STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

CAYCE POINTE - RESIDENTIAL SUBDIVISION

Cayce Road and Lee Creek Road
Marshall County, Mississippi

October 21, 2021

Owner:
Great Western Builders, Inc.
Attn: Chad Curtis
710 Highway 57
Piperton, TN 38027
(901) 316-8908

Engineer:

Civil Engineering Solutions, LLC
317 West Market Street
Dyersburg, TN 38024
Phone: (731) 285-1698

STORM WATER POLLUTION PREVENTION PLAN
Cayce Pointe – Residential Subdivision
Marshall County, Mississippi
October 21, 2021

Developer:
This storm water pollution prevention plan is for the proposed Cayce Pointe - Residential Subdivision, located at the northeast corner of the intersection of Cayce Road and Lee Creek Road in Marshall County, Mississippi hereinafter referred to as the "Project". See location map in Appendix A.

The developer for the Project is as follows:

Great Western Builders, Inc.
Attn: Chad Curtis
710 Highway 57
Piperton, TN 38027
(901) 316-8908

The contractor for the Project is:

Great Western Builders, Inc.
Attn: Chad Curtis
710 Highway 57
Piperton, TN 38027
(901) 316-8908

Site Description:

The subject property is currently a vacant 85.26-acre site located at the northeast corner of the intersection of Cayce Road and Lee Creek Road in Marshall County, Mississippi. The site slopes from the high point along the north side of the site towards the south with slopes relatively ranging from 1%-33%. Generally, the soils on-site are silty clays. The runoff drains toward the south and east and exits the site into existing drainage channel along south side of the site and ultimately into unnamed tributary of Lees Creek. The USGS Quadrange Map depicts a blue line stream on the east side of the site. Therefore a 50-foot buffer zone is provided. There are not any recreational streams, private/public ponds, or lakes within ½ mile downstream of the project boundary that may be impacted by the construction activity.

This SWPPP is for the construction of a new roads and underground utilities to serve residential lots. As each lot is developed, the owner of the lot will be required to register the lot for residential construction by completing the MDEQ form, "**Registration Form for Residential Lot Coverage under Mississippi's Large Construction Storm Water General Permit**".

This SWPPP is for the construction of a new road, lot preparation, and underground utilities. It is estimated that approximately 31 acres of the site will be disturbed for the earthwork operation for the Project which is greater than 10 acres and therefore a sediment basin will be required for this site.

Construction is scheduled to begin in January, 2022 and be completed in December 2022. The construction activity for the Project and the anticipated sequence of construction will include the following:

1. installation of erosion control measures (i.e, silt fence, sediment basin and construction entrance, etc.)
2. stripping and stockpiling of topsoil,
3. cutting and filling of earth,
4. installation of storm drainage and utilities,
5. installation of pavement,
6. stabilization of finished site grading.

It is estimated that the runoff coefficient "C" for the area being developed prior to development is approximately 0.3 and the post development composite coefficient "C" will be 0.5. It is estimated that the peak runoff from the 42-acre drainage basin for the proposed project site for a 2-year storm event from the site once it is fully developed will be approximately 84 cubic feet per second (cfs), however, this flow will be attenuated via a stormwater detention basin upon post developed conditions. Prior to final stabilization, the permanent stormwater detention basin will function as sediment basins. The sediment basin hydrology and hydraulics model is included in Appendix C. Details of this basin design are included in Appendix D.

During construction, the contractor shall be responsible for ensuring that there is permit coverage for this site and shall maintain proper erosion control measures to minimize sediment runoff generated from the construction activities. The erosion control measures at a minimum shall be in accordance with this Storm Water Pollution Prevention Plan for the Project as approved by the State of Mississippi Department of Environmental Quality (MDEQ).

Erosion and Sediment Controls:

The erosion control measures shall be designed to minimize erosion and sediment from leaving the site as a result of a storm event. These measures will be in accordance with this Storm Water Pollution Prevention Plan for the Project as approved by the State of Mississippi Department of Environmental Quality (MDEQ), Division of Water Resources (DWR). No clearing can begin until all necessary erosion controls measures are in place.

In general, some and/or all of the following erosion and sediment controls will be used during the earthwork grading operations, as well as, in-place controls used after grading is complete and erosion control seeding has been established:

1. Gravel construction entrance
2. Silt fence (installation around the perimeter of the site as shown on the erosion control plan shall be before the start of earthwork operation)
3. Sediment basin
4. Phased construction
5. Inlet/pipe protection
6. Erosion control seeding
7. Final seeding/sodding.

The detention basin area will be constructed in the initial stages of construction so that it will function as a temporary sediment basin during construction. During construction, a sediment trap will be constructed near the outlet of the detention basin and will include a filter ring near the outlet of the basin as shown on the revised Erosion Control Plans. The sediment basin will be constructed in accordance with the Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas (Manual) and as shown on the attached detail.

The sediment basin(s) will function as a flow-thru treatment basin and will have the capacity to store the 2-year, 24 hour storm event (4 inches) as required in the MDEQ Large Construction General Permit (Section T-6 2.A.).

The sediment basins will be dewatered by use of a Faircloth surface skimmer, that will drain water near the surface and drain via a pipe through a temporary 36" diameter riser outlet structure which is equipped with a 24" outlet pipe. The basin's efficiency may be improved, by introducing chemical coagulants and coagulant aids such as Polyacrylamide (PAM). PAM is a synthetic polymer, PAM is used to describe a wide variety of chemicals based on the acrylamide unit. When linked in long chains, some portion of the acrylamide units can be modified to result in a net positive, neutral, or negative charge on the PAM molecule. Th e positively charged, or cationic, PAMs are often not used for turbidity control because they can be toxic to fish and other aquatic organisms if they enter water bodies in sufficient concentrations. As is the case with chitosan, this effect has been shown to be greatly reduced in turbid water. The negatively charged, or anionic, PAMs are much less toxic to aquatic organisms and are widely used for erosion control in furrow irrigation agriculture. PAMs are also used in erosion control products. The Safety Data Sheet (SDS) for PAM is included in Appendix C of this SWPPP. Any sediment accumulation in the proposed sediment basin may be removed and the basin will be seeded for the establishment of vegetative cover. Upon completion of the Project, the sediment pond will be converted to a permanent wet detention pond in accordance with the Grading & Drainage Plans.

The sediment basin will have a drainage area of 42 acres which requires a basin storage volume of 5,628 cubic yards. The basin will provide 7,466 cubic yards of storage at the 2-year storm elevation in the pond. The basin will be dewatered (drained down) with a 6" diameter skimmer arm having a 5" head with 1.5" orifice holes which will be connected to the riser outlet structure mentioned above. This basin is estimated to take approximately 3 days (72 hours) to drain down. Calculations included in the appendix of this SWPPP. The sediment basin hydrology and hydraulics model is included in Appendix C. Details of this basin design are included in Appendix D.

The outlet from the detention pond will be a 42" RCP pipe and will discharge into the existing drainage channel. The outlet pipe will be equipped with an energy dissipater headwall to reduce velocities of the storm drainage leaving the sediment basin.

Silt fence must be properly entrenched as shown on the Erosion Control Plans and Details Sheets. Initial placement of silt fence and other erosion control measures is the responsibility of the contractor. At a minimum, silt fence will be placed as indicated on the Erosion Control Plans. Routine inspection and maintenance of erosion control measures is the responsibility of the contractor or as assigned during periodic contractor's meetings.

Any topsoil that is removed and stockpiled from the area of the Project, must be stockpiled nearby and surrounded with silt fence. The silt fence shall be maintained until removal of topsoil or respread on site for vegetative cover. It is not anticipated that any waste material will be hauled off-site for disposal. Once construction has been completed, any exposed soils will be either seeded & mulched, and/or sodded with Bermuda and/or Rye grasses to minimize erosion.

As expected there will be waste materials stored on site. Some examples of the waste material may include wood, metals, masonry, packaging materials, etc. During construction, these waste materials shall be disposed of on-site in a construction dumpster as required to ensure that the site is free from excess debris. The contractor shall keep the site free of litter and debris as much as possible. In addition, the contractor shall remove debris and litter before any anticipated storm event. It is not anticipated for any fuels to be stored on-site. All chemicals shall be stored in areas and sheltered from rainfall.

Also, the following conditions will apply to the entire site.

1. Construction Management Techniques
   (a) Clearing and grubbing must be held to the minimum necessary for grading and equipment operation.
   (b) Construction must be sequenced if possible to minimize the exposure time of cleared surface area.
   (c) Construction shall be staged or phased to the extent possible. Areas of one phase must be stabilized before another phase can be initiated. Stabilization shall be accomplished by temporarily or permanently protecting the disturbed soil surface from rainfall impacts and runoff.
   (d) 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.
   (e) The Owner's site manager shall be designated to be responsible for erosion and sediment controls on site.

2. Vegetative Controls
   (a) The General Permit states: Soil stabilization-vegetative stabilization measures must be initiated whenever any clearing, grading, grubbing, excavating or other land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of fourteen (14) calendar days or more. The appropriate temporary

or permanent vegetative practices shall be initiated immediately. For purposes of this permit, "immediately" is interpreted to mean no later than the next work day.

(b) Steep slopes shall be temporarily stabilized immediately after construction activity on the slope has temporarily or permanently ceased.

(c) Vegetative Practices shall be designed to preserve existing vegetation where feasible and initiate vegetative stabilization measures after land disturbing activities. Such practices may include, but not limited to, temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips, tree protection and topsoil preservation.

3. Structural Controls

(a) All surface water flowing toward the construction area shall be diverted by using berms, channels, or sediment traps.

(b) Erosion and sediment control measures shall be designed according to the size and slope of disturbed or drainage areas, to detain runoff and trap sediment.

(c) Discharges from sediment basins and traps must be through a pipe or lined channel or over rip rap so that the discharge does not cause erosion.

(d) Muddy water to be pumped from excavation and work areas must be held in settling areas such as check dams or small settling basins or treated by filtration prior to its discharge into surface waters.

(e) The water used for equipment wash down eliminate mud, must be diverted to an area for settling and filtration.

4. Discharge Quality

(a) There shall be no distinctly visible floating scum, oil or other matter contained in the storm water discharge.

(b) The storm water discharge must not cause an objectionable color contrast in the receiving stream.

(c) The storm water discharge must result in no materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

(d) At a minimum, such controls must be designed, installed and maintained to:

(1) Control storm water volume and velocity within the site to minimize soil erosion;

(2) Control storm water discharges, including both peak flow rates and total storm water volume, to minimize channel and stream bank erosion and scour in the immediate vicinity of discharge points;

(e) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, concrete wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.

Inspection, Maintenance and Reporting:

The SWPPP will be kept on site by the Contractor in the Job Site Trailer. The Notice of Coverage will be posted on site on the Project Sign. The site manager will be responsible for installation and maintenance of rain gauge on site. Inspections will be made for all control measures and outfall/discharge points after rain events that produce a discharge and at least weekly for a minimum of four inspections per month. Litter, construction debris and chemicals exposed to storm water shall be picked up prior to anticipated storm events. All inspections will be documented in a log maintained on site. Quarterly inspection reports shall be submitted to the MDEQ, as requested. The site will be inspected by QUALIFIED PERSONNEL, which means a person knowledgeable in the principles and practice of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity. All inspections shall be documented on the MDEQ Monthly Inspection Report and Certification Form. A copy of this form is included in Appendix A of this SWPPP.

Submittals of the MDEQ Registration Form for residential lots are required. It is the responsibility of both the owner or developer (seller) and the new owner or operator (purchaser) to maintain a copy of the MDEQ Registration Form. The new owner or operator must maintain a copy of the MDEQ Registration Form at the site. In cases where there is no office or shelter to maintain documents onsite, the Registration Form can be kept locally available (i.e., able to be produced within an hour of being requested by state or local inspectors).

Maintenance needs identified by inspections or other means will be corrected as soon as possible, but not to exceed 24 hours of the inspection unless prevented by unsafe weather conditions as documented on the inspection form. If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable.

If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the control will be replaced or modified based on the site-specific conditions.

If sediment escapes the construction site, off-site accumulations of sediment that have not reached a stream will be removed at a frequency sufficient to minimize offsite impacts (e.g., fugitive sediment that has escaped the construction site and has collected in the street must be removed so that it is not subsequently washed into storm sewers and streams by the next rain and/or so that it does not pose a safety hazard to users of public streets). However, remediation/restoration of a stream will not be initiated without consulting the Division first.

Sediment will be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls when the design capacity of the control has been reduced. The General Permit states that sediment will be removed from structure BMPs when it has reached 1/3 to ½ height of the control and 50% capacity of sediment basins.

The Owner's site manager shall maintain records of checks and repairs on site. Records and information resulting from the monitoring activities required by this rule shall be retained for a minimum of three (3) years, or longer if requested by the Division of Water Pollution Control.

Post-Construction:

The contractor will begin final stabilization efforts soon after installation by installing landscaping, seeding and mulching and/or sodding.

The post-construction conditions will include a stormwater detention basin on the west side of the site. This basin will attenuate the post-developed peak stormwater discharge to pre-developed conditions (i.e., no increase in peak discharge). The discharge from the detention pond will be through a 4'x8' riser box structure and the outlet pipe 42" RCP pipe.

Upon completion of construction, the contractor shall ensure that the site is stabilized as required by MDEQ and the Owner. All temporary erosion and sediment control measures are to be removed (e.g., rock construction entrance, inlet protection, check dams, etc.). Permanent erosion and sediment controls (e.g., rip-rap apron, landscaping, etc.) shall be good working order to the satisfaction of MDEQ and the Owner.

Forms & Drawings:

Attached are the Notice of Intent (NOI) Form, Inspection Form, and Notice of Termination (NOT) Form, Quadrangle Map, Grading & Drainage Plans, Erosion Control Plans and Landscape Plans.

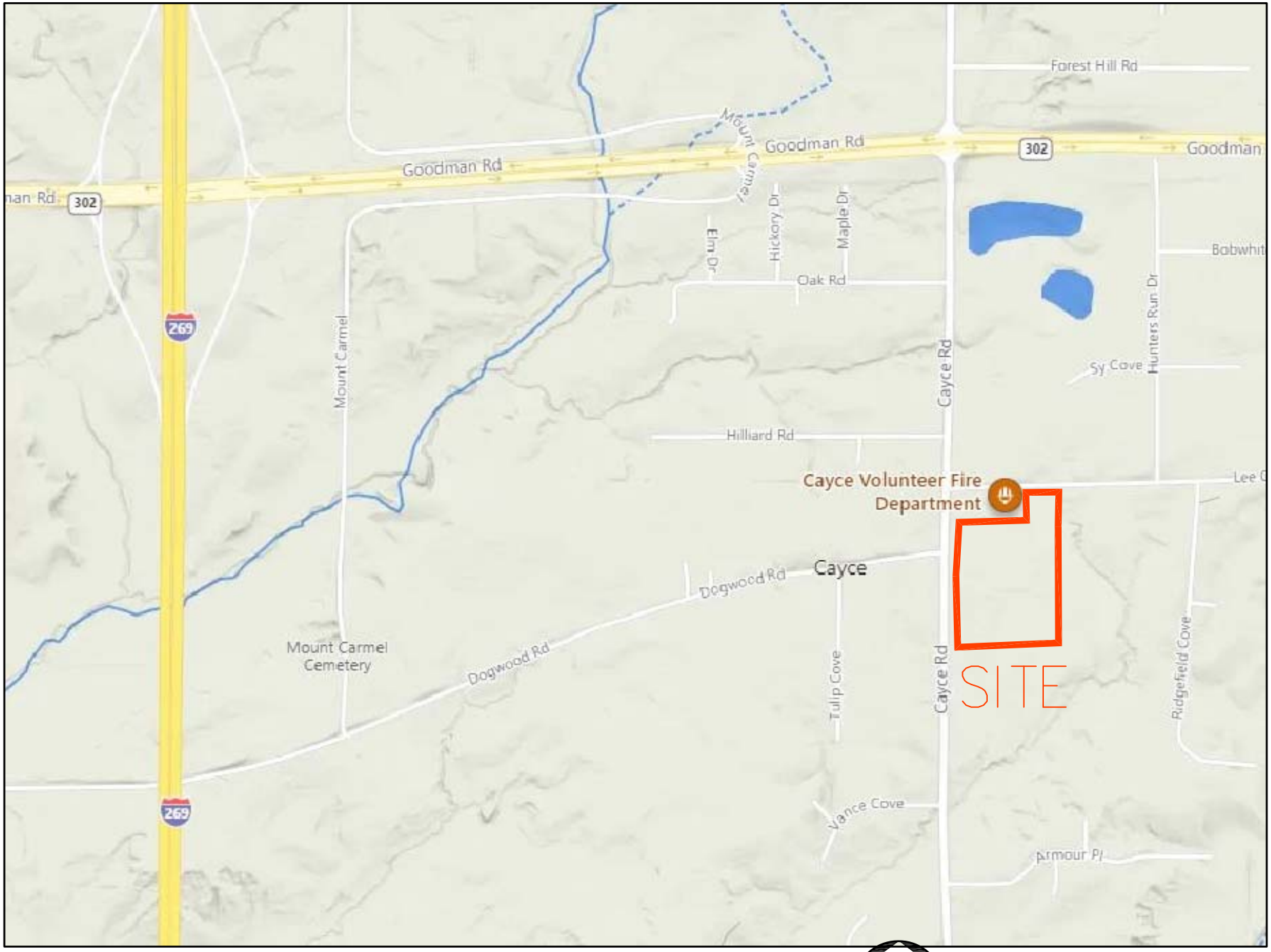
Permit Coverage:

This is prepared as a condition of State of Mississippi, Mississippi Department of Environmental Quality, Large Construction General Permit for Land Disturbing Activities of Five (5) or More Acres, Permit No. MSR10 issued date January 13, 2017.

