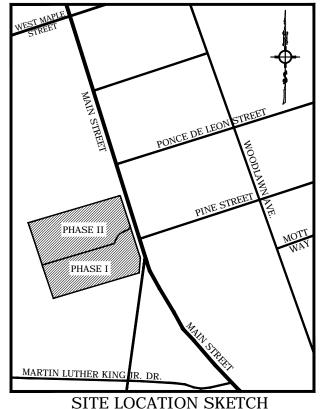
DRAWING 1 COVER SHEET

# PROPOSED SUBDIVISION (A COMMON DEVELOPMENT) FOR

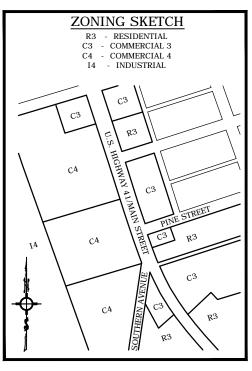
# BARGAIN BUYS STORES DEVELOPMENT

AT 2700 SOUTH US HIGHWAY 41, TIFTON, TIFT COUNTY, GEORGIA 31794

> GPS LOCATION OF CONSTRUCTION EXIT LATITUDE: 31.0235°N; LONGITUDE: 83.1234°W



NOT TO SCALE





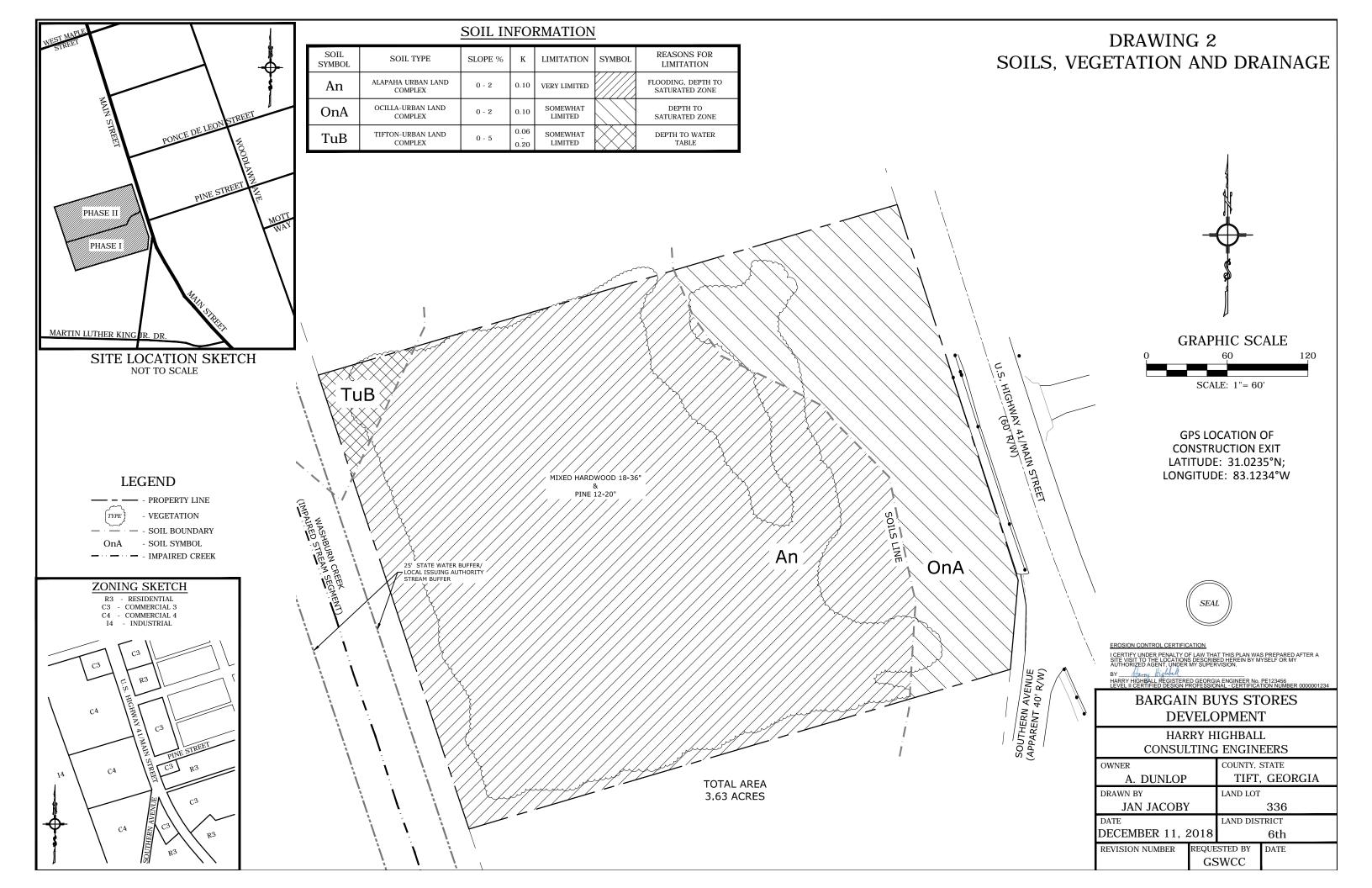
# EROSION CONTROL CERTIFICATION

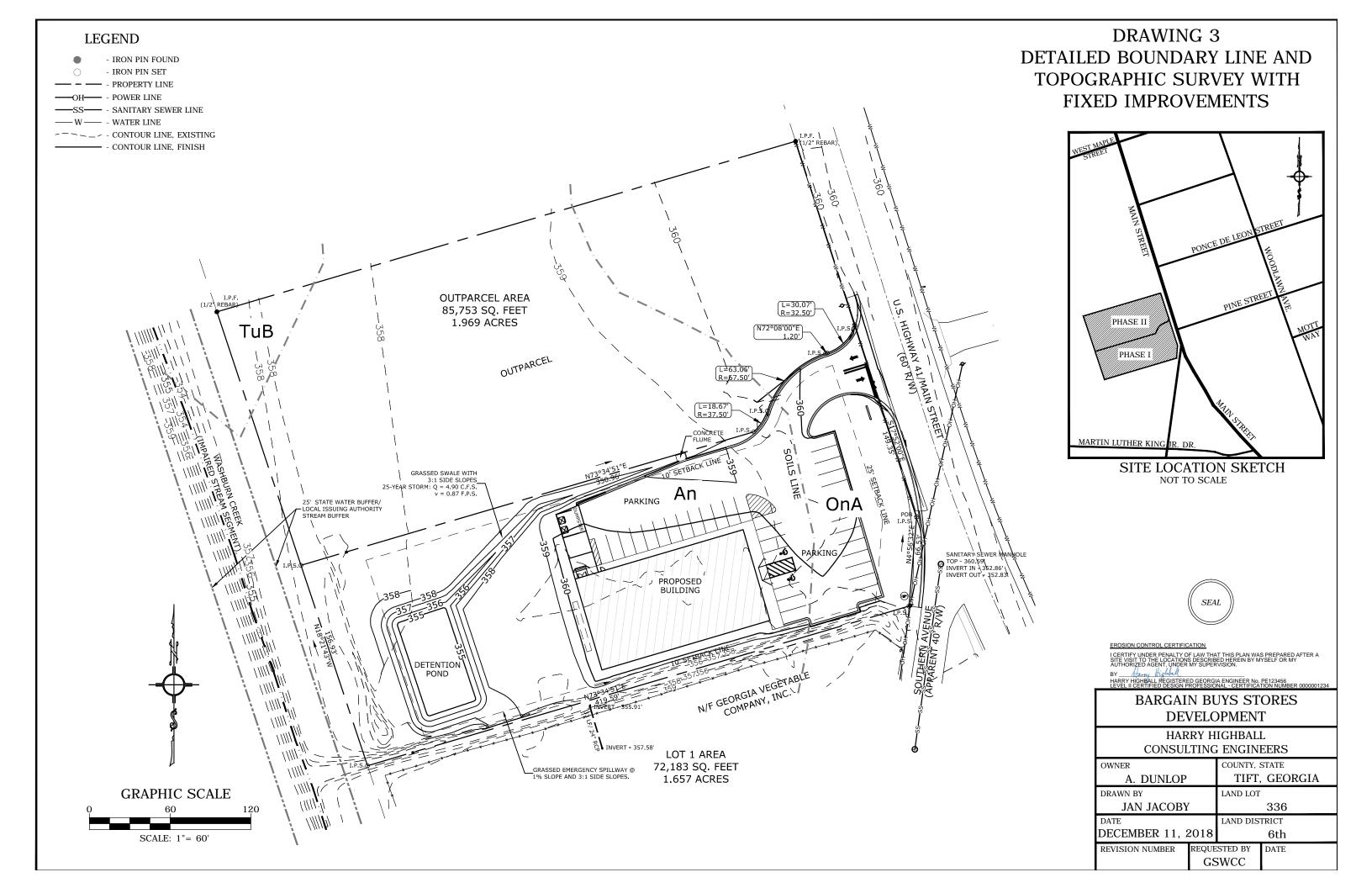
I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

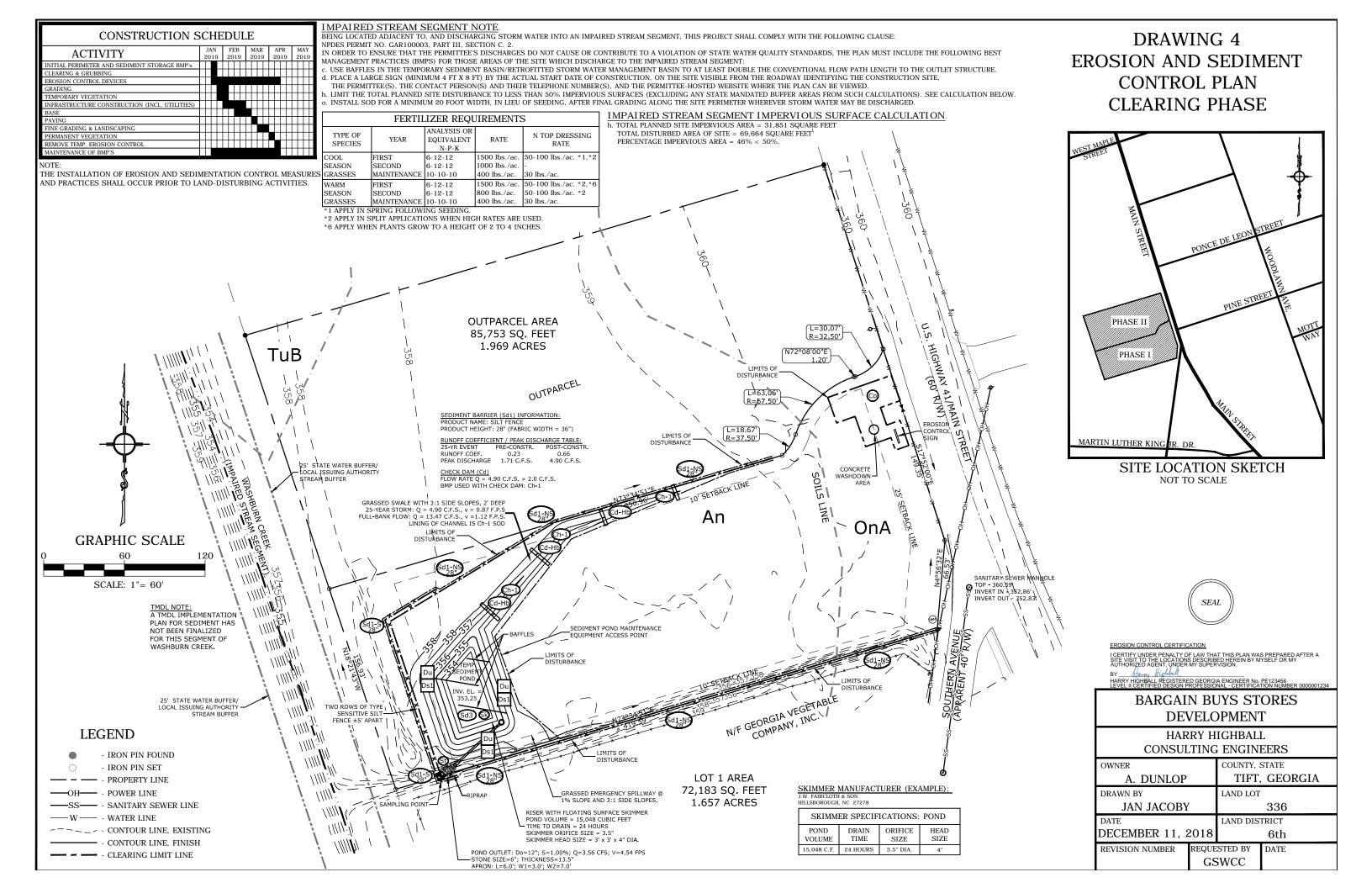
HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456 LEVEL II CERTIFIED DESIGN PROFESSIONAL - CERTIFICATION NUMBER

