

WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW-MAINTENANCE MIX DURING WARMER

SEEDING PERIODS; ADD 10-20 LBS./ACRE IN MIXES

STAKED AND ENTRENCHED

COMPACTED SOIL TO

PREVENT PIPING

STRAW BALE

INSTALLED STRAW BALE (3.04-1)

<u>CROSS-SECTION OF A PROPERLY</u>

NO SCALE

---WOODEN STAKE

LENGTH = 5' MIN.

FILTERED RUNOFF-

ATTACH FILTER FABRIC

EXCAVATED SOIL

4"x4" TRENCH-

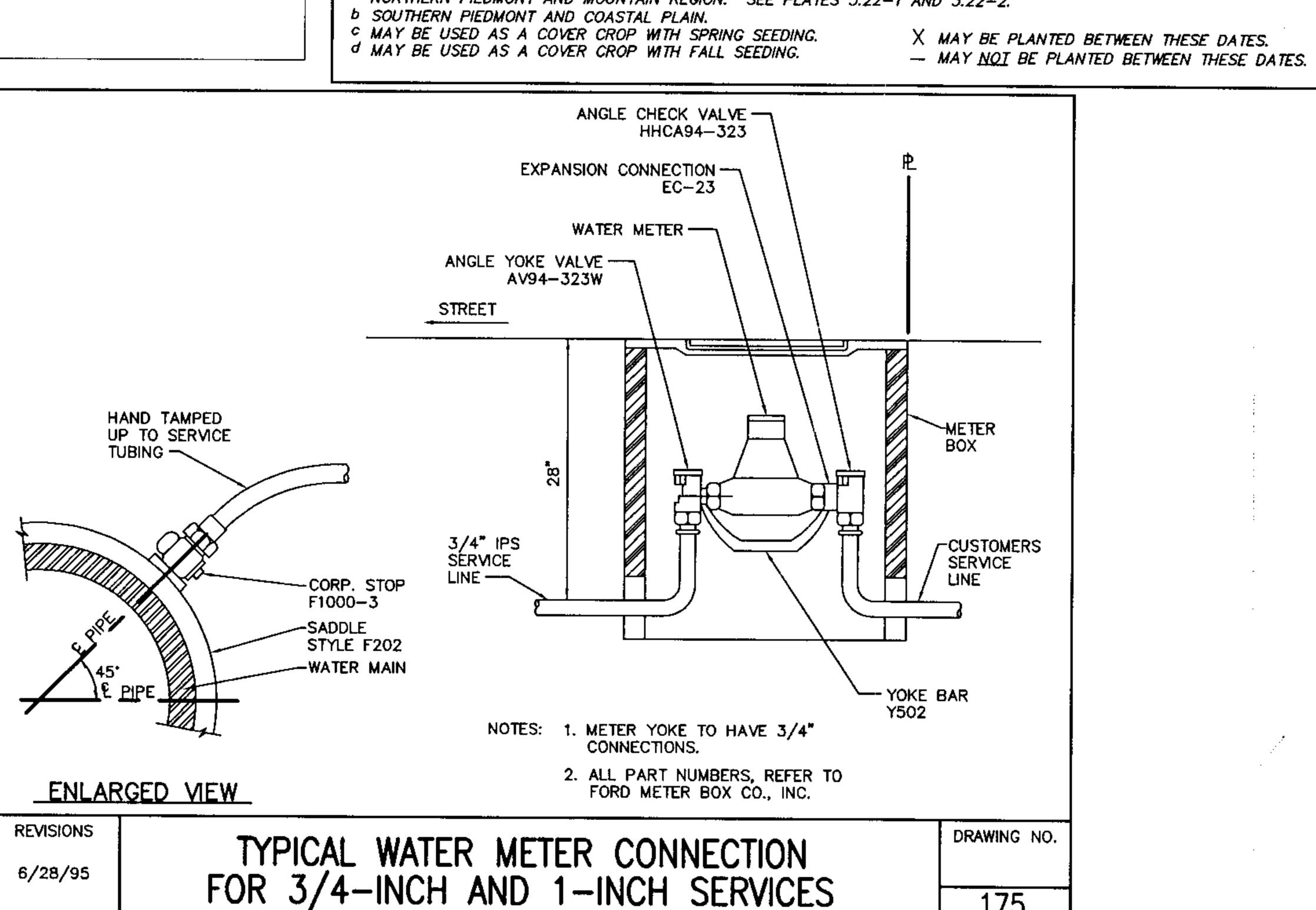
SILT FENCE

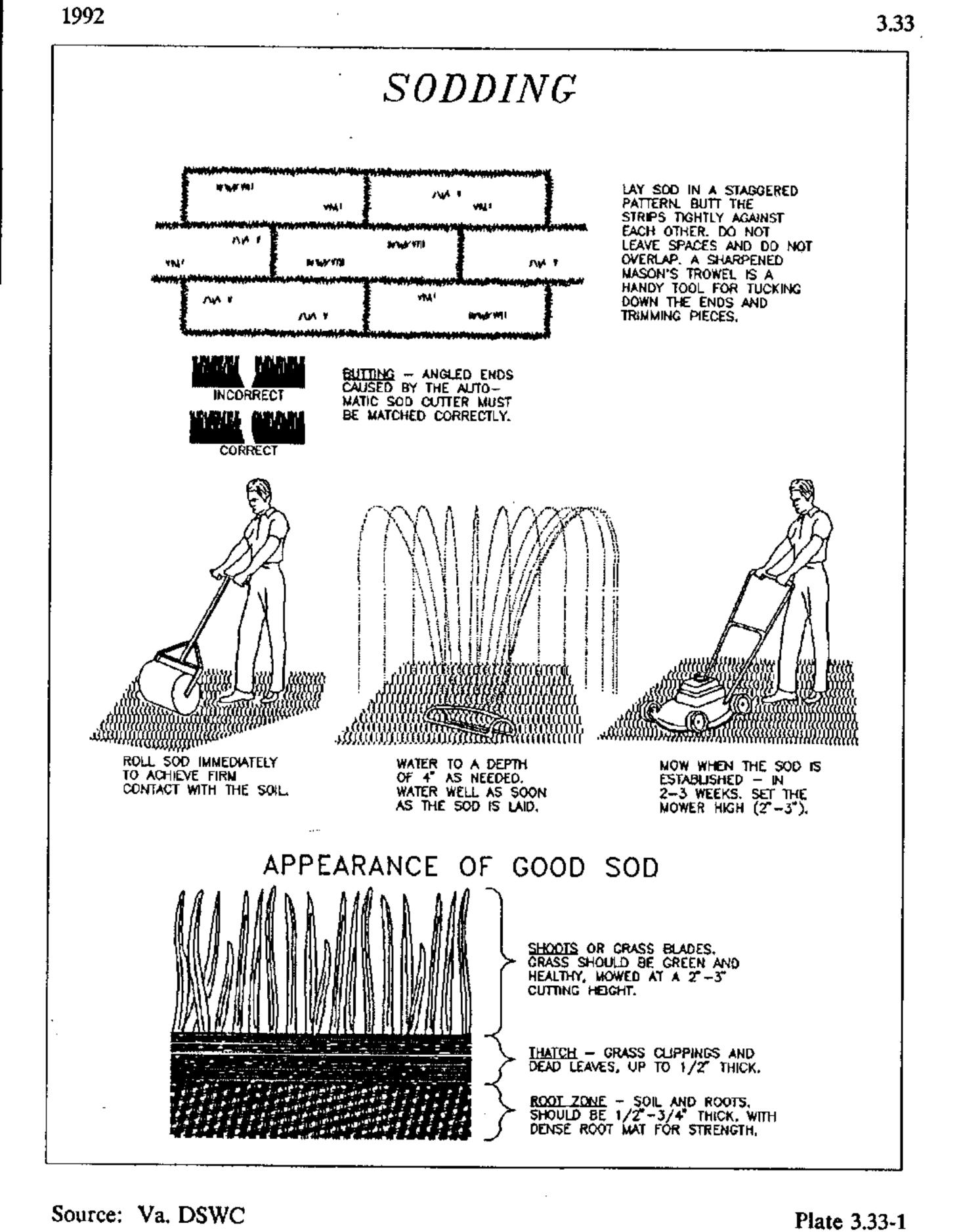
(WITHOUT WIRE SUPPORT)

BACKFILLED AN

PLATE: 3.05-2

EXTEND IT INTO TRENCH-





EROSION AND SEDIMENT CONTROL MININUM STANDARDS 1. Permanent or temporary seeding 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. 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 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 enouah 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. 6. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The sediment basin shall be designed and 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 designed 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.

