

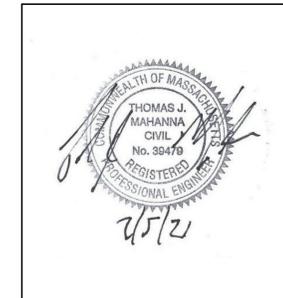
# WESTFORD WATER DEPARTMENT TOWN FARM WATER STORAGE TANK REHABILITATION

PROJECT NO: W5005-025

FEBRUARY 2021

PREPARED BY:

**Tighe&Bond**



PREPARED FOR:

WESTFORD WATER DEPARTMENT  
STEPHEN CRONIN - DPW DIRECTOR

BOARD OF WATER COMMISSIONERS

HUGH MAGUIRE, CHAIRPERSON  
TITUS PLAMER, VICE-CHAIRPERSON  
CHAUNCEY CHU, SECRETARY

LIST OF DRAWINGS		
SHEET NO.	DRAWING NO.	DRAWING TITLE
GENERAL		
1	G-001	COVER SHEET
2	G-002	GENERAL NOTES, LEGEND, AND ABBREVIATIONS
CIVIL		
3	C-101	EXISTING CONDITIONS PLAN
4	C-102	PROPOSED GRADING PLAN
5	C-103	ADD ALTERNATE NO. 1 PROPOSED ACCESS DRIVE ENTRANCE MODIFICATIONS
6	C-104	DETAILS - 1
7	C-105	DETAILS - 2
8	C-106	ALTITUDE VALVE VAULT MODIFICATION DETAILS
9	C-107	ADD ALTERNATE NO. 2 SELF SUPPORTING DOME ROOF



LOCATION MAP  
SCALE: 1" = 1000'

**COMPLETE SET 9 SHEETS**



ASSESSOR'S REFERENCE  
MAP 24 - PARCELS 5 & 6

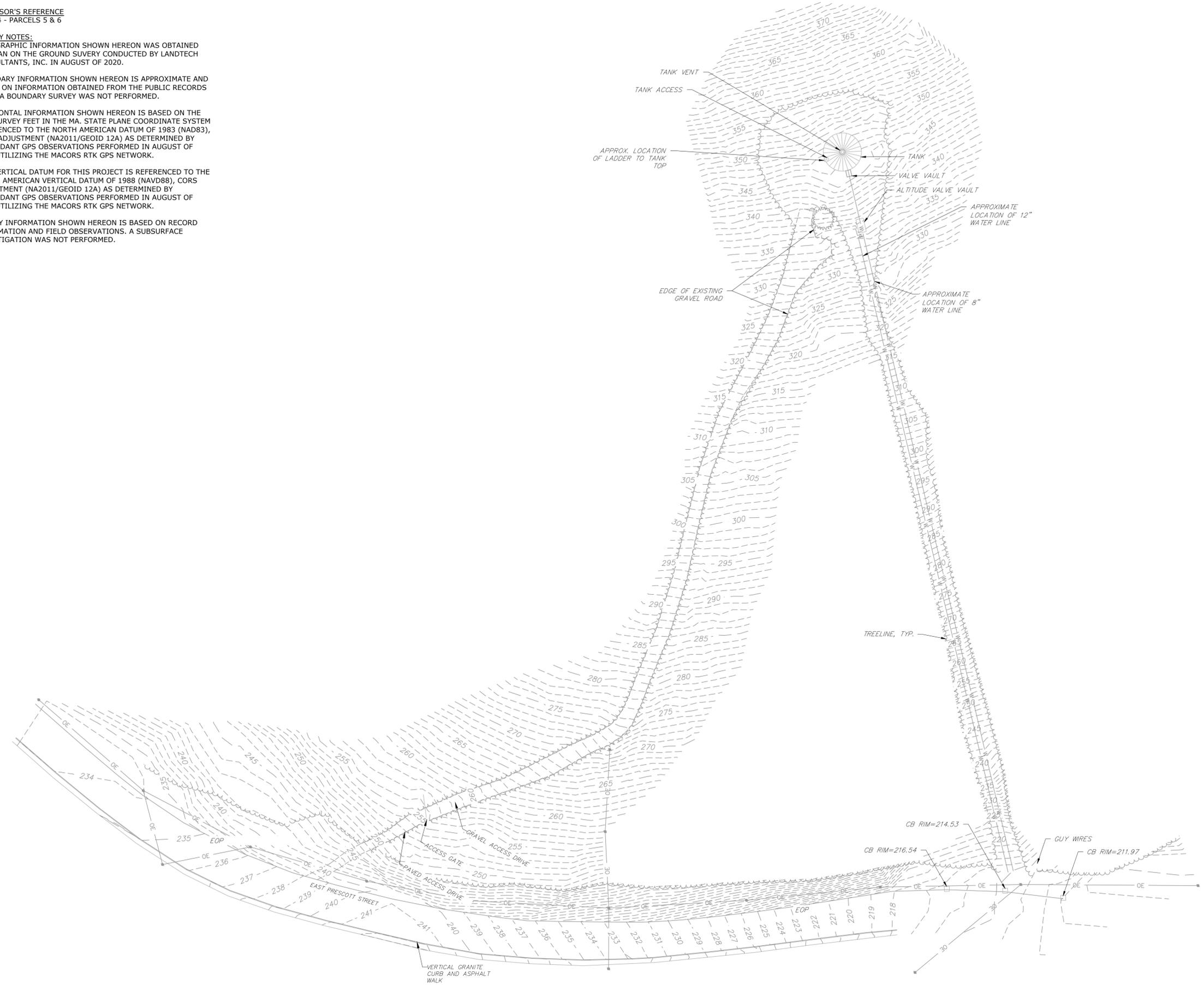
**SURVEY NOTES:**  
TOPOGRAPHIC INFORMATION SHOWN HEREON WAS OBTAINED FROM AN ON THE GROUND SUVERY CONDUCTED BY LANDTECH CONSULTANTS, INC. IN AUGUST OF 2020.