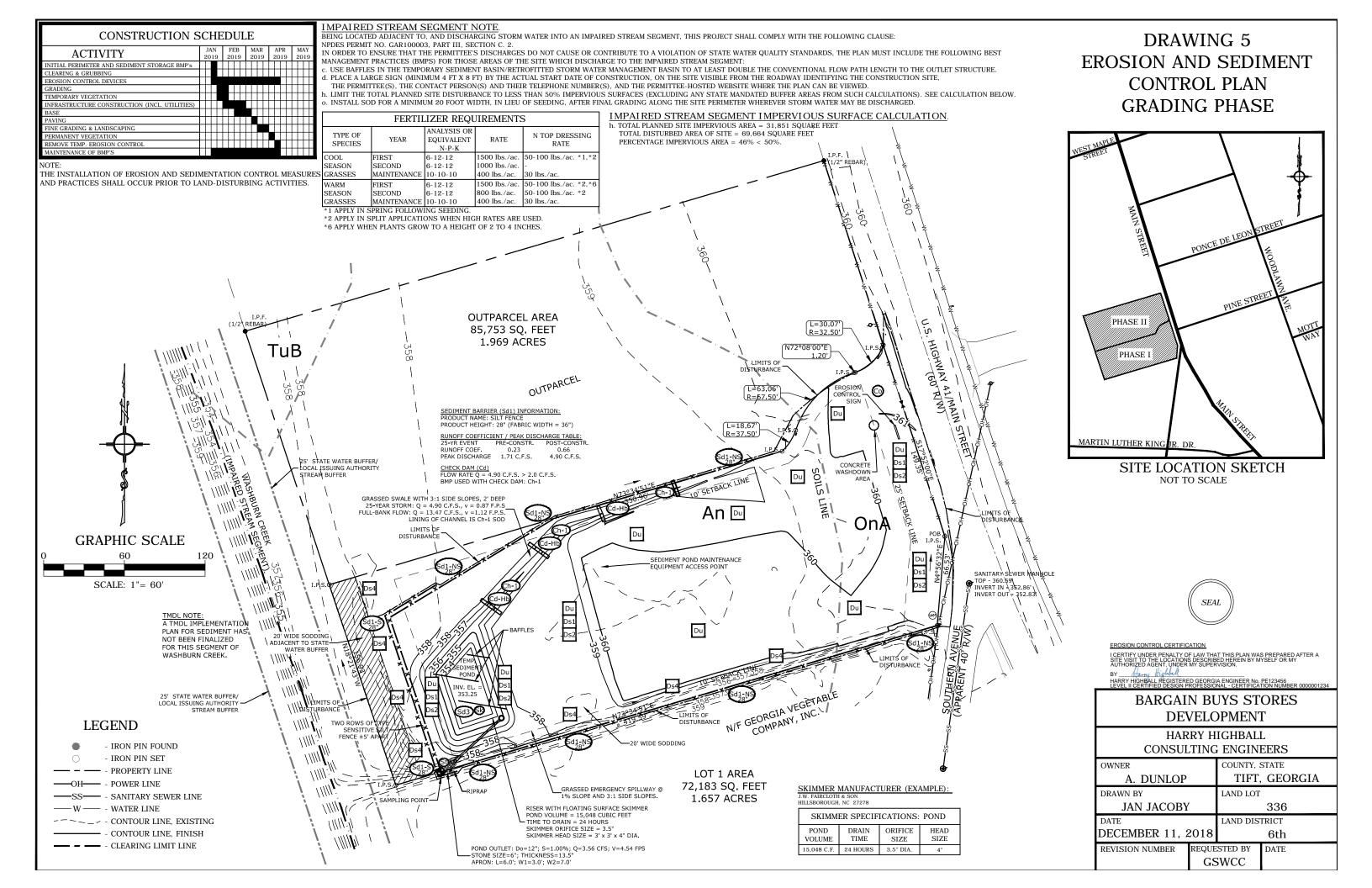
BARGAIN BUYS STORES DEVELOPMENT			
IGHBALL ENGINEERS			
COUNTY, STATE TIFT, GEORGIA			
LAND LOT 336			
LAND DISTRICT 6th			