Once approved, coverage under the permit will granted under Notice of Coverage with a specified permit tracking number. The Storm Water Pollution Prevention Plan is to be kept in the contractor's trailer at the site or possibly other off-site location nearby as designated by the site manage. A notice of its location along with the Notice of Coverage under the General Permit for the Discharge of Stormwater from a Construction Activity will be posted on the Notice Board to be erected new the entrance to the site.

Appendix A

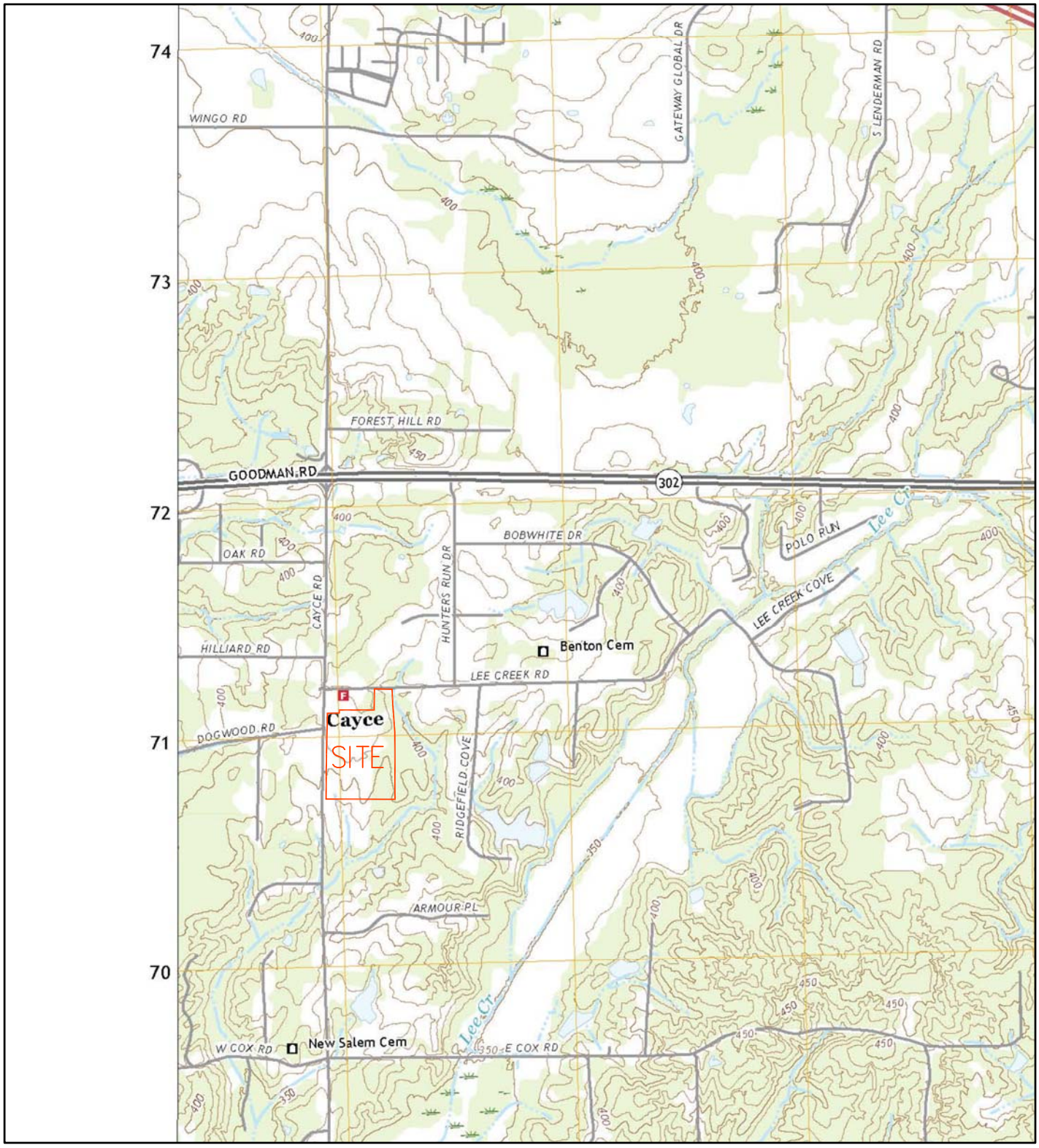
- **Location Map**
- **USGS Topographic Quadrangle Map**



VICINITY MAP

NTS

NORTH



QUAD MAP

1"=± 2000'

NORTH

Appendix B

MDEQ

Large Construction Forms Package

PRIME CONTRACTOR CERTIFICATION

LARGE CONSTRUCTION GENERAL PERMIT

Coverage No. MSR10 __ __ __ __ County _____

(Fill in your Certificate of Coverage Number and County)

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

By completing and submitting this form to MDEQ, the prime contractor is certifying that (1) they have operational control over the erosion and sediment control specifications (including the ability to make modifications to such specifications) or (2) they have day-to-day operational control of those activities at the site necessary to ensure compliance with the SWPPP and applicable permit conditions.

The owner(s) of the property and the prime contractor associated with regulated construction activity on the property have joint and severable responsibility for compliance with the permit. Notwithstanding any permit condition to the contrary, the coverage recipient and any person who causes pollution of waters of the state or places waste in a location where they are likely to cause pollution of any waters of the state shall remain responsible under applicable federal and state laws and regulations and applicable permits.

PRIME CONTRACTOR INFORMATION

PRIME CONTRACTOR CONTACT PERSON: Jim A. Curtis **PHONE NUMBER:** (901) 848-9821

PRIME CONTRACTOR COMPANY: Great Western Builders, Inc.

PRIME CONTRACTOR STREET (P.O. BOX): P.O. Box 1717

PRIME CONTRACTOR CITY: Piperton **STATE:** TN **ZIP:** 38027

E-MAIL ADDRESS: jim@gwbuildersinc.com

OWNER INFORMATION

OWNER CONTACT PERSON: SAME **PHONE NUMBER:** (___) _____

OWNER COMPANY NAME: _____

PROJECT INFORMATION

PROJECT NAME: Cayce Pointe Subdivision

DESCRIPTION OF CONSTRUCTION ACTIVITY: Residential Subdivision

PHYSICAL SITE ADDRESS (If the physical address is not available indicate the nearest named road. For linear projects, indicate the beginning of the project and identify all counties the project traverses.)

STREET: Cayce Road and Lee Creek Road

CITY: Byhalia **COUNTY:** Marshall

I certify that I am the prime contractor for this project and will comply with all the requirements in the above referenced general NPDES permit. I further 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 gathered and evaluated 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 fine and imprisonment for knowing violations.

Prime Contractor Signature[1] **Date Signed** 6/8/2021

Jim A. Curtis **Printed Name**[1] President **Title**

[1]**This application shall be signed as follows:**

- **For a corporation, by a responsible corporate officer.**
- **For a partnership, by a general partner.**
- **For a sole proprietorship, by the proprietor.**
- **For a municipal, state or other public facility, by principal executive officer, mayor, or ranking elected official.**

This Prime Contractors Certification form shall be submitted to:

Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

Revised: 10/25/16

MSR10 _ _ _ _

(NUMBER TO BE ASSIGNED BY STATE)

APPLICANT IS THE: ☒ **OWNER** ☒ **PRIME CONTRACTOR**

OWNER CONTACT INFORMATION

OWNER CONTACT PERSON: Jim A. Curtis

OWNER COMPANY LEGAL NAME: Great Western Builders, Inc.

OWNER STREET OR P.O. BOX: P.O. Box 1717

OWNER CITY: Piperton **STATE:** TN **ZIP:** 38027

OWNER PHONE #: (_____)_____ **OWNER EMAIL:** _____

PRIME CONTRACTOR CONTACT INFORMATION

PRIME CONTRACTOR CONTACT PERSON: SAME

PRIME CONTRACTOR COMPANY LEGAL NAME: _____

PRIME CONTRACTOR STREET OR P.O. BOX: _____

PRIME CONTRACTOR CITY: _____ **STATE:** _____ **ZIP:** _____

PRIME CONTRACTOR PHONE #: (___)_____ **PRIME CONTRACTOR EMAIL:** _____

FACILITY SITE INFORMATION

FACILITY SITE NAME: Cayce Point DS

FACILITY SITE ADDRESS (If the physical address is not available, please indicate the nearest named road. For linear projects indicate the beginning of the project and identify all counties the project traverses.)

STREET: Cayce Road and Lee Creek Road

CITY: Byhalia STATE: MS COUNTY: Marshall ZIP: 38661

FACILITY SITE TRIBAL LAND ID (N/A If not applicable): N / A

LATITUDE: 34 **degrees** 57 **minutes** 12.56N **seconds** **LONGITUDE:** 89 **degrees** 36 **minutes** 52.55W **seconds**

LAT & LONG DATA SOURCE (GPS *(Please GPS Project Entrance/Start Point)* or Map Interpolation): _____

TOTAL ACREAGE THAT WILL BE DISTURBED [1]: 31 AC

IS THIS PART OF A LARGER COMMON PLAN OF DEVELOPMENT? **YES** ☒ **NO** ☐

IF YES, NAME OF LARGER COMMON PLAN OF DEVELOPMENT: _____
AND PERMIT COVERAGE NUMBER: MSR10_ _ _ _

ESTIMATED CONSTRUCTION PROJECT START DATE: 2022/01/01 YYYY-MM-DD

ESTIMATED CONSTRUCTION PROJECT END DATE: 2022/12/31 YYYY-MM-DD

DESCRIPTION OF CONSTRUCTION ACTIVITY: Land Clearing and Grading, utilities, roads for subdivision

PROPOSED DESCRIPTION OF PROPERTY USE AFTER CONSTRUCTION HAS BEEN COMPLETED:

_____

SIC Code ___ ___ ___ ___ **NAICS Code** _ _ _ _ _ _

NEAREST NAMED RECEIVING STREAM: _____

IS RECEIVING STREAM ON MISSISSIPPI'S 303(d) LIST OF IMPAIRED WATER BODIES? (The 303(d) list of impaired waters and TMDL stream segments may be found on MDEQ's web site: http://www.deq.state.ms.us/MDEQ.nsf/page/TWB_Total_Maximum_Daily_Load_Section) **YES☐ NO☐**

HAS A TMDL BEEN ESTABLISHED FOR THE RECEIVING STREAM SEGMENT? YES☐ NO☐

ARE THERE RECREATIONAL STREAMS, PRIVATE/PUBLIC PONDS OR LAKES WITHIN ½ MILE DOWNSTREAM OF PROJECT BOUNDRY THAT MAY BE IMPACTED BY THE CONSTRUCTION ACTIVITY? YES☐ NO☐

EXISTING DATA DESCRIBING THE SOIL (for linear projects please describe in SWPPP):

_____

WILL FLOCCULANTS BE USED TO TREAT TURBIDITY IN STORM WATER? YES☐ NO☐

IF YES, INDICATE THE TYPE OF FLOCCULANT.

☐ **ANIONIC POLYACRYLIMIDE (PAM)**
☐ **OTHER** _____

IF YES, DOES THE SWPPP DESCRIBE THE METHOD OF INTRODUCTION, THE LOCATION OF INTRODUCTION AND THE LOCATION OF WHERE FLOCCULATED MATERIAL WILL SETTLE? YES☐ NO☐

[1]Acreage for subdivision development includes areas disturbed by construction of roads, utilities and drainage. Additionally, a housesite of at least 10,000 ft^2 per lot (entire lot, if smaller) shall be included in calculating acreage disturbed.

DOCUMENTATION OF COMPLIANCE WITH OTHER REGULATIONS/REQUIREMENTS

COVERAGE UNDER THIS PERMIT WILL NOT BE GRANTED UNTIL ALL OTHER REQUIRED MDEQ PERMITS AND APPROVALS ARE SATISFACTORILY ADDRESSED

IS LCNOI FOR A FACILITY THAT WILL REQUIRE OTHER PERMITS? YES ☐ NO ☐

IF YES, CHECK ALL THAT APPLY: ☐ AIR ☐ HAZARDOUS WASTE ☐ PRETREATMENT

☐ WATER STATE OPERATING ☐ INDIVIDUAL NPDES ☐ OTHER: _____

IS THE PROJECT REROUTING, FILLING OR CROSSING A WATER CONVEYANCE OF ANY KIND? (If yes, contact the U.S. Army Corps of Engineers' Regulatory Branch for permitting requirements.) YES ☐ NO ☐

IF THE PROJECT REQUIRES A CORPS OF ENGINEER SECTION 404 PERMIT, PROVIDE APPROPRIATE DOCUMENTATION THAT:

- **The project has been approved by individual permit, or**
- **The work will be covered by a nationwide permit and NO NOTIFICATION to the Corps is required, or**
- **The work will be covered by a nationwide or general permit and NOTIFICATION to the Corps is required**

IS A LAKE REQUIRING THE CONSTRUCTION OF A DAM BEING PROPOSED? (If yes, provide appropriate approval documentation from MDEQ Office of Land and Water, Dam Safety.) YES ☐ NO ☐

IF THE PROJECT IS A SUBDIVISION OR A COMMERCIAL DEVELOPMENT, HOW WILL SANITARY SEWAGE BE DISPOSED? Check one of the following and attach the pertinent documents.

☐ **Existing Municipal or Commercial System. Please attach plans and specifications for the collection system and the associated "Information Regarding Proposed Wastewater Projects" form or approval from County Utility Authority in Hancock, Harrison, Jackson, Pearl River and Stone Counties. If the plans and specifications can not be provided at the time of LCNOI submittal, MDEQ will accept written acknowledgement from official(s) responsible for wastewater collection and treatment that the flows generated from the proposed project can and will be transported and treated properly. The letter must include the estimated flow.**

☐ **Collection and Treatment System will be Constructed. Please attach a copy of the cover of the NPDES discharge permit from MDEQ or indicate the date the application was submitted to MDEQ (Date: _____.)**

☐ **Individual Onsite Wastewater Disposal Systems for Subdivisions Less than 35 Lots. Please attach a copy of the Letter of General Acceptance from the Mississippi State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.**

☐ **Individual Onsite Wastewater Disposal Systems for Subdivisions Greater than 35 Lots. A determination of the feasibility of installing a central sewage collection and treatment system must be made by MDEQ. A copy of the response from MDEQ concerning the feasibility study must be attached. If a central collection and wastewater system is not feasible, then please attach a copy of the Letter of General Acceptance from the State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.**

INDICATE ANY LOCAL STORM WATER ORDINANCE WITH WHICH THE PROJECT MUST COMPLY:

_____

_____

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 gathered and evaluated 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 fine and imprisonment for knowing violations.

