

ADDENDUM NO. 2
TO
BIDDING AND CONTRACT
REQUIREMENTS AND SPECIFICATIONS
FOR THE
TOWN OF EXETER, NH CONTRACT 4 WWTF LAGOON NO. 1 SLUDGE REMOVAL
WP PROJECT NO. 12883C-C4

4/17/2020



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TOWN OF EXETER, NH CONTRACT 4 WWTF LAGOON NO. 1 SLUDGE REMOVAL

ADDENDUM NO. 2

WP PROJECT NO. 12883C-C4

As a point of clarification, it should be understood that the Contract Documents govern all aspects of the project. Discussions held via telephone or via email are informal and informational only. All official changes to the Contract Documents are made only by addenda. The following changes and additional information are hereby made a part of the Contract Documents:

SPECIFICATIONS

1. Specification Section 00310 – Bid Form. **REPLACE** this section in its entirety with the attached version.
2. Specification Section 01150A – Measurement and Payment, Section 1.9.B.2. **DELETE** this section in its entirety and **REPLACE** with the paragraph below.

(2) Removal and Disposal of Lagoon Sludge (from Addendum No. 1)

- A. Method of Measurement: Sludge removal and conveyance to geotextile dewatering tubes measured for payment shall be the net weight of dry tons. The quantity of removed sludge to be measured for payment under this item shall be the calculated number of dry tons of sludge removed from the site as described in Section 02001. The Contractor will retrieve one representative core sample and measure the height of each geotextile tube 3 to 5 days following final filling and provide to the Owner's independent lab testing agency under chain of custody. An independent lab testing agency, at the Owner's expense, will test the sample for total percent solids. If the sludge is not a minimum 15% total percent solids, the Contractor will be responsible for additional testing using the Owner's independent lab testing agency. Using the measured height of the tube, the total filled volume will be calculated from the manufacturer's approved dimension to volume curve, which will be multiplied by the percent solids to determine the dry tons of solids removed. Polymer addition as well as other additives or bulking agents, which are required to be tracked and quantified by the contractor using a flow meter or other acceptable means, will be deducted from the calculated total dry solids to determine the final measured payment net weight of dry tons. Chemical odor control addition, if deemed necessary by the Owner and Engineer, will not be deducted from the calculated total dry solids.
- B. Basis of Payment: The contract unit price per dry ton shall be full compensation for all labor, materials, tools, and equipment necessary to complete this work including: pumping, electrical costs, chemicals, amendment and other additive materials, safety, repair of damaged lagoon facilities, sludge testing and laboratory analyses, stabilization treatment, permitting, final sludge profile measurements, and all else incidental thereto and all in accordance with all applicable permit

requirements and the requirements of the Contract Documents, for which payment is not provided under other items.

3. Specification Section 02001 – Lagoon Sludge Removal, Section 3.2.A. **ADD** the following sub sections:
 - 1) Dewatering Cell 1 (Snow Dump Area) shall be prepared and graded to pitch to the south, with poly liner and filtrate sump. This area does not require a perimeter ditch or berm. Contractor shall install a sump with sump pump to pump filtrate to a nearby EQI manhole as shown on the Drawings. Sump pump shall be sized to prevent ponding of water within the Dewatering Cell. Following demobilization, the sump pump will be replaced by a Town owned pump.
 - 2) Dewatering Cell 2 (Lagoon 3 Area) shall be prepared and stabilized prior to placing the poly liner. Refer to the Drawings for details.
 - 3) Dewatering Cell 3 (Materials Storage Area), if used, shall not require surface preparation except as needed to achieve proper slope and to remove anything that may damage the geosynthetic tubes. The cell must include an impervious surface, drainage area, drainage ditch, berm, and sump pump.

4. Specification Section 02001 – Lagoon Sludge Removal, Section 3.2.H. **DELETE** sentence in its' entirety and **REPLACE** with the following: “Geotextile tubes will initially be placed in Dewatering Cell 1 while Dewatering Cell 2 is being prepared. After Dewatering Cell 1 is filled with a single layer geotextile tubes and after Dewatering Cell 2 is prepared, Dewatering Cell 2 may be used. If Dewatering Cell 2 becomes full, the Contractor may go back to Dewatering Cell 1 and stack a second layer of geotextile tubes or may prepare Dewatering Cell 3. Stacked geotextile tubes must be secured in place per manufacturer’s requirements. Testing for payment must be completed prior to stacking a second layer of geotextile tubes.”