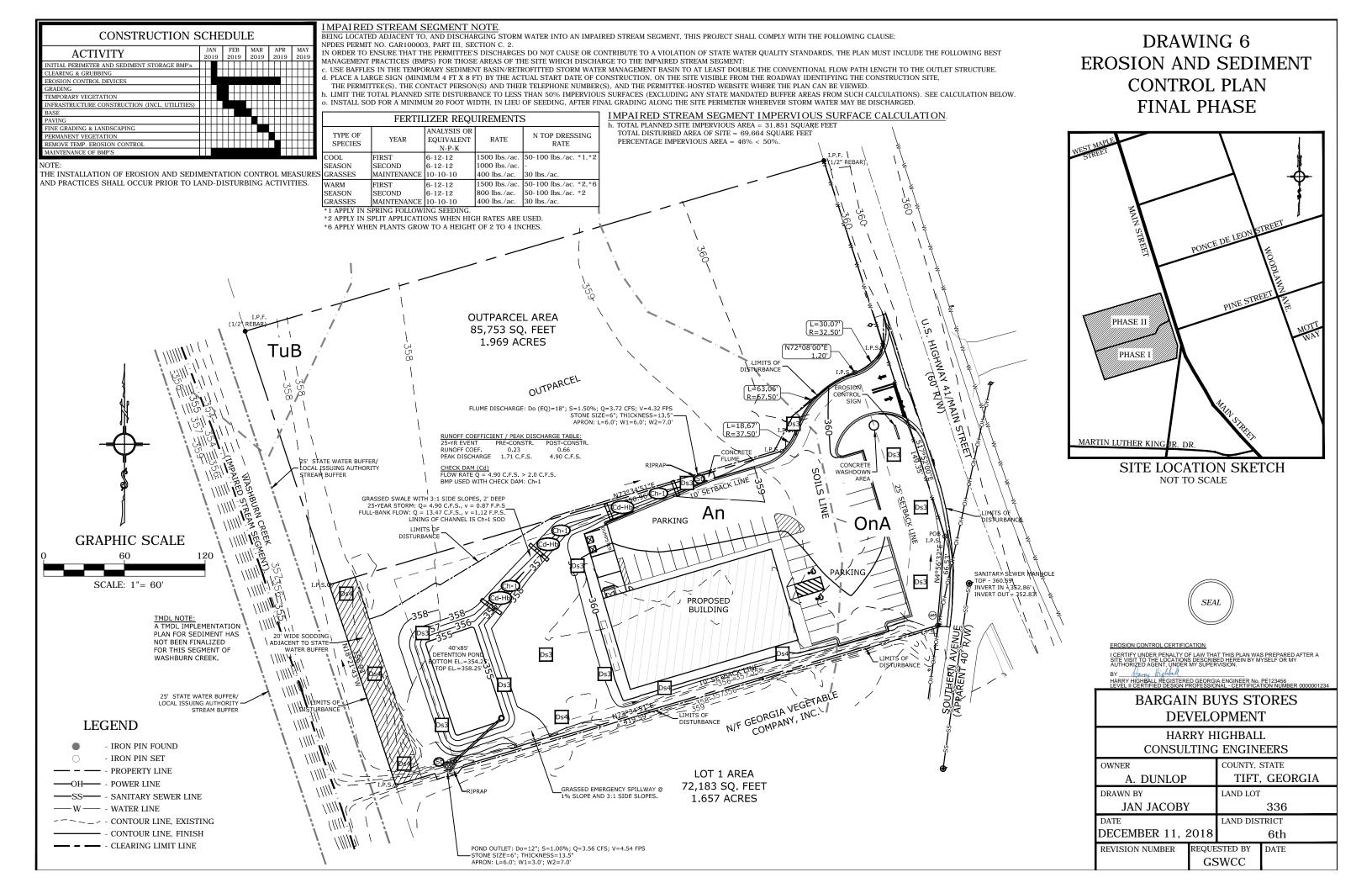
GSWCC

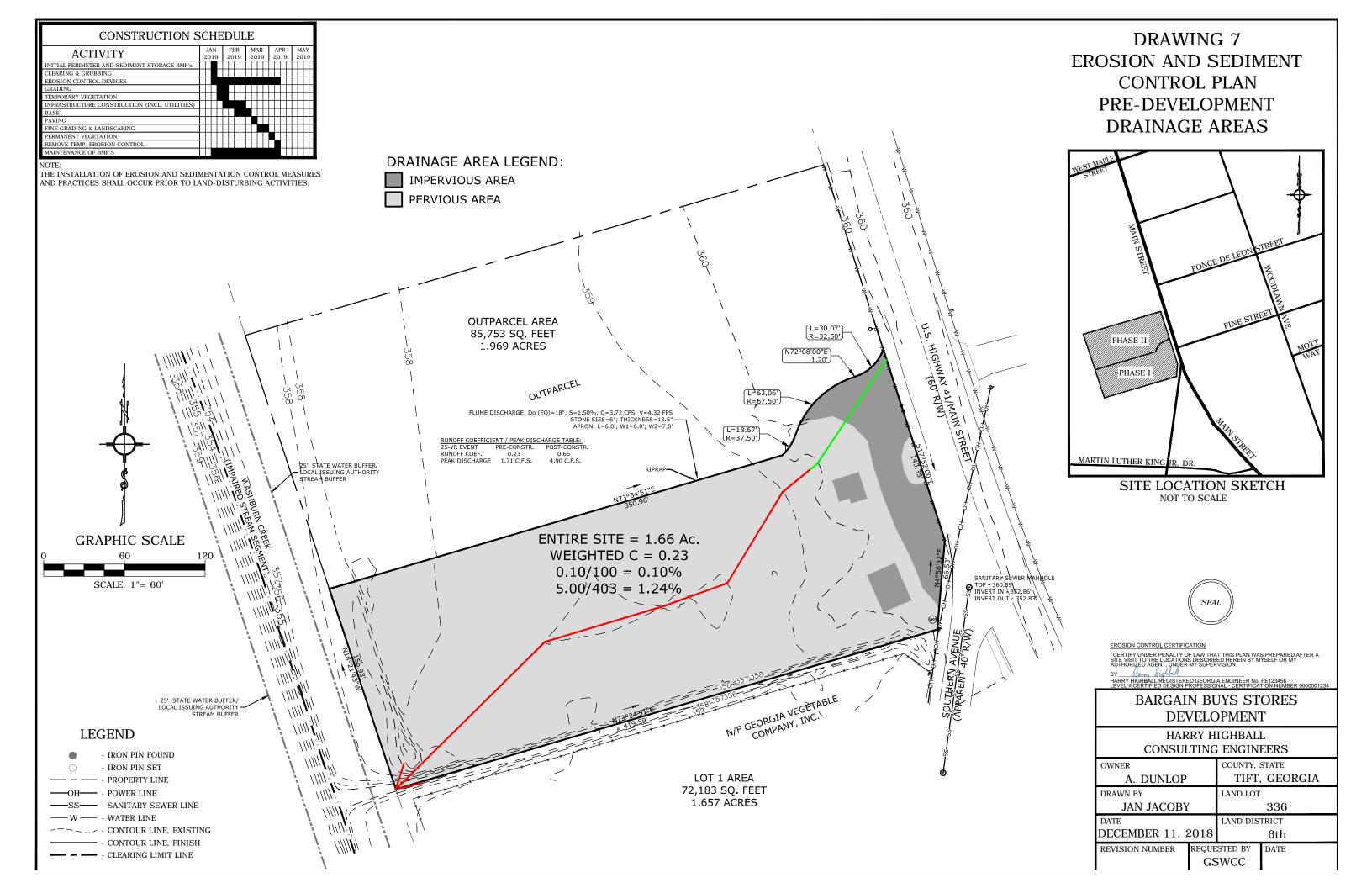


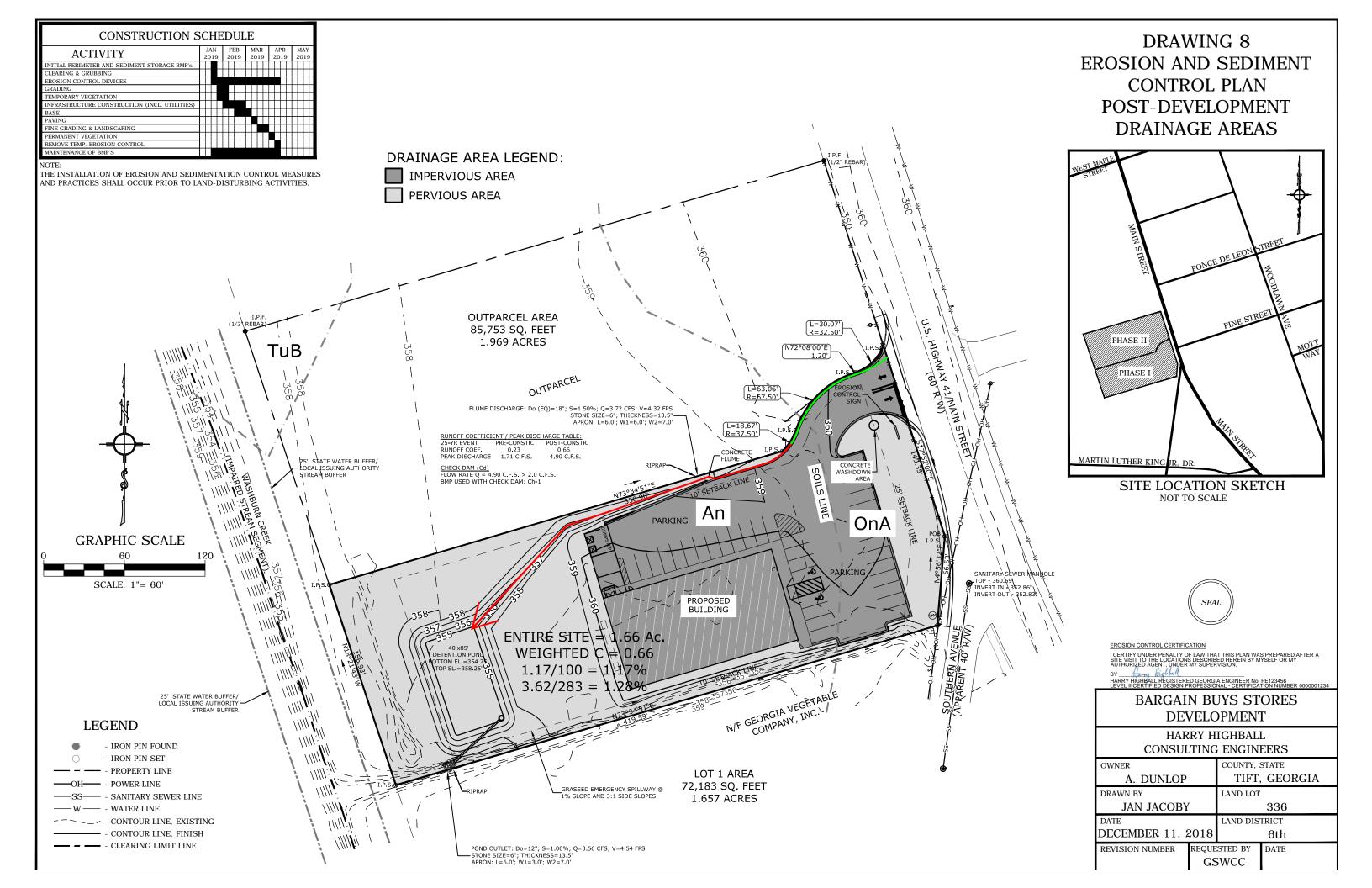












# EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES

- THE 24-HOUR LOCAL CONTACT OF THIS PROJECT IS ANDREW DUNLOP, 3162 COUNTRY CLUB ROAD, VALDOSTA, GA 31605, TEL: 229-653-5022.
- I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OS SUBERVISION IN ACCORDANCE WITH A SYSTEM BESIGNED TO ASSURE THAT CERTIFIED PERSON PROPERLY GATHER AND ENALUATE THE INFORMATION SUBMITTED BASED ON MY INQUIRY OF THE PERSON ON PROPERLY GATHER AND ENALUATE THE INFORMATION SUBMITTED BASED ON MY INQUIRY OF THE PERSON ON INFORMATION, THE INFORMATION SUBMITTED BY TO THE BEST OF MY KNOWLEDGE AND BELIEF. TRUE ACCUPAN AND COMPANIETE I.A MANARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. THE PRIMARY PERMITTEE OF THIS PROJECT IS A. DUNLOP, 3162 COUNTRY CLUB ROAD, VALDOSTA, GA 31605 CONTACT PERSON: MR. ANDREW DUNLOP, EMAIL: ANDY@ADDEVELOPMENTS. COM, TEL: 229-653-5022.

- 7. THE EXISTING SITE IS A VACANT PARTLY WOODED COMMERCIAL LOT WHICH WILL BE IMPROVED WITH A RETAIL STORE AND APPURTENANT ACCESS DRIVEWAYS, PARKING SPACES AND INFRASTRUCTURE.
- THE MS4 IS OPERATED BY THE CITY OF TIFTON, WHILE THE RECEIVING WATERS OF THIS PROJECT IS WASHBURN CREEK, LOCATED APPOXIMATELY 50 L.F. DOWNSTREAM TO THE WEST OF THE PROPERTY, WHICH IS AN IMPAIRED STREAM SEGMENT UNDER THE BIOM CRITERIA VIOLATED WITHIN CATEGORY 48 AND THE POTENTIAL CAUSE IS "UR! WHERE THE STORM WATER IS DISCHARGED INTO IT (SEE NOTE 21 BELOW). NO OTHER ADJACENT SIREAMS, LARES, RESIDENTIAL AREAS, WETLANDS, ETC. WILL BE AFFECTED.
  - 10. I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.
  - 11. I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR REOSION AND SEDIMENT CONTROL. IN GEORGIA MANUAL, PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-BISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE STORM WATER (S) OR THE SAMPLING OF THE STORM WATER QUIRALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL INPESPERMIT NO SAR 140003.
- THE PRIMARY PERMITTEE AND TERTARY PERMITTEE(S) MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE PRIMARY PERMITTEE AND TERTARY PERMITTEE(S) MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED SEDMENTATION AND POLLUTION CONTROL PLAN, OR AN ALTERNATIVE DESIGN PROFESSIONAL APPROVED BY EPO IN WRITING TO INSPECT THE INSTALLATION OF THE INTIAL SEDMENT STORAGE REQUIREMENTS AND PERMITTER CONTROL BMPS WITHIN SEVEN (?) DAYS AFTER INSTALLED AND ARE BEING MAINTAINED AS DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PERMITTEE WIST CORRECT ALL DEFICIENCIES WITHIN THE RESULTS OF THE INSPECTION TO THE PERMITTEE WIST CORRECT ALL DEFICIENCIES WITHIN THE PERMITTEE WIST CORRECT ALL DEFICIENCIES WITHIN THE PERMITTEE WIST CORRECT ALL DEFICIENCIES WITHIN THE PERMITTEE WITHIN SECUL THAT ADDITIONAL TIME IS REQUIRED. THIS REQUIREMENT OF THIS PERMIT IS NOT APPLICABLE TO TERTIRARY PERMITTES WITHIN THE CONSTRUCTION SHE SECONDAL UNIDUAL LOT(S), IF THE TOTAL LAND DISTURBANCE WITHIN THE CONSTRUCTION ONE (1) ACRE.
  - 13. WHERE APPLICABLE, NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNISSTRUBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

    14. NO STREAM BUFFER ENCROACHMENT WILL OCCUR ON THIS PROJECT, THEREFORE NO BUFFER VARIANCE IS REQUIRED.
- THE PRIMARY, SECONDARY OR TERTIARY PERMITTEES, AS APPLICABLE, SHALL AMEND THEIR PLAN WHENEVER THEER IS A CHANGE IN DESIGN, CONTRICATION, OPERATION, OF MAINTENANCE, WHICH HAS A SIGNEICANT FEFECT ON BIMPS WITH A HYDRAULIC COMPONENT (I.E. THOSE BMPS WHERE THE DESIGN IS BASED UPON RAINFALT ON BADATION AND RETURN REQUENCY OF STORMS) OF IT THE PLAN PROVES TO BE INFERECTIVE IN BLUMBATING OR SIGNEICANTLY MINIMAZING POLILITARYS FROM SOURCES IDENTIFIED UNDER PART IN D.3. OF THIS PERMIT. AMENDMENTS/REVISIONS TO THE PLAN MUST BE CERTIFIED BY A DESIGN PROFESSIONAL AS PROVIDED IN THE PERMIT. ALL REVISIONS OR AMENDMENTS SHALL BE SUBMITTED TO THE LOCAL ISSUING AUTHORITY FOR REIGH.
  - THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL, HEASURGS AND PRACTICES PROGN TO LAND DISTURBRING ACTIVITIES. THE MOST EFFICIENT METHOD OF DUST CONTROL, FOR THE SITE SHALL BE DETERMINED EXPERIMENTALLY AND MAY CONSIST OF TEMPORARY MEASURES SUCH AS MULCHES, VEGETATIVE CONER, SPRAY, ON ADHESIVES, TILLAGE, RRIGATION DEARRIES AND THE APPLICATION OF CALCIUM CHLORDEL, ILLEWISE, IF THE ACTION OF THE VEHICLE TRAVIELING OVER THE GRAVEL CONSTRUCTION EXIT PAD DOES NOT SUFFICIENTLY REMOVE THE MUD FROM WEHICLE TRAVELING THES SHALL BE DONE ON AN AREA STABILZED MITH ONLY DELINGHISTORY IN SHALL BE DONE ON AN AREA STABILZED WHO TO TO THE USE OF STONE AND SHALL BE DONE ON AN AREA STABILZED WHO TO TO THE USE OF SEDIMENT THE SEDIMENT-LADEN RUNOFF AND DIRECT IT INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
    - EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
    - GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD TEMPORARY SEEDING.
- THE PRIMARY PERMITTEE SHALL COMPLETE A LIST OF ALL SECONDARY PERMITTEES AND CONTACT INFORMATION IN THE SPACE PROVIDED BELOW, AND PROVIDE A COPY OF THE PLAN IAND ANY SUBSECUENT REVISIONS TO THE PLAN TO EACH SECONDARY PERMITTEE PRIOR TO THE SECONDARY PERMITTEE CONDUCTING ANY CONSTRUCTION ACTUITY. EACH SECONDARY PERMITTEE SHALL SIGN AS WRITTEN ACKNOWLEDGEMENT OF RECEIPT OF THE PLAN IN THE SPACE PROVIDED BELOW. THE PRIMARY PERMITTEE SHALL KEEP A COPY OF THE ACKNOWLEDGEMENTS ON-SITE IN HIS RECORDS.
  - SECONDARY PERMITTEES:
- ADDRESS SIGNATURE ADDRESS SIGNATURE ADDRESS SIGNATURE ADDRESS. SIGNATURE COMPANY.....LEVEL IA CERT NO..... COMPANY LEVEL IA CERT NO. COMPANY LEVEL IA CERT NO COMPANY LEVEL IA CERT NO. 1. NAME CITY/ST/ZIP 2. NAME CITY/ST/ZIP. 3. NAME CITY/ST/ZIP.
  - 21. THIS PROJECT DISCHARGES STORM WATER INTO OR WITHIN ONE MILE UPSTREAM OF A BIOTA IMPAIRED STREAM SEGMENT AND IN ORDERT OR SUSURE THAT THE PERMITTES DISCHARGE(S) DO NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF STATE WATER QUALITY STANDARDS. THE PLAN WIST INCLUDE AT LEAST FOUR (4) OF THE BEST MANAGEMENT PRACTICES BROWNED ARTHOLOGY OF STATE WORLD FOUNDED THE DAY MANAGEMENT PRACTICES BRASE LIBERS LISTED IN APPER PERMITTION OF ARTHOLOGY PART III C.2. A THROUGH VEOR THOSE AREAS OF THE STITE WHICH DISCHARGE STO THE INTERMINED STREAM SEGMENT. III HE CAS OF THIS PROJECT THE COLOWING BINPS SHALL BE UTILIZED TO THE IMPAIRED STREAM SEGMENT. THE COLOWING THE ATTA STORM WATER MANAGEMENT BASINS AND RETROOFIT TO THE OUTLET STRUCTIONE.

