrict the inflow of water and uniformly spaced along the length and circumference of the tubing. Width of slots shall not exceed 1/8 inch nor be less than 1/32 inch. The length of individual slots shall not exceed 1-1/4 inches on three (3") inch diameter tubing, ten (10%) percent of the tubing inside nominal circumference on four (4") to eight (8") inch diameter tubing, and 2-1.2 inches on ten (10") inch diameter tubing. Rows of slots shall be symmetrically spaced so that they are fully contained in two (2) quadrants of the pipe. Slots shall be centered in the valleys of the corrugations of profile wall pipe.

2.2 PRECAST STRUCTURES

- A. The material to be used in the construction of detention chambers, storm manholes, catch basins and drop inlets shall conform to State of Maine DOT Standard Specifications and to the following requirements.

- B. Precast Concrete Manholes and Catch Basins: ASTM C478, eccentric cone, flat slab precast top; precast riser section and monolithic base section, with integral floor.
- C. Concrete Compressive Strength: 4000 psi minimum. Type II cement.
- D. Reinforcing Steel: ASTM A185, 0.12 sq. in./linear ft. and 0.12 sq. in. (both ways) base bottom.
- E. Joints sealed with rubber gaskets, conforming to ASTM C443.
- F. Steps: Forged 6061B, T6 aluminum or Copolymer Polypropylene Plastic, with 1/2 inch Grade 50 steel reinforcement.

2.3 CAST IRON FRAMES AND COVERS

- A. Concrete Catch Basins: To be heavy duty C.I. as manufactured by East Jordan Iron Works Inc. or approved equal.
- B. Concrete Drain Manholes: To be heavy duty C.I. as manufactured by East Jordan Iron Works or approved equal.
- C. Nyloplast Manholes and Catch Basins: To be in accordance with the manufacturer's standard specifications.

2.4 MASONRY MATERIAL

- A. Concrete Masonry Units: ASTM C139.
- B. Brick: ASTM C32, Grade MS or ASTM C62, Grade SW.
- C. Mortar: ASTM C270, Type M.

2.5 PIPE BEDDING AND COVER MATERIALS

- A. Bedding for drainage pipe: as specified in Section 31 2000 - Earth Moving.
- B. Cover for drainage pipe: as specified in Section 31 2000 - Earth Moving.
- C. Aggregate Materials
 - 1. Aggregate for embedding and filling trench drains within the synthetic turf field areas, referred to as "washed stone" or "peastone" shall be washed stone fill consisting of washed, durable, crushed rock free from fine sand, silt, or rock flour. Gradation shall conform to the following:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
3/4-inch	100
1/2-inch	90-100

3/8-inch	40-70
No. 4	0-15
No. 8	0-5

2.6 FILTER FABRIC

- A. Filter fabric for wrapping trenches shall be a non-woven, polypropylene fabric made specifically for use in subsurface drainage structures and equal to Mirafi 14ON, manufactured by Mirafi, Inc., Charlotte, NC 28224.

2.7 FLAT PANEL DRAINS

- A. Flat panel drains shall be Multiflow (12") as manufactured by Varicore Technologies, Inc., P.O. Box 131, Prinsburg, MN 56281, or approved equal. All connections for proposed flat panel drains must be completed using manufacturer's approved connectors. The flat panel drains must be mechanically connected to the collector pipe by the Corru-Tap (12 CTH) as manufactured by Varicore Technologies, Inc. or approved equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that the trench cut and excavation base is ready to receive work and excavations, dimensions and elevations are as indicated on the contract drawings.

3.2 PREPARATION

- A. Hand trim excavations to required elevations. Correct over excavation with gravel borrow, in accordance with Section 312000 – Earth Moving.
- B. Remove large stones or other hard matter that could damage piping or impede consistent backfilling or compaction.

3.3 EXCAVATION AND BEDDING FOR DRAIN SYSTEMS

- A. All piping shall be installed in strict conformance with the manufacturer's recommendations. If these specifications conflict with the manufacturer's recommendations, the Subcontractor shall request direction prior to installation.

- B. Trenching and excavation, including the removal of rock and unstable material, shall be in accordance with Section 312000 – Earth Moving. Bedding material shall be placed in the trench, as indicated or as required, as replacement for materials in those areas where unstable materials were removed. Compaction of the bedding material shall be as specified.
- C. Thoroughly compact backfill around all drainage structures and within all trenches in accordance with Section 312000 – Earth Moving. Properly Backfill and compact in lifts as specified to prevent future settlement.

3.4 INSTALLATION OF FILTER FABRIC

- A. One layer of filter fabric shall separate existing soil and crushed stone fill and shall be used on the top, bottom and all sides. The fabric shall be secured in such a manner that backfill material will not infiltrate through any fabric overlaps.
- B. Filter fabric shall be installed with detention chambers as shown on the contract drawings.
- C. Filter fabric shall be installed along slopes where drainage pipes outlet. Fabric shall be pinned and secured with rip-rap.
- D. Trenching Lining and Overlaps: Trenches to be lined with filter fabric shall be graded to obtain smooth side and bottom surfaces, so that the fabric will not bridge cavities in the soil or be damaged by projecting rock. The fabric shall be laid flat, but not stretched on the soil, and it shall be secured with anchor pins. Overlaps shall be at least twelve (12") inches and anchor pins shall be used along the overlaps.

3.5 INSTALLATION OF HDPE PIPE

- A. Pipe Laying: Each pipe shall be carefully inspected before it is laid. Any defective or damaged pipe shall be rejected. No pipe shall be laid when the trench conditions or weather is unsuitable for such work. Water shall be removed from any trenches by sump pumping or other approved methods. The pipe shall be laid to the grades and aligned, as indicated. The pipe shall be bedded to the established grade line. Pipes of either the bell-and-spigot type or the tongue-and-groove type shall be laid with the bell or groove ends upstream. All pipes in place shall be approved before backfilling.
- B. Jointings: HDPE drainage pipe shall be installed in accordance with the manufacturer's specifications and as specified herein. A pipe with physical imperfections shall not be installed. No more than five (5%) percent stretch in a section will be permitted.

3.6 CONCRETE DRAINAGE STRUCTURES

- A. Shall be designed to be non-buoyant.
- B. Form bottom of excavation; clean and smooth to correct elevation.

- C. Install and level precast concrete sections, with provision for storm drainage pipe and section.
- D. Establish elevations and pipe inverts for inlets and outlets, as indicated.
- E. Mount frame and cover level in grout, secured to top cone section, to elevations indicated.
- F. Adjust and set existing manhole covers to new grade.

3.7 TESTS

- A. Request inspection from the Site Engineer prior to and immediately after placing aggregate cover over pipe.
- B. Compaction testing will be performed in accordance with ASTM D1557.
- C. If tests indicate the work does not meet the specified requirements; remove work, replace and retest at no cost to the Owner.
- D. Frequency of tests will be as directed by the Engineer and/or Owner.
- E. Pipe Test: Strength tests of pipe shall conform to field service test requirements of Federal Specification, ASTM specification, or AASHTO specification covering the product.

3.8 DAMAGE TO OTHER WORK

- A. This Subcontractor shall be held responsible and shall pay for all damage to other work caused by his work or workmen. Repairing of such damage shall be done by this Subcontractor who installed the work, as directed by the Engineer.

3.9 IMPROPER WORKMANSHIP

- A. All work under this section of the specifications found to be improper or of poor workmanship shall be removed, repaired and/or replaced to the satisfaction of the Engineer, at no additional expense to Architect or the Owner.

3.10 CLEAN-UP

- A. All debris created by this work shall be cleaned up and disposed of, off-site, in accordance with Specification Section 01 74 19 - Cleaning Up.
 - 1. Separate recyclable waste from other waste trash and debris generated.
 - 2. Clean all contaminated recyclable waste to make it acceptable for recycling.
 - 3. Remove from the site all excess liquids or chemicals used during construction.
 - 4. Deposit material in the appropriate container.

- B. Upon completion of the work in this section, all staging, planking, equipment and excess materials shall be removed from the site.

3.11 GUARANTEE

- A. Earthwork shall be guaranteed for a period of one year from the date of substantial completion against defects in workmanship or materials and will be replaced or repaired, at no cost to Engineer or the Owner, if such defects occur.

END OF SECTION

G:\718830\02 Design\specs\DIV 33 - Utilities\33 41 00 - Storm Utility Drainage Piping.docx

THIS PAGE IS INTENTIONALLY LEFT BLANK

CAMDEN-ROCKPORT MIDDLE SCHOOL

SOFTBALL IMPROVEMENTS

34 KNOWLTON STREET
CAMDEN, MAINE 04843

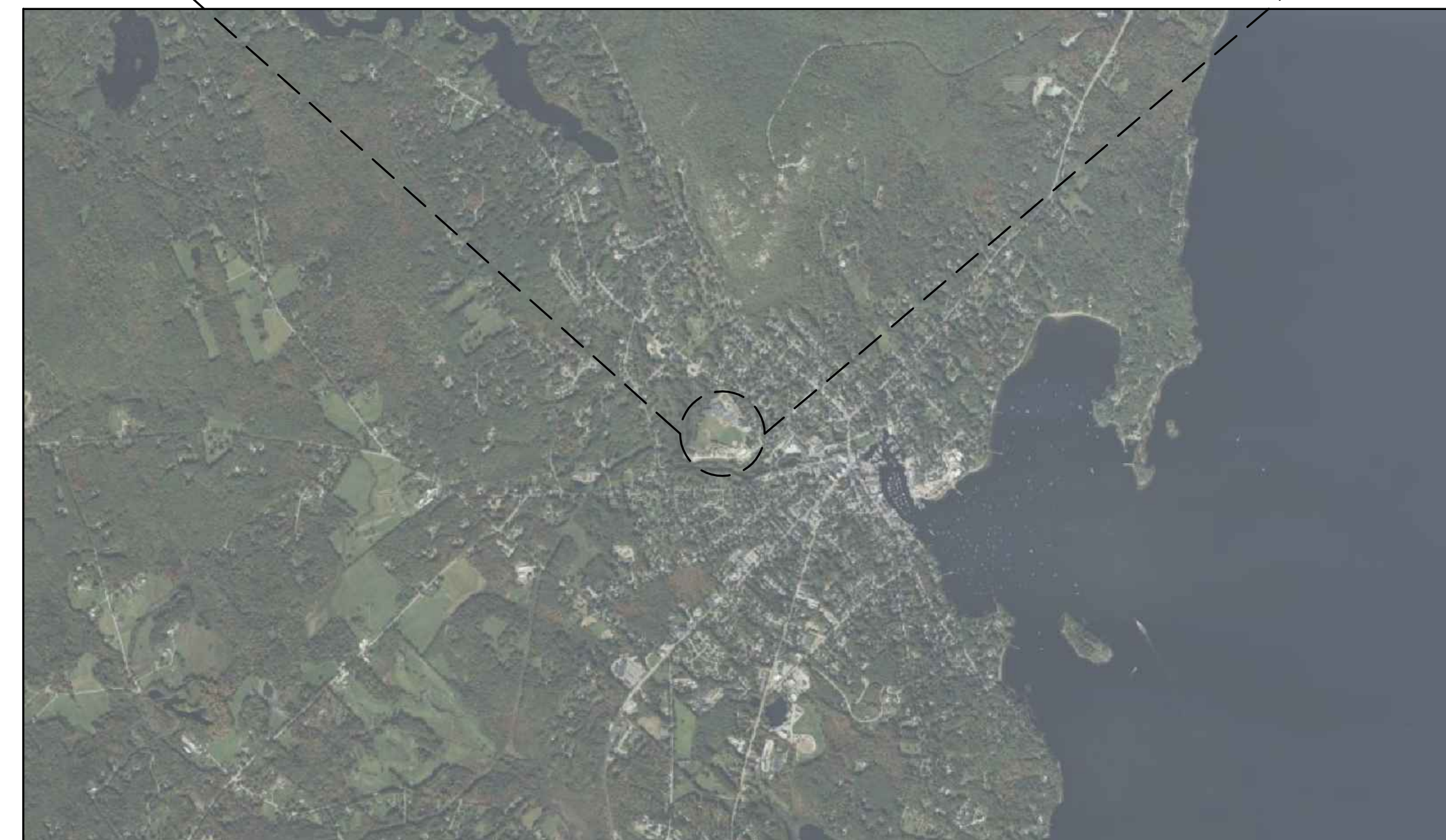
PREPARED FOR
MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
7 LIONS LANE
CAMDEN, MAINE 04843

DRAWING NO	SHEET NO	TITLE
G001	1 OF 11	COVER SHEET
G002	2 OF 11	NOTES AND LEGEND
C001	3 OF 11	EXISTING CONDITIONS PLAN
C011	4 OF 11	DEMOLITION AND EROSION CONTROL PLAN
C101	5 OF 11	LAYOUT AND MATERIALS PLAN
C201	6 OF 11	GRADING AND DRAINAGE PLAN
C501	7 OF 11	DETAIL SHEET 1 OF 4
C502	8 OF 11	DETAIL SHEET 2 OF 4
C503	9 OF 11	DETAIL SHEET 3 OF 4
C504	10 OF 11	DETAIL SHEET 4 OF 4
C505	11 OF 11	TEST PIT LOGS

ENGINEER:
GALE ASSOCIATES, INC.
5 MOULTON STREET | UNIT 201
PORTLAND, ME 04101
P: 207.536.1092



SITE MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



Gale Associates, Inc.
Engineers and Planners
5 MOULTON STREET | SUITE 201
PORTLAND, ME 04101
P 207.536.1092 www.gainc.com
Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2022

BID SET

PROJECT
ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
34 KNOWLTON STREET
CAMDEN, ME 04843

OWNER
MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
7 LIONS LANE
CAMDEN, ME 04843

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	718830		
CADD FILE	718830_G001		
DESIGNED BY	ROD		
DRAWN BY	ROD		
CHECKED BY	BDS		
DATE	10/4/2023		
DRAWING SCALE	-		

GRAPHIC SCALE

SHEET TITLE

COVER SHEET

DRAWING NO.

G001

1 OF 11

E

D

C

B

A

DEMOLITION NOTES

- DEMOLITION TO COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE STARTING SELECTIVE DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
- SURVEY THE CONDITION OF THE SITE TO DETERMINE WHETHER REMOVING ANY ELEMENT MIGHT RESULT IN UNDESIRABLE DAMAGE OF ANY PORTION OF ADJACENT FACILITIES DURING SELECTIVE DEMOLITION.
- MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
- CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, PARKING LOTS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
- CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS, FACILITIES, AND SITE IMPROVEMENTS TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
- USE WATER MIST AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS.
- REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
- CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
- DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED. CONTRACTOR TO BE RESPONSIBLE FOR ANY CUTTING AND PATCHING THAT IS REQUIRED.
- PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.
- DO NOT BURN DEMOLISHED MATERIALS.
- TRANSPORT DEMOLISHED MATERIALS OFF OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM, IF NOT DESIGNATED TO BE SALVAGED BY THE OWNER OR REUSED.
- IN AREAS WHERE BITUMINOUS CONCRETE IS TO BE REMOVED, THE EDGE OF ANY BITUMINOUS CONCRETE TO REMAIN MUST BE A CLEAN SAW-CUT EDGE.

EROSION CONTROL NOTES

- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STATE AND TOWN REGULATIONS, AND PERMIT CONDITIONS, AS APPLICABLE
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF SITE WORK OR EARTHWORK OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED SILTATION FENCES TO PREVENT AND/OR CONTROL SILTATION AND EROSION. OTHERWISE SPOIL MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND DISPOSED OF LEGALLY AND IN CONFORMANCE WITH TOWN REGULATIONS.
- EROSION CONTROL MEASURES SHALL BE ROUTINELY INSPECTED, CLEANED AND REPAIRED OR REPLACED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION. IN ADDITION, INSPECTION SHALL TAKE PLACE AFTER EACH RAINFALL EVENT AND BEFORE FORECASTED RAIN.
- SEDIMENT MUST BE REMOVED PRIOR TO REACHING THE EXISTING DRAINAGE SYSTEMS AND/OR ANY ENVIRONMENTAL RESOURCE AREAS.
- THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES EXTRA SILTATION FENCING FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER OR THE OWNER TO MITIGATE ANY EMERGENCY CONDITION.
- THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED OUTSIDE OF CONSTRUCTION AREA MUST BE REMOVED IMMEDIATELY.
- EROSION CONTROL DEVICES MAY BE ADDED OR REDUCED IN THE FIELD AS DIRECTED BY THE OWNER/ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR REESTABLISHING ANY EROSION CONTROL DEVICE WHICH THEY DISTURB. THE CONTRACTOR SHALL NOTIFY THE OWNER/ENGINEER OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES WHICH MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION, SEDIMENTATION OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE, BUT ARE NOT LIMITED TO, EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, POINTS, SOLVENTS, GREASES, FUEL AND LUBE OIL, PESTICIDES, AND SOLID WASTE MATERIALS.

GRADING NOTES

- GRADING SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND LOCAL BUILDING AND ACCESSIBILITY CODES. IN GENERAL, GRADING OF SIDEWALKS SHALL NOT EXCEED 2.0% CROSS SLOPE AND 5.0% RUNNING SLOPE. GRADING OF ADA PARKING STALLS AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ANY DIRECTION AND GRADING OF PLAZA AND GATHERING AREAS SHALL NOT EXCEED 2.0% IN ANY DIRECTION. GRADING ON SIDEWALK CURB RAMPS AND OTHER ACCESSIBLE RAMPS SHALL NOT EXCEED 8.0%. ALL AREAS SHALL PROVIDE POSITIVE DRAINAGE AS TO NOT POOL WATER, MINIMUM SLOPES SHALL BE 1.0% UNLESS OTHERWISE NOTED.
- PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNED GRADIENT ARE TO BE USED IN THE EVENT OF ANY DISCREPANCIES.
- GRADING SHALL BE PERFORMED TO ALLOW WATER TO FLOW AWAY FROM BUILDING STRUCTURES, AND TO NOT ALLOW PUDDLING OF WATER ANYWHERE ON SITE.
- MINOR ADJUSTMENTS TO FINISH GRADE TO ACCOMPLISH DRAINAGE FLOW ARE ACCEPTABLE, IF NECESSARY, UPON PRIOR APPROVAL OF ENGINEER.
- NEW PAVEMENT SHALL BE FLUSH AT ANY JUNCTURE WITH EXISTING PAVEMENT.
- EXCAVATIONS SHOULD BE STABILIZED BY CUTTING BACK SIDE SLOPES OR USING SHORING AND BRACING AS REQUIRED. ALL EXCAVATION AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA STANDARDS.
- DEWATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DISCHARGE OF SILTY OR OTHERWISE "DIRTY" WATER INTO DRAINAGE SYSTEM OR ANY BODY OF WATER, WETLAND OR RESOURCE AREA SHALL NOT BE PERMITTED.

GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK. EXISTING CONTROL POINTS AND BENCHMARKS HAVE BEEN PROVIDED ON THE EXISTING CONDITIONS PLANS. ANY ADDITIONAL CONTROL POINTS SHALL BE ESTABLISHED AND MAINTAINED BY THE CONTRACTOR.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, AND CITY STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE CITY STANDARDS AND REGULATIONS FOR USE ON THIS PROJECT.
- BARRICADING, TRAFFIC CONTROL, AND PROJECT SIGNS SHALL CONFORM TO ALL STATE, LOCAL REGULATIONS. AREA ADJACENT TO THE PROJECT SITE WILL BE IN USE DURING CONSTRUCTION AT VARIOUS TIMES. THE CONTRACTOR WILL PROVIDE ADEQUATE CONSTRUCTION FENCING DURING EACH PHASE OF THE PROJECT TO FULLY SECURE THE PROPOSED SITE SUBJECT TO OWNER APPROVAL. THE FENCING MAY NEED ADJUSTMENT AT VARIOUS TIMES WITHOUT CONTRACT MODIFICATION.
- THE GENERAL CONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND/OR CONNECTION FEES REQUIRED.
- GENERAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AS APPLICABLE INCLUDING BUT NOT LIMITED TO ELECTRICAL, LIGHTING, AND GAS. THE CONTRACTOR ACKNOWLEDGES THAT ANOTHER CONTRACTOR WILL BE UNDER A SEPARATE CONTRACT. THE CONTRACTOR WILL COORDINATE HIS EFFORTS IN GOOD FAITH, AND WORK IN HARMONY WITH THE OTHER CONTRACTOR. NO EXTRA WILL BE AWARDED DUE TO CONFLICTS BETWEEN CONTRACTORS.
- SUBSTITUTIONS AND APPROVAL OF "OR-EQUAL" PRODUCTS IN PLACE OF THOSE SPECIFIED WILL NOT BE ALLOWED WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER OR ENGINEER.

GENERAL UTILITY NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORD PLANS AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
- THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
- TRENCH EXCAVATIONS SHALL BE IN ACCORDANCE WITH ALL PROVISIONS OF OSHA PART 1926, SUBPART P -EXCAVATIONS. TRENCHES AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS AND NECESSARY TRENCH SAFETY PLANS TO THE ENGINEER AND CITY FOR REVIEW PRIOR TO COMMENCING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY EXISTING INVERTS AND RIM ELEVATIONS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL ADJUST UTILITY CASTINGS TO BE FLUSH WITH PROPOSED GRADE UNLESS OTHERWISE INDICATED ON PLAN.



Gale Associates, Inc.
Engineers and Planners
5 MOULTON STREET | SUITE 201
PORTLAND, ME 04101
P 207.536.1092 www.gainc.com
Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2022

BID SET

PROJECT
ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
34 KNOWLTON STREET
CAMDEN, ME 04843

OWNER
MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
7 LIONS LANE
CAMDEN, ME 04843

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	718830		
CADD FILE	718830_G001		
DESIGNED BY	RDY		
DRAWN BY	RDY		
CHECKED BY	BDS		
DATE	10/4/2023		
DRAWING SCALE			

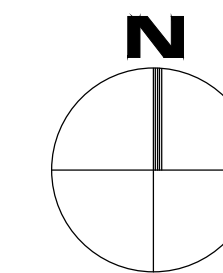
GRAPHIC SCALE

SHEET TITLE

NOTES AND LEGEND

DRAWING NO.

G002



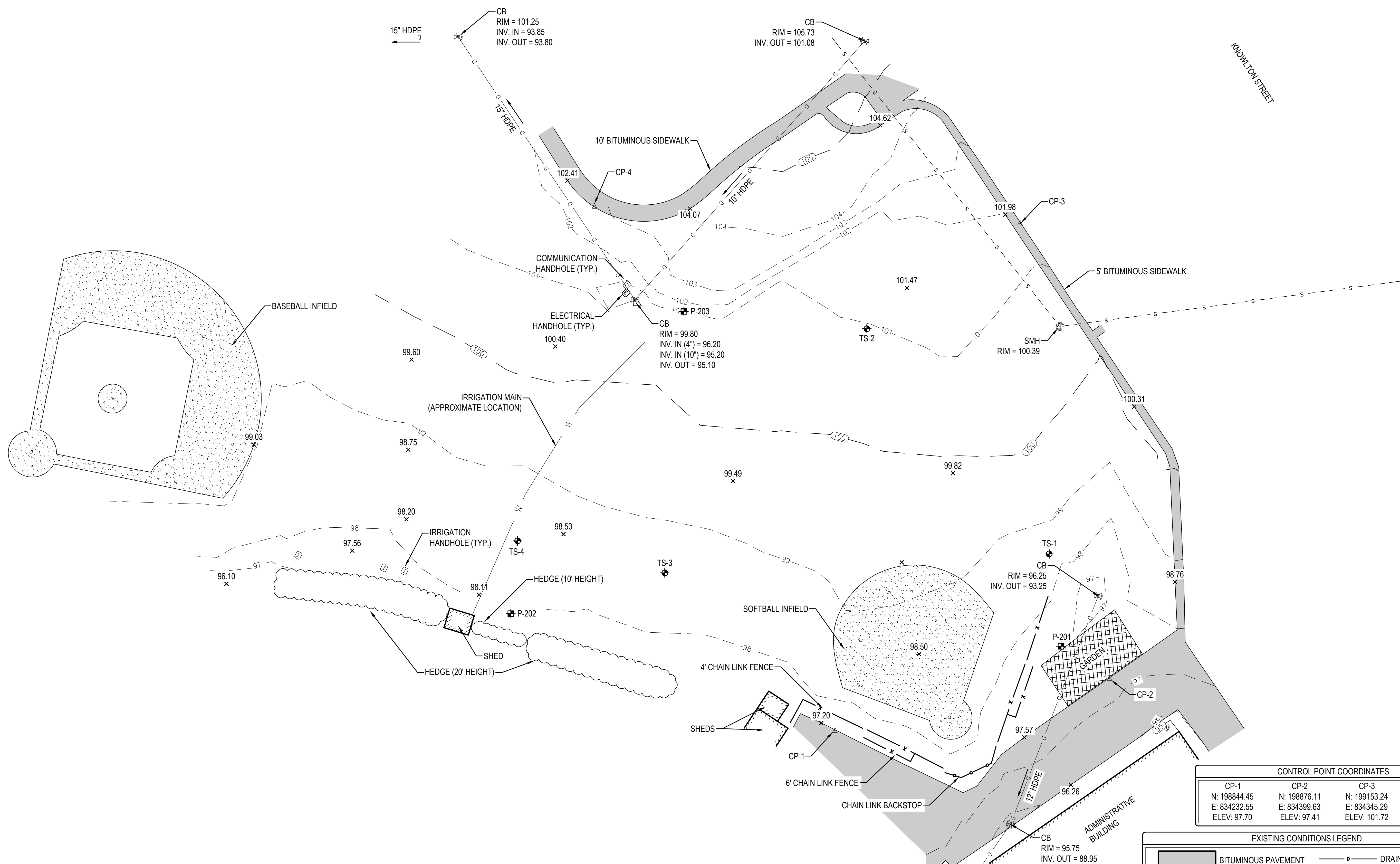
Gale Associates, Inc.
 Engineers and Planners
 5 MOULTON STREET | SUITE 201
 PORTLAND, ME 04101
 P 207.536.1092 www.gainc.com
 Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2022

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
 CAMDEN-ROCKPORT MIDDLE SCHOOL
 34 KNOWLTON STREET
 CAMDEN, ME 04843**

OWNER
 MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
 7 LIONS LANE
 CAMDEN, ME 04843

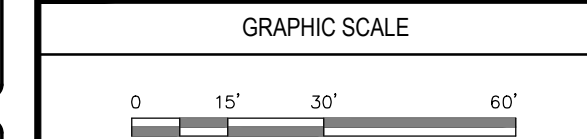


CONTROL POINT COORDINATES			
CP-1	CP-2	CP-3	CP-4
N: 198844.45	N: 198876.11	N: 199153.24	N: 199163.37
E: 834232.55	E: 834399.63	E: 834345.29	E: 834086.30
ELEV: 97.70	ELEV: 97.41	ELEV: 101.72	ELEV: 102.82

EXISTING CONDITIONS LEGEND	
	BITUMINOUS PAVEMENT
	INFIELD
	BUILDING
	EDGE OF PAVEMENT
	CHAIN LINK FENCE
	HEDGE
	TOPSOIL SAMPLE
	TEST PIT
	CONTROL POINT (CP)
	DRAIN
	CATCH BASIN
	SEWER
	SEWER MANHOLE
	IRRIGATION HANDHOLE
	100 MAJOR CONTOUR
	99 MINOR CONTOUR
	99.40 SPOT ELEVATION

- EXISTING CONDITIONS NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE. LOCATIONS SHOWN ARE FROM FIELD OBSERVATION OR RECORD PLANS. OTHER UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THIS PLAN.
 - A PARTIAL EXISTING CONDITIONS SURVEY WAS CONDUCTED BY GALE ASSOCIATES INC. ON JUNE 29, 2022. NO PROPERTY LINES OR EASEMENTS HAVE BEEN LOCATED.
 - HORIZONTAL AND VERTICAL DATUM ARE BASED ON THE MAINE STATE PLANE COORDINATE SYSTEM (MAINE EAST, NAD83/NAVD88) AS PROVIDED BY THE MAINE DOT CORRS NETWORK AND THE MAINE D.O.T.
 - THE LOGS AND LOCATIONS OF TEST PITS P-201, P-202, AND P-203 WERE OBTAINED FROM RECORD PLANS TITLED "CAMDEN-ROCKPORT MIDDLE SCHOOL" PRODUCED BY OAK POINT ASSOCIATES, DATED FEBRUARY 2018.

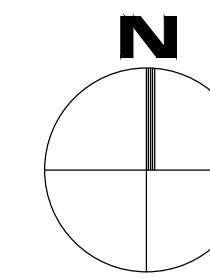
NO.	DATE	DESCRIPTION	BY
PROJECT NO.		718830	
CADD FILE		718830_C001	
DESIGNED BY		RDY	
DRAWN BY		RDY	
CHECKED BY		BDS	
DATE		10/4/2023	
DRAWING SCALE		1" = 30'	



SHEET TITLE

EXISTING CONDITIONS PLAN

DRAWING NO.	C001
3 OF 11	



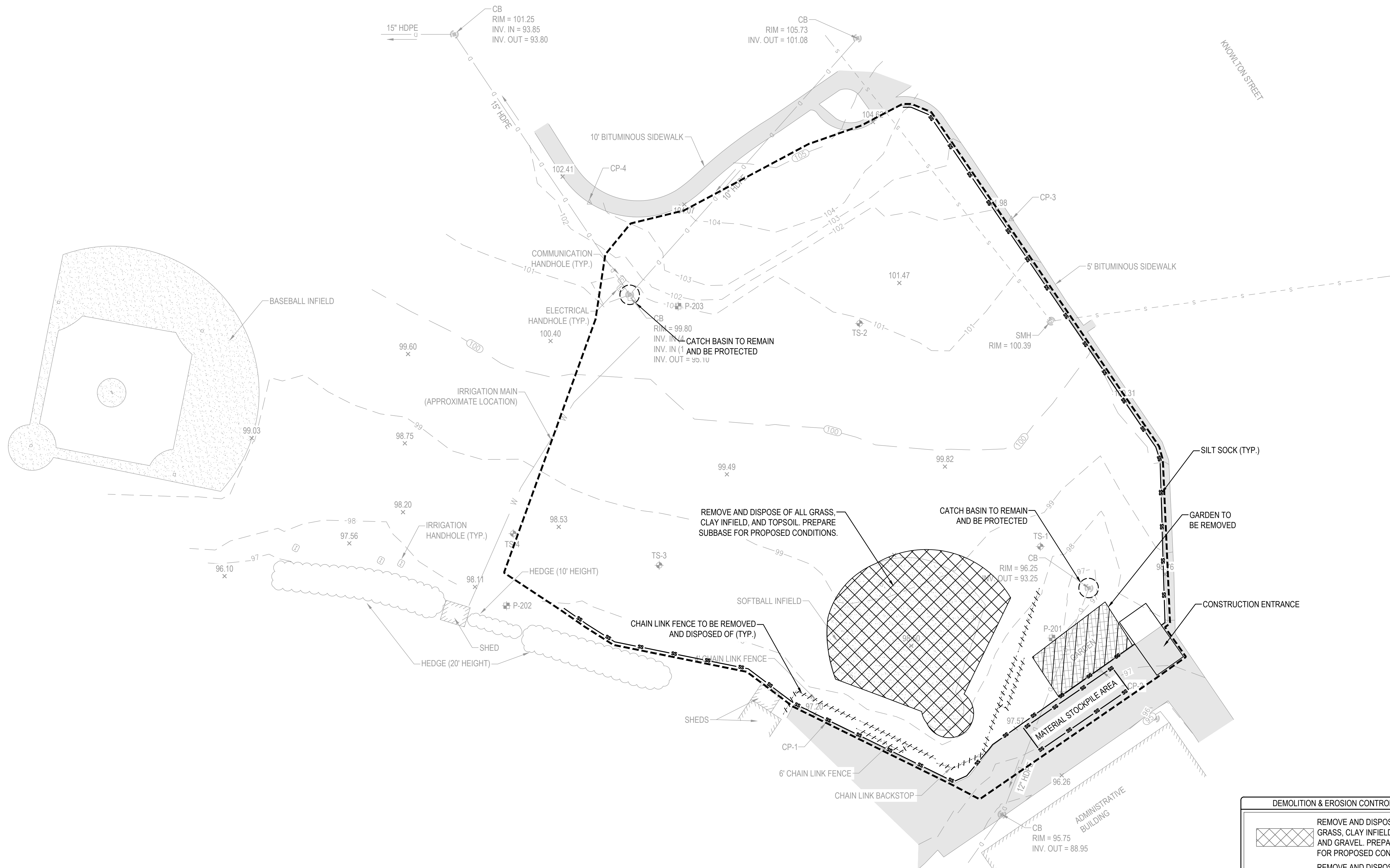
Gale Associates, Inc.
 Engineers and Planners
 5 MOULTON STREET | SUITE 201
 PORTLAND, ME 04101
 P 207.536.1092 www.gainc.com
 Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2022

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
 CAMDEN-ROCKPORT MIDDLE SCHOOL
 34 KNOWLTON STREET
 CAMDEN, ME 04843**

OWNER
 MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
 7 LIONS LANE
 CAMDEN, ME 04843



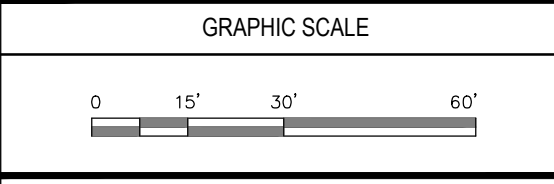
DEMOLITION & EROSION CONTROL NOTES:

1. LOAM AND SEED ALL DISTURBED AREAS.
2. CONTRACTOR RESPONSIBLE FOR CLEANING ALL SILT AND DEBRIS FROM ROADWAYS CAUSED BY CONSTRUCTION ACTIVITIES.
3. CONTRACTOR TO INSTALL CONSTRUCTION FENCING ALONG LIMIT OF WORK AS REQUIRED.
4. ANY CATCH BASINS WITHIN 100' OF A CONSTRUCTION ENTRANCE SHALL BE FITTED WITH A SILT SOCK
5. ALL DISTURBED AREAS THAT ARE LEFT INACTIVE FOR 14 DAYS OR MORE SHALL BE SEEDDED WITH NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES BY NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL.