5. Specification Section 02001 – Lagoon Sludge Removal, Section 3.3.B. **DELETE** sentence in its' entirety and **REPLACE** with the following: “The Contractor shall remove the total accumulated sludge from Lagoon 1 to the bottom elevation of EL 16.0, as measured by an average depth of sludge of 3-inches and no greater than 6-inches using a sludge sampler at multiple locations representative of the entirety of Lagoon 1.”

DRAWINGS

Drawing C4-1: **REPLACE** with the attached revised version.

Drawing C4-3: **REPLACE** with the attached revised version.

QUESTIONS AND ANSWERS

Questions received from Contractors:

- 1. What classification of worker do you consider appropriate for the workers at this project and what is that prevailing wage?**
The project is considered Heavy Designation, refer to the Davis Bacon rates provided in the Supplemental Conditions. The specific classification of worker will be determined based on the work being performed, if additional classifications are needed then they will need to be requested after contract award. Refer to Supplemental Conditions 00800 SC-20 Attachment B for further information on wage classifications, wages and requesting wage determinations.
- 2. Is there any silt fence required for any of this project?**
Yes, some erosion control fencing will be required as shown on the revised drawings.
- 3. Will the plant operators take over the management of any filtrate water exiting the tubes when the project is complete and the contractor leaves the site? If not, then who?**
The Town will manage filtrate following demobilization except for warranty issues (e.g., tube failure).
- 4. Can the contractor work Monday through Saturday 6 am to 6 pm if needed?**
The Owner is willing to coordinate additional work days and times, however, the Exeter noise ordinance requirements must still be complied with.
- 5. Is there a fee for using the city water from the hydrant for the polymer feed system? If so, what is the rate per 1000 gallons?**
The intent is to use onsite plant water (disinfected WWTF effluent) for polymer dilution and carrier water. Plant water would be provided at no cost.
- 6. Has the aeration process in Lagoon 1 remained in service since this Lagoon stopped receiving sludge in 2019?**
Yes, the aerators have been on-line since the lagoon stopped receiving sewage and sludge in 2019.
- 7. What is the engineer's current estimate for this project?**
\$930,000.
- 8. Will the aerators in lagoon 1 be removed by the site personal prior to starting the project?**
Yes, the Owner will remove all aeration devices prior to the project work.
- 9. Can the contractor lower the water in the lagoon to expose the sludge and use a hydraulic pump to remove the sludge rather than a dredge?**
The intent is to keep a "water cap" over the sludge to minimize the propagation of odors. The Owner intends to pump approximately 400 gpm of WWTF final effluent up to Lagoon 1 to help maintain this odor cap as the sludge pumping commences. Unless allowed by the Owner based on conditions in the field during the work, the Contractor needs to maintain a minimum water depth of 12-inches over the sludge surface for odor control at all times.

- 10. Once the main volume of sludge is removed, can the contractor dig 2 or 3 sumps in the bottom of the lagoon so they can push the sludge into the sump with a skid steer in order to get all the sludge out of the lagoon?**

This will be considered by the Owner based on the odor conditions at that time in the project. If odors are not acceptable, the minimum water depth shall be maintained.

- 11. Is a NH General Contractor's License required for this project?**

No.

- 12. The current COVID-19 pandemic makes travelling to the site very difficult considering travel restrictions in several states. Will the Owner consider postponing the bid date to allow sufficient time for bidders to travel to the site to obtain sludge samples? We understand the owner has postponed the bid due date until April 24, but we are requesting that the town provide an additional week to obtain and analyze samples of the sludge to be processed. Can sludge samples be collected by the Owner for analysis by the Contractors?**

No, the bid due date will remain April 24. In order to address this issue of travel restrictions, the Owner offered to collect representative sludge samples for any Contractor wishing to send the Town a sample kit. Sludge sample kits were received by the Owner from Contractors the week of 4/6/2020. Samples were collected and shipped back out, per their sampling, chain of custody and shipping requirements on 4/9/2020.

- 13. There is a gravel packed area I am including pictures of. Will that area be available to us as a lay down area?**

A laydown area has been indicated on the revised drawings. There are several other small areas on-site that can be made available for laydown.

- 14. Does the plant require that we line the dewatering cell? If so, what are the specs for a liner?**

Yes, refer to Section 02001-3.2

- 15. Is there 120 V power and make up water of at least 30 gpm on-site for operating the polymer station?**

There is electrical power available at several locations, a few are named in Section 02001-3.1F. There are several plant water hydrants available throughout the site.