    D. ALARGE SIGN (MINIMUM AT TA ST PT) WILL BE PLACE ON THE SITES BY THE ACTUAL STRATT DATE OF CONSTRUCTION, TO BE VISIBLE FROM THE REDAY OF INTESTINE CONSTRUCTION SITE, THE PERMITTEE STATE PLAN CAN BE VIBEME. THE PRODUCT WHE THE PLANCE ON THE SITES STAND SO, MPERMOUS SURFACES

    H. THE TOTAL PLANCES STORMED SHFERE AREAS REQUIRED TO LEGEDING, AFTER FINAL GRADING ALONG THE SITE PRIMETER WHERE STITE PERMITTED FOR AMMINIMUM 20 FOOT WIDTH, IN LIEU OF SEEDING, AFTER FINAL GRADING ALONG THE SITE PERMITTER.

- 23 WASHOUT OF THE DRUM OF A CONCRETE TRUCK AT THE CONSTRUCTION SITE IS PROHIBITED. CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES WILL ONLY BE ALLOWED MANAGEMENTED AREA PROVIDED FOR THIS PURPOSE, AS SHOWN ON THE DRAWINGS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE FOLLOWED.

  (1) CONTAIN ALL WASH WATER ON SOIL, IN A BOWL SHAPED AREA OREATED IN THE DESIGNATED WASH AREA TO PREVENT THE WASH WATER FROM FLOWING FROM THE WASHOUT AREA.

  (2) USE THE MINIMUM AMOUNT OF WATER TO WASH DOWN THE TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE RAND OF ARY CONCRETE SEDMENT FROM THE AREA SURROUNDING THE WASHOUT AREA BEFORE IT HARDENS; (4) REMOVE ALY CONCRETE RESIDIATING THE DESIGNATED AREA ONCE IT HAS HARDENED.

OWNER

DRAWN BY

A. DUNLOP

JAN JACOBY

**DECEMBER 11, 2018** 

- 26. FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS PRESENT ON THE SETFILIZENS, PESTICIDES, HERBIGLES, DETERGENT SANITREY WASTE AND OTHER MATERIALS PRESENT ON THE SET THE LESS. PESTICIDES, HERBIGLES, ENGINES, SANITREY WASTE AND OTHER MATERIALS PRESENT ON THE SET PRODUCES. PERSENT OF MINIMAZE THE EXPOSURE OF THESE TREAD STANDARD SENGINED TO MINIMAZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS, MINIMAZATION OF EXPOSURE IS NOT REQUIRED TO MINIMAZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS, MINIMAZATION OF EXPOSURE IS NOT REQUIRED TO MINIMAZE WHERE EXPOSURE OF A SPECIFIC MATERIAL OF PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).

  26. ALL POST-CONSTRUCTION POLLUTANTS FROM THE SITE WILL BE CONTROLLED/TREATED IN THE DETENTION POND.

  27. ALL POLLUTANTS FROM WASTE DISPOSAL PRACTICES, SOIL ADDITIVES, REMEDIATION OF SPILLS AND LEAKS OF PERFOLEMENT RODUCH PRODUCTS, THE SITE WILL BE CONTROLLED FINAL BETONDED FOR WITH ALL APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

The Controlled Control of the Control of Con

**BARGAIN BUYS STORES** 

**DEVELOPMENT** HARRY HIGHBALL **CONSULTING ENGINEERS** 

EQUESTED

**GSWCC** 

COUNTY, STATE

AND DISTRICT

LAND LOT

TIFT, GEORGIA

336

6th

DATE

**DRAWING 9 EROSION AND** SEDIMENT CONTROL

> **NOTES** SHEET #1

**BARGAIN BUYS STORES DEVELOPMENT** HARRY HIGHBALL **CONSULTING ENGINEERS** 

A. DUNLOP

JAN JACOBY

**DECEMBER 11, 2018** 

OWNER

COUNTY, STATE

LAND LOT

REQUESTED

**GSWCC** 

TIFT, GEORGIA

336

6th

DATE

33. NTU LIMITS:
THE AREA OF THE SITE IS ±1.68 ACRES, THE SURFACE WATER DRAINAGE AREA IS LESS THAN 5 SOUARE MILES AND THE RECEIVING WATER IS CLASSIFIED AS WARM WATER, THEREFORE THE ALLOWABLE TURBIDITY FOR THIS PROJECT IS 75 NTU.

34. ALTERNATIVE BMPS:
NO ALTERNATIVE BMPS ARE USED ON THIS PROJECT.
35. DELINEATION OF UNDISTURBED BUFFERS ADJACENT TO STATE WATERS:
ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN IDENTIFIED AND/OR BUFINATED AND WITH BE PROTECTED BY ASSOCIATED STATE AND COUNTY/CITY PROTECTION REGULATIONS AND BUFFERS. IT IS THE RESPONSIBILITY OF THE OWNER AND CONTRACTOR TO ENSURE THAT NO STATE WATER BUFFER ARE ENCROACHED UPON.

38. ACCORDING TO FLOOD INSURANCE RATE MAP 13277C0109E DATED SEPTEMBER 29, 2010 THE PROPERTY IS LOCATEF IN FLOOD ZONE X WHICH IS "AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN".

GIA ENGINEER No. PE012345 IONAL - CERTIFICATION NUMB

**EROSION AND** SEDIMENT CONTROL **NOTES** SHEET #2

**DRAWING 10** 

# **CLEARING PHASE NOTES**

PRIOR TO LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.

THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON PREPLANS. THE CONTRACTOR SHALL MAINTAIN CARFFUL SCHEDULING AND PERFORMANCE TO ENSINE THAT LAND STRIPPED OF IT'S NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.

STAGING AREAS, MATERIAL STORAGE, CONCRETE WASH OUT AREAS, OR BRIS BURNING AND BURAL HOLES SHALL BE LOCATED WITHIN 500 FEET DESIGNATED TREE PROTECTION AREAS. THE OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.

A COFY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES.

PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY. LIMITS OF LAND DISTURBANCE SHALL CLEARLY AND ACCURATELY BE DEMARCATED WITH SISTURES, RIBBONS OR OTHER APPROPRIATE MEANIS, AND SHALL BE DEMACATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE LIMITS INDICATED ON THE APPROVED PLANS.

PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIFROM THE SITE OR ONTO ANY PUBLIC ROADWAY.

THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY:

THE CONSTRUCTION EXIT SHALL BE PLACED AS SHOWN ON THE PLANS.

2. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXIT, ALL PERIMETER EROSION CONTROL AND STORMWATER MANAGEMENT DEVICES SCHALL BE INSTALLED AS SHOWN ON THE CLEARING PHASE EROSION CONTROL PLAN.

3. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY.

IN SEVEN (7) DAYS AFTER INSTALLATION OF INITIAL EROSION CONTROL SURES, THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY PROJECT DESIGN PROFESSIONAL, NO OTHER CONSTRUCTION MITIES SHALL OCCUR UNTIL THE PROJECT PROFESSIONAL APPROVES INSTALLATION OF SAID EROSION CONTROL MEASURES, IF UNFORSEEN INSTALLATION OF SAID EROSION CONTROL MEASURES, IF UNFORSEEN INTO THE TELED THAT WARRANT ADDITIONAL EROSION ITROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ITRONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE JECT PROFESSIONAL DURING THE SITE INSPECTION.

-TER APPROVAL OF INITIAL EROSION CONTROL INSTALLATION, THE WATER OF WATER OF WHITES. AS THE CONFRACTOR WAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES. AS EARING PERMITS, THE CONTRACTOR SHALL CONSTRUCT SEDMENT ONDS AS SHOWN ON PLANS.

THE CONTRACTOR CAN UTILIZE CLEARED TREES AS BARRIER BRUSH SEDIMENT CONTROL WHERE INITIAL GRADING ACTIVITIES WILL NOT OCCUR.

NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE THINDLY WRITTEN PERMISSION BY THE OWNER AND/OR THE ENGINEER OF RECORD.

ALL SILT FENCES MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE FOR THE DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA, STANDARD SPECIFICATIONS, 1983 EDITION.

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.

SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE

CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH LE PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-0F-WAY. THIS REQUIRE PERGODIC TOP DRESSING WITH 1-3" OF STONE, AS DITIONS DEMAND ALL MATERIALS SPILLED, DROPPED, WASHED OR CKED FROM A VEHICLE, ONTO PUBLIC ROADWAY OR INTO STORM DRAIN ST BE REMOYED IMMEDIATELY.

CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE PROPER FUCTIONING.

FALURE TO INSTALL OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE REIN UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED PIANS.

# GRADING PHASE NOTES

SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF IT'S NATURAL GROUND COVER BE SEXPOSED ONLY IN SMALL QUANTITIES, AND THEREPORE LIMITED DUBATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.

EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHALL BE AREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE SUFFER AREAS.

SION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER NUM DISTURBANCE OCCURE. IT IS THE CONTRACTORS RESPONSBILLTY CCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS THED ATTOMN CONSTRUCTION, AND ALTER THE TITON OF EROSION CONTROL DEVICES ACCORDINGLY. ANY DIFFICULTY NUTROLLING EROSION CANTAND LAND AND ALTER THE STATED TO THE DESIGN PROFESSIONAL IMMEDIATELY.

THE CONTRACTOR SHALL ESTABLISH BARRIERS AT THE TOP OF ALL SLOPES JNDER CONSTRUCTION. CUT AND FILL SLOPES SHALL NOT EXCEED 3:1.

STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS CONSTRUCTED

ALL DRAINAGE SWALES AND GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITH DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.

THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT POND UNTIL PERMANENT GROUNDCOVER IS ESTABLISHED. SEDIMENT SHALL BE CLEANED OUT OF THE POND WHEN IT REACHES ONE THIRD OF THE DEPT OF THE BASIN. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MUCCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.

SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER SECH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVICEDOPED.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY. CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.

AILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES, WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

# FINAL PHASE NOTES

THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT POND UNTIL PERMANENT GROUNDCOVER IS ESTABLISHED. SEDIMENT SHALL BE CLEANED OUT OF THE POND WHEN IT REACHES ONE THIRD OF THE DEPT OF THE BASIN.

ALL ROADWAY AND PARKING SHOULDERS SHOULD BE GRASSED AS SOON AS FINAL GRADE IS ACHIEVED. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE

FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MERSURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

UPON COMPLETION OF THE PROJECT AND RECEIPT OF THE CERTIFICATE OF COMPLETION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED OTHERWISE ON PLANS.

# CONSTRUCTION SCHEDULE

VT1/1T7/	JAN	FEB	MAR	APR	MAY
ACIIVIII	2019	2019	2019	2019	2019
INITIAL PERIMETER AND SEDIMENT STORAGE BMP'S					
CLEARING & GRUBBING					
EROSION CONTROL DEVICES					
GRADING					
TEMPORARY VEGETATION					
INFRASTRUCTURE CONSTRUCTION (INCL. UTILITIES)					
BASE					
PAVING					
FINE GRADING & LANDSCAPING					
PERMANENT VEGETATION					
REMOVE TEMP. EROSION CONTROL					
MAINTENANCE OF BMP'S					

NOTE: THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL OCCUR PRIOR TO LAND-DISTURBING ACTIVITIES.

# PERMIT COVERAGE:

STORAGE CALCULATIONS (DETENTION POND ACTING AS TEMPORARY SEDIMENT POND):

THIS PLAN HAS BEEN PREPARED TO MEET THE REQUIREMENTS UNDER THE STATE OF GEORGIA, DEPARTMENT OF NATUR RESOLUCCES, INVINIONIENTAL PROTECTION DIVISION (EPD), GENERALE PERMIT NO. GART10003 FOR AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (INPDES), STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR COMMON DEVELOPMENTS.

