ADDENDUM

July 07, 2016

Addendum No. 2

The State of Connecticut
Department of Housing (DOH)
Community Development Block Grant
Disaster Recovery Program (CDBG-DR)
Owner Occupied Rehabilitation and Rebuilding Program (OORR)

Application No. 2184
Jennings Residence
87 Atlantic Avenue
Groton, CT 06340

To All Prospective Bidders:

This Addendum shall become part of the Contract and all bidders shall be bound thereby.

The date and time for the Bid Opening **HAS NOT CHANGED**. Sealed bids will be accepted until 4:00 p.m. on Wednesday, July 13, 2016.

The following changes and/or clarifications are hereby made to the Contract Documents dated May 20, 2016 for the above captioned project.

A. QUESTIONS & CLARIFICATIONS

1. Contractors were requested to have all questions and requests for clarifications submitted to the Architect by email by 4:00 p.m., Wednesday, July 06, 2016. No requests were received by the deadline. No further questions will be entertained.

2. Attached is the Geotechnical Report referenced in the Foundations note number 3 on sheet S1.0.

B. CHANGES TO THE PROJECT MANUAL & SPECIFICATIONS

1. ADD the following to the Bid Form as Bid Alternate #14:

   If ground water is encountered during excavation, perform de-watering in accordance with the attached reference. Unit of Measure: Lump Sum.

2. Make the following changes to Section 020900, Table A, Scope of Work, 87 Atlantic Avenue, Groton, CT as set forth below:

   Line Item #1, **ADD** the following to "Abatement Method": Furnish and install missing quarter round molding on the "C/D" corner. Paint molding in accordance with pecification section 09900.

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Line Item #4, **SUBSTITUTE** the following for "Abatement Method": Paint removal at friction points on the door and door jamb. Replace door jamb stop. Liquid Encapsulate all areas where paint removal was not required. Paint all affected surfaces in accordance with specification 09900.

Line Item #5A: **DELETE** line item in its entirety.

C. CHANGES TO THE DRAWINGS

1. **SUBSTITUTE** the following drawing sheets for the drawing sheets in the original Bid Documents:

   Sheet A-1.0: Floor Plans
   Sheet A-2.0: Elevations
   Sheet A-3.0: Section
   Sheet A-4.1: Stair and Deck Details

2. **REVISE** the typical foundation detail shown on sheet S-1.1 as follows:

Excavate to 3'-6" below finished grade using a smooth edge bucket to minimize disturbance of the soil. Backfill excavation with 1'-0" deep layer of 3/8" diameter crushed stone (pea gravel) in the same general material configuration as the structural fill. Pour bottom of concrete footings on the crushed stone at 2'-6" below finished grade. This work shall be part of the Base Bid. If water is encountered, perform de-watering in accordance with the lump sum Bid Alternate in Part B. above.

END OF ADDENDUM #1

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GNCB
Consulting Engineers, P.C.

Structural Engineering
Geotechnical Engineering
Historic Preservation
Construction Support

February 5, 2016

Mr. Patrick Mancuso, AIA
Capital Studio Architects, LLC
1379 Main Street
East Hartford, Connecticut 06108

Sent via e-mail: pmancuso@capitalstudio.net

Re: Sandy Disaster Recovery Program
Elevating Jennings Residence
87 Atlantic Avenue, Groton Long Point, Connecticut

Principals
Kenneth Gibble, P.E.
James F. Norden, P.E.
Charles C. Brown, P.E.

Geotechnical Associate
David L. Freed, P.E.

Structural Associate
Richard A. Centola, P.E.

Dear Mr. Mancuso,

This letter summarizes the results of recent test borings and our recommendations for foundation design to elevate the existing Jennings residence in Groton long Point, Groton, Connecticut. Our geotechnical engineering phase services, as reported herein, have been completed in accordance with our contract agreement with you dated February 15, 2015, as authorized. GNCB is also the project structural engineer.

SITE LOCATION AND PROPOSED CONSTRUCTION

The Jennings Residence is located on the south side of Atlantic Avenue, about 50 ft. west of its intersection with Bridge Street, in Groton Long Point, Connecticut. The Venetian Harbor, an elongated body of water that supports boat traffic and connects to Long Island Sound to the southwest, borders the site on the south side. The Jennings Residence is a 2-1/2 story, approximately square shaped wood-framed structure. The building, which has a footprint of about 900 sq. ft., has a first floor at El. 5.4. (Note: Elevations are in feet and refer to NAVD 88 datum.). A minimal crawl space, typically less than 1 ft. high, exists below the first floor. Grade within the site is approximately level between about El. 3 and El. 4, however ground surface on the south side of a retaining wall that runs near the south property line is at about El. 1.5. Mean high water at the site is at El. 0.9. An open concrete deck slab is located on the south side of the house facing the harbor. The area around the house is crushed stone. Existing site conditions and topographic information is shown on a "Property & Topographic Survey –

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Lois W. Jennings Property" prepared by Design Professionals of South Windsor, Dwg V-1, dated May 8, 2015.

We understand that in 2012, during Hurricane Sandy, the house first floor was flooded. It is proposed to raise the existing house approximately 9.5 ft. above existing ground surface, corresponding to about El. 14.8. The existing crawl space will be filled in and vehicle parking provided below the elevated building. An elevator may also be provided.

SUBSURFACE CONDITIONS

Previous Test Boring: On June 22, 2015, Clarence Welti Associates, Inc., under contract with Capital Studio Architects, drilled a test boring (B-1) at the property. The boring was located about 16 ft. north of the house northeast corner. A log of the test boring is attached.

The borehole was advanced using 3-3/4 in. inside diameter hollow stem augers. Starting at a depth of 5 ft., soil samples (ASTM D 1586) were obtained at 5 ft. intervals. The test boring was terminated at a depth of 51.5 ft.

Subsurface Soil and Water Conditions: GNCB did not review the test boring samples; the log indicates that subsurface conditions consist of a surface few inches of crushed stone underlain by a thick deposit of granular soil.

The surface crushed stone appears to be directly underlain by the natural inorganic granular soil; no man-placed fill or organic soil is indicated. The main soil type at the site is a medium dense deposit of granular soil ranging from an upper gray coarse to fine SAND grading finer to a gray-brown SILT and fine SAND. The upper coarse sand portion is at least 28 ft. thick, before grading to a fine sand/silt. Bedrock was not encountered, but is believed to be over 50 ft. below ground surface.

The groundwater level at the site, as measured at the test borings soon after its completion, was at a depth about 3.5 ft. below ground surface, corresponding to El. 0.5. This water level however was measured over a relatively short period of time and may not represent the actual groundwater level at the time of construction or in the future. In any event, water levels vary with precipitation, season, and other factors. As a result, water levels encountered during and after construction may differ from those observed in the exploration.

FOUNDATION RECOMMENDATIONS FOR ELEVATED RESIDENCE

In our opinion, the natural inorganic granular soil encountered at the test boring is a suitable bearing material to support the building frame of the

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elevated house. Accordingly, we recommend that the new building foundations be supported on shallow spread footings bearing on the natural granular soils. In the event that unsuitable soils, such as man-placed fill or organic soil exists at design footing grade, these unsuitable soils should be removed and replaced by an off-site compacted structural fill.

We recommended that building footings be designed for an allowable soil bearing pressure of 0.7 times the least footing dimension as measured in feet, up to a maximum of 2 kips per square foot (ksf). Subgrade preparation below a building footing, to remove any existing unsuitable bearing soil and replacing it with compacted structural fill, should be made to a lateral limit equal to the thickness of fill below the footing plus 2 ft. The bottom of footings needs to be at least 3.5 ft. below the ground surface exposed to freezing.

We understand that design of the elevated house requires resistance of a lateral wind load, at footing level, of about 20 kips. We recommend that this lateral load be resisted by the passive pressure on the horizontal edge of a continuous perimeter footing and as sliding friction at the bottom of building footings.

Structural fill for use below new shallow foundation footings, as needed to replace any existing unsuitable bearing soil, should consist of a well-graded sand and gravel that has a maximum percent finer by weight passing the No. 200 sieve of 10 percent. Structural fill should be placed in maximum 8 in. thick lifts and each lift compacted to a dry density at least 95 percent of the maximum dry density determined by ASTM D1557. Common fill may be used to fill the crawl space area; we suggest that this fill be similar to the structural fill except the maximum percent finer by weight should not exceed 20 percent and the fill may be placed in maximum 12 in. thick lifts.

Please give us a call if you have any questions or need additional information.

Very truly yours,

David L. Freed, P.E.
Geotechnical Associate

Enclosures:

Test Boring Log for B-1 (2 pages)

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
CAPITAL STUDIO ARCHITECTS

PROJECT NAME
JENNINGS RESIDENCE
LOCATION
87 ATLANTIC AVE., GROTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.
HOLE NO. B-1

GROUND WATER OBSERVATIONS
AT 3.5 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/22/15
FINISH DATE 6/22/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					STONE SURFACE 0.1	
					BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT	
					GREY/BR. FINE-MED. SAND, TRACE SILT 3.0	
5	1	1-2-3-3	5.00'-7.00'			
					GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL 8.0	
10	2	3-5-6-7	10.00'-12.00'			
15	3	1-2-1-3	15.00'-17.00'			
20	4	8-7-9	20.00'-21.50'			
25	5	5-7-9	25.00'-26.50'		GREY/BR. FINE-MED. SAND, TRACE SILT 25.0	
					GREY/BR. FINE SAND, LITTLE TO SOME SILT 28.5	
30	6	8-10-7	30.00'-31.50'			
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT CAPITAL STUDIO ARCHITECTS	PROJECT NAME JENNINGS RESIDENCE LOCATION 87 ATLANTIC AVE., GROTON, CT.

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
	7	5-7-6	35.00'-36.50'			
					GREY/BR. SILT, LITTLE FINE SAND — 38.0	
40	8	3-7-8	40.00'-41.50'			
45	9	4-4-5	45.00'-46.50'			
					GREY FINE SAND AND SILT, LITTLE GRAVEL — 47.5	
50	10	7-10-10	50.00'-51.50'			
					BOTTOM OF BORING @ 51.5' — 51.5	
55						
60						
65						
70						
75						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 2 OF 2 | HOLE NO. B-1

13-Dewatering

Pump Intake And Outlet Protection (PuP)

Definition
Structures or other protective devices into which or on which intake and discharge hoses are placed during pumping operations.