- 16. When will the Town issue a Notice to Proceed to the Contractor?**

The project will require approval by the Owner (Town Select Board) and NHDES. The goal is to issue Notice of Award and Notice to Proceed in May.

- 17. Does the contract completion date of 8/21/20 require that all the dewatered sludge be removed from the WWTP by the Town's hauler? Or is the completion date related to the dredging and filling of the geotextile tubes?**

The completion date for this contract requires completion of the site preparation, dredging, filling of the geotextile tubes, testing, punchlist completion and demobilization. The geotextile tubes will remain on-site through the winter and will be emptied for disposal at a local landfill in the Summer/Fall 2021. The cost to empty the geotextile tubes and dispose of the dewatered sludge will be paid by the Town of Exeter and is not part of this contract.

- 18. The proposed dewatering area appears drastically undersized for geotextile tube dewatering of 2,000 dry tons of sewage sludge with the time available in the contract? What contingency plan does the Owner have for the Contractor if the area will not accept the proposed quantity?**

Addressed via Addendum 2.

- 19. The specifications require that the dewatered sludge must be 18% solids. Doesn't the material also have to pass the paint filter test or will the Town permit the dewatered sludge to contain free-standing water?**

A paint filter test is not required for this project. The sludge will remain on-site through the winter and into 2021. Note that Addendum 2 changes the requirement to 15% solids.

- 20. When will the dewatered solids be sampled to meet the 18% solids requirement?**

Sampling and measurement of tubes will be conducted no more frequently than weekly, but at least once a month in order to determine percent solids for payment purposes. Note that Addendum 2 changes the requirement to 15% solids.

- 21. How long will the geotextile tubes be allowed to drain before they are tested to meet the 18%?**

Per manufacturer's recommendations for the initial draining period. Note that Addendum 2 changes the requirement to 15% solids.

- 22. Will the geotextile tubes be allowed to drain longer if the initial testing doesn't meet 18%?**

Yes. Note that Addendum 2 changes the requirement to 15% solids.

- 23. The method of measurement and payment seems open to errors. Please explain when and how the contractor will be paid for the dredging and dewatering of the sludge? Will it be a lump sum before or after the material is hauled off-site by the Town's trucking contractor? Would the owner be open to a more consistent method of measurement and payment?**

Payment will occur monthly and be based upon actual quantity of sludge pumped into the geotextile tubes as determined by laboratory testing. Specifics related to testing for solids content, including frequency, will be discussed at the Pre-Sludge Removal Meeting.

- 24. In reference to section 01150A-4 section 2 "removal and disposal of Lagoon sludge", would the owner consider using a typical industry standard of calculating dry tons removed by using a flow meter and auto sampler every 15 minutes to determine total solids, and dry tons be determined by total sludge flow for the day based on the total solids for the day?**

No.

- 25. How many yards or gallons will be dewatered? The specs dictate that all sludge be removed to an average depth of 4" and that we bid on 2000 DT of sludge. If we dredge and dewater 2000 DT prior to attaining an average depth of sludge of 4", do we cease dredging or assume we get paid and continue until reaching an average depth of 4"?**

The Owner's goal is to remove all sludge from Lagoon 1. The amount of sludge in Lagoon 1 has been estimated at less than 2000 DT. The method of measurement was by sludge judge measurement on a 100-ft grid (40 total) with laboratory sampling on each sample for total solids (approximately 1 million cubic feet at an average of 5% total solids)

plus some amount of contingency. The Owner has a fixed budget to complete the project. Depending on the results of the bids, the allowable quantity for Bid Item 2 may need to be adjusted. If there is sludge remaining in Lagoon 1 but the quantity will be exceeded, the dredging will need to cease. It will be critical to establish a protocol in collaboration with the Owner and Engineer in the first week of sludge pumping to correlate DT/geotextile tube to prevent this situation from occurring. Furthermore, a plan for removal will need to be established in Coordination with the Owner and Engineer to ensure areas of high sludge concentration (e.g. corners of the lagoon) have sludge removed prior to reaching the funding limits of the project. These details will be discussed at the Pre-Sludge Removal Meeting.