1. REQUIRED STORMWATER STORAGE = 276 cu.yd. (25yr DESIGN STORM)

(AS DETERMINED BY LOCAL ORDINANCE)

2. REQUIRED SEDIMENT STORAGE = 111 cu.yd.

(6 cy/ac \* 1.66 ac DRAINAGE AREA)

3. TOTAL REQUIRED STORAGE = 276+111 = 387 cu.yd.

4. AVAILABLE STORAGE = 557 cu.yd.

5. IS THE AVAILABLE STORAGE (4) GREATER THAN THE TOTAL REQUIRED STORAGE (3)?

(AND THE SEDIMENT STORAGE CAPACITY MUST BE INCREASED.

CHOOSE THE METHOD TO BE USED:

5

7. CLEANOUT ELEVATION = 0.28' (37 cu.yd.)

(ELEVATION CORRESPONDING TO 22 cy/ac \* 1.66 ac DRAINAGE AREA)

8. IS THE LENGTH-WIDTH RATIO 2:1 OR GREATER?

15 "NO", THE LENGTH-OF FLOW MUST BE INCREASED. CHOOSE THE METHOD TO BE USED:

| X | BAFFLES (TYPE OF BAFFLE | PLYWOOD | DTHER

NOTE THE CMP DIAMETER AND HEIGHT IF A HALF-ROUND CMP IS TO BE USED: DIAMETER = 48 inches HEIGHT = 3.0 feet

AUTHORIZED DISCHARGES OF STORM WATER, ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT WILL RESULT IN LAND DISTURBANCE EQUAL TO OR GREATER THAN ONE ACRE. PART I.C.1.a.

2. ALL DISCHARGES COUNCED BY THIS PERMIT SHALL BE COMPOSED ENTIRELY OF STORM WATER EXCEPT AS PROVIDED IN PART III.A.2 OF THE PERMIT.

3. ALTHORIZED MIXED STORM WATER DISCHARGES: PART II.C.2.

4. THE INDUSTRIAL SOURCE OR ACTIVITY OTHER THAN CONSTRUCTION ON THE SAME SITE AS THE CONSTRUCTION ACTIVITY.

5. AUTHORIZED MIXED STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY.

6. CONSTRUCTION ACTIVITY OF THE SASSOCIATED WITH INDUSTRIAL ACTIVITY.

7. THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY.

8. ATHER THAN CONSTRUCTION ASSOCIATED WITH INDUSTRIAL ACTIVITY.

8. CONSTRUCTION ACTIVITIES ARE OCCURRING ARE IN COMPLIANCE WITH THE TERMS OF THE SITE WHERE INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION ACTIVITY.

8. ACTIVITY OTHER THAN CONSTRUCTION ARE OCCURRING ARE COVERED BY A DIFFERRAIT INDUSS GENERAL PERMIT OF PERMIT.

9. THE FOLLOWING NON-STORM WATER DISCHARGES AND THE DISCHARGES ARE IN COMPLIANCE WITH A DIFFERENT INDESS FERMIT OF THE DISCHARGE IS EXPLICITLY IN THE PLAN AND IS IN COMPLIANCE WITH PART IND.?. PART III.A.2.

9. A FIRE FIGHTING ACTIVITIES.

10. IRRIGATION PRANTING:

11. EARL CONDITIONING CONDENSATE;

12. SPRINGS.

13. COMPONENT OF THE DISCHARGE IS EXPLICITLY IN THE PLAN AND IS IN COMPLIANCE WITH PARCESS MATERIALS OR CONDITIONING CONDENSATE.

14. FOUNDATION OF FOOTING DRAINS WHERE THE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS OR POLLUTANTS.

OWNER

DRAWN BY

A. DUNLOP

JAN JACOBY

**DECEMBER 11, 2018** 

REVISION NUMBER

LIMITATIONS ON COVERAGE PART I.C.3

THE FOLLOWING STORM WATER DISCHARGES FROM CONSTRUCTION SITES ARE NOT AUTHORIZED BY THIS PERMIT:
A STORM WATER DISCHARGES ASSOCIATED WITH AN INDUSTRIAL, ACTIVITY THAT ORIGINATE FROM THE SITE AFTER
CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION:
B. DISCHARGES THAT ARE MIXED WITH SOURCES OF MON-STORM WATER OTHER THAN DISCHARGES WHICH ARE INCHARGES OF
IN PART III.A.2. OF THIS PERMIT AND WHICH ARE IN COMPLIANCE WITH PART IV.D.7. (NON-STORM WATER DISCHARGES) OF
THIS PERMIT.
C. STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY THAT ARE SUBJECT TO AN EXSTING NPDES
INDIVIDUAL OR GENERAL PERMIT. SUCH DISCHARGES MAY BE AUTHORIZED UNDER THIS PERMIT AFTER AN EXISTING PERMIT EXPRINED THE ASSISTING PERMIT SITES THAT THE DIRECTOR (LIMITATIONS FOR SUCH DISCHARGES; AND
STORM WATER DISCHARGES FROW CONSTRUCTION SETS SHAT THE DIRECTOR (EPD) HAS DETERMINED TO BE OR MAY
REASONABLY BE EXPECTED TO BE CONTRIBUTING TO A VIOLATION OF A WATER QUALITY STANDARD.

COMPLIANCE WITH WATER QUALITY STANDARDS PART I.C.4 NO DISCHARGES AUTHORIZED BY THIS PERMIT SHALL CAUSE VIOLATIONS OF GEORGIA'S IN-STREAM WATER QUALITY STANDARDS AS PROVIDED BY THE RULES AND REGULATIONS FOR WATER QUALITY CONTROL, CHAPTER 391-3-6-133.

SEAL

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

BY HIGHER LEGISTERED GEORGIA ENGINEER NO. PE123456
LEVEL IL CERTIFIED DESIGN PROFESSIONAL - CERTIFICATION NUMBER 0000001

**BARGAIN BUYS STORES** 

**DEVELOPMENT** HARRY HIGHBALL **CONSULTING ENGINEERS** 

EQUESTED

GSWCC

COUNTY, STATE

LAND DISTRICT

LAND LOT

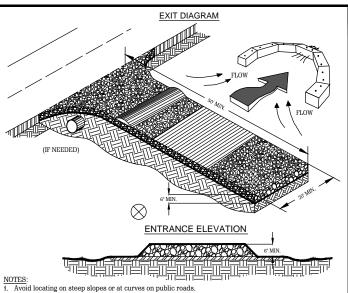
TIFT, GEORGIA

336

6th

DATE

**DRAWING 11 EROSION AND** SEDIMENT CONTROL **NOTES** SHEET #3



- Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for
- Aggregate size shall be in accordance with National Stone Association R-2 (1.5"-3.5" Stone). . Gravel pad shall have a minimum thickness of 6°. Pad width shall be equal full width at all points of vehicular egress, but no less than 20°.

- A diversion ridge should be constructed when grade toward paved area is greater than 2%. Install pipe under the entrance if needed to maintain drainage ditches.
- When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin (divert all surface runoff and drainage from the entrance to a ediment control device).
- Washracks and/or tire washers may be required depending on scale and circumstance. If necessary, washrack design may consist of any material suitable for truck traffic that remove mud and dirt.

  10. Maintain area in a way that prevents tracking and/or flow of mud onto public rights-of-ways. This may require top dressing, repair and/or cleanout of any measures used to trap sediment



Figure 6-11.1

CRUSHED STONE CONSTRUCTION EXIT

# DEFINITION

Improving, constructing or stabilizing an open channel for

stabilization of open channels and existing ditches with drainage areas less than one square mile. This standard channels conveying a continuous live stream

environmental integrity of the area and must not cause significant erosion upstream or flooding and/or sediment

# CHANNEL LININGS AND STRUCTURAL

lining due to increased grade or a change in channel cross-section, or where durability of vegetative lining is adversely affected by seasonal changes, channel linings of rock, concrete or other durable material may be needed. Grade stabilization structures may also be needed.

Channels may be stabilized by using one or more of the following methods



Vegetated lining shall be designed to resist erosion when the channel is flowing at the bankfull discharge or 25-year requency discharge, whichever is the lesser. Temporary erosion control blankets or sod shall be used on all channels and concentrated flow areas to aid in the establishment of the vegetated lining. If a vegetated lining is desired in a el with velocities between 5-40 ft/sec, permanent soil



### DEFINITION

Small temporary barrier, grade control structure, or dam constructed across a swale, drainage ditch, or area of

# CONDITIONS

This practice is applicable for use in small open channels and is not to be used in a live stream. Specific applications

1. Temporary or permanent swales or ditches in need of

protection during establishment of grass linings.

2. Temporary or permanent swales or ditches which, due to their short length of service or other reasons, cannot receive a permanent non-erodible lining for an extended period of

3. Other locations where small localized erosion and resulting sedimentation problems exist.

# SPECIFICATIONS

The following types of check dams are used for this standard:

Haybale Check Dams
Staked and embedded hav-bales may be used as temporary check dams in concentrated flow areas while vegetation is becoming established. They should not be used where the drainage area exceeds one acre. Haybales should be embedded a minimum of 4 inches, (See Figure 6-10.3)

- Bales should be bound with wire or nylon string and should be placed in rows with bale ends tightly abutting the adjacent bales.
- Remove #4 rebar after straw bales are no longer in place Point C of SECTION B-B should always be higher than



CHECK DAM - STRAW BALES

Figure 6-10.3

# inforcement matting shall be used. Refer to specifications Ds3 - Disturbed Area Stabilization (With Permanent

Rock Riprap Lining

Sodding), and Mb - Matting and Blankets.

Vegetation), Ds4 - Disturbed Area Stabilization (With

Rock riprap shall be designed to resist displacement when

the channel is flowing at the bankfull discharge or 25-year

frequency discharge, whichever is the lesser, Rock riprap

Dumped and machine placed riprap should not be installed

on slopes steeper than 1-1/2 horizontal to 1 vertical. Rock

shall be dense, resistant to the action of air and water, and

suitable in all other respects for the purpose intended. Rock shall be installed according to standards specified in Riprap,

A filter blanket layer consisting of an appropriately designed graded filter sand and/or gravel or geotextile material shall

nended drop heights and stone weights are found in

ning should be used when channel velocities are between 5

# CONDITIONS

This standard applies to the improvement, construction or applies only to channels conveying intermittent flow, not to

An adequate outlet for the modified channel length must be available for discharge by gravity flow. Construction or other improvements of the channel should not adversely affect the

be placed between the riprap and base material. The gradation of the filter blanket material shall be designed to Where channel velocities exceed safe velocities for vegetated create a graded filter between the base material and the riprap. A geotextile can be used as a substitution for a layer of sand in a graded filter or as the filter blanket. Criteria for selecting an appropriate geotextile and guidance for AASH-TO M288-96 Section 7.5, Permanent Erosion Control

# Vegetated Lining



If a channel has velocities high enough to require a concrete lining (when channel velocities exceed 40 ft/sec), methods should be utilized to reduce the velocity of the runoff and reduce erosion at the outlet - a common problem created by the smooth, concrete lining. Refer to specification St - Storm Drain Outlet Protection for information regarding energy dissipators.

Concrete Lining

If a concrete lining is chosen, it shall be designed according to currently accepted guides for structural and hydraulic adequacy. It must be designed to carry the required discharge and to withstand the loading imposed by site

Ch-3

A separation geotextile should be placed under concrete linings to prevent undermining in the event of stress cracks due to settlement of the base material. The separation geotextile will keep the base material soils in place and minimize the likelihood of a system failure.

# Grade Stabilization Structures

Grade stabilization structures are used to reduce or prevent excessive erosion by reduction of velocities in the watercourse or by providing structures that can withstand and reduce the higher velocities. They may be constructed of concrete, rock, masonry, steel, aluminum, or treated wood.

