CONSTRUCTION NOTES

- 1. Construction shall conform to all applicable federal, state, and local codes
- 2. Underground utilities shall be physically located by the contractor prior to construction Contact "Miss Utility", #811 or (1-800-552-7001) and all utility operators prior to commencing construction. Relocate said utilities as
- 3 The contractor shall visit the site and verify existing conditions prior to starting construction
- 4. The contractor shall provide adequate means of cleaning trucks and/or other equipment of soil, mud, and any other loose debris prior to entering the VDOT right-of-way. It is the contractor's responsibility to clean streets and allay dust and to take whatever measures necessary to insure that the road is maintained in a clean, mud, and dust free condition at all times
- 5. The contractor shall stockpile backfill material within the area of disturbance in order to minimize damage to the 50' RPA buffer
- 6. Immediately upon completion of construction, all staging areas shall be restored to their preconstruction condition through grading and/or permanent seeding as required

GENERAL NOTES

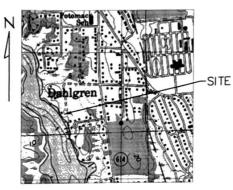
- THIS PLAN DOES NOT REPRESENT A CURRENT FIELD SURVEY. SITE BOUNDARIES BASED UPON PLAT, DATED AUGUST 17, 2011, BY DEPUTY LAND SURVEYING, INC., 2. WETLANDS LINE & OTHER SITE FEATURES FROM MEASUREMENTS TAKEN BY
- BAYSHORE DESIGN LLC 3. CONTRACTOR SHALL CONTACT "MISS UTILITY", #811 OR 1-800-552-7001, AND
- VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION. 4. PROPERTY SERVED BY PUBLIC SEWER SYSTEM

PERMIT NOTES

- 1. 08-RP-19 from Army Corps of Engineers issued 04/03/2012, permit # NAO
- 2. Virginia Marine Resources Commission permit issued, see VMRC #12-0400

WATER QUALITY IMPACT ASSESSMENT

The area of disturbance is a steep bank covered with thick underbrush. To the west is Williams Creek. To the east for 200' is a grassed lawn with a few scattered large trees. Beyond the lawn is flat woodland. To the north and south sides are sloping woodlands. The area is composed of Tetotum fine sandy loam soils. Tetotum soils have a slow infiltration rate when thoroughly wet and are classified in hydrologic group C. There will be no disturbance of wetlands or disruptions of the existing hydrology. The proposed timber bulkhead and bank grading have been designed to eliminate the bank erosion. The proposed 3 to 1 slope grading has been designed to preserve the existing house and stabilize the bank face. There will be clean washed stone placed behind the bulkhead and any additional required fill will come from a nearby borrow pit. There will be no change in runoff pollutant loads. The 2397 sf of land disturbance is being mitigated by 6 vegetative establishment units. The proposed 3 to 1 slope will reduce the stormwater runoff velocity as compared to the current steeply sloping bank.



VICINITY MAP SCALE 1"=1000"

OWNER INFORMATION

SAMUEL F. & ALICE P. GOULDTHORPE P.O. BOX 636 DAHLGREN, VA 22448

SITE INFORMATION

6004 PAYNE DRIVE POTOMAC DISTRICT TAX MAP 18A1-1 PARCEL 105 KING GEORGE COUNTY, VA PARCEL AREA: 1.218 Ac ±(FROM PLAT)

BANK STABILIZATION SITE PLAN

APPROVALS SHEET INDEX SHEET 1: COVER SHEET - VICINITY MAP - CONSTRUCTION NOTES - GENERAL NOTES - PERMIT NOTES - WATER QUALITY IMPACT ASSESSMENT SHEET 2: SITE AND LANDSCAPE PLAN AND BANK SECTIONS - DVERALL SITE FEATURES - EXISTING AND PROPOSED CONTOUR LINES - BANK SECTIONS - BUFFER ESTABLISHMENT LANDSCAPE PLAN - SPECIFIC PLANTS PROPOSED - LOCATIONS OF PROPOSED PLANTINGS PROPERTY OWNERS SIGNATURE - IMPERVIOUS COVER INFORMATION SHEET 3: EROSION AND SEDIMENT CONTROL PLAN