DEMOLITION & EROSION CONTROL LEGEND

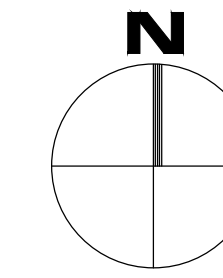
- REMOVE AND DISPOSE OF ALL GRASS, CLAY INFIELD, TOPSOIL AND GRAVEL. PREPARE SUBGRADE FOR PROPOSED CONDITIONS.
- REMOVE AND DISPOSE OF GARDEN AND PREPARE SUBGRADE FOR PROPOSED CONDITIONS.
- STRUCTURE OR UTILITY LINE TO REMAIN AND BE PROTECTED
- FENCE OR UTILITY LINE TO BE REMOVED AND DISPOSED OF
- SILT SOCK SEDIMENT CONTROL
- LIMIT OF WORK
- STRUCTURE TO BE REMOVED AND DISPOSED OF

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		718830	
CADD FILE		718830_C011	
DESIGNED BY		RDY	
DRAWN BY		RDY	
CHECKED BY		BDS	
DATE		10/4/2023	
DRAWING SCALE		1" = 30'	



DEMOLITION & EROSION CONTROL PLAN

DRAWING NO.
C011
 4 OF 11



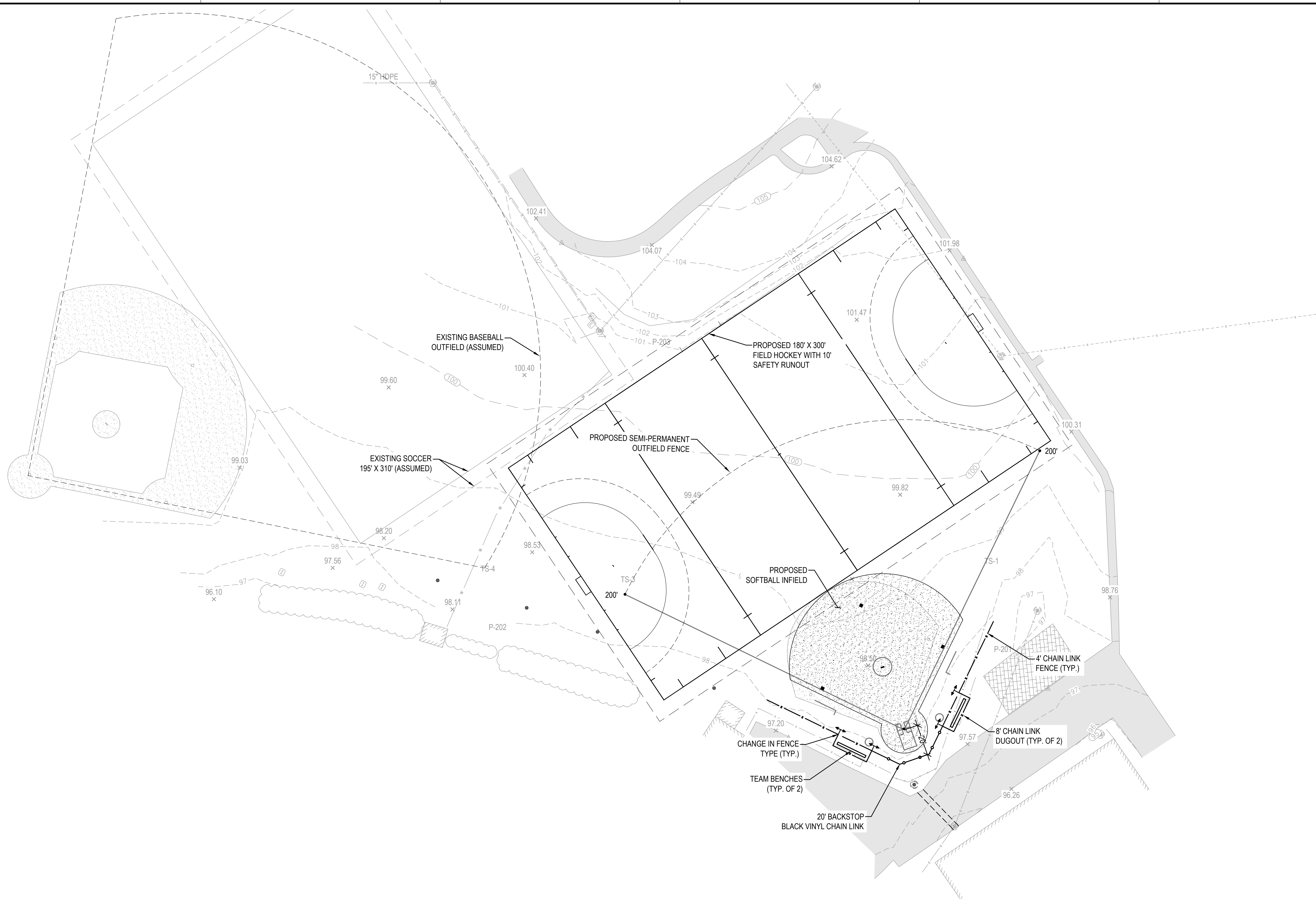
Gale Associates, Inc.
 Engineers and Planners
 5 MOULTON STREET | SUITE 201
 PORTLAND, ME 04101
 P 207.536.1092 www.gainc.com
 Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright © 2022

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
 CAMDEN-ROCKPORT MIDDLE SCHOOL
 34 KNOWLTON STREET
 CAMDEN, ME 04843**

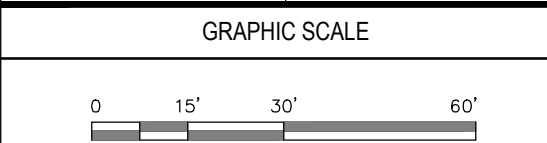
OWNER
**MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
 7 LIONS LANE
 CAMDEN, ME 04843**



LAYOUT AND MATERIALS LEGEND

	INFIELD
	PAINTED FIELD LINES
	CHAIN LINK BACKSTOP
	CHAIN LINK FENCE

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		718830	
CADD FILE		718830_C101	
DESIGNED BY		ROD	
DRAWN BY		ROD	
CHECKED BY		BDS	
DATE		10/4/2023	
DRAWING SCALE		1" = 30'	



SHEET TITLE

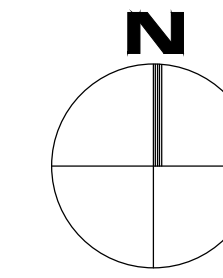
LAYOUT AND MATERIALS PLAN

DRAWING NO.

C101

5 OF 11

E
D
C
B
A



Gale Associates, Inc.
 Engineers and Planners
 5 MOULTON STREET | SUITE 201
 PORTLAND, ME 04101
 P 207.536.1092 www.gainc.com
 Boston Baltimore Portland Hartford Bedford

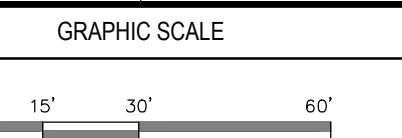
This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright © 2022

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
 CAMDEN-ROCKPORT MIDDLE SCHOOL
 34 KNOWLTON STREET
 CAMDEN, ME 04843**

OWNER
**MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
 7 LIONS LANE
 CAMDEN, ME 04843**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	718830		
CADD FILE	718830_C201		
DESIGNED BY	ROT		
DRAWN BY	ROT		
CHECKED BY	BDS		
DATE	10/4/2023		
DRAWING SCALE	1" = 30'		



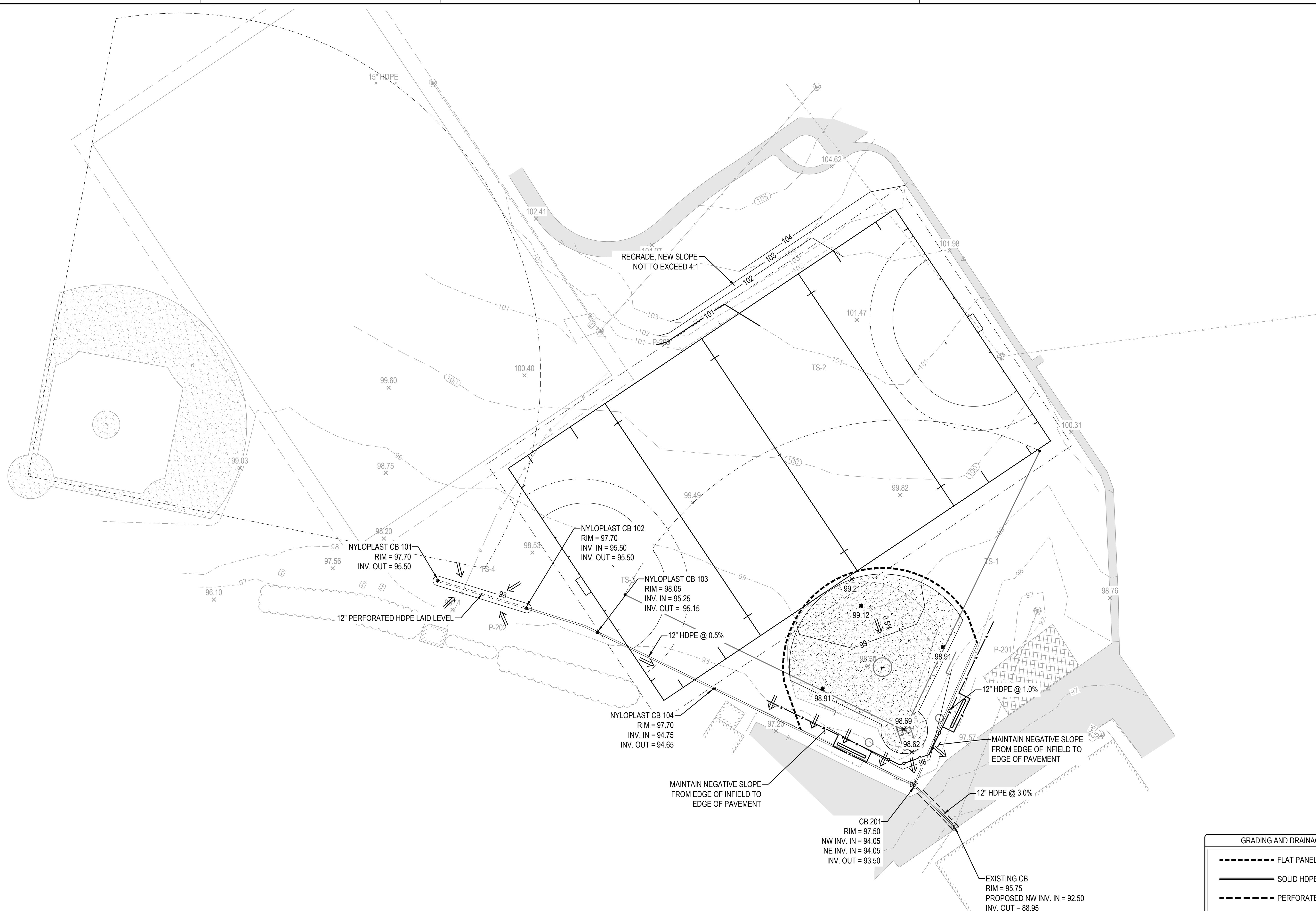
SHEET TITLE

GRADING AND DRAINAGE PLAN

DRAWING NO.

C201

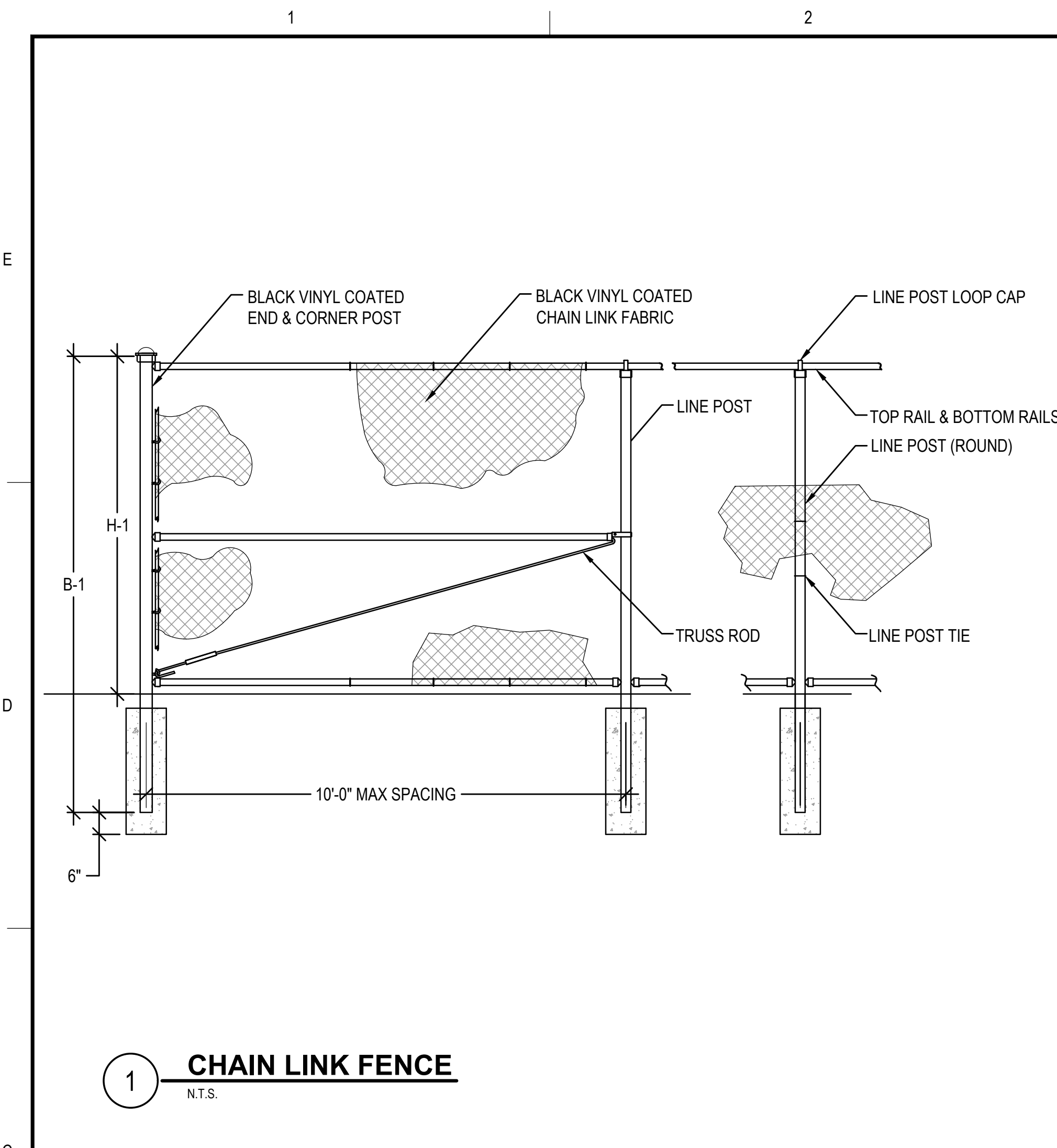
6 OF 11



GRADING AND DRAINAGE LEGEND

- FLAT PANEL DRAIN
- ===== SOLID HDPE PIPE
- PERFORATED HDPE PIPE
- 100 ----- PROPOSED MAJOR CONTOUR
- 101 ----- PROPOSED MINOR CONTOUR
- 1.0% SLOPE ARROW
- 99.21 x SPOT ELEVATION
- ⊙ PRECAST CATCH BASIN
- NYLOPLAST CATCH BASIN

NOTE:
 ALL DISTURBED AREAS SHALL BE SEEDED - SEE SPECIFICATIONS



FENCE HEIGHT	END & CORNER POSTS		LINE POSTS	
NOMINAL HEIGHT	B-1 BAR LENGTH	H-1 HEIGHT ABOVE GRADE	B-2 BAR LENGTH	H-2 HEIGHT ABOVE GRADE
4'-0"	7'-0"	4'-0 5/8"	6'-8"	3'-8 7/8"
6'-0"	9'-0"	6'-0 5/8"	8'-8"	5'-8 7/8"
8'-0"	11'-0"	8'-0 5/8"	10'-8"	7'-8 7/8"

SINGLE OR DOUBLE LEAF GATES		
NOM HEIGHT (H)	UPRIGHT HT (U)	FRAME HT (F)
ACTUAL DIM		ACTUAL DIM
4'-0"	3'-10"	3'-8 1/2"
6'-0"	5'-10"	5'-8 1/2"
8'-0"	7'-10"	7'-8 1/2"