Signature of Applicant[1] (owner or prime contractor)	**Date Signed** 6/8/2021
Printed Name[1] Jim A. Curtis	**Title** President

[1]This application shall be signed as follows:

- **For a corporation, by a responsible corporate officer.**
- **For a partnership, by a general partner.**
- **For a sole proprietorship, by the proprietor.**

For a municipal, state or other public facility, by principal executive officer, mayor, or ranking elected official

Please submit the LCNOI form to:

Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

Appendix C

Sediment Basin Hydraulic & Hydrology Models

- **Sediment Basin**
- **Faircloth Skimmer Dewatering Structure**
- **Safety Data Sheet for Polyacrylamide**

Table of Contents

Hydrograph by Return Period

Project Name: Cayce Point Sub-Sediment Basin

Hydrology Studio v 3.0.0.21

12-21-2021

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	NRCS Runoff	Post-Developed		144.8				263.5		
2	Pond Route	Pond		53.92				241.1		

Hydrograph 2-yr Summary

Project Name: Cayce Point Sub-Sediment Basin

Hydrology Studio v 3.0.0.21

12-21-2021

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Post-Developed	144.8	12.03	411,872	----		
2	Pond Route	Pond	53.92	12.23	388,622	1	379.53	201,584

Hydrograph Report

Project Name: Cayce Point Sub-Sediment Basin

Hydrology Studio v 3.0.0.21

12-21-2021

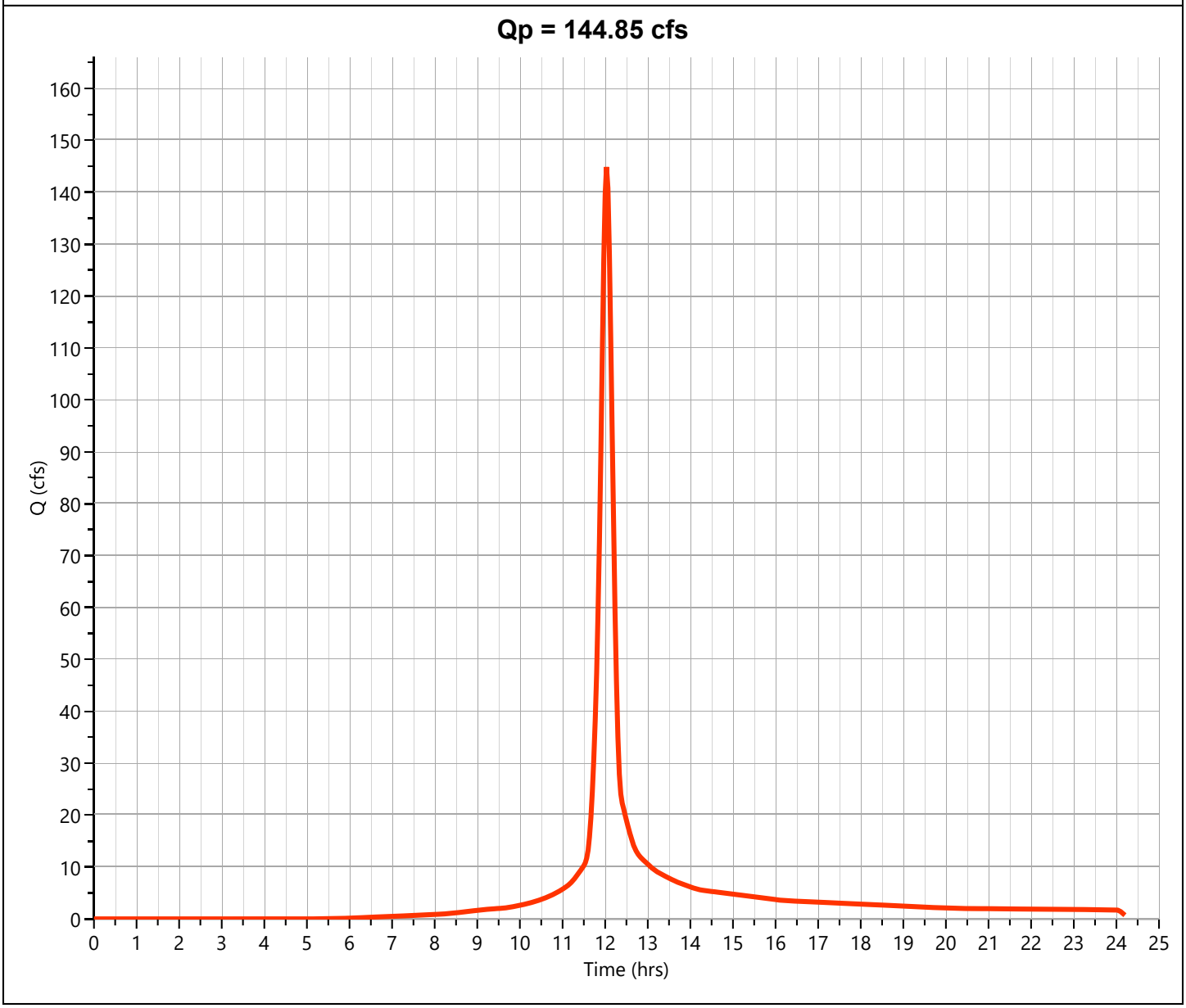
Post-Developed

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 144.8 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 411,872 cuft
Drainage Area	= 42.5 ac	Curve Number	= 88*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 4.01 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
42.5	88	Residential (1/8 AC Lots)
42.5	**88**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.21

12-21-2021

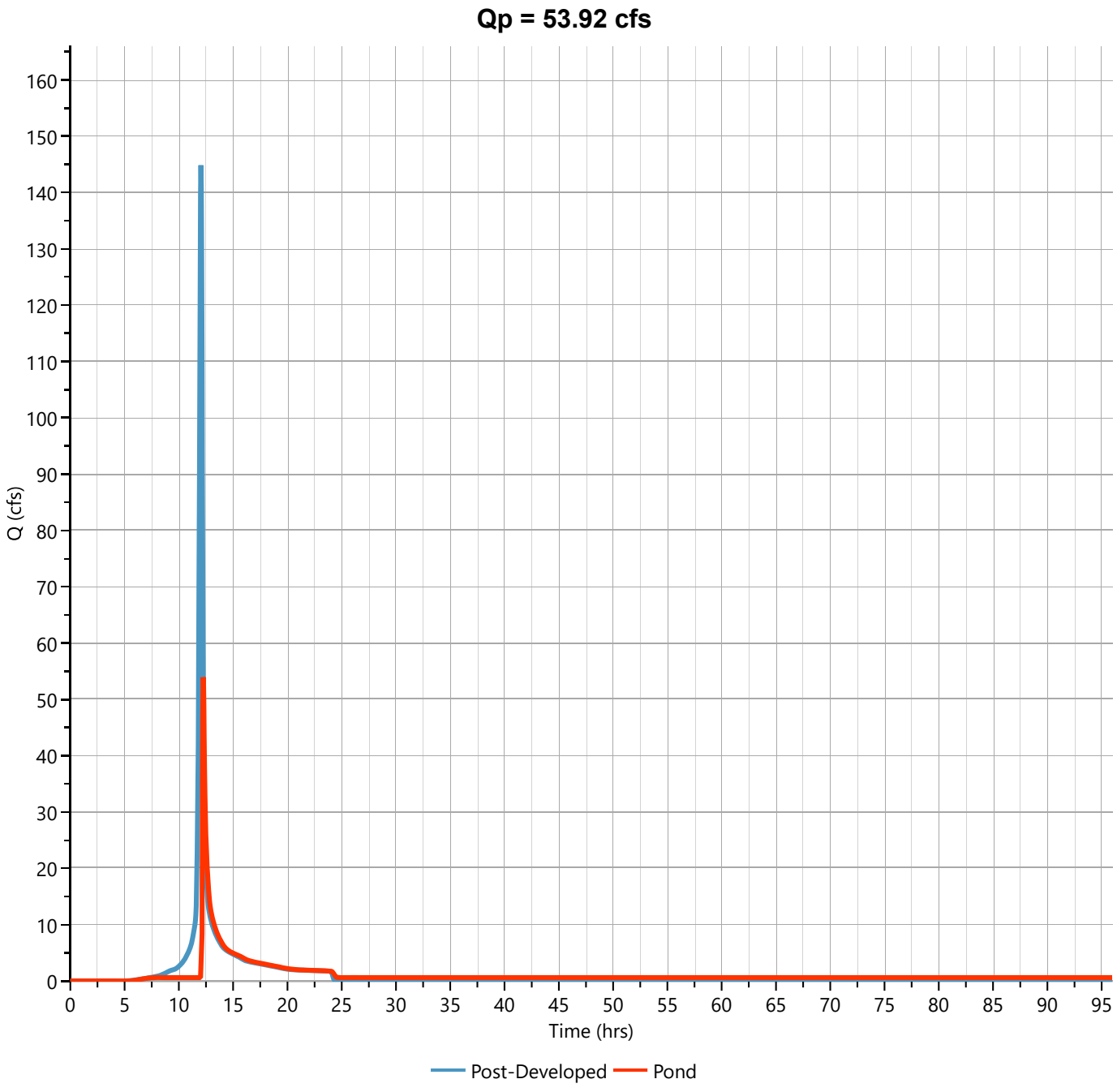
Pond

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 53.92 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Hydrograph Volume	= 388,622 cuft
Inflow Hydrograph	= 1 - Post-Developed	Max. Elevation	= 379.53 ft
Pond Name	= Pond-1	Max. Storage	= 201,584 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 19.54 hrs



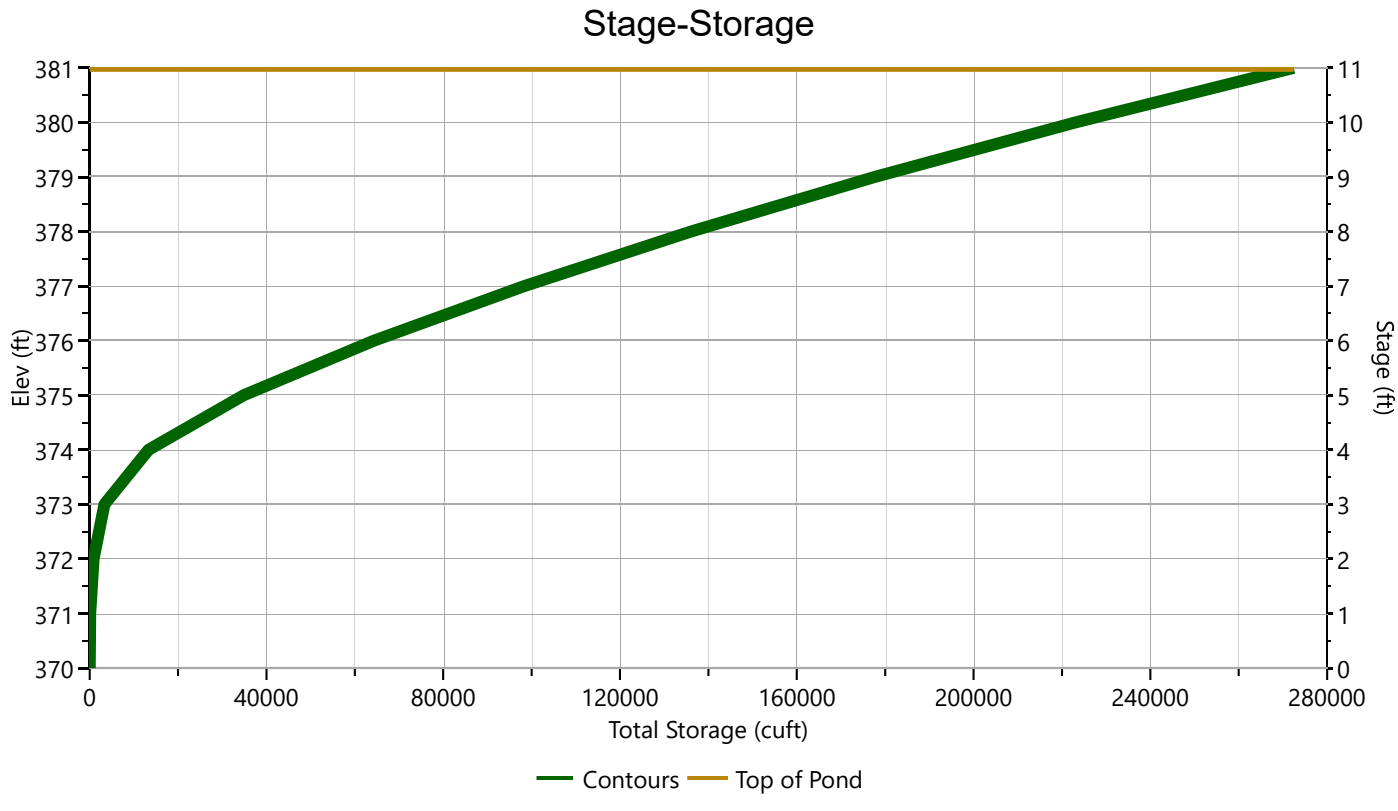
Pond-1

Stage-Storage

User Defined Contours	
Description	**Input**
Bottom Elevation, ft	370.00
Voids (%)	100.00
Volume Calc	Ave End Area

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	370.00	1	0.000	0.000
1.00	371.00	210	106	106
2.00	372.00	1,349	780	885
3.00	373.00	3,585	2,467	3,352
4.00	374.00	16,382	9,984	13,336
5.00	375.00	26,720	21,551	34,887
6.00	376.00	32,160	29,440	64,327
7.00	377.00	35,856	34,008	98,335
8.00	378.00	39,630	37,743	136,078
9.00	379.00	43,458	41,544	177,622
10.00	380.00	47,385	45,422	223,043
11.00	381.00	51,412	49,399	272,442

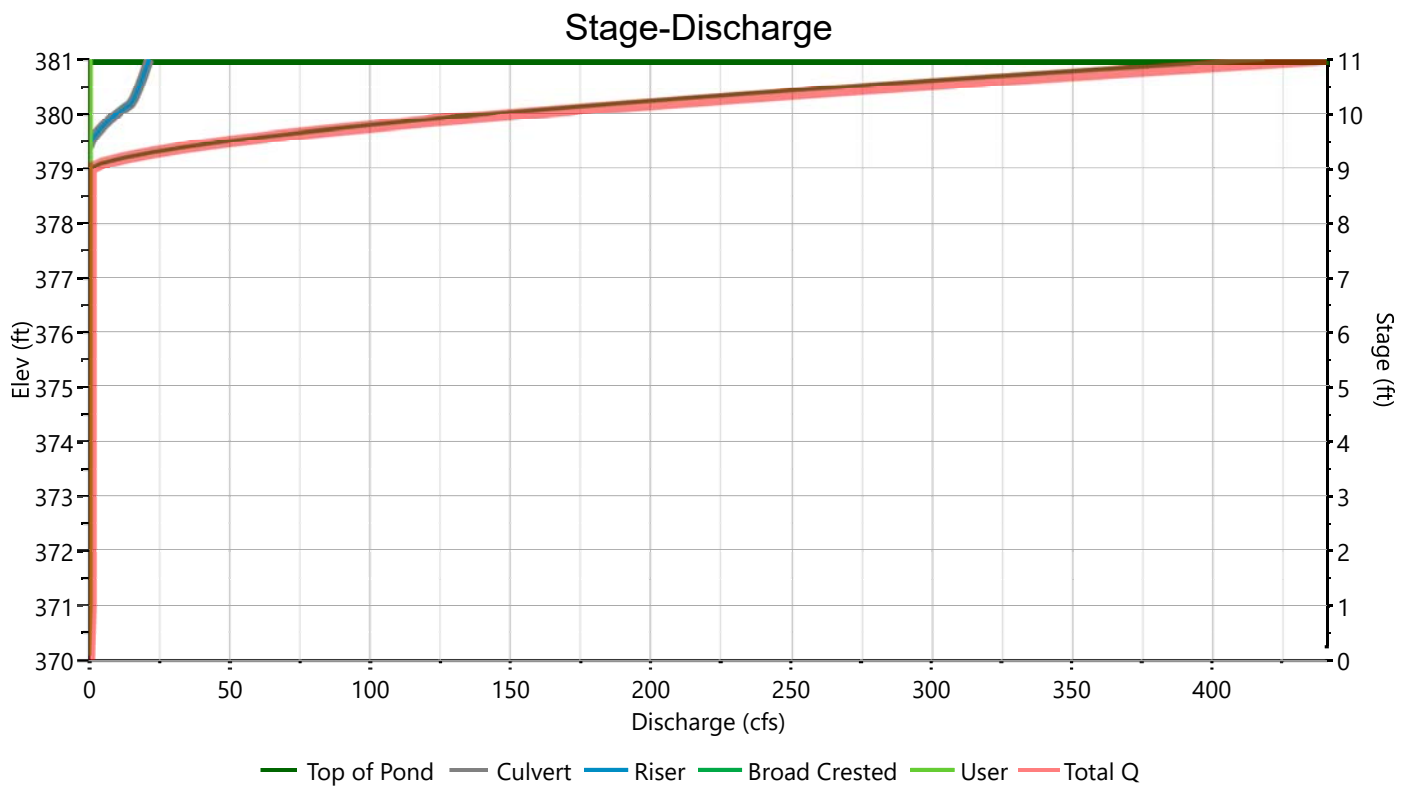


Pond-1

Stage-Discharge

Culvert / Orifices	Culvert	Orifices			Orifice Plate	
		1	2	3		
Rise, in	24				Orifice Dia, in	
Span, in	24				No. Orifices	
No. Barrels	1	1			Invert Elevation, ft	
Invert Elevation, ft	370.00	370.01			Height, ft	
Orifice Coefficient, Co	0.60	0.60			Orifice Coefficient, Co	
Length, ft	100					
Barrel Slope, %	1					
N-Value, n	0.013					
Weirs	**Riser***	**Weirs**			**Ancillary**	
		1	2	3		
Shape / Type	Circular		Broad Crested		Exfiltration, in/hr	
Crest Elevation, ft	379.4		379			
Crest Length, ft	6.28		40			
Angle, deg			18.4 (3:1)			
Weir Coefficient, Cw	3.3		3.3			