END OF ADDENDUM NO. 2

Attachments Follow:

Bid Form

Drawing C4-1

Drawing C4-3

SECTION 00310

BID FORM

PROJECT IDENTIFICATION: WWTF Lagoon No. 1 Sludge Removal

THIS BID IS SUBMITTED TO: Town of Exeter, NH
10 Front Street
Exeter, New Hampshire 03833

ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to the Owner, as identified above.
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:
 - A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to

existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at

artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the e execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

BID SCHEDULE

Item No.	Quantity	Brief Description of Item with Bid Price in Words	Unit Bid In Figures	Amount In Figures
1	Lump Sum	Mobilization/Demobilization. See Specification Section 01150. No more than 10% of Total Bid. The Sum of \$ _____ _____	\$ _____	\$ _____
Per Lump Sum				
2	2,000 Dry Tons*	Remove and Dewater Lagoon Sludge. See Specification Sections 02001 and 01150. The Sum of \$ _____ _____	\$ _____	\$ _____
Per Dry Ton				
3	Lump Sum	Supplemental Chemical Odor Control. See Specification Sections 02001 and 01150. The Sum of \$ _____ _____	\$ _____	\$ _____
Per Lump Sum				
4	Lump Sum	Site Preparation. See Specification Sections 02001 and 01150. The Sum of \$ _____ _____	\$ _____	\$ _____
Per Lump Sum				

* Indeterminate quantities assumed for comparison of bids. Quantities are not guaranteed. Payment will be based on actual quantities constructed.

TOTAL BID: Total of Items 1 through 4 above.

(\$ _____)
(use figures)

(use words)

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. Qualifications Statement (Section 00405);
 - C. EPA Forms 6100-3 and 6100-4;
 - D. Form D-7.11 (Bidder's American Iron and Steel Acknowledgement)