12. 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

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 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 19. Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria: a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an

adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed. 3. Adeauacy of all channels and pipes shall be verified in the following manner: The applicant shall demonstrate that the total drainage area to the point of analysis within

the channel is one hundred times greater than the contributing drainage area of the project 2. a. Natural channels shall be analyzed by the use of a two-vear storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks; and). All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks: and

. Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system. c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall: I. Improve the channel to a condition where a ten-vear storm will not overtop the banks and a two-vear storm will not cause erosion to the channel bed or banks: or !. Improve the pipe or pipe system to a condition where the ten-year storm is contained within

Develop a site desian that will not cause the pre-development peak runoff rate from a two-vear storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a ten-vear storm to increase when runoff outfalls into

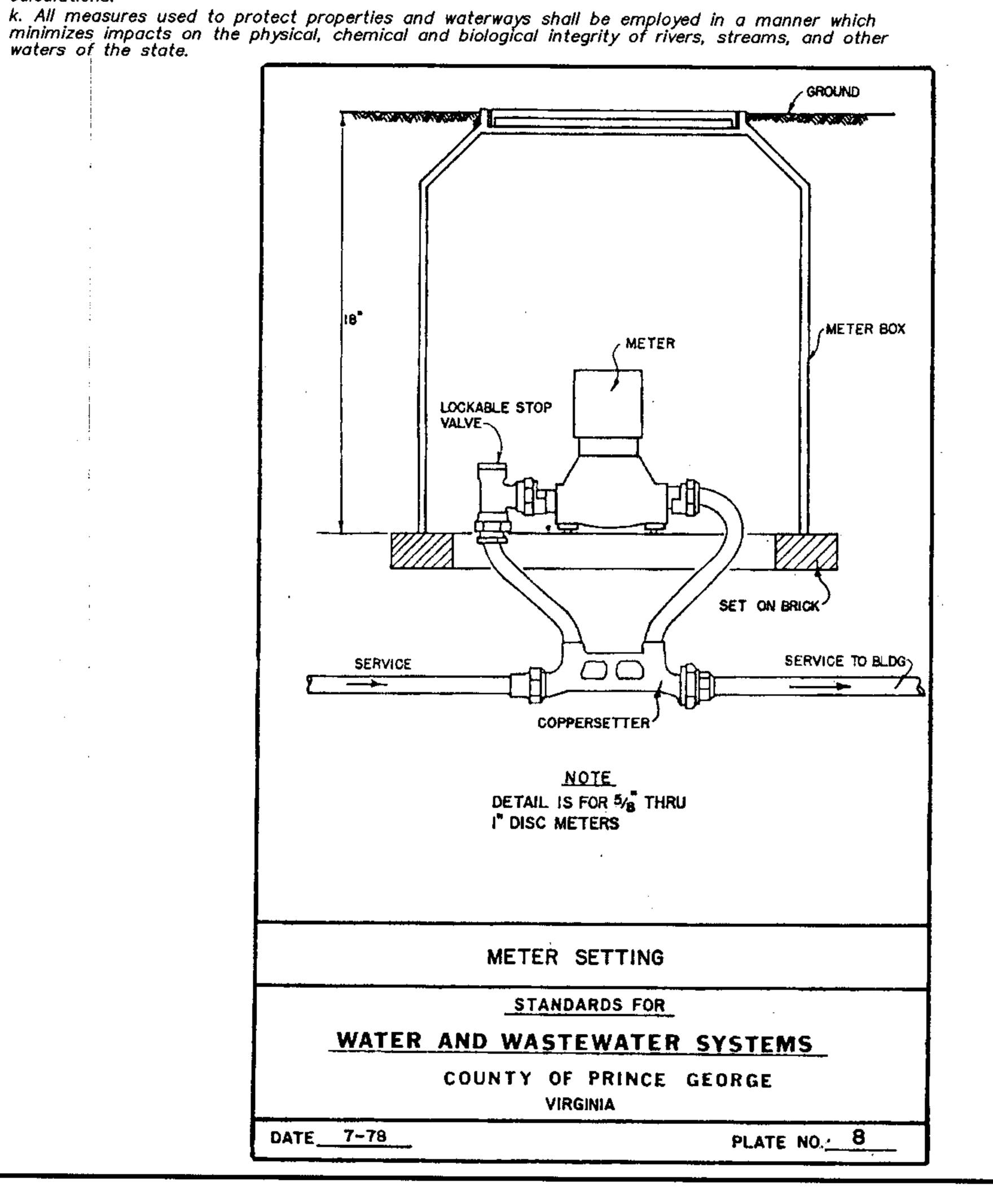
is satisfactory to the plan-approving authority to prevent downstream erosion. d. The applicant shall provide evidence of permission to make the improvements. e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development of the subject project. f. If the applicant chooses an option that includes stormwater detention, he shall obtain approval

