

TEMPORARY SEDIMENT TRAP #1 D.A. = 1.4 ACRESREQUIRED VOLUME = 5065 CU. FT. $ACTUAL\ VOLUME = 5170\ CU.\ FT.$ WET VOLUME = 2533 CU.FT. @ ELEV. 124.82

TEMPO	RARY SEDIM	ENT TRAP #2	
D.A. = 1.2			
REQUIRED	VOLUME= 4342 Cl	J. FT.	
ACTUAL VO	OLUME = 4396 CU	. FT.	
WET VOLUM	AE = 2171 CU.FT.	@ ELEV. 116.63	
DRY VOLUK	AE = 2171 CU.FT.	Ø ELEV. 118.95	
STONE OUT	TLET: L=7' (6 x DRAINAGE AREA)	TOTAL
ELEV:	-		TOTAL
	<u>AREA:</u>	<u>VOLUME (C.F.):</u>	<u>VOLUME:</u>
113	420	0	0
114	<i>512</i>	466	466
115	612	<i>562</i>	1028
116	<i>720</i>	667	1694
117	<i>836</i>	<i>778</i>	2472
118	960	<i>898</i>	<i>3370</i>
119	1092	<i>1026</i>	<i>4396</i>
			

TEMPO	RARY SEDIM	IENT TRAP #3	
ACTUAL VO WET VOLUM DRY VOLUM	VOLUME = 3618 CU DLUME = 3720 CU ME = 1809 CU.FT. ME = 1809 CU.FT.	I. FT. © ELEV. 113.87	TOTAL
ELEV:	AREA:	VOLUME (C.F.):	VOLUME:
111	480	0	0
112	<i>576</i>	<i>528</i>	<i>528</i>
113	<i>680</i>	<i>628</i>	1156
114	792	736	1892
115	912	<i>852</i>	2744
116	1040	<i>976</i>	<i>3720</i>

TEMPOF	RARY SEDIM	ENT TRAP #4	
D.A. = 2.8	ACRES		
REQUIRED V	<i>OLUME= 10130 C</i>	U. FT.	
ACTUAL VO	UME = 10288 C	U. FT.	
WET VOLUM	E = 5065 CU.FT.	Ø ELEV. 121.39	
DRY VOLUM	E = 5065 CU.FT	r. Ø ELEV. 123.95	
STONE OUT	LET: L=17' (6 x DRAINAGE AREA)	:
	•		TOTAL
ELEV:	<u>AREA:</u>	VOLUME (C.F.):	VOLUME:
118	1240	0	0
119	<i>1386</i>	1313	1313
120	1540	1463	2776
121	1702	1621	4397
122	1872	1787	6184
123	2050	1961	8145
124	2236	2143	10288

	LUME = 7252 CC E = 3618 CU.FT.	U. FT. G ELEV. 116.54	
DRY VOLUM	E = 3618 CU.F	T. Ø ELEV. 118.99	
STONE OUTL	ET: L=12'	(6 x DRAINAGE AREA)	
		•	TOTAL
<u>ELEV:</u>	AREA:	VOLUME (C.F.):	VOLUME:
113	800	0	0
114	924	<i>862</i>	862
115	1056	990	1852
116	1196	1126	2978
117	1344	1270	4248
118	1500	1422	5670
110	1661	1582	7050

EROSION CONTROL NARRATIVE

TEMPORARY SEDIMENT TRAP #5

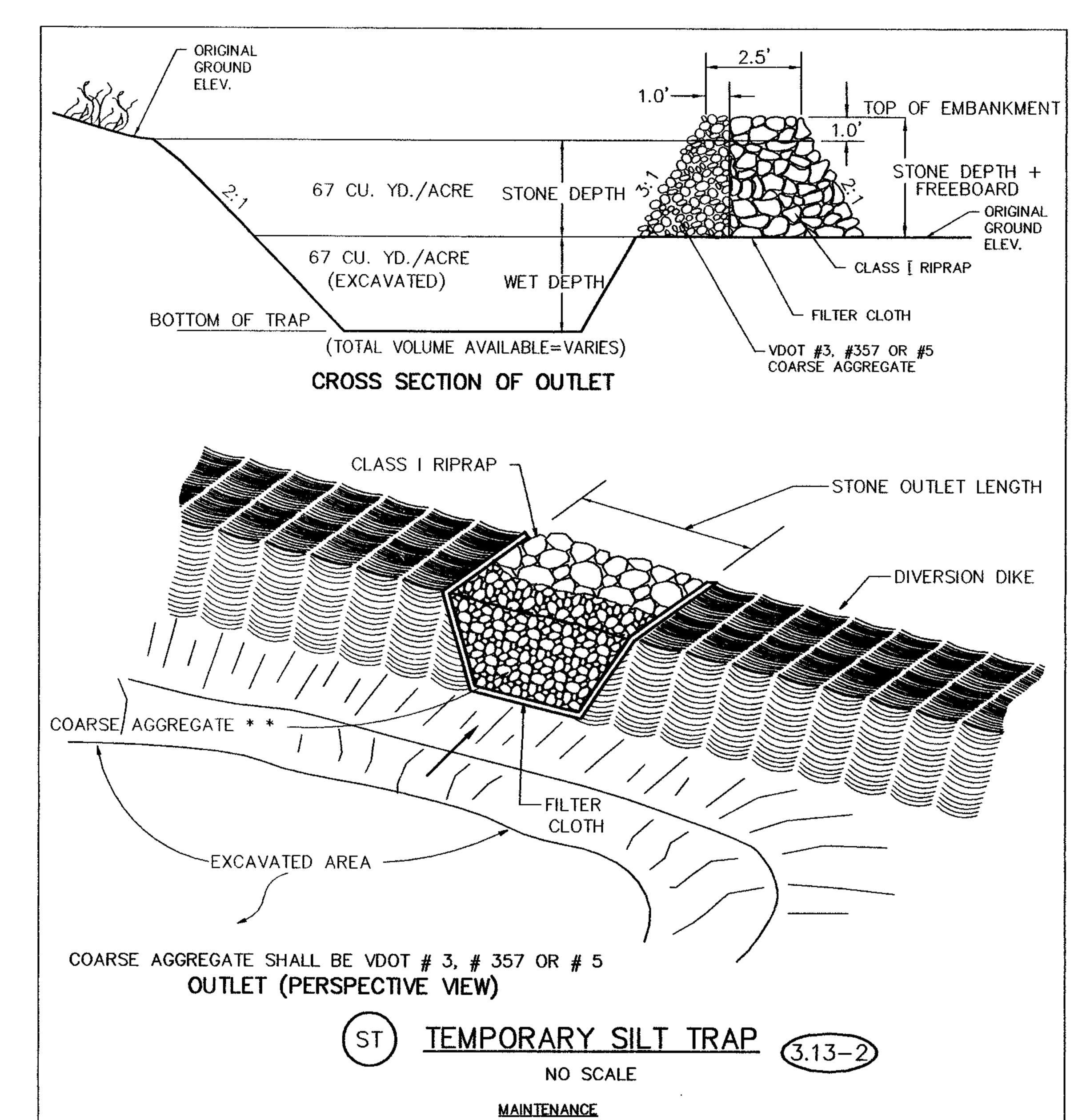
REQUIRED VOLUME = 7236 CU. FT.

D.A. = 2.0 ACRES

This 17.89 acre site is to be developed as a new section of residential subdivision. The site is currently sits on undeveloped and forested acreage in between existing sections 8,9, and 14 of the Branchester Lakes development. Slopes range from 2% to 7% percent with an average of around 4% on most the property. High points exist both east and west of the sight, where the road tie-ins will be, creating a natural drainage channel in the west, central section of the site.

No critical areas of erosion are present, however; an existing, abandoned drainage basin will be filled in. The existing outfall pipe to this former basin will be incorporated into the proposed storm sewer design. This runoff as well as undisturbed drainage captured by structure 13 will be routed through storm sewer pipe and bypass areas of disturbance. For this reason, these particular structures must be in place prior to rough grading and/or clearing operations as described in the EROSION CONTROL SEQUENCE OF EVENTS. Runoff from disturbed areas will be treated with temporary sediment traps, then released or diverted under the road via temporary plastic pipes, as per plan.

Once the road and curb & gutter are in place, the remainder of the storm sewer may be constructed, utilizing inlet protection as per plan to comply with erosion control standards.



SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN VOLUME OF THE WET STORAGE. SEDIMENT REMOVAL FROM THE BASIN SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE AND CAUSE SEDIMENTATION PROBLEMS.

2. FILTER STONE SHALL BE REGULARLY CHECKED TO ENSURE THAT FILTRATION PERFORMANCE IS MAINTAINED. STONE CHOKED WITH SEDIMENT SHALL BE REMOVED AND CLEANED OR REPLACED.

3. THE STRUCTURE SHOULD BE CHECKED REGULARLY TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE HEIGHT OF THE STONE OUTLET SHOULD BE CHECKED TO ENSURE THAT ITS CENTER IS AT LEAST 1 FOOT BELOW THE TOP OF THE EMBANKMENT.

TEMPORARY SEDIMENT TRAP SCHEDULE

DRAINAGE ST. AREA NO. (ACRES.)	1	GE VOLUME TOP OF	TOP OF	STONE	SEDIMENT TRAP BOTTOM DIMENSIONS (EXCAVATED)			STONE	TOTAL
	REQUIRED EMBANKA	EMBANKMENT ELEVATION		LENGTH (FT)	WIDTH (FT)	WET DEPTH (FT)	DEPTH (FT)	DEPTH (FT)	
1	1.4	187.5	128	<i>8</i> .5	36	20	2.8	2.2	5
2	1.2	160.8	120	7	30	14	3.6	2.4	6
3	1.0	134.0	117	6	30	16	2.9	2.1	5
4	2.8	<i>375.2</i>	124	17	40	31	3.4	2.6	6
5	2.0	268	119	12	40	20	<i>3.5</i>	2.5	6

EROSION CONTROL SEQUENCE OF EVENTS

(804) 733-2608 FOR A PRE-CONSTRUCTION MEETING AND ON-SITE

2. INSTALL CONSTRUCTION ENTRANCE, SEDIMENT TRAPS, AND DIVERSION

DO NOT CONSTRUCT DROP INLETS 23, 26, 27, & 28, BUT INSTEAD UTILIZE

4. STABILIZE TEMPORARY OUTFALL FROM PIPE 24 WITH 20 L.F. OF V.D.O.T RIP

RAP: TO BE REMOVED ONCE REMAINING STORM SEWER IS CONSTRUCTED.

3. CONSTRUCT STORM SEWER STRUCTURES 11, 12, 13, 14, AND 24

AS PER PLAN. ALSO CONSTRUCT YARD SWALES ADJACENT

PIPE 24 TO ALLOW WATER TO BYPASS DISTURBED AREAS.

STABILIZE THE SITE WITH VEGETATION AND STRAW MULCH

6. IMMEDIATELY AFTER CLEARING ROAD SECTION, INSTALL TEMPORARY

UNDERNEATH THE ROAD TO DIVERT TREATED RUNOFF FROM SEDIMENT

8. IMMEDIATELY AFTER PLACING BASE STONE AND INSTALLATION OF CURBA

GUTTER, INSTALL INLET PROTECTION AS PER PLAN, THEN REMOVE

SEED DENUDED AREAS AS SOON AS POSSIBLE AND MULCH ALL

CONTINUING MAINTENANCE PRACTICES SHALL BE PERFORMED TO

NO EROSION CONTROL DEVICE SHALL BE REMOVED UNTIL AN

EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL

HANDBOOK AND VIRGINIA REGULATION VR 625-02-00.

. INSTALL UTILITIES, REMAINING DRAINAGE DITCHES, WET POND BASIN, AND

PIPES, IN ACCORDANCE WITH THE TEMPORARY PIPE SCHEDULE

5. BEGIN CLEARING AND GRUBBING OPERATIONS

TRAPS #4 AND #5 PAST DISTURBED AREAS.

REMAINING STORM SEWER STRUCTURES.

TEMPORARY PIPES AND SEDIMENT TRAPS.

DISTURBED AREAS. INSTALL PAVEMENT.

9. FINISH ROAD CONSTRUCTION AS SHOWN ON PLANS:

INSURE PROTECTION OF DOWNSTREAM PROPERTIES.

ADEQUATE STAND OF GRASS HAS BEEN OBTAINED.

NOTE: ALL VEGETATIVE AND STRUCTURAL EROSION

THE PLAN ARE TO BE CONSTRUCTED, MAINTAINED,

AND REMOVED IN ACCORDANCE WITH THE CURRENT

AND SEDIMENT CONTROL MEASURES SHOWN ON

ACCORDING TO STATE REGULATIONS.

1. NOTIFY THE PRINCE GEORGE COUNTY PLANNING DEPT. AT

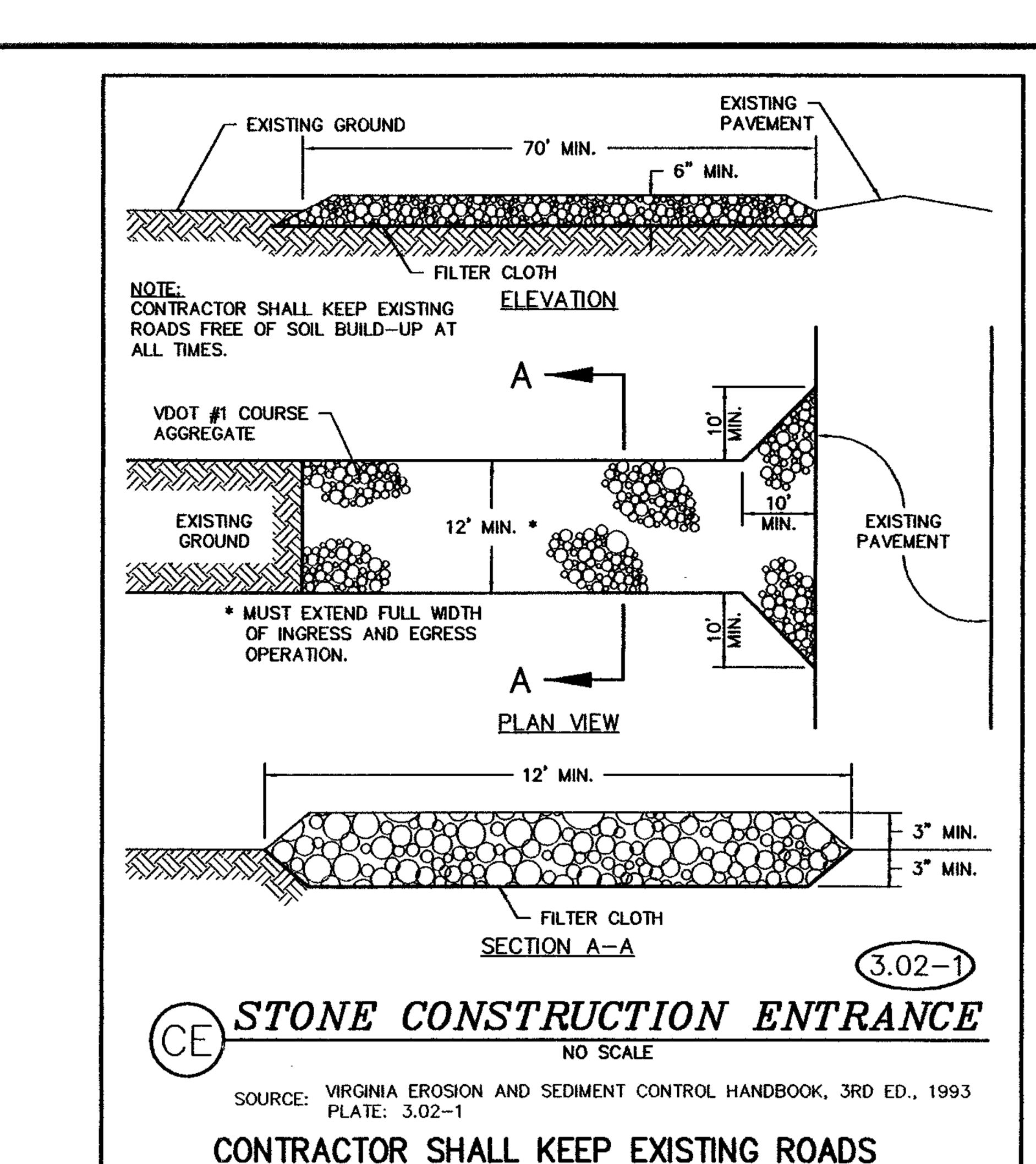
VISIT ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.

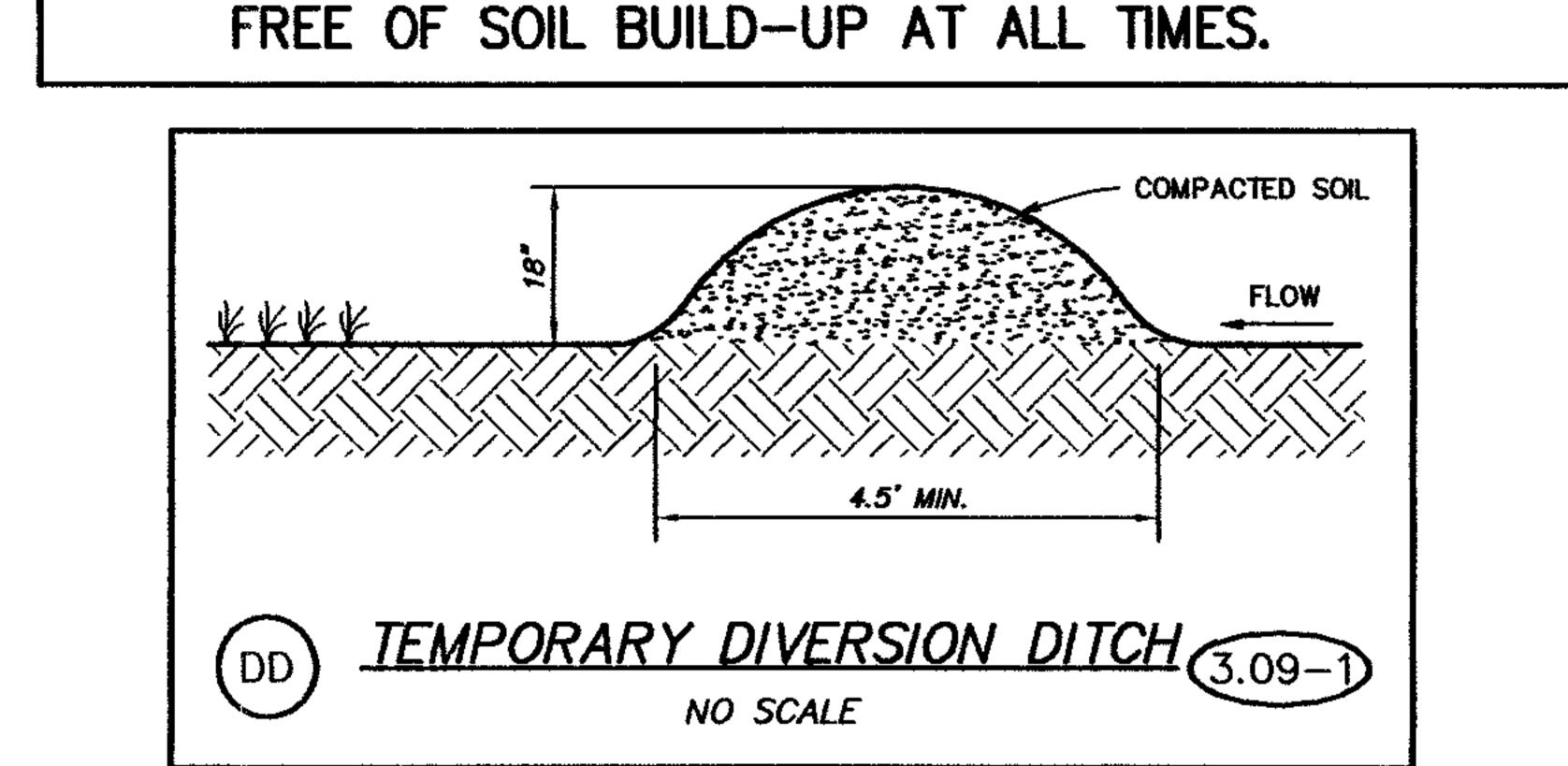
DITCHES, AS PER PLAN.

TO THESE STRUCTURES.

EROSION CONTROL NOTES

- 1. THE PRINCE GEORGE COUNTY PLANNING OFFICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY PLANS TO BEGIN CLEARING AND GRADING OPERATIONS.
- 2. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- 3. THE PLANNING DEPARTMENT AND OTHER INTERESTED COUNTY AGENCIES SHALL MAKE A CONTINUING REVIEW AND EVALUATION OF THE METHOD USED AND THE OVERALL EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL PROGRAM. AN APPROVED EROSION AND SEDIMENT CONTROL PLAN MAY BE AMENDED BY THE PLAN APPROVING AUTHORITY IF ON-SITE INSPECTIONS INDICATE THAT THE APPROVED CONTROL MEASURES ARE NOT EFFECTIVE IN CONTROLLING EROSION AND SEDIMENT OR. IF BECAUSE OF CHANGED CIRCUMSTANCES. THE APPROVED PLAN CANNOT BE CARRIED OUT.
- 4. EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL GRASS HAS BEEN ESTABLISHED ON THE EXPOSED SOIL SURFACES. STRUCTURES SHALL BE PLACED PRIOR TO CLEARING AND GRADING.
- 5. CONTRACTOR SHALL INSTALL. MAINTAIN AND REMOVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE CRITERIA AND SPECIFICATIONS CONTAINED IN THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- 6. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEAN UP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- 7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT AND SEDIMENTATION AS DETERMINED BY THE ENVIRONMENTAL ENGINEERING DEPARTMENT.
- 9. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATION VR 625-02-00.
- 10. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME. B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS. E. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.





EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS

days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant undisturbed) for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

2. During construction of the project, soil stockpiles shall be stabilized or protected with sediment rapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as soil intentionally transported from the project site.

3. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that, in the opinion of the local program administrator or his designated agent, is uniform, mature enough to survive and will inhibit erosion.

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

5. Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.

equal to three acres shall be controlled by a sediment basin. The sediment basin shall be designed nd constructed to accommodate the anticipated sediment loading from the land-disturbing activity. The outfall device or system design shall take into account the total drainage area flowing through the disturbed area to be served by the basin.

7. Cut and fill slopes shall be desianed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.

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.

9. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided. 10. All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment

11. Before newly constructed stormwater conveyance channels are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel.

2. When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Nonerodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by nonerodible cover material.

13. When construction vehicles must cross a live watercourse more than twice in any six-month period, a temporary stream crossing constructed of nonerodible material shall be provided.

14. All applicable federal, state and local regulations pertaining to working in or crossing live watercourses shall be met.

15. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse

16. Underground utility lines shall be installed in accordance with the following standards in addition a. No more than 500 linear feet of trench may be opened at one time. b. Excavated material shall be placed on the uphill side of trenches.

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

d. Restabilization shall be accomplished in accordance with these regulations. e. Applicable safety regulations shall be complied with.

17. Where construction vehicle access routes intersect paved public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a public road surface, the road shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual subdivision lots as well as to larger land-disturbing activities.

18. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the local program administrator. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and

position, erosion and damage due to increases in volume, velocity and peak flow rate o tormwater runoff for the stated frequency storm of 24-hour duration.



DESIGNED BY

CHECKED BY

. JOHNSON