**Routes through Culvert.*



Pond-1

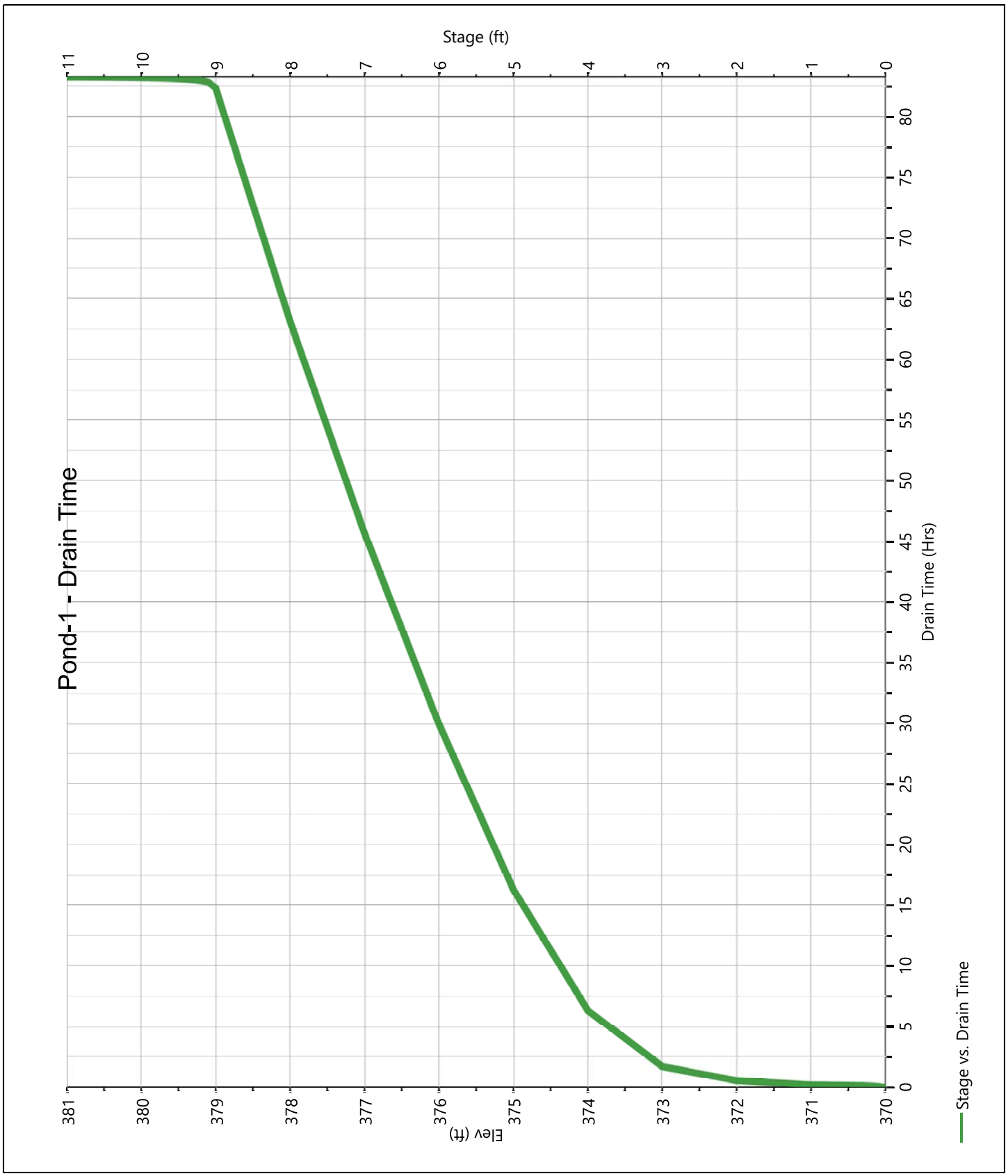
Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	370.00	0.000	0.000				0.000		0.000					0.000
1.00	371.00	106	0.000				0.000		0.000				0.600	0.600
2.00	372.00	885	0.000				0.000		0.000				0.600	0.600
3.00	373.00	3,352	0.000				0.000		0.000				0.600	0.600
4.00	374.00	13,336	0.000				0.000		0.000				0.600	0.600
5.00	375.00	34,887	0.000				0.000		0.000				0.600	0.600
6.00	376.00	64,327	0.000				0.000		0.000				0.600	0.600
7.00	377.00	98,335	0.000				0.000		0.000				0.600	0.600
8.00	378.00	136,078	0.000				0.000		0.000				0.600	0.600
9.00	379.00	177,622	0.000				0.000		0.000				0.600	0.600
10.00	380.00	223,043	9.632 ic				9.632		139.9				0.600	150.2
11.00	381.00	272,442	21.34 ic				21.34 ic		418.2				0.600	440.1

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond-1

Pond Drawdown



Hydrograph 25-yr Summary

Project Name: Cayce Point Sub-Sediment Basin

Hydrology Studio v 3.0.0.21

12-21-2021

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Post-Developed	263.5	12.03	771,338	----		
2	Pond Route	Pond	241.1	12.10	747,745	1	380.36	240,355

Hydrograph Report

Project Name: Cayce Point Sub-Sediment Basin

Hydrology Studio v 3.0.0.21

12-21-2021

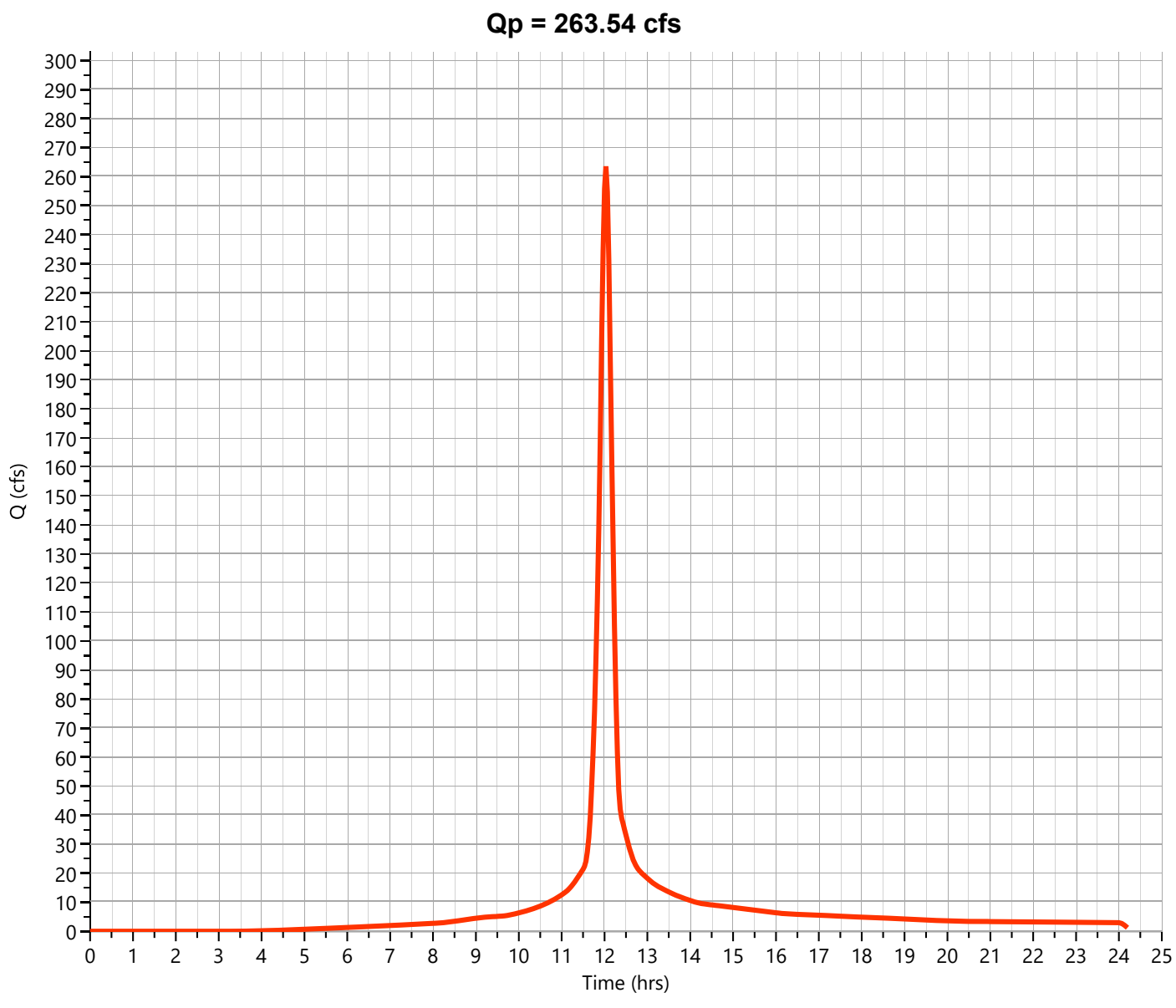
Post-Developed

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 263.5 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.03 hrs
Time Interval	= 2 min	Runoff Volume	= 771,338 cuft
Drainage Area	= 42.5 ac	Curve Number	= 88*
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 6.52 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
42.5	88	Residential (1/8 AC Lots)
42.5	**88**	Weighted CN Method Employed



Hydrograph Report

Hydrology Studio v 3.0.0.21

12-21-2021

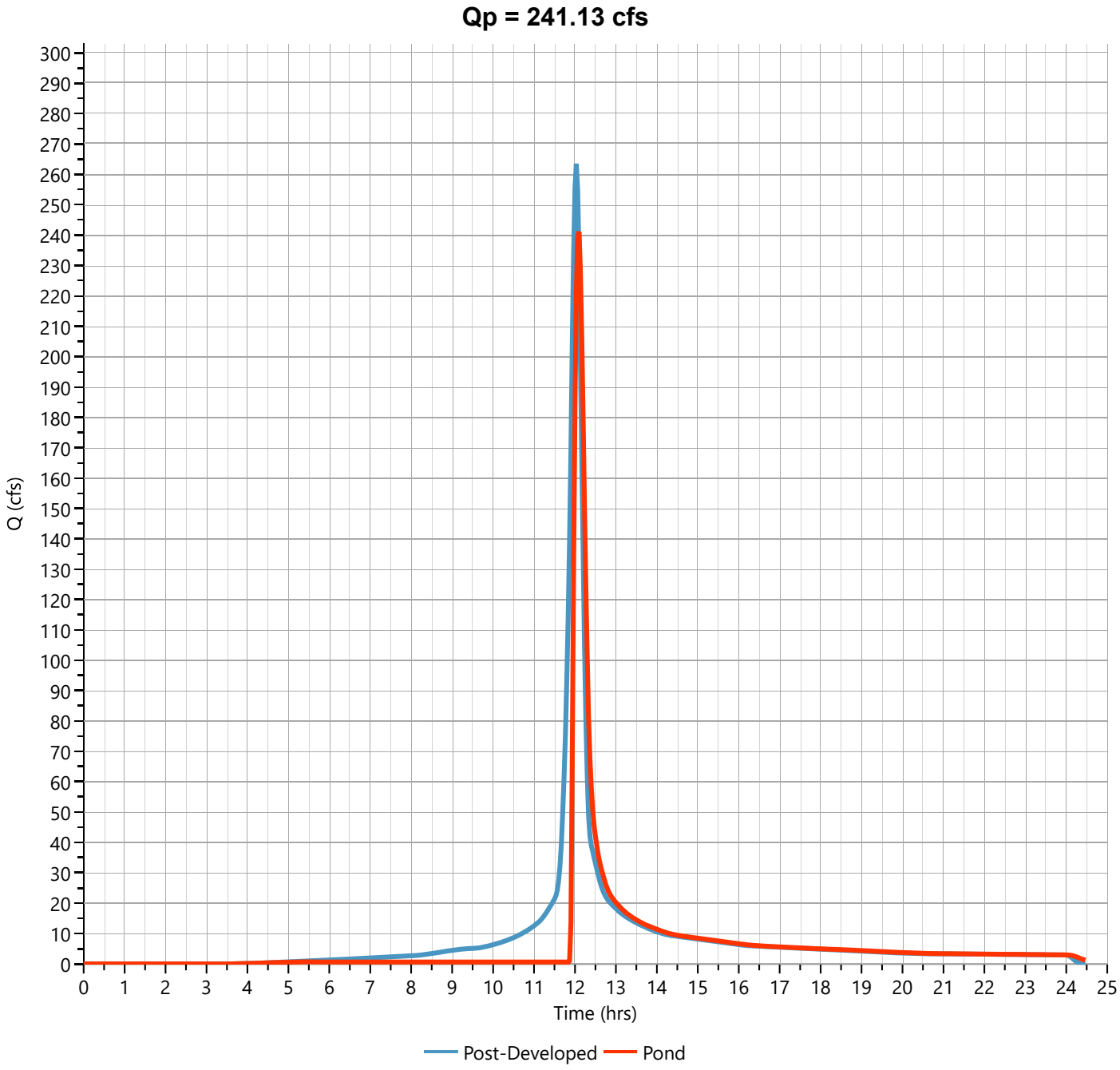
Pond

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 241.1 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.10 hrs
Time Interval	= 2 min	Hydrograph Volume	= 747,745 cuft
Inflow Hydrograph	= 1 - Post-Developed	Max. Elevation	= 380.36 ft
Pond Name	= Pond-1	Max. Storage	= 240,355 cuft