Purpose
- To reduce the amount of sediments taken up by a pump during dewatering operations.
- To prevent soil erosion due to scouring and the resuspension of detained sediments at the point of pump discharge.

Applicability
Wherever dewatering is required by means of pumping such as cofferdams, building foundations, utility line installation (or repair) and pond construction or rehabilitation.

Planning Considerations
There is no specific design for this measure. The pump intake protection shown in **Figure PuP-1** and **Figure PuP-2** illustrate basic design concepts which when implemented during dewatering operations reduce sediment uptake.

Typically, pump intakes are installed in sumps that have been excavated below the grade such that water drains away from the active construction area. The location and size of sumps are dependent upon the field conditions found at the time of construction and dewatering operations. The expected conditions and potential sump needs should be noted on the plans. The sumps may require relocation as work progresses.

The pump outlet protection shown in **Figure PuP-3** illustrate basic design concepts which when implemented during dewatering operations reduces soil erosion and resuspension of sediments.

Specifications

Sizing Pumping Sumps
Determine the size of the pumping sump based upon the volume of water required to be pumped and the size of the pump. When using portable sediment storage tanks, the sump shall be capable of storing the amount of water that enters the dewatering site during time that it takes to switch portable sediment storage tanks.

For dewatering trenches, cofferdams and foundation excavations the sump is typically excavated 2 feet or more below the grade of the proposed work.

For pond rehabilitation the sump shall be a minimum of 2 feet below the pond bottom, depending upon the dewatering needs of material to be removed from the pond. Size of the sump is dependent upon conditions in the pond.

Installation
1. Determine if a sump is needed and the appropriate method of pump intake and outlet protection.

2. Where standing water is encountered in the area of a proposed sump, begin dewatering the site by floating the pump intake at the water's surface. Carefully monitor water levels to prevent the uptake of bottom sediments.

3. Excavate the sump within or adjacent to the area to be dewatered. Install pump intake and outlet protection before pumping begins.

4. Installation of the pump intake protection should conform to pumping rates and the general design concepts. **Figure PuP-1** shows a typical sump and intake constructed of stone imbedded with a perforated stand pipe. It is generally used where there is no need to frequently move the pumping sump or where the stone can be used on site for bedding material. In some instances the prefiltration of discharge waters may be enough to reduce or eliminate the need for a dewatering basin or portable sediment tank. **Figure PuP-2** shows a typical sump and intake that calls for lining (rather than filling) the pumping

sump with stone and attaching a strainer to the suction hose so that the hose is suspended off the bottom of the pumping sump and is protected against pumping bottom sediments. This design is useful when frequent relocation of the pumping sump is anticipated. However, it does not reduce the need for a dewatering basin.

5. The pump outlet protection shall adequately dissipate the energy of the discharge so as to prevent erosion and the resuspension of sediments at the point of discharge. **Figure PuP-3** illustrates an example of pump outlet protection. Pump outlet protection is required even if the discharge is to a pumping settling basin.

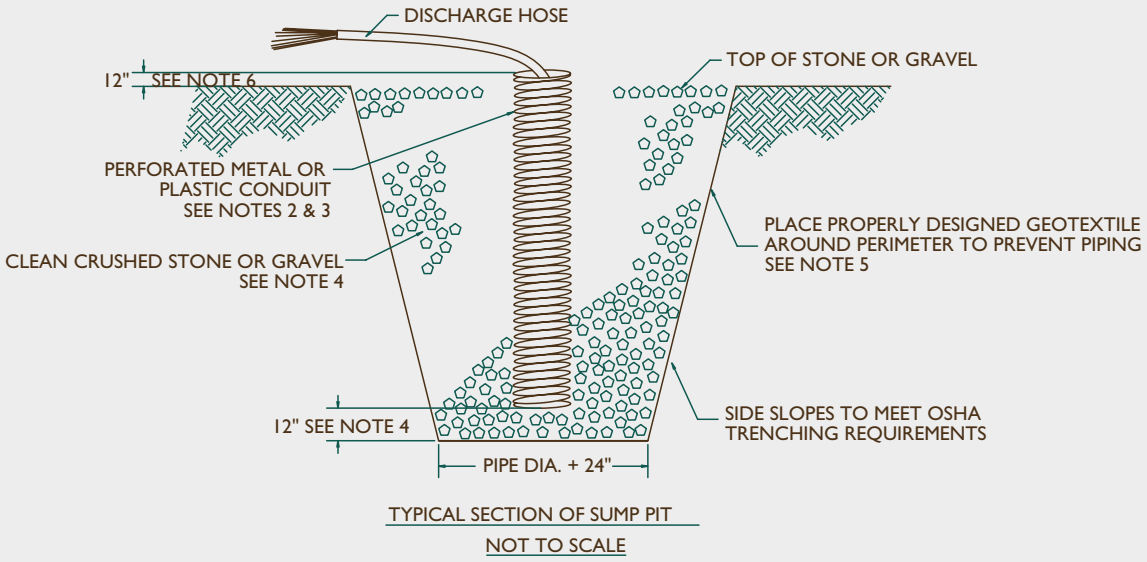
Operation

Monitor pumping operations and adjust pumping rates as needed to keep the construction area dewatered, and minimize pumping sediment.

Maintenance

Inspect the pumping sump, pump intake protection and pump discharge conditions frequently during dewatering operations for proper functioning of equipment.

Figure PuP-1 Pump Intake Protection Using Stone Filled Sump with Standpipe



TYPICAL SECTION OF SUMP PIT

NOT TO SCALE

1. OVERALL SUMP PIT DIMENSIONS SHALL BE COMPATIBLE WITH ANTICIPATED SEEPAGE RATES AND PUMP SIZE TO BE USED.
2. THE STANDPIPE DIAMETER AND NUMBER OF PERFORATIONS SHALL BE COMPATIBLE WITH THE PUMP SIZE BEING USED.
3. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" IN DIAMETER.
4. CRUSHED STONE OR GRAVEL SHALL BE NO SMALLER THAN CT DOT #67 SIZE NOR LARGER THAN CT DOT #3 SIZE. CRUSHED STONE SHALL EXTEND A MINIMUM OF 12" BELOW THE BOTTOM OF THE STANDPIPE.
5. IF EXCESSIVE MOVEMENT OF FINE SOIL PARTICLES FROM THE SURROUNDING EXISTING SOILS IS ANTICIPATED, A PROPERLY DESIGNED GEOTEXTILE SHALL BE PLACED BETWEEN THE EXISTING SOILS AND THE CRUSHED STONE OR GRAVEL BACKFILL.
6. THE STANDPIPE SHALL EXTEND A MINIMUM OF 12" ABOVE THE SURROUNDING GROUND.