BOUNDARY INFORMATION SHOWN HEREON IS APPROXIMATE AND BASED ON INFORMATION OBTAINED FROM THE PUBLIC RECORDS (GIS). A BOUNDARY SURVEY WAS NOT PERFORMED.

HORIZONTAL INFORMATION SHOWN HEREON IS BASED ON THE U.S. SURVEY FEET IN THE MA. STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS PERFORMED IN AUGUST OF 2020 UTILIZING THE MACORS RTK GPS NETWORK.

THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS PERFORMED IN AUGUST OF 2020 UTILIZING THE MACORS RTK GPS NETWORK.

UTILITY INFORMATION SHOWN HEREON IS BASED ON RECORD INFORMATION AND FIELD OBSERVATIONS. A SUBSURFACE INVESTIGATION WAS NOT PERFORMED.



**Town Farm  
Storage Tank  
Rehabilitation**

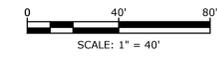
Westford Water  
Department

Westford,  
Massachusetts

MARK	DATE	DESCRIPTION
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PROJECT NO: W5005-025		
DATE: FEBRUARY 2021		
FILE: W5005-025-C-101.dwg		
DRAWN BY: RMM / DJC		
CHECKED BY: DMT		
APPROVED BY: TJM		

**EXISTING CONDITIONS PLAN**

SCALE: AS SHOWN



Last Saved: 2/5/2021 12:14pm By: MJohnson  
 Plotted On: Feb 05, 2021 12:14pm By: MJohnson  
 File: C:\Users\TJM\OneDrive\Documents\Westford\Projects\Town Farm Tank Rehab\Drawings\Figures\AutoCAD\Sheet\W5005-025-C-101.dwg



**Town Farm  
Storage Tank  
Rehabilitation**

Westford Water  
Department

Westford,  
Massachusetts

0	2/3/2021	ISSUED FOR BIDDING
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PROJECT NO: W5005-025		
DATE: FEBRUARY 2021		
FILE: W5005-025-C-102.dwg		
DRAWN BY: RMM / DJC		
CHECKED BY: DMT		
APPROVED BY: TJM		