Pond Routing by Storage Indication Method

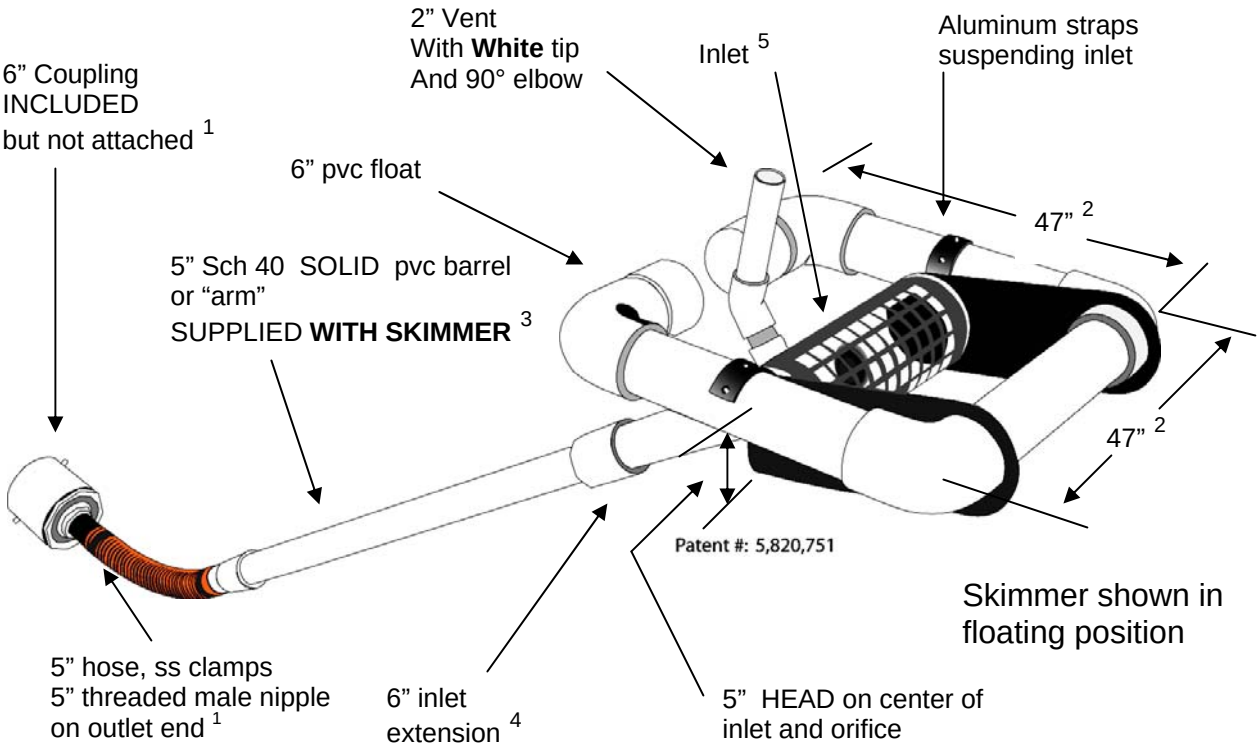
Center of mass detention time = 50 min



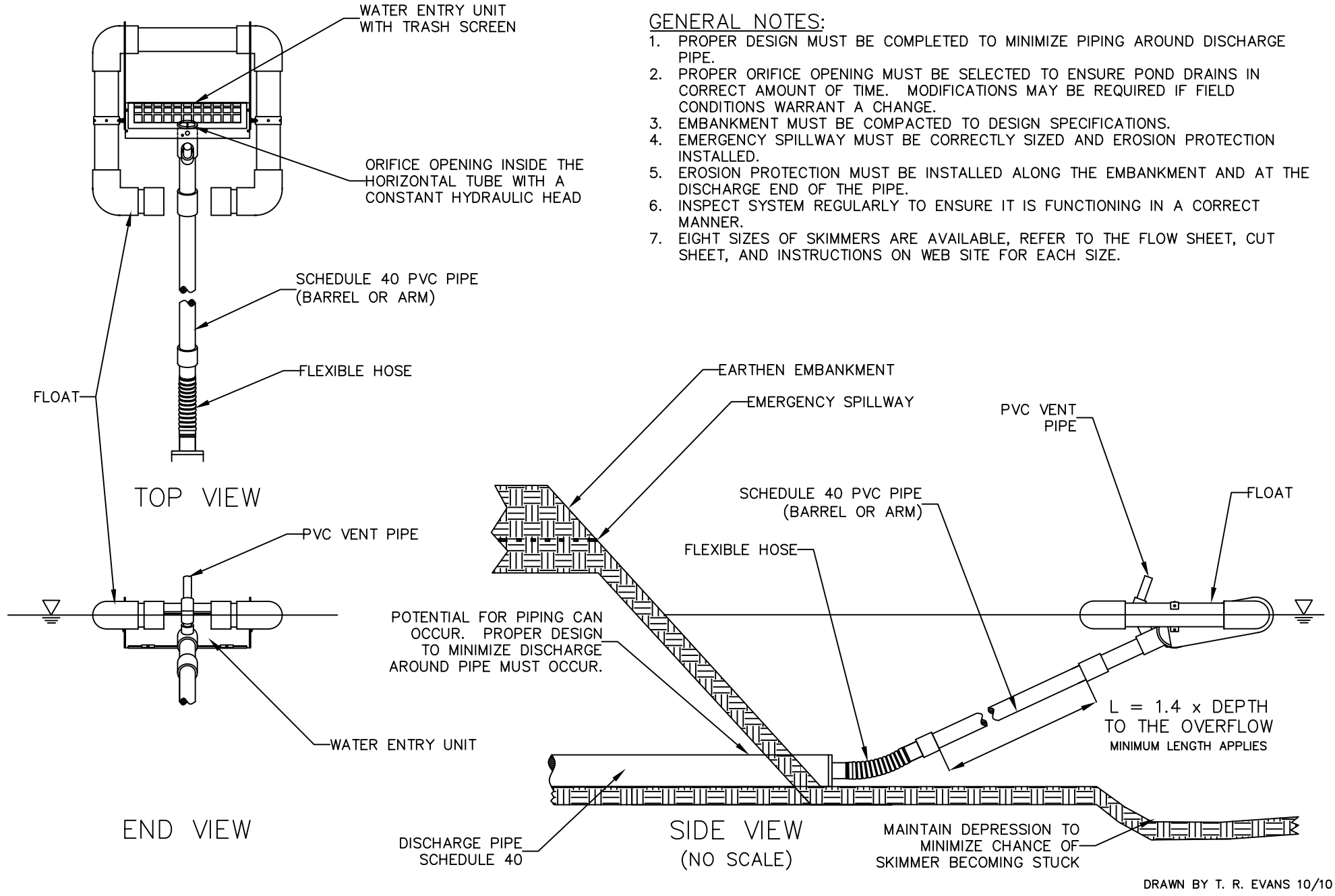
6” *Faircloth Skimmer®* Cut Sheet

J. W. Faircloth & Son, Inc.

www.FairclothSkimmer.com



1. Hose can be attached to outlet using the threaded 5” nipple. Typical methods used: on a metal structure a steel stubout welded on the side at the bottom with a 5” threaded coupling or reducers; on a concrete structure with a hole or orifice at the bottom, use a steel plate with a hole and coupling welded to it that will fit over the hole in the concrete and bolted to the structure with sealant.
2. Dimensions are approximate, not intended as plans for construction.
3. Barrel (solid, not foam core pipe) should be 1.4 times the depth of water with a minimum length of 8’ so the inlet can be pulled to the side for maintenance. If more than 12’ long weight may have to be added to inlet to counter the increased buoyancy.
4. Inlet tapers down from 6” maximum inlet to a 5” barrel and hose. Barrel is smaller to reduce buoyancy and tendency to lift inlet but is sufficient for flow through inlet because of slope. The inlet orifice can be reduced using the plug and cutter provided to control the outflow rate.
5. Inlet is 10” pipe between the straps with slots cut in the inlet and aluminum screen door (smaller than shown in illustration) for access to the 6” inlet and orifice inside.
6. **Capacity** 51,840 cubic feet per day maximum with 6” inlet and 5” head. Inlet can be reduced by installing a smaller orifice using the plug and cutter provided to adjust flow rate for the particular basin volume and drawdown time required.
7. Shipped assembled. User glues inlet extension and barrel, installs vent, cuts orifice in plug and attaches to outlet pipe or structure. Includes flexible hose, rope, orifice cutter, etc.



GENERAL NOTES:

1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

DRAWN BY T. R. EVANS 10/10

FAIRCLOTH SKIMMER® DISCHARGE SYSTEM WITH EMBANKMENT

J. W. FAIRCLOTH & SON INC.
WWW.FAIRCLOTHSKIMMER.COM
TELEPHONE: (919) 732-1244
FAX: (919) 732-1266
EMAIL: WARREN@FAIRCLOTHSKIMMER.COM

Determining the Skimmer Size and the Required Orifice for the *Faircloth Skimmer®* Surface Drain

November 2007

Important note: *The orifice sizing chart in the Pennsylvania Erosion Control Manual and reproduced in the North Carolina Design Manual* ***DOES NOT APPLY*** *to our skimmers. It will give the wrong size orifice and not specify which size skimmer is required. Please use the information below to choose the size skimmer required for the basin volume provided and determine the orifice size required for the drawdown time, typically 4-7 days in Pennsylvania and 3 days in North Carolina.*

The **size** of a Faircloth Skimmer®, for example a 4" skimmer, refers to the maximum diameter of the skimmer inlet. The inlet on each of the 8 sizes offered can be reduced to adjust the flow rate by cutting a hole or ***orifice*** in a plug using an adjustable cutter (both supplied).

Determining the skimmer size needed and the orifice for that skimmer required to drain the sediment basin's volume in the required time involves two steps: **First**, determining the size skimmer required based on the volume to be drained and the number of days to drain it; and **Second,** calculate the orifice size to adjust the flow rate and "customize" the skimmer for the basin's volume. *The second step is not always necessary* if the flow rate for the skimmer with the inlet wide open equals or is close to the flow rate required for the basin volume and the drawdown time.

Both the skimmer size and the required orifice radius for the skimmer should be shown for each basin on the erosion and sediment control plan. Make it clear that the dimension is either the radius or the diameter. It is also helpful to give the basin volume in case there are questions. During the skimmer installation the required orifice can be cut in the plastic plug using the supplied adjustable cutter and installed in the skimmer using the instructions provided.

The plan review and enforcement authority may require the calculations showing that the skimmer used can drain the basin in the required time.

Determining the Skimmer Size

Step 1. Below are approximate **skimmer maximum flow capacities** based on typical draw down requirements, which can vary between States and jurisdictions and watersheds. If one 6" skimmer does not provide enough capacity, multiple skimmers can be used to drain the basin. For drawdown times not shown, multiply the 24-hour figure by the number of days required.

Example: A basin's volume is 29,600 cubic feet and it must be drained in 3 days. A 3" skimmer with the inlet wide open will work perfectly. (Actually, the chart below gives 29,322 cubic feet but this is well within the accuracy of the calculations and the basin's constructed volume.)
Example: A basin's volume is 39,000 cubic feet and it must be drained in 3 days. The 3" skimmer is too small; a 4" skimmer has enough capacity but it is too large, so the inlet will need

to be reduced using step 2 to adjust the flow rate for the basin's volume. (It needs a 3.2" diameter orifice.)

1½" skimmer:	1,728 cubic feet in **24 hours**	6,912 cubic feet in **4 days**
with a 1½" head	3,456 cubic feet in **2 days**	12,096 cubic feet in **7 days**
	5,184 cubic feet in **3 days**	
2" skimmer:	3,283 cubic feet in **24 hours**	13,132 cubic feet in **4 days**
with a 2" head	6,566 cubic feet in **2 days**	22,982 cubic feet in **7 days**
	9,849 cubic feet in **3 days**	
2½" skimmer:	6,234 cubic feet in **24 hours**	24,936 cubic feet in **4 days**
with a 2.5" head	12,468 cubic feet in **2 days**	43,638 cubic feet in **7 days**
Revised 11-6-07	18,702 cubic feet in **3 days**	
3" skimmer:	9,774 cubic feet in **24 hours**	39,096 cubic feet in **4 days**
with a 3" head	19,547 cubic feet in **2 days**	68,415 cubic feet in **7 days**
	29,322 cubic feet in **3 days**	
4" skimmer:	20,109 cubic feet in **24 hours**	80,436 cubic feet in **4 days**
with a 4" head	40,218 cubic feet in **2 days**	140,763 cubic feet in **7 days**
Revised 11-6-07	60,327 cubic feet in **3 days**	
5" skimmer:	32,832 cubic feet in **24 hours**	131,328 cubic feet in **4 days**
with a 4" head	65,664 cubic feet in **2 days**	229,824 cubic feet in **7 days**
	98,496 cubic feet in **3 days**	
6" skimmer:	51,840 cubic feet in **24 hours**	207,360 cubic feet in **4 days**
with a 5" head	103,680 cubic feet in **2 days**	362,880 cubic feet in **7 days**
	155,520 cubic feet in **3 days**	
8" skimmer:	97,978 cubic feet in **24 hours**	391,912 cubic feet in **4 days**
with a 6" head	195,956 cubic feet in **2 days**	685,846 cubic feet in **7 days**
CUSTOM	293,934 cubic feet in **3 days**	
MADE BY ORDER	**CALL!**	

Determining the Orifice

Step 2. To determine the orifice required to reduce the flow rate for the basin's volume and the number of days to drain the basin, simply use the formula volume ÷ **factor** (from the chart below) for the same size skimmer chosen in the first step and the same number of days. This calculation will give the **area** of the required orifice. Then calculate the orifice radius using Area = π r^2 and solving for *r,* $r = \sqrt{(Area / 3.14)}$ .The supplied cutter can be adjusted to this radius to cut the orifice in the plug. The instructions with the plug and cutter has a ruler divided into tenths of inches. Again, this step is not always necessary as explained above.

An alternative method is to use the orifice equation with the head for a particular skimmer shown on the previous page and determine the orifice needed to give the required flow for the volume and draw down time. C = 0.59 is used in this chart.

Example: A 4" skimmer is the smallest skimmer that will drain 39,000 cubic feet in 3 days but a 4" inlet will drain the basin too fast (in 1.9 days) To determine the orifice required use the factor of 4,803 from the chart below for a 4" skimmer and a drawdown time of 3 days. 39,000 cubic

feet ÷ 4,803 = 8.12 square inches of orifice required. Calculate the orifice radius using Area = π r^2 and solving for r, $r = \sqrt{(8.12/3.14)}$ and r = 1.61". As a practical matter 1.6" is about as close as the cutter can be adjusted and the orifice cut..

Factors (in cubic feet of flow per square inch of opening through a **round** orifice with the head for that skimmer and for the drawdown times shown) for determining the **orifice radius** for a basin's volume to be drained. This quick method works because the orifice is centered and has a constant head (given above in Step 1).

1½" skimmer:	960 to drain in **24 hours**	3,840 to drain in **4 days**
	1,920 to drain in **2 days**	6,720 to drain in **7 days**
	2,880 to drain in **3 days**	
2" skimmer:	1,123 to drain in **24 hours**	4,492 to drain in **4 days**
	2,246 to drain in **2 days**	7,861 to drain in **7 days**
	3,369 to drain in **3 days**	
2½" skimmer:	1,270 to drain in **24 hours**	5,080 to drain in **4 days**
Revised 11-6-07	2,540 to drain in **2 days**	8,890 to drain in **7 days**
	3,810 to drain in **3 days**	
3" skimmer:	1,382 to drain in **24 hours**	5,528 to drain in **4 days**
	2,765 to drain in **2 days**	9,677 to drain in **7 days**
	4,146 to drain in **3 days**	
4" skimmer:	1,601 to drain in **24 hours**	6,404 to drain in **4 days**
Revised 11-6-07	3,202 to drain in **2 days**	11,207 to drain in **7 days**
	4,803 to drain in **3 days**	
5" skimmer:	1,642 to drain in **24 hours**	6,568 to drain in **4 days**
	3,283 to drain in **2 days**	11,491 to drain in **7 days**
	4,926 to drain in **3 days**	
6" skimmer:	1,814 to drain in **24 hours**	7,256 to drain in **4 days**
	3,628 to drain in **2 days**	12,701 to drain in **7 days**
	5,442 to drain in **3 days**	
8" skimmer:	1,987 to drain in **24 hours**	7,948 to drain in **4 days**
	3,974 to drain in **2 days**	13,909 to drain in **7 days**
	5,961 to drain in **3 days**	

J. W. Faircloth & Son, Inc.
Post Office Box 757
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Hillsborough, North Carolina 27278
Telephone (919) 732-1244 FAX (919) 732-1266
FairclothSkimmer.com jwfaircloth@embarqmail.com

Orifice sizing Revised 2-2-01; 3-3-05; 2-1-07; 11-6-07

SAFETY DATA SHEET

Preparation Date: 1/27/2017 **Revision Date:** 1/27/2017 **Revision Number:** G1

1. IDENTIFICATION

Product identifier

Product code: P2930
Product Name: Polyacrylamide (avg. M.W. 5,000,000)

Other means of identification
Synonyms: 2-Propenamide Homopolymer; PAA
CAS #: 9003-05-8
RTECS # AS3700000
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: No information available.
Uses advised against No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000.
Order Online At: https://www.spectrumchemical.com
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Not classified

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Polyacrylamide	9003-05-8	100

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms May cause eye/skin irritation. May cause digestive (gastrointestinal) tract irritation. Dyspnea (Shortness of breath and difficulty breathing). May affect the liver. It may affect the kidneys. Ataxia. Convulsions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon Dioxide, Carbon Monoxide. Nitrogen Oxides.

Specific hazards: May be combustible at high temperatures.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent)

and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:
Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
Polyacrylamide	9003-05-8	None	None	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Polyacrylamide	9003-05-8	None	None	None	None

Australia and Mexico

Components	CAS-No.	**Australia**	**Mexico**
Polyacrylamide	9003-05-8	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Safety glasses with side-shields or Goggles

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Effective dust mask.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Solid

Appearance:
Crystals. Granules.

Color:
White. Off-white.

Odor:
Odorless.

Taste
No information available.

Formula:
[-CH2CH(CONH2]n

Molecular/Formula weight:
Av. M.W. = 5,000,000

Flammability:
No information available

Flashpoint (°C/°F):
No information available.

Flash Point Tested according to:
Not available

Autoignition Temperature (°C/°F):
No information available

Lower Explosion Limit (%):
No information available

Upper Explosion Limit (%):
No information available

Melting point/range(°C/°F):
No information available

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
No information available

Bulk density:
No information available

Density (g/cm3):
No information available

Specific gravity:
1.3

pH:
No information available

Vapor pressure @ 20°C (kPa):
No information available

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

Partition coefficient (n-octanol/water):
No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Soluble in Water

10. STABILITY AND REACTIVITY

Reactivity
May react with strong oxidizers

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Incompatible materials.

Incompatible Materials: Strong oxidizing agents

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx).

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion.

Acute Toxicity

Component Information

Polyacrylamide	
CAS-No.	9003-05-8

LD50/oral/rat = > 1 g/kg Oral LD50 Rat
LD50/oral/mouse = 12950 mg/kg
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No infomation available
Other LD50 or LC50information = 11250 mg/kg Oral LD50 Rabbit

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = > 1000 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 12950 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation May cause irritation of respiratory tract.

Ingestion May cause digestive (gastointestinal) tract irritation. May affect respiration (dyspnea - difficulty breathing and shortness of breath). May affect behavior/central nervous system (ataxia). May affect behavior/central nervous system (convulsions).

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated ingestion may affect the blood (pigmented or nucleated red blood cells). Prolonged or repeated ingestion may affect the liver, and kidneys.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Polyacrylamide	9003-05-8	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.
Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Polyacrylamide	9003-05-8	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Class	No information available
Packing group:	No information available
Emergency Response Guide Number	No information available
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	No Information available
Symbol(s):	No information available
Description:	No information available

TDG (Canada)

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No Information available
Description:	No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available

IMO / IMDG
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant No information available

RID
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

ICAO
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

IATA
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
ERG Code: No information available
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Polyacrylamide	9003-05-8	Present XU	Present KE-29375	Present	Present (6)-849	Present	Present	Not present

U.S. Regulations

Polyacrylamide
FDA - Direct Food Additives 21 CFR 172.255 21 CFR 173.315
FDA - 21 CFR - Total Food Additives 172.255 173.315 175.105 176.170 176.180

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Polyacrylamide	9003-05-8	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Polyacrylamide	9003-05-8	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Polyacrylamide	9003-05-8	Not Applicable	Not Applicable

Canada

WHMIS hazard class:
Non-controlled

Components
Polyacrylamide

WHIMHAZ
Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Polyacrylamide	9003-05-8	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Polyacrylamide	9003-05-8	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Polyacrylamide	9003-05-8	Not listed

EU Classification
R-phrase(s)
not determined (not applicable)

S -phrase(s)
none

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Polyacrylamide	9003-05-8		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Not dangerous

16. OTHER INFORMATION

Preparation Date: 1/27/2017
Revision Date: 1/27/2017
Prepared by: Sonia Owen

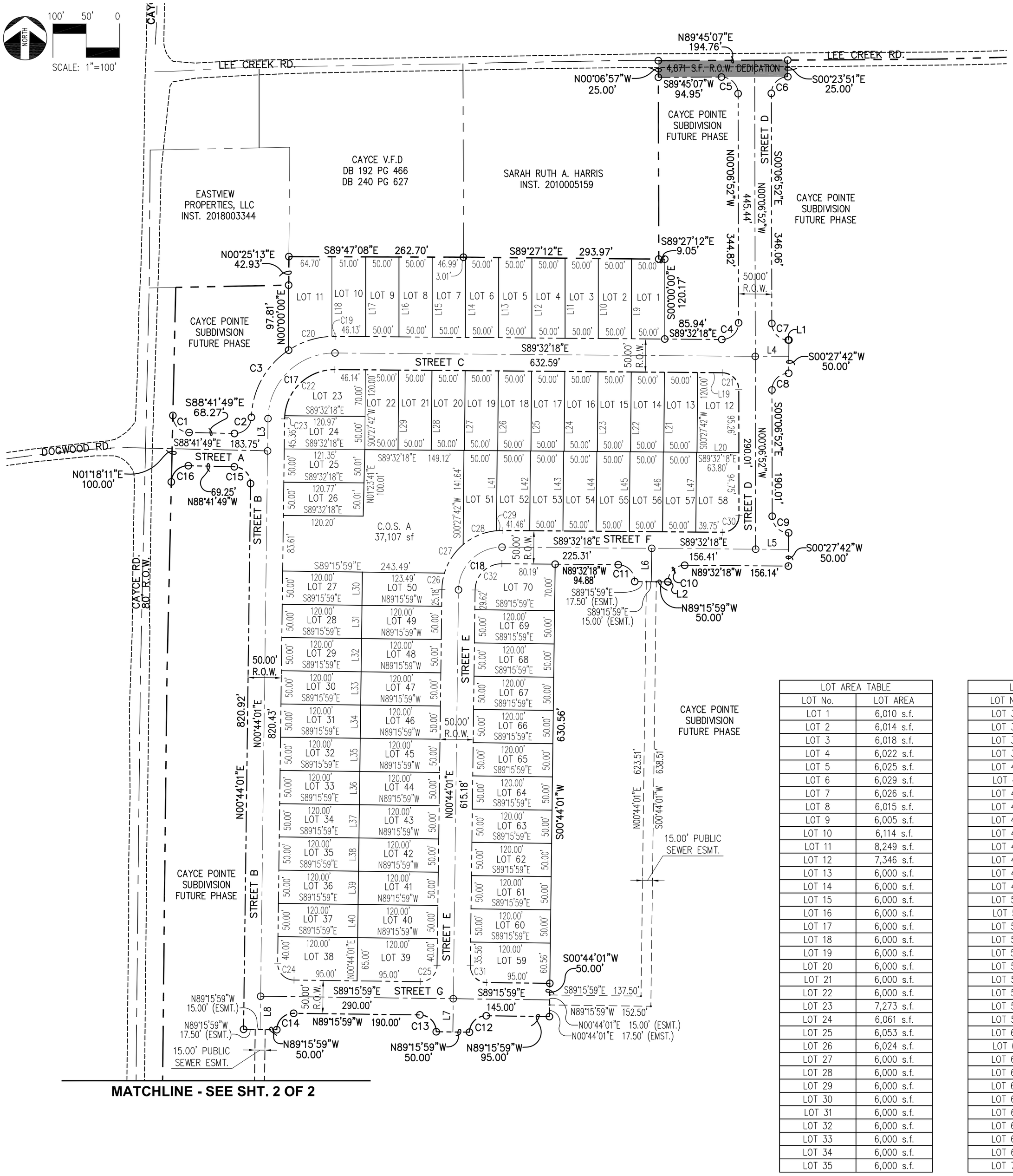
Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet

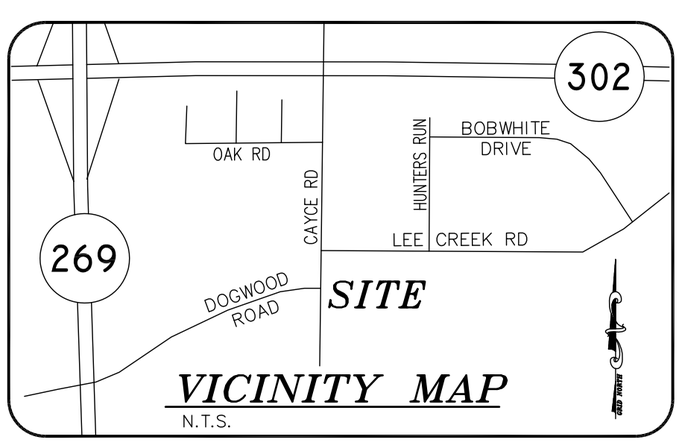
Appendix D

- **Final Plat**
- **Erosion Control Plans (4 sheets)**
- **Detail Sheets (2 sheets)**



LOT AREA TABLE	
LOT No.	LOT AREA
LOT 1	6,010 s.f.
LOT 2	6,014 s.f.
LOT 3	6,018 s.f.
LOT 4	6,022 s.f.
LOT 5	6,025 s.f.
LOT 6	6,029 s.f.
LOT 7	6,026 s.f.
LOT 8	6,015 s.f.
LOT 9	6,005 s.f.
LOT 10	6,114 s.f.
LOT 11	8,249 s.f.
LOT 12	7,346 s.f.
LOT 13	6,000 s.f.
LOT 14	6,000 s.f.
LOT 15	6,000 s.f.
LOT 16	6,000 s.f.
LOT 17	6,000 s.f.
LOT 18	6,000 s.f.
LOT 19	6,000 s.f.
LOT 20	6,000 s.f.
LOT 21	6,000 s.f.
LOT 22	6,000 s.f.
LOT 23	7,273 s.f.
LOT 24	6,061 s.f.
LOT 25	6,053 s.f.
LOT 26	6,024 s.f.
LOT 27	6,000 s.f.
LOT 28	6,000 s.f.
LOT 29	6,000 s.f.
LOT 30	6,000 s.f.
LOT 31	6,000 s.f.
LOT 32	6,000 s.f.
LOT 33	6,000 s.f.
LOT 34	6,000 s.f.
LOT 35	6,000 s.f.

LOT AREA TABLE	
LOT No.	LOT AREA
LOT 36	6,000 s.f.
LOT 37	6,000 s.f.
LOT 38	7,666 s.f.
LOT 39	7,666 s.f.
LOT 40	6,000 s.f.
LOT 41	6,000 s.f.
LOT 42	6,000 s.f.
LOT 43	6,000 s.f.
LOT 44	6,000 s.f.
LOT 45	6,000 s.f.
LOT 46	6,000 s.f.
LOT 47	6,000 s.f.
LOT 48	6,000 s.f.
LOT 49	6,000 s.f.
LOT 50	6,029 s.f.
LOT 51	6,398 s.f.
LOT 52	6,001 s.f.
LOT 53	6,000 s.f.
LOT 54	6,000 s.f.
LOT 55	6,000 s.f.
LOT 56	6,000 s.f.
LOT 57	6,000 s.f.
LOT 58	7,591 s.f.
LOT 59	7,133 s.f.
LOT 60	6,000 s.f.
LOT 61	6,000 s.f.
LOT 62	6,000 s.f.
LOT 63	6,000 s.f.
LOT 64	6,000 s.f.
LOT 65	6,000 s.f.
LOT 66	6,000 s.f.
LOT 67	6,000 s.f.
LOT 68	6,000 s.f.
LOT 69	6,000 s.f.
LOT 70	8,026 s.f.



PRELIMINARY PLAT
CAYCE POINTE SUBDIVISION PHASE 1

MARSHALL COUNTY, MISSISSIPPI

TOTAL AREA: 18.26 ACRES

No. OF LOTS: 70 LOTS & 2 C.O.S.

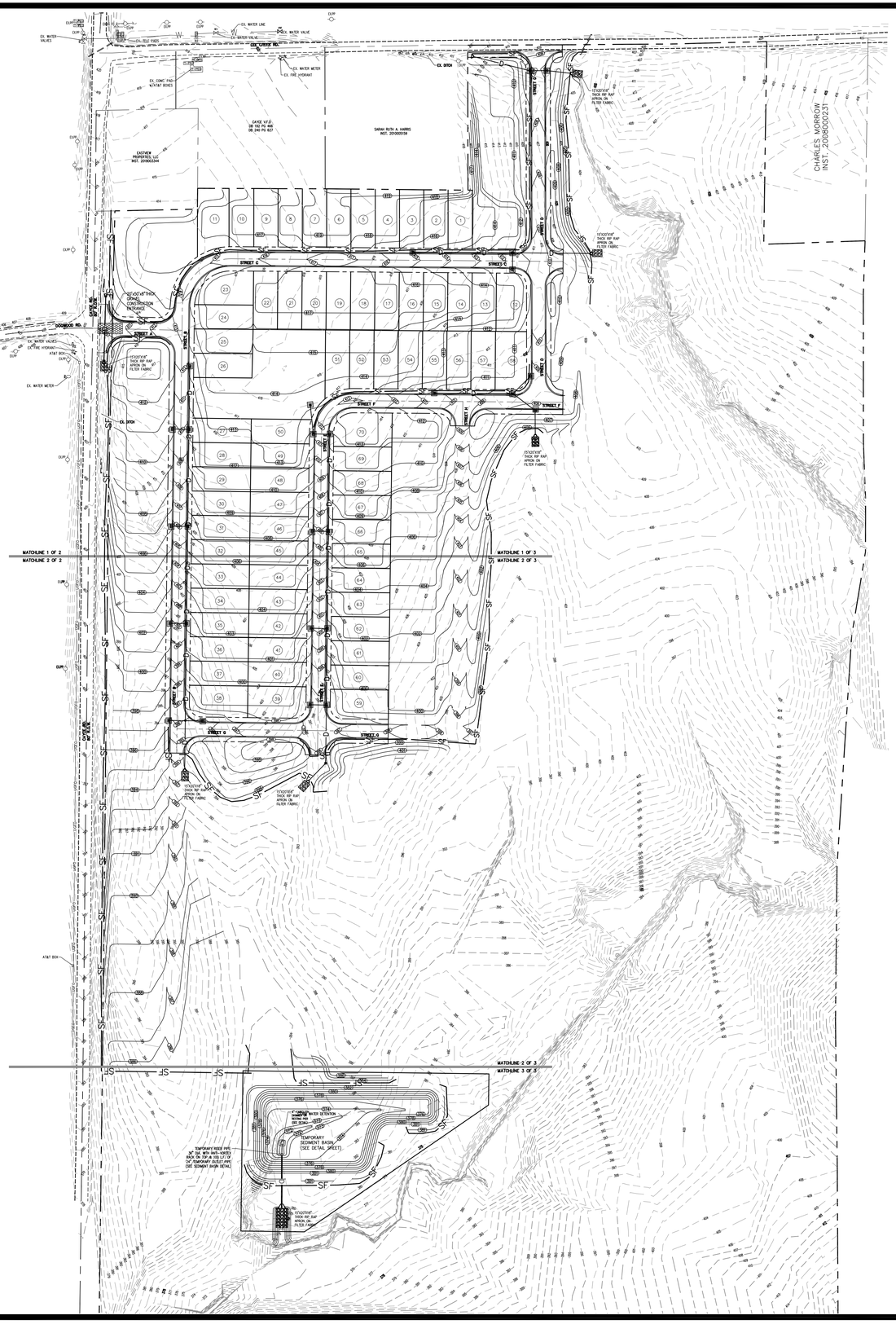
SCALE: 1"=100'

OWNER/DEVELOPER:
GBI CONTRACTORS INC.
110 CAMPGROUND ROAD
RED BANKS, MS 38661

PREPARED BY:
CIVIL ENGINEERING SOLUTIONS, LLC
317 WEST MARKET
DYERSBURG, TN 38024
(P) 731.285.1698

DATE: 09/15/2021

20071-PLAT.dwg



RIDGEFIELD ACRES PHASE II
PLAT FILE 714 A

EROSION CONTROL NOTES

1. REFER TO NOTES SHEET AND DETAIL SHEETS FOR ADDITIONAL INFORMATION FOR EROSION AND SEDIMENT CONTROL MEASURES.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
3. ALL NEWLY CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED, MULCHED, SEEDED, AND/OR SODDED TO EFFECTIVELY CONTROL SOIL EROSION.
4. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS, AS REQUESTED BY THE OWNER DURING CONSTRUCTION, AND AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE DESOTO COUNTY AND MDEQ. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. STRAW BALE DAMS AND/OR SEDIMENT FENCE SHALL BE INSTALLED AS DIRECTED. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE COUNTY AND MDEQ.
6. THE PERMIT SHALL BE POSTED ON-SITE AND A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE CITY INSPECTOR ON REQUEST.
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3. CONTRACTOR SHALL PROVIDE THE FOLLOWING DOCUMENTS TO THE ENGINEER (AS REQUIRED AND/OR APPLICABLE):
   - SIGNED COPY OF THE NOTICE OF INTENT PRIOR TO DISTURBANCE
   - EVIDENCE OF CERTIFICATION OF INSPECTOR
   - LOCATION OF NOTICE OF COVERAGE ON SITE
   - COPY OF TDEC ACCEPTANCE OF NOTICE OF TERMINATION TO BE INCLUDED WITH CLOSE OUT DOCUMENTS

ANTICIPATED CONSTRUCTION SEQUENCE

1. INSTALL CONSTRUCTION ENTRANCE
2. CONSTRUCT SEDIMENT BASIN
3. INSTALL SEDIMENTATION FENCE.
4. BEGIN CLEARING
5. EARTHWORK OPERATION (GRADING).
6. INSTALLATION OF UTILITIES.
7. PROVIDE NECESSARY EROSION CONTROL SODDING AND
8. SEEDING IN REMAINING AREAS.
9. REMOVE TEMPORARY MEASURES.

LEGEND:

- 302 — PROPOSED CONTOUR
- 299 — EXISTING CONTOUR
- SF — SF — SEDIMENTATION FENCING
- IP — INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE
- CD — ROCK CHECK DAM

NORTH

120 60 0 120

SCALE: 1"=120'

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

RUSSELL B. NORVELL III
REGISTERED PROFESSIONAL ENGINEER
15970
STATE OF MISSISSIPPI
9/27/2021

PHASE 1

CAYCE POINTE SUBDIVISION

DEVELOPER: CHAD CURTIS

ENGINEER: CIVIL ENGINEERING SOLUTIONS, LLC.

Sheet 1 of 1

EROSION CONTROL PLAN (OVERALL)

LOCATION: E. SIDE OF CAYCE ROAD AT DOGWOOD ROAD

MARSHALL COUNTY, MISSISSIPPI

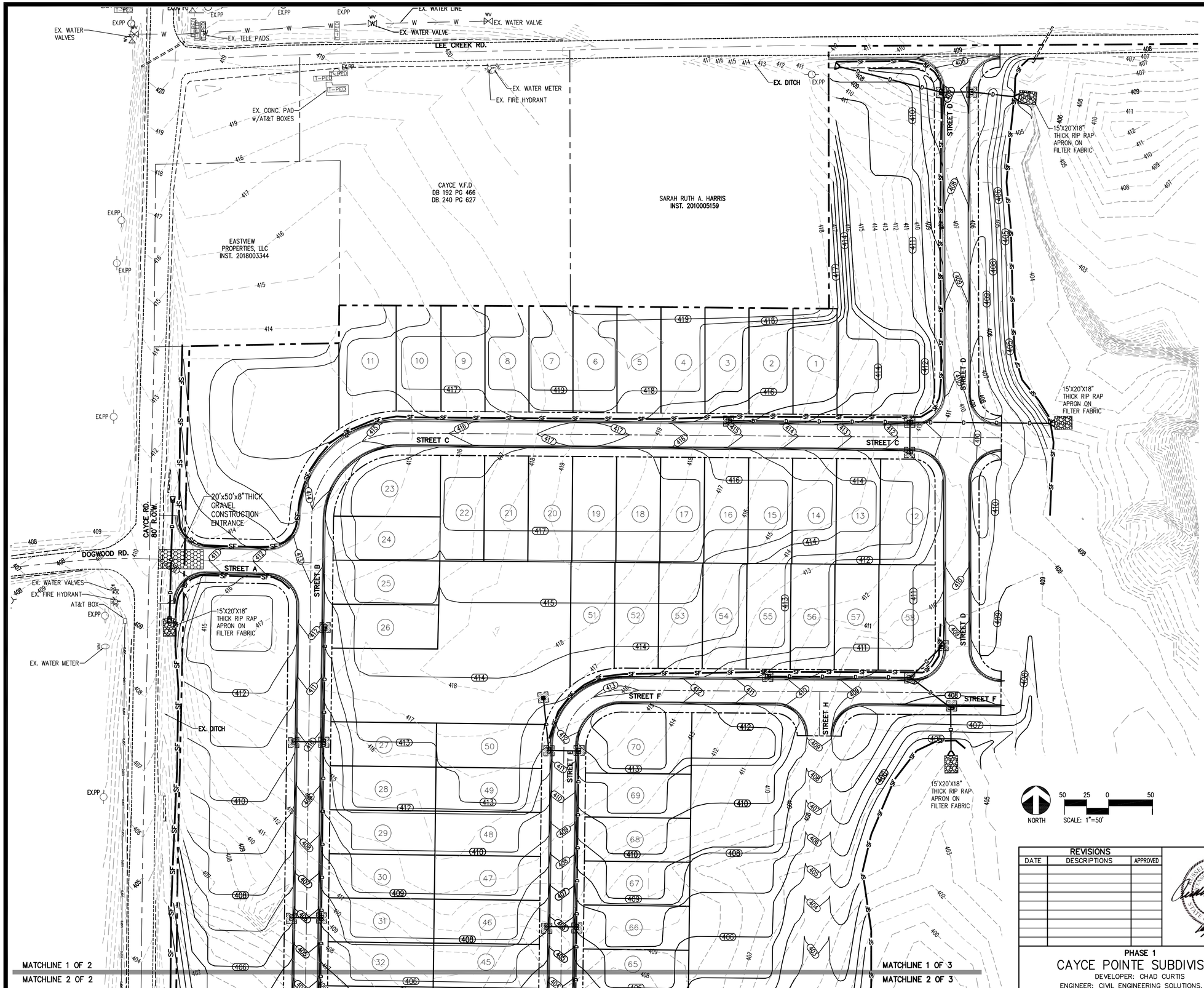
SURVEY WEST DATE 3/5/21 BOOK

DRAFTED C.E.S. DATE 9/23/21 SCALE 1"=120'

DESIGN C.E.S. DATE 9/23/21 CHECKED DATE

APPROVED

COUNTY ENGINEER DATE



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- SF — SF — SEDIMENTATION FENCING
- IP — INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE
- CD — ROCK CHECK DAM

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

PHASE 1

CAYCE POINTE SUBDIVISION

DEVELOPER: CHAD CURTIS

ENGINEER: CIVIL ENGINEERING SOLUTIONS, LLC.

Sheet 1 of 3

EROSION CONTROL PLAN

LOCATION: E. SIDE OF CAYCE ROAD AT DOGWOOD ROAD

MARSHALL COUNTY, MISSISSIPPI

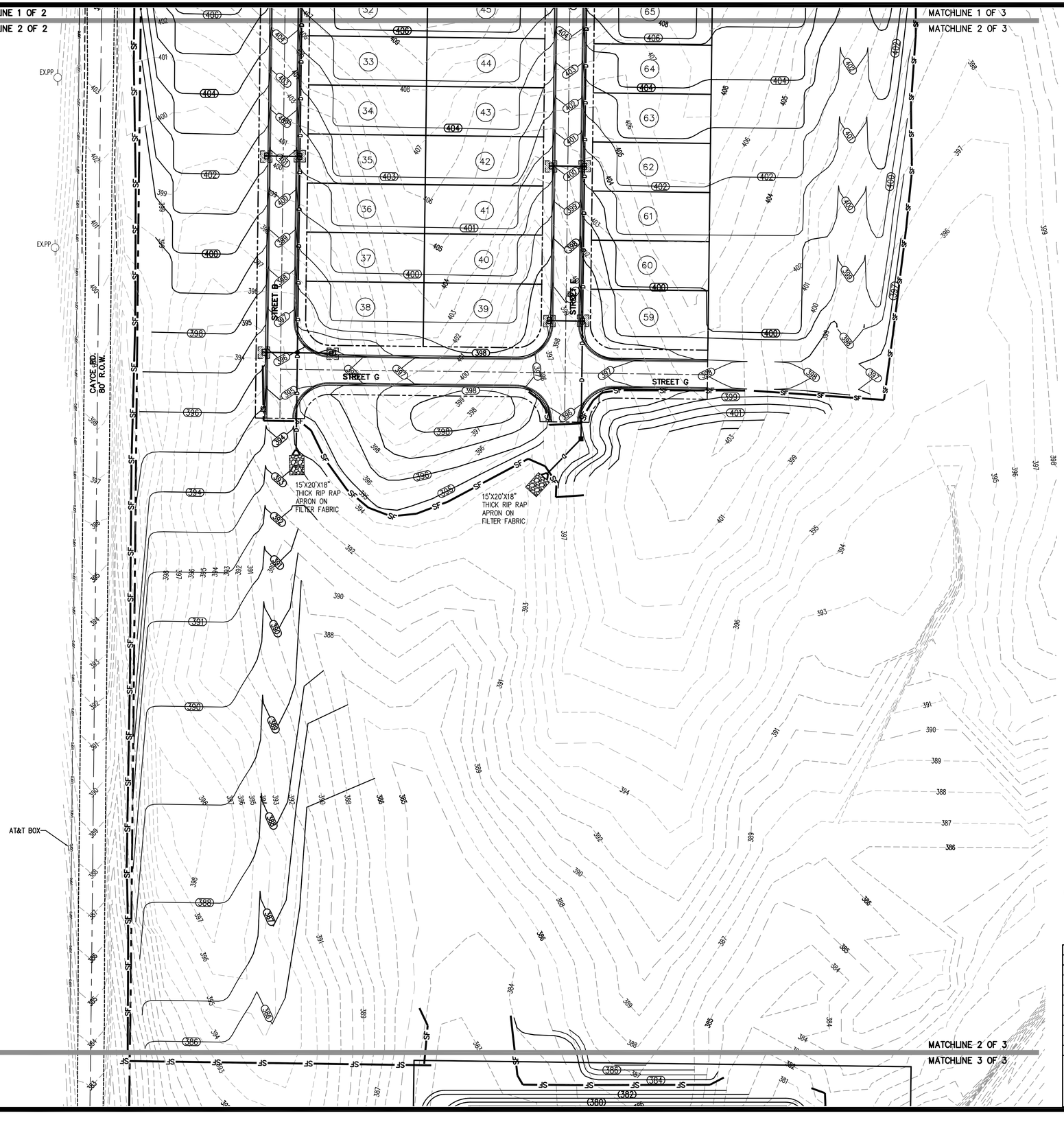
SURVEY WEST DATE 3/5/21 BOOK

DRAFTED C.E.S. DATE 10/21/21 SCALE 1"=50'

DESIGN C.E.S. DATE 10/21/21 CHECKED DATE

APPROVED

COUNTY ENGINEER DATE



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2. AFTER FULL STABILIZATOIN OF ALL DISTURBED AREAS THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL ITEMS. FULL STABILIZATION SHALL MEAN COVERAGE OF THE SITE WITH PERMANENT GRASS (REFER TO MDOT SPECIFICATIONS; NO CLOVER) WHICH IS SUSTAINABLE AND GROWING AND/OR LANDSCAPING. TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED.
3. CONTRACTOR SHALL PROVIDE THE FOLLOWING DOCUMENTS TO THE ENGINEER (AS REQUIRED AND/OR APPLICABLE):
   - SIGNED COPY OF THE NOTICE OF INTENT PRIOR TO DISTURBANCE
   - EVIDENCE OF CERTIFICATION OF INSPECTOR
   - LOCATION OF NOTICE OF COVERAGE ON SITE
   - COPY OF TDEC ACCEPTANCE OF NOTICE OF TERMINATION TO BE INCLUDED WITH CLOSE OUT DOCUMENTS

ANTICIPATED CONSTRUCTION SEQUENCE

1. INSTALL CONSTRUCTION ENTRANCE
2. CONSTRUCT SEDIMENT BASIN
3. INSTALL SEDIMENTATION FENCE.
4. BEGIN CLEARING
5. EARTHWORK OPERATION (GRADING).
6. INSTALLATION OF UTILITIES.
7. PROVIDE NECESSARY EROSION CONTROL SODDING AND
8. SEEDING IN REMAINING AREAS.
9. REMOVE TEMPORARY MEASURES.

LEGEND:

- 302 — PROPOSED CONTOUR
- 299 — EXISTING CONTOUR
- SF — SEDIMENTATION FENCING
- IP — INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE
- CD — ROCK CHECK DAM

NORTH

50 25 0 50

SCALE: 1"=50'

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

RUSSELL B. NORVELL
REGISTERED PROFESSIONAL ENGINEER
15970
STATE OF MISSISSIPPI
10/21/2021

PHASE 1

CAYCE POINTE SUBDIVISION

DEVELOPER: CHAD CURTIS

ENGINEER: CIVIL ENGINEERING SOLUTIONS, LLC.

Sheet 2 of 3

EROSION CONTROL PLAN

LOCATION: E. SIDE OF CAYCE ROAD AT DOGWOOD ROAD

MARSHALL COUNTY, MISSISSIPPI

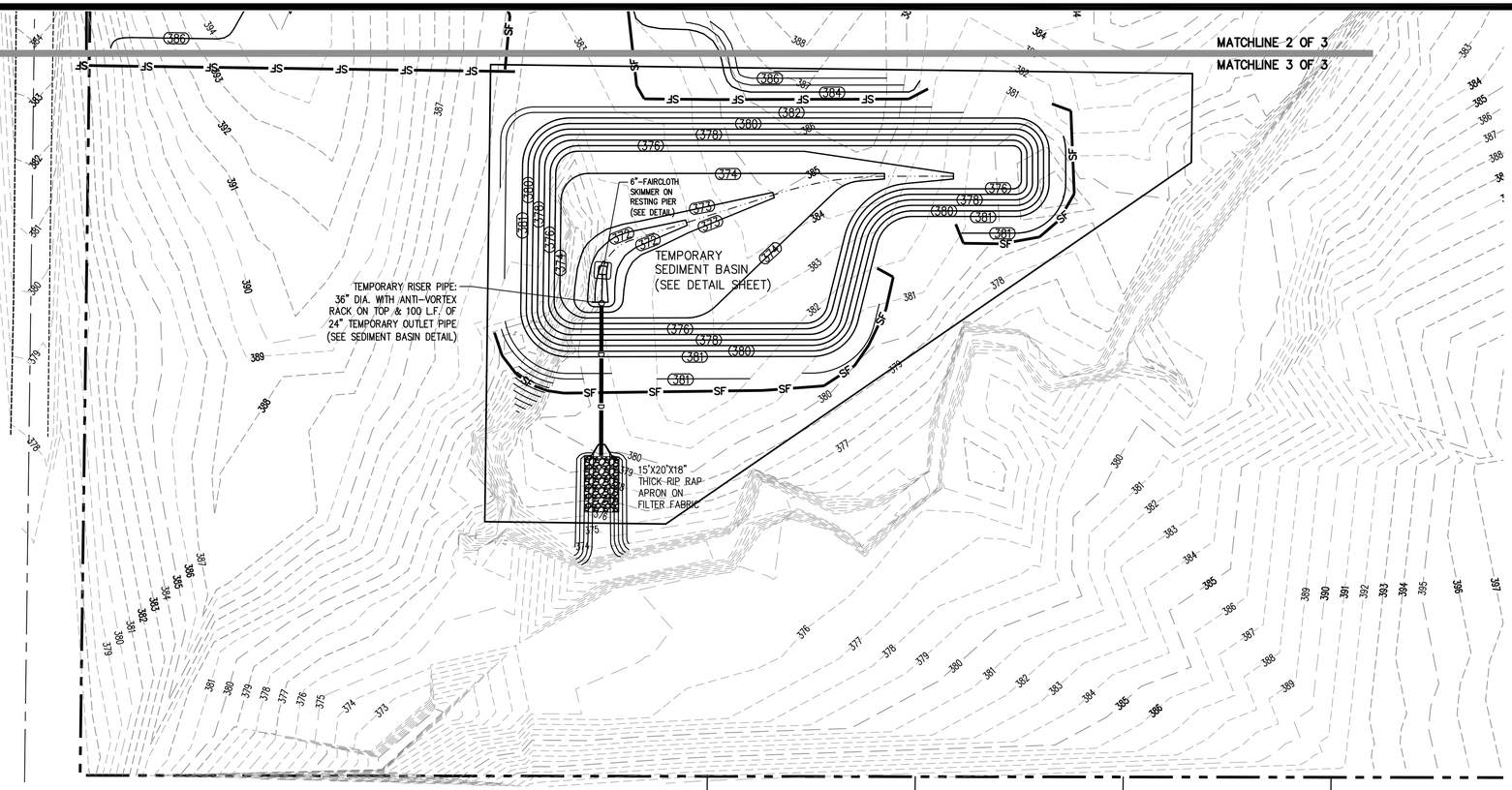
SURVEY WEST DATE 3/5/21 BOOK ____

DRAFTED C.E.S. DATE 10/21/21 SCALE 1"=50'

DESIGN C.E.S. DATE 10/21/21 CHECKED ____ DATE ____

APPROVED

COUNTY ENGINEER DATE



TWIN OAKS EAST PHASE I
PLAT FILE 1010 B
LOT 50

LOT 75

LOT 74

LOT 73

LOT 72

TWIN OAKS EAST PHASE II
PLAT FILE 1025 B

EROSION CONTROL NOTES

1. REFER TO NOTES SHEET AND DETAIL SHEETS FOR ADDITIONAL INFORMATION FOR EROSION AND SEDIMENT CONTROL MEASURES.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE.
3. ALL NEWLY CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED, MULCHED, SEEDED, AND/OR SODDED TO EFFECTIVELY CONTROL SOIL EROSION.
4. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SOIL EROSION CONTROL MEASURES AS NOTED ON THE PLANS, AS REQUESTED BY THE OWNER DURING CONSTRUCTION, AND AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR SATISFYING THE REQUIREMENTS OF THE DESOTO COUNTY AND MDEQ. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT SO AS TO PREVENT ANY SEDIMENTATION FROM WASHING OFF THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. STRAW BALE DAMS AND/OR SEDIMENT FENCE SHALL BE INSTALLED AS DIRECTED. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL MAINTENANCE ACTIVITIES FOR THE EROSION CONTROL ELEMENTS AS REQUIRED BY THE COUNTY AND MDEQ.
6. THE PERMIT SHALL BE POSTED ON-SITE AND A COPY OF THE EROSION CONTROL PLAN MUST BE AVAILABLE ON SITE FOR THE CITY INSPECTOR ON REQUEST.
7. EROSION AND SEDIMENT CONTROL MEASURE MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
8. ALL CONTROL MEASURES SHALL BE CHECKED PER THE SWPPP AND STATE REQUIREMENTS. MAINTENANCE AND REPAIRS SHALL BE MADE AS NECESSARY. DURING PROLONGED RAINFALL, DAILY CHECKING AND REPAIRING MAY BE NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF INSPECTION CHECKS, MAINTENANCE AND REPAIRS.