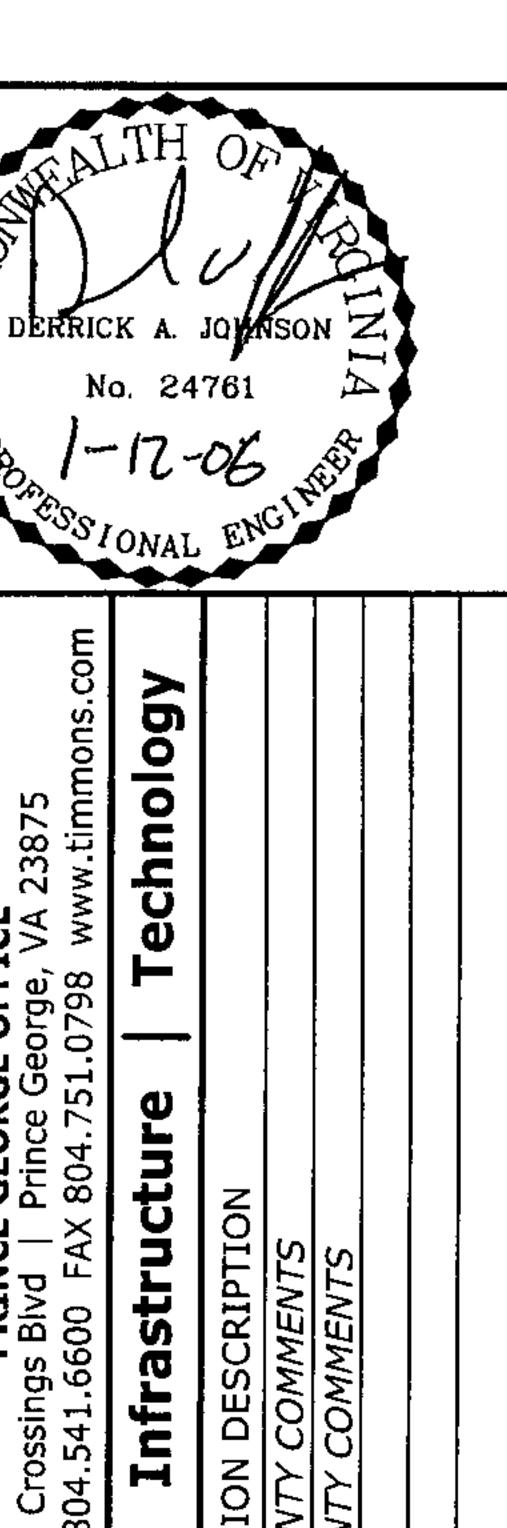
from the locality of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the g. Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition

from the facility to the receiving channel. h. All on-site channels must be verified to be adequate. i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility

i. In applying these stormwater runoff criteria, individual lots or parcels in a residential, commerc or industrial development shall not be considered to be separate development projects. Instead the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering

impacts on the physical, chemical and biological integrity of rivers, streams, and other waters of the state.





DRAWN BY

K. HALPAUS **DESIGNED BY** K. HALPAUS CHECKED BY D. JOHNSON SCALE

JOB NO

22628 SHEET NO.