AGENT FOR KING GEORGE COUNTY GOVERNING BODY HOWARD R. NELSON

COVER SHEET

GOULDTHORPE SITE ۵. STABILIZATION ALICE 8 SAMUEL PROJECT: CLIENT

JOB # D 909 DATE 10/04/12 DRAWN BY

JJM

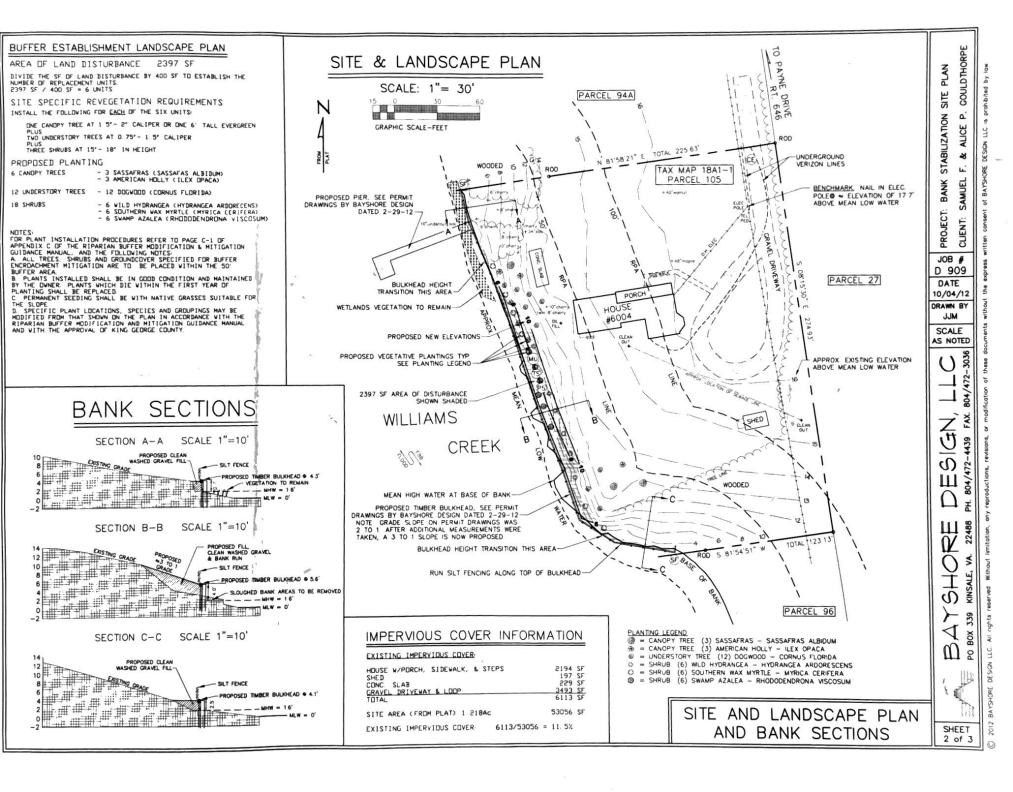
SCALE AS NOTED

U 3 3

8

BOX

SHEET 1 of 3



(b)Ш Ш S ()SCALE DKYMN BI 21/+0/01 DATE 606 Q # BOL PROJECT:

BANK

STABILIZATION

SITE

PLAN

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5 to 5

SHEET

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23400

47750. YD

\$10VET

BAYSHORE

CONTROL PLAN EROSION & SEDIMENT

JATOT INAJ9//ER ZHKOBZ MONE TNAJ9/02 15 UNDERSTORY TREE **JNON** TNAJ9/272 CANDRY TREE NONE DE CONSTRUCTIUN EN.
PS & MU SEED & MULCH \$0 06/SF 5397 SF

CDN218UCTION ENTRANCE 1 (12' x84')

21LT FENCE

E & S CONTROL COST ESTIMATE (FOR BONDING PURPOSES ONLY)

340.

All seeded areas will be tertilized, reseeded, and mulched as needed.

pe mode immediately. The following items will be checked in particular measures will be checked weekly and offer ecohalphilary control devices aball measures will be checked weekly and offer ecohalphilary trainfull. Any repoirs or monothing the properties of the ecohalphilary control devices.

2. The seeded areas will be checked regularly to ensure that a good stand is maintained. Areas will be fertilized, reseeded, and mulched as needed.

reaches half way to the top of the barrier The allt fence barrier will be checked regularly for undermining or deterioration of the tobric Scalment shall be removed when the level of sealiment deposition

tollowing items will be checked in particular <u>During construction</u> all erosion and sediment control measures will be checked daily and affect each algoriticont tainfall. Any repairs or cleanup necessary to maintain the effectiveness of the erosion control devices shall be made immediately. The

2E CUDE

CYTCOTY LIONS IN / I

HOURT INTOMITTOR

This project does not increase the volume, velocity, or peak flow rate of

STORMWATER RUNOFF CONSIDERATIONS

ductioning to be accomplished by an approved method. If construction is completed out of a seeding season, casca are to be temperally as a sibilized with our broughout a notificated a shall be unweathered, unchapped small grain straw straight out of to 12 from per acre. Mulch a machanite by the season straight of the eccomplished by an approved melitod.

PERMANENT STABILIZATION

immediately after application, preferably with a mulch-anchoring tool (krimper). Straw mulch will be applied over fill slopes which have been brought for find grade on conditions are dead to protect the appear from the protect of the straw on the conditions are dead to controlled prior to mulching the mulch should be clean straw, free from weeds ond course motifier, spread at a role of 2 tons per core, and ond/oved ond conditions.

MU - Mulching - 3.35

areas are to be temporarily stabilized by mulch and mulch anchoring The site area is cabellized with permanent caeding immediately obligation finish younger caeding immediately obligation certified younger cannot cave it year. Seeding shall be done with certified for the footing but of the footing the control in tobal 2,320. Feature cannot be seed to cannot be control control

DB - Permonent Seeding - 532

bil besses ad linds eveb DC node shorn for more that node abeliand beliated by the most present in the set of the with the set of the more on a multime, will depend on the time of year it is applied on the time of year it is opplied on the time of year it is opplied on the time of the more one with the VESC indendook.

IC - Lemporary Seeding - 23

in these preas with a copy of the results delivered to the king George County Where vegetative proctices are to be applied, soils having PH volues less than 6 will have lime added in accordance with VESC handbook Soil test will be conducted to the lime of the process while the process which we want to the process and the process will be considered.

See sheet 2 for the location of each Vegetative Practice. VECETATIVE PRACTICES

(CE) - Construction Entrance - 3.02 See sheet 2 for location.

(SE) - Silf Fence Barrier - 3.05 See sheet 2 for location

STRUCTURAL PRACTICES

of the Virginia Erosion and Sediment Control Handbook unless otherwise walved or constructed and maintained according to the minimum standards and specifications All vegetative and structural erosion and sediment control practices shall be

EROSION AND SEDIMENT CONTROL MEASURES

completed within seven colendor days. Poliowing soil disturbance, permanent or temporary stabilization shall be

determined by the plan approving authority. courtol measures necessary to prevent erosion and sedimentation as 6. The contractor is responsible for installation of any additional erosion

the site throughout the course of development and construction. 5 A copy of this Erosion and Sediment Control Plan shall be maintained on

mointain the effectiveness of the erosion control devices shall be made 4. The contractor shall inspect all erosion control measures periodically and after each runoit producing rainfall event. Any necessary repairs or cleanup to

> completion of the project commencement of lond disturbing activity, and one week prior to the 2 The plan approving authority must be notified one week prior to

county for review and approval by the pian approving authority the contractor shall submit a supplementary erosion control plan to the on these plans (including, but not limited to, off-site borrow or waste areas), 2. Prior to commencing land disturbing activities in areas other than indicated

Sediment Control Regulations. minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook and Virginia Regulations VR 625-02-02. Erosion and Tuniess otherwise indicated, all vegetative and structural erosion and sediment control practices will be constructed and mainfained according to

CENERAL NOTES

The bank face is the critical erosion area.

CKILICAL AREAS

king George County soil survey maps indicate type Tek and TeCZ (Tetatum) line sandy loam soils at this site. The K factor for the soil is D.28.

nomes Modison Porkway, King George Fill moterials, it required, will come from Walker Sand and Stone, 12542

OH-211E AKEAS

scattered single family dwellings and woodland. There is no potential for off site The west is bounded by Williams Creek. To the north, east and south

ADJACENT AREAS

nuderbrush covering the bank face The crea of disturbance is currently covered in lawn grass up to the erded bonk foce. The face drops down a west facing slope to the water. There is thick

EXIZING SUE CONDITIONS

work is to be from a barge located in Williams Creek Note: In order to reduce the area of upland land disturbance, the installation of the timber bulkhead and the majority of the grading

g) bermonently seed and mulch all disturbed areas

p) Execute proposed planting

4) Back till and grade behind the wall 3) Install the silt fence.