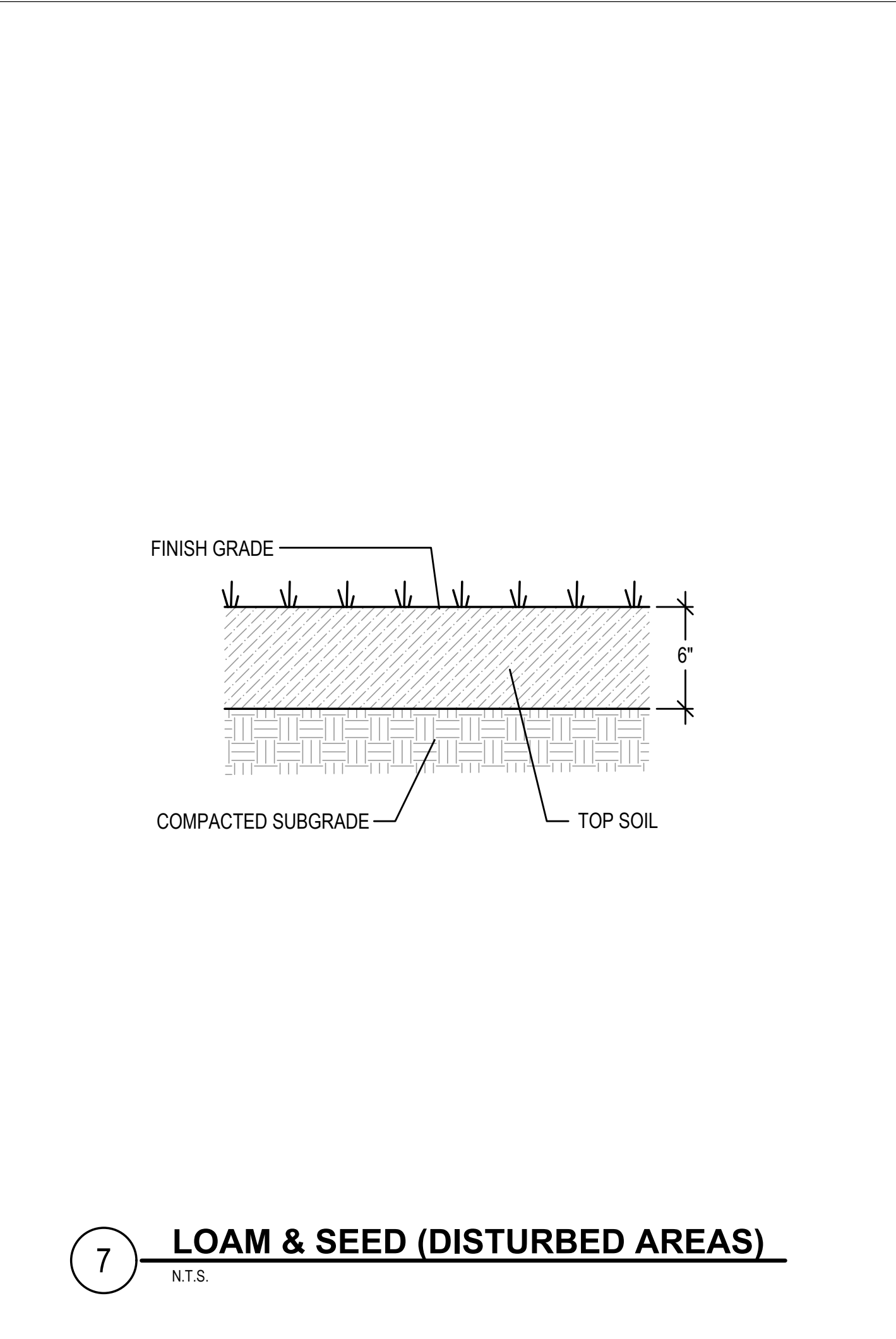
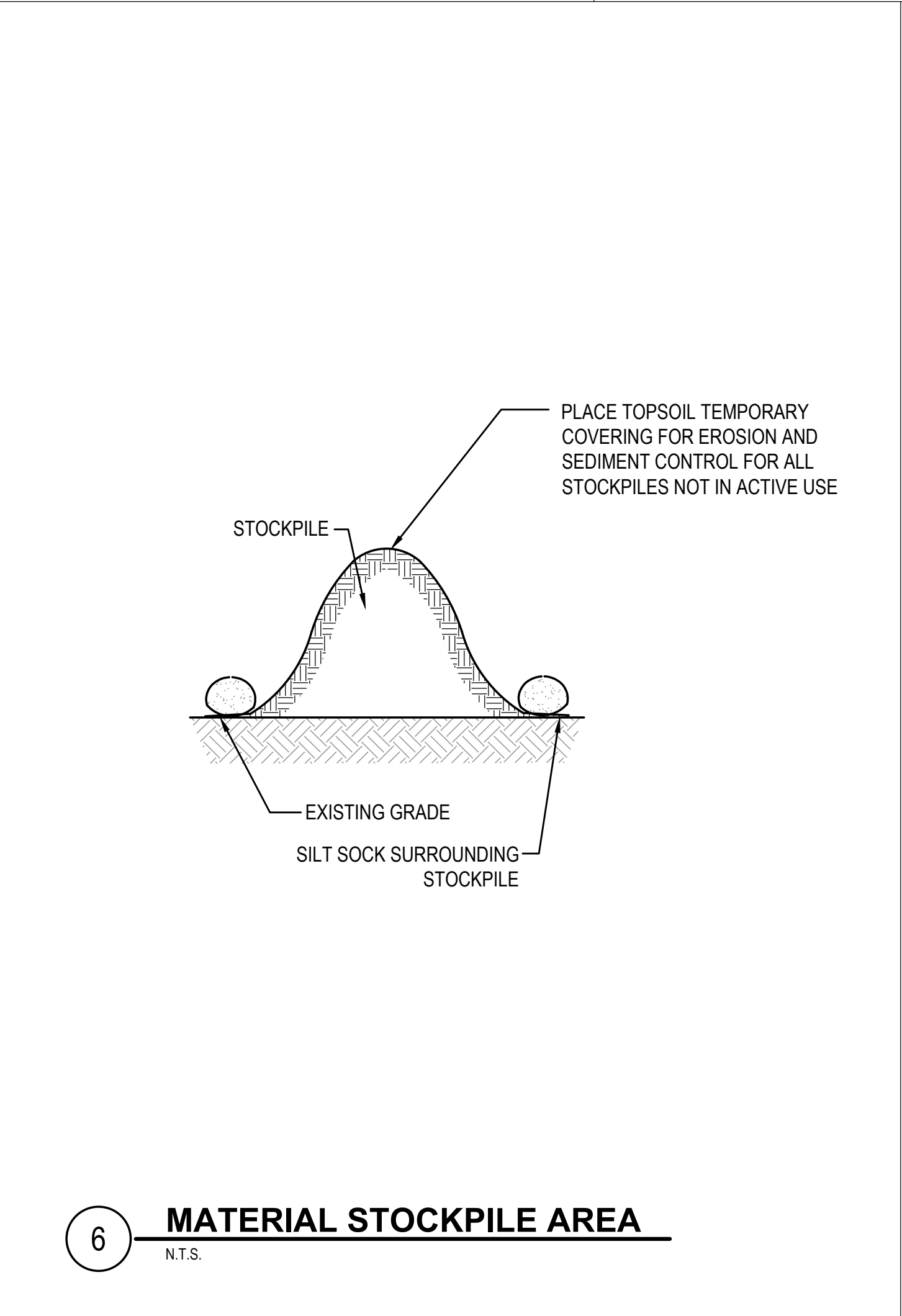
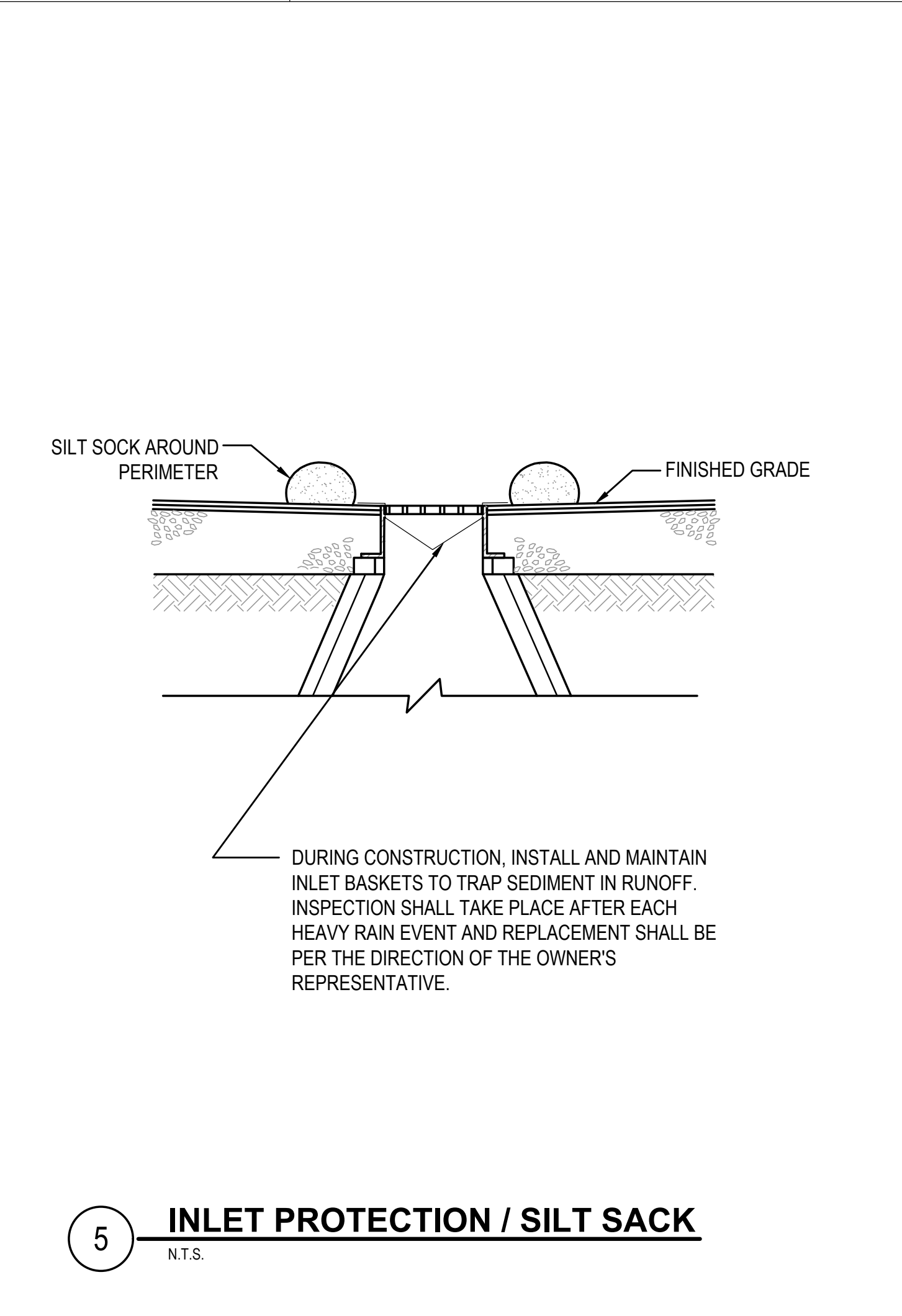
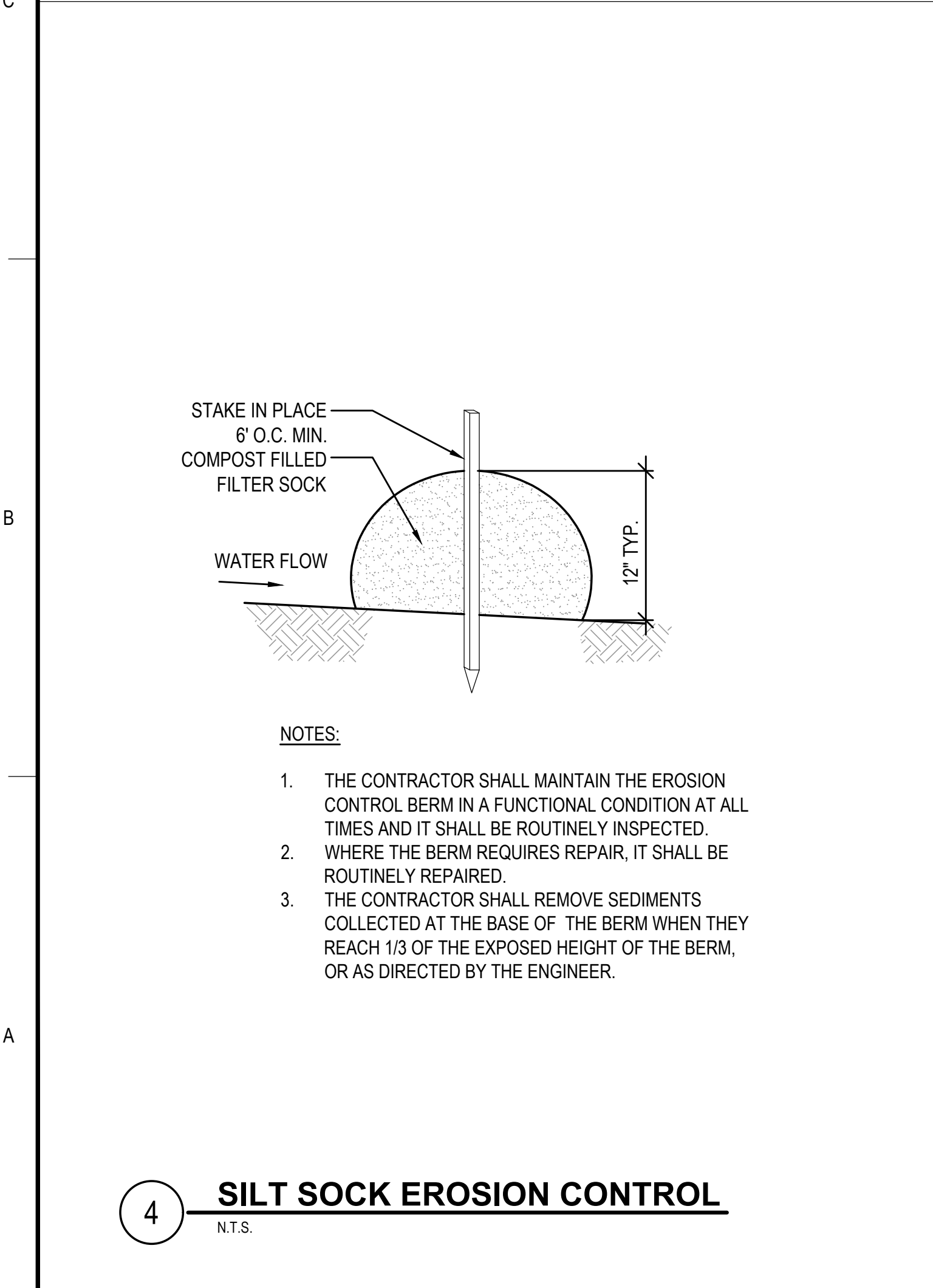
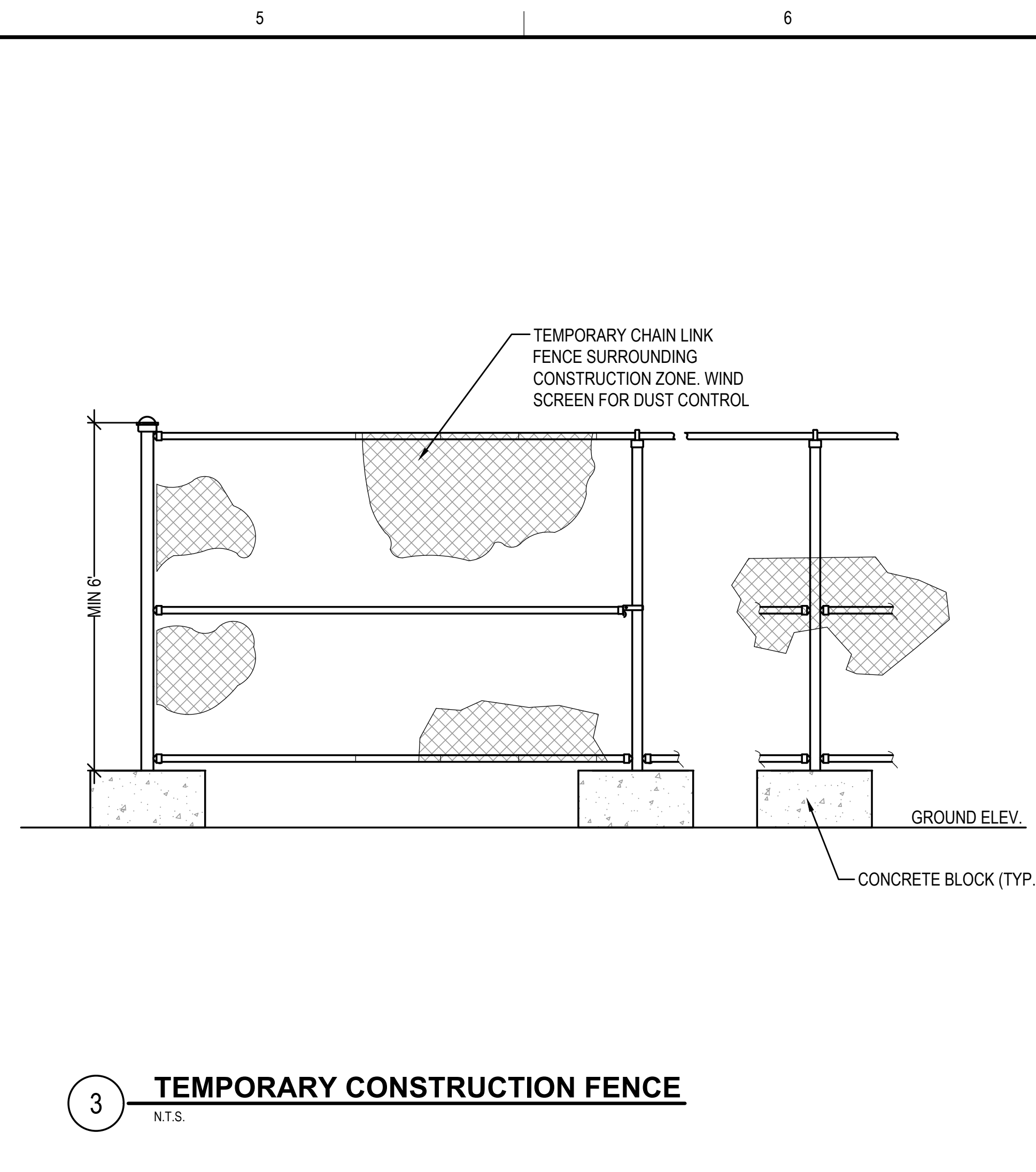
SINGLE LEAF GATES		
OPENING	GATE POSTS	HINGE SPACE (S)
FACE TO FACE	SQ & RND SIZES	POST TO UPRIGHT
3'-0" THROUGH 6'-0"	2 1/2" OR 3" OD	FOR SQUARE & ROUND GATE POSTS: 2 1/4" [57MM]

DOUBLE LEAF GATES		
OPENING	GATE POSTS	HINGE SPACE (S)
FACE TO FACE	SQ & RND SIZES	POST TO UPRIGHT
14'-0" THROUGH 24'-0"	3" SQ OR 4" OD	FOR SQUARE & ROUND GATE POSTS: 2 1/4" [57MM]

1 CHAIN LINK FENCE AND GATE NOTES
N.T.S.

NOTES:

- ALL CHAIN LINK FENCE FABRIC SHALL BE KNUCKLED (TOP AND BOTTOM)
- ALL CHAIN LINK FENCE POSTS, FABRIC, TIES AND MATERIALS SHALL BE BLACK PVC COATED.
- CENTER UPRIGHT REQUIRED ON GATE LEAVES 8'-0" & WIDER. CENTER RAIL REQUIRED ON GATE LEAVE 6'-0" & HIGHER.
- CONCRETE FOOTINGS SHALL BE FOUR (4) x THE POST DIAMETER, OR AS DESIGNATED ON INDIVIDUAL DETAILS.
- FENCE CAP ON BASEBALL OUTFIELD FENCE SHALL BE PROVIDED FROM FOUL POLE TO FOUL POLE.
- ALL CHAIN LINK FABRIC SHALL BE INSTALLED ON THE FIELD SIDE OF THE FENCE.



GALE
Gale Associates, Inc.
Engineers and Planners
5 MOULTON STREET | SUITE 201
PORTLAND, ME 04101
P 207.536.1092 www.gainc.com
Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2022

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
34 KNOWLTON STREET
CAMDEN, ME 04843**

OWNER
**MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
7 LIONS LANE
CAMDEN, ME 04843**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	718830		
CADD FILE	718830_CS01		
DESIGNED BY	ROT		
DRAWN BY	ROT		
CHECKED BY	BDS		
DATE	10/4/2023		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE
**DETAIL SHEET
1 OF 4**

DRAWING NO.
C501

7 OF 11

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
 CAMDEN-ROCKPORT MIDDLE SCHOOL
 34 KNOWLTON STREET
 CAMDEN, ME 04843**

OWNER
**MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
 7 LIONS LANE
 CAMDEN, ME 04843**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	718830		
CADD FILE	718830_CS01		
DESIGNED BY	ROT		
DRAWN BY	ROT		
CHECKED BY	BDS		
DATE	10/4/2023		
DRAWING SCALE	N.T.S.		

