

January 29, 2016  
36268-00

Tennessee Department of Environment & Conservation (TDEC)  
Division of Water Resource  
William R. Snodgrass Tower  
312 Rosa L. Parks Avenue, 11th Floor  
Nashville, Tennessee 37243

TN DEPT OF ENVIRONMENT  
AND CONSERVATION  
FEB 01 2016  
DIV OF WATER RESOURCES  
RECEIVED

RE: INDIVIDUAL PERMIT APPLICATION & SWPPP  
PROVIDENCE ROAD SOLAR FARM  
MADISON COUNTY, TN

Gentlemen:

Attached is the Individual Permit Application and SWPPP for the above referenced project. Also, included is the check for the application fee in the amount of \$6,000. I have also forwarded a copy of the application and SWPPP to Greg Overstreet in the Jackson Field Office.

Please let me know if you have any questions.

Sincerely,



Chris Triplett, PE, PMP  
Vice President

Enclosure

Copy to: Greg Overstreet, TDEC Jackson  
McCarthy Building Company

McCarthy

McCarthy Building Companies, Inc.  
1341 North Rock Hill Road  
St Louis, MO 63124

US Bank Memphis CD  
Commercial Bank

80-1769/815

CHECK DATE  
01/04/2016

CHECK NO  
3099213

PAY Six Thousand Dollars And Zero Cents

CHECK AMOUNT  
\$6,000.00

TO THE ORDER OF



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
6TH FLOOR ANNEX, L&C TOWER  
401 CHURCH STREET  
NASHVILLE, TN 37243

*David Dillon*

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND - THE REVERSE SIDE AN ARTIFICIAL WATERMARK



ARAP #NRS16.025



**INDIVIDUAL PERMIT APPLICATION  
AND  
STORM WATER POLLUTION PREVENTION PLAN**

**PROVIDENCE ROAD SOLAR FARM  
MADISON COUNTY, TENNESSEE**

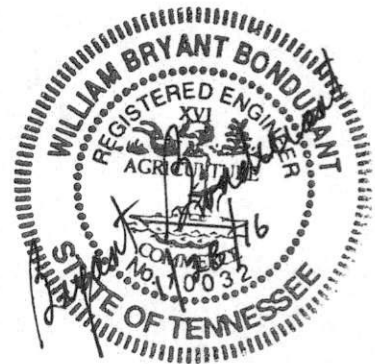
**Prepared for:**

**SILICON RANCH CORPORATION**

**Prepared by:**

**Barge Waggoner Sumner & Cannon, Inc.  
60 Germantown Court, Suite 100  
Memphis, Tennessee 38018**

**January 2016  
File 36268-00**



**INDIVIDUAL PERMIT APPLICATION  
AND  
STORM WATER POLLUTION PREVENTION PLAN**

**PROVIDENCE ROAD SOLAR FARM  
MADISON COUNTY, TENNESSEE**

**Prepared for:**

**SILICON RANCH CORPORATION**

TN DEPT OF ENVIRONMENT  
AND CONSERVATION

FEB 01 2016

DIV OF WATER RESOURCES  
RECEIVED

**Prepared by:**

**Barge Waggoner Sumner & Cannon, Inc.  
60 Germantown Court, Suite 100  
Memphis, Tennessee 38018**

**January 2016  
File 36268-00**





## Table of Contents

ACRONYM LIST .....	ii
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
<b>2.0 SITE DESCRIPTION/OWNER INFORMATION .....</b>	<b>2</b>
2.1 Sequence of Construction/Major Soil Disturbing Activities .....	3
2.2 Topography .....	3
2.3 Soil Data .....	3
2.4 Runoff Management After Project Completion.....	4
2.5 Erosion Control Plan .....	4
2.6 Streams and Wetlands.....	4
2.7 Receiving Water.....	4
2.8 Protections to Limit Construction Disturbance .....	4
3.1 Stabilization Practices .....	5
3.2 Structural Practices .....	5
<b>4.0 STORM WATER MANAGEMENT .....</b>	<b>7</b>
<b>5.0 OTHER ITEMS NEEDING CONTROL .....</b>	<b>8</b>
5.1 Solid Materials Placed in Waters of the State .....	8
5.2 Stabilized Construction Access and Dust Control .....	8
5.3 Waste Disposal Systems .....	8
5.4 Construction and Waste Materials Stored Onsite .....	8
5.5 Storm Water Sources from Other Areas.....	9
5.6 State or Federal Endangered Species .....	9
<b>6.0 APPROVED LOCAL GOVERNMENT REQUIREMENTS .....</b>	<b>9</b>
<b>7.0 MAINTENANCE .....</b>	<b>9</b>
<b>8.0 INSPECTIONS .....</b>	<b>10</b>
8.1 Inspector Training and Certification .....	10
8.2 Schedule of Inspections .....	10
8.3 Inspection Frequency .....	10
8.4 Inspection Items .....	10
8.5 Schedule for Corrections.....	11
8.6 Inspection Documentation .....	11
<b>9.0 POLLUTION PREVENTION MEASURES FOR NON-STORM-WATER DISCHARGES..</b>	<b>12</b>
<b>10.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO TMDL .....</b>	<b>12</b>
<b>11.0 SPECIAL CONDITIONS .....</b>	<b>12</b>
<b>12.0 RECORD KEEPING .....</b>	<b>12</b>
<b>13.0 NOTICE OF TERMINATION .....</b>	<b>13</b>
<b>14.0 PRIMARY PERMITEE CERTIFICATION .....</b>	<b>14</b>
<b>15.0 SECONDARY PERMITEE CERTIFICATION.....</b>	<b>15</b>

### List of Attachments

Attachment A	Figures
Attachment B	Notice of Intent (NOI)
Attachment C	Best Management Practices
Attachment D	Inspection Form
Attachment E	Notice of Termination (NOT)
Attachment F	Formulas for Sedimentation Basin Design

## Acronym List

BMP	Best Management Practices
ECP	Erosion Control Plan
msl	mean sea level
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
SCS	Soil Conservation Service
SWPPP	Storm Water Pollution Prevention Plan
TDEC	Tennessee Department of Environment and Conservation
TMDL	Total Maximum Daily Load
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency

## **1.0 INTRODUCTION**

Silicon Ranch Corporation, as the owner, is proposing to conduct site grading under the authority of National Pollutant Discharge Elimination System (NPDES), for Discharges of Storm Water Associated with Construction Activities. The contractor for this work is McCarthy Building Corporation. The Owner and Contractor will ensure that site personnel are qualified to perform this work as defined by the regulations, and are aware that they must comply with all conditions of this permit and that any non-compliance with the permit constitutes a violation of the Clean Water Act and is grounds for an enforcement action, termination of permit coverage, or denial of a permit renewal application.

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared for the Providence Road Solar Farm based on Part IV.D., of the Tennessee Department of Environment and Conservation's (TDEC) General Permit TNR100000. However, this SWPPP is prepared for an individual permit application. The individual application is requested because the mass onsite grading needed for a balanced cut-fill, which requires more than 50-acres to be disturbed at a time. This SWPPP includes an Erosion Control Plan (ECP). To enhance the performance of the proposed measures, all erosion prevention and sediment controls have been designed for the 5-year/24-hour storm event even though Panther Creek is not an impaired stream. This plan has been developed and prepared in accordance with good engineering practices and identifies potential sources of pollution that one would reasonably expect to affect the quality of storm water discharges from this construction site.

The plan describes the implementation practices that will be used to ensure a reduction of pollutants in storm water associated with construction activities at this site. Because no guidance is provided for an individual permit, the plan and its measures have been developed to comply with the terms and conditions of Tennessee General Permit TNR100000 for Discharges of Storm Water Associated with Construction Activities. As required by the permit, a notice of intent (NOI) has been completed and is included as (Attachment B). A copy of the SWPPP, the NOC, and Permit TNR100000 will be kept onsite during construction activities. The contractor will also maintain an on-site rain gauge throughout construction.

## **2.0 SITE DESCRIPTION/OWNER INFORMATION**

The construction activities proposed for coverage by this plan will occur in the southeast quadrant of U.S. Highway 70 and Providence Road intersection, which is located in Madison County, Tennessee.

The site's pre-development conditions consist of a farmland that is being row cropped. Post-development conditions will consist of grassed areas with solar panels. All site drainage discharges to a tributary to Panther Creek.

General site/owner information is as follows:

Site / Project Name:	Providence Road Solar Farm
Site Location:	Southeast quadrant of U.S. Highway 70 and Providence Road intersection.
Owner/Primary Permittee:	Silicon Ranch Corporation
Owner/Primary Permittee Address and Phone:	150 Third Avenue, Suite 2000 Nashville, TN 37201 Phone: 615-577-4786
General Contractor (Operator):	McCarthy Building Companies, Inc.
General Contractor Address and Phone:	6225 N. 24 <sup>th</sup> Street, Suite 200 Phoenix, AZ 85016 Phone: 480-449-4757
Date of Notice of Intent (NOI) Filed:	January, 2016
Description of the Proposed Project:	This project will involve the grading of a site in preparation for the installation of solar panels. The disturbed area will be 128.4 acres.

## **2.1 Sequence of Construction/Major Soil Disturbing Activities**

Activities to be conducted at the site consist of:

- Installation of diversion ditches and berms for offsite runoff.
- Installation of erosion control devices and sedimentation basins.
- Grading operations
- Establishing a grass cover
- Removal of temporary erosion control devices and sedimentation basins.

Estimated total area of this site and total area of the site that is expected to be disturbed by current excavation, grading, or other activities:

- Total Site Area: 287.16 Ac.
- Total Disturbed Area: 128.4 acres

## **2.2 Topography**

The construction site is currently part of farmland being row cropped.

Storm water runoff drains into a tributary to Panther Creek. The site is on the Denmark 7.5 minute U.S. Geologic Survey quadrangle map. The site latitude is 35.5843° and the longitude is 89.0537°.

## **2.3 Soil Data**

According to the U.S. Department of Agriculture (USDA) Soil Conservation Service's general soil map for Madison County, Tennessee, the area which will be disturbed consists of Calhoun and Henry silt loams (Ca), Lexington silt loam (LeC3), Loring silt loam (LoB), Memphis silt loam (MeB2).

Because the soils on the site are highly susceptible to erosion, careful management is needed to prevent soil erosion during construction operations. The use of best management practices (BMPs) such as temporary silt fences, a construction entrance/exit covered with stone, and sedimentation basins. These erosion controls are expected to filter, detain, and/or retard runoff long enough to ensure minimal amounts of sediment traveling offsite.

## **2.4 Runoff Management After Project Completion**

Upon completion, all disturbed areas will be seeded and mulched. See Attachment A for details regarding site grading and runoff management.

## **2.5 Erosion Control Plan**

The Erosion Control Plan (Attachment A) for the Providence Road Solar Farm outlines the following:

- Proposed construction area
- Drainage Patterns
- Areas of soil disturbance
- Proposed sedimentation basins
- Proposed erosion control fences
- Method of final soil stabilization

## **2.6 Streams and Wetlands**

A preliminary determination was made that wetlands are present on this site. Construction activities are outside the wetland boundaries and construction storm water runoff has been diverted away from the wetlands. The preliminary determination has also identified a potential onsite stream. Construction activities are a minimum of 60-feet off the stream top of bank and measures will be installed to protect the stream from construction runoff.

## **2.7 Receiving Water**

Storm water runoff from the site discharges to a tributary to Panther Creek.

## **2.8 Protections to Limit Construction Disturbance**

All areas disturbed by construction activities shall be graded and stabilized such that sediment runoff is negligible immediately after completion of a construction stage. Temporary erosion control structures shall not be removed until all disturbed areas in a completed stage have been properly stabilized. Sediment or construction debris on paved areas shall be removed within 14 days of completion and prior to removal of temporary erosion controls.