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

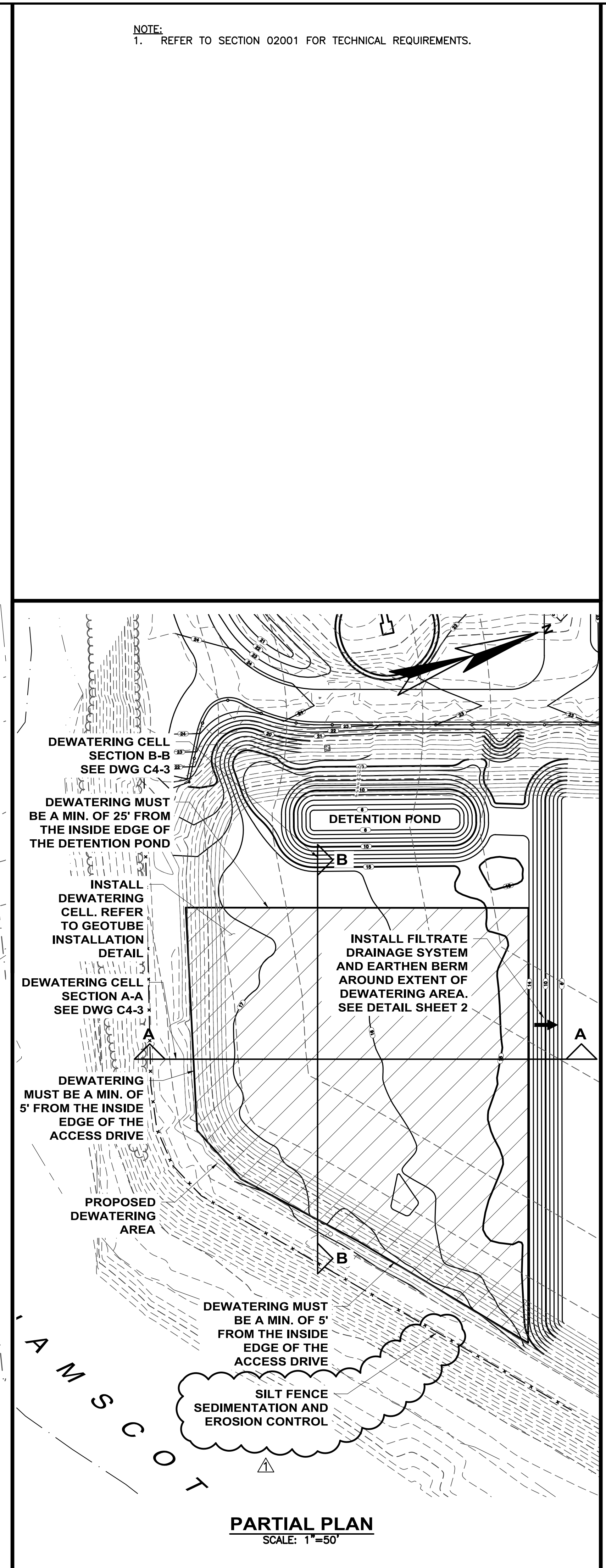
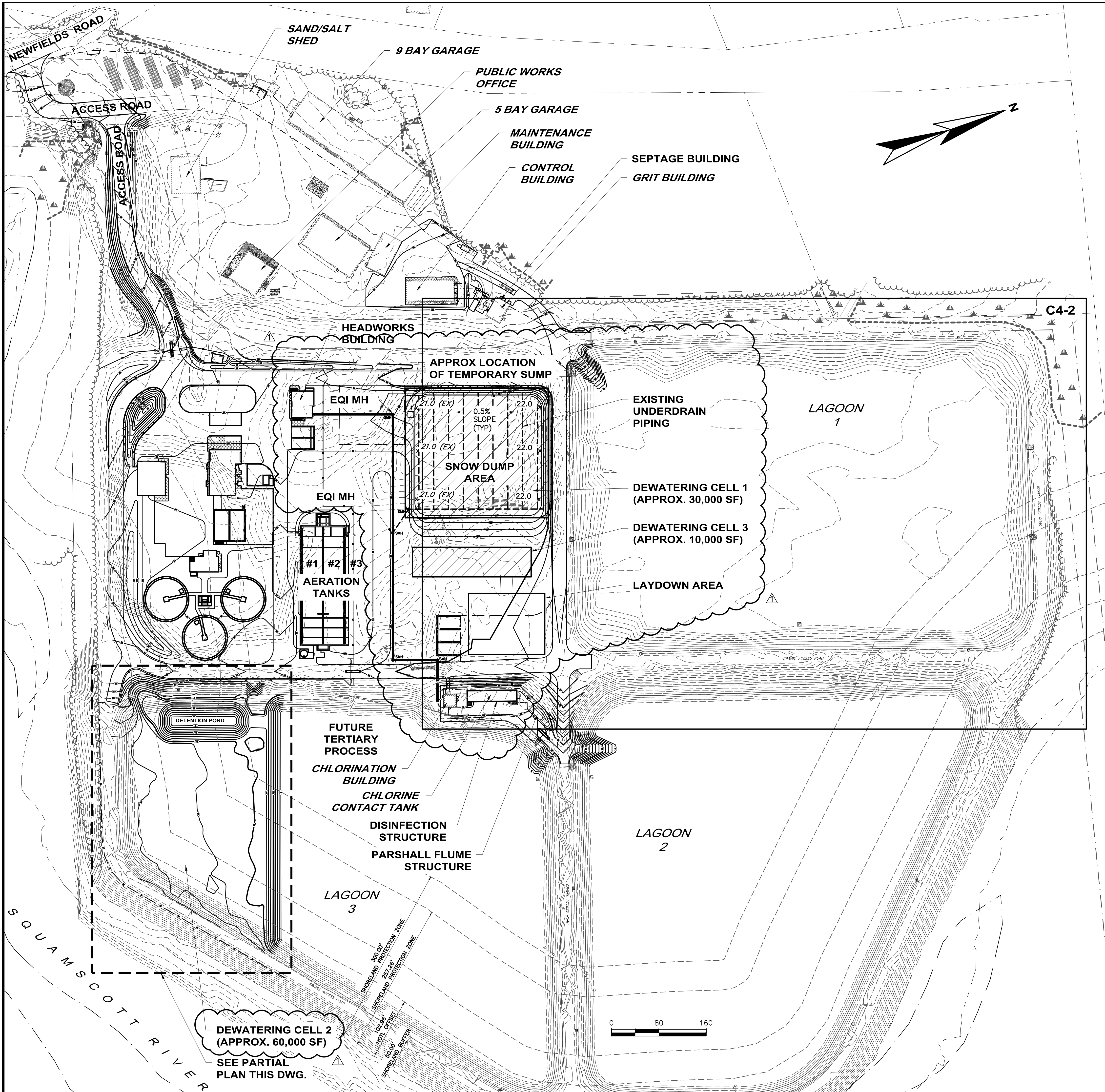
Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____
(where applicable)