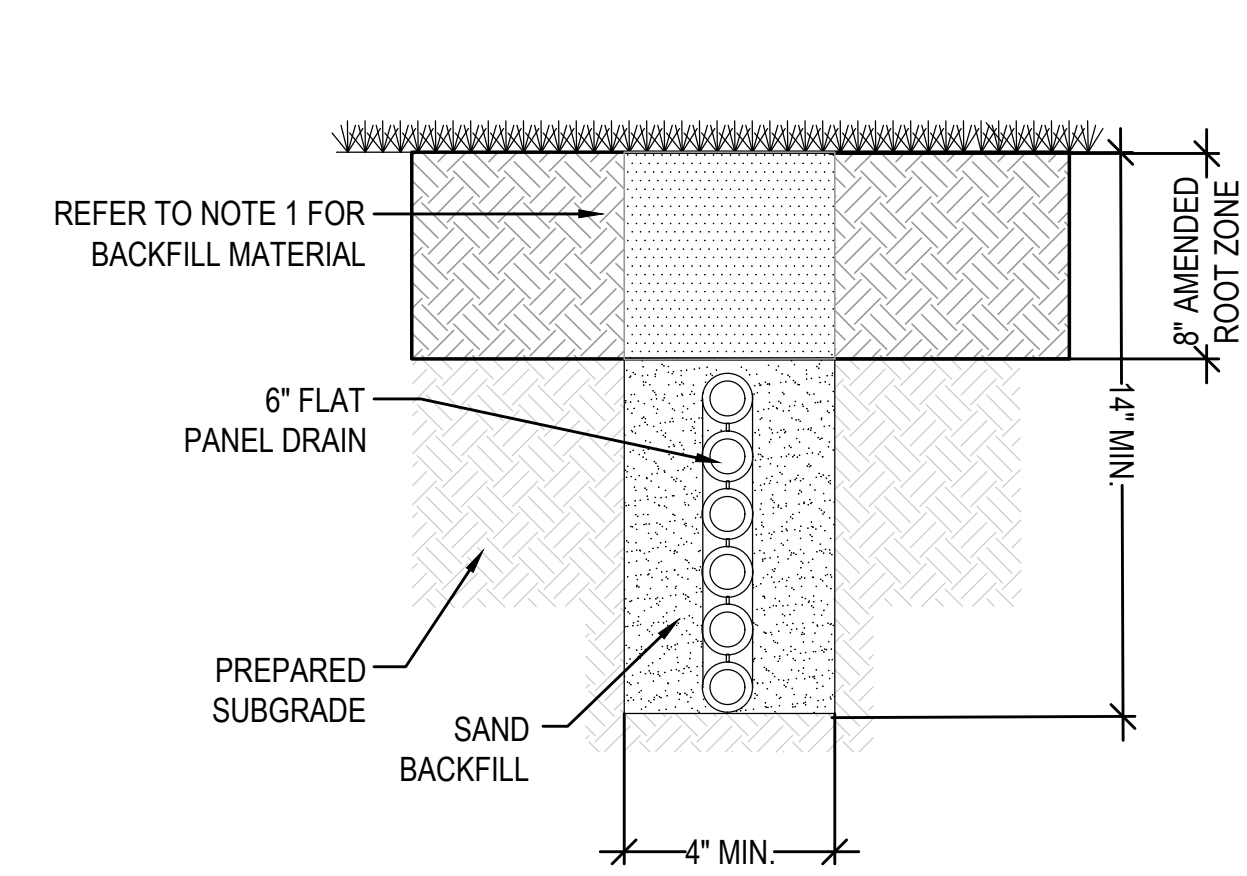
GRAPHIC SCALE

SHEET TITLE

**DETAIL SHEET
 2 OF 4**

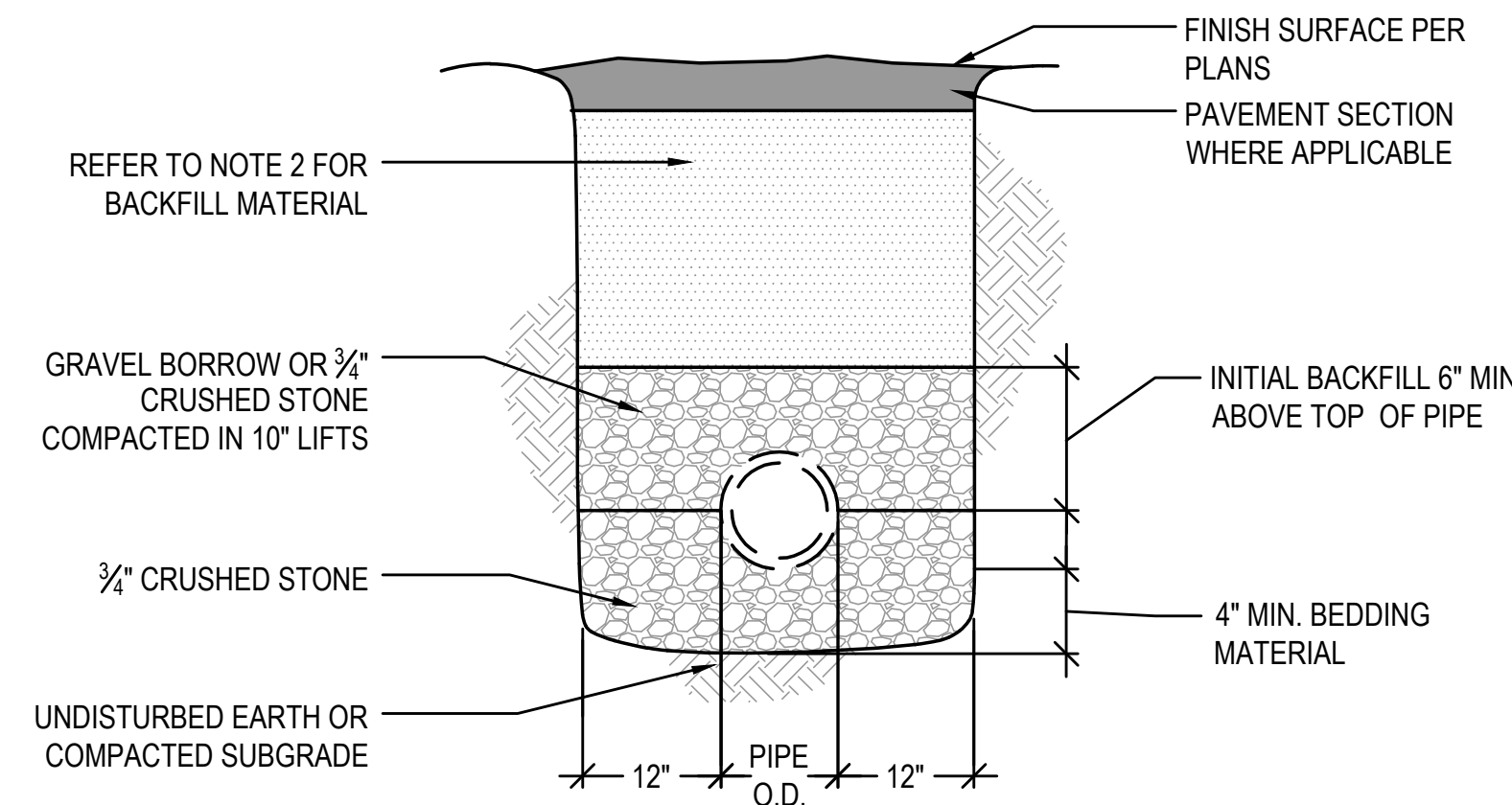
DRAWING NO.

C502



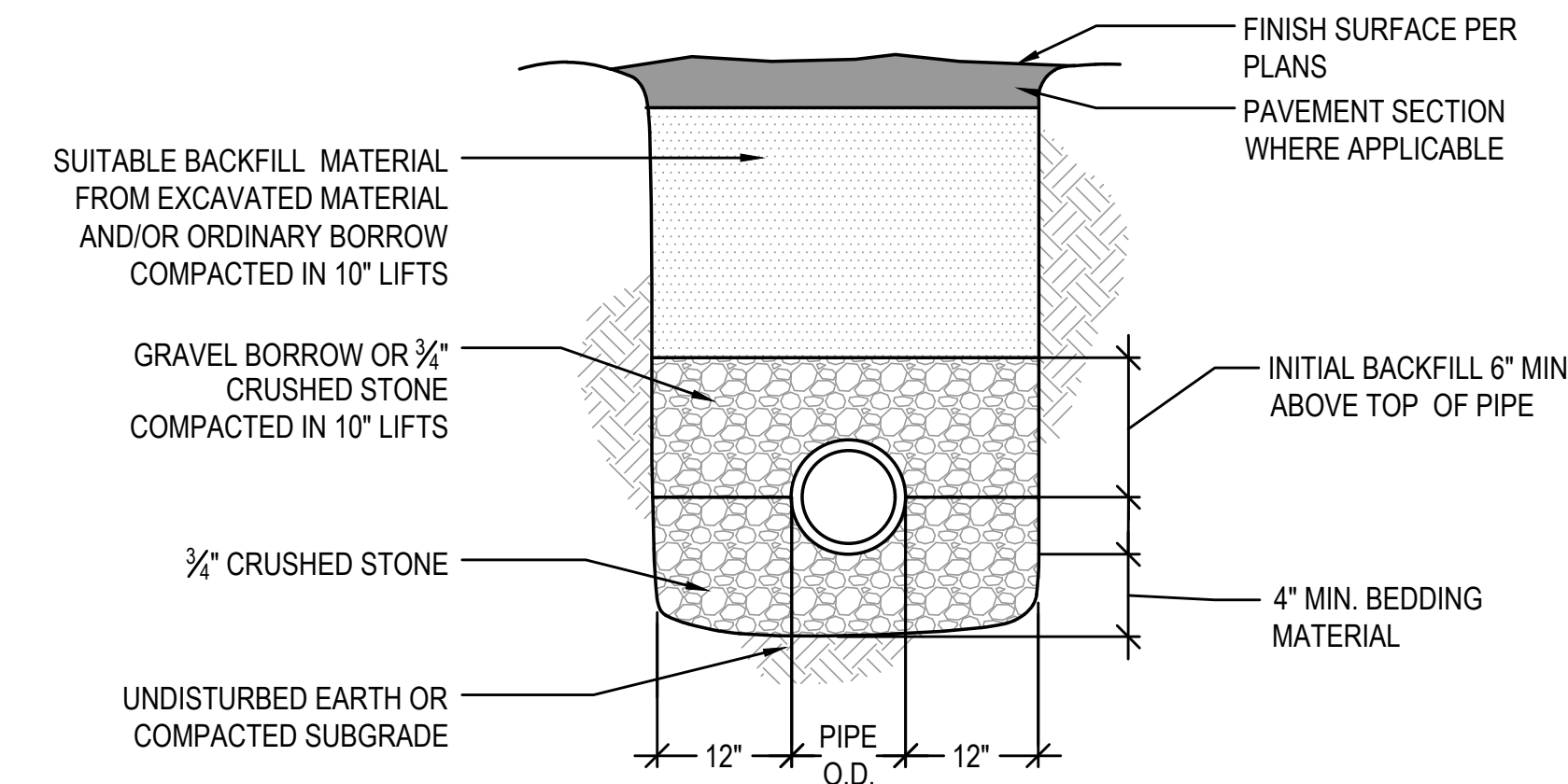
- NOTES:
- SOIL MIX FOR BACKFILL SHOULD BE A MIXTURE OF SAND, COMPOST, AND SOIL.
 - 40% SAND, 20 - 30% TOPSOIL, 30 - 40% COMPOST
 - SAND SHOULD BE GRAVELLY SAND THAT MEETS ASTM D 422.

3 NATURAL TURF SOFTBALL DRAINAGE
 N.T.S.



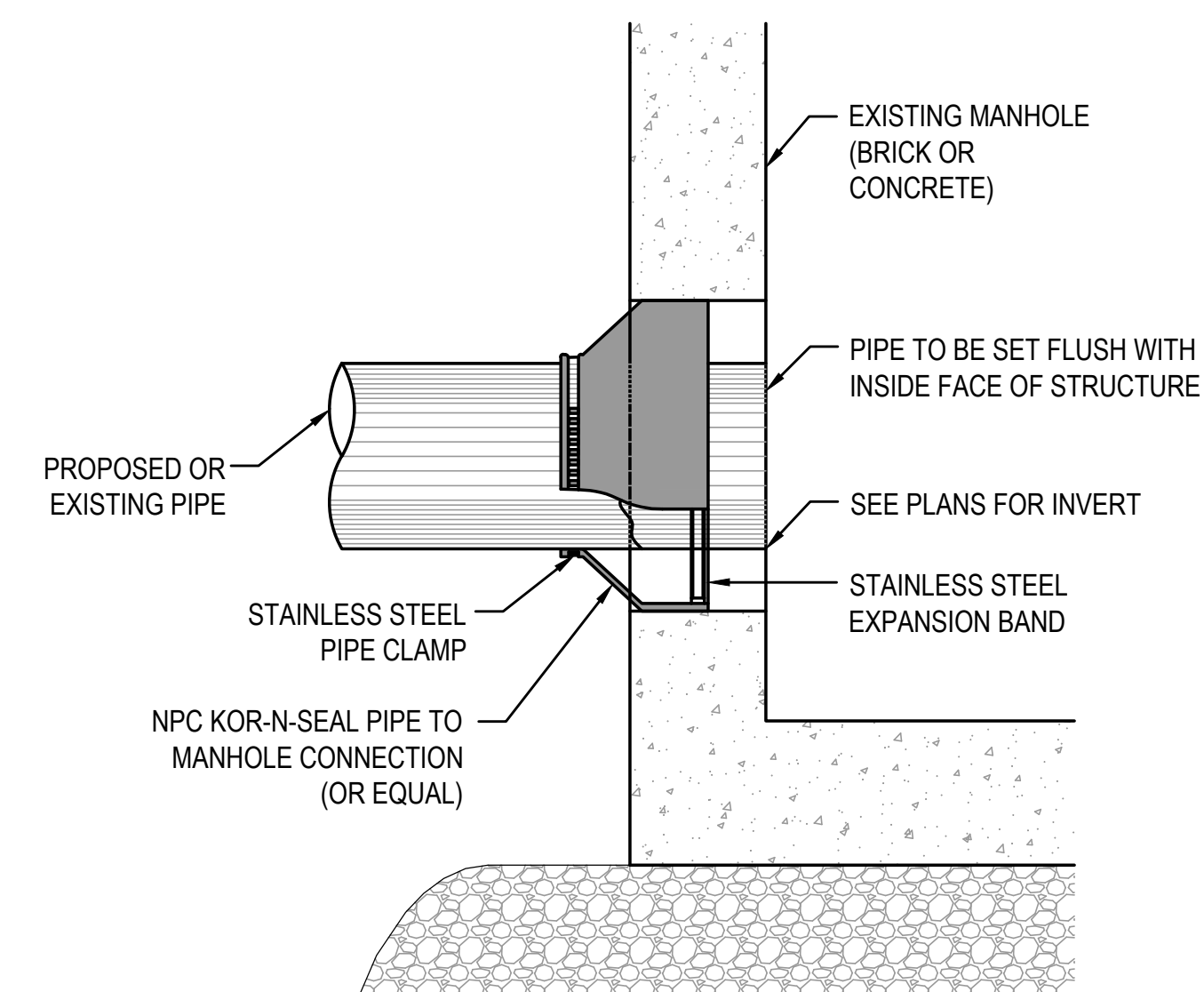
- NOTES:
- CONTRACTOR SHALL PROVIDE SHEETING, TRENCH BOX OR SLOPED WALLS IN ACCORDANCE WITH APPLICABLE SAFETY REGULATIONS.
 - SOIL MIX FOR BACKFILL SHOULD BE A MIXTURE OF SAND, COMPOST, AND SOIL.
 - 40% SAND, 20 - 30% TOPSOIL, 30 - 40% COMPOST
 - SAND SHOULD BE GRAVELLY SAND THAT MEETS ASTM D 422.

2 (UP TO 24" DIA.) PERFORATED HDPE TRENCH DETAIL
 N.T.S.



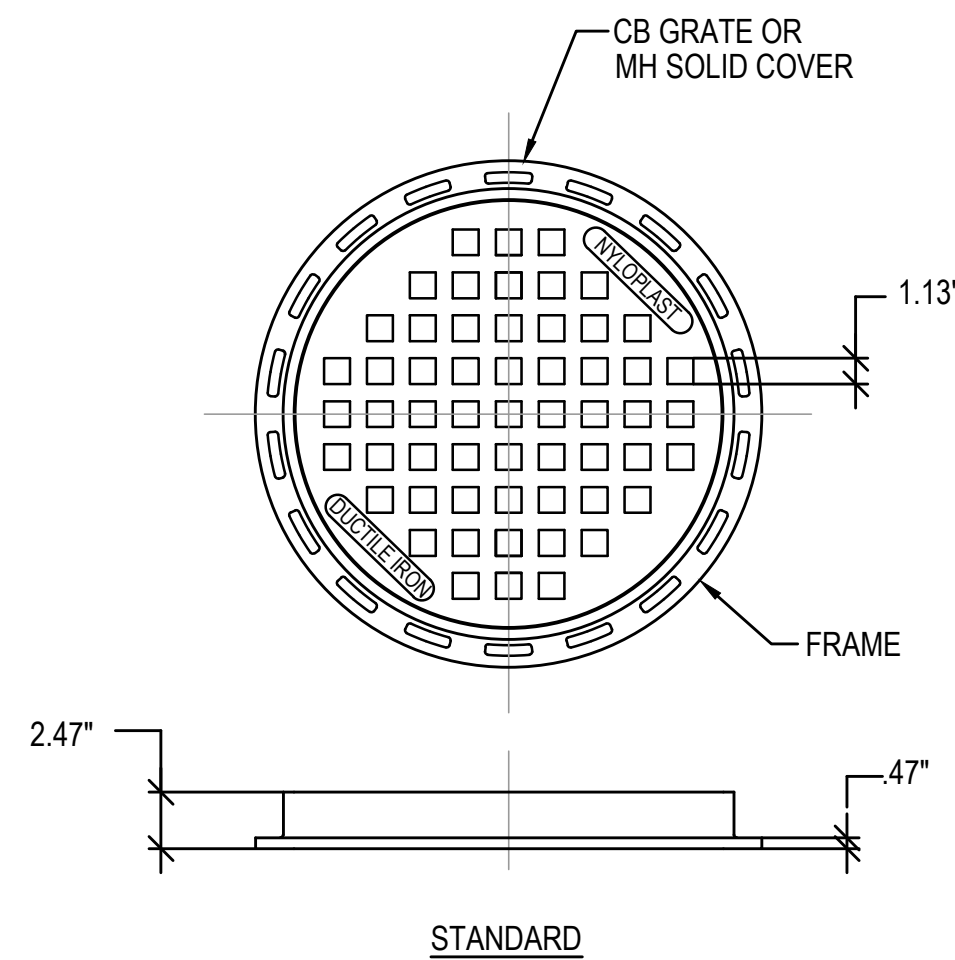
- NOTES:
- CONTRACTOR SHALL PROVIDE SHEETING, TRENCH BOX OR SLOPED WALLS IN ACCORDANCE WITH APPLICABLE SAFETY REGULATIONS.
 - PAVEMENT SHALL BE SAWCUT PRIOR TO TRENCHING.
 - UNEVEN OR BROKEN PAVEMENT EDGES SHALL BE SAWCUT PRIOR TO PATCHING.
 - PAVEMENT PATCH THICKNESS SHALL MATCH EXISTING PAVEMENT THICKNESS.

1 (UP TO 24" DIA.) NON-PERFORATED HDPE TRENCH DETAIL
 N.T.S.