S) justali the timber bulkhead i) justail the construction entrance. Obergrious audii pe sedneuced da tollowa

> MANAGEMENT STRATEGIES TO IT SI JOANS SPONJERIUS

noervieus cower is 1922, et alle en explication et en explication en the part with en explication en the park with the park mark in en explication en the park with pe sudded and filled to a 10 i slope see besido deted 2-29-12 for additional construction involves the installation of 222, et simplex principal en en explication en explic The purpose of this project is to stabilize the erading shoreline. This

PROJECT DESCRIPTION

JVITARRAN

92+5-599(0+5) redmine mondelet The property is caned by Samuel F and Alice P Couldthorpe, P G. Box 625, Dehigren, VA 22448 The confact person is Alice Couldthorpe, talephone pumper (FAD)EET EASE

Sediment Control (VESC) Handbook This plan is prepared in accordance with the Virginia Erosion and

ИЛТКОВИСТІОИ

precluding resulting sediment deposition, erosion, or other domage. increase the volume, velocity, or peak flow rate of stormwater runoff, thereby volume, velocity and peak flow rate of storm water runoff. This project does not protected from sediment deposition, erosion and damage due to increases in MS-19 Properties and waterways downstream from development sites shall be

'UOI101U9WID9S temporary measures shall be permanently stabilized to prevent further erosion and longer needed, unless otherwise outhorized by the local program administration of within 30 days after final site stabilization or after the temporary measures are no MS-18 All temporary erosion and sediment control measures shall be removed

is removed in this manner. sediment control disposal area. Street washing shall be allowed only after sediment shall be removed from the roads by shoveling or sweeping and transported to aurloce, the road shall be cleaned thoroughly at the end of each day Sediment tracking onto the paved surface. Where sediment is transported onto a public road browsions shall be made to minimize the transport of sediment by venicular MS-17 Where construction vehicle access routes intersect paved public rodds,

t) Applicable safety regulations shall be complied with

e) Restabilization shall be accomplished in accordance with these regulations.

uningringers eromond pup unison d) Material used for backfilling trenches shall be properly compacted in order to minimize

sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property. c) Effluent from dewatering operations shall be filtered or passed through

p) Excavated material shall be placed on the uphill side of trenches

on more than 500 linear teet of trench may be opened at one time.

in addition to other applicable criteria. MS-16 Underground utility lines shall be installed in accordance with the following standards

entercourse is completed. M2-12 the bed and banks of a watercourse shall be stabilized immediately after work in the

ING MOLEUCONIAGE SUGII DE LUCE

MS-14 All applicable federal, state and local regulations pertaining to working in or crossing

any six-month period, a temporary vehicular stream crossing constructed of noneradible

MS-12 Myen a live watercourse must be crossed by construction vehicles more than twice in SIDUALDUI (BAD2 BIDIDOJBUDU consemble and cofferdams. Earthen fill may be used for these structures if armored by

encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction Moneradible material shall be used for the construction of M2-15 Must work in a live watercourse is preformed, precontions shall be taken to minimize

ivezalled in pash the conveyance channel and receiving channel channel lining shall be M2-11 peloke yem's coustincted storm motel conveyonce channels are made oberational

or otherwise treated to remove sediment. so find sediment-loden water cannot enter the conveyance system without first being filtered MS-10 All storm sever inlets that are made operable during construction shall be protected

MS-9 Whenever water seeps from a slope face, adequate drainage or other protection shall

MS-8 Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.

excelon. Slopes that are found to be evoding excessively within one year of permanent is debilization shall be provided with additional slope stabilizing measures until the problem is MS-7 Cut and fill slapes shall be designed and constructed in a manner that will minimize

MS-6 Sediment traps and sediment bosins shall be designed and constructed based upon the total drainage area to be served by the trap or basin

DIVERSIONS INTREGLIGIES OTTO INSTOLICE MS-5 Stabilization measures shall be applied to earthen structures such as doms, dikes and

and shall be made functional before upslope land disturbance takes place. MS-4 Sediment bosins and traps, perimeter dises, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity

MS—3. A personnent vegativity cover action to established on devaded urean foot otherwise permonent) yearlotive cover action to the considered setablings of the permonent vegationism and not be considered setablished until to ground cover is obtileved that, in the opinion of the local program administrator or his ground cover is obtileved that, in the opinion of the local program definition.

MS—2 During construction of the project, soil stockpiles shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as at the off site borrow pit.

shall be applied to areas that are to be left dormant for more than one year. avera doys after find grode is recohed on any portion of the after temporary soil stobilization shall be applied within seven days to demode areas that may not be of final grode but will remain dormant (undistrubed) for longer than 70 days. Bermanent stobilization grode but will remain dormant for the period of the period Permonent to temporary soil stabilisation shall be applied to denuded areas within

SORAGNATS MUMINIM