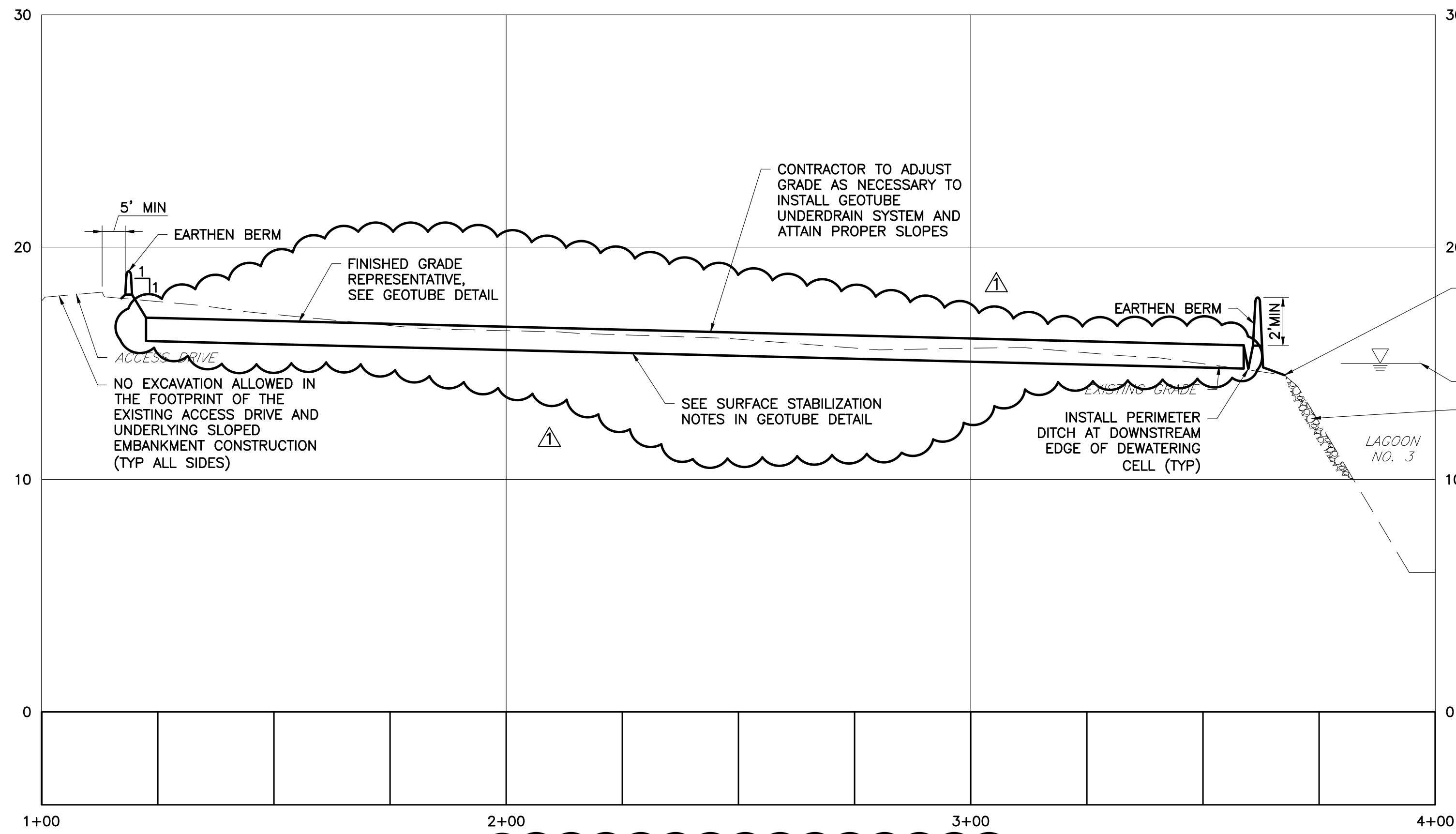


NOTE:
1. REFER TO SECTION 02001 FOR TECHNICAL REQUIREMENTS.