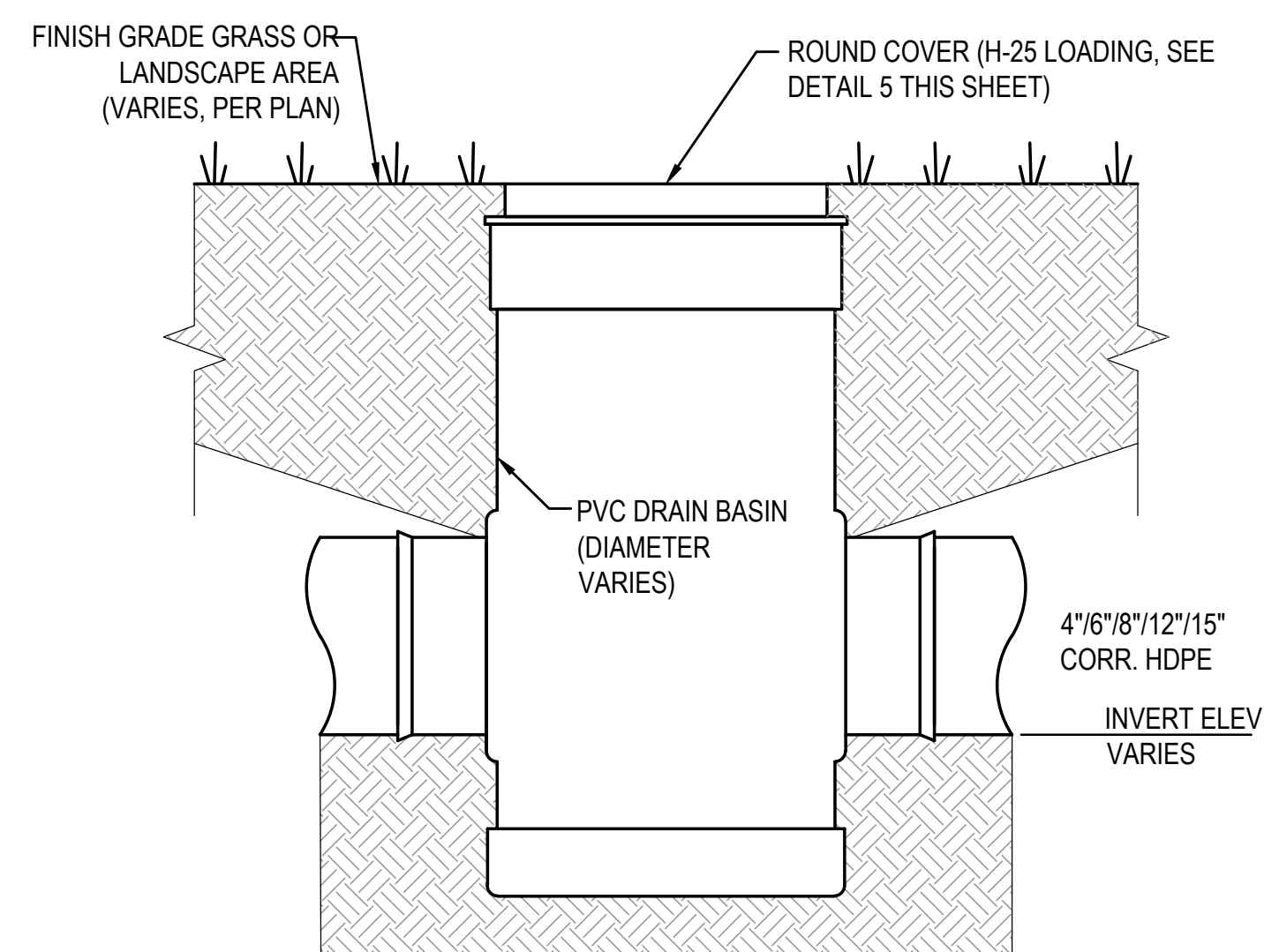
- NOTE:
- ALL METAL FIXTURES SHALL BE STAINLESS STEEL.
 - SERVICE LINE SHALL BE FLUSH WITH THE INSIDE OF THE MANHOLE.
 - FOR PROPOSED MANHOLE INSTALLATION AT EXISTING PIPE, CONTRACTOR SHALL EXTEND PIPE INTO NEW MANHOLE USING A SPOOL PIECE (OF SAME PIPE MATERIAL) WITH FERNCO COUPLES.

6 CONNECTION TO MANHOLE
 N.T.S.



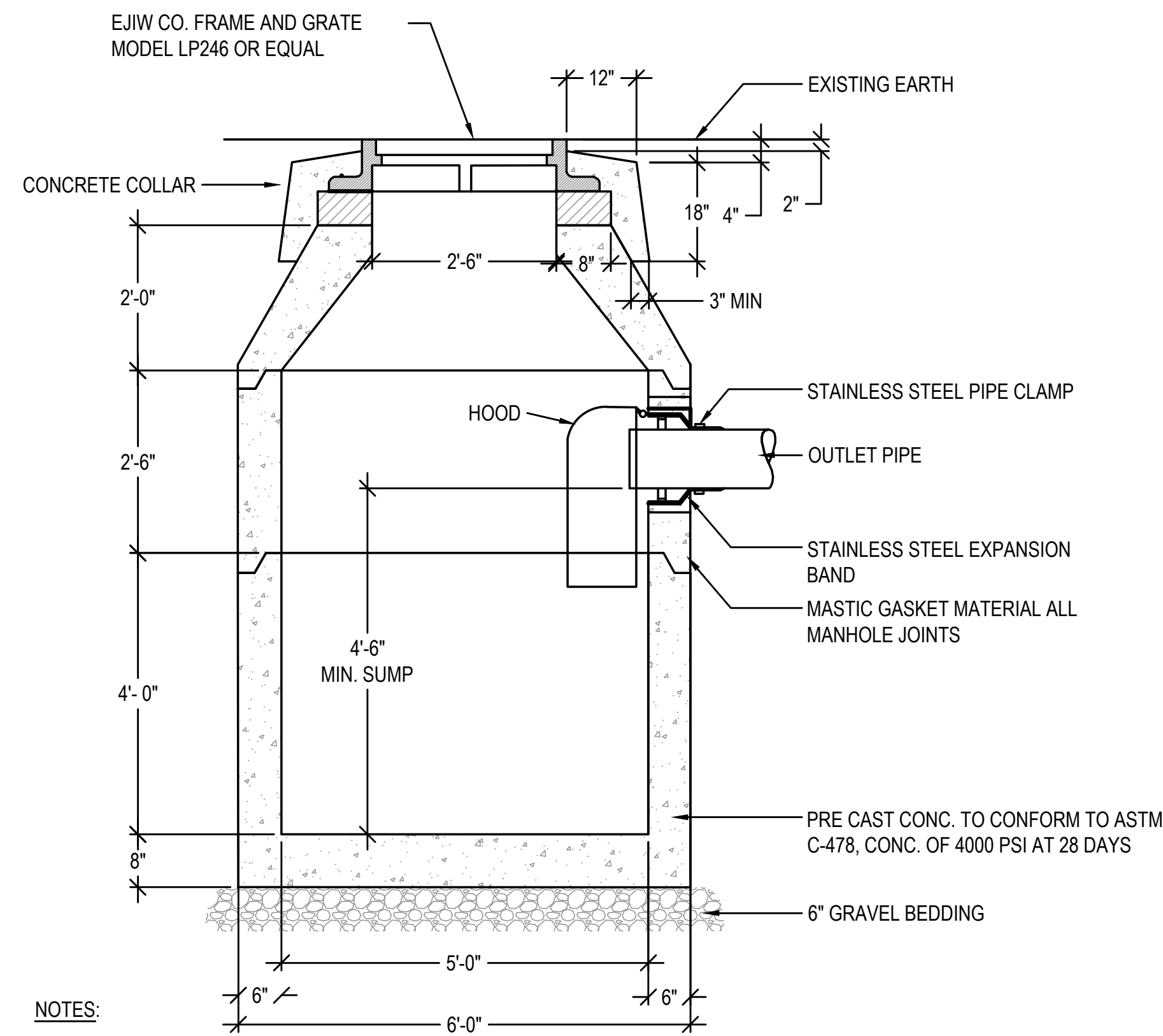
- NOTES:
- STANDARD MANHOLE SOLID COVER HAS H-25 HEAVY DUTY RATING
 - STANDARD CATCH BASIN GRATE HAS H-25 HEAVY DUTY RATING
 - QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
 - MATERIAL: DUCTILE IRON
 - PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
 - LOCKING DEVICE 5/16-18 ZINC GOLD HEX BOLT 1" LG USE 1/2" SOCKET TO REMOVE, 2 PLACES

5 NYPOLAST MH/CB COVER
 N.T.S.



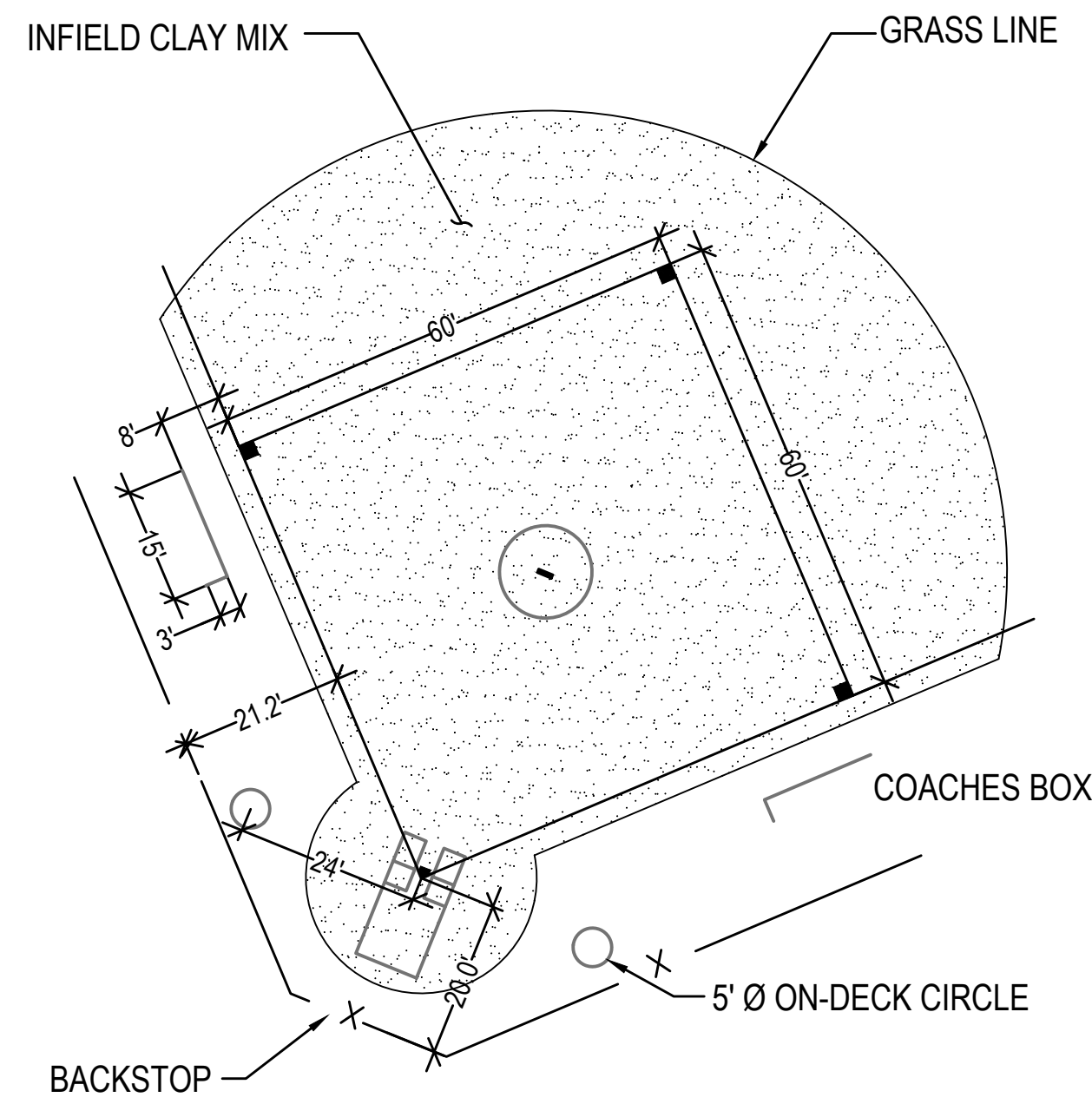
NOTE:
 FOR STRUCTURE LOCATIONS, SEE GRADING AND DRAINAGE PLAN.

4 PVC DRAIN MANHOLE OR CATCH BASIN
 N.T.S.

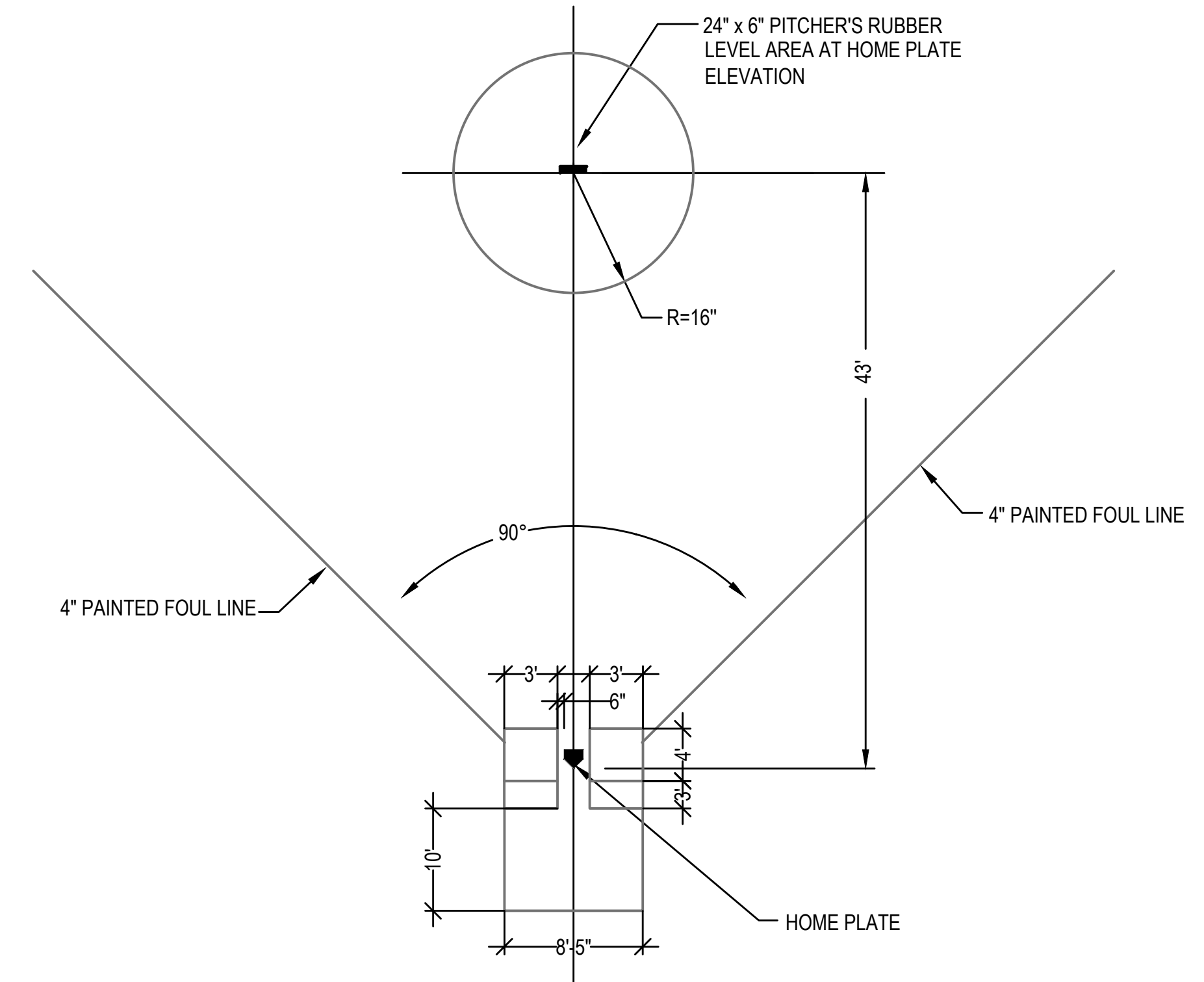


- NOTES:
1. REINFORCED STEEL CONFORMS TO LATEST A185 SPEC. 0.12 SQ. IN./LINEAL FT. (0.15 SQ. IN. FOR 60" DIA) AND BASE BOTTOM.
 2. CONCRETE COMPRESSIVE STRENGTH-4000 PSI MIN.
 3. MANHOLE DESIGN CONFORMS TO LATEST ASTM C478 SPEC. FOR "PRECAST REINFORCE CONCRETE MANHOLE SECTIONS".
 4. JOINT SEALANT SHALL BE SYNTHETIC RUBBER GASKET THAT COMPLIES W/ C-443 OR C-361.