PROPOSED GRADING PLAN

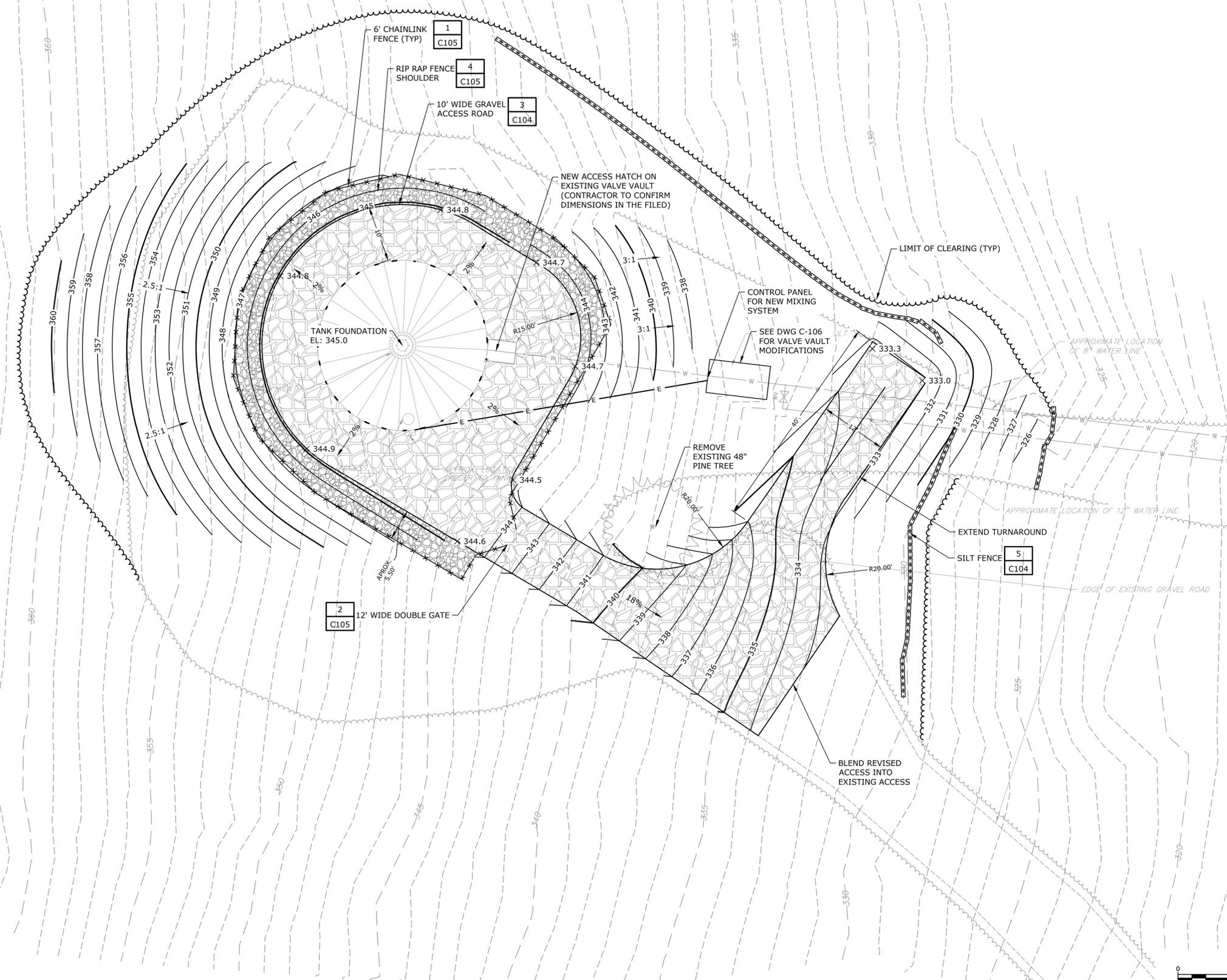
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**C-102**  
SHEET 4 OF 9

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 Plotted On: Feb 01, 2021 5:29am  
 Title & Content: TOWN FARM STORAGE TANK REHABILITATION