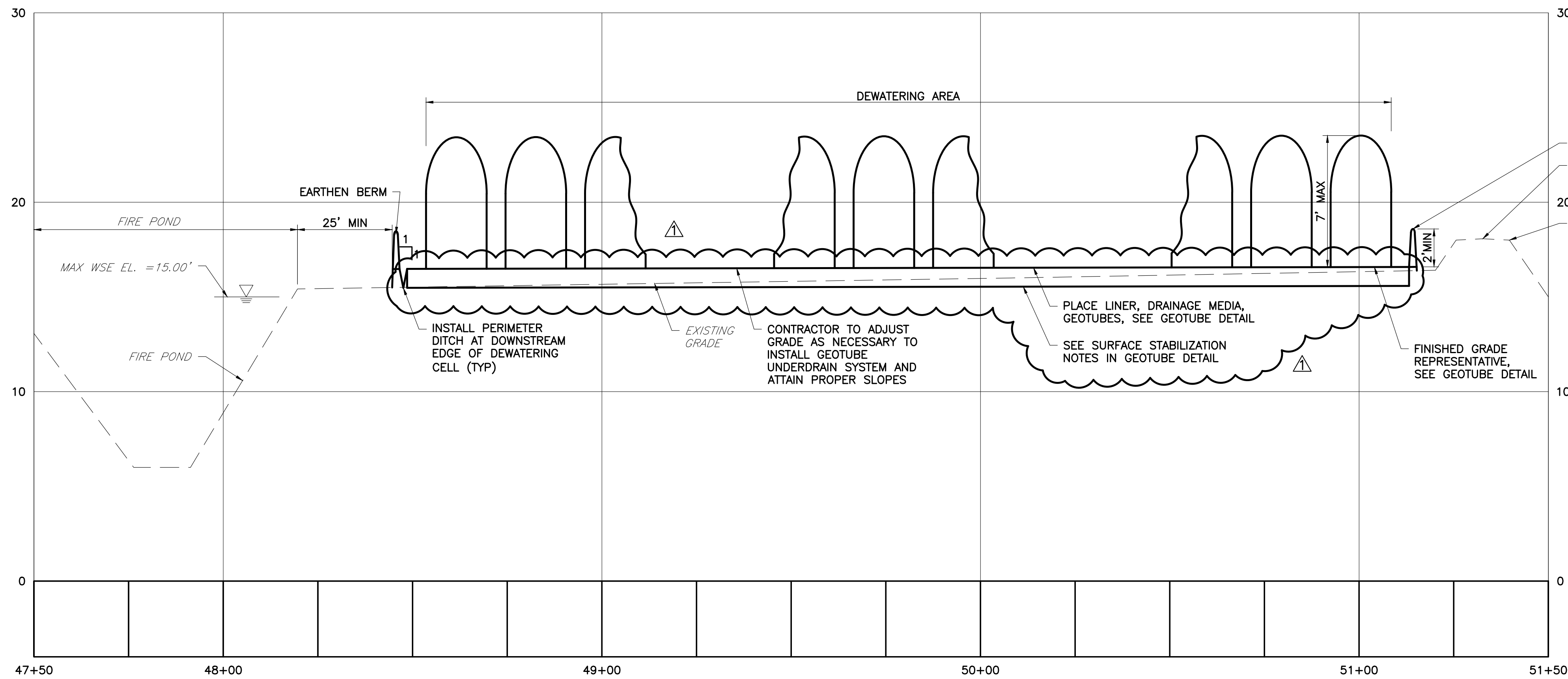
SUBMISSIONS/REVISIONS		APP'D	DATE
NO.	DESCRIPTION		
1			
2			
3			
4			

DESIGNED BY:	ADDENDUM NO. 2
CAD CORP:	
CAD:	
CHECKED BY:	
DATE:	
APPROVED BY:	
DATE:	
PROJECT NO.:	12883

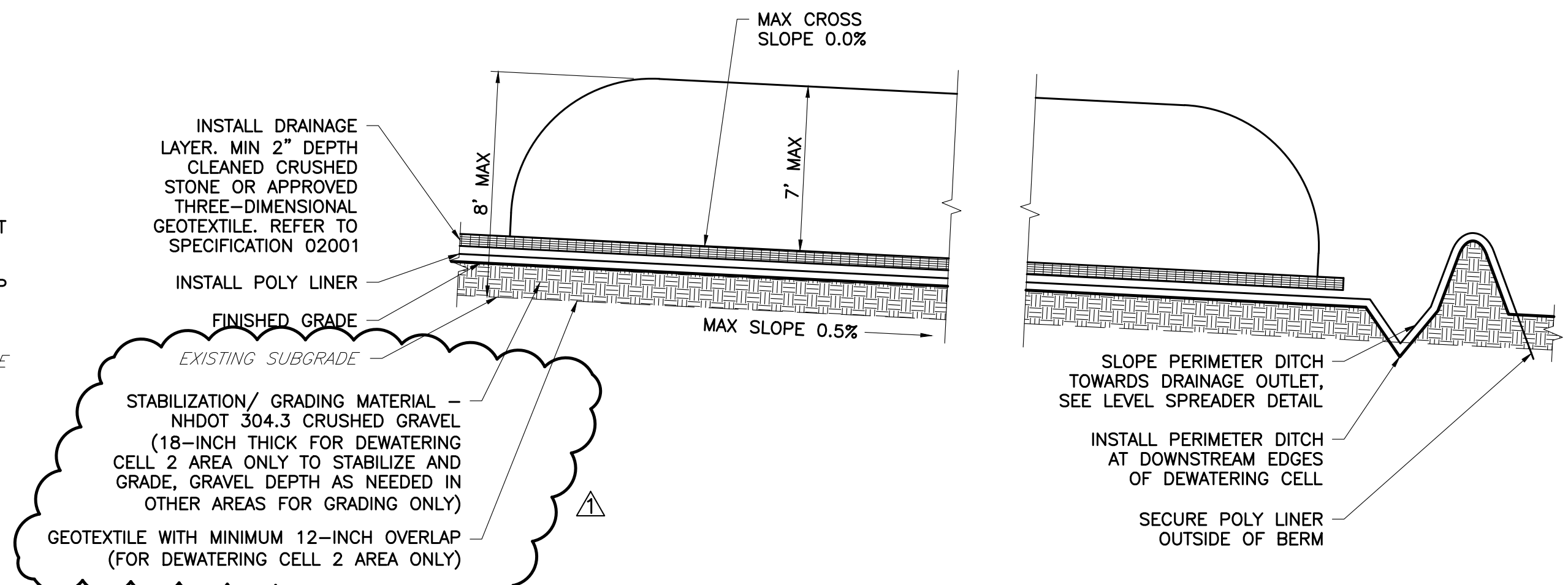
WRIGHT-PIERCE Engineering a Better Environment Offices Throughout New England www.wright-pierce.com 888.621.8156	
EXETER, NEW HAMPSHIRE CONTRACT NO. 4 WASTEWATER TREATMENT FACILITY LAGOON 1 SLUDGE REMOVAL SITE LAYOUT PLAN	
DRAWING C4-1	



PROFILE A-A (DEWATERING CELL 2)
 SCALES
 VERT: 1"=4'
 HORIZ: 1"=20'



PROFILE B-B (DEWATERING CELL 2)
 SCALES
 VERT: 1"=4'
 HORIZ: 1"=20'



GEOTUBE DETAIL
 SCALE: NTS

- NOTE:**
1. STABILIZE EXISTING MONOFILL SURFACE OF GEOTUBE STORAGE AREA PRIOR TO INSTALLATION OF POLY LINER AND DRAINAGE LAYER.
 2. ENSURE ALL OBSTRUCTIONS, ROOTS, AND PROJECTING STONES THAT MAY DAMAGE TUBES OR LINER ARE REMOVED PRIOR TO PLACEMENT OF LINER.