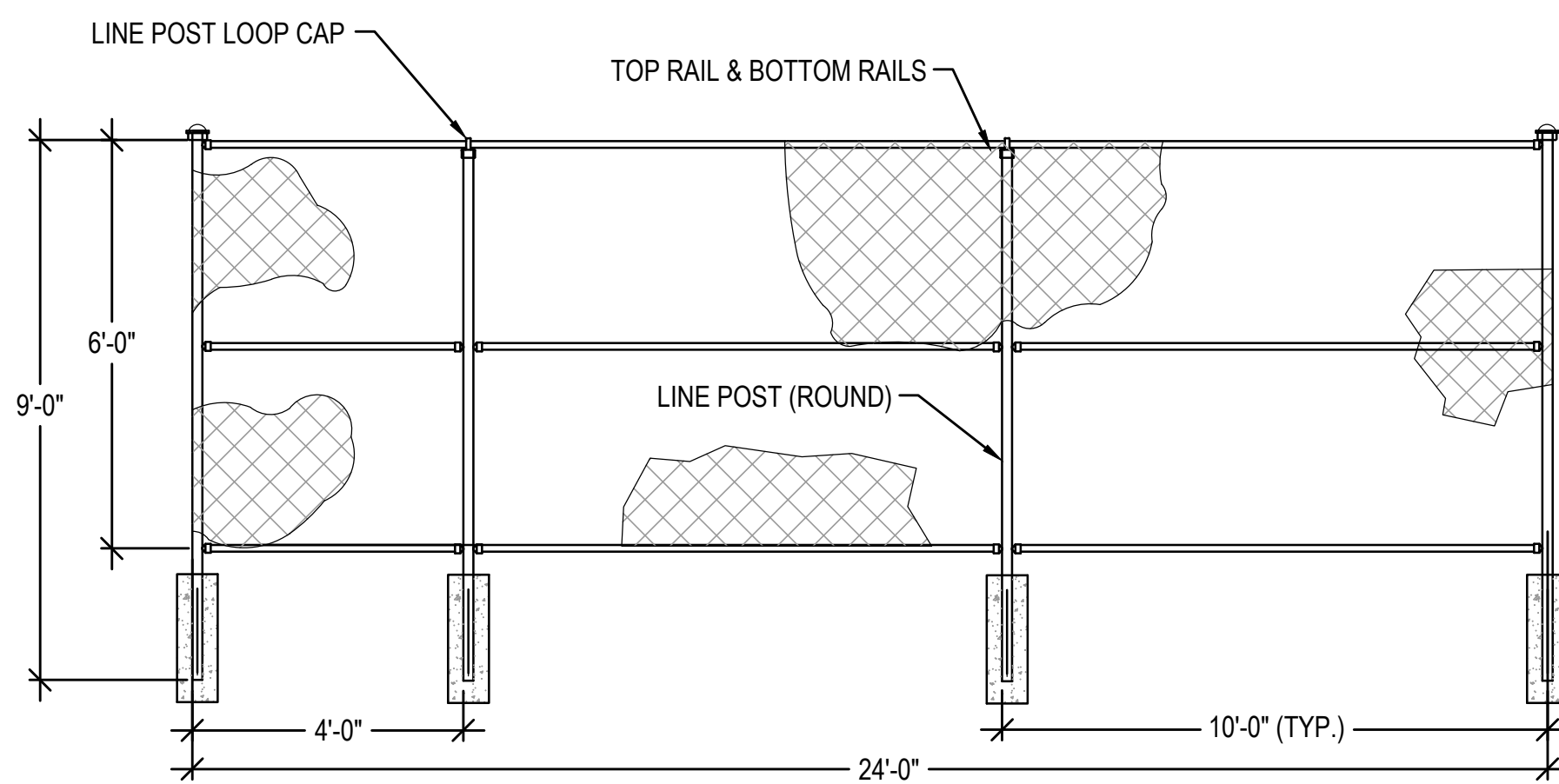
1 **CATCH BASIN**
N.T.S.



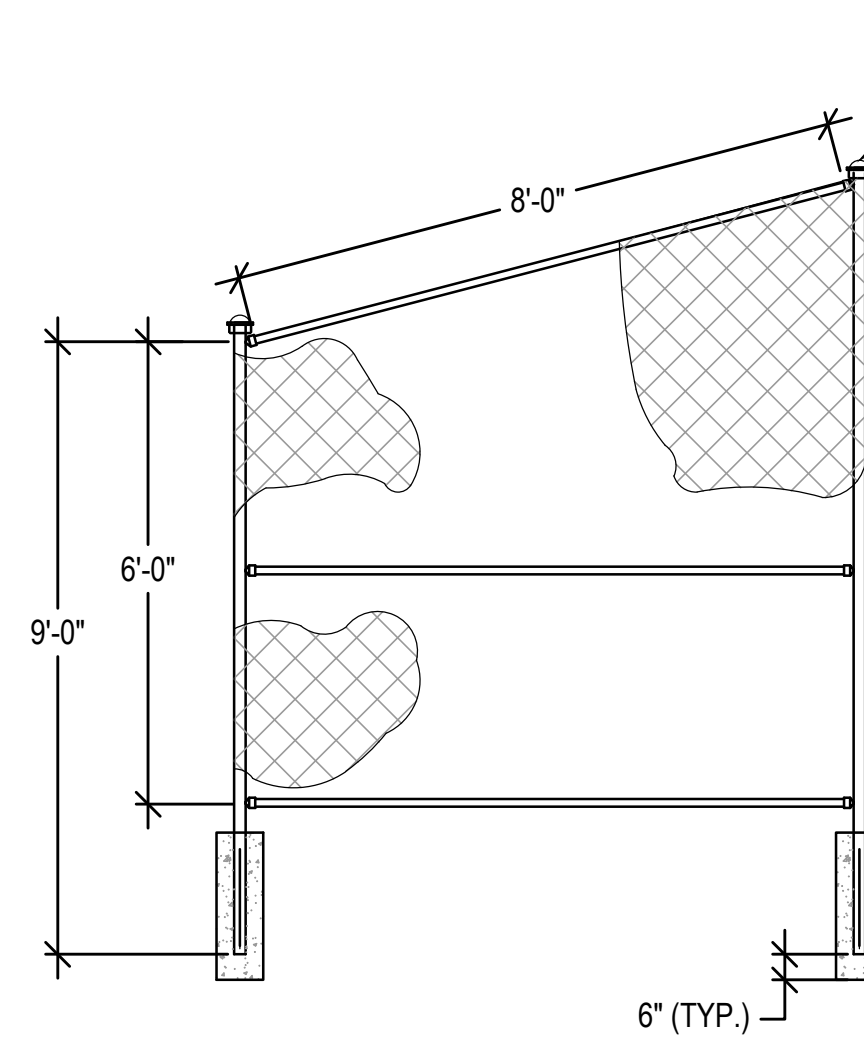
2 **SOFTBALL INFIELD DETAIL**
N.T.S.



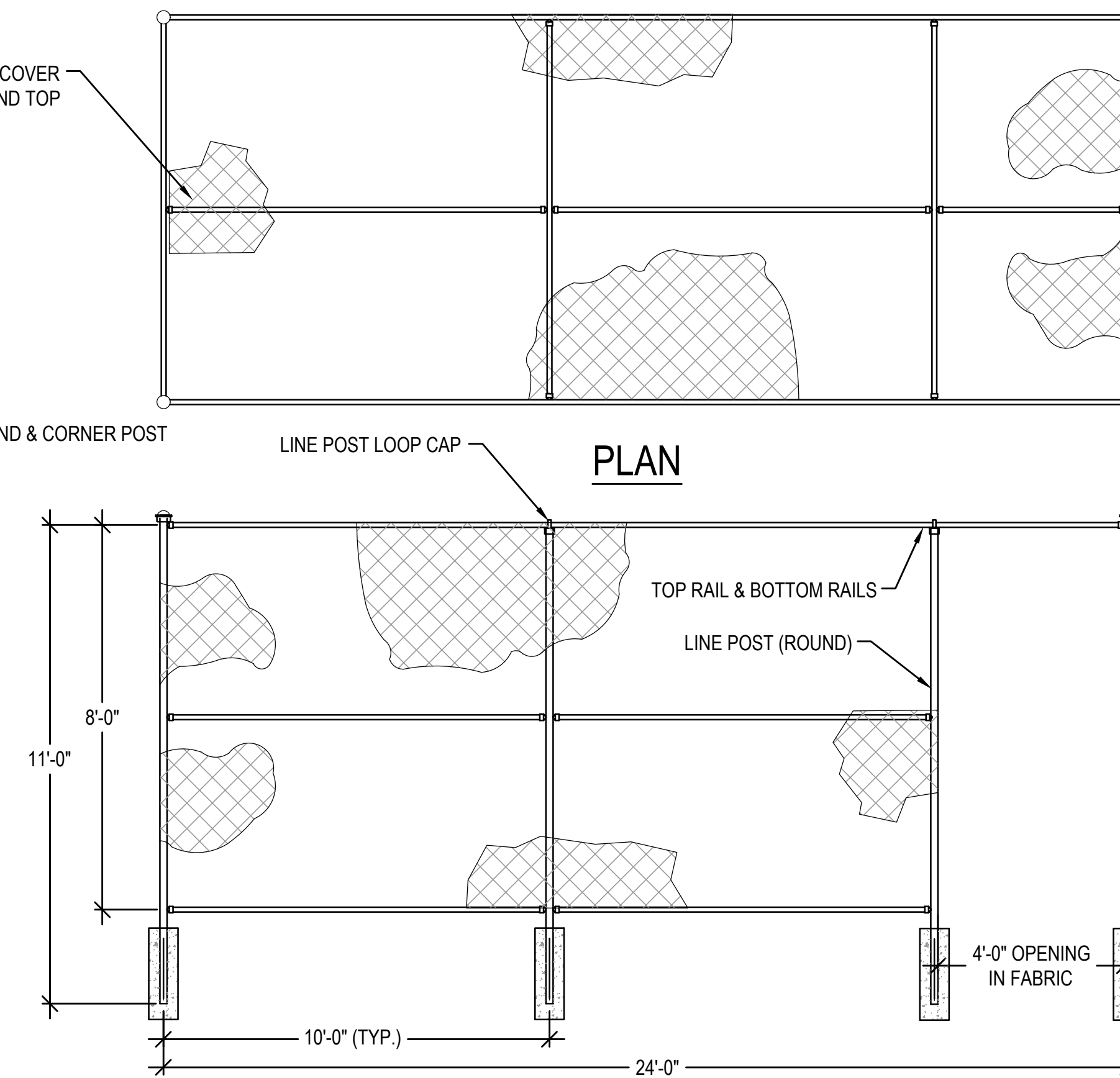
3 **SOFTBALL HOME PLATE/PITCHER'S MOUND LAYOUT**
N.T.S.



REAR ELEVATION



SECTION ON C



FRONT ELEVATION

4 **CHAIN LINK FENCE DUGOUT**
N.T.S.



Gale Associates, Inc.
Engineers and Planners
5 MOULTON STREET | SUITE 201
PORTLAND, ME 04101
P 207.536.1092 www.gainc.com
Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2022

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
34 KNOWLTON STREET
CAMDEN, ME 04843**

OWNER
**MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
7 LIONS LANE
CAMDEN, ME 04843**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	718830		
CADD FILE	718830_CS01		
DESIGNED BY	ROT		
DRAWN BY	ROT		
CHECKED BY	BDS		
DATE	10/4/2023		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

**DETAIL SHEET
3 OF 4**

DRAWING NO.

C503

9 OF 11

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
 CAMDEN ROCKPORT MIDDLE SCHOOL
 34 KNOWLTON STREET
 CAMDEN, ME 04843**

OWNER
 MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
 7 LIONS LANE
 CAMDEN, ME 04843

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		718830	
CADD FILE		718830_CS01	
DESIGNED BY		ROT	
DRAWN BY		ROT	
CHECKED BY		BDS	
DATE		10/4/2023	
DRAWING SCALE		N.T.S.	

GRAPHIC SCALE

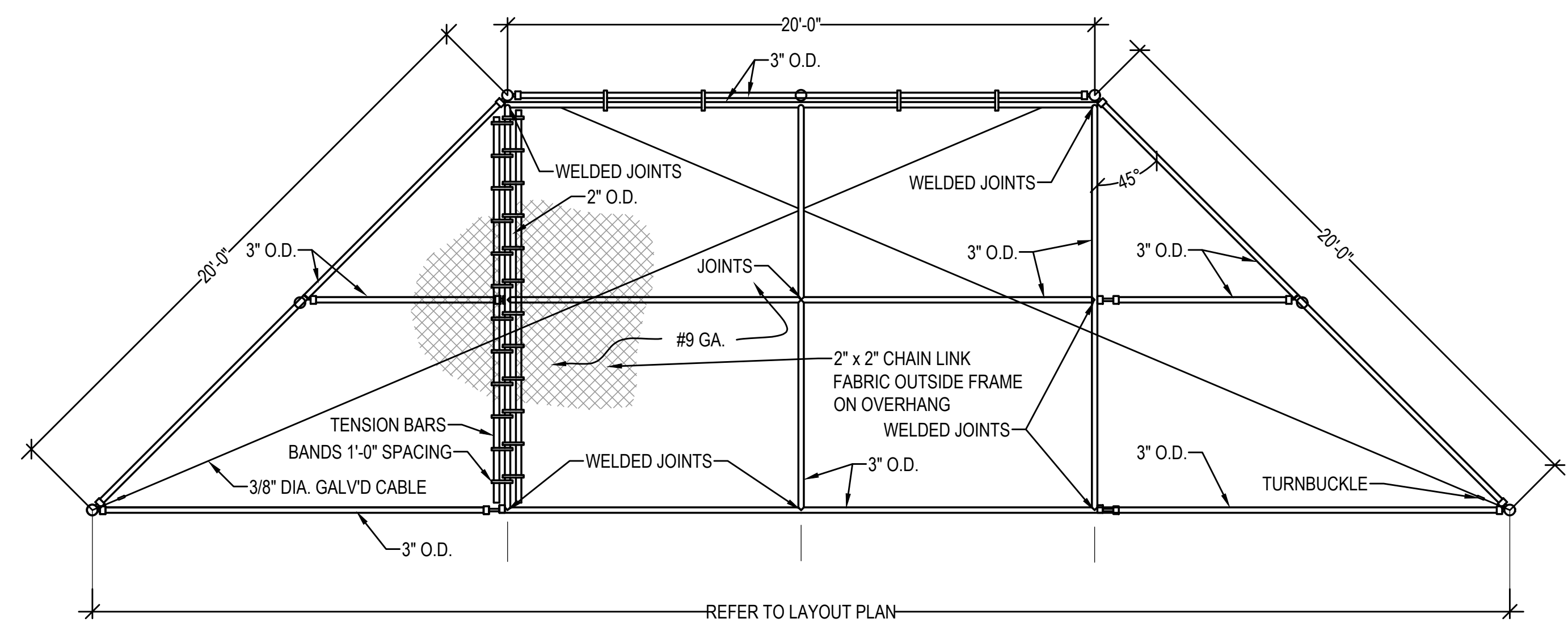
SHEET TITLE

**DETAIL SHEET
 4 OF 4**

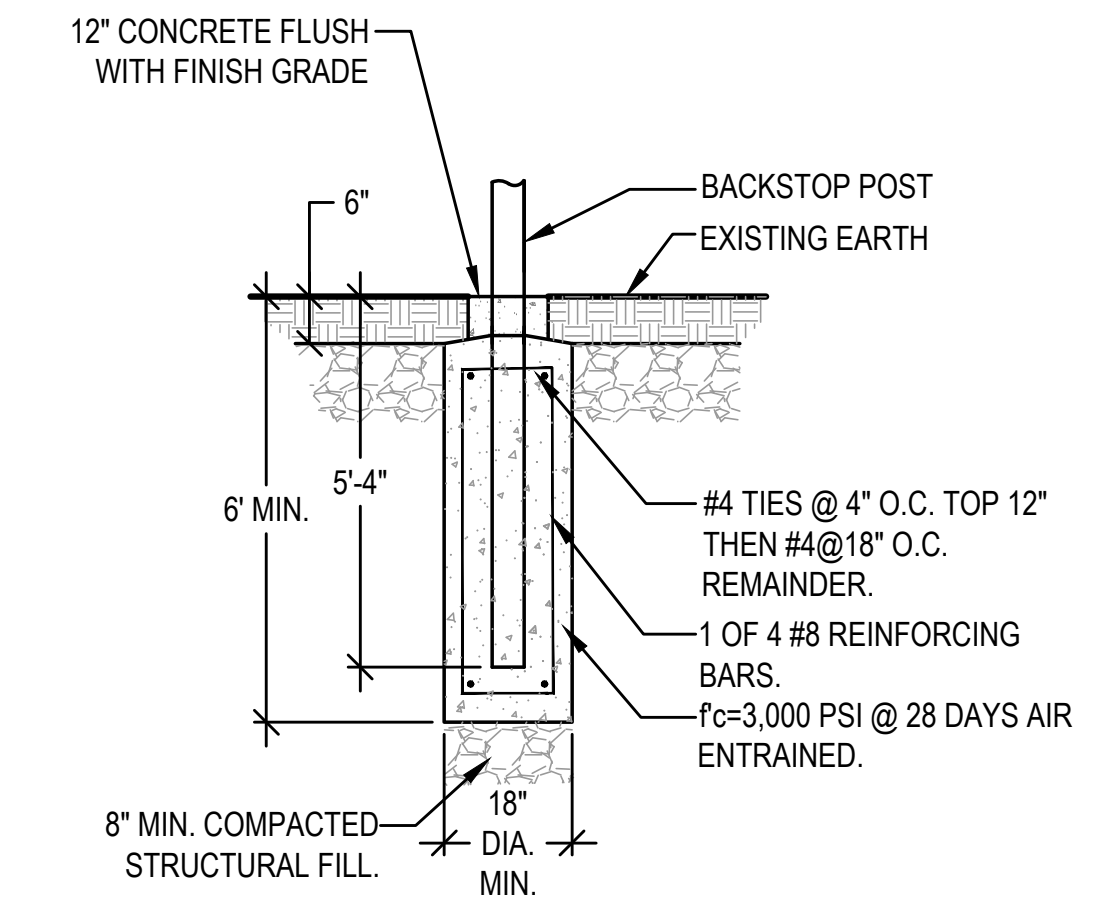
DRAWING NO.