FINAL STABILIZATION NOTES

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- CD — ROCK CHECK DAM

NORTH

50 25 0 50
SCALE: 1"=50'

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

RUSSELL B. SORRELL
REGISTERED PROFESSIONAL ENGINEER
15970
STATE OF MISSISSIPPI
10/21/2021

PHASE 1
CAYCE POINTE SUBDIVISION
DEVELOPER: CHAD CURTIS
ENGINEER: CIVIL ENGINEERING SOLUTIONS, LLC.

Sheet 3 of 3

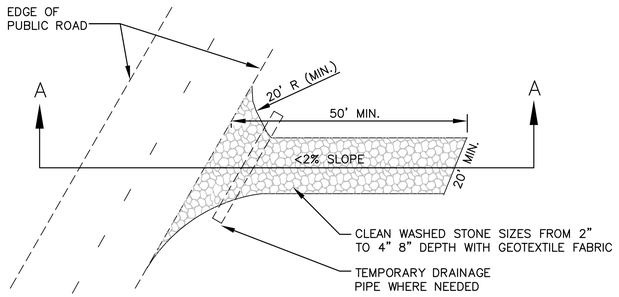
EROSION CONTROL PLAN

LOCATION: E. SIDE OF CAYCE ROAD AT DOGWOOD ROAD

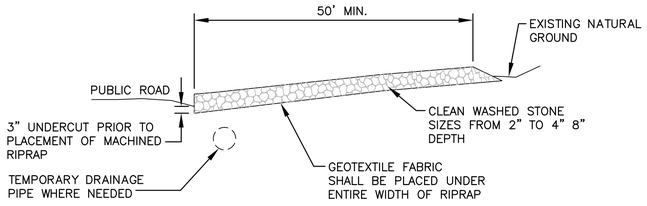
MARSHALL COUNTY, MISSISSIPPI

SURVEY WEST DATE 3/5/21 BOOK
DRAFTED C.E.S. DATE 10/21/21 SCALE 1"=50'
DESIGN C.E.S. DATE 10/21/21 CHECKED DATE
APPROVED

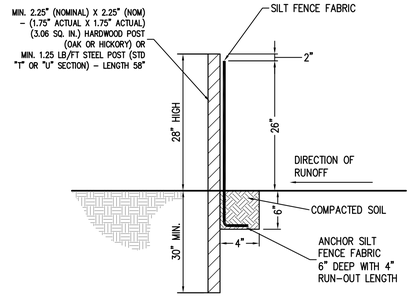
COUNTY ENGINEER DATE



PLAN VIEW OF TEMPORARY CONSTRUCTION ROAD

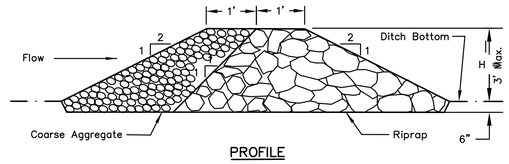


SECTION A–A



SILT FENCE DETAIL

N.T.S



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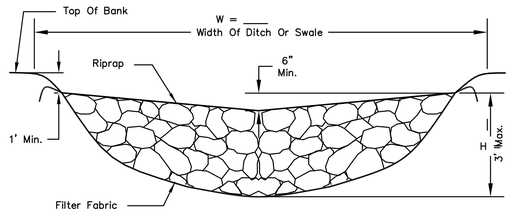
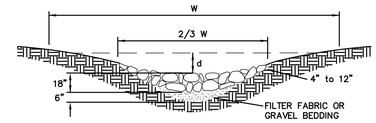


CROSS SECTION
CENTERLINE LOOKING DOWNSTREAM

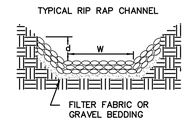
NOTES:
1. Filter fabric shall meet the requirements of TDOT
2. Coarse aggregate shall meet the TDOT gradations.
3. Riprap shall meet TDOT gradation CLASS 'C'.
4. For added stability, the base of the dam may be keyed 6 inches into the soil.
5. See plans for spacing of dams and H dimensions.

RIP–RAP CHECK DAM

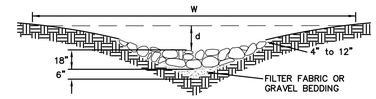
N.T.S.



PARABOLIC–SHAPED WATERWAY WITH STONE CENTER DRAIN
(SHAPED BY BULLDOZER)



TRAPEZOIDAL

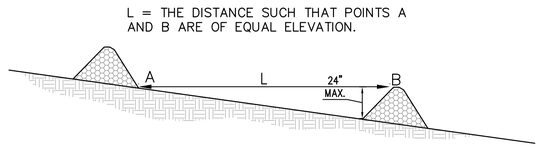


V–SHAPED WATERWAY WITH STONE CENTER DRAIN
(SHAPED BY MOTOR GRADER)

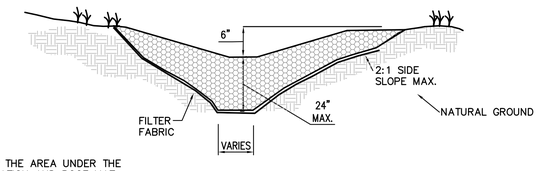
NOTES:
–TO BE USED WHERE EXCESSIVE STORMWATER VELOCITIES PROHIBIT VEGETATIVE LININGS.
–SIZE OF STONE MUST BE DETERMINED BY APPROPRIATE DESIGN PROCEDURE.
–DIMENSIONS FOR d & W VARIES ACCORDING TO DESIGN.

RIP–RAP WITH FILTER CLOTH

N.T.S.



PROFILE



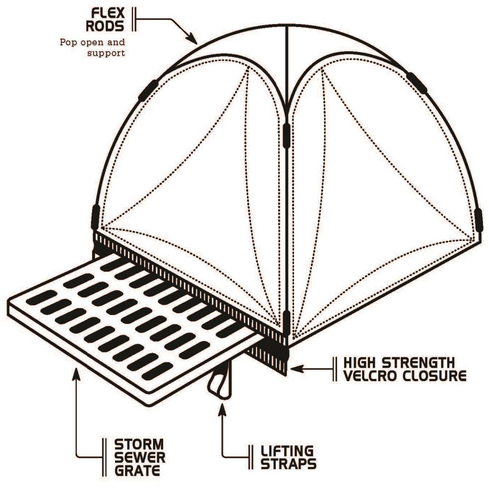
CONSTRUCTION
SPECIFICATIONS
1. CLEAR, GRUB, AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOF MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER.

SECTION

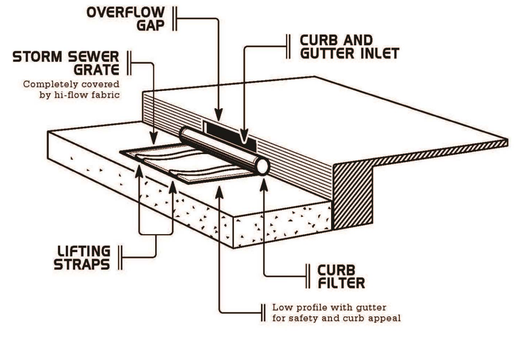
TEMPORARY DITCH CHECK DAM

N.T.S.

DANDY POP™



DANDY CURB BAG™



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

RUSSELL B. NORWOOD
REGISTERED PROFESSIONAL ENGINEER
15970
STATE OF MISSISSIPPI
10/21/2021

Sheet 1 of 5

DETAILS

LOCATION: E. SIDE OF CAYCE ROAD AT DOGWOOD ROAD

MARSHALL COUNTY, MISSISSIPPI

SURVEY WEST DATE 3/5/21 BOOK
DRAFTED C.E.S. DATE 10/21/21 SCALE NTS
DESIGN C.E.S. DATE 10/21/21 CHECKED DATE
APPROVED

COUNTY ENGINEER DATE

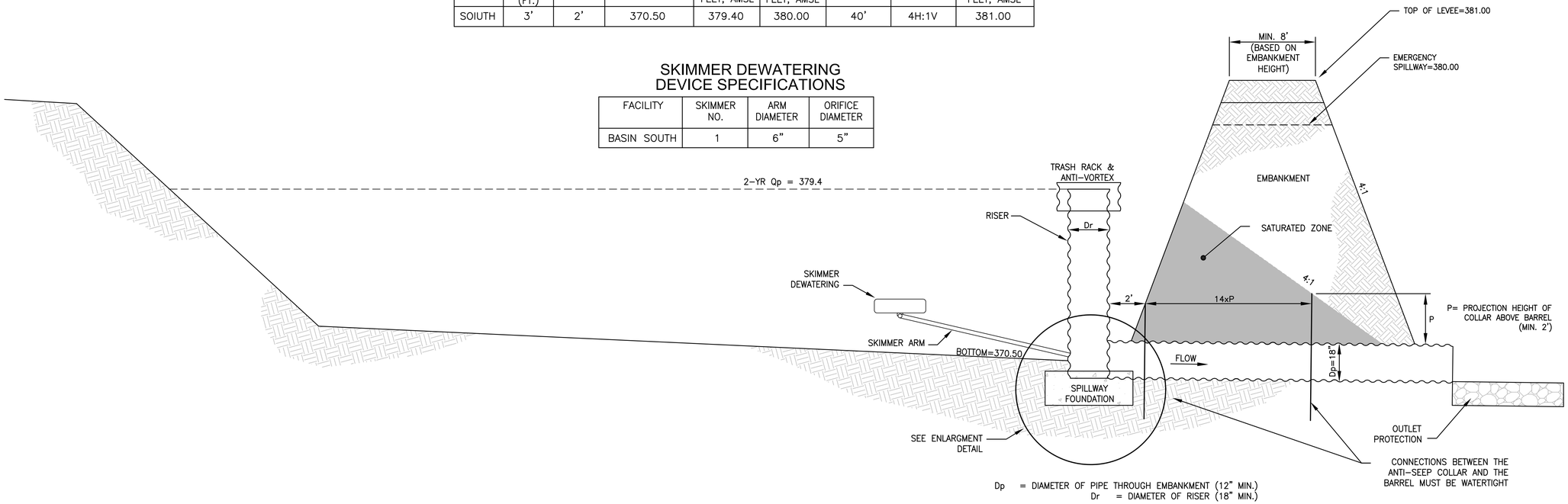
PHASE 1
CAYCE POINTE SUBDIVISION
DEVELOPER: CHAD CURTIS
ENGINEER: CIVIL ENGINEERING SOLUTIONS, LLC.

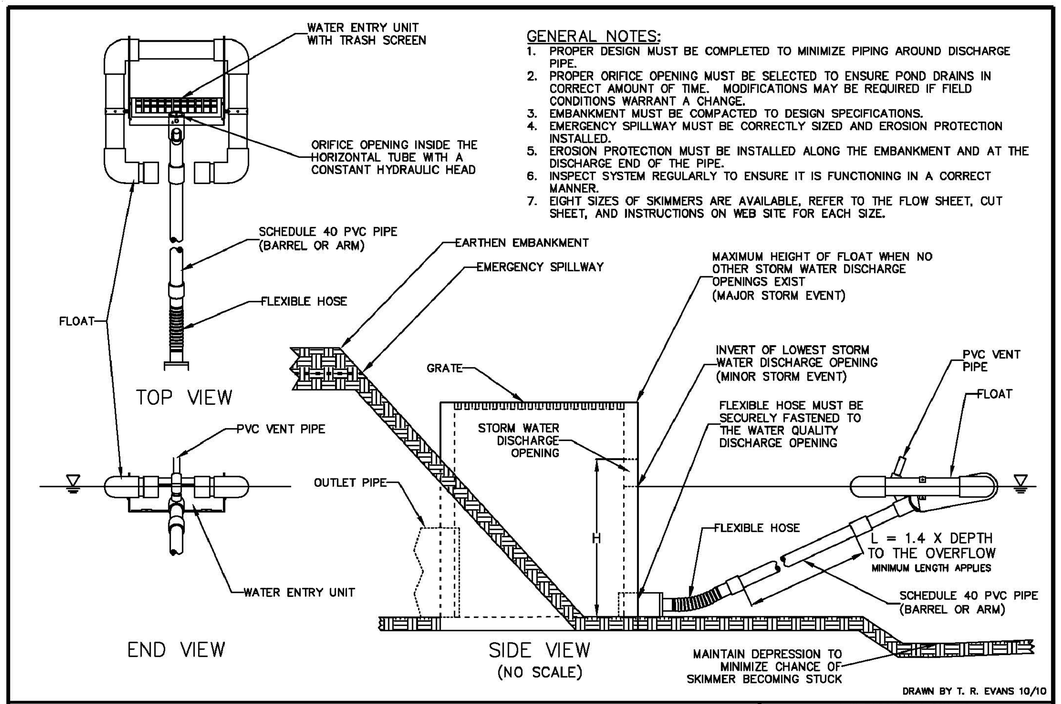
BASIN SCHEDULE

FACILITY	RISER PIPE DIA. (FT.)	BARREL PIPE DIA. (FT.)	BOTTOM OF BASIN ELEVATION FEET, AMSL	PRINCIPAL SPILLWAY ELEVATION FEET, AMSL	EMERGENCY SPILLWAY ELEVATION FEET, AMSL	EMERGENCY SPILLWAY WIDTH	EMERGENCY SPILLWAY SIDESLOPE	TOP OF EMBANKMENT ELEVATION FEET, AMSL
SOIUTH	3'	2'	370.50	379.40	380.00	40'	4H:1V	381.00

SKIMMER DEWATERING DEVICE SPECIFICATIONS

FACILITY	SKIMMER NO.	ARM DIAMETER	ORIFICE DIAMETER
BASIN SOUTH	1	6"	5"





GENERAL NOTES:

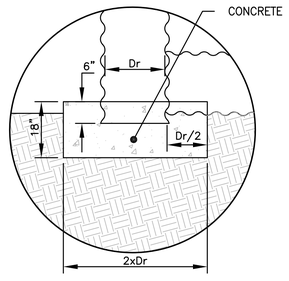
1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

DRAWN BY T. R. EVANS 10/10

FAIRCLOTH SKIMMER® DISCHARGE SYSTEM WITH OUTLET STRUCTURE

J. W. FAIRCLOTH & SON INC.
WWW.FAIRCLOTHSKIMMER.COM
TELEPHONE: (919) 732-1244
FAX: (919) 732-1266
EMAIL: WARREN@FAIRCLOTHSKIMMER.COM

SPILLWAY FOUNDATIONS FOR RISER HEIGHTS <10'



CONCRETE BASE FOR EMBANKMENT 10 OR LESS IN HEIGHT

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

RUSSELL B. NORVELL
MISSISSIPPI PROFESSIONAL ENGINEER
15970
STATE OF MISSISSIPPI

PHASE 1
CAYCE POINTE SUBDIVISION
DEVELOPER: GREAT WESTERN BUILDERS
ENGINEER: CIVIL ENGINEERING SOLUTIONS, LLC.

DETAILS

LOCATION: E. SIDE OF CAYCE ROAD AT DOGWOOD ROAD

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XREF: GP-PI-801.dwg
8-EROSION.dwg