 3. DEWATERING CELL 1 SHALL BE GRADED TO DRAIN TO A TEMPORARY SUMP. SUMP AND PUMP INSTALLED BY CONTRACTOR. NO PERIMETER EARTHEN BERM REQUIRED.
 4. DEWATERING CELL 2 SHALL BE GRADED TO DRAIN TO A LEVEL SPREADER INSTALLED BY CONTRACTOR. DEWATERING CELL 2 REQUIRES A PERIMETER EARTHEN BERM.
 5. DEWATERING CELL 3, IF USED, SHALL BE GRADED TO DRAIN TO A TEMPORARY SUMP. SUMP AND PUMP INSTALLED BY CONTRACTOR. DEWATERING CELL 3, IF USED, REQUIRES A PERIMETER EARTHEN BERM.

NO.	DATE	DESCRIPTION
1	04-20	E.L.E.O.
2		ADDENDUM NO. 2

DESIGNED BY: [Signature]
 CAD CORP: [Signature]
 CHECKED BY: [Signature]
 DATE: [Signature]
 APPROVED BY: [Signature]
 DATE: [Signature]
 PROJECT NO: 12883

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EXETER, NEW HAMPSHIRE
 CONTRACT NO. 4
 WASTEWATER TREATMENT FACILITY
 LAGOON 1 SLUDGE REMOVAL
 PROFILES AND DETAILS
DRAWING
 C4-3