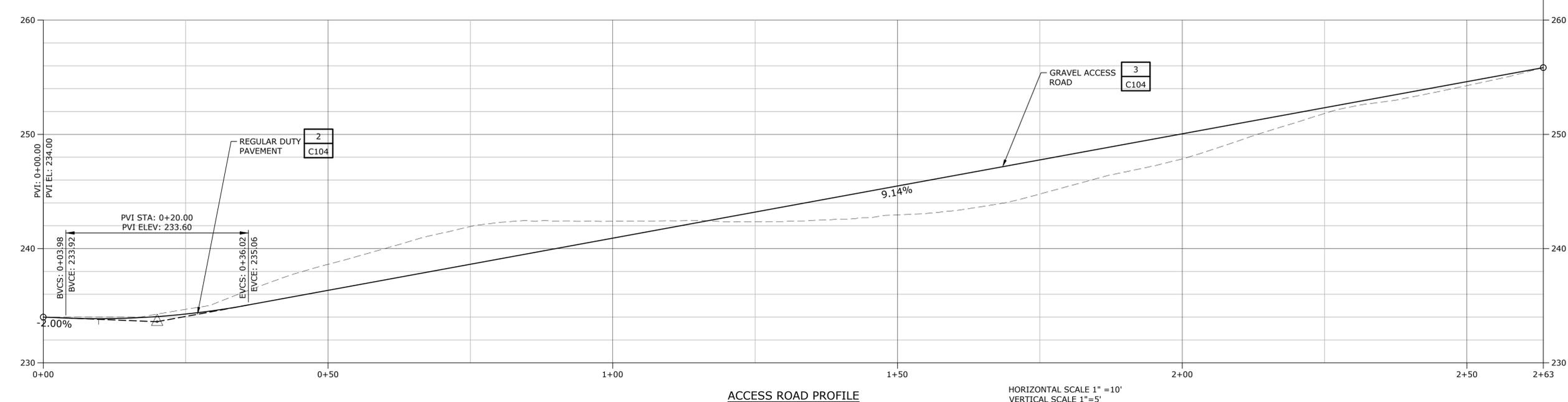
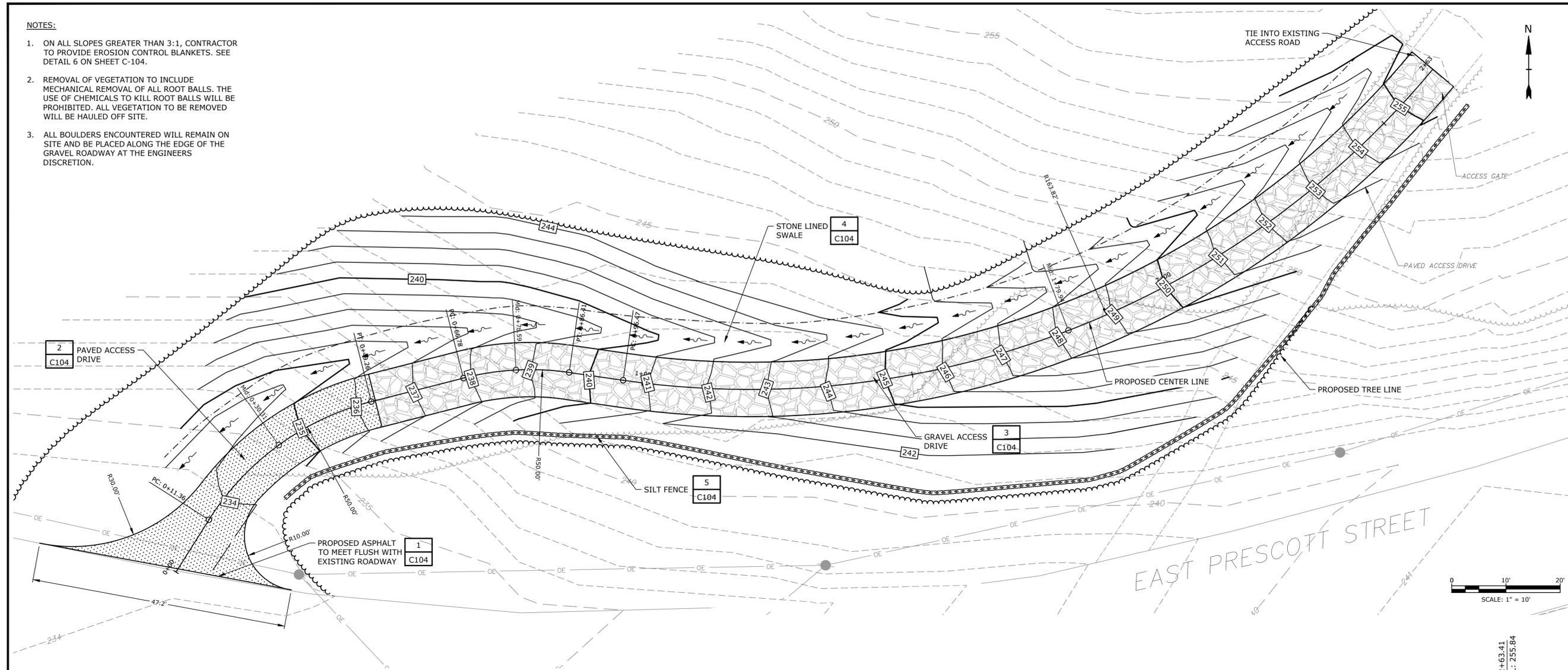
**NOTES:**

- ON ALL SLOPES GREATER THAN 3:1, CONTRACTOR TO PROVIDE EROSION CONTROL BLANKETS. SEE DETAIL 6 ON SHEET C-104.
- REMOVAL OF VEGETATION TO INCLUDE MECHANICAL REMOVAL OF ALL ROOT BALLS. THE USE OF CHEMICALS TO KILL ROOT BALLS WILL BE PROHIBITED. ALL VEGETATION TO BE REMOVED WILL BE HAULED OFF SITE BY CONTRACTOR.
- ALL BOULDERS ENCOUNTERED WILL REMAIN ON SITE AND BE PLACED ALONG THE EDGE OF THE GRAVEL ROADWAY AT THE ENGINEERS DISCRETION.



**NOTES:**

- ON ALL SLOPES GREATER THAN 3:1, CONTRACTOR TO PROVIDE EROSION CONTROL BLANKETS. SEE DETAIL 6 ON SHEET C-104.
- REMOVAL OF VEGETATION TO INCLUDE MECHANICAL REMOVAL OF ALL ROOT BALLS. THE USE OF CHEMICALS TO KILL ROOT BALLS WILL BE PROHIBITED. ALL VEGETATION TO BE REMOVED WILL BE HAULED OFF SITE.
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**Town Farm Storage Tank Rehabilitation**

Westford Water Department

Westford, Massachusetts

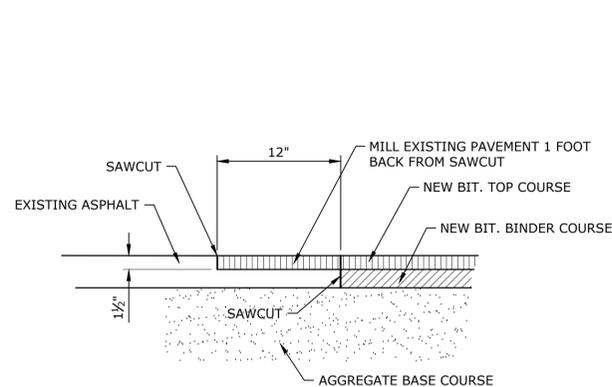
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PROJECT NO: W5005-025  
 DATE: FEBRUARY 2021  
 FILE: W5005-025-C-103.dwg  
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 CHECKED BY: DMT  
 APPROVED BY: TJM

ADD ALTERNATE NO. 1  
 PROPOSED ACCESS DRIVE  
 ENTRANCE MODIFICATIONS

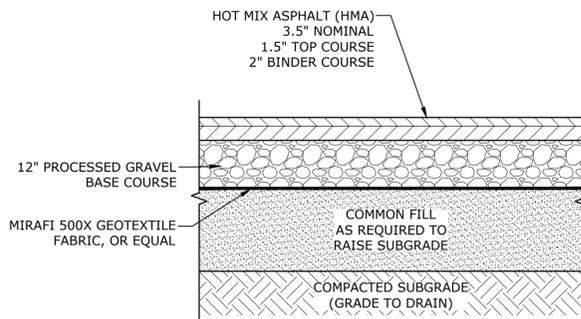
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**TYPICAL BUTT JOINT TO EXISTING PAVEMENT**

<b>DETAIL</b>	1
NO SCALE	-

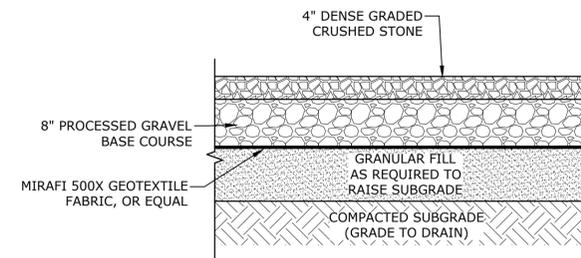


**NOTES:**

1. TO BE USED AT ACCESS ROAD ENTRANCE AT ALTERNATE NO. 1.
2. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
3. HOT MIX ASPHALT MATERIALS SHALL MEET THE REQUIREMENTS OF M3.11.0 OF CLASS I TYPE I-1 AS SPECIFIED IN SECTIONS 460 OF THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, MOST RECENT EDITION.

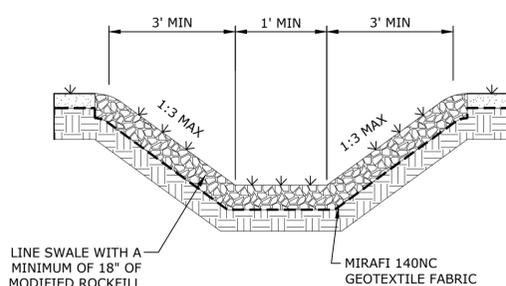
**REGULAR DUTY PAVEMENT SECTION**

<b>DETAIL</b>	2
NO SCALE	-



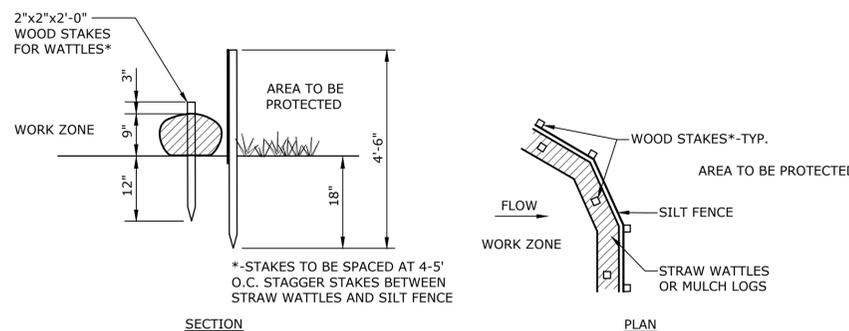
**GRAVEL ACCESS ROAD**

<b>DETAIL</b>	3
NO SCALE	-



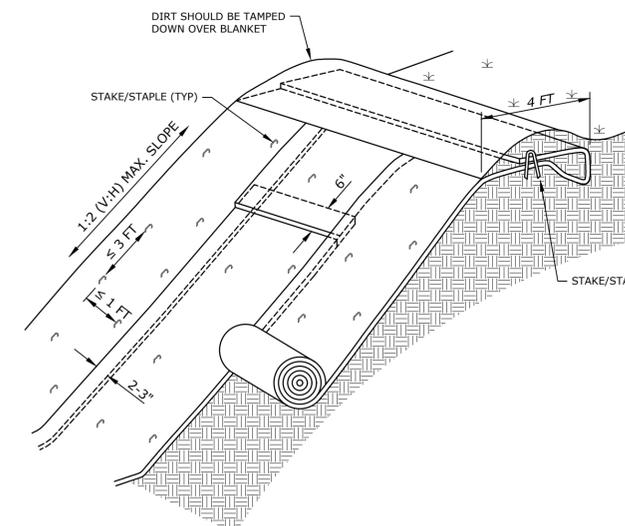
**GRAVEL LINED SWALE**

<b>DETAIL</b>	4
NO SCALE	-



**EROSION CONTROL BARRIER**

<b>DETAIL</b>	5
NO SCALE	-



**NOTES:**

1. EROSION CONTROL BLANKET SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
2. STAKES/STAPLES SHOULD BE PLACED NO MORE THAN 3 FT APART VERTICALLY, AND 1 FT APART HORIZONTALLY.
3. SLOPE SURFACE SHOULD BE FREE OF STICKS, ROCKS, AND OTHER OBSTRUCTIONS.
4. BLANKETS SHOULD BE ROLLED OUT LOOSELY AND STAKED/STAPLED TO MAINTAIN DIRECT SOIL CONTACT. DO NOT STRETCH THE BLANKETS.

**EROSION CONTROL BLANKETS**

<b>DETAIL</b>	6
NO SCALE	-

**Town Farm Storage Tank Rehabilitation**

Westford Water Department

Westford, Massachusetts

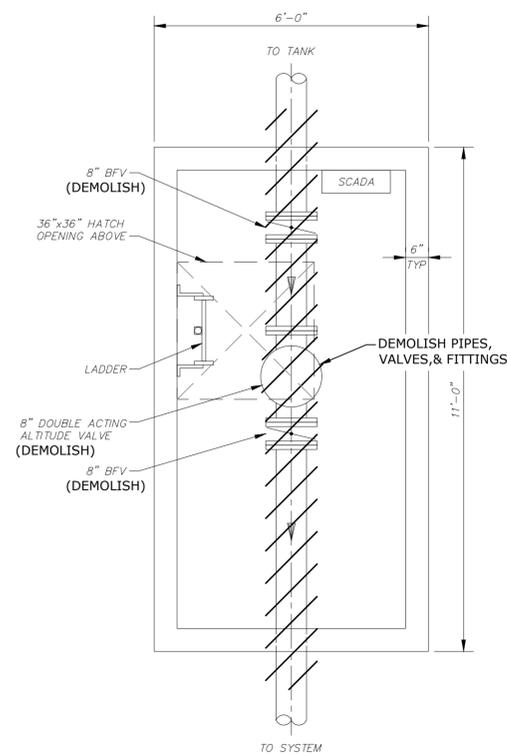
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PROJECT NO: W5005-025		
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FILE: W5005-025-C-104.dwg		
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CHECKED BY: DMT		
APPROVED BY: TJM		

DETAILS - 1

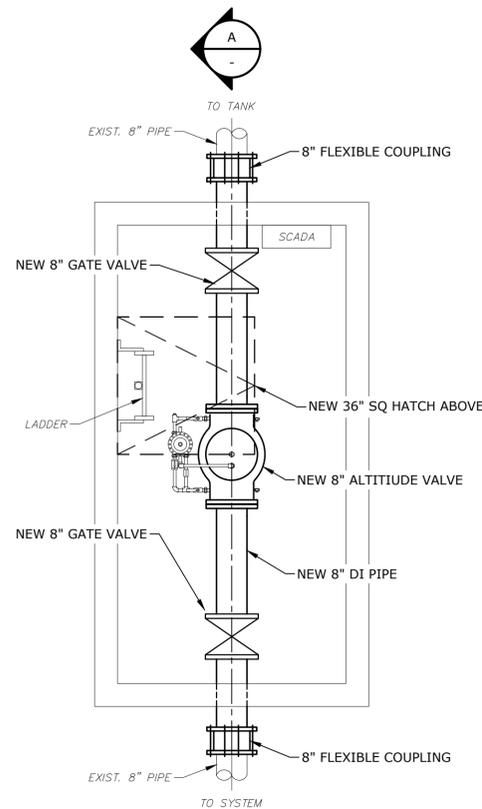
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**C-104**  
SHEET 6 OF 9

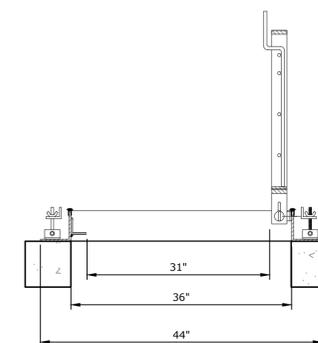
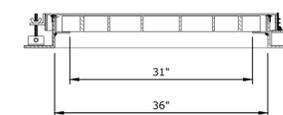
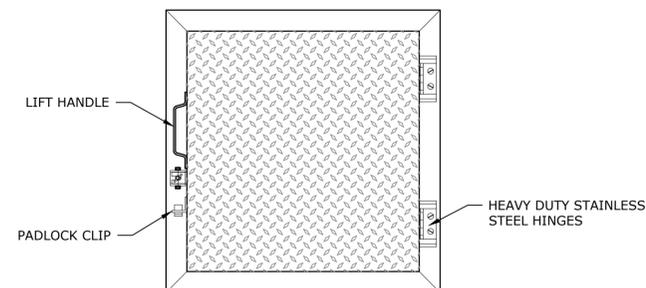




**ALTITUDE VALVE VAULT  
DEMOLITION PLAN**  
1/2"=1'-0"

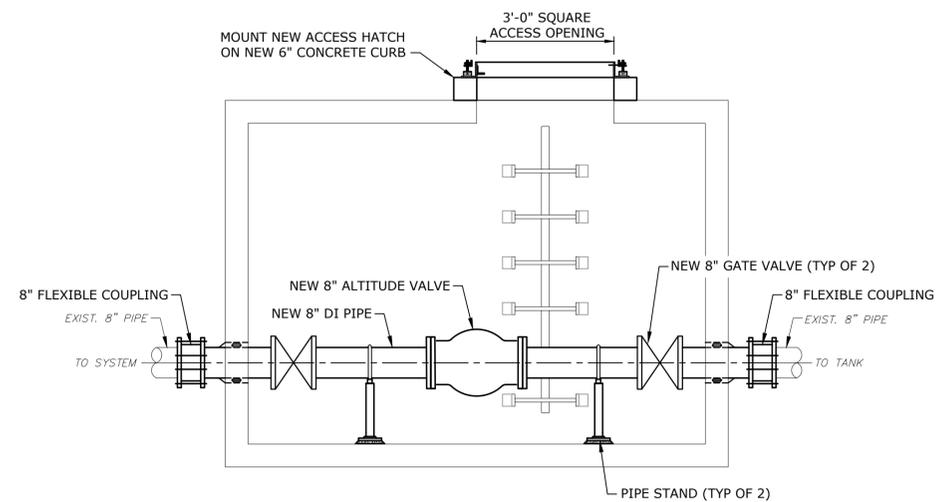


**ALTITUDE VALVE VAULT  
PROPOSED PLAN**  
1/2"=1'-0"

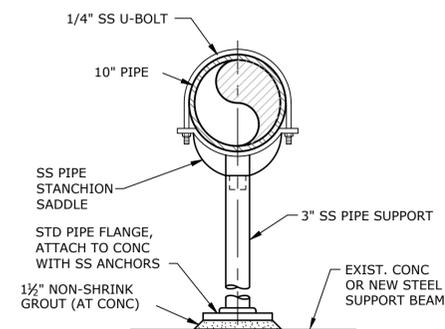


**ACCESS HATCH**  
NO SCALE

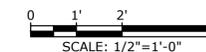
- NOTES:**
- HATCH SHALL BE EQUIPPED WITH AN ALUMINUM HOLD OPEN ARM. DOOR SHALL LOCK OPEN IN THE 90-DEGREE POSITION.
  - MATERIAL SHALL BE 6061-T6 ALUMINUM FOR BARS, ANGLES, AND EXTRUSIONS. 1/2" DIAMOND PLATE SHALL BE 5086 ALUMINUM.



**SECTION A-A**  
1/2"=1'-0"



**PIPE STAND**  
NO SCALE



**Town Farm  
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MARK	DATE	DESCRIPTION
0	2/3/2021	ISSUED FOR BIDDING

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SCALE: AS SHOWN