Source: USDA-NRCS

Figure PuP-2 Pump Intake Protection Using Sump with Strainer

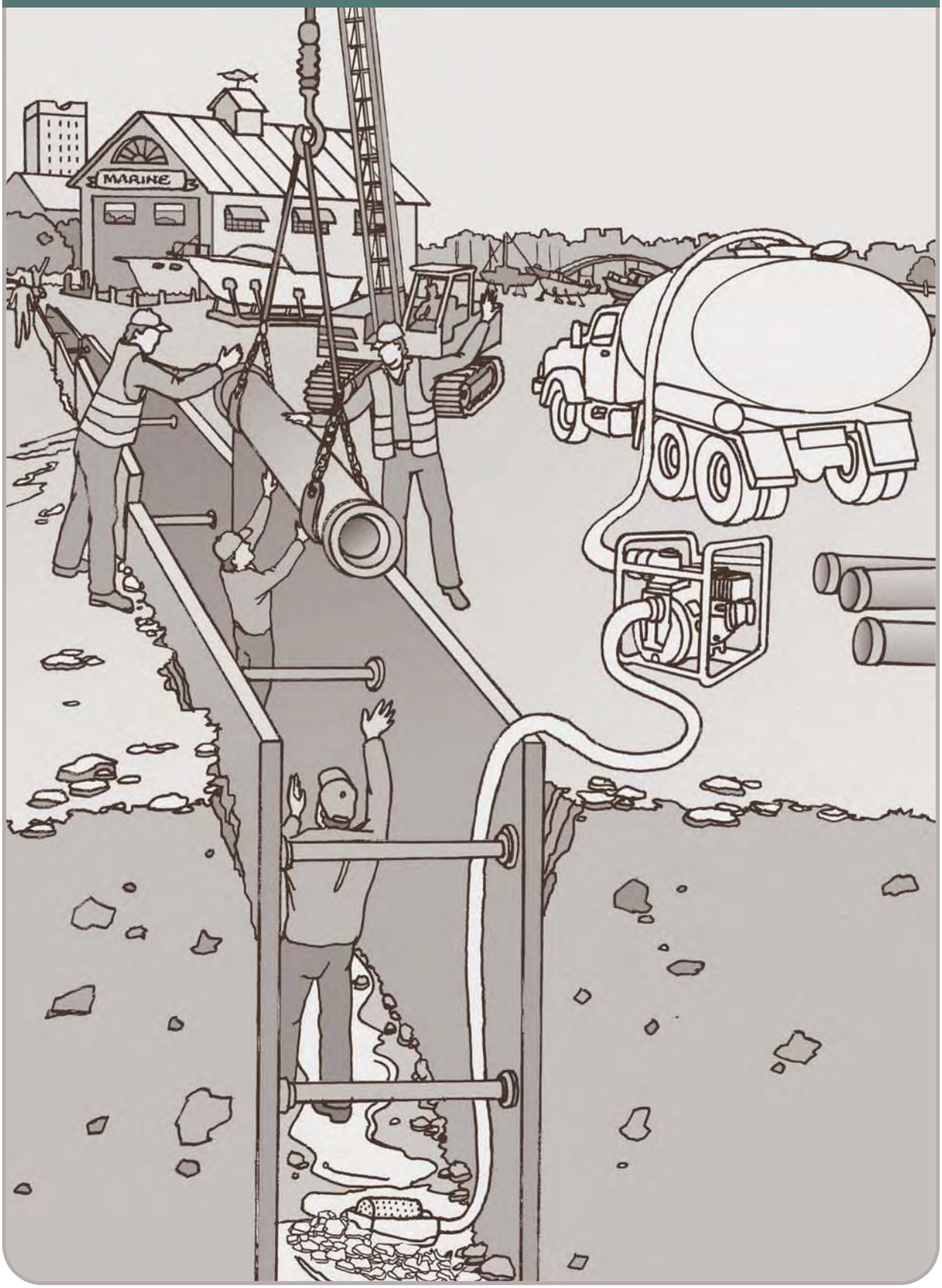
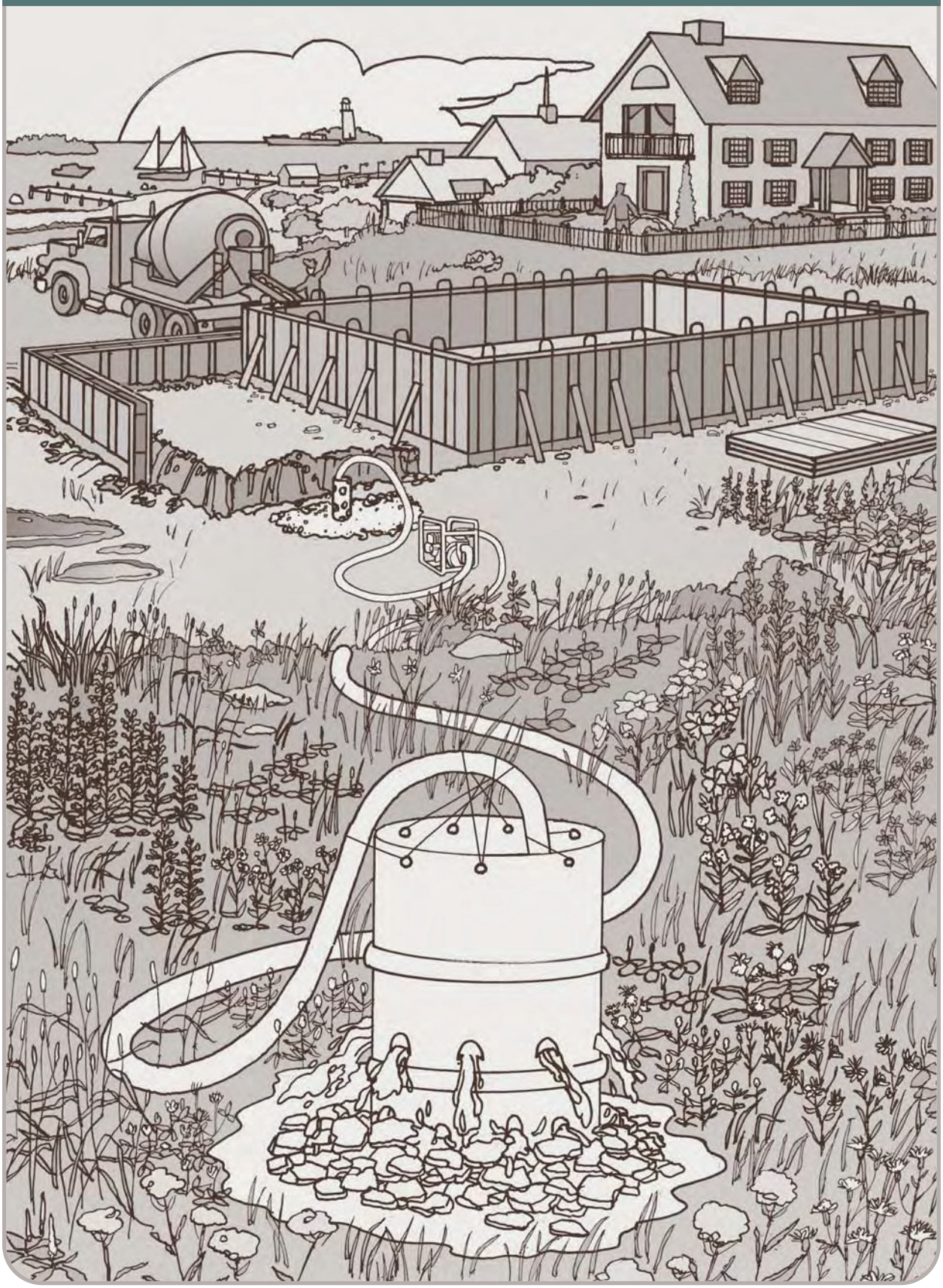


Figure PuP-3 Examples of Pump Outlet Protection



13-Dewatering

Pumping Settling Basin (PSB)

Definition
An enclosed sediment barrier or excavated pit constructed with a stable inlet and outlet such that sediment laden water from pumping operations is de-energized and temporarily stored, allowing sediments to be settled and/or filtered out before being released from the construction site.

Purpose
To allow for the settlement of sediment from pumping operations prior to the water being discharged.

Applicability
- When a pump discharge from a construction area is sediment laden.
- Not for use with hydraulic dredging operations in open waters. (See **Dewatering of Earth Materials** measure).

Specifications

Materials
Whenever used in this measure:

hay bale barriers shall meet those required in the ***Hay Bale Barrier*** *measure.*

geotextile shall meet that required in the ***Geotextile Silt Fence*** *measure, and*

pump surge energy dissipators shall be provided and capable of sufficiently de-energizing pump discharges to prevent scour and remain in place (See ***Pump Intake and Outlet Protection*** *measure).*

Sizing
Pumping settling basins are sized to have a minimum retention time of 2 hours. Use the following formula to determine the storage volume required:

$$\text{Cubic feet of storage required} = \text{Pump Discharge Rate (g.p.m.)} \times 16$$

For sites where available storage is insufficient at the planned pumping rate, the maximum pumping rate is determined from the following formula:

$$\text{Pump Discharge Rate (g.p.m.)} = \frac{\text{Cubic feet of storage available}}{16}$$

In calculating the capacity, include the volume available from the floor of the basin to the crest of the outlet control.

Location

Locate the pumping settling basin on the site such that surface water is directed away from the pumping settling basin (See **Temporary Water Diversion** measure).

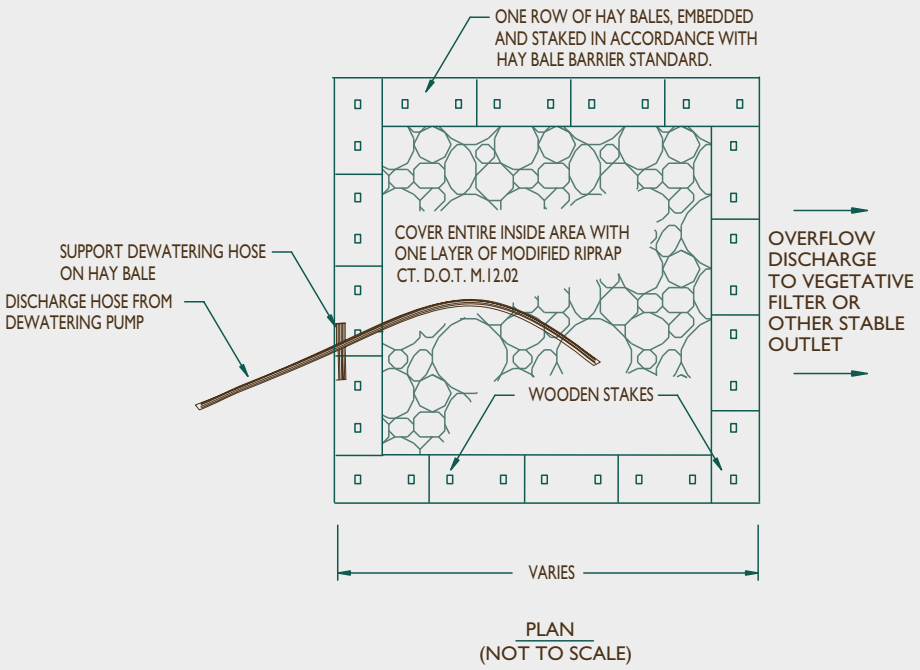
Installation

All dewatering basins, regardless of type, contain a water/sediment storage area, an energy dissipator for pump discharges entering the basin (See **Pump Intake and Outlet Protection** measure and an emergence overflow that provides for a stable filtration surface through which water may leave the basin. Pump discharge is located at a point in the dewatering basin that is farthest from the basin outlet.

Depending upon existing soil conditions and side slopes of excavated pumping settling basin, soil stabilization may be required. The excavation may be lined with geotextile or stone to help reduce scour and to prevent the erosion of soil from within the structure.