C504

10 OF 11



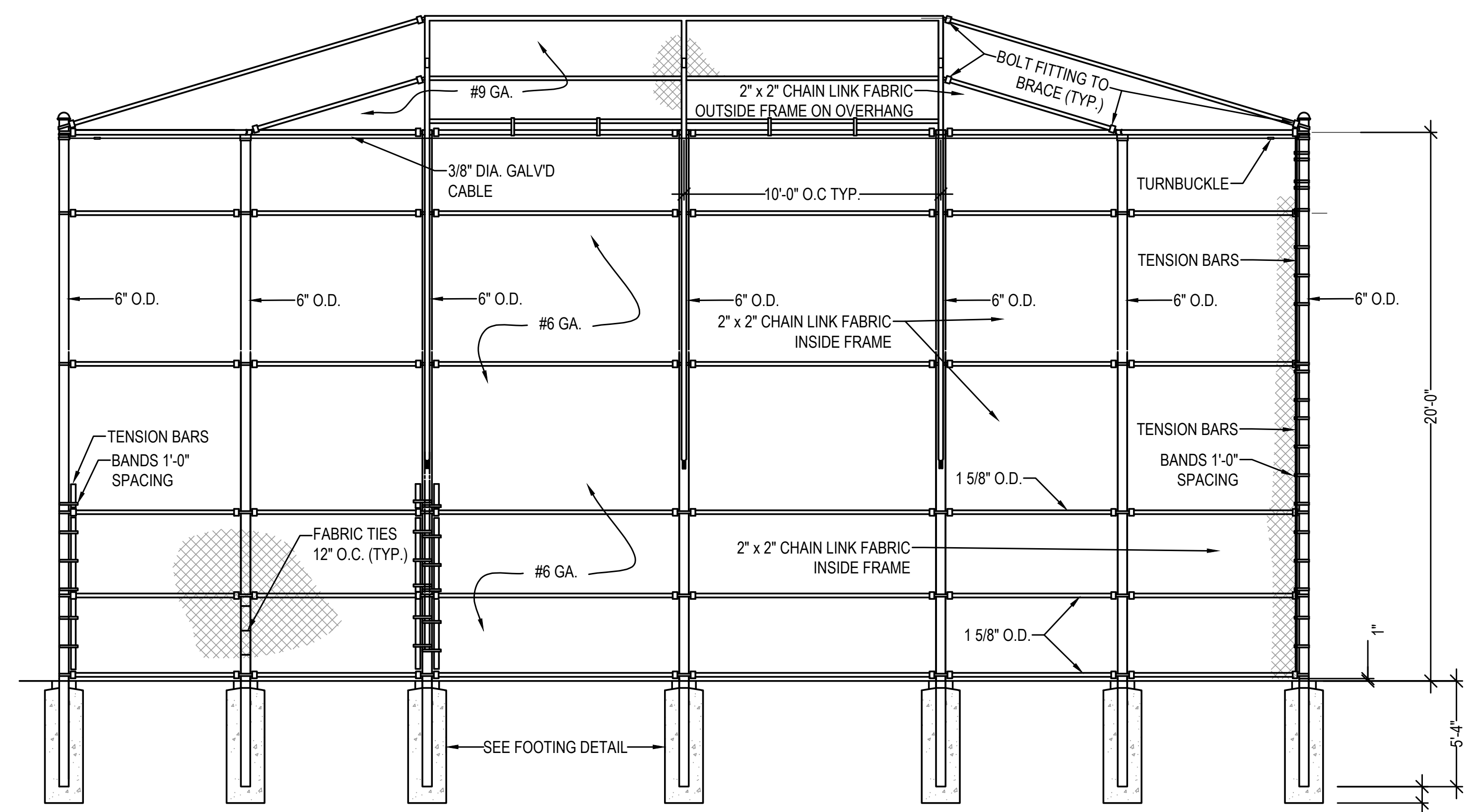
PLAN



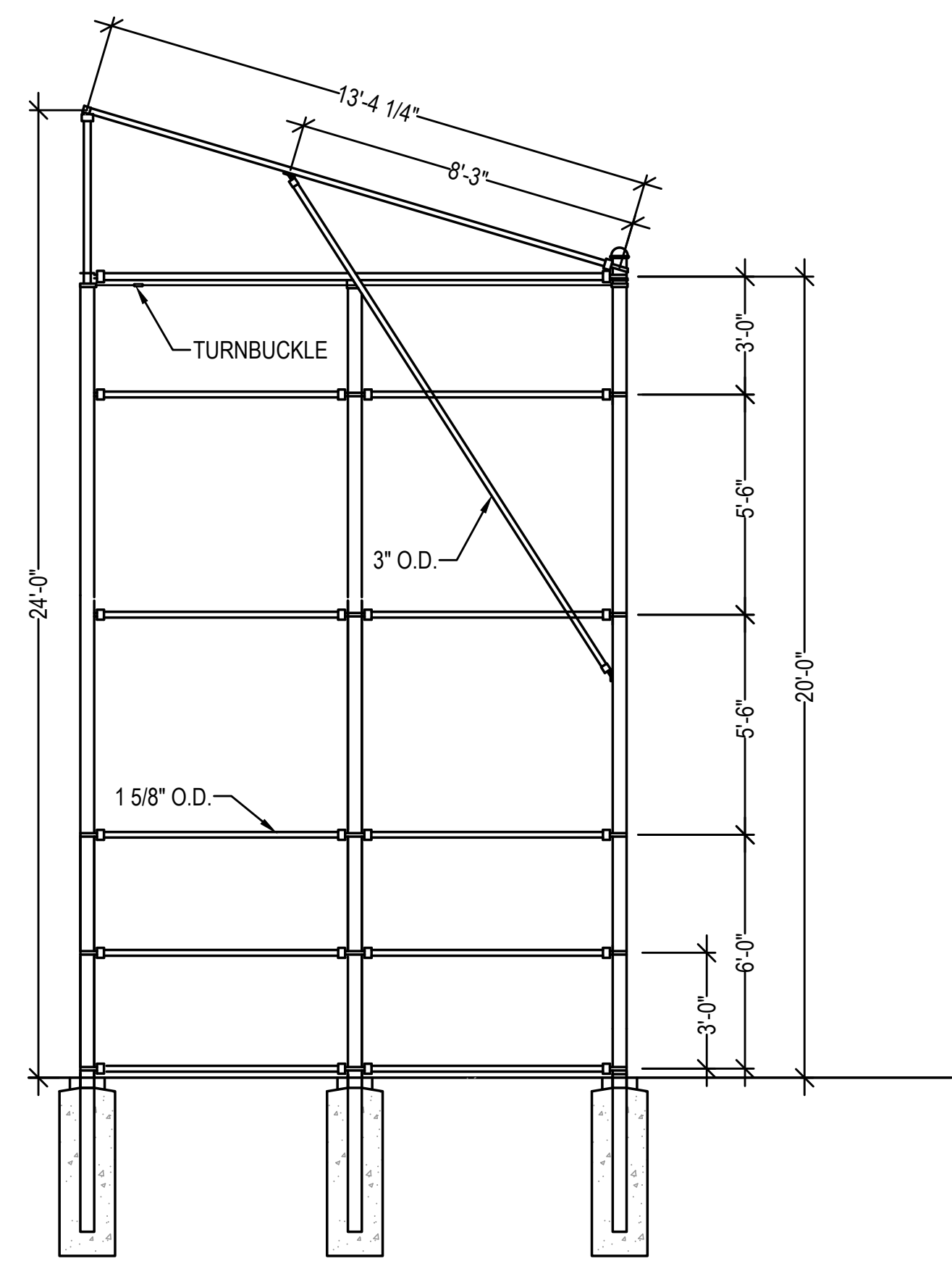
FOOTING NOTE:

- CONTRACTOR SHALL PROVIDE FOUNDATION DESIGN STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE PRIOR TO INSTALLATION.

FOOTING

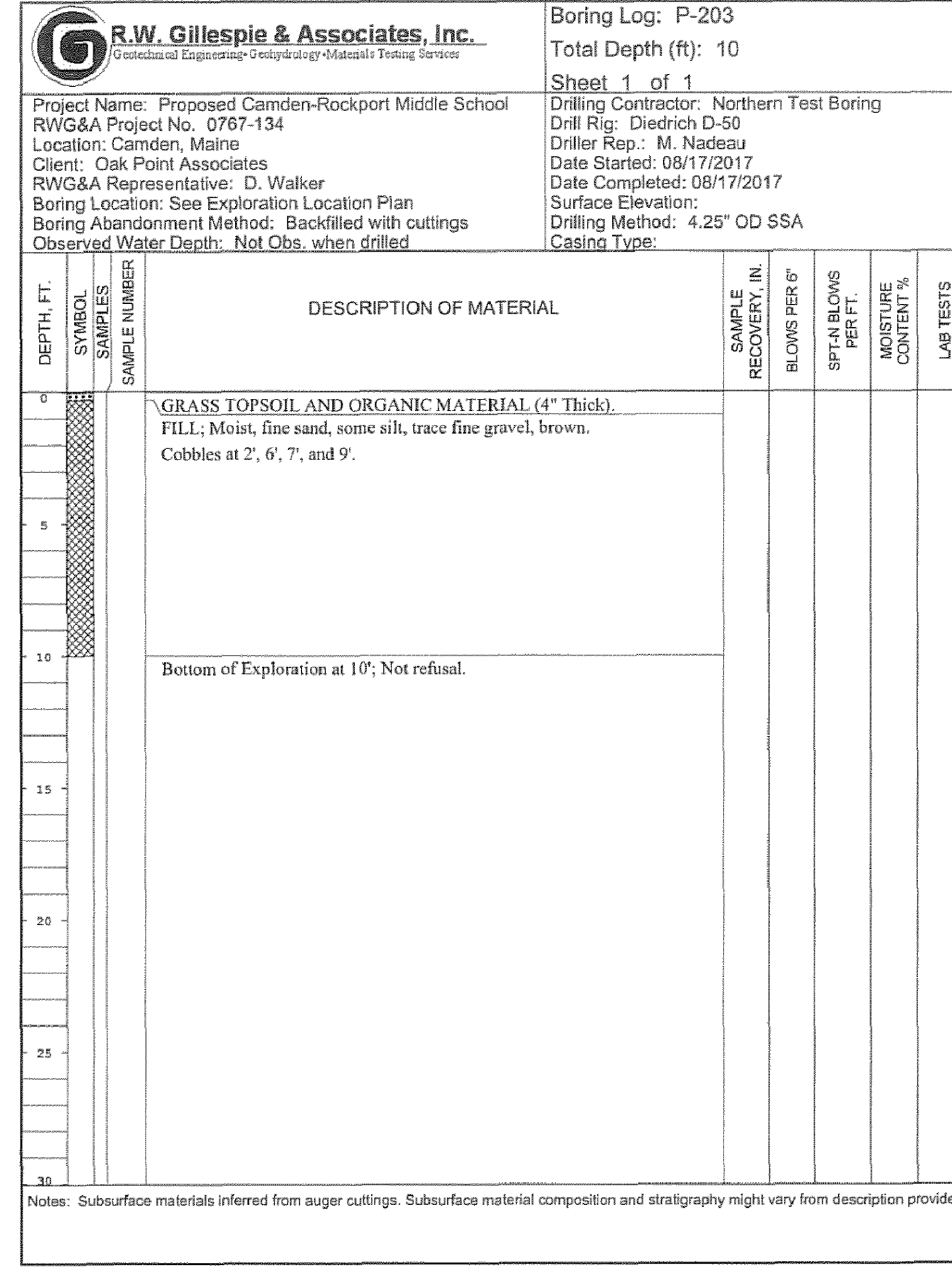
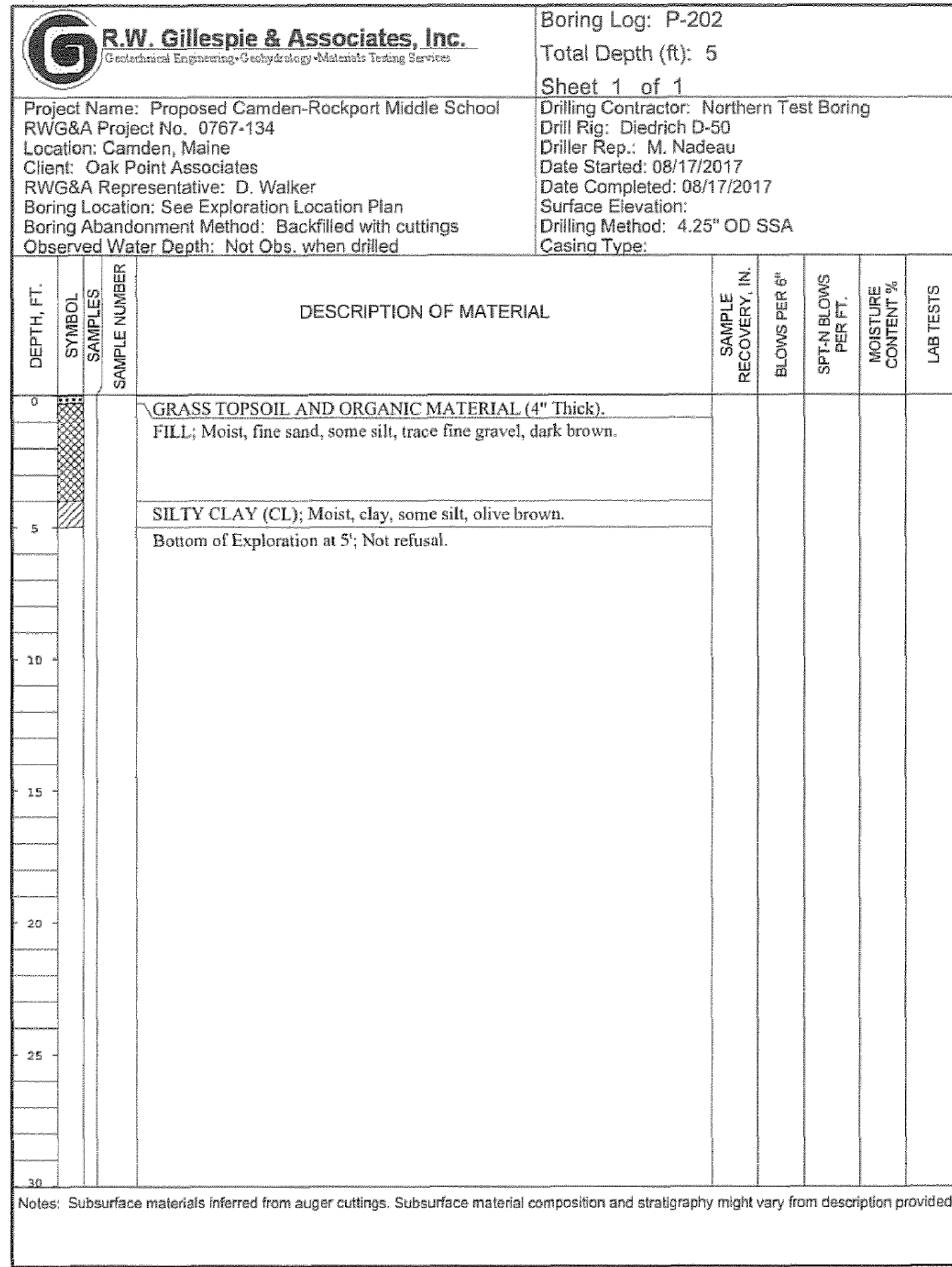
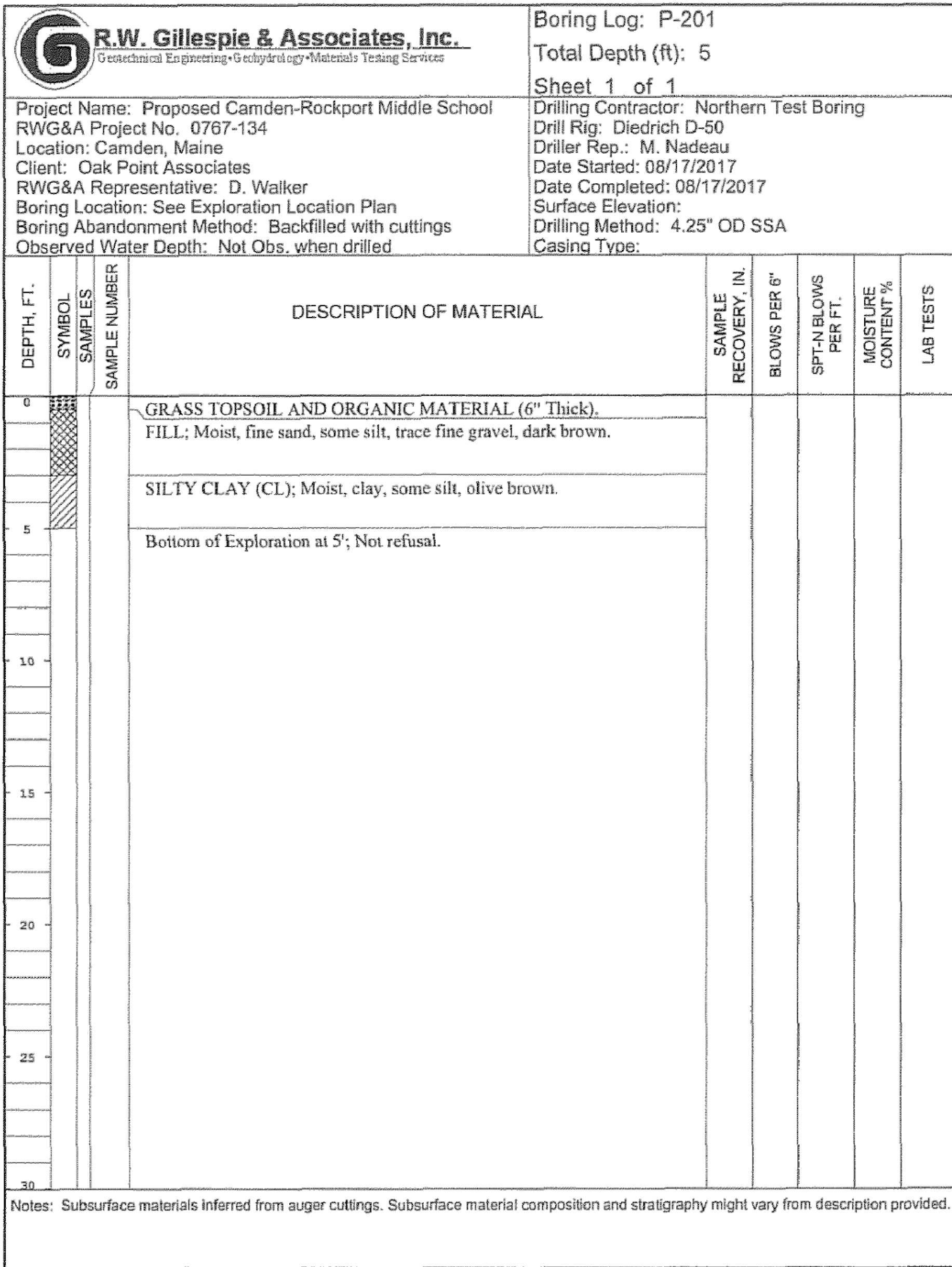


FRONT ELEVATION



SECTION ON C-C

1 BACKSTOP DETAIL
 N.T.S.



TEST PIT LOGS WERE OBTAINED FROM RECORD PLANS TITLED "CAMDEN-ROCKPORT MIDDLE SCHOOL" PRODUCED BY OAK POINT ASSOCIATES, DATED FEBRUARY 2018.

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	718830		
CADD FILE	718830_CS01		
DESIGNED BY	RDY		
DRAWN BY	RDY		
CHECKED BY	BDS		
DATE	10/4/2023		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

TEST PIT LOGS

DRAWING NO.
C505

11 OF 11

GALE
Engineers and Planners
5 MOULTON STREET | SUITE 201
PORTLAND, ME 04101
P 207.536.1092 www.gainc.com
Boston Baltimore Portland Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2022

BID SET

PROJECT
**ATHLETIC FIELD IMPROVEMENTS
CAMDEN-ROCKPORT MIDDLE SCHOOL
34 KNOWLTON STREET
CAMDEN, ME 04843**

OWNER
**MAINE SCHOOL ADMINISTRATIVE DISTRICT #28
7 LIONS LANE
CAMDEN, ME 04843**