These structures are constructed where the capability of earth and vegetative measures is exceeded in the safe handling of water at permissible velocities, where excessive grades or overall conditions are encountered or where water to be lowered structurally from one elevation to another. These structures should generally be planned and installed along with or as a part of other erosion control practices

The structures shall be designed hydraulically to adequately carry the channel discharge and structurally to withstand loadings imposed by the site conditions

The structure shall meet requirements of  $\operatorname{Gr}$  -  $\operatorname{Grade}$ Stabilization Structure

# SPECIFICATIONS

- 1. Where needed, all trees, brush, stumps and other objectionable materials shall be removed so they will no interfere with the construction or proper functioning of the
- 2. Where possible, trees will be left standing, and stumps will not be removed.
- 3. Excavation shall be at the locations and grades shown on the drawings. The lining shall not compromise the capacity of the channel, e.g. the emergency spillway shall be over-excavated so that the lining will be flush with the slope
- 4. The geotextile shall be placed on a smooth graded surface. The geotextile shall be placed in such a manner that it will not excessively stretch or tear upon placement of the

overlying materials. Care should be taken to place the geotextile in intimate contact with the soil such that no void paces exist between the underlying soil and the geotextile 5. Construction plans will specifically detail the location and handling of spoils. Spoil material resulting from clearing, grubbing and channel excavation shall be disposed of in a anner which will:

TYPICAL STRAW BALE CHECK DAM

PLAN

SEE DETAIL FOR

- a, not cause an increase in flood stage. b. minimize overbank wash,
- c, not cause an adverse effect on the environmental integrity
- d. provide for the free flow of water between the channel and flood plain unless the valley routing and water surface profile are based on continuous dikes being installed,
- e, leave the right-of-way in the best condition feasible, and f. improve the aesthetic appearance of the site to the extent
- 6. Channel linings shall be established or installed immediately after construction or as soon as weather conditions permit.
- 7. Structures shall be installed according to lines and grades shown on the plan. The foundation for structures shall be cleared of all undesirable materials prior to the installation of
- 8. Materials used in construction shall be of permanency commensurate with the design frequency and life expectancy of the facility.
- 9. Earthfill, when used as a part of the structures, shall be placed according to the installation requirements for ediment basin embankments.
- 10. Construction operations shall be carried out in such a manner that erosion and air and water pollution will be minimized. State and local laws concerning pollution abatement shall be complied with.

  11. Vegetation shall be established on all disturbed areas
- ediately after construction. If weather conditions cause a delay in establishing vegetation, the area shall be mulched in accordance with the standard for mulching. Refer to specification Ds1 - Disturbed Area Stabilization (With Mulching Only). Seeding, fertilizing and mulching shall conform to the standard for permanent vegetative cover Refer to specification Ds3-Disturbed Area Stabilization (With Permanent Vegetation).
- All temporary access roads or travelways shall be appropriately closed to exclude traffic.
- 43 Trees and other fallen natural vegetation not causing a deterrent to stream flow should be left for the purpose of

# DEFINITION

Applying plant residues or other suitable materials, oduced on the site if possible to the soil surface

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six onths, but it shall be applied at the appropriate depth, depending on the material used, anchored, and have a ntinuous 90% cover or greater of the soil surface. enance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be mployed instead of mulch if the area will remain undisturbed for less than six months. If an area will remain ndisturbed for greater than six months, permanent regetative techniques shall be employed.

# SPECIFICATIONS

# MULCHING WITHOUT SEEDING

# Site Preparation

1. Grade to permit the use of equipment for applying and anchoring mulch.

Loosen compact soil to a minimum depth of 3 inches

# Mulching Materials

select one of the following materials and apply at the depth

inches providing complete soil coverage. One advantage of this material is easy application.



# This standard applies to grades or cleared areas where

eedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover

. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment

. Dry straw or hay shall be applied at a depth of 2 to 4

DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

- 2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs
- 3. Cutback asphalt (slow curing) shall be applied at 1200 gallons per acre (or 4/4 gallon per sq.yd.).
  4. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused.

- When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area. 1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment. 2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic
- 3. Cutback asphalt shall be applied uniformly. Care should be taken in areas of pedestrian traffic due to problems of 'tracking in" or damage to shoes, clothing, etc. 4. Apply polyethylene film on exposed areas

# Anchoring Mulch

1. Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately

after application. Straw or hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the

400 gallons of emulsified asphalt and 400 gallons of water per ton of mulch. Tackifers and binders can be substituted for emulsified asphalt. Please refer to specification Tb -Tackifers and Binders. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications. 2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the average size of the wood waste chips. 3. Polyethylene film shall be anchor trenched at the top as

well as incrementally as necessary

DRAWING 12 **EROSION AND** SEDIMENT CONTROL **DETAILS** SHEET #1



# EROSION CONTROL CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456

# BARGAIN BUYS STORES **DEVELOPMENT**

# HARRY HIGHBALL CONSULTING ENGINEERS

OWNER		COUNTY, S	STATE
A. DUNLOP		TIFT,	, GEORGIA
DRAWN BY		LAND LOT	
JAN JACOBY		336	
DATE		LAND DIS	TRICT
DECEMBER 11, 2	2018		6th
REVISION NUMBER	REQUE	ESTED BY	DATE
	GS	SWCC	i

### DEFINITION

The establishment of temporary vegetative cover with fast growing seedings for easonal protection on disturbed or denuded areas.

# CONDITIONS

emporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. Temporary vegetative m should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as nion crops until the permanent vegetation is established

# SEEDING RATES FOR TEMPORARY SEEDING

TERM CIGHT SEEDING					
SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **		
Rye	3.9 pounds	3 bu.	9/1-3/1		
Ryegrass	0.9 pound	40 lbs.	8/15-4/1		
Annual Lespedeza	0.9 pound	40 lbs.	1/15-3/15		
Weeping Lovegrass	0.1 pound	4 lbs.	2/15-6/15		
Sudangrass	ngrass 1.4 pounds		3/1-8/1		
Browntop Millet	0.9 pound	40 lbs.	4/1-7/15		
Wheat	4.1 pounds	3 bu.	10/15-2/1		

\*\* Seeding dates may need to be altered to fit tempertur variations and conditions

ermanent perennial vegetation is used to provide a protective cover for

posed areas including cuts, fills, dams, and other denuded areas

Grading and shaping may not be required where hydraulic seeding and

where feasible and practical, so that equipment can be used safely and

priate standards and specifications

ime and Fertilizer Rates and Analysis

izing equipment is to be used. Vertical banks shall be sloped to enable

ficiently during seedbed preparation, seeding, mulching and maintenance of

to a safe outlet. Diversions and other treatment practices shall conform with the

Agricultural lime is required at the rate of one to two tons per acre unless soil

Lime spread by conventional equipment shall be "ground limestone." Ground

mestone is calcitic or dolomitic limestone ground so that 90 percent of the naterial will pass through a 40-mesh sieve, not less than 50 percent will pass

hrough a 50-mesh sieve and not less than 25 percent will pass through a

DISTURBED AREA STABILIZATION

(WITH PERMANENT VEGETATION)

Fast-acting lime spread by hydraulic seeding equipment should be "finely ground limestone" spanning from the 180 micron size to the 5 micron size

inely ground limestone is calcitic or dolomitic limestone ground so that 95

ercent of the material will pass through a 100-mesh sieve

ests indicate otherwise. Graded areas require lime application. If lime is

applied within six months of planting permanent perennial vegetation.

additional lime is not required. Agricultural lime shall be within the specifications of the Georgia Department of Agriculture.

ntional seeding and fertilizing are to be done, grade and shape

ntrations of water that will cause excessive soil erosion shall be diverted



CONDITIONS

SPECIFICATIONS

Grading and Shaping

lant establishment

he vegetation

00-mesh sieve

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

DEFINITION It is desirable to use dolomitic limestone in the Sand Hills, Southern Coastal Plain and Atlantic Coast Flatwoods MLRAs The planting of perennial vegetation such as trees, shrubs, vines, grasses, or gumes on exposed areas for final permanent stabilization. Perm rennial vegetation shall be used to achieve final stabilization..

SPECIFICATIONS

Grading and Shaping

Seedbed Preparation

Lime and Fertilizer

loose and not sealed by rainfall.

if hydraulic seeding equipment is to be used

Excessive water run-off shall be reduced by properly designed and installed erosion

control practices such as closed drains, ditches, dikes, diversions, sediment barriers and

No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation of

When a hydraulic seeder is used, seedbed preparation is not required. When using

conventional or handseeding, seedbed preparation is not required if the soil material is

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be

pitted, trenched or otherwise scarified to provide a place for seed to lodge and germinate

Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime

at a rate determined by soil test for pH. Quick acting lime should be incorporated to modify pH during the germination period. Bio stimulants should also be considered when there is less than 3% organic matter in the soil. Graded areas require lime application.

Fertilizer should be applied before land preparation and incorporated with a disk, ripper

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed

shall be applied uniformly by hand, cyclone seeder, drill, cultipacker seeder, or hydraulic

seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times

the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand

Temporary vegetation can, in most cases, be established without the use of mulch. Mulch

without seeding should be considered for short term protection. Refer to Ds1 - Disturbed

During times of drought, water shall be applied at a rate not causing runoff and erosion.

The soil shall be thoroughly wetted to a depth that will insure germination of the seed.

Soils must be tested to deter}mine required amounts of fertilizer and amend}ments.

or chisel. On slopes too steep for, or inacces) sible to equipment, fertilizer shall be hydraulically applied, preferably in the first pass with seed and some hydraulic mulch,

then topped with the remaining required application rate.

Area Stabilization (With Mulching Only)

Subsequent applications should be made when needed.

Agricultural lime is generally not required where only trees are planted. Initial fertilization, nitrogen, topdressing, and maintenance fertilizer requirements for each species or combination of species are listed in Table 6-5.4 below

# TABLE 6-5.1. FERTILIZER REQUIREMENTS

1.1	11(111117	рпи ипс	OHUMINI	110
TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 1500 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 1/2, - 30 lbs./ac.
Cool season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	4500 lbs./ac. 400 lbs./ac.	0-50 lbs./ac. 1/ - -
3. Ground covers	First Second Maintenance	10-10-10 10-10-10 10-10-10	1300 lbs./ac. /3 1300 lbs./ac. /3 1100 lbs./ac.	- - -
4. Pine seedlings	First	20-10-5	one 21-gram pellet per seedling placed in the closing hole	=
<ol> <li>Shrub Lespedeza</li> </ol>	First Maintenance	10-10-10 10-10-10	700 lbs./ac. 700 lbs./ac. /4	
6. Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
7. Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	800 lbs./ac. 400 lbs./ac.	50-400 lbs./ac. 2/6/ 50-400 lbs./ac. 2/ 30 lbs./ac.
8. Warm season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1100 lbs./ac. 400 lbs./ac.	50 lbs./ac. 6/

- Apply in spring following seeding.
   Apply in split applications when high rates are used.
   Apply in 3 split applications.
   Apply when plants are pruned.

- 5/ Apply to grass species only. 6/ Apply when plants grow to a height of 2 to 4 inches.

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used. When conventional seeding is to be used, seedbed preparation will be done as follows:

- 1. Tillage at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hav mulch if a disk is to be used.
- 2. Tillage may be done with any suitable equipment.

## DEFINITION

anent vegetation using sods on highly erodible or critically eroded lands.

# CONDITIONS

his application is appropriate for areas which require immediate vegetative vers, drop inlets, grass swales, and waterways with intermittent flo

### CONSTRUCTION SPECIFICATIONS INSTALLATION

## oil Preparation

Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil surfaces only and not frozen urfaces, or gravel type soils

Popsoil properly applied will help guarantee stand. Don't use topsoil recently reated with herbicides or soil sterilants.

Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.4. For fall planting of warm season species, half the fertilizer should be applied at planting and the other half in the spring.

### able 6-6.1. Fertilizer Requirements for Soil Surface Application

Fertilizer Type				
10-10-10 1000 .025 Fall			Fertilizer Rate	Season
	10-10-10	1000	.025	Fall

Agricultural lime should be applied based on soil tests or at a rate of 1 to 2

Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger On slopes steeper than 3:1, sod should be anchored with wooden or

indegradable pins or other approved methods illed sod should be rolled or tamped to provide good contact bety

- and soil Irrigate sod and soil to a depth of 4" immediately after installation.
- sod should not be cut or spread in extremely wet or dry weathe

Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks



DISTURBED AREA STABILIZATION (WITH SODDING)

# 4. On slopes too steep for the safe operation of tillage equipment, the soi surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

# Individual Plants

. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.

2. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.

3. Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

# Planting

Mix the seed (innoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a cultipacker seeder, drill, rotary seeder, other mechanical seeder. or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultipacker or other suitable equipment.

# No-Till Seeding

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots. Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface. Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the

# Mulching

MATERIALS

Grass

Bermudagras

Bahiagrass

Centipede

St. Augustine

Zoysia

Tall Fescue

MAINTENANCE

ypes of Speci

Season

Warm

than 2"-3" or as specified.