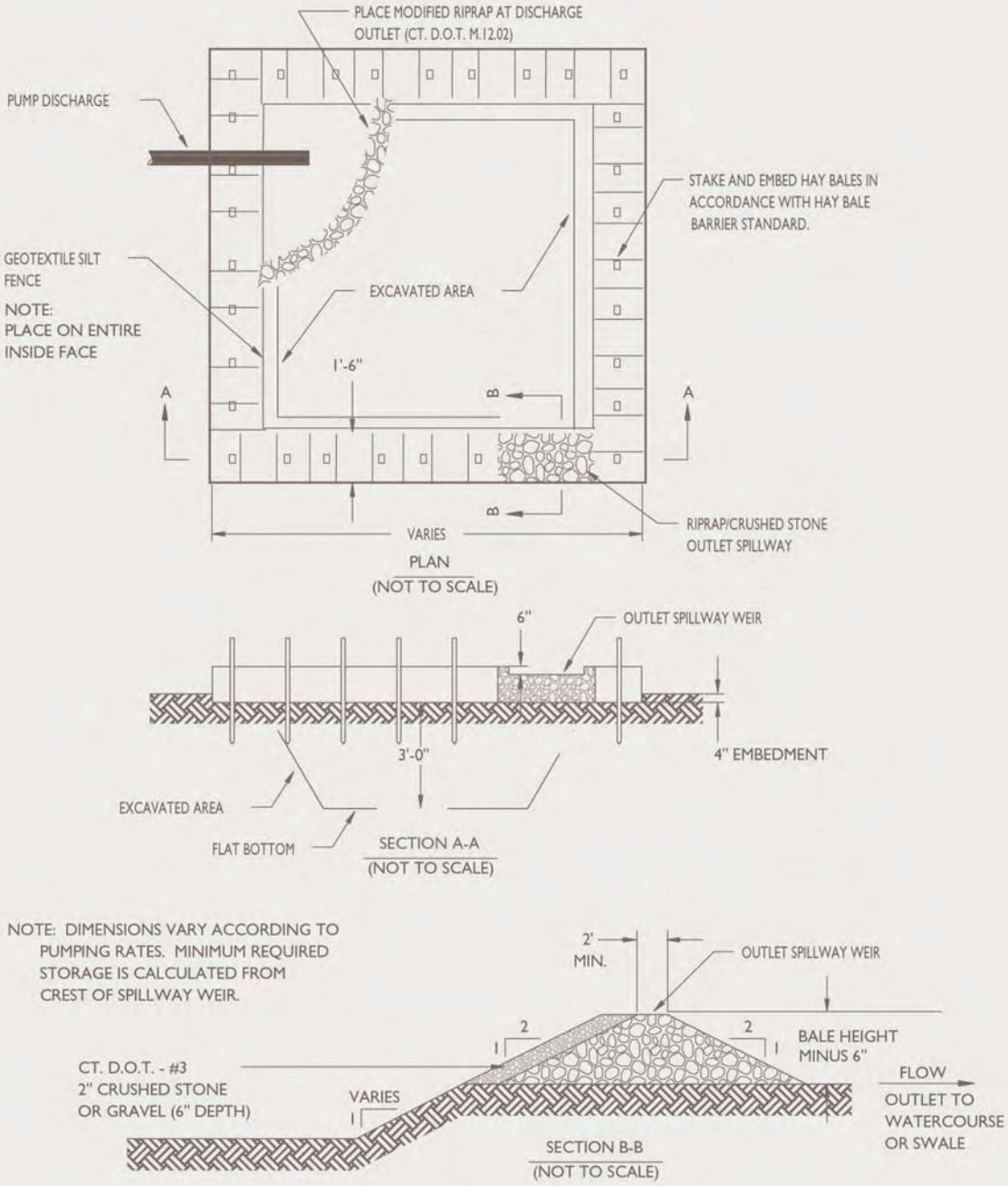
Type I - Small Volumes: Consist of an above ground enclosure created by a **Hay Bale Barrier**. See **Hay Bale Barrier** measure for material specifications and general installation requirements. This type of basin is located only on flat grades and is limited for use by its storage volume where the anticipated sediment delivery would not require cleaning and the expected use is for a very short duration. For calculating storage use the top of the lowest hay bale on the perimeter to the crest of the outlet control. An example of use for this type of basin would be a dewatering operation for a trench where no adequate vegetated filter exists (See **Vegetated Filter** measure) before the discharge enter into critical area such as a wetland, watercourse, street

Figure PSB-1 Example of Type I Pumping Settling Basin



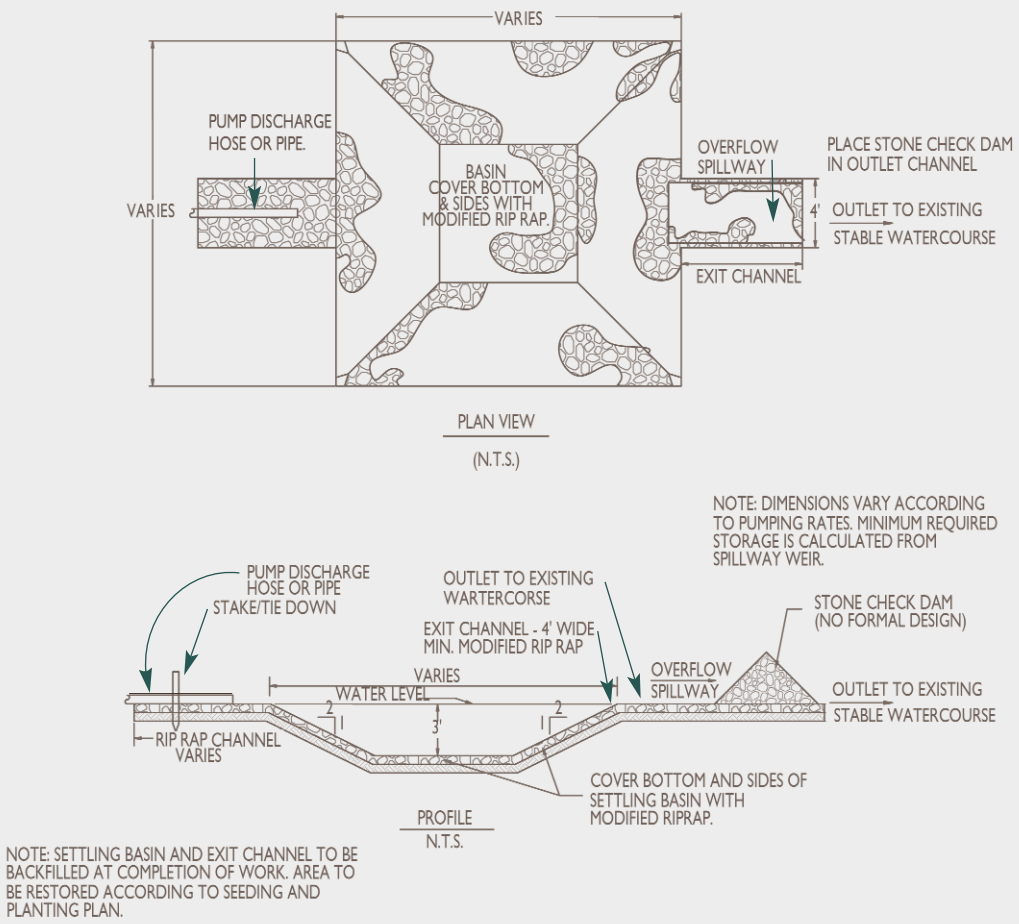
Source: USDA-NRCS

Figure PSB-2 Example of Type II Dewatering Settling Basin



Source: USDA-NRCS

Figure PSB-3 Example of Type III Pumping Settling Basin



Source: USDA-NRCS

13-Dewatering

Portable Sediment Tank (PST)

Definition
A tank or container into which sediment laden water is pumped in order to trap and retain the sediment before discharging the water or to transport the sediment laden water to an approved location for further treatment.

Purpose
To trap and retain sediment.

Applicability
- When a pump discharge from a construction area is sediment laden and space limitations prevent the use of a pumping settling basin.
- For sites with severe space limitations, a portable sediment tank may be used to transport the sediment laden water to an approved location.

Planning Considerations
Typically used with cofferdam dewatering associated with bridge repair work, utility work or in the redevelopment of urban areas.

When pumping requirements are expected to exceed the two hour storage capacity of the sediment tank and pumping cannot be discontinued for the length of time needed to drain the tank properly at the pumping site, consider using two or more portable sediment tanks that may be alternately filled, moved and drained at an acceptable location. Former milk trucks or water trucks have been used for this purpose where off-site disposal has allowed for off-site dewatering basins or adequate filtration by vegetative buffers. Do not use a tank that was formerly used for contaminated or hazardous materials.

When a portable dewatering tank is to be used next to a cofferdam, the weight of the tank and maximum volume of water and associated structures must be considered when constructing the cofferdam to ensure the structural stability of the cofferdam. Alternately, if the cofferdam has already been built, before placing any tank adjacent to the cofferdam, consider the cofferdam's ability to remain structurally stable when the tank is full.

Specifications

Materials
The tank is a structure constructed of steel, sturdy wood or other material suitable for handling the pressure exerted by the volume of water to be stored. The pump discharge into the tank shall be located at a point in the portable sediment tank that is farthest from the tank outlet. The outlet of the tank shall be equipped with an energy dissipator.

Location
Locate non-portable sediment tanks for ease of clean-out and disposal of the trapped sediment, and to minimize the interference with construction activities and pedestrian traffic.

Tank Sizing for On-Site Discharges
For discharging the portable sediment tank directly, size the tank to have a minimum retention time of at least 2 hours. Use the following formula to determine the storage volume required:

Cubic feet of storage required = *Pump Discharge Rate (g.p.m.) x 16*

When the tank size available is insufficient at the planned pumping rate, maximum pumping rate is determined from the following formula:

$$\textit{Pump Discharge Rate (g.p.m.)} = \frac{\textit{Cubic feet of storage available}}{16}$$

An example of a typical sediment tank is shown on **Figure PST-1**. Other container designs may be used if the storage volume is adequate and is approved by the regulating agency.

When the tank size available cannot meet the 2-hour storage requirement and reduced pumping rates are not practical, then several tanks may be alternately filled and drained with pumping rates restricted to meet tank transport, draining and return times.