Construction and erosion control methodology are described in Sections 3.1 and 3.2 and are to be implemented in accordance with the attached ECP. The 128.4 acres will be physically altered in some manner under the current project. The limits of the area to be disturbed will be clearly

marked in the field before grading begins. Site security may be used at the discretion of the contractor to deter trespassers from entering the site.

### **3.0 STORM WATER RUNOFF CONTROLS/SEDIMENT AND EROSION CONTROLS**

The goal of this SWPPP is to maintain and protect the natural, physical, and biological characteristics and functions (e.g., no significant changes in the hydrological regime or pollutant input) of the receiving water. The erosion prevention and sediment control measures and/or plans shall be modified as necessary so that they are effective at all times throughout the course of the project. Storm water runoff controls for the proposed project will consist of the structural control measures and the maintenance and inspection practices discussed later in this SWPPP. These runoff controls have been designed to retain sediment on the project site and to prevent any sediment from getting into waters of the State. Erosion and sediment control structures must be in place and functional before earthmoving activities begin. The operator will be responsible for the implementation and execution of all storm water runoff controls. Temporary erosion and sediment control measures may be removed at the beginning of the workday, but will be replaced at the end of the day. The structural controls to be used on this project and their placement are identified on the attached ECP.

Erosion prevention and sediment control structures must be in place and functional before excavation, grading, cutting, or filling occur, except as such work may be necessary to install erosion prevention and sediment control measures. BMPs to be implemented in conjunction with clearing and grubbing include, but are not limited to, the use of silt fences, construction exit pads, and sedimentation basins. The entire disturbed area will be seeded and mulched after construction. In areas where construction activities have temporarily or permanently ceased, stabilization measures shall be initiated as soon as possible, and must be completed no later than 15 days after the construction has temporarily or permanently ceased. Any grades greater than 35% will have stabilization completed within 7 days after construction has temporarily or permanently ceased.

#### **3.1 Stabilization Practices**

The disturbed areas will be seeded and mulched.

#### **3.2 Structural Practices**

Structural practices include temporary erosion control silt fence, sedimentation basins, and construction entrances covered with stone. These items will be installed prior to and during



clearing operations. The site operator will be responsible for the implementation, maintenance, and inspection of the SWPPP structural practices during the construction activity. Detailed design criteria for the sedimentation basins are shown on the ECP drawings in Attachment A. The formulas used for calculations are shown in Attachment F.

If settling the sedimentation basin is deemed insufficient by TDEC, chemical flocculents such as polyacrylamides will be added upstream of the sedimentation basins to enhance settling.

### **3.3 Phases**

There will be 5 phases of erosion control.

Phase 1 is shown on Sheets EPSC-1, is the construction of the ditches and berms that will be used to divert offsite runoff around the disturbed areas and keep it out of the sedimentation basins. This work will include appropriate erosion control measures such as construction exit pads, check dams and silt fence. All disturbed areas in Phase 1 will be seeded and mulched and an acceptable stand of grass established before proceeding to Phase 2.

Phase 2 is the construction of the sedimentation basins and installation of silt fences on the perimeter of the site as needed before grading operations begin.

Phase 3 will be grading the site to the proposed contours. This will include berms and ditches as necessary to keep all disturbed areas from draining offsite. Silt fence will be placed as needed as grading operations move across the site.

Phase 4 is seeding and mulching all disturbed areas and obtaining an acceptable stand of vegetation. The sedimentation basins, berms, ditches and silt fences will not be removed until the acceptable stand of vegetation is obtained.

Phase 5 will be the breaching of the sedimentation basins and the breached areas will be seeded and mulched.



#### **4.0 STORM WATER MANAGEMENT**

Upon completion of construction, areas disturbed by construction will be inspected for proper final stabilization. Silt fences and sedimentation basins will not be removed until an acceptable stand of grass has been established.

## **5.0 OTHER ITEMS NEEDING CONTROL**

### **5.1 Solid Materials Placed in Waters of the State**

During this project, no solid materials, including building materials, will be placed in waters of the state.

### **5.2 Stabilized Construction Access and Dust Control**

Construction traffic will enter and exit the site from Providence Road and, as much as practical, drive only on areas designated for vehicular travel. Dust or mud accumulation on the road will be cleaned periodically and re-introduced to the site within the erosion control measures to prevent sediment in the storm drainage system.

Dust control measures will include:

- Use of a water truck to moisten overly dry soil.
- Immediate stabilization following conclusion of soil disturbing activity.
- Use of a street sweeper on paved surfaces where dust accumulation is excessive.

Water used for dust suppression will be applied at rates that do not result in runoff from the site.

### **5.3 Waste Disposal Systems**

The contractor will place portable "johns" on the site for waste disposal purposes.

### **5.4 Construction and Waste Materials Stored Onsite**

Construction materials stored onsite will be confined to areas not subject to flooding or overland flows sufficient to carry the materials into waters of the state. Materials will be secured in a manner preventing removal by reasonable force of wind or water. Excavated soil will be stockpiled onsite at various points in the construction process. These stockpiles will be in areas that are not subject to high volumes of overland storm water flow. Stockpiles of soil expected to remain for an extended period of time will be surrounded by straw bales or stabilized with vegetation. Construction equipment will remain onsite during construction operations.

Equipment left onsite shall be parked in a safe manner and disabled at the end of each work day. Waste material resulting from normal construction activity shall be gathered and removed or stored in containers daily.

### **5.5 Storm Water Sources from Other Areas**

The runoff coming onto this site from adjacent properties will be diverted around the disturbed areas, or accounted for in the sedimentation basin sizing.

### **5.6 State or Federal Endangered Species**

The site lies within the limits of the Madison County. The property does not support any known legally protected state or federally listed threatened or endangered species or critical habitat.

### **6.0 APPROVED LOCAL GOVERNMENT REQUIREMENTS**

There are no local ordinances of Madison County that will apply to this project.

### **7.0 MAINTENANCE**

Erosion prevention and sediment control measures will be maintained in good and effective operating condition. Maintenance needs identified by inspections or other means shall be addressed before the next storm event, but in no case more than seven days after the need is identified.

When sediment accumulates such that 50% of any sediment control's capacity is used, the sediment will be excavated, stockpiled to allow drying, and reintroduced to the site as fill soil or appropriately disposed of offsite. Litter will be collected and disposed of offsite.

## **8.0 INSPECTIONS**

Inspections of erosion controls will be performed, at a minimum, twice per week to ensure proper maintenance and effectiveness of the devices. The Contractor is responsible for all inspections and reports.

### **8.1 Inspector Training and Certification**

Inspections will be conducted by a person who has completed the "Fundamentals of Erosion Prevention and Sediment Control" course, the engineer involved with preparation of the erosion control plan and SWPPP, or a Certified Professional Erosion Sediment Control Professional.

### **8.2 Schedule of Inspections**

Inspections will be conducted as specified in the following subsections and in accordance with the permit requirements.

### **8.3 Inspection Frequency**

Inspections will be performed at least twice per week during any construction and thereafter until the site is fully constructed and all disturbed areas not paved, concreted, or stoned, are permanently stabilized with vegetative cover (95% cover). Inspections will be performed at least 72 hours apart.

### **8.4 Inspection Items**

Qualified personnel will inspect disturbed areas of the construction site that have not been finally stabilized, areas used for materials and equipment storage that are exposed to precipitation, structural control measures, the location where vehicles enter and exit the site, and each outfall.

Disturbed areas and storage areas that are exposed to precipitation will be inspected for evidence of, or the potential for, pollutants (sediment) entering the drainage system. Erosion prevention and sediment control measures identified in the SWPPP will be observed to ensure they are functioning correctly.

Outfall points where discharges leaves the site will be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. The locations where vehicles enter and exit the site will be inspected for evidence of offsite sediment tracking.

### **8.5 Schedule for Corrections**

Based on the results of the inspection, any inadequate control measures or control measures in disrepair will be replaced, modified, or repaired as necessary, before the next rain event if possible, but in no case more than seven days after the need is identified. Based on the results of the inspection, the SWPPP will be modified as appropriate, but in no case later than seven days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

### **8.6 Inspection Documentation**

Inspections will be documented and certified weekly on the form provided in Attachment D.

The inspection form will document:

- Scope of inspection
- Names and titles of personnel making the inspection
- Major observations relating to implementation of the SWPPP
- Actions taken in accordance with the permit requirements
- Performance of the twice weekly inspections of erosion prevention, sediment controls and outfalls
- Whether or not all planned and designed erosion prevention and sediment controls are installed and in working order

Inspection documentation will be maintained and made available upon request. Inspection reports must be submitted to TDEC within 10 days of the request.

**9.0 POLLUTION PREVENTION MEASURES FOR NON-STORM-WATER DISCHARGES**

There will be no known sources of non-storm-water discharges from this site.

**10.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO TMDL**

Panther Creek, the receiving stream for storm water runoff from the site, is not on the State of Tennessee's 303(d) list of siltation impaired waters. It eventually discharges to the South Fork Forked Deer River. However, the project site is approximately 8 miles upstream.

**11.0 SPECIAL CONDITIONS**

The applicable portions of Section 4 of Permit No. TNR100000 will be followed regarding releases of petroleum products in excess of reportable quantities, spills, compliance with state water quality standards, and discharges into impaired or high-quality waters.

**12.0 RECORD KEEPING**

The SWPPP and inspection records will be maintained from the start of construction activities until the date of termination of permit coverage. The SWPPP will be available onsite to all operators for reference whenever they are on the construction site. Copies of the SWPPP, inspection records, and data used to complete the NOI and notice of termination (NOT) will be maintained for three years.

### **13.0 NOTICE OF TERMINATION**

When all storm water discharges from construction activities that are authorized by the Permit are eliminated by final stabilization, the Silicon Ranch will submit a NOT that is signed in accordance with Section 7 of Permit No. TNR100000 to TDEC's Jackson Field Office. For the purposes of the certification required by the NOT, the elimination of storm water discharges associated with the construction activity is understood to mean the following:

- All disturbed soils at the portion of the construction site where the operator had control have been finally stabilized.
- Temporary erosion and sediment control measures have been or will be removed at an appropriate time to ensure final stabilization is maintained.
- All storm water discharges associated with construction activities from the identified site that are authorized by an NPDES general permit have otherwise been eliminated from the portion of the construction site where the operator had control.

The NOT will be submitted on the Tennessee Division of Water Pollution Control's NOT form, which is included in Attachment E.

**14.0 PRIMARY PERMITEE CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

  
\_\_\_\_\_  
Signature

12/30/15  
\_\_\_\_\_  
Date

Peter Candelaria  
\_\_\_\_\_  
Name

Chief Technical Officer  
\_\_\_\_\_  
Title

Silicon Ranch Corporation  
\_\_\_\_\_  
Company



**15.0 SECONDARY PERMITEE CERTIFICATION**

I certify under penalty of law that I have reviewed this SWPPP and its attachments. Based on my inquiry of the construction site owner/developer of the site and/or my inquiry of the person directly responsible for assembling this SWPPP, I believe the information submitted is accurate. I am aware that the notice of intent, if approved, makes the described construction activity subject to NPDES permit number TN100000, and my activities onsite are thereby regulated. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations and for failure to comply with permit requirements.



Signature

12/29/15

Date

Robert Calbert

Name

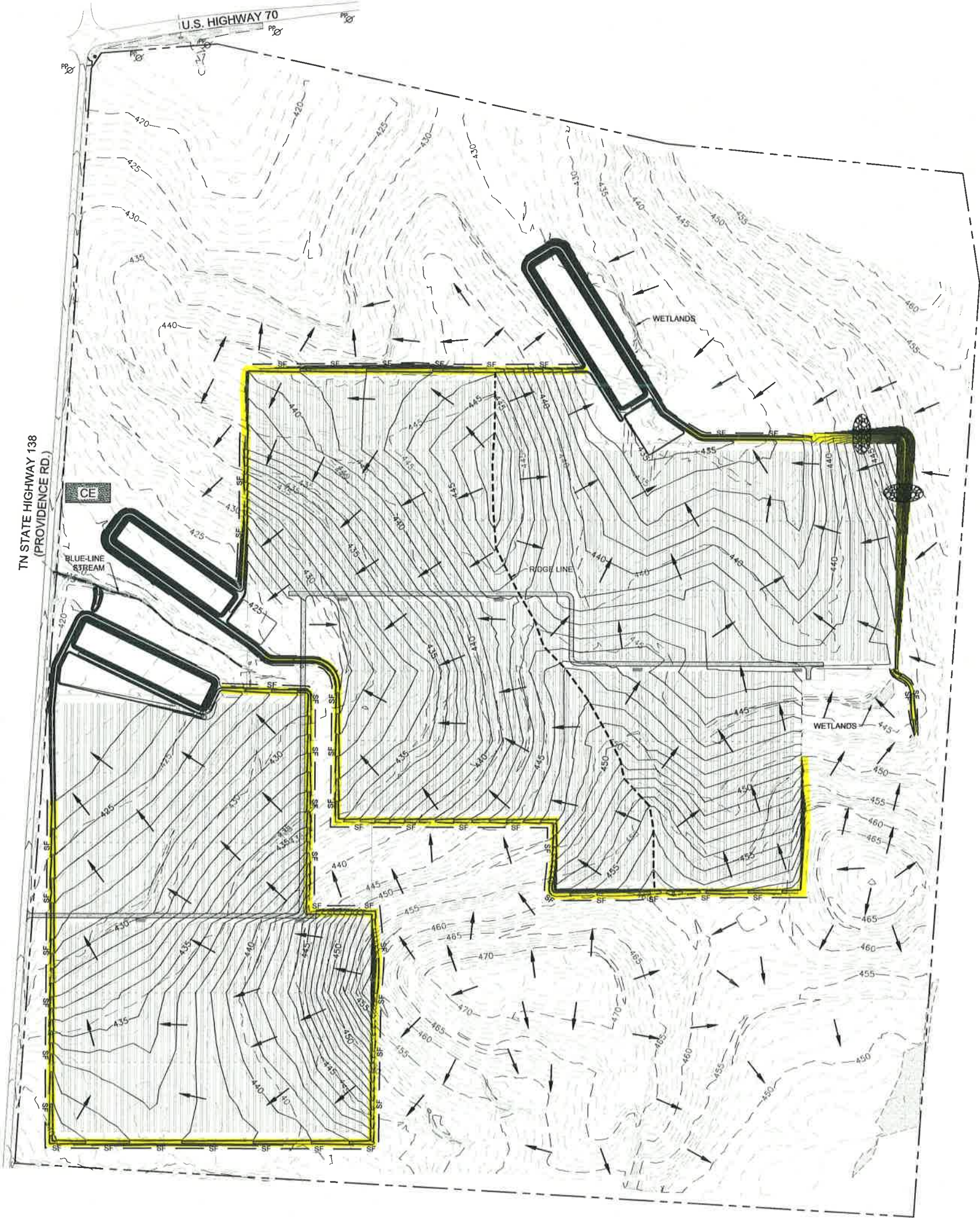
President

Title

McCarthy Building Companies, Inc.  
Company

**Attachment A**  
**Figures**











TN DEPT OF ENVIRONMENT  
AND CONSERVATION  
FEB 01 2016  
DIV OF WATER RESOURCES  
RECEIVED

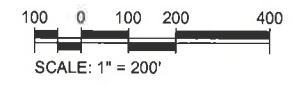
**EROSION CONTROL NOTES:**

1. ALL EROSION CONTROL SHALL BE FURNISHED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION "EROSION AND SEDIMENT CONTROL HANDBOOK".
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS (INCLUDING TDEC NPDES STORM WATER CONSTRUCTION PERMIT) HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
3. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS AND AS REQUESTED BY THE OWNER DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION AS SET FORTH IN THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
5. A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE TDEC INSPECTOR ON REQUEST.
6. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO RAINFALL EVENTS.
7. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST TWICE A WEEK AND AT LEAST 72 HOURS APART. DURING PROLONGED RAINFALL, DAILY CHECKING AND REPAIRS MAY BE NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF CHECKS AND REPAIRS.
8. ACTUAL LOCATION OF THE CONSTRUCTION EXIT PAD WILL BE DETERMINED BY THE CONTRACTOR.
9. ALL GRADED AREAS SHALL BE SEEDED UPON COMPLETION OF WORK IN THAT AREA.

**LEGEND**

-  BERMS & DITCHES TO DIVERT OFFSITE DRAINAGE AND CONTAIN ONSITE DRAINAGE
-  CONSTRUCTION EXIT PAD
-  ROCK CHECK DAM
-  SF SILT FENCE
-  470 PROPOSED CONTOUR
-  452 EXISTING CONTOUR

NOTE:  
ALL DISTURBED AREAS IN PHASE 1 SHALL  
HAVE AN ACCEPTABLE STAND OF  
VEGETATION BEFORE BEGINNING PHASE 2



BARBE WAGGONER SUMNER & ASSOCIATES, INC.

BWSC

McCA

WILLIAM BRYAN REGISTERED PROFESSIONAL ENGINEER STATE OF TENNESSEE

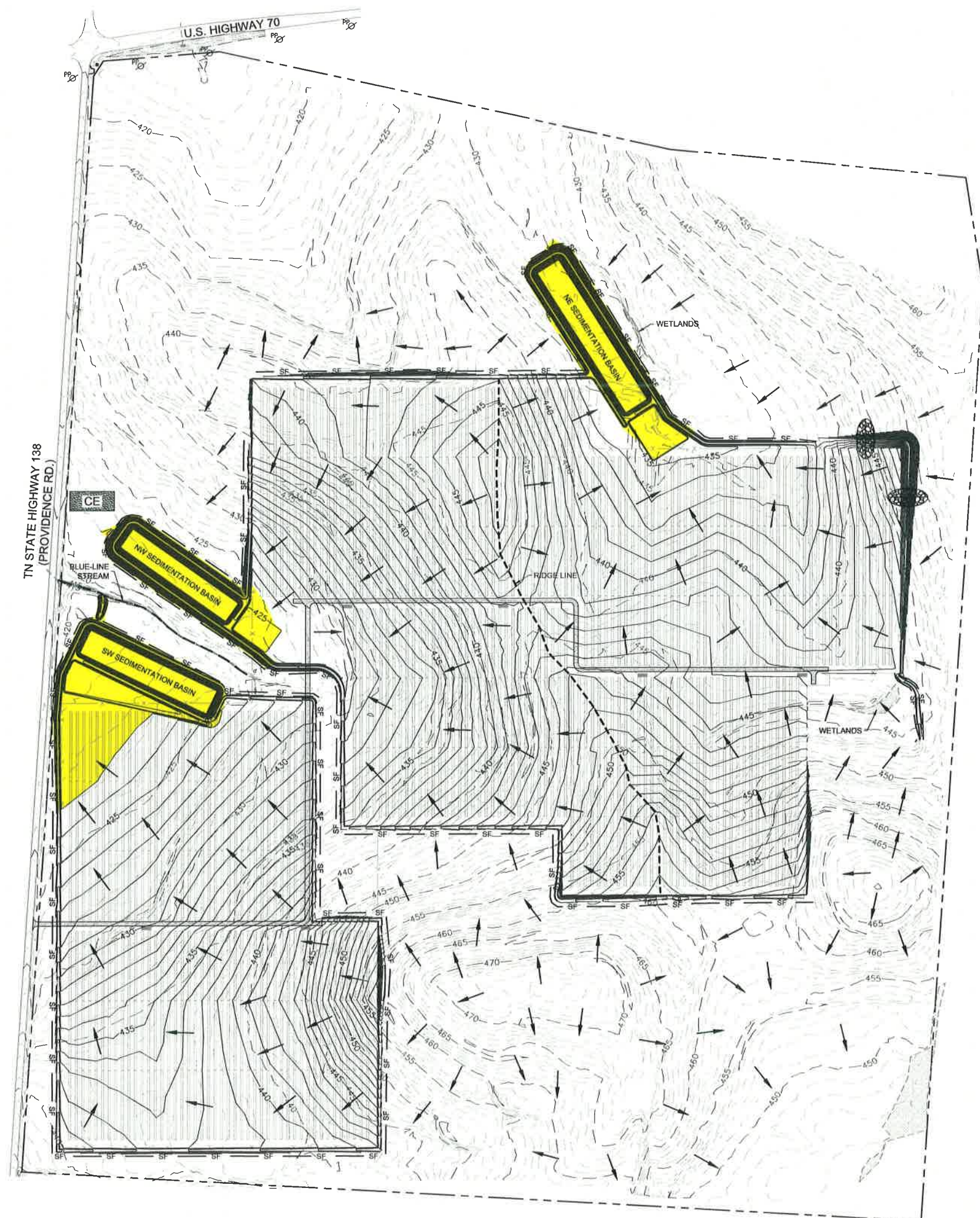
PHASE 1

DR.	CHK.	DATE	DESCRIPTION
MD	JT	1-29-16	ISSUED FOR CONSTRUCTION

811 Know what's below Call before you dig. 811

EPS









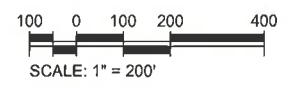


**EROSION CONTROL NOTES:**

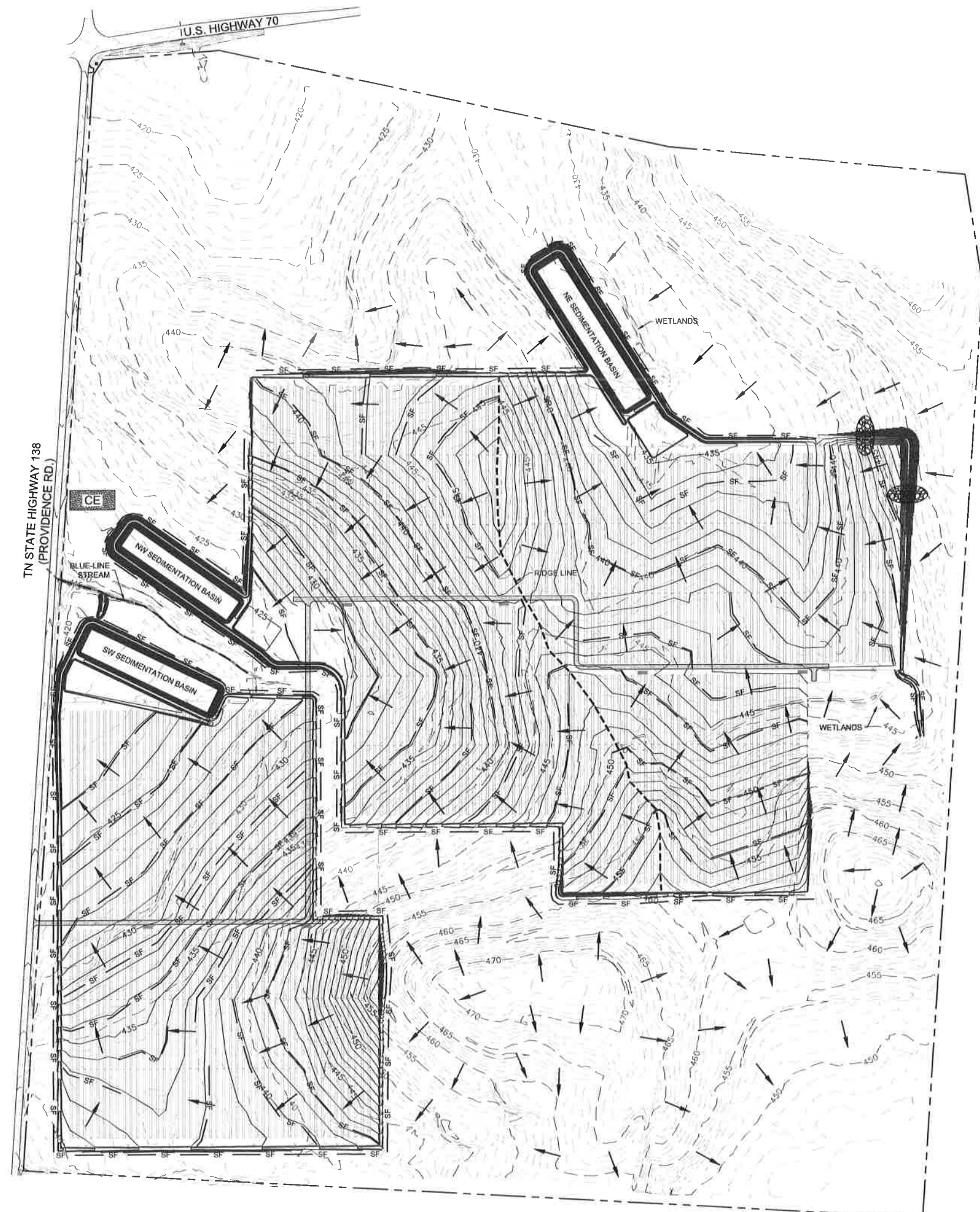
1. ALL EROSION CONTROL SHALL BE FURNISHED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION "EROSION AND SEDIMENT CONTROL HANDBOOK".
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS (INCLUDING TDEC NPDES STORM WATER CONSTRUCTION PERMIT) HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
3. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS AND AS REQUESTED BY THE OWNER DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION AS SET FORTH IN THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
5. A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE TDEC INSPECTOR ON REQUEST.
6. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO RAINFALL EVENTS.
7. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST TWICE A WEEK AND AT LEAST 72 HOURS APART. DURING PROLONGED RAINFALL, DAILY CHECKING AND REPAIRING MAY BE NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF CHECKS AND REPAIRS.
8. ACTUAL LOCATION OF THE CONSTRUCTION EXIT PAD WILL BE DETERMINED BY THE CONTRACTOR.
9. ALL GRADED AREAS SHALL BE SEEDED UPON COMPLETION OF WORK IN THAT AREA.

**LEGEND**

-  SEDIMENTATION BASINS
-  CONSTRUCTION EXIT PAD
-  ROCK CHECK DAM
-  SILT FENCE
-  PROPOSED CONTOUR
-  EXISTING CONTOUR












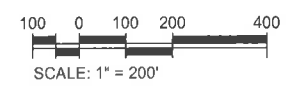
**EROSION CONTROL NOTES:**

1. ALL EROSION CONTROL SHALL BE FURNISHED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION "EROSION AND SEDIMENT CONTROL HANDBOOK".
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS (INCLUDING TDEC NPDES STORM WATER CONSTRUCTION PERMIT) HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
3. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS AND AS REQUESTED BY THE OWNER DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION AS SET FORTH IN THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
5. A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE TDEC INSPECTOR ON REQUEST.
6. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO RAINFALL EVENTS.
7. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST TWICE A WEEK AND AT LEAST 72 HOURS APART. DURING PROLONGED RAINFALL, DAILY CHECKING AND REPAIRING MAY BE NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF CHECKS AND REPAIRS.
8. ACTUAL LOCATION OF THE CONSTRUCTION EXIT PAD WILL BE DETERMINED BY THE CONTRACTOR.
9. ALL GRADED AREAS SHALL BE SEEDED UPON COMPLETION OF WORK IN THAT AREA.

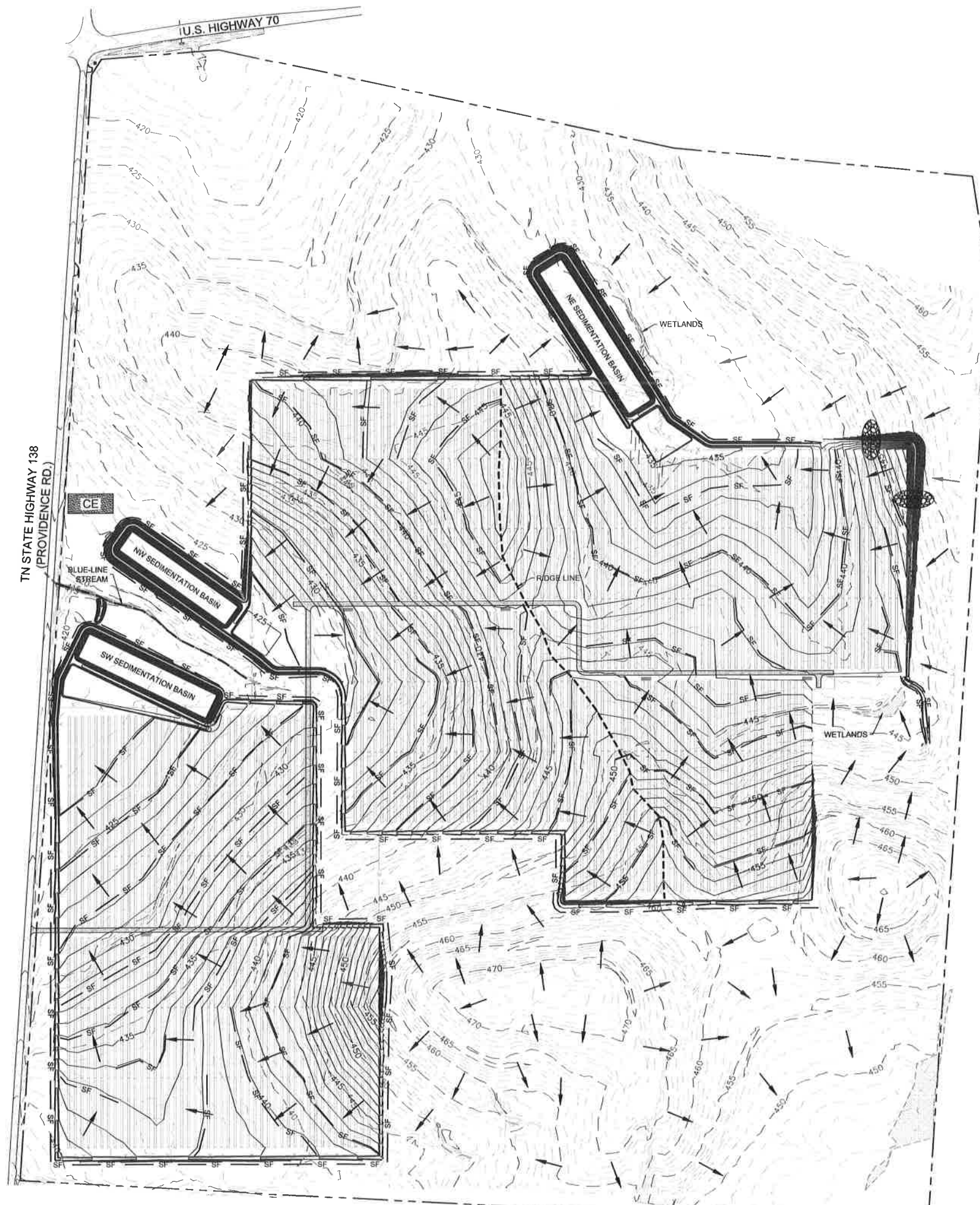
PHASE 3 IS GRADING OF ALL AREAS NOT INCLUDED IN PHASE 1 & PHASE 2

**LEGEND**

-  CONSTRUCTION EXIT PAD
-  ROCK CHECK DAM
-  SILT FENCE
-  PROPOSED CONTOUR
-  EXISTING CONTOUR



BARGE WAGBONER & SUMNER & BWSB  
 M.C.  
 PHASE 3  
 DR. CHK. DATE 1-29-16 ISSUED FOR CONSTRUCTION  
 JT  
 MD  
 811 Know what's below Call before you dig. 811  
 EPS








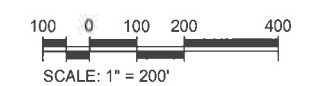
**EROSION CONTROL NOTES:**

1. ALL EROSION CONTROL SHALL BE FURNISHED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION 'EROSION AND SEDIMENT CONTROL HANDBOOK'.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS (INCLUDING TDEC NPDES STORM WATER CONSTRUCTION PERMIT) HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
3. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS AND AS REQUESTED BY THE OWNER DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION AS SET FORTH IN THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
5. A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE TDEC INSPECTOR ON REQUEST.
6. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO RAINFALL EVENTS.
7. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST TWICE A WEEK AND AT LEAST 72 HOURS APART. DURING PROLONGED RAINFALL, DAILY CHECKING AND REPAIRING MAY BE NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF CHECKS AND REPAIRS.
8. ACTUAL LOCATION OF THE CONSTRUCTION EXIT PAD WILL BE DETERMINED BY THE CONTRACTOR.
9. ALL GRADED AREAS SHALL BE SEEDED UPON COMPLETION OF WORK IN THAT AREA.

**NOTE:**  
SEED AND MULCH ALL DISTURBED AREAS. AN ACCEPTABLE STAND OF VEGETATION WILL BE ESTABLISHED BEFORE PROCEEDING WITH PHASE 5.

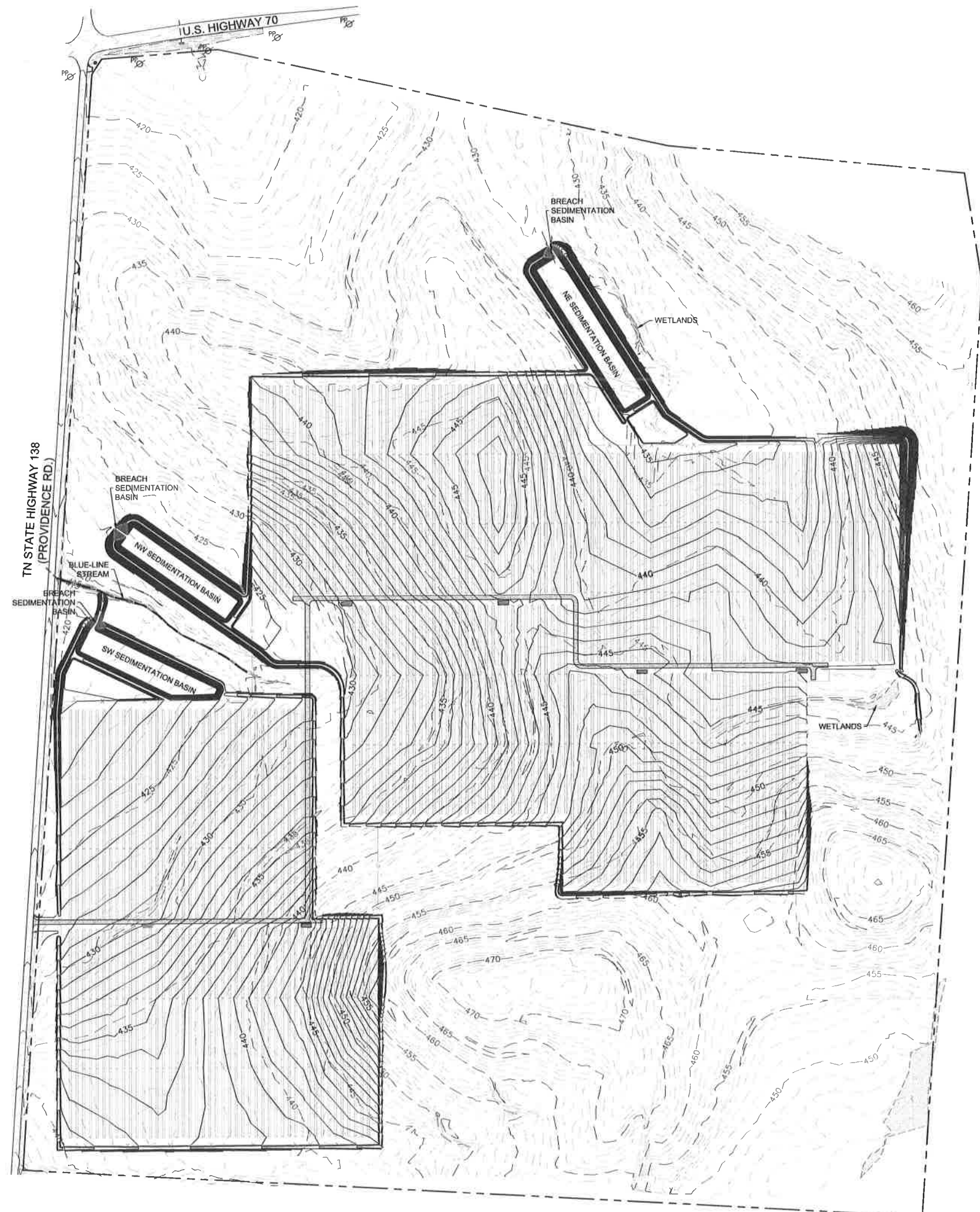
**LEGEND**

-  CONSTRUCTION EXIT PAD
-  ROCK CHECK DAM
-  SILT FENCE
-  PROPOSED CONTOUR
-  EXISTING CONTOUR



DR.	CHK.	DATE	DESCRIPTION
MD	JT	1-29-16	ISSUED FOR CONSTRUCTION





**EROSION CONTROL NOTES:**

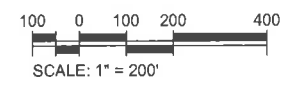
1. ALL EROSION CONTROL SHALL BE FURNISHED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION "EROSION AND SEDIMENT CONTROL HANDBOOK".
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS (INCLUDING TDEC NPDES STORM WATER CONSTRUCTION PERMIT) HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
3. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS AND AS REQUESTED BY THE OWNER DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION AS SET FORTH IN THE TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
5. A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE TDEC INSPECTOR ON REQUEST.
6. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO RAINFALL EVENTS.
7. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST TWICE A WEEK AND AT LEAST 72 HOURS APART. DURING PROLONGED RAINFALL, DAILY CHECKING AND REPAIRING MAY BE NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF CHECKS AND REPAIRS.
8. ACTUAL LOCATION OF THE CONSTRUCTION EXIT PAD WILL BE DETERMINED BY THE CONTRACTOR.
9. ALL GRADED AREAS SHALL BE SEEDED UPON COMPLETION OF WORK IN THAT AREA.

**PHASE 5**

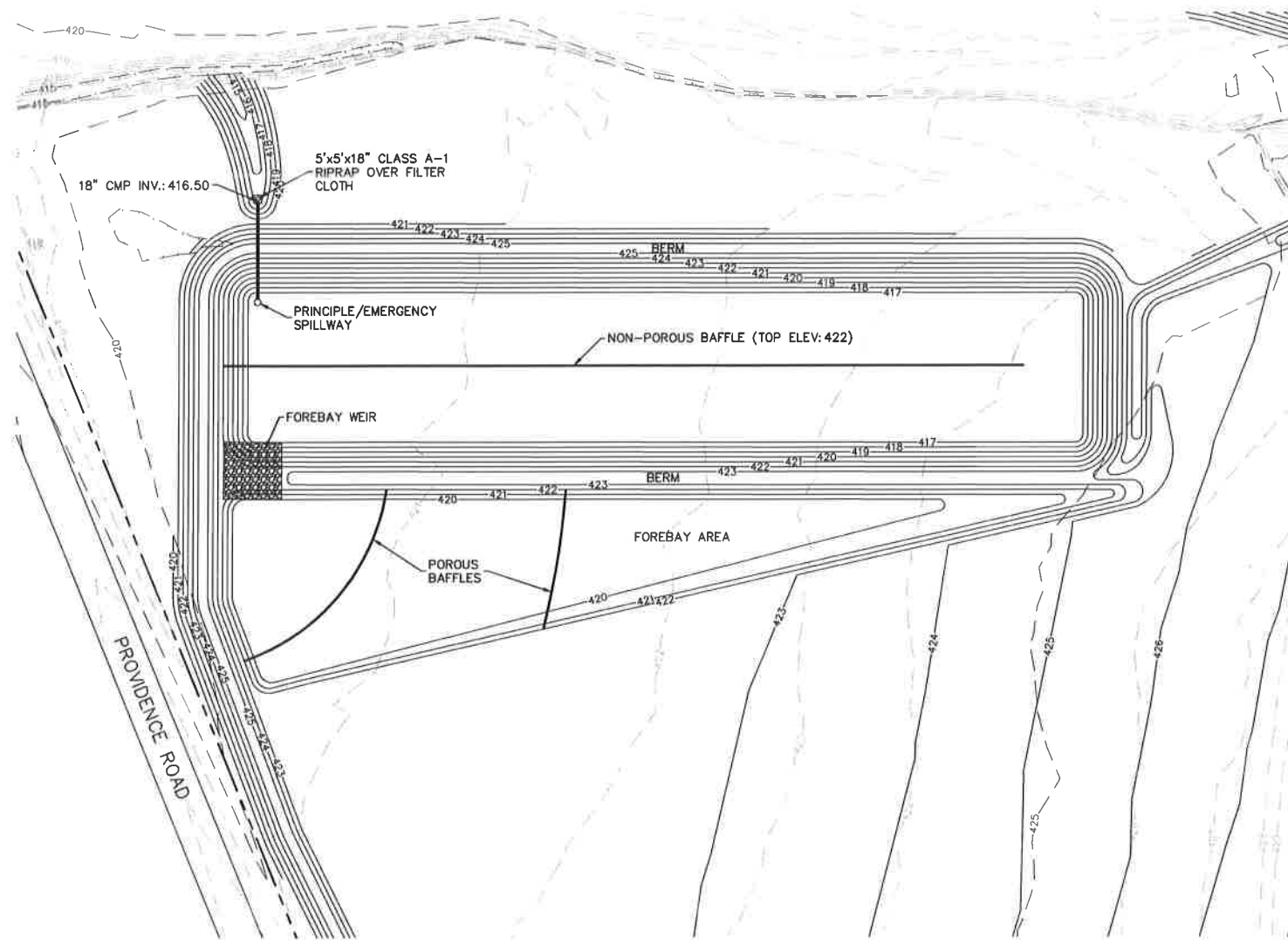
1. REMOVE SILT FENCES SHOWN IN PHASE 4
2. BREACH SEDIMENTATION BERMS AS SHOWN.
3. SEED AND MULCH ALL DISTURBED AREAS.

**LEGEND**

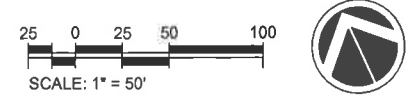
- 470 — PROPOSED CONTOUR
- - 452 - - EXISTING CONTOUR



BARGE WAGNER & SUMNER & BWSO  
 WILLIAM GRAY REGISTERED PROFESSIONAL ENGINEER STATE OF TENNESSEE  
 PHASE 5  
 DR. CHK. DATE. DESCRIPTION  
 MD. JT. 1-29-16 ISSUED FOR CONSTRUCTION  
 811 Know what's below Call before you dig. 811  
 EPS



# SW SEDIMENTATION BASIN

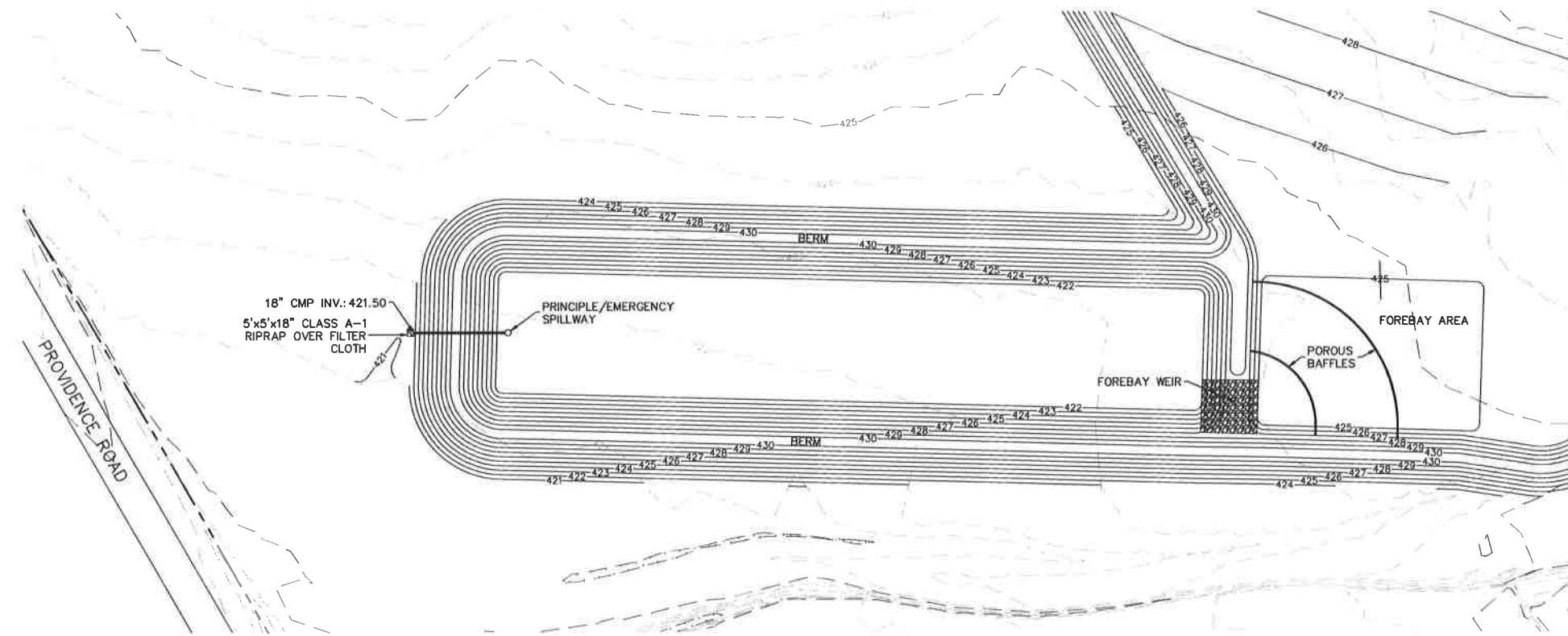


SW Sedimentation Basin	
Total Disturbed Area Draining to Basin	39.1 AC
Q for 5-Year, 24-Hour Storm	7.5 CFS
Q for 25-Year, 24-Hour Storm	10.1 CFS
Basin L:W Ratio	10:1 with baffle
Required Wet Storage Volume	141,464 CF
Provided Wet Storage Volume	156,000 CF
Bottom of Wet Storage Volume	417
Top of Wet Storage Volume	420
Required Dry Storage Volume	141,464 CF
Provided Dry Storage Volume	179,150 CF
Bottom of Dry Storage Volume	420
Top of Dry Storage Volume	422
Required Forebay Storage Volume	35,366 CF
Provided Forebay Storage Volume	56,100 CF
Time for Dewatering Dry Storage Volume	3 Days
Required Dewatering Discharge Rate	59,717 CF/Day
Provided Dewatering Discharge Rate	97,978 CF/Day*
Forebay Spillway Elevation	421.5
Water Elevation Over Spillway for 5-Year, 24-Hour Storm	421.80
Principal/Emergency Spillway Elevation	422
Water Elevation Over Spillway for 25-Year, 24-Hour Storm	422.66
Top of Outer Berm Elevation	425
Note: *Based on 8" Faircloth Skimmer	

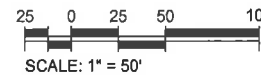
NOTE: SEE SHEETS EPSC-9 & EPSC-10 FOR DETAILS

DR.	CHK.	DATE	DESCRIPTION
MD	JT	1-29-16	ISSUED FOR CONSTRUCTION





# NW SEDIMENTATION BASIN



NW Sedimentation Basin	
Total Disturbed Area Draining to Basin	34.7 Ac
Q for 5-Year, 24-Hour Storm	6.7 CFS
Q for 25-Year, 24-Hour Storm	8.9 CFS
Basin L:W Ratio	5:1
Required Wet Storage Volume	125,545 CF
Provided Wet Storage Volume	128,585 CF
Bottom of Wet Storage Volume	422
Top of Wet Storage Volume	425
Required Dry Storage Volume	125,545 CF
Provided Dry Storage Volume	164,560 CF
Bottom of Dry Storage Volume	425
Top of Dry Storage Volume	427
Required Forebay Storage Volume	31,386 CF
Provided Forebay Storage Volume	70,400 CF
Time for Dewatering Dry Storage Volume	3 Days
Required Dewatering Discharge Rate	54,853 CF/Day
Provided Dewatering Discharge Rate	97,978 CF/Day*
Forebay Spillway Elevation	426.5
Water Elevation Over Spillway for 5-Year, 24-Hour Storm	426.78
Principal/Emergency Spillway Elevation	427
Water Elevation Over Spillway for 25-Year, 24-Hour Storm	427.61
Top of Outer Berm Elevation	430
Note: *Based on 8" Faircloth Skimmer	

NOTE: SEE SHEETS EPSC-9 & EPSC-10 FOR DETAILS

BARGE WAGBONER & SUMNER & ASSOCIATES  
**BW&S**  
 ENGINEERS  
 1111 W. 10th Street, Suite 100  
 Lincoln, NE 68502  
 (402) 441-1111  
 www.bwags.com

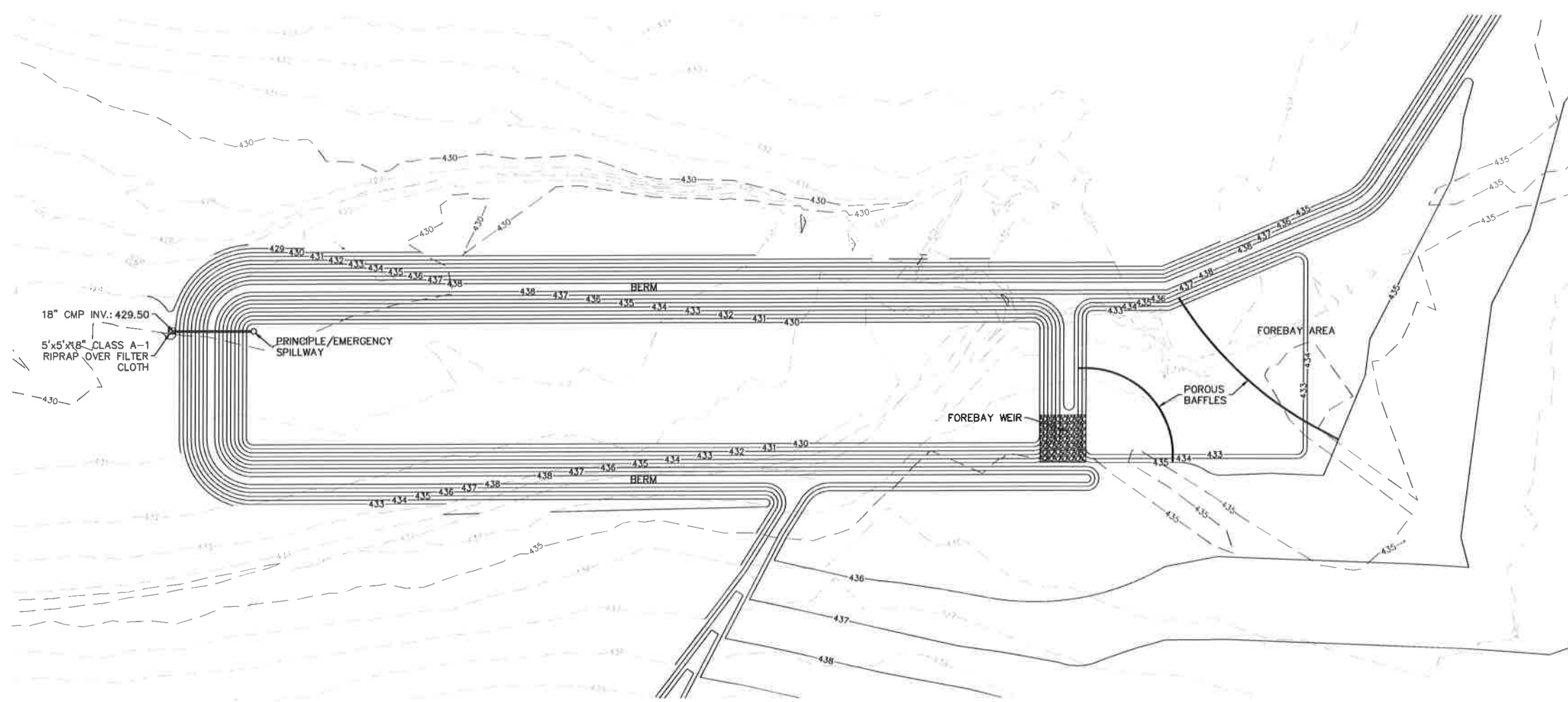
**SEDIMENTATION BASIN**

DR.	CHK.	DATE	DESCRIPTION
MD	JT	1-29-16	ISSUED FOR CONSTRUCTION

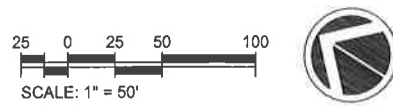
**811** Know what's below  
 Call before you dig.  
 811

**EPS**

DR.	CHK.	DATE	DESCRIPTION
MD	JT	1-29-16	ISSUED FOR CONSTRUCTION



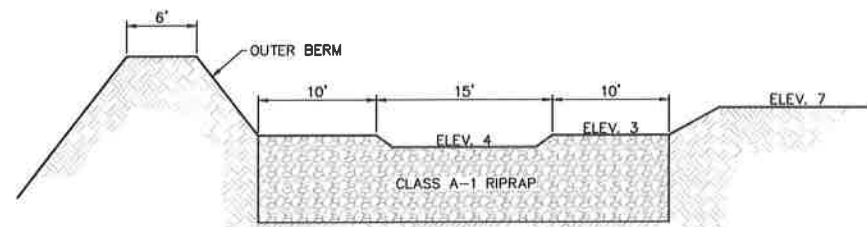
## NE SEDIMENTATION BASIN



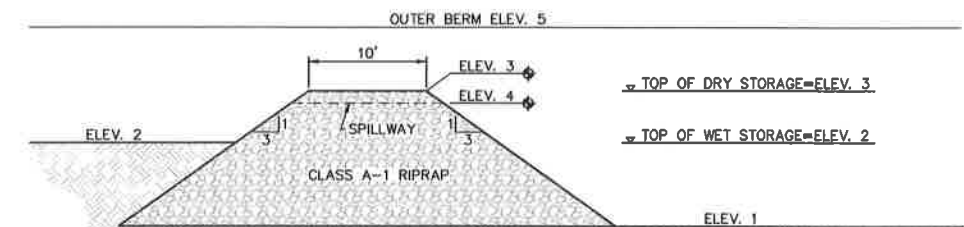
NE Sedimentation Basin	
Total Disturbed Area Draining to Basin	40.0 Ac
Offsite Area Drainage to Basin	6.4 Ac
Total Area to Basin	46.4 Ac
Q for 5-Year, 24-Hour Storm	8.9 CFS
Q for 25-Year, 24-Hour Storm	12.0 CFS
Basin L:W Ratio	6:1
Required Wet Storage Volume	167,875 CF
Provided Wet Storage Volume	180,000 CF
Bottom of Wet Storage Volume	430
Top of Wet Storage Volume	433
Required Dry Storage Volume	158,107 CF
Provided Dry Storage Volume	183,770 CF
Bottom of Dry Storage Volume	433
Top of Dry Storage Volume	435
Required Forebay Storage Volume	41,969 CF
Provided Forebay Storage Volume	42,320 CF
Time for Dewatering Dry Storage Volume	3 Days
Required Dewatering Discharge Rate	61,257 CF/Day
Provided Dewatering Discharge Rate	97,978 CF/Day*
Forebay Spillway Elevation	434.5
Water Elevation Over Spillway for 5-Year, 24-Hour Storm	434.84
Principal/Emergency Spillway Elevation	435
Water Elevation Over Spillway for 25-Year, 24-Hour Storm	435.74
Top of Outer Berm Elevation	438

Note: \*Based on 8" Faircloth Skimmer

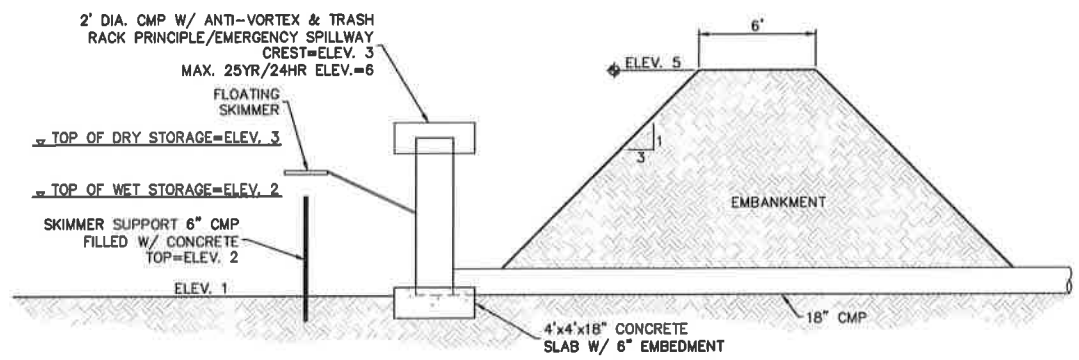
NOTE: SEE SHEETS EPSC-9 & EPSC-10 FOR DETAILS



NOTE: TYPICAL FOR ALL  
SEDIMENTATION BASINS  
**SECTION AT FOREBAY**  
N.T.S

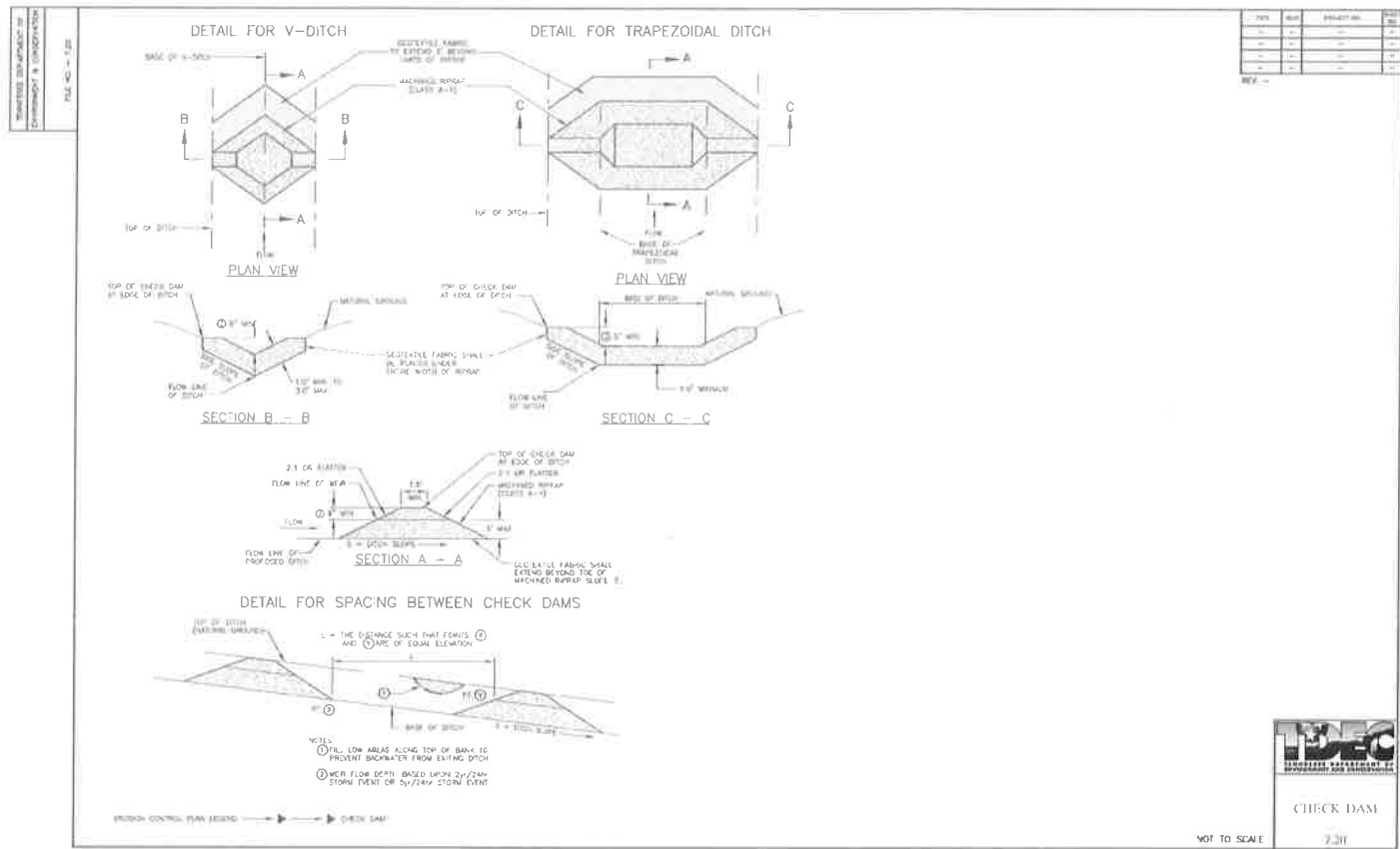


NOTE: TYPICAL FOR ALL  
SEDIMENTATION BASINS  
**SECTION AT FOREBAY**  
N.T.S



NOTE: TYPICAL FOR ALL  
SEDIMENTATION BASINS  
**SECTION AT OUTLET**  
N.T.S

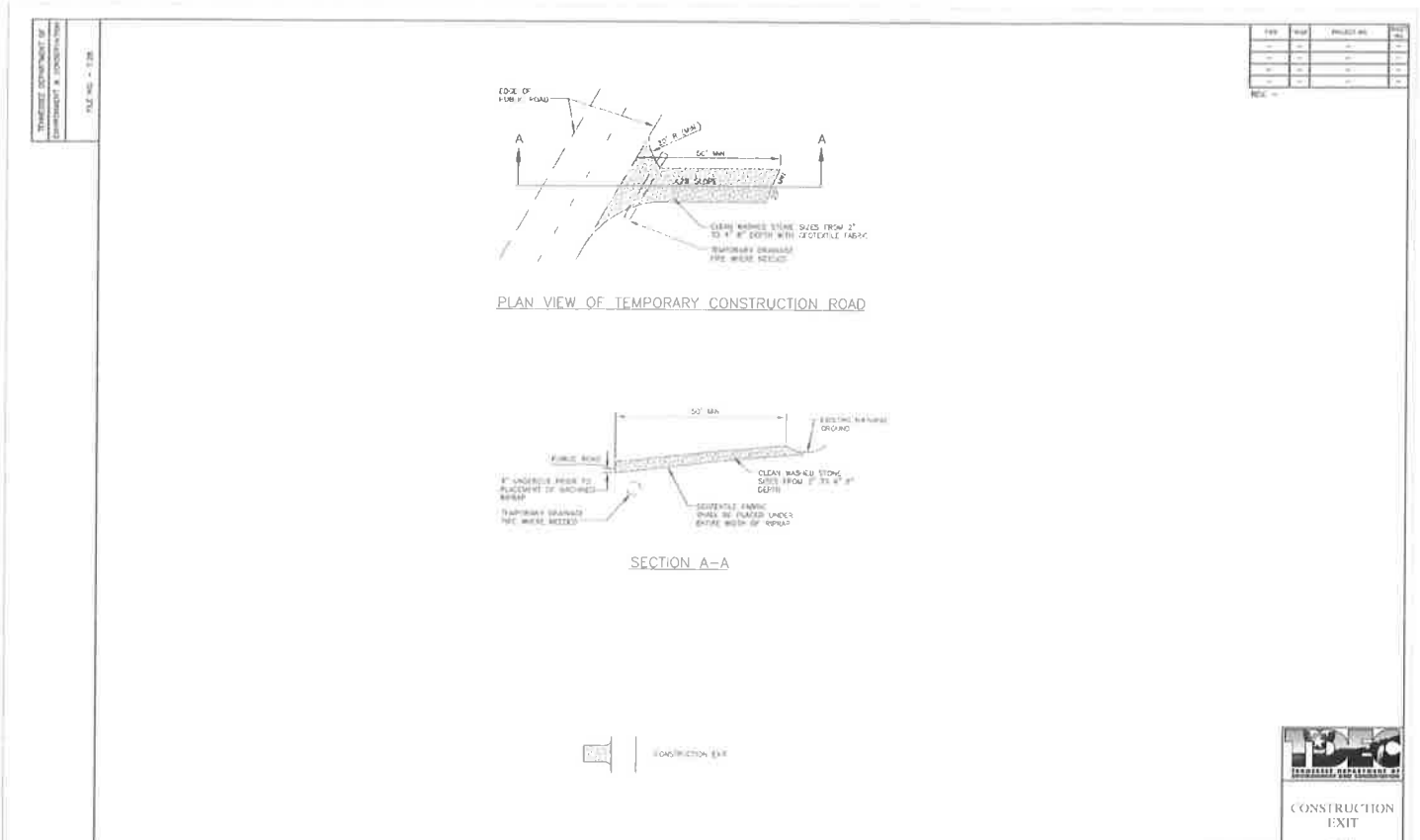
SEDIMENTATION BASIN ELEVATIONS			
ELEVATION	NE SEDIMENTATION BASIN	NW SEDIMENTATION BASIN	SW SEDIMENTATION BASIN
1	430.00	422.00	417.00
2	433.00	425.00	420.00
3	435.00	427.00	422.00
4	434.50	426.50	421.50
5	438.00	430.00	425.00
6	435.74	427.61	422.66
7	436.00	428.00	423.00



REV.	DATE	DESCRIPTION	BY	CHK.
1				
2				
3				
4				

**CHECK DAM**

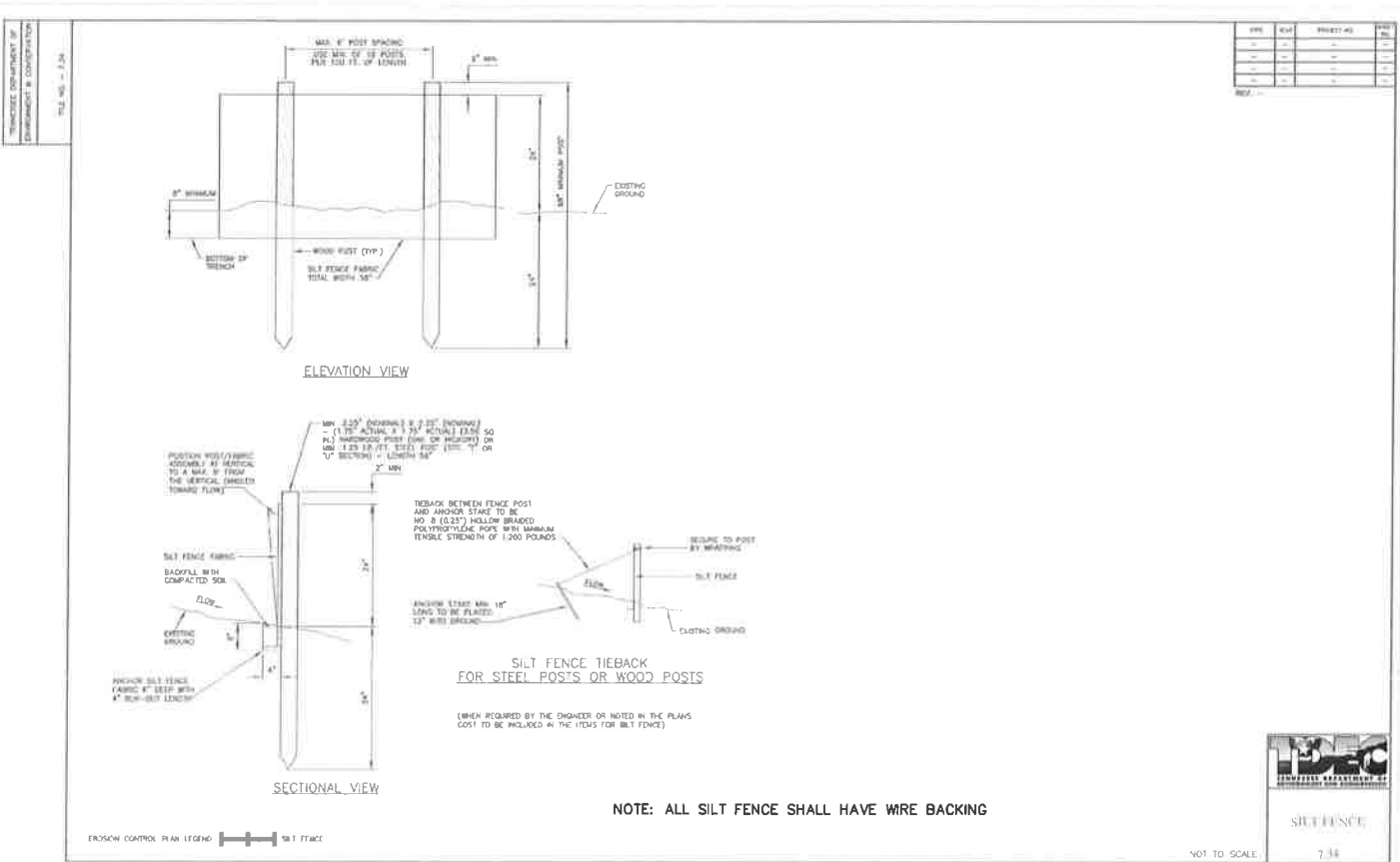
NOT TO SCALE 7.21



REV.	DATE	DESCRIPTION	BY	CHK.
1				
2				
3				
4				

**CONSTRUCTION EXIT**

NOT TO SCALE 7.22

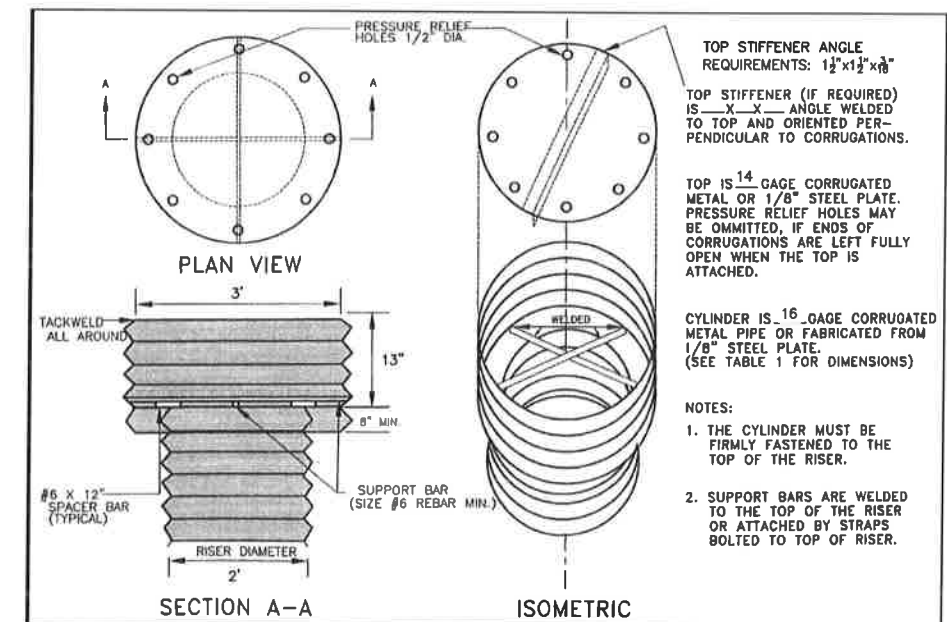


REV.	DATE	PROJECT NO.	DATE
1			
2			
3			
4			

**SILT FENCE**

NOTE: ALL SILT FENCE SHALL HAVE WIRE BACKING

NOT TO SCALE 7.34



**ANTI-VORTEX DEVICE**

NOTE: TYPICAL FOR ALL SEDIMENTATION BASINS

N.T.S.

**Attachment B**  
**Notice of Intent (NOI)**

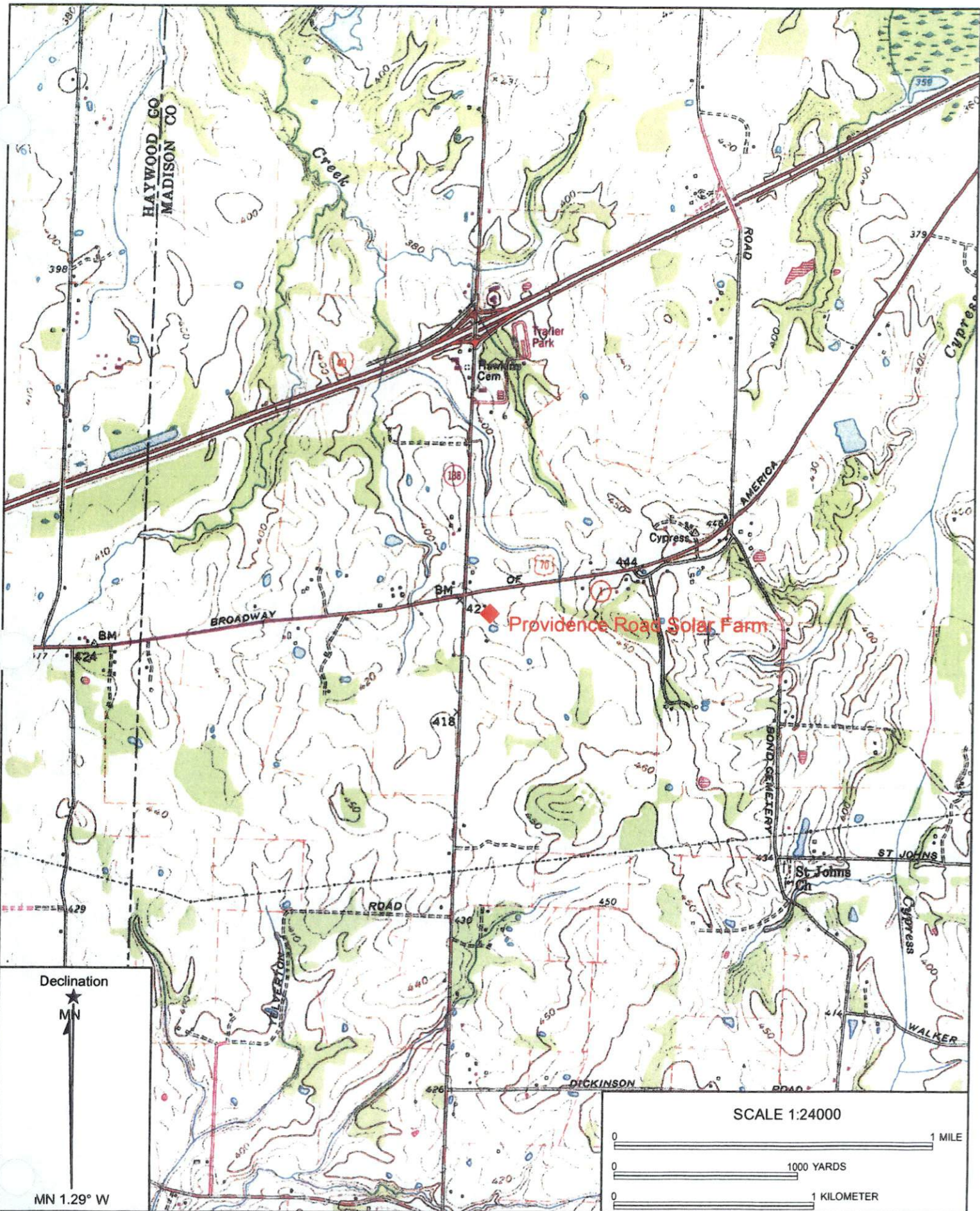


**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION**  
 Division of Water Resources  
 6<sup>th</sup> Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243  
 1-888-891-8332 (TDEC)

**Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)**

Site or Project Name: Providence Road Solar Farm		Existing NPDES Tracking Number: TNR		TNR	
Street Address or Location: SE Quadrant of intersection of Providence Road and U.S. Hwy. 70		Start date:		03/16	
		Estimated end date:		06/16	
Site Activity Description: Grading for installation of solar panels		Latitude (dd.dddd):		35.5843	
		Longitude (dd.dddd):		89.0537	
County(ies): Madison County		MS4 Jurisdiction: N/A		Acres Disturbed: 128.4	
				Total Acres: 287.16	
Does a topographic map show dotted or solid blue lines <input checked="" type="checkbox"/> and/or wetlands <input checked="" type="checkbox"/> on or adjacent to the construction site? If wetlands are located on-site and may be impacted, attach wetlands delineation report. If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP permit No.:					
Receiving waters: Tributary to Panther Creek					
Attach the SWPPP with the NOI <input checked="" type="checkbox"/> SWPPP Attached		Attach a site location map <input checked="" type="checkbox"/> Map Attached			
Site Owner/Developer Entity (Primary Permittee): (person, company, or legal entity that has operational or design control over construction plans and specifications): Silicon Ranch Corporation					
Site Owner/Developer Signatory (V.P. level/higher - signs certification below): (individual responsible for site): Curt Brechtel			Signatory's Title or Position (V.P. level/higher - signs certification below): Project Development Director		
Mailing Address: 150 Third Ave., Suite 2000			City: Nashville		State: TN Zip: 37201
Phone: ( 615 ) 577-4617		Fax: ( ) N/A		E-mail: curt.brechtel@siliconranchcorp.com	
Optional Contact:			Title or Position:		
Mailing Address:			City:		State: Zip:
Phone: ( )		Fax: ( )		E-mail:	
<b>Owner or Developer Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)</b>					
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.					
Owner or Developer Name; (print or type) PETER J. CANDELLA			Signature:		Date: 12/20/15
<b>Contractor(s) Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)</b>					
I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated.					
Contractor company name (print or type): McCarthy Building Companies, Inc.					
Contractor signatory (print/type): (V.P. level or higher) Robert J. Colbert President Super			Signature:		Date: 12/29/15
Mailing Address: 6225 N. 24 <sup>th</sup> Street, Suite 200			City: Phoenix		State: AZ Zip: 85016
Phone: ( 480 ) 449-4757		Fax: ( ) none		E-mail:	
Other Contractor company name (print or type):					
Other Contractor signatory (print/type): (V.P. level or higher)			Signature:		Date:
Mailing Address:			City:		State: Zip:
Phone: ( )		Fax: ( )		E-mail:	
<b>OFFICIAL STATE USE ONLY</b>					
Received Date:	Reviewer:	Field Office:	Permit Number TNR	Exceptional TN Water:	
Fee(s):	T & E Aquatic Flora and Fauna:	Impaired Receiving Stream:	Notice of Coverage Date		





Name: DENMARK  
 Date: 12/15/15  
 Scale: 1 inch = 2,000 ft.

Location: 035° 35' 03.35" N 089° 03' 13.46" W

**Attachment C**  
**Best Management Practices**



## **List of Best Management Practices**

- TS Temporary Vegetation
- SF Silt Fence
- CE Construction Entrance/Exit
- SB Sedimentation Basin
- CD Check Dam

**Attachment D**  
**Inspection Form**



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

1-888-891-8332 (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Construction Stormwater Inspection Certification (Twice-Weekly Inspections)

Form with fields: Site or Project Name, NPDES Tracking Number: TNR, Primary Permittee Name, Date of Inspection, Current approximate disturbed acreage, Has rainfall been checked/documentd daily?, Name of Inspector, Current weather conditions, Inspector's TNEPSC Certification Number.

Please check the box if the following items are on-site:

- Notice of Coverage (NOC), Stormwater Pollution Prevention Plan (SWPPP), Twice-weekly inspection documentation, Site contact information, Rain Gage, Off-site Reference Rain Gage Location.

Best Management Practices (BMPs):

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly: If "No," describe below in Comment Section

- 1. Are all applicable EPSCs installed and maintained per the SWPPP?
2. Are EPSCs functioning correctly at all disturbed areas/material storage areas per section 4.1.5?
3. Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream...
4. Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?
5. If applicable, have discharges from dewatering activities been managed by appropriate controls per section 4.1.4?
6. If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2?
7. Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing...
8. If a concrete washout facility is located on site, is it clearly identified on the project and maintained?
9. Have all previous deficiencies been addressed? Check if deficiencies/corrective measures have been reported on a previous form.

Comment Section. If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Signature lines for Inspector Name and Title, Primary Permittee Name and Title, with fields for Signature and Date.

**Attachment E**  
**Notice of Termination (NOT)**



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-TDEC (8332)

Notice of Termination (NOT) for General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local WPC Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

Site or Project Name: NPDES Tracking Number: TNR
Street Address or Location: County(ies):

Name of Permittee Requesting Termination of Coverage:
Permittee Contact Name: Title or Position:
Mailing Address: City: State: Zip:
Phone: E-mail:

Check the reason(s) for termination of permit coverage:

- Stormwater discharge associated with construction activity is no longer occurring and the permitted area has a uniform 70% permanent vegetative cover OR has equivalent measures such as rip rap or geotextiles, in areas not covered with impervious surfaces.
You are no longer the operator at the construction site (i.e., termination of site-wide, primary or secondary permittee coverage).

Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have been eliminated from the portion of the construction site where the operator had control. Specifically, this means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized, the temporary erosion and sediment control measures have been removed, and/or subsequent operators have obtained permit coverage for the site or portions of the site where the operator had control.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Permittee name (print or type): Signature: Date:

Table with 6 columns: EFO, Street Address, Zip Code, EFO, Street Address, Zip Code. Lists various EFO locations like Memphis, Jackson, Nashville, Columbia, Cookeville, Chattanooga, Knoxville, Johnson City.

**Attachment F**  
**Formulas for Sedimentation Basin Design**

$$Q_5 \text{ (5-Year, 24-Hour)} = C I A$$

C = Coefficient Assumed as 0.98

I = Intensity = 0.196 in/hr

A = Area in Acres

$$Q_{25} \text{ (5-Year, 24-Hour)} = C I A$$

C = Coefficient Assumed as 0.98

I = Intensity = 0.263 in/hr

A = Area in Acres

For Depth of Flow Over Forebay Weir

$$Q_5 = 3 L H^{3/2}$$

$Q_5$  = Calculated 5-Year, 24-Hour Flow

L = Length of Weir = 15'

H = Head over weir in ft.

For Depth of Flow Over Principle/Emergency Spillway

$$Q_{25} = 3 L H^{3/2}$$

$Q_{25}$  = Calculated 5-Year, 24-Hour Flow

L = Circumference of 2' Diam Spillway = 6.28'

H = Head over weir in ft.