- Sod selected should be certified. Sod grown in the general area of the project

Sod should be machine cut and contain 3/4" +4/4" of soil, not including shoots

Sod should be cut to the desired size within ±5%. Torn or uneven pads should

Avoid planting when subject to frost heave or hot weather if irrigation is not

- The sod type should be shown on the plans or installed according to Table

Resource Area

M-L.P.C

P.C

P,C

P,C

P.C

M-L,P

Rate

(lbs./acre)

1000

1500

400

Sod should be cut and installed within 36 hours of digging.

Varieties

Tifway

Tifgreen

Tiflawn

Pensacola

Bitterblue

Emerald

Kentucky

Re-sod areas where an adequate stand of sod is not obtained.

Fertilize grasses in accordance with soil tests or Table 6-6.3.

Table 6-6.3. Fertilizer Requirements for Sod

Planting Yea

Second

First

· New sod should be mowed sparingly. Grass height should not be cut less

Apply one ton of agricultural lime as indicated by soil test or every 4-6 years.

(N-P-K)

6-12-12

6-12-12

6-12-12

6-12-12

10-10-10

6-6.2. See Figure 6-4.1 for your Resource Area

Table 6-6.2. Sod Planting Requirements

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% soil cover. Select the mulching material from the following and apply as indicated:

1. Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre. 2. Wood cellulose mulch or wood pulp fiber shall be used with hydraulic

seeding. It shall be applied at the rate of 500 pounds per acre. Drystraw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding. 3. One thousand pounds of wood cellulose or wood pulp fiber, which includes a tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper 4. Sericea lespedeza hav containing mature seed shall be applied at a rate of

5. Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate

for seeded areas. 6. When using temporary erosion control blankets or block sod, mulch is not required.

7. Bituminous treated roving may be applied on planted areas on slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.

Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

# Applying Mulch

Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting. The mulch may be spread by blower-type spreading equipment other spreading equipment or by hand. Mulch shall be applied to cover 75% of

Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchor straw or hay mulch immediately after application by one of the following

1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch im following mulch application when straw or hav is spread by methods other than special blower equipment.

# DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites

### CONDITIONS

Growing Season

Warm Weathe

Warm Weather

Warm Weather

Warm Weathe

Warm Weather

Cool Weather

(lbs./acre)

50-100

50-100

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may

# METHOD AND MATERIALS

# A. TEMPORARY METHODS

Mulches. See standard Ds4 - Disturbed Area Stabilization (With Mulching Only), Synthetic resins may be used nstead of asphalt to bind mulch material. Refer to standard Tb-Tackifiers and Binders. Resins such as Curasol or Terratack should be used according to manufacturer's recon

tative Cover. See standard Ds2 - Disturbed Area Stabilization (With Temporary Seeding).

Spray-on Adhesives, These are used on mineral soils (not effective on muck soils), Keep traffic off these areas, Refer

Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency measure which should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet.

Barriers, Solid board fences, snow fences, burlap fences, crate walls, bales of hav and similar material can be used to trol air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion

Calcium Chloride, Apply at rate that will keep surface moist. May need retreatment

### B PERMANENT METHODS

Permanent Vegetation. See standard Ds3 -Disturbed Area Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place

Topsoiling. This entails covering the surface with less erosive soil material. See standard Tp - Topsoiling.

Stone. Cover surface with crushed stone or coarse gravel. See standard Cr-Construction Road Stabilization.



DUST CONTROL ON DISTURBED AREAS

# The combination of asphalt emulsion and water shall consist of a homogen mixture satisfactory for spraying. The mixture shall consist of 400 gallons of grade SS-1h or CSS-1h emulsified asphalt and 100 gallons of water per ton of Care shall be taken at all times to protect state waters, the public, adjacent

property, pavements, curbs, sidewalks, and all other structures from asphalt

2. Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk" or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil. 3. Synthetic tackifiers or binders approved by GDOT shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to Th - Tackifiers and Binders.

4. Rye or wheat can be included with Fall and Winter plantings to stabilize the

mulch. They shall be applied at a rate of one-quarter to one half bushel per acre.

5. Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Irrigation shall be applied at a rate that will not cause runoff.

# SEEDING RATES FOR PERMANENT SEEDING

,	SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
	BAHIA	1.4 POUNDS	60 LBS.	1/1-12/31
	BERMUDA	0.2 POUND	10 LBS.	2/15-7/1
	CENTIPEDE	BLOCK SOD ONLY	BLOCK SOD ONLY	4/1-7/1
	LESPEDEZA	1.7 POUNDS	75 LBS.	1/1-12/31
	WEEPING LOVE GRASS	0.1 POUND	4 LBS.	2/1-6/15
	SWITCH GRASS	0.9 POUND	40 LBS.	3/15-6/1

- \* Unusual site conditions may require heavier seeding rates
- \*\* Seeding dates may need to be altered to fit temperature variations and conditions

# DRAWING 13 **EROSION AND** SEDIMENT CONTROL **DETAILS** SHEET #2



# EROSION CONTROL CERTIFICATION

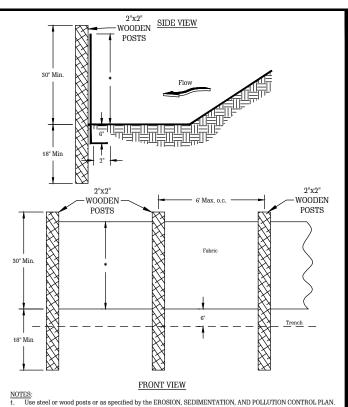
I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456

# BARGAIN BUYS STORES **DEVELOPMENT**

# HARRY HIGHBALL CONSULTING ENGINEERS COLINTY STATE

OWNER		COUNTY,	STATE
A. DUNLOP		TIFT	, GEORGIA
DRAWN BY	LAND LOT		
JAN JACOBY	7		336
DATE	LAND DIS	TRICT	
DECEMBER 11, 2	2018		6th
REVISION NUMBER	REQUE	STED BY	DATE
	GS	SWCC	



Height (\*) is to be shown on the EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN

SILT FENCE - TYPE NON-SENSITIVE N.T.S. Figure 6-20.4

across a concentrated flow area or by excavating a basin or

of a dam, a pipe outlet, and an emergency spillway. The size

of the structure will depend upon the location, size of the

This practice applies to critical areas where physical site

conditions, construction schedules, or other restrictions

sedimentation. The structure may be used in combination

with other practices and should remain in effect until the

Areas under the embankment and under structural works

vegetation, roots and other objectionable material shall be

A cut-off trench will be excavated along the centerline of

The cut-off trench shall extend up both abutments to the

feet, but wide enough to permit operation of compaction

BASIN

practices to satisfactorily reduce runoff, erosion, and

sediment-producing area is permanently stabilized.

drainage area does not exceed 150 acres.

SPECIFICATIONS

Site Preparation

Cut-off Trench

drainage area, soil type, and rainfall pattern.

by a combination of both. A sediment basin typically consists

DEFINITION

CONDITIONS

A basin created by the construction of a barrier or dam.

on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks or other preclude the installation or establishment of erosion control be placed in the downstream section of the embankmer Areas on which fills are to be placed shall be scarified prior crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed in This standard applies to the installation of temporary (to be removed within 18 months) sediment basins on sites where (1) failure of the structure would not result in loss of life or erruption of use or service of public utilities, and (2) the hauling the construction equipment over the fill so that the tread track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 5

The riser shall be securely attached to the pipe or pipe stub shall be cleared, grubbed, and stripped of topsoil. All trees, by welding the full circumference making a watertight structural connection. The pipe stub must be attached to the removed and disposed of by approved methods. In order to riser at the same percent (angle) of grade as the outlet facilitate clean-out or restoration, the pool area (measured at the top of the pipe spillway) will be cleared of all brush and conduit. The connection between the riser and the riser base shall be watertight. All connections between pipe sections must be achieved by approved watertight band assemblies. The pipe and riser shall be placed on a firm, smooth foundation of impervious soil as the embankment is constructed. Breaching the embankment is unacceptable. Pervious materials such as sand, gravel, or crushed stone earth fill embankments. The minimum depth shall be 2 feet. shall not be used as backfill around the pipe or anti-seep collar. The fill material around the pipe spillway shall be riser crest elevation. The minimum bottom width shall be 4 placed in four inch layers and compacted under and around the pipe to at least the same density as the adjacent embankment. Care must be taken not to raise the pipe from TEMPORARY SEDIMENT firm contact with its foundation when compacting under the pipe haunches. A minimum depth of two feet of hand

equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for the embankment. The trench shall be drained during the

backfilling and compaction operations.

The fill material shall be taken from approved areas shown objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes GW, GP, SW & SP) shall to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without six-inch to eight-inch thick continuous layers over the entire length of the fill. Compaction shall be obtained by routing and entire surface of the fill is traversed by at least one wheel or percent higher than the design height to allow for settlement.

# Principal Spillway

compacted backfill shall be placed over the pipe spillway before crossing it with construction equipm

# Emergency Spillway

The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of  $\pm$  0.2 feet. If the emergency spillway requires erosion protection other than vegetation, the lining shall not compromise the capacity of the emergency spillway, e.g. the emergency spillway shall be over-excavated so that the lining will be flush with the slope

FRONT VIEW

Figure 6-20.6

2"x2"

POSTS

30" Min

18" Min

18" Min

2"x2"

POSTS

WOODEN

SIDE VIEW

4' MAX. O.C.

Stabilize the embankment and all other disturbed areas in accordance with the appropriate permanent vegetative measure. Ds3, immediately following construction. In no case shall the embankment remain unstabilized for more than seven (7) days. Refer to specifications Ds2, Ds3, and Ds4 -Disturbed Area Stabilization (Temporary Seeding, Permanent Vegetation and Sodding) respectively. sion and Pollution Control Construction operations will be carried out in such a manner that erosion and water pollution will be minimized. State and local law concerning pollution abatement shall be complied with.

State and local requirements shall be met concerning fencing and signs warning the public of hazards of soft sediment and

When temporary structures have served their intended purpose and the contributing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, then the embankment and trapped sediment must be removed, safely disposed of, and backfilled with a structural fill. When the isin area is to remain open space, the pond may be pumped dry, graded and backfilled.

# Use steel or wood posts or as specified by the EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN. Height (\*) is to be shown on the EROSION, SEDIMENTATION, AND POLILITION CONTROL PLAN SILT FENCE - TYPE SENSITIVE TEMPORARY SEDIMENT BASIN BAFFLE DETAILS Emergency spillway crest Riser pipe for principal Freeboard - 1' min. 2.5:1 or flatter Embankment stabilized holes with gravel 3" - 4" stone placed in layers Cut-off trench 2' deep, min. CROSS SECTION Fill Height Minimum Top Width 8.0 ft 10.0 ft NOTES 1. The emergency spillway shall be installed EMERCENCY in undisturbed ground. SPILLWAY 2. The emergency spillway must be constructed within a tolerance of 0.2 feet. TOP OF EMBANKME SEDIMENT TRASH RACK Rock Rip-Rap Outlet

PLAN VIEW

Figure 6-22.1

BASIC COMPONENTS OF A TEMPORARY SEDIMENT BASIN

C.

D.