Operation

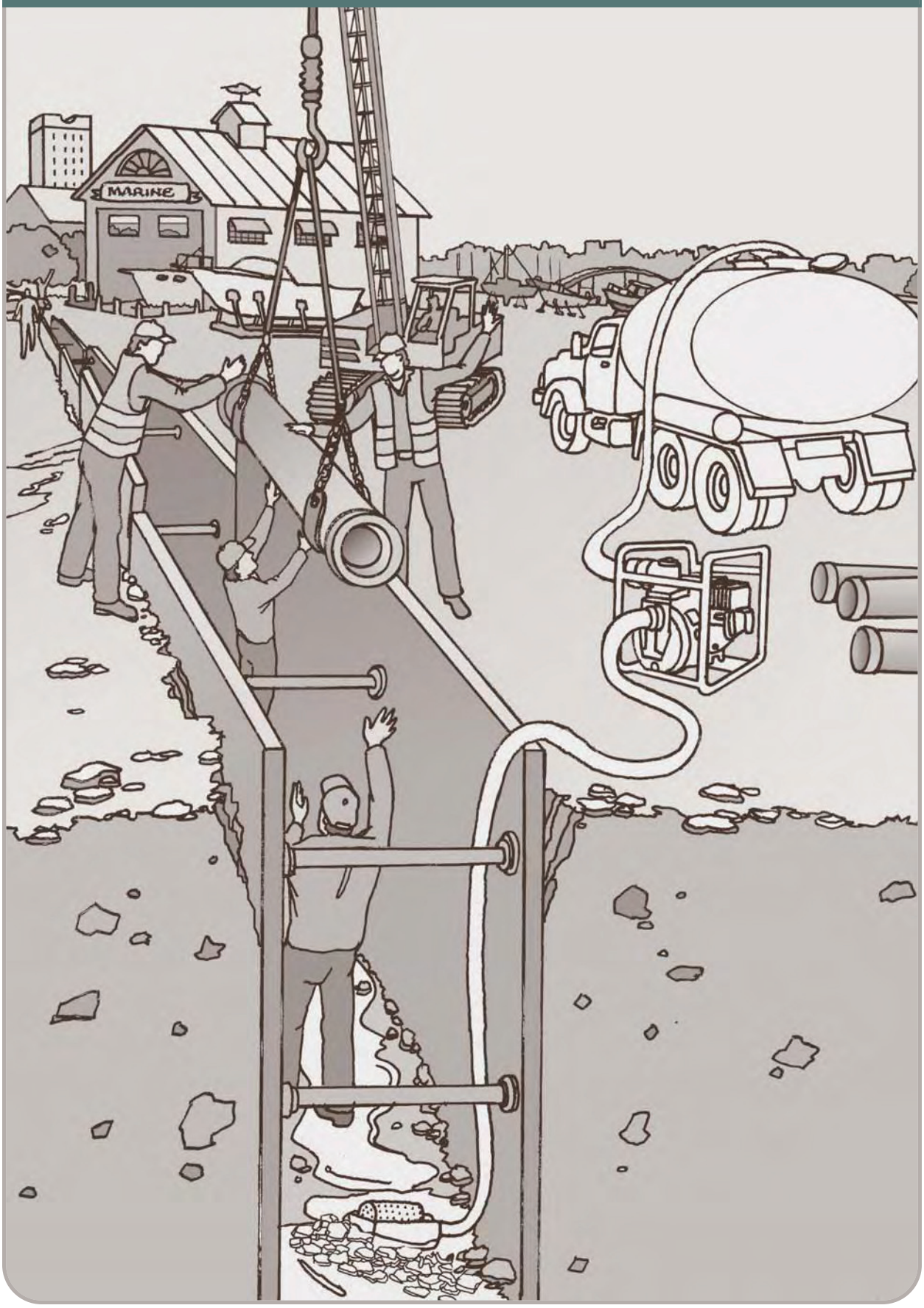
Once the water level nears the top of the tank, either shut off the pump while the tank drains and additional capacity is made available, or transport the tank to an appropriate disposal site.

Maintenance

Inspect the sediment tank continuously during use. For a tank that is discharging water while the pumping operation is ongoing and when the wet storage area has lost one half of its volume to sediment build up, discontinue pumping and remove accumulated sediments or replace the tank. For a tank that is used to transport the pumped water to a location distant from the pumping operation, discontinue pumping long enough to change the tank.

Any transported discharge of water and cleaning of the tank shall be done in such a manner as to prevent sediment laden water from reaching a wetland, watercourse or paved travelway.

Figure PST-1 Portable Sediment Tank In Operation



13-Dewatering

Dewatering of Earth Materials (DWM)

Definition
A procedure that uses a perimeter earthen berm and excavation to create a containment area where excessively wet soil is placed to allow for the draining of water or evaporation of excessive moisture.

Purpose
To dry soil sufficiently so that it may be regraded or transported.

Applicability
- When excavating saturated soils that are too wet to transport or to be contained with geotextile silt fence or hay bales.
- Not for dewatering contaminated soils. Handling of contaminated soils shall comply with the directives of the regulating agency (e.g. DEP and EPA).

Planning Considerations
Select a containment site that will be large enough to contain the anticipated volume of material to be dewatered and any perimeter berm. Locate the containment area so that the material being dewatered does not interfere with other construction activities and can be left for the time necessary for dewatering. Avoid wetlands, watercourses, drainageways and wooded areas. Sandy and gravelly material will generally dewater quicker than fine silts and clays, particularly if the containment area is gently sloping. The containment area can be divided into cells to allow for alternating use of the cells.

Design Criteria
An engineered design is required if (1) the berm for the containment area exceeds 3 feet in height above stripped, natural or original ground, or (2) the volume of materials needing dewatering exceeds 200 cubic yards at any one time. Use standard engineering practices.

Sizing
Size the containment area by the volume and type of material to be dewatered and the length of time that the material will remain stockpiled. Design the containment berm to withstand any anticipated loads.

Site Selection
Select a site where the slope is 8% or flatter. Do not locate on previously filled ground. Give preference to sites with well drained soils. An underdrain may be needed to improve the dewatering function of a containment area located on poorly drained soils.

Specifications
1. Strip and stockpile the topsoil from the containment area.

2. Divert surface water away from containment area as necessary (See **Temporary Diversion** Measure).

3. Construct the berm around the containment area with suitable soils. Certain types of soils are subject to instability upon saturation or loading and must be avoided. Examples of these soils include fine sands, silt loams, clay, peat and mucks. Sites containing such soils may require the borrowing of more suitable material from off site for berm construction.

4. Install a geotextile silt fence to filter the discharge from the disturbed area if an inadequate vegetated filter exists between the disturbed containment area and any wetland, watercourse or storm drain inlet. (See **Vegetated Filter** measure).

5. Place the saturated soil within the containment area such that drainage can occur.

Maintenance
Inspect containment area and associated sediment controls on a daily basis while dewatering operations are active. When dewatering operations are not active, inspect weekly or immediately after 0.5 inch of rain within a 24 hour period.

If the containment berm fails, determine the cause of the failure. If the berm failed due to overtopping, repair the berm and any damage caused by the berm failure and reduce usage of the containment area such that overtopping is prevented. If the berm experienced an internal structural failure, cease using the containment area, add additional controls to contain eroded sediments, repair the damage caused by the berm failure, and before repairing the berm have the dewatering operation reviewed by an engineer for repair requirements. Repair and clean out perimeter erosion and sediment controls as needed.

After dewatering operations are completed, regrade the containment area to a finished grade and stabilize in accordance with the planned use of the area .

Figure DW-1 Example of Non-Engineered Dewatering Containment Area for Dewatering Earth Materials

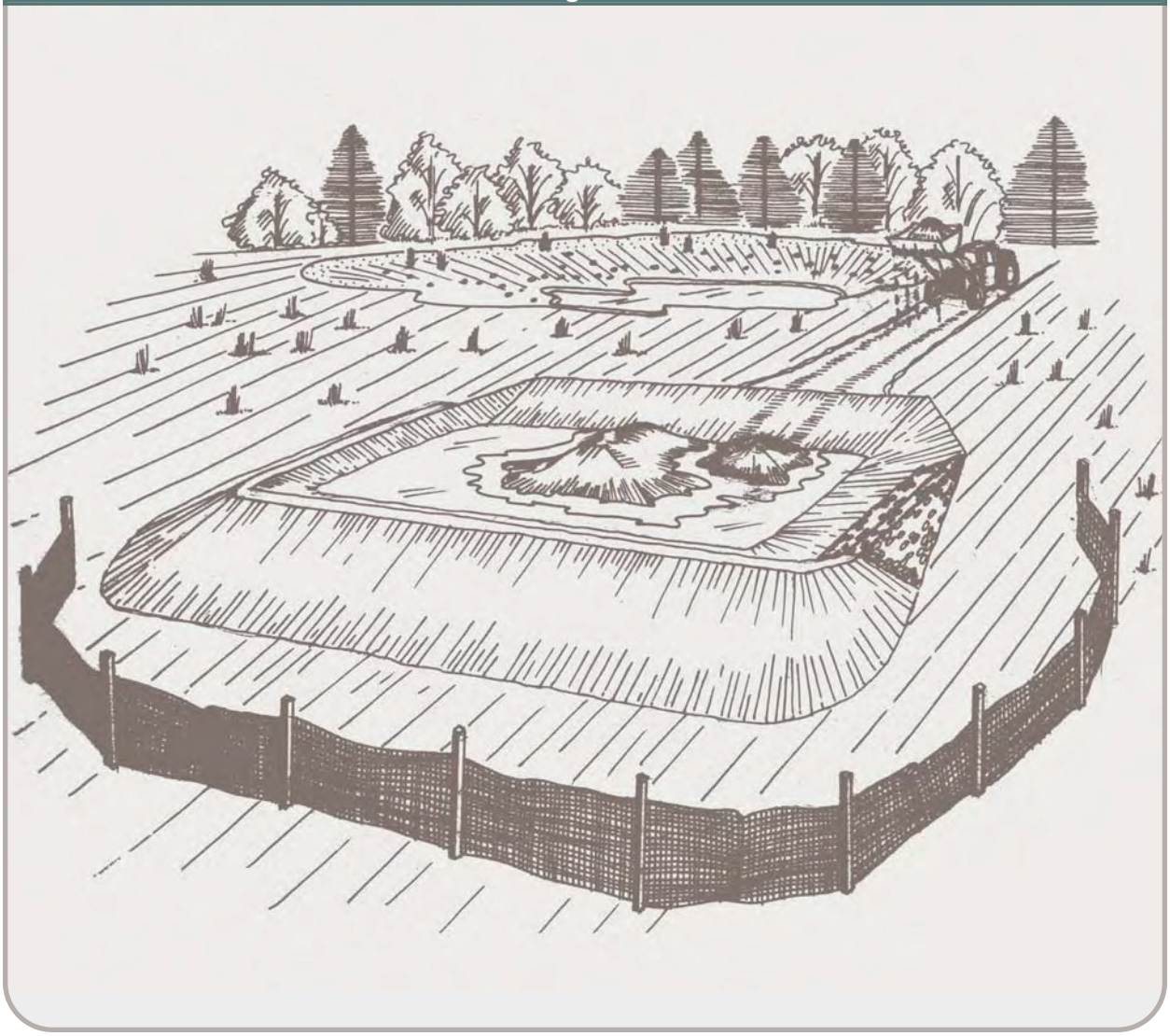
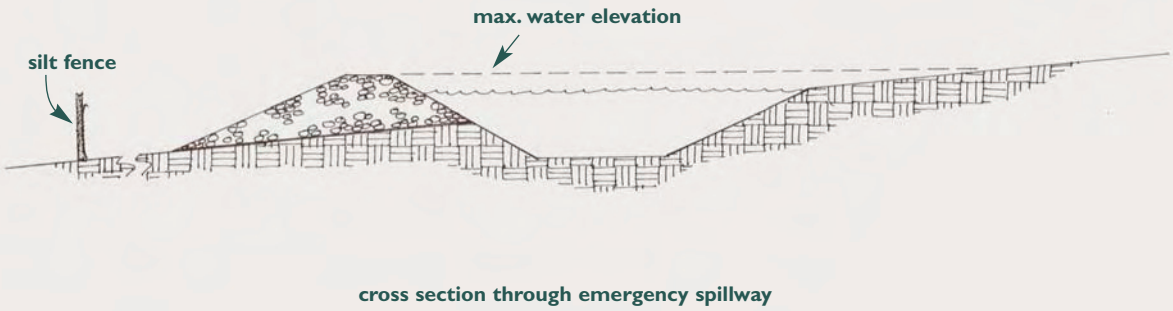
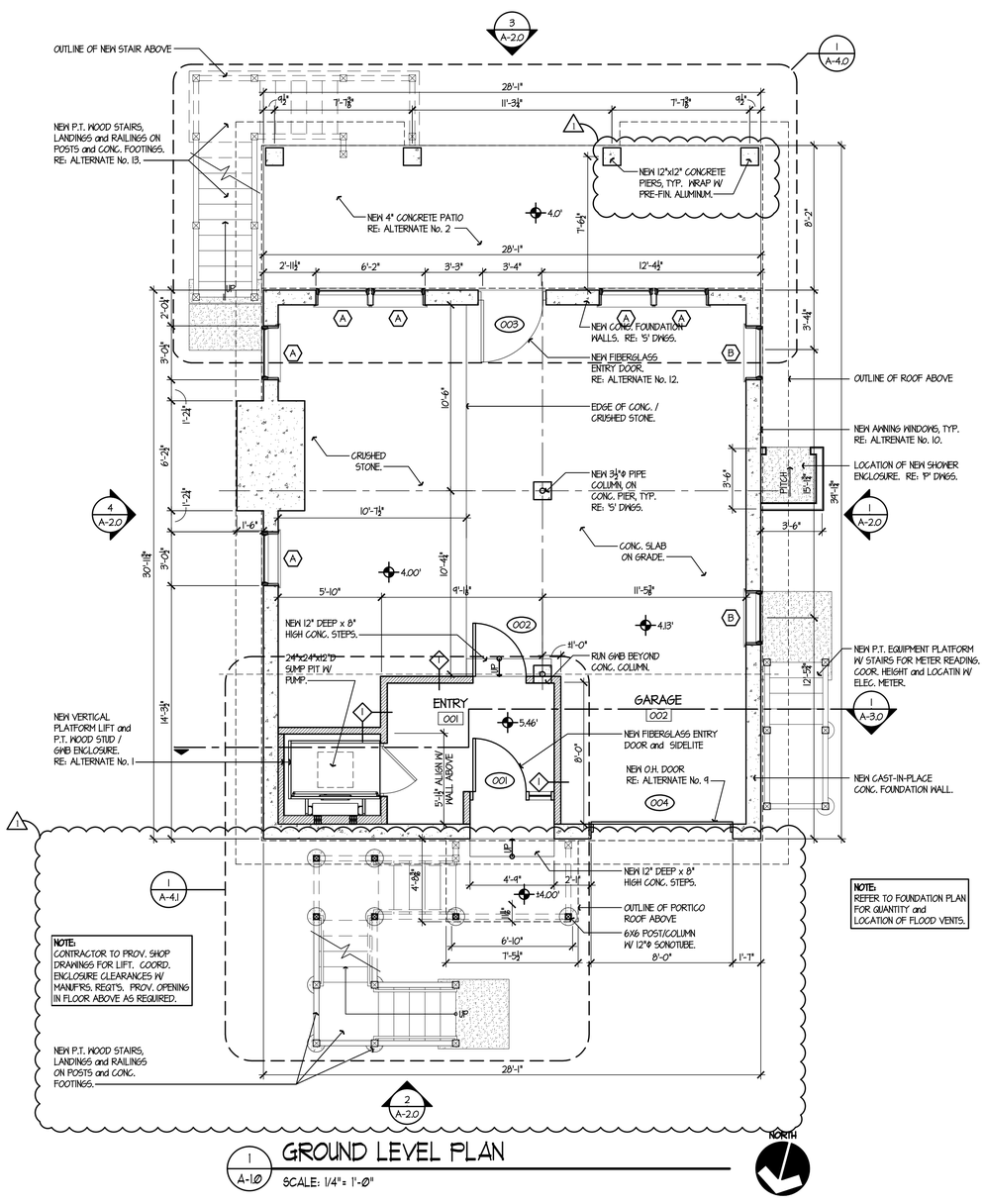
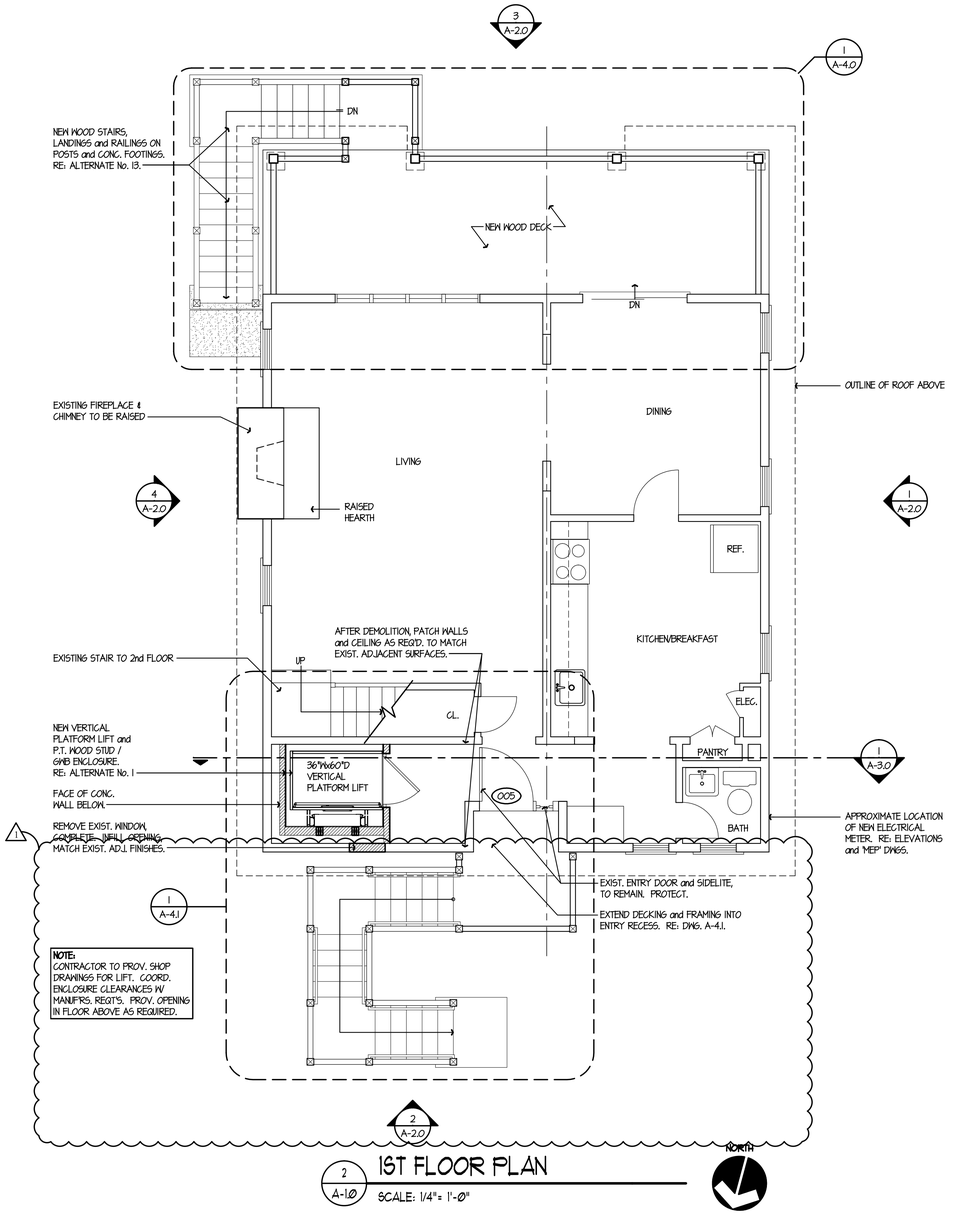


Figure DW-1A Cross Section – Example of Non–Engineered Dewatering Containment Area for Dewatering Earth Materials





1 A-1.0 GROUND LEVEL PLAN
SCALE: 1/4"= 1'-0"



2 A-1.0 1ST FLOOR PLAN
SCALE: 1/4"= 1'-0"

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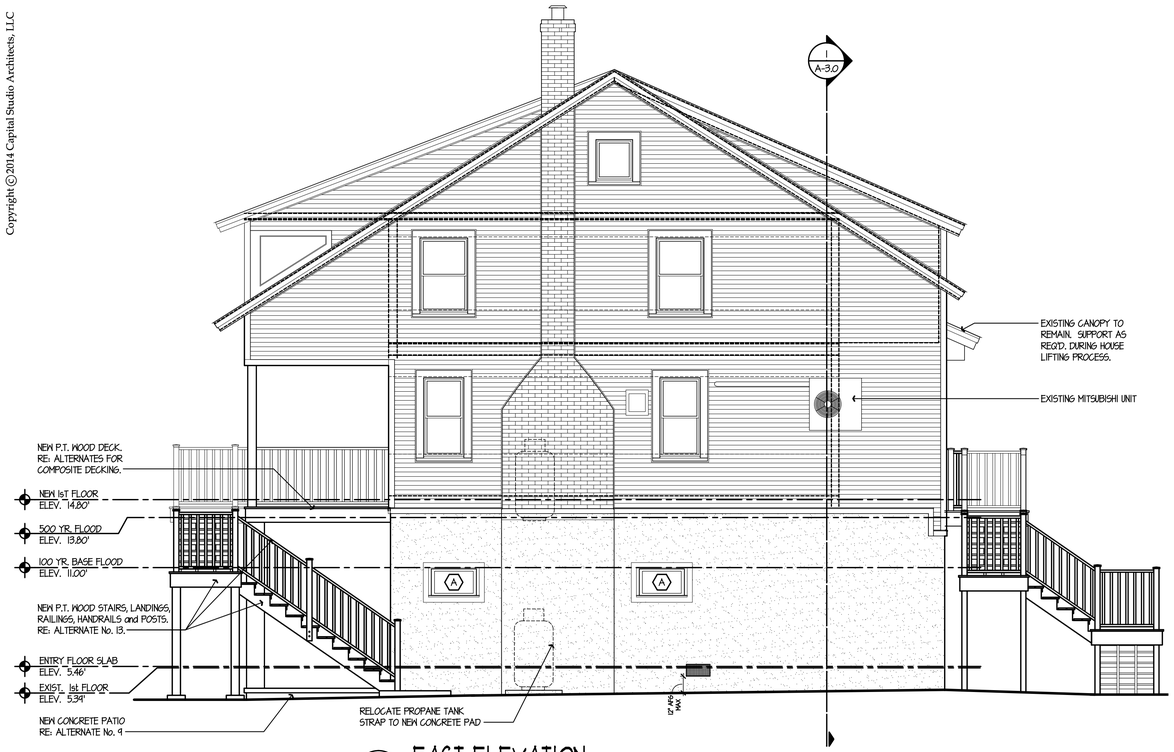
revisions

FLOOR PLANS

A-1.0

date	20 MAY 2016
drawn	NWF/JRP/DP
scale	AS SHOWN
checked	JP/DH/KG
project no.	1347-44
application no.	2184

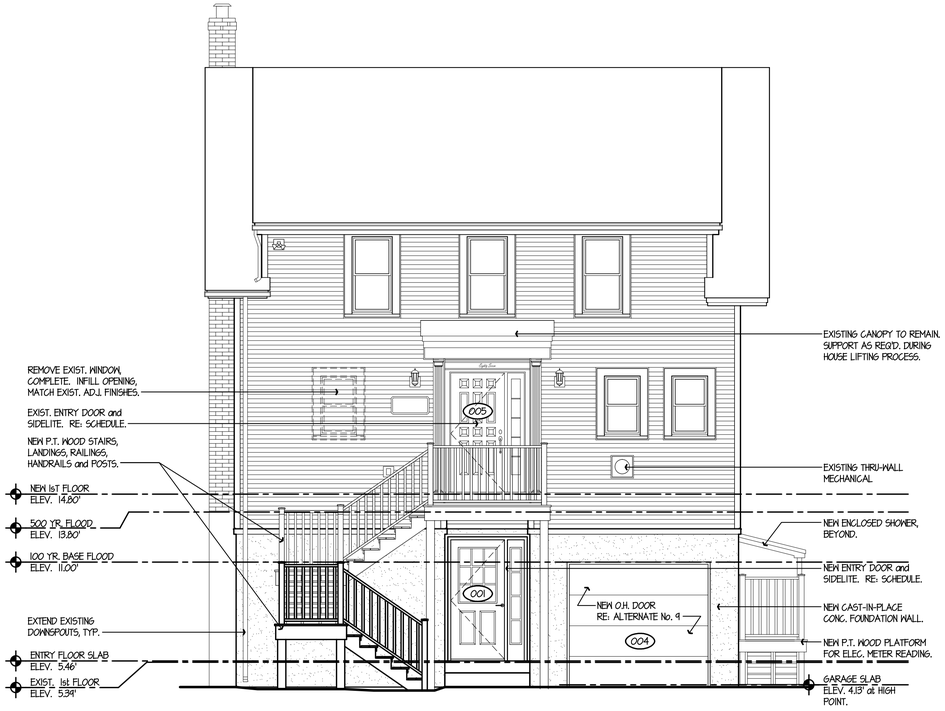


4 A-2.0 EAST ELEVATION

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

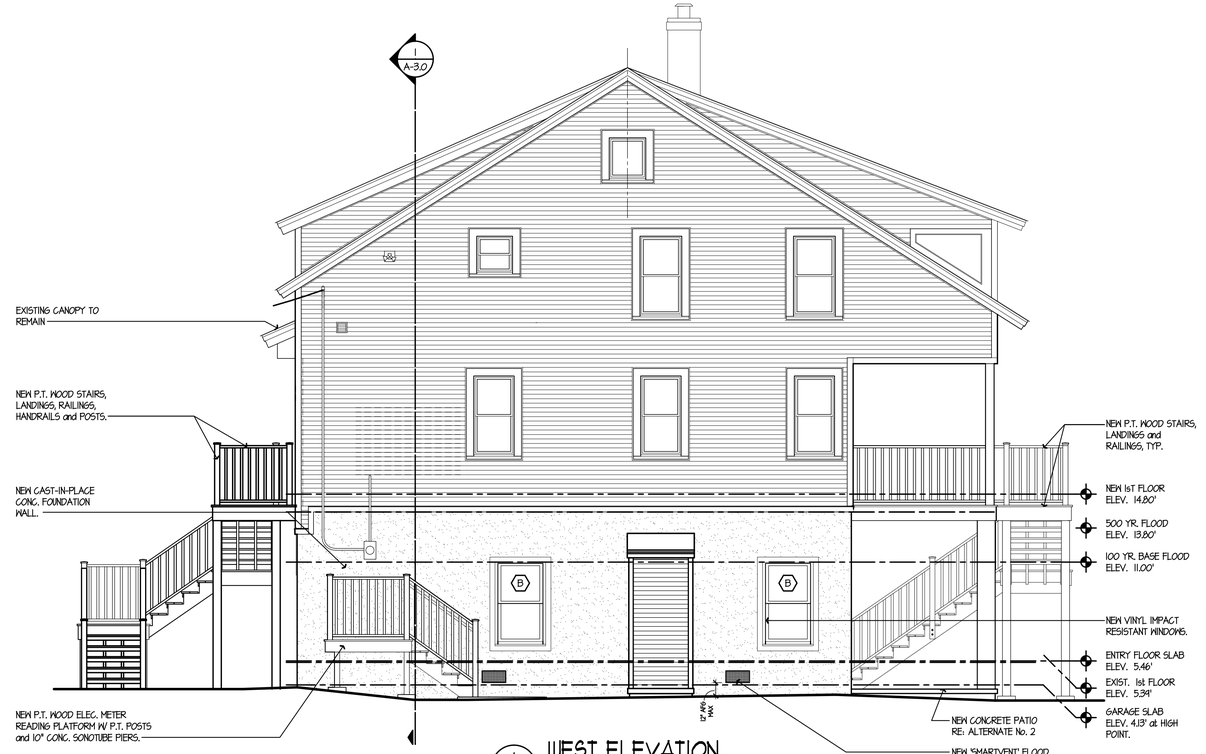
3 A-2.0 SOUTH ELEVATION

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



2 A-2.0 NORTH ELEVATION

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



1 A-2.0 WEST ELEVATION

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

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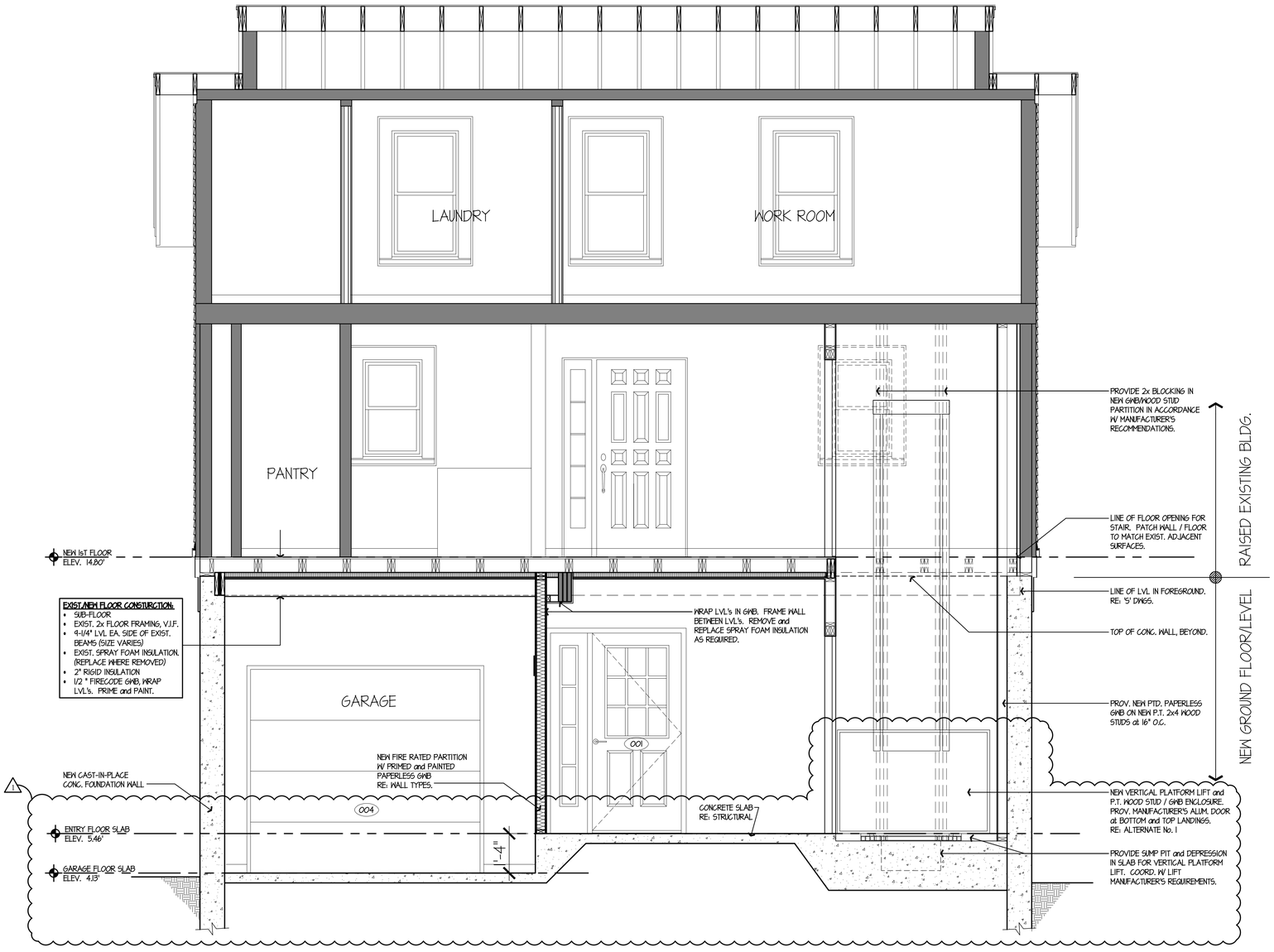

1 / A-3.0 SECTION thru HOUSE

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

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A-3.0

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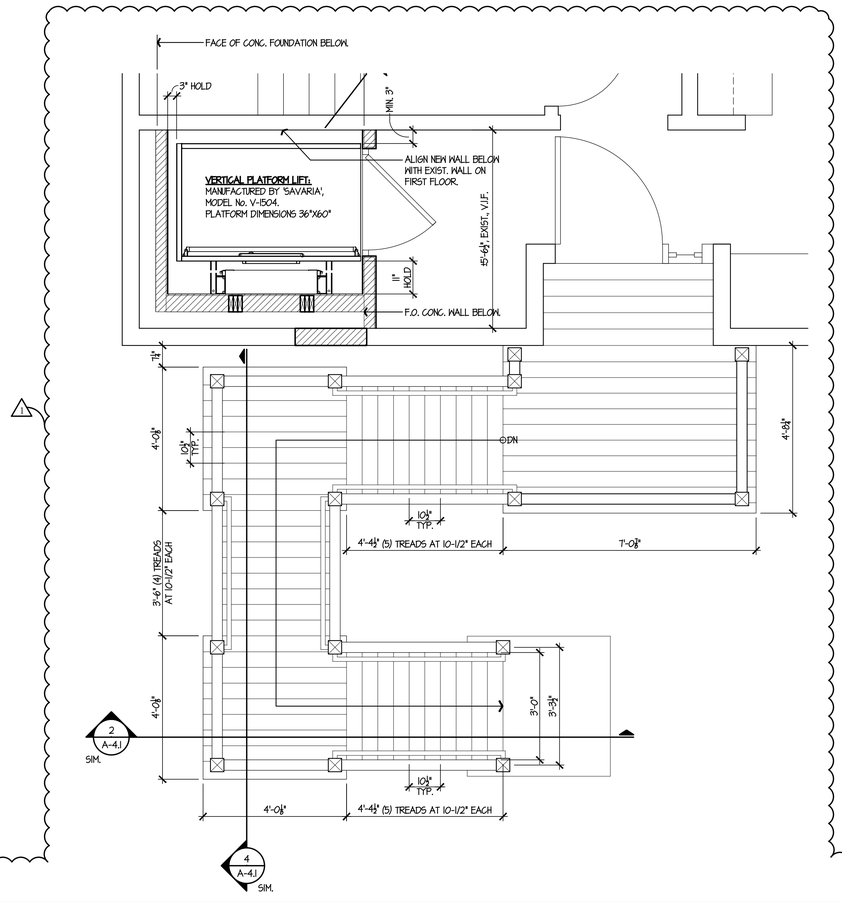


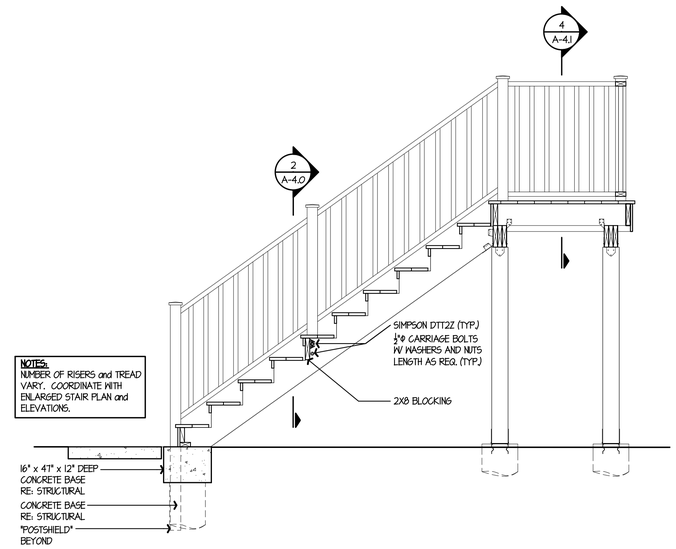
1 A-4.1 **INTERIOR STAIR PLAN**

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

NORTH

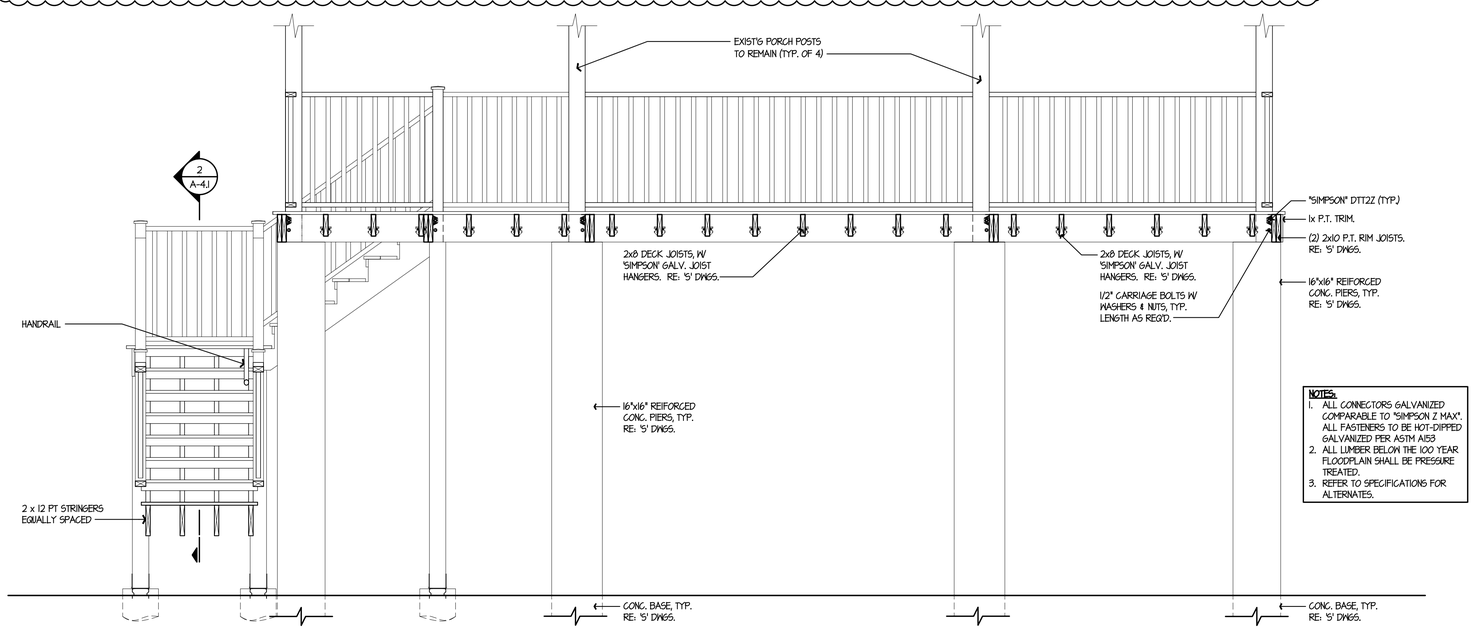
NOTES:
1. ALL CONNECTORS GALVANIZED COMPARABLE TO "SIMPSON Z MAX". ALL FASTENERS TO BE HOT-DIPPED GALVANIZED PER ASTM A153
2. ALL LUMBER BELOW THE 100 YEAR FLOODPLAIN SHALL BE PRESSURE TREATED.
3. REFER TO SPECIFICATIONS FOR ALTERNATES.

NOTES:
NUMBER OF RISERS and TREAD VARY. COORDINATE WITH ENLARGED STAIR PLAN and ELEVATIONS.



2 A-4.1 **TYPICAL STAIR SECTION**

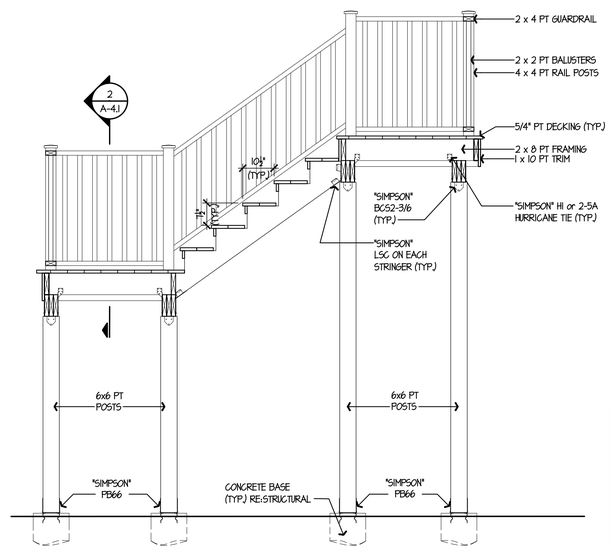
SCALE: 1/2"=1'-0"



NOTES:
1. ALL CONNECTORS GALVANIZED COMPARABLE TO "SIMPSON Z MAX". ALL FASTENERS TO BE HOT-DIPPED GALVANIZED PER ASTM A153
2. ALL LUMBER BELOW THE 100 YEAR FLOODPLAIN SHALL BE PRESSURE TREATED.
3. REFER TO SPECIFICATIONS FOR ALTERNATES.

3 A-4.1 **STAIR & DECK SECTION**

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



4 A-4.1 **STAIR SECTION**

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

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STAIR AND DECK DETAILS

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