Riser (outlet)

Le=L1+L2

4' x 8' x 1/2"exterior plywood or equivalent

Figure 6-22.2 Temporary Sediment Basin Baffle Details

SEDIMENT BASIN BAFFLES

Examples: Plan Views - not to scale

Le = Total distance from the

Le = L1 + L2

point of inflow around

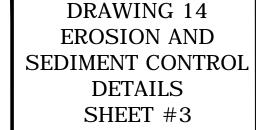
the baffle to the riser

Normal pool-

2"x2"

-WOODEN

POSTS





# EROSION CONTROL CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

elevation

Posts - 4" square o

5" round min

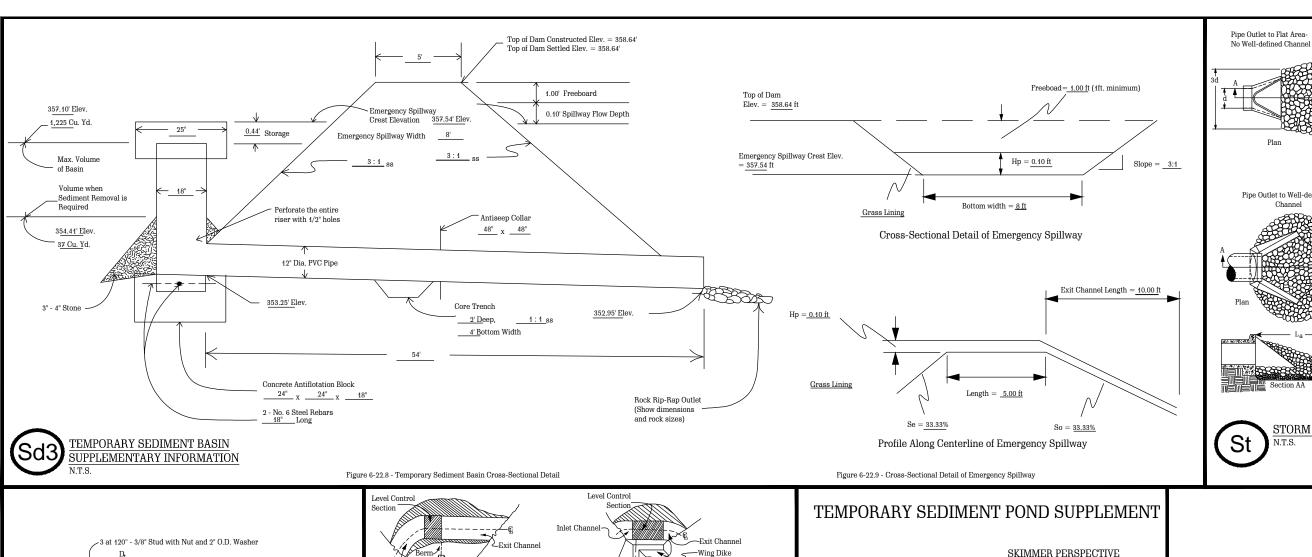
HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456

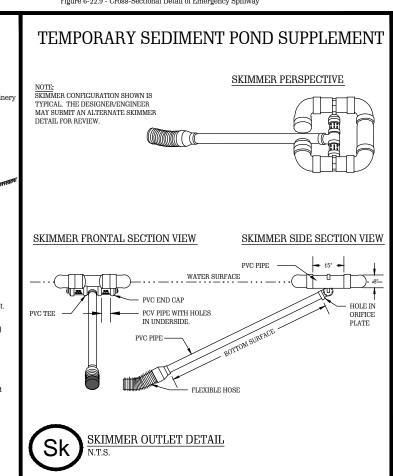
# BARGAIN BUYS STORES **DEVELOPMENT**

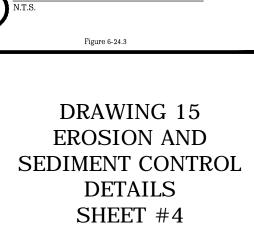
HARRY HIGHBALL CONSULTING ENGINEERS

OWNER	COUNTY,	STATE	
A. DUNLOP	TIFT,	GEORGIA	
DRAWN BY	LAND LOT		
JAN JACOBY		336	
DATE	LAND DIS	TRICT	
DECEMBER 11, 2		6th	
REVISION NUMBER	STED BY	DATE	

GSWCC







STORM DRAIN OUTLET PROTECTION

1. La is the length of the riprap apron.

D = 1.5 times the maximum stone diameter but not less than 6".

3. In a well-defined channel extend the

apron up the channel banks to an elevation of 6" above the maximum tailwater depth of to the top of the bank, whichever is less.

4 A filter blanket or filter fabric should

5. See Sheet C7 for dimensions of



I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

Pipe Outlet to Well-defined

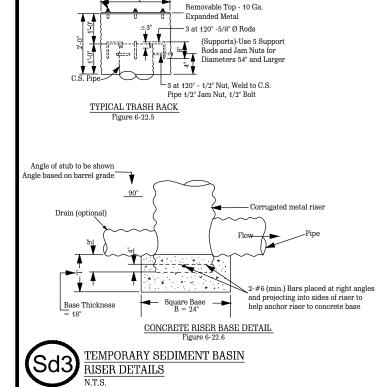
Channel

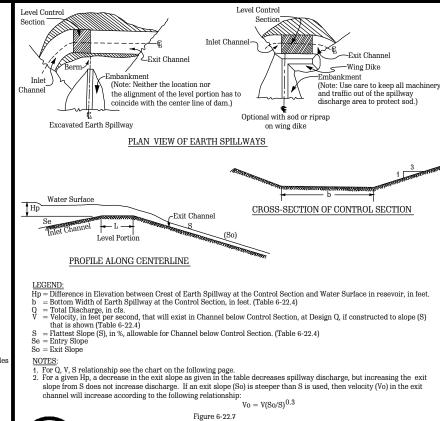
HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456

# BARGAIN BUYS STORES **DEVELOPMENT**

# HARRY HIGHBALL CONSULTING ENGINEERS

001.001	. 21101111			
OWNER	COUNTY,	STATE		
A. DUNLOP		TIFT,	GEORGIA	
DRAWN BY		LAND LOT		
JAN JACOBY	,	336		
DATE		LAND DIS	TRICT	
DECEMBER 11, 2	2018		6th	
REVISION NUMBER REQUE		STED BY	DATE	
	GS	SWCC		





TEMPORARY SEDIMENT BASIN

SPILLWAY DETAILS

# GEORGIA UNIFORM CODING SYSTEM

DRAWING 16
EROSION AND
SEDIMENT CONTROL
DETAILS
SHEET #5

# FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES GEORGIA SOIL AND WATER CONSERVATION COMMISSION

# STRUCTURAL PRACTICES

# **VEGETATIVE PRACTICES**

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION		<b>**</b>	Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT		(LABEL)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Sd1)	SEDIMENT BARRIER		(INDICATE TYPE)	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd3	TEMPORARY SEDIMENT BASIN		Sd3	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sk	FLOATING SURFACE SKIMMER		Sk) (LABEL)	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
St	STORMDRAIN OUTLET PROTECTION		St	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	11, 11, 12 P	Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.



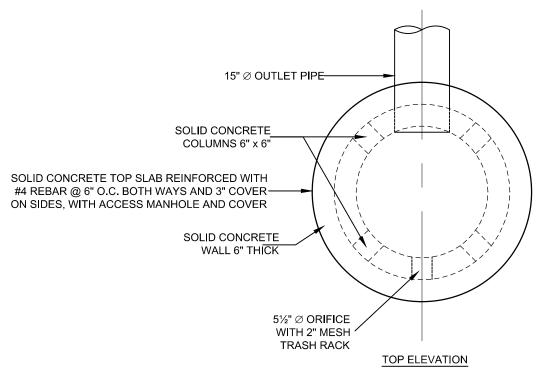
# EROSION CONTROL CERTIFICATION

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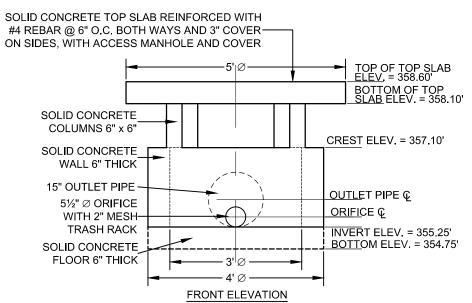
BY Harry Highbal

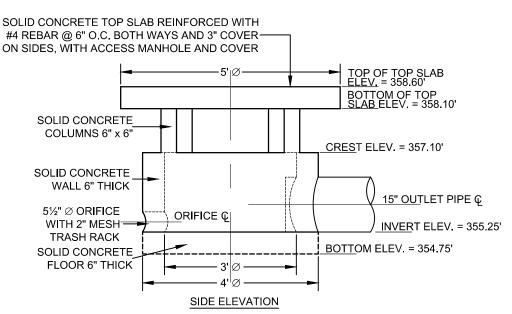
HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456

BARGAIN BUYS STORES				
DEVELOPMENT				
HARRY HIGHBALL				
CONSULTING ENGINEERS				
OWNER		COUNTY, STATE		
A. DUNLOP		TIFT, GEORGIA		
DRAWN BY		LAND LOT		
JAN JACOBY		336		
DATE		LAND DISTRICT		
DECEMBER 11, 2018		6th		
REVISION NUMBER	REQUESTED BY DATE			
	GSWCC			



DRAWING 17 **EROSION AND** SEDIMENT CONTROL DETAILS OF OUTLET CONTROL STRUCTURE SHEET #6





# DETAILS OF OUTLET CONTROL STRUCTURE: POND

N.T.S.



EROSION CONTROL CERTIFICATION

REVISION NUMBER

HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456 LEVEL II CERTIFIED DESIGN PROFESSIONAL - CERTIFICATION NUMBER 000000123

BARGAIN BUYS STORES		
DEVELOPMENT		
HARRY HIGHBALL		

HARRY HIGHBALL			
CONSULTING ENGINEERS			
OWNER	COUNTY, STATE		
A. DUNLOP	TIFT, GEORGIA		
DRAWN BY	LAND LOT		
JAN JACOBY	336		
DATE	LAND DISTRICT		
DECEMBER 11, 2018	6th		

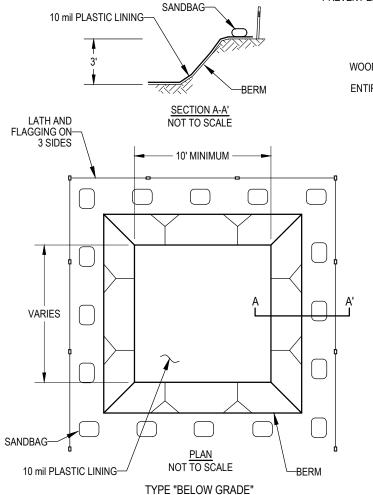
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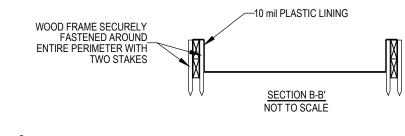
GSWCC

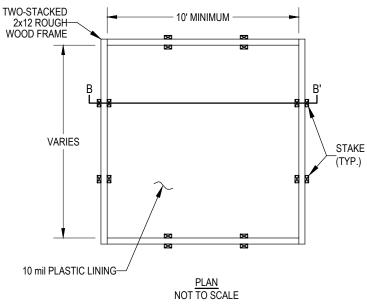
DATE

MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.

HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

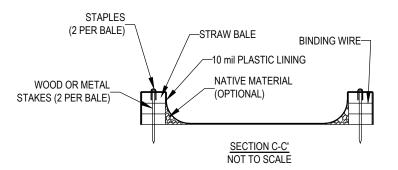


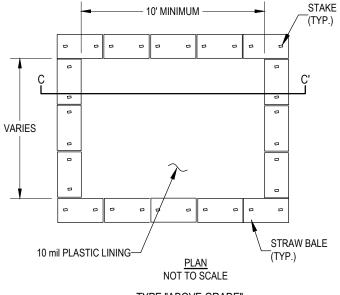




TYPE "ABOVE GRADE"

WITH WOOD PLANKS



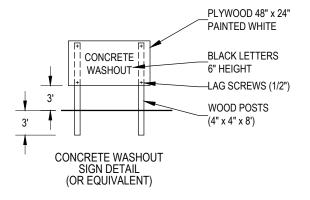


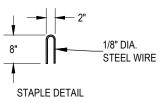
TYPE "ABOVE GRADE" WITH STRAW BALES

# NOTES:

- 1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
- 2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

# DRAWING 18 EROSION AND SEDIMENT CONTROL DETAILS OF CONCRETE WASHOUT SHEET #7







# EROSION CONTROL CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

BY Harry Highl

REVISION NUMBER

HARRY HIGHBALL REGISTERED GEORGIA ENGINEER No. PE123456 LEVEL II CERTIFIED DESIGN PROFESSIONAL - CERTIFICATION NUMBER 0000001234

# BARGAIN BUYS STORES **DEVELOPMENT** HARRY HIGHBALL CONSULTING ENGINEERS COUNTY, STATE OWNER TIFT, GEORGIA A. DUNLOP DRAWN BY LAND LOT JAN JACOBY 336 LAND DISTRICT DATE DECEMBER 11, 2018 6th

REQUESTED BY

GSWCC

DATE

# NOTES:

- 